Together for 180 years

Annual Report 2021
Contents

Türk Telekom in Brief
Türk Telekom Main Highlights 4
Türk Telekom At A Glance 6
Group Companies 8
Vision And Values 10
History 12

2021 at a Glance
Key Performance Indicators 16
2021 Highlights 24

Management
Chairman Message 36
Assessments of the Board of Directors 40
The Board of Directors 49
CEO Message 54
Türk Telekom Senior Management 60
CEOs of Türk Telekom Group Companies 66
Capital Structure 68
Shareholder Structure 69
Subsidiaries, Affiliates and Financial Investments 70
Organisational Structure 71

2021 Activities
Telecom Market in the World and in Turkey 74
Türk Telekom’s Strategic Priorities 84
Marketing Activities 96
Consumer and Corporate Sales Activities 117
Wholesale Activities 123
Customer Care Activities 126
Investments and Infrastructure Projects 130
Research and Innovation Activities 137
Human Resources 141
Investor Relations 150
Sustainability and Corporate Social Responsibility Awards 156

Türk Telekom Group Companies
Argela 176
İnovas 180
AssisTT 185
Sebit 188
Türk Telekom International 192

Corporate Governance
Important Developments After the Accounting Period 194
Dividend Distribution Proposal 195
Conclusion of Affiliation Report 195
Corporate Governance Compliance Report 196
Corporate Governance Information Form 219
Sustainability Principles Compliance Form 225
Statements of Independence 232

Financial Information
Statement of Responsibility 235
Consolidated Financial Statements and Independent Auditor’s Report 239

Glossary 331
Türk Telekom continues its activities with its more than 180 years of experience and knowledge as a stakeholder and witness of all milestones in the communication and technology history.

It works relentlessly to offer the latest and most up to date communication technologies to its subscribers all over Turkey.

Türk Telekom with its 52 million subscriber base and high performance results marked the year 2021 as a year of records, achieving an outstanding success in product and service quality despite the effects of the pandemic.

Turkey’s leading telecom operator is expanding its widespread fibre network of 366 thousand kilometers surrounding the country each passing day. It reinforces the power of its unrivaled infrastructure as the “Readiest operator for 5G” and resolutely continues to provide uninterrupted and secure communication with the most advanced technologies.

It plays an exemplary role in digital transformation, worthy of Türk Telekom brand, for a Turkey that will lead the world. It proceeds towards tomorrow with the determination to add its strength to the country’s power in the construction of a Turkey that is technologically and economically self-sufficient and exports technology to the world.
Türk Telekom Main Highlights

Türk Telekom, 51.8 million subscribers’ choice

“Turkey’s Multiplay Provider” Türk Telekom has 16.9 million fixed access lines, 14.3 million broadband, 2.9 million TV and 24.0 million mobile subscribers as of December 31, 2021.

Leading Operator
In Turkey
Integrated Telecom Services

Year of Records 2021
21% Revenue Growth
TL 5.8 Billion Net Income

366 Thousand Km
Fibre Network in 81 Provinces

51.8 Million
Subscribers

Fibre Homepass in
30.2 Million
81 Provinces

99%
LTE Population Coverage

180 years
of deep-rooted past

42%
Fibre Connected LTE Base Stations

92%
Leading Operator in Turkey

Integrated telecom services

2nd
Player In Pay TV Market

In Pay TV Market
Türk Telekom Group, with its deep-rooted past of more than 180 years, provides services in all 81 cities of Turkey with 35,868 employees alongside its value oriented approach and vision of accelerating Turkey’s digital transformation process.

‘Turkey’s Multiplay Provider’ Türk Telekom has 16.9 million fixed access lines, 14.3 million broadband, 2.9 million TV and 24.0 million mobile subscribers as of December 31, 2021. Türk Telekom Group Companies provide services in all 81 cities of Turkey with 35,868 employees with the vision of introducing new technologies to Turkey and accelerating Turkey’s transformation into an information society.

Türk Telekomünikasyon A.Ş., providing PSTN and wholesale broadband services, directly owns 100% of mobile operator TT Mobil İletişim Hizmetleri A.Ş., retail internet services, IPTV, satellite TV, Web TV, Mobile TV, Smart TV services provider TTNET A.Ş., convergence technologies company Argela Yazılım ve Bilişim Teknolojileri A.Ş., IT solution provider İnnova Bilişim Çözümleri A.Ş., online education software company SEBİT Eğitim ve Bilgi Teknolojileri A.Ş., call centre company AssisTT Rehberlik ve Müşteri Hizmetleri A.Ş., project development and corporate venture capital company TT Ventures Proje Geliştirme A.Ş, Electric Supply and Sales Company TTES Elektrik Tedarik Satış A.Ş., and web portal and computer programming company APPYAP Teknoloji ve Bilişim A.Ş.

* Other: TV international sales, interconnection, IFRIC 12 standard, eliminations and other revenue
**Group Companies**

**ARGELA**
- Netsia BB Suite: Next generation broadband access technology for fixed networks
- vRAN SDN based Radio Access Network technology for LTE and 5G with numerous international patents
- NCA Suite: Network Performance Monitoring and Customer Experience Management (NPM/CEM) solutions used by telecom operators in Turkey and in the world
- ULAK: Turkey’s first and only 4G (LTE-A) base station development project
- DEFINE: First domestic DPI solution device development project of Turkey under the roof of OTAK A.Ş.
- Productisation and Commercialisation in R&D studies
- Member of BBF, member of ONF and ONAP with its subsidiary Netsia (USA)
- Collaboration with global producers in R&D and solution provision

**innova**
- System Integration Solutions
- Fintech Products and Solutions
- The IoT Platform and Solutions
- Artificial Intelligence and Big Data Solutions
- RPA (Robotic Process Automation)
- E-business Solutions
- Health Solutions
- Smart City and Smart Store Solutions
- SAP, Business Intelligence, CRM, Project Management Services
- Managed Services and Consultancy Services

**Türk Telekom International**
- A fibre network spreading over approximately 45 thousand kilometres in Central and Eastern Europe (CEE), Turkey, the Middle East and the Caucasus region
- More than 110 points of presence (PoP) in 25 countries
- Billions of minutes of transit voice traffic per year, more than 800 mobile roaming agreements and over 320 LTE mobile roaming agreements with more than 200 business partners
- Value-added unique solutions
- A2MT and A2MTR: Routes connecting Western Europe to the Middle East
- SEAME: Submarine cable system connecting Europe to Africa, the Middle East and Asia
- KAFOS: Submarine cable system extending from Black Sea to Europe
- MEDTURK: Submarine cable system connecting Middle East, Turkey and Europe

**ASSiST**
- Multi-channel solutions in call centre, sales-marketing, face-to-face services, outsourcing, social media management, customer experience management and revenue management
- 24/7 uninterrupted service to many sectors such as health, telecommunications, finance, transportation, retail, e-commerce, energy, through long years of experience and competent teams

**TTÖdemel**
- E-education products covering all grades from pre-school to high school
- Leading education products: Raunt, SEBit VCloud and Vitamin
- Content and platform provider to the Ministry of Education in national e-education transformation projects

**Türk Telekom Ventures**
- Focus on investments which contribute to the growth of early-stage initiatives and scalable-target ventures in the areas of artificial intelligence, digital solutions, health, and education
- Health: Virasoft and DoctorTurkey
- Education: MentalUP
- Energy: Etemtek
- Social Media: Appyap
- Digital Marketing: Esmado
- Artificial Intelligence: Syntonym, B2Metric, Optiyol, QuantWiFi

**Türkiye’s Leading Software Developer Company and System Integrator**
- A fibre network spreading over approximately 45 thousand kilometres in Central and Eastern Europe (CEE), Turkey, the Middle East and the Caucasus region
- More than 110 points of presence (PoP) in 25 countries
- Billions of minutes of transit voice traffic per year, more than 800 mobile roaming agreements and over 320 LTE mobile roaming agreements with more than 200 business partners
- Value-added unique solutions
- A2MT and A2MTR: Routes connecting Western Europe to the Middle East
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- KAFOS: Submarine cable system extending from Black Sea to Europe
- MEDTURK: Submarine cable system connecting Middle East, Turkey and Europe

**Turkey’s Leading and Long-Established Education Technologies Company**
- Products and services that add value to both customers and the industry with innovative and reliable payment solutions
- CBRT license for payment and electronic money services
- A strong position in mobile payments with its ever-expanding member business network
- Innovative fintech solutions with Pokus
- Growth in other payment services and products (Corporate Bill Payment, Bill Analytics, Virtual POS, Android POS etc.)

**A Corporate Venture Capital Company**
- Focus on investments which contribute to the growth of early-stage initiatives and scalable-target ventures in the areas of artificial intelligence, digital solutions, health, and education
- Health: Virasoft and DoctorTurkey
- Education: MentalUP
- Energy: Etemtek
- Social Media: Appyap
- Digital Marketing: Esmado
- Artificial Intelligence: Syntonym, B2Metric, Optiyol, QuantWiFi
Working for the future of this country with the strength it derives from its deep-rooted past of nearly two centuries, the priority of Türk Telekom is to go beyond being a technology company and make everyone it touches “Feel Valuable” in every field it has a presence in.

Türk Telekom works for this country’s future with the strength it derives from its deep-rooted past of nearly two centuries. Being the telecom operator that leads the digital transformation of our country, its most essential task is to carry Turkey into the future. Its priority is to go beyond being a technology company and make everybody that it comes to contact “Feel Valuable” in every field it operates. Türk Telekom aims to realise this vision with 17 values that it adopted as its compass.

Türk Telekom;
1. is human-oriented: With this understanding, it works day and night with the principle of providing the best service to all corners of the country.
2. is brave: It knows no obstacles in running forward and adopts the principle of doing what would be considered impossible.
3. is honest: It stands behind every word, attitude, and behaviour of itself.
4. is sincere: It displays a loving and sincere approach in all of its relationships.
5. is lean: It adopts clarity in business and relationship processes.
6. is a leader: It proudly carries the pioneering qualities of being the driving force of its industry and acts accordingly.
7. is innovative: As a follower and practitioner of innovation brought about by technology, it works with the mission of carrying Turkey into the future.
8. is agile: Its capability to be flexible and take quick action lies behind its success in all business processes.
9. is young-spirited: It keeps up with the times and today’s conditions.
10. is excited: It is excited about the achievements and firsts that mark Turkey’s technology history.
11. works for social good in technology: It acts on the principle of “Accessible Communication for All”.
12. understands social responsibility: It takes upon the problems of the country’s people with its sensitivity to give back to the society what it takes from it.
13. is at peace with its past: It represents an institutional memory and spirituality that bear witness to Turkey’s history.
14. is domestic and national: In line with Turkey’s goals, it has the consciousness and sense for developing the most advanced technologies with domestic and national resources.
15. cares about its values: It always considers the priorities and sensitivities of the society in which it exists.
16. is productive: It makes a difference with what it produces by working and supporting.
17. is sharing: It is willing to share the values it owns and creates with the whole society.

Türk Telekom adopts these values as principles within and outside the corporation, from doing business to communication and relationship management processes, both inside and outside the organisation. Just because it leans on to all of these 17 values; “Türk Telekom Makes You Feel Valuable.”
History

1840
In order to meet postal needs, the Post Office was established, which started to provide telecommunication services in the following years.

1909
With the addition of telephone services, the institution was transformed into the PTT (Post, Telegraph, Telephone) Directorate.

1994
Turk Telekomunikasyon A.Ş. was established on June 30th, 1994.

1995
On April 24th, the telecommunications and postal services in the PTT were separated. APPT staff, assets and liabilities related to the telecommunications services were transferred to Turk Telekom.

2004
On February 19th, Türk Telekom’s GSM Operator TT&TİM İletişim Hizmetleri A.Ş. was established. On October 15th, the trade-name of the company was changed to Avea-Bellşım Hamletleri A.Ş. (Avea).

2005
Work on the privatization of Türk Telekom was completed on November 14th and 55% share of the company was transferred to One Telekomunikasyon A.Ş.

2006
On May 14th, TTNET, a subsidiary of Türk Telekom, was established and started its operations after being awarded an internet service provider license.

Avea, Türk Telekom and TTNET brands were all integrated under the single brand of “Türk Telekom”.

Turk Telekom introduced its new youth brand, Selfy, to young people.

2010
Turk Telekom got the full ownership of Avea Bellşim Hamletleri A.Ş.

2011
Avea, participated in LTE Authorization Tender. Expanding its capacity in different frequency bands, Avea became the mobile operator to have the widest frequency per subscriber.

2013
Avea, the leading wholesale capacity provider in the Central and Eastern Europe region, acquired Tелеkomünikacja S.A. (TS.A), a subsidiary of Türk Telekom.

2014
Turk Telekom’s bond issuance totaling USD 10 billion with maturities of 5 and 10 years got 8 times oversubscribed by institutional investors. Transaction, which at that time was the largest corporate bond issuance ever made in Turkey, was also the first to be issued with two different maturities simultaneously.

2015
Avea, participated in the first telecommunication company in Turkey to report carbon emissions to the CDP (Carbon Disclosure Project).

2016
Turk Telekom became the first telecommunication company in Turkey to become a full member of the ONF platform where global technology giants are designing 5G and beyond technologies.

2017
Avea became the mobile operator to have the highest speed record by reaching speeds of more than 2.9Gbps in the 5G speed test which was more than 5 times oversubscribed with the participation of 264 investors from 39 countries.

2018
Turkey’s largest Cyber Security Centre was opened at Türk Telekom’s Ankara headquarter.

2019
The trademark of Avea was changed to TT Mobil from TT&TİM İletişim Hizmetleri A.Ş. in a way to support the emphasis on single brand perception.

2020
The number of subscribers served by the Group exceeded 50 million.

2021
Turk Telekom became the first operator in the world to experience open source SEBA technology with internet, IPTV and voice services on live site.

Turk Telekom paid TL 1.9 billion dividend to its shareholders in 2021.
We are providing high speed internet all across Turkey by expanding our fibre network.
Key Performance Indicators

Türk Telekom successfully implemented its strategies under the extraordinary conditions of 2021 and recorded a strong performance by diligently working on its sustainable growth target.

Türk Telekom Group completed 2021 with a strong operational and financial performance. Consolidated revenues increased by 21.2% YoY, EBITDA rose to TL 16.4 billion with an EBITDA margin of 47.9%. Net income peaked to TL 5.8 billion with 81.3% YoY growth, despite high volatility in FX rates in the last quarter.

Financial Indicators

Revenue, EBITDA and Net Income

Consolidated revenues increased to TL 34.3 billion, up by 21.2% YoY, the highest annual growth since the IPO. Excluding the IFRIC 12 impact, revenue growth was 19.5% YoY, ahead of the 2021 guidance of 18%.

Consolidated EBITDA grew by 24.0% YoY to TL 16.4 billion, slightly above the 2021 guidance of TL 16.2 billion. EBITDA margin was 47.9%. Excluding the IFRIC 12 impact, EBITDA margin increased by 170 basis points YoY to 50.8%, its annual peak. Operating profit increased by 29.9% YoY to TL 10.2 billion. Net income reached TL 5.8 billion in 2021, up by 81.3% YoY. The impact of the recent unfavourable FX movements on the bottom line was partly offset by the deferred tax gain recorded in the last quarter. Profit before tax grew by an impressive 47.8% well ahead of the operating performance.

Breakdown of Consolidated Revenues

The share of high growth business lines, namely mobile and broadband, in consolidated revenues was 64.8% in 2021, in lead of subscriber number and ARPU (Average Revenue Per User) growth in both businesses. The share of fixed voice revenues, the third largest revenue line, was 8.0% in 2021 compared to 9.7% in 2020.

Capital Expenditures (Capex)

Capex was TL 8.8 billion in 2021 in line with the guidance of TL 8.7 billion compared to TL 6.7 billion in 2020. Capex/Sales ratio was 25.7% in 2021 compared to 23.8% in 2020.

1 IFRIC 12 is a non-operational revenue line booked in conjunction with upgrades to fixed line infrastructure, such as the upgrade from copper to fibre network.
In 2021, consolidated revenues increased by 21.2% YoY to TL 34.3 billion. Excluding IFRIC 12, top line growth was 19.5% YoY with a remarkable increase of 29.0% in fixed broadband, 16.5% in mobile, 36.3% in international and 14.8% in corporate data revenues.

Earnings before Interest, Tax Depreciation and Amortisation (EBITDA)
In 2021, consolidated EBITDA increased by 24.0% YoY to TL 16.4 billion with an EBITDA margin of 47.9%, which expanded 110 bps YoY together with strong growth in higher margin fixed broadband revenues and improved profitability in mobile segment. Excluding the IFRIC 12 accounting impact, EBITDA margin was 50.8%, up 170 bps YoY.

Depreciation and Amortisation Expense
Depreciation and amortisation expense increased by 15.4% YoY to TL 6.2 billion in 2021. Operating Profit
The Group recorded TL 10.2 billion operating profit with a 29.9% YoY increase in 2021. Operating profit margin rose to 29.8% from 27.8% in 2021.

Net Income/Loss
Net income reached the highest level of TL 5.8 billion in 2021, mainly on the back of high operational performance.

Summary Balance Sheet (TL Million)

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>23,657</td>
<td>28,289</td>
<td>34,273</td>
<td>21.2</td>
</tr>
<tr>
<td>Net Operating Expenses Excluding Depreciation and Amortisation</td>
<td>(12,487)</td>
<td>(15,052)</td>
<td>(17,858)</td>
<td>18.6</td>
</tr>
<tr>
<td>Earnings Before Interest Tax Depreciation and Amortisation (EBITDA)</td>
<td>11,170</td>
<td>13,237</td>
<td>16,415</td>
<td>24.0</td>
</tr>
<tr>
<td>Depreciation and Amortisation</td>
<td>(4,746)</td>
<td>(5,375)</td>
<td>(6,202)</td>
<td>15.4</td>
</tr>
<tr>
<td>Operating Profit</td>
<td>6,424</td>
<td>7,862</td>
<td>10,213</td>
<td>29.9</td>
</tr>
<tr>
<td>Net Financial Income/Expense</td>
<td>(3,689)</td>
<td>(4,060)</td>
<td>(4,592)</td>
<td>13.1</td>
</tr>
<tr>
<td>Tax</td>
<td>(328)</td>
<td>(624)</td>
<td>(141)</td>
<td>n.m.</td>
</tr>
<tr>
<td>Net Income/(Loss)</td>
<td>2,407</td>
<td>3,178</td>
<td>5,761</td>
<td>81.3</td>
</tr>
</tbody>
</table>

Summary financial expense was TL 4.6 billion in 2021 compared to TL 4.1 billion in 2020. Net FX & hedging losses surged to TL 2.6 billion in 2021 from TL 1.8 billion in 2020, amid severe losses in lira in the last quarter. According to the sensitivity of P&L statement to FX movements, 10% deprecation of TL has negative TL 1.238 billion impact on P&L as of 2021 assuming all else constant (positive TL 1 million impact as of September 21 and negative TL 59 million impact as of December 20).

Net Income/Loss
Net income reached the highest level of TL 5.8 billion in 2021, mainly on the back of high operational performance.

Balance Sheet and Cash Flow
Total Assets
In 2021, total assets rose by 30.4% YoY to TL 58.3 billion. Sources of this growth is the increase in tangible and intangible assets stemming from the investments during the year, rise in trade receivables due to growing sales volume along with incremented cash and cash equivalents, derivative instruments and deferred tax assets.

Total Equity and Liabilities
In 2021, total equities and liabilities increased by 30.4% YoY to TL 58.3 billion mainly due to the rise in interest bearing assets. Intangible assets stemming from the investments sources of this growth is the increase in tangible and intangible assets. In 2021, total assets rose by 30.4% YoY to TL 58.3 billion.

Net Debt/EBITDA
Net Debt/EBITDA ended the year with 1.11x, still within comfortable limits, following sizeable losses in lira.

Net debt includes MTM from FX to TRY Currency Swaps. Net Debt/EBITDA calculation excludes extraordinary claims on EBITDA calculation.

Summary:
- Net debt includes MTM from FX to TRY Currency Swaps. Net Debt/EBITDA calculation excludes extraordinary claims on EBITDA calculation.
- Unlevered free cash flow: generated in 2021, increased to TL 8.3 billion compared to TL 6.9 billion in 2020, thanks to healthy EBITDA growth.
- Net Debt/EBITDA ended the year with 111%, still within comfortable limits, following sizeable losses in lira.
- Including USD 464 million equivalent of the FX based cash, net long FX position of USD 242 million by the end of 2021 (net long FX position was USD 158 million by the end of 2020).
Operational Indicators

Total number of Turk Telekom subscribers reached 51.8 million, up by 2.9% YoY, with 15 million net subscriber additions in 2021.

The number of FTTC subscribers reached 6.8 million, while the number of FTTH/B subscribers increased to 2.8 million.

Fibre cable network length increased to 366 thousand kilometres as of 2021 from 331 thousand kilometres as of 2020. Fibre network covers in excess of 30.2 million households as of 2021 compared to 26.8 million as of 2020, reflecting the continued focus on fibre rollouts. FTTC homepass increased to 21.4 million while FTTH/B homepass reached 8.8 million.

Mobile Operational Data

With the removal of restrictions and travel bans, the mobile segment found its momentum in the second half of 2021. Mobile subscriber base increased to 24.0 million by recording 844 thousand of net additions in 2021. In the postpaid and prepaid segments, 794 thousand and 51 thousand net subscribers were added, respectively. Mobile subscribers increased by 3.6% YoY in 2021 with 5.4% growth in the postpaid segment and 0.6% in the prepaid segment.

The number of Prime subscribers, which was 1.9 million in 2019, reached 4.9 million by the end of 2021, accounting for 31.6% of the total postpaid base.

Share of LTE subscribers in mobile subscriber base increased to 67% in 2021 year-end from 61% in 2020 year-end. Average monthly data usage per LTE user increased by 13.9% to 10.2GB in Q4’21 from 9.0GB in Q4’20.

Broadband Operational Data

Fixed broadband subscribers rose to 14.3 million with net additions of 919 thousand in 2021. Robust growth in fixed broadband base continued throughout the year, marking a 6.9% increase YoY. 13.9% fixed broadband ARPUpgrowth in the last quarter brought the annual figure to 14.2% level.

Fibre subscribers reached 9.6 million with 3.4 million record net additions in 2021. Data consumption in fixed broadband increased by more than 48% throughout 2021 despite prior year’s high base.

Mobile Prepaid Subscribers (million)

Fibre Subscribers (million)

Fixed Broadband Operational Data

Fixed broadband subscribers increased by 14.3 million in 2021 with net additions of 919 thousand. Robust growth in fixed broadband continued throughout the year, marking a 6.9% increase YoY. Fixed broadband ARPUp in the last quarter brought the annual figure to 14.2% level.

Fibre subscribers reached 9.6 million with 3.4 million record net additions in 2021. Data consumption in fixed broadband increased by more than 48% throughout 2021 despite prior year’s high base.

Key Performance Indicators

The number of FTTC subscribers reached 6.8 million, while the number of FTTH/B subscribers increased to 2.8 million.

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Key Performance Indicators

Fixed Voice Operational Data
Fixed voice subscriber base decreased to 10.5 million with 124 thousand of net loss in 2021 from 10.6 million in 2020. Including nDSL, the number of total fixed access lines increased to 16.9 million, reaching the highest level since Q2'09.

TV Operational Data
In 2021, the number of TV Home subscribers remained flat YoY at 1.5 million. With the strong performance in 2017 and 2018, Tivibu Home moved from the fourth player position in 2016 to the second player position in 2018 in the Pay TV market and this position was maintained in 2021.

Stock and Bond Information

Stock Information
- Corporate Name: Türk Telekomünikasyon A.Ş.
- Core Business: Telecommunication and Technology Services
- Stock Exchange: Borsa İstanbul (BIST)
- Average Daily Trade Volume (04/01/2021-31/12/2021): TL 16.3 million
- Market Capitalisation (31/12/2021): TL 33.7 billion
- End Price (31/12/2021): TL 9.63
- High Price (04/01/2021-31/12/2021): TL 11.04
- Low Price (04/01/2021-31/12/2021): TL 6.15
- Average Price (04/01/2021-31/12/2021): TL 7.72

Bond Information
- Stock Exchange: Irish Stock Exchange
- Type: Eurobond
- ISIN Code: XS1028951264, XS1955059420
- Issue Amount: USD 500 million
- Maturity: 10 Years, 6 Years
- Redemption Date: 19.06.2024, 28.02.2025
- Redemption Plan: Fixed and semi-annual coupon payment
  each year, principal amount will be paid at the end of the expiry date.
- Coupon Interest Rate: 4.875%, 6.875%

Credit Ratings
- Fitch Ratings: BB-
- S&P Global Ratings: BB-
- Outlook: Negative
- National Long Term Rating: AAA (tur)

* Includes IPTV, DTH and Tivibu GO subscribers.** Includes IPTV and DTH subscribers.*** Q4 ARPU figures.
Türk Telekom implemented SEBA, a project that will achieve acclaim around the world, for the first time in the live site.

**January 2021**

**Türk Telekom started 2021 with 500 new hires**

Turkey’s leading information and communication technologies company Türk Telekom, started 2021 by creating employment. In the first days of the new year, Türk Telekom Group added 500 technicians to its field team to work all over Turkey.

**New customer centres from Türk Telekom**

After renovating Eskişehir İki Eylül, Malatya and Istanbul Kadıköy Customer Centres, Türk Telekom put them back into service. In the centres opened, all measures continue to be taken for Türk Telekom customers amid the pandemic.

**Significant contribution to treatment of heart diseases with Türk Telekom LIGHT**

Türk Telekom launched the mobile application LIGHT, a remote patient tracking system developed together with the Health Sciences University Dr. Siyami Ersek Thoracic, Cardiovascular Surgery Health Application and Research Centre. Significant positive improvements were observed in the conditions of cardiovascular patients who were observed for 1 year through the application.

**A first in the world: Open source SEBA technology is in Turkey with Türk Telekom**

Türk Telekom sealed another project that would make a tremendous impact worldwide together with its subsidiary Argela. Türk Telekom became the first company in the world to implement SEBA (Software Defined Broadband Access) with internet, IPTV and voice services in live sites. SEBA was developed on the international Open Network Foundation (ONF) platform and will provide strategic superiority in network technologies. Built on virtualisation and developed on an open source platform, SEBA, with which high speeds can be attained on the access network, aims to reduce third party dependency and accelerate domestic production.

**February**

**The gamified education platform MentalUp was played 5.5 million times during the semester break. The number of users has exceeded 6 million in more than 100 countries.**

**FEBRUARY 2021**

**Türk Telekom closed 2020 with 20% revenue growth, the highest performance recorded in the last 12 years.** While Türk Telekom’s total revenue reached TL 28.3 billion, its net income stood at TL 3.2 billion. The total number of subscribers exceeded 50 million with 2.6 million net subscriber additions in 2020.

**Türk Telekom expanded its mobile site in Adana**

Türk Telekom put its 2,000th mobile site into service in the Regional Directorate of Adana, covering 8 provinces. LTE coverage increased to 95% across the region.

**MentalUP was played 5.5 million times during the semester break**

MentalUP, the gamified educational platform, co-owned by Türk Telekom, became the first choice of children during the semester break. MentalUP’s reliable games that develop mental skills were played 5.5 million times during the three-week break. The number of users of MentalUP exceeded 6 million in more than 100 countries.
Türk Telekom broke the world record by reaching speeds over 4.5Gbps with the test carried out with Nokia on the 5G test network.

March

Supporting women’s entrepreneurship and leading women to write success stories with the Hedefi Olan Kadına İnternetle Hayat Kolay (Life is Simple with Internet for Women with Goals) project, Türk Telekom shared the products and stories of 10 women who participated in the Digital Marketplace event, organised specifically for the International Women’s Day on March 8.

New world record in 5G from Türk Telekom

Türk Telekom continues its works unwaveringly with the aim of testing, producing and exporting next generation technologies. Türk Telekom broke the world record by reaching speeds over 4.5Gbps with the test carried out with Nokia on the 5G test network. Türk Telekom used the 26GHz millimetre wave spectrum of 5G for this record.

Art education for children by Türk Telekom

Within the scope of the Günışığı (Sunshine) project implemented by Türk Telekom for children with low vision, the workshop named The Sunshine of the Art Education Program was launched this year. The program, which is enriched by Online Museum Tours in addition to workshops organised for the Children of Sunshine, was carried out with 10 workshops and 4 online museum tours throughout the year in cooperation with the İstanbul Museum of Modern Art.

April

The Next Generation City Platform, offered municipalities the opportunity to use their resources effectively and efficiently with its more than 50 services in 9 provinces.

Communication and technology support for the Presidential Cycling Tour of Turkey

The 56th Presidential Cycling Tour of Turkey was held with the communication and technology sponsorship of Türk Telekom. The tour, which was kicked-off on Sunday, April 11, with the pedalling of cyclists from Turkey’s famous town of Cappadocia, ended on Sunday, April 18, in Kusadasi.

More efficient cities with Türk Telekom

Leading Turkey’s digital transformation, Türk Telekom announced its activities with a statement shared in the Productivity Week. Türk Telekom stated that the company currently offers more than 50 services in 9 provinces in the fields of transportation, energy, environment, health, life and security with the Next Generation City Platform put into service. Türk Telekom also noted that with the smart solutions provided to municipalities, the company helps for the effective and efficient use of resources in all areas, from traffic and public safety, to irrigation and lighting.

Türk Telekom employees gave voice to books

The Give Voice to Books campaign, which was initiated with the participation of Türk Telekom employees in order to ensure that the visually impaired have access to more audiobooks, ended on December 5, International Volunteer Day. According to the results shared within the scope of the Book Gift Day, it was determined that 20 thousand pages of books were voiced and added to the Telefon Kütüphanesi (Books on the Phone).

ITO and Türk Telekom contribute to the digital transformation of SMEs through the digitalkobim.org platform

İstanbul Chamber of Commerce (ITO) and Türk Telekom collaborated with the aim of leading the digital transformation of SMEs, which constitute an important power of the country’s economy, and supporting them in gaining an advantage over global competition. In this context, Türk Telekom became the strategic partner of the platform, which is the final product of ITO’s European Union supported SMEs Digitisation Project, and can be accessed from the website digitalkobim.org.
May 2021

Barriers are removed with Türk Telekom

Emphasising its social responsibility activities within the scope of the Disability Week, on May 10-16, Türk Telekom works for a barrier free life by using the opportunities offered by technology to the benefit of people. The Books on the Phone project allows visually impaired people to access audiobooks and works of art free of charge, and facilitates the lives of the visually impaired with applications such as Medicine Barcode Reading and Currency Recognition.

Türk Telekom successfully completed the EU-supported 5G R&D project

Being the first Turkish operator in the 5G consortium supported under the auspices of the European Union Innovation Program Horizon 2020, Türk Telekom successfully completed the Industrial 5G project. With the international Clear5G project that the Company developed with its subsidiary Argela through research on 5G and beyond, Türk Telekom has become the first Turkish operator whose project was acknowledged by the international consortium within the scope of Horizon 2020.

Paintings are talking thanks to Türk Telekom at the Nation’s Library of the Presidency

The Digital Painting Exhibition of Paintings are Talking, consisting of audio-descriptive art works prepared by Türk Telekom for the visually impaired, opened its doors to its visitors at the Nation’s Library of the Presidency. The opening of the exhibition, which includes audio descriptions of 30 world-famous paintings, was held with the participation of President Recep Tayyip Erdoğan’s wife, First Lady Emine Erdoğan.

June

Türk Telekom employees collected and recycled approximately 18 tons of electronic waste in 3 years within the scope of Zero Waste.

Türk Telekom employees collected and recycled about 18 tons of electronic waste in 3 years. With the waste collected within the scope of the Zero Waste project, 1,107 cubic metres of storage space, 11 thousand cubic metres of water and 1 million 848 thousand kWh of energy were saved. The release of 65 thousand kilograms of greenhouse gases into the nature was prevented.

3 Gold medals from Europe to taekwondo players of Türk Telekom Sports Club

Türk Telekom contributes to more than 6 thousand amateur sportspersons playing in 39 cities and 33 branches from basketball and fencing to swimming, taekwondo and badminton. The sportspersons also made Turkey proud of their success. Hayrunnisa Gürbüz, Aleyna Şenyurt and Ömer Faruk Dayıoğlu, 3 taekwondo players of Türk Telekom Sports Club, became the European Champions in the 3rd Multi European Games Tournament held in Bulgaria.

JUNE 2021

An exercise program from Mental UP for millions of children

MentalUP, the gamified educational platform co-owned by Türk Telekom, has become the first in the world to offer more than 100 educational mind games and more than 200 exercises within a single application. With the newly added Fitness feature, MentalUP mobilised its 10 million children members, with an exercise program that fits to their age and physical needs.

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Netsia, the subsidiary of Argela located in the USA, collaborated with Taiwan’s largest operator Chunghwa Telecom for a successful integration on the SEBA technology.

The 2nd Cyber Security Camp where Türk Telekom offers training opportunities to young people who want to pursue a career in cyber security, was completed.

Aselsan’s domestic antenna is tested on Türk Telekom network

Türk Telekom and Aselsan entered into an important collaboration within the scope of the vision of developing domestic and national technologies. Aselsan’s newly developed 2G-3G-LTE base station antenna started to be tested on an active site together with Türk Telekom. The test versions of this next generation antenna, which is produced by Aselsan with its experience of more than 40 years and provides multi-band support and 2G-3G-LTE services, was installed on the network of Türk Telekom, the leading operator of Turkey.

Türk Telekom Istanbul 24 Hour Boostrace was a scenery of great excitement

A storm of excitement blew up at the Türk Telekom İstanbul 24 Hour Boostrace, a 24-hour cycling race that was held for the first time in Turkey. The cycling race, which lasted for 24 hours at the Intercity İstanbul Park racing runway with a fierce competition, was sealed into memories with colourful moments.

Cyber security experts of the future completed the Türk Telekom Cyber Security Camp

The Cyber Security Camp, where Türk Telekom offers training opportunities to young people who want to make a strong start to their career in the field of cyber security, was completed. Fatih Sencer finished first, Enes Yılmaz second and Berkay Soylu third in the online training program, which was held for the second time this year, and won the prizes.

The 14th Collective Bargaining Agreement of Türk Telekom is signed

Türk Telekom, the only unionised telecom operator in Turkey, and the Turkish Haber-İş Union shook hands for the collective bargaining agreement of approximately 10 thousand unionised employees. As in the previous periods, the process resulted in reconciliation protecting the interests of all stakeholders.
Türk Telekom 2021 Annual Report

September 2021
Türk Telekom supports Turkey's technology move
Expanding its cooperation with the US technology company Juniper Networks in January, Türk Telekom opens up its solutions that will strengthen the global 5G ecosystem to the world. With the use of the existing RIC product in the field as part of the cooperation between Türk Telekom and Juniper, Türk Telekom will be the first operator to allocate capacity per base station.

13 international awards for Türk Telekom 2020 Annual Report
Türk Telekom 2020 Annual Report was rewarded with a total of 13 awards in 4 different categories at the LACP Vision Awards, where the annual reports of hundreds of internationally prestigious companies are evaluated. Türk Telekom 2020 Annual Report ranked 1st in both the Europe, Middle East and Africa (EMEA) region and Turkey rankings, and won 5 platinum and 3 gold awards, by ranking 11th in the global ranking.

Basketball excitement at Tivibu
With the agreement signed between the Turkish Basketball Federation and Türk Telekom’s digital TV platform Tivibu, the excitement of basketball is once again available on Tivibu. Both the ING Basketball Super League and Herbalife Nutrition Women’s Basketball Super League matches are on live broadcast from Tivibu. In addition, the All-Star and cup organisations of the Federation are broadcast only on Tivibu.

İstanbul Coffee Festival with Türk Telekom Prime
İstanbul Coffee Festival, which coffee lovers eagerly await every year, met with the people of İstanbul once again after a one-year break. The festival, which opened its doors with Türk Telekom Prime privileges this year, was held at Küçük Çiftlik Park İstanbul, on 7-10 October.

October
Türk Telekom invested through its corporate venture capital company TT Ventures in Syntonym, Optiyol, QuantWiFi and B2Metric, which produce artificial intelligence-based solutions.

Remote technical support with 5G and AR technology from Türk Telekom
Breaking another new ground in Turkey, Türk Telekom tested remote maintenance and technical support services over 5G, using AR (Augmented Reality) technology, in cooperation with Nokia. In this context, AR-supported, real-time, high-definition and very low latency support was provided to the field technician via a remote maintenance and technical support platform (VSight Remote), by the expert at the centre.

14 cups in 11 years of Türk Telekom-Galatasaray cooperation
Turkey’s first stadium naming rights agreement signed between Türk Telekom and Galatasaray, which lasted 11 years, expired as of the end of the 2020-2021 season. This period left its mark on the history of Turkish sports and Galatasaray with 5 championships and 14 cups. Continuing to contribute to numerous sports branches from basketball to amateur sports, Türk Telekom carries on to support Galatasaray fans through collaborations such as GSMobile and smart stadium.

Türk Telekom invests in 4 artificial intelligence initiatives
TT Ventures continues with its investments that will carry the domestic entrepreneurship ecosystem to the global. Türk Telekom invested through its corporate venture capital company TT Ventures in Syntonomy, Optiyol, QuantWiFi and B2Metric, which are companies that produce artificial intelligence-based solutions. TT Ventures selected three of the investments from start-ups that have graduated from its PILOT acceleration program. While the number of ventures invested by TT Ventures reached 8 in total, the venture portfolio doubled.
Türk Telekom has become the first operator trying the next generation fibre technology 25G PON in Turkey, which provides higher speed and capacity.

NOVEMBER 2021

Türk Telekom at the heart of AKM

Türk Telekom offers advanced technology to national culture services at Atatürk Cultural Centre (AKM), the heart of culture and art. Within the scope of the agreement signed between the Ministry of Culture and Tourism and Türk Telekom, Türk Telekom became the main supporter of AKM. The main opera hall with a capacity of 2 thousand 40 people, where the red globe, the symbol of AKM, is located, was named after Türk Telekom.

Transferring its technology and digital transformation experience to the field of culture and arts, Türk Telekom will be the provider of WiFi hotspots, LTE and 5G mobile services and all end-to-end telecommunication services, so that art lovers can experience innovative technologies inside AKM and on Beyoğlu Culture Road.

Strong support from Türk Telekom to the domestic cyber security ecosystem

Türk Telekom continues its localisation efforts in the field of cyber security with the approach of keeping Turkey’s data in Turkey. Being the main sponsor, Türk Telekom participated with its cyber security products in the fair organised by the Turkish Cyber Security Cluster as part of the Cyber Security Week on November 22-26.

10 times speed with 25G PON technology at Türk Telekom

Türk Telekom has become the first operator in trying the next generation fibre technology 25G PON in Turkey, which provides higher speed and capacity. Data transport speeds reaching 20Gbps in one-way and 29 Gbps in two-way per second in the test with Nokia, will be able to meet the evolving user needs in a flexible manner.

December

Türk Telekom and one of the world’s leading technology solutions companies Net Insight, signed a ground breaking collaboration in 5G.

An innovative 5G solution with the cooperation of Türk Telekom and Net Insight

Türk Telekom and one of the world’s leading technology solutions companies Net Insight, signed a ground-breaking cooperation in 5G. With the new patented technology developed jointly by Türk Telekom and Net Insight, of which the productisation process has begun, the success of Turkish engineers will be on the world stage again. Mobile operators will obtain a time and frequency synchronisation solution required by 5G, which significantly reduces investment costs and increases service continuity.

SMEs are digitalising safely with Türk Telekom

The backbone of the country’s economy, SMEs are protected from cyber-attacks with Türk Telekom’s cloud services including cyber security, virtual server and backup. Offering end-to-end solutions with its cloud data storage, archiving and sharing platform, Türk Telekom guides SMEs’ digital transformation journey with its Digital Efficient Working Technologies service, My Techno Workplace packages and the digitalkobim.org platform created in cooperation with ITO.

DECEMBER 2021

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Chairman Message

In 2021, we continued pursuing activities in which technology fuses with kindness and benefit, with the responsibility arising from being an organisation that leads Turkey’s digital transformation.

2021 was a year when the efforts to tackle the Covid-19 pandemic continued to affect economies and our social lives all around the world. There was a recovery in economic activity and in sectoral activity during the year, especially in the summer months on the back of the vaccine rollout, which gained momentum on a global scale together with the relaxation of restrictive measures and the positive impact of tourism. However, the rapid spread of new variants towards the end of the year forced many countries to once again impose restrictive measures to bring the virus under control, also casting a shadow over expectations on global economic activity for 2022. The end of 2021 was marked by a surge in inflation, due to a global rise in inflation, but the Turkish economy nevertheless maintained its growth in parallel with market expectations throughout the year.

Demand for communication continued to grow in the telecommunication sector on the back of drivers such as more widespread use of the internet with increasing digitalisation, the adoption of a hybrid working model by many companies and the widening use of online applications to support education. Demand in the mobile segment and increase in data usage posted rapid growth, especially with the increase in activity seen with the steps taken for normalisation.

As Türk Telekom, we continued pursuing activities in which technology fuses with kindness and benefit, with the responsibility arising from being an organisation that leads Turkey’s digital transformation. Throughout the year, we focused on our most important goals for our country, which are accelerating the process of digitalisation, preparing Turkey for 5G, increasing internet penetration and providing a better customer experience by prioritising the fibre investments. We unwaveringly maintained our investments in fibre, which is the building block of 5G, and in 5G mobile technologies. While increasing Turkey’s internet penetration with our rapidly expanding fibre infrastructure, we continued to attract new subscribers in fixed broadband.

Being one of the biggest investors in technology, our investments in Turkey’s digital transformation have exceeded USD 18.6 billion since the IPO in 2005. With our vision to unite Turkey with future technologies, we maintained our investments across the country, even connecting villages and small communities to the world with fibre. We worked with unrelenting effort to bring high speed internet to people from all walks of life in our country, paving the way to increase Turkey’s internet penetration from 47% to 72% in the last 5 years. Thus, we are closely approaching our longstanding target of internet penetration of at least 75% or above.

We progressed a long way in the fibre rollout in a short space of time. With our rapidly expanding fibre infrastructure, we increased Turkey’s fibresation rate to 92%. Our fibre homepass coverage has increased by 13% to exceed 30.2 million households. We will continue to bring high speed internet to all segments of our country through our widespread service network, extending to all corners of Turkey, and our constantly growing investments.

2021 was a highly successful year in terms of our financial and operational results. Our consolidated revenues increased by 21.2% to reach TL 34.3 billion, while our EBITDA margin stood at 47.9%. In addition to our net profit reaching TL 5.8 billion, our total subscriber base also increased to 51.8 million subscribers.

As well as using 5G and beyond communication technologies, which we developed within the Türk Telekom Group following many years of R&D studies, we export these technologies to the world through our global collaborations, thereby paving the way for the entire world to use them. For example, through our collaborations, we are closely approaching our longstanding target of internet penetration of at least 75% or above. We progressed a long way in the fibre rollout in a short space of time. With our rapidly expanding fibre infrastructure, we increased Turkey’s fibresation rate to 92%. Our fibre homepass coverage has increased by 13% to exceed 30.2 million households. We will continue to bring high speed internet to all segments of our country through our widespread service network, extending to all corners of Turkey, and our constantly growing investments.

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expanding cyber world. As our country’s first security service provider operator, we aim to ensure that Turkey becomes a country which produces its own cyber security products and exports them. We are aware that, this way, our country can progress to the future with robust steps. One of our important strategies in 2021 was to reduce our imports in areas such as hardware, software and licences and to expand our domestic product and service portfolio with the concept of the “Cyber Homeland”. We have already completed the localisation of 14 products within the scope of security services we provide. In order to advance our country further in the technology race, we took on the duty of leading the rise of domestic technology start-ups and strengthening and building the venture ecosystem. We continued to support the ventures which will make Turkey stand out in the international competition with our enterprise acceleration programme, PILOT. We doubled the portfolio of TT Ventures, which is our corporate venture capital company, with our investments. As Türk Telekom, we will continue to do our best to help our home-grown ventures develop and open up to the world.

While integrating universal principles of sustainability into our business model, strategies and corporate decisions, we deem including the society and the world as well as our own ecosystem into the transformation, which has gained momentum during the pandemic, as the requirement of our sustainability strategy. We aim to take care of our country’s resources and increase our contribution to a sustainable society further by spreading new generation communication technologies that achieve high savings. In order to leave a greener Turkey to future generations, we donated 100 thousand saplings for reforestation of green areas which were damaged this year and thus made it to the front lines in the mobilisation of “Breath for Turkey” (Türkiye’ye Nefes).

Meanwhile, we pioneered the participation of women in economic life by supporting women’s entrepreneurship through the “Life is Easy with the Internet for the Women with Goals” project, which we implemented in cooperation with the Union of Chambers and Commodity Exchanges of Turkey (TOBB), the United Nations Development Program (UNDP) and the Habitat Association. Within the scope of the project, 5 thousand women have so far received training on digital marketing, 500 women have participated in design-oriented thinking workshops and 100 women have received with one-to-one mentoring support.

Recently, as the whole Türk Telekom family, we have implemented a new cooperation that excites us in the field of culture and art. With our agreement with the Ministry of Culture and Tourism, we became the main supporter of Istanbul Atatürk Cultural Centre, which reopened on October 29, 2021. As Türk Telekom we lead the path that will take Turkey to the future, by making communication accessible for all with our know-how dating back nearly two centuries and without deviating from our values that make us who we are. While placing a greater focus on generating more value through new ventures, we are continuously transforming and expanding our core business areas. We are proud of our pioneering moves in technology, which will help us form a strong foundation for the transition to 5G technology and in digitalisation. While leading our country’s transition to a digital society, we will maintain and build on our contribution to helping Turkey reach its 2023 goals.

I would like to thank all our customers who have chosen Türk Telekom’s privileged services, our shareholders who have trusted us and stood with us, our investors who see our strong future, our employees who have never wavered in their hard work and all of our stakeholders whose support we always feel, together with the subscribers who joined our family in 2021. We will continue to work with unending determination for Turkey and for Türk Telekom, to make everyone we come in contact with feel valuable, and to build a better future together.
Assessments of the Board of Directors

With a remarkable financial and operational performance full of records, Türk Telekom Group finished 2021 with the highest level of net income and annual revenue growth since the IPO.

Net income rose to its highest level of TL 5.8 billion in 2021, with strong operational performance.

Consolidated revenues increased to TL 34.3 billion, up by 21.2% YoY. Excluding the IFRIC 12 accounting impact, revenue growth was 19.5% YoY, ahead of the 2021 guidance of 18%.

Net income reached the highest level of TL 5.8 billion in 2021, mainly on the back of high operational performance. The Group increased the total subscriber base by 2.9% YoY, with a remarkable increase of 29.0% in fixed broadband, 16.5% increase in mobile, 36.3% increase in international and 14.8% increase in corporate data revenues.

In 2021, consolidated EBITDA increased by 24.0% YoY to TL 16.4 billion with an EBITDA margin of 47.9%, which expanded 110 bps YoY together with strong growth in higher margin fixed broadband revenues and improved profitability in mobile segment. Excluding the IFRIC 12 accounting impact, EBITDA margin was 50.8%, up 170 bps YoY.

Operating profit increased by 29.9% YoY and reached TL 10.2 billion. Net income reached the highest level of TL 5.8 billion in 2021, mainly on the back of high operational performance. Despite the high FX volatility in the last quarter, Net Debt/EBITDA ratio decreased to 1.1x from 1.15x as of 2020.

The Company completed the year with USD 242 million FX long position compared to USD 158 million as of 2020. Including FX volatility, total corporate debt reached USD 21.4 billion at year-end. Average monthly data usage per LTE user increased to 67% by 2021 year-end from 61% by 2020.

Share of LTE subscribers in mobile subscriber base surged to 67% from 46% a year ago. The number of FTTC subscribers increased to 2.8 million. Share of FTTH/B subscribers increased to 9.4 million with 3.4 million net subscriber additions in 2021.

Fibre cable network length increased to 366K km as of 2021 from 331K km as of 2020.

Amid the lifting of pandemic related restrictions and travel bans, the mobile segment gained momentum in the second half of 2021. Mobile subscriber base increased to 24.0 million after 844 thousand of net subscriber additions in 2021. Overall, the postpaid base showed a healthy trend by expanding to around 65% of total mobile subscribers. Annual blended ARPU growth was 13.8% in 2021.

Share of LTE subscribers in mobile subscriber base increased to 67% by 2021 year-end from 61% by 2020 year-end. Average monthly data usage per LTE user increased by 13.9% to 10.2GB in Q4’21 from 9.0GB in Q4’20.

Number of fixed voice subscribers decreased to 10.5 million in 2021 from 10.6 million as of 2020. Including ADSL, the number of total fixed access lines increased to 16.5 million, the highest level since Q2’09.

Assessment on the Financial Status and Operational Results

Assessment on the Financial Status and Operational Results

Türk Telekom Group finished 2021 with strong financial and operational results despite the pandemic related restrictions in the first half and sharp FX volatility in the last quarter of the year. The Company reached the highest annual revenue growth and net income since the IPO.

Assessment of Risks and the Board of Directors

Enterprise Risk Management is a systematic process, shaped and used in determining strategies by the senior management and all other employees and implemented across the entire company, developed in order to define potential events that may have an impact on the company, manage risks in line with the corporate risk appetite and provide a reasonable degree of assurance for the Company to achieve its objectives.

Fixed broadband subscribers rose to 14.3 million with 919K of net subscriber additions in 2021. Robust growth in fixed broadband base continued throughout the year, marking a 6.9% increase YoY. 13.9% fixed broadband ARPU growth in the last quarter brought the annual figure to 14.2% level.

Fibre subscribers reached to 9.4 million with 3.4 million net subscriber additions in 2021.

The 5.4% annual growth in fibre subscribers was fuelled by ADSL to fibre conversions as well as new additions. As a result, the share of fibre subscribers in fixed broadband base surged to 67% from 46% a year ago. The number of FTTC subscribers reached 6.8 million, while the number of FTTH/B subscribers increased to 2.8 million.

Fibre network covers in excess of 30.2 million households at 2021 compared to 26.8 million as of 2020, reflecting the continued focus on fibre rollouts. FTTC homespun increased to 214 million while FTTH/B homespun reached 8.8 million.

Fibre cable network length increased to 366K km as of 2021 from 331K km as of 2020.
Effective Risk Management

With the awareness of the value add through risk management, Türk Telekom adopts international standards in Enterprise Risk Management and carries out the necessary work to develop risk management activities in line with best practices. The ISO 31000 standard is adopted in establishing the framework which includes the general basis and principles of Enterprise Risk Management and the formation of the risk life cycle process. In this context, the Enterprise Risk Management Process consists of the following phases:
- Communication/opinion exchange,
- Monitoring, reviewing and reporting to be carried out continuously in all the following steps of:
  - Establishing the framework,
  - Risk identification,
  - Risk analysis,
  - Risk assessment,
  - Risk treatment, and

Strategic Goals and Risk Management

Evaluation of the trends in the sector on both global and national levels, interpretation of the technological developments, review and approval of the strategic plans and annual budgets that include the strategic goals determined on the basis of customer preferences rests with the Board of Directors.

The performance in achieving strategic goals is monitored by the Board of Directors on a monthly basis.

Risk Management aims to support the Company in achieving its strategic goals with its structure which creates value add and preserves the created value. The Company aims to manage its risks with a comprehensive and holistic approach at all levels, from the long-term strategic goals of the Company to its daily operations. With enterprise risk management integrated into all processes, decision makers will be able to act with risk awareness.

The principal risks faced by Türk Telekom Group are classified in 4 main categories: Financial, Strategic, Operational and Sustainability Risk Management.

Financial Risks

Türk Telekom can be exposed to financial risks such as liquidity risk, currency risk, interest rate risk, and counterparty risk.

Within the framework of the strategy to minimise the liquidity risk, long-term financial debt is obtained from different geographical regions (the Americas, Canada, Europe, the Gulf, Japan, China, and Turkey) and from a diversified pool of creditors (commercial banks, international financial institutions, official export credit agencies, and bond markets). This strategy enables the Group to have access to long-term financing on competitive terms, without being dependent on a limited group of funding sources.

With regard to the Eurobonds issued by Türk Telekom, the Group actively monitors the price and return dynamics of these bonds, which are tradeable instruments in the secondary markets, in order to ensure optimal cash management strategy on total return and cost basis.

The need to partially procure supplies in relation to capital expenditures from foreign vendors and the need to for financing through long-term and diversified funding sources cause Türk Telekom to bear liabilities in foreign currency. Hence, excluding the hedge transactions, Türk Telekom has net liabilities in foreign currency and is exposed to FX risk due to the fluctuations in exchange rates, which may have an impact on the financial statements.

Türk Telekom keeps the impact of FX exposure on the financial statements to a minimum with its FX risk management transactions. In this respect as of 2021, Türk Telekom has a total hedge position of USD 2,222 million equivalent, details of which are provided in the footnotes of its audited financial statements. The total hedge position including the cash in hard currency which provides a natural hedge against FX exposure is USD 2,686 million equivalent.

In relation to interest rate risk, Türk Telekom carries an interest-rate swap position equivalent to USD 450 million, details of which are provided in the footnotes of its audited financial statements. Türk Telekom manages its exposure to interest rate risk through swap positions and fixed-interest rate transactions such as Eurobond.

With regards to its financial assets, Türk Telekom aims to minimise the counterparty risk in accordance with the established counterparty limits and diversification policy. Türk Telekom carries out its hedge transactions regarding financial risks within the framework of the guidance and authorisation set by the Board of Directors.

Strategic Risks

Türk Telekom operates in a sector with high levels of technological innovation, competition and regulatory developments. Türk Telekom meticulously analyses the positions of its competitors and technological developments in the market, as well as changing customer preferences with a comprehensive understanding on the sector.

Taking these factors into consideration, proactive risk management activities are conducted in parallel with the Company’s strategic priorities aligned to both increasing the revenues and meeting customer expectations.

In line with its strategic goals, Türk Telekom develops solutions to aid the lives of individuals and the public sector by using information and communication technologies. In order to prepare for the future and focus on its strategic goals, the Company adopts an approach to use integrated risk management products and models which will turn competitive advantage into opportunities when providing the infrastructure required for the high-performance products and technologies, preserving and improving its market position and brand value.

With its structure strengthened by its subsidiaries, the Company seizes opportunities in both the domestic and foreign markets by substituting the areas where it might lose market share with new products and services, despite the possibility of developments that may cause changes in the legislation and the sector.

Operational Risks

Operational risks are defined as the risk of loss arising from the inadequate or failed internal processes, employees and systems, or external events.

Türk Telekom provides services which are dependent on technological infrastructure. Therefore, it is important to identify the risks to which these services are exposed accurately and to manage them successfully in order to achieve the business targets. Incidents such as malfunctions, power cuts and natural disasters, which may have an impact on Türk Telekom’s communication infrastructure and critical systems, may affect the Company’s ability to provide services to its subscribers.

Business Continuity Management defines potential threats to be faced and their impact on key activities, if these threats materialise. This study can be defined as a holistic management process that provides protection
for internal and external stakeholders, value creating activities through reputation and brand value and a framework around corporate flexibility. Critical products and services are subjected to the Business Impact Analysis and Risk Assessment. Necessary performance improvements are undertaken in light of continuity objectives following performance assessment.

Cyber security risk may arise as a result of a combination of threats and vulnerabilities in the digital environment. It may impact the delivery of strategic goals by disrupting confidentiality, integrity and availability of information. Events and their consequences such as interruption of critical systems (Downtime of Service attack - DoS), disruption of core systems due to the result of the disclose of strategic data (such as the theft of trade secrets), loss of customer trust and reputation as a result of personal data breach, financial and operational losses due to the destruction of corporate data and systems and economic sanctions which may be faced as a result of failure to comply with the applicable laws and regulations are assessed. All information technologies and network operations are carried out within the framework of security policies. Problems within this context are constantly analysed and monitored within the scope of early detection mechanisms. Appropriate controls are established for the heightened digital security risk along with accelerated digital transformation and remote working. In addition, training and awareness activities are carried out for employees.

Türk Telekom undertakes extensive efforts to protect itself and its subscribers against business disruptions and security breaches. The Company oversees the implementation of correct practices, standards and policies, and takes significant steps including obtaining certificates such as ISO 22301 and ISO 27001. Additionally, the Company holds the PCI-DSS certification for the mobile network.

The nature of the sector involves working with a certain number of high technology suppliers. In this context, realisation of risks pertaining to suppliers and subcontractors could result in loss of reputation due to inefficiency in the value chain that touches the customer, negative customer experience due to reduced quality of products and services, security breach and data leakage or business interruption. For this reason, an effective procurement is aimed by taking into account main factors such as TCO (Total Cost of Ownership), supply chain risks and sustainability.

The increasing demand for the new generation dynamic and digital workforce with the transformation of working models makes the importance of competent employees more evident. The risks and opportunities, created by the remote and hybrid working model on employee motivation, on the performance and loyalty are monitored. Recruiting, training and retaining the suitable employees that match the requirements of the business are the critical factors in the success of the Company. Türk Telekom implements a number of human resources practices aimed at effectively managing its manpower. The Türk Telekom Academy continues to launch training projects which support the development of employees.

**Sustainability Risk**

As Turkey’s first integrated telecommunication operator, working for the future of the country, Türk Telekom aims to integrate the universal principles of sustainability into its business model, strategies and corporate decisions with the aim of leaving a liveable world to future generations. The communication sector provides basic solution tools in economy, innovation, health, education and in many other areas to ensure social equality, protect the environment and combat the climate crisis, improve quality of life. Thus, it directly serves the Global Sustainable Development Goals.

Türk Telekom considers the concept of sustainability not only as a risk management element, but also as an opportunity to create value. Within the scope of Türk Telekom sustainability activities, which started to be evaluated comprehensively with the management system formed in 2020, a program based on the adoption of the sustainability approach is established. The aim of this program is to effectively manage risks focused on Climate Change and Environment, Contributing to Society and Value for Human. In 2021, the Sustainability policy was approved, and the Sustainability Committee started its work under the leadership of the CEO.

**Risk Appetite**

Risk appetite is defined as the extent and type of risk that the Company is willing to take/bear while carrying out its activities. Risk appetite may be defined as a set of boundaries which provide clear guidance to all levels of the organisation setting out the limits of the risks they can take. Türk Telekom operates in a highly competitive and rapidly changing industry that requires investment. This urges swift and smart strategic decision-making processes. For this reason, it is important that managers have a high awareness of the risks they face and consider these risks when taking decisions.

Risk Appetite, which was developed in line with the opinions of the senior management and evaluated by the Early Identification and Management of Risks Committee, was approved by the Board of Directors.

It is aimed to integrate the risk appetite framework into decision-making processes and daily operational activities with an effective staging structure throughout the Group. In this context, activities to establish indicators and concrete limits for risk measurement continue.

**The Covid-19 Pandemic**

Türk Telekom and its Group Companies serve in 81 provinces of the country and a wider geographical area of the world with more than 35 thousand employees. The Covid-19 pandemic, which has spread all over the world since the beginning of 2020, continued to negatively affect all areas of life in 2021 as well.

Türk Telekom began working to manage the possible impacts of the pandemic before the first case was reported in the country. The Business Continuity Covid-19 Crisis Management Committee was founded and it started to proactively prepare and plan steps to tackle the pandemic with the highest level of participation. During the pandemic, actions were taken primarily to protect the health of employees, customers and third parties and to prevent the spread of the pandemic. In parallel with these efforts, the operational, consumer and financial impacts of the pandemic were assessed and necessary action plans were started to be implemented rapidly.

The Business Continuity Covid-19 Crisis Management Committee continued to monitor the issues throughout 2021. The Committee regularly evaluated the effects of the pandemic on Türk Telekom’s activities and resources, and ensured that the necessary actions were taken.

In order to ensure the uninterrupted continuity of the communication services affected in the event of a pandemic, Türk Telekom took the following measures in line with the mutual interests of all stakeholders:

- The Company...
- within the New Working Order, introduced full-time or part-time remote working for all employees whose roles and responsibilities are suitable...
- within the scope of occupational health, provided all kinds of personal protective equipment needed...
Assessments of the Board of Directors

by employees working in the field, throughout the pandemic
- increased the hygiene measures both in the offices and
dealers where customers were served, and
- changed working hours and activity patterns, when
necessary, depending on the course of the pandemic.
- ensured back up for and isolation of critical personnel
by switching to long term shifts for the teams carrying
out critical activities, introduced home agent practice
for the customer representatives who provide call
centre services, in order to secure the continuity of
customer service.
- directed customers to alternative channels for their
transactions, and enriched transaction diversity and
scope of alternative channels, in order to reduce
physical contact.
- implemented a comprehensive disinfection program
for hygiene in its all facilities and vehicles.
- restricted the visitor entries to the Company locations,
and until the pandemic is eliminated, ensured that the
employees of business partners remotely supported
the Company processes and participated in meetings
via electronic platforms.
- raised awareness of the employees’ through
awareness and training programs on the pandemic
and established rule sets to be followed during the
pandemic.
- Adequacy of the measures taken to ensure that the
customers, the employees and third parties are in a safe
environment in the Türk Telekom buildings against the
risk of Covid-19 transmission during the pandemic was
certified also by the TSI (Turkish Standards Institute). In
this context, the “TSI Covid-19 Safe Service Certificate”
was obtained within the scope of TSI Covid-19 Hygiene,
Infection Prevention and Control Certification Program.
While these measures were taken against the pandemic,
the uninterrupted continuity of communication under all
circumstances was ensured thanks to the operational
continuity plans. The actions that would facilitate the lives
of all customers, especially healthcare and education
sector employees, students and senior people, were
rapidly implemented.

Assessments of the Committees of the Board of Directors

Early Identification and Management of Risks
Committee Activities

The Early Identification and Management of Risks
Committee has effectively fulfilled the duties assigned
to it within the framework of its working principles.
In 2021, the Committee convened four times to review
the identified risks, to notify the Board of Directors about
the significant risks, to provide the necessary resources for
the effective fulfilment of the Enterprise Risk Management
function, to ensure the coordination of Enterprise Risk
Management and Internal Audit and other business units.

Corporate Governance Committee Activities

The Corporate Governance Committee has effectively
fulfilled the duties assigned to it within the framework
of its working principles. It convened four times in 2021
and monitored and evaluated the Corporate Governance
Rating process which is carried out every year and
monitored the preparation process of the Corporate
Governance Principles Compliance Report, which is part
of the Annual Report and presented it to the Board of
Directors. It also monitored the developments regarding
the position of the company in Sustainability indices.

Audit Committee Activities

The Audit Committee was established with the
decision of the Board of Directors dated 16.06.2008.
The Committee was established to assist the Board of
Directors in meeting its supervisory role related to its
oversight requirements regarding the Company’s financial
reporting process, internal control system, audit process,
compliance with laws and regulations and the code
of conduct and other matters to be delegated to the
Committee by the Board. Acting in accordance with the
authority and responsibility granted to it by the Board, the
Committee reports to the Board of Directors.

The Audit Committee consists of at least two independent
members elected by the Board from among its members.
The Audit Committee carries out its activities within the
framework of the Audit Committee Working Principles
approved by the Board of Directors. The Committee
effectively fulfils the duties assigned to it within the
framework of its regulation.

The Audit Committee meets at least once every three
months and four of these meetings are held before the
financial statements are announced, and the Committee
may, if deemed necessary, convene more frequently.
The Audit Committee informs the Board of Directors
about its meetings and activities during the year. The
Committee convened four times in 2021 to effectively
monitor the accounting, finance and auditing processes
of the Türk Telekom Group and compliance with the laws
and regulations and the code of conduct, and to review
and monitor the other issues that are assigned by the
Board of Directors from time to time.

Internal Audit Activities

Türk Telekom’s Internal Audit Department conducts
assurance and consultancy activities in Türk Telekom
and all Group companies in an independent and
objective manner by evaluating the effectiveness of risk
management, internal control, and compliance with
legislation and governance processes. In order to carry
out its activities in an independent and objective manner,
the Internal Audit Department works directly with the
Audit Committee, which is a part of the Board of Directors,
with the authority and responsibility emanating from the
principles approved by the Board of Directors.

In the audit activities carried out, the effectiveness of the
existing internal controls established to reduce the
risks involved in business processes that may hinder
the delivery of strategic goals is assessed. Causes and
impacts of control weaknesses detected as a result of
audits are analysed and action plans aiming to solve the
problems are received from the relevant departments and
the Internal Audit Department monitors whether these
actions are implemented in a timely manner. In addition
to the auditing activities, inspection and investigation
activities are carried out where necessary.

The Department carries out its work in accordance with
International Standards for the Professional Practice
of Internal Auditing. As a part of compliance to those
standards, an external assessment must be conducted
at least once every five years by a qualified, independent
assessment team from outside the organisation. In this
Assessments of the Board of Directors

context, as per the result of the quality assessment performed by an independent firm in 2017, Türk Telekom Internal Audit Department received a positive opinion that its activities conform to the International Standards for the Professional Practice of Internal Auditing.

The Department attaches importance to the professional competence and improvement of its employees and encourages auditors to gain internationally recognised certificates in the field of auditing. The majority of the auditors hold nationally and internationally recognized certificates such as CIA (Certified Internal Auditor), CISSP (Certified Information Systems Security Professional), CFE (Certified Fraud Examiner) and CPA (Certified Public Accountant) certifications. Audit teams carry out financial, operational, information technology, and compliance audits according to their competencies.

Nomination Committee Activities

Nomination Committee was established on 16.12.2019, and four meetings were held in 2021. Nomination Committee will effectively fulfill the duties assigned to it within the framework of its working principles.

Remuneration Committee Activities

Remuneration Committee was established on 16.12.2019, and a meeting was not held in 2021. Remuneration Committee will continue to work within the framework of its working principles.

The Board of Directors

Dr. Ömer Fatih SAYAN
Chairman of Board of Directors / Member of Board of Directors

Dr. Ömer Fatih Sayan was born in Istanbul in 1977. He received his Bachelor degree from the Electronics Engineering Department of Istanbul University Faculty of Engineering, Faculty of Law of Bahçeşehir University and Diplomatic Studies of Oxford University – St Antony’s School. He completed his Master’s Degree at Electrical and Electronics Engineering and Communications Engineering Department of Technical University of Munich and at Biomedical Engineering Department of Istanbul University Institute of Science and Technology. He also received his PhD on Biomedical Engineering at the Istanbul University Institute of Science and Technology. Starting his career in Istanbul Metropolitan Municipality in 1995, Mr. Sayan worked in private companies in Turkey, Germany and USA in the fields of chip manufacturing, cell phone design and R&D after receiving his Bachelor’s Degree. He carried out studies in entrepreneurship by working under the initiative of Silicon Valley and he gave lectures on Information Law and New Trends in Informatics in many universities in Turkey and Germany. Ömer Fatih Sayan has given many lectures in conferences about research subjects and he has many articles published in scientific journals. He carried out his duties as Advisor to the Prime Minister and Chief Advisor to the Prime Minister between the years of 2007 and 2014. He has worked as Information and Communications Technologies Authority (ICTA) Chairman from June 2015 to July 2018. He has been assigned as the Deputy Minister of the Ministry of Transport and Infrastructure on July 21, 2018. He is married and father of 3. He speaks English, German and French.
The Board of Directors

Eyüp ENGİN  
Vice Chairman of Board of Directors / Member of Board of Directors

Eyüp Engin joined Akbank in 1978 as an Assistant Internal Auditor. Following his auditing assignment, Eyüp Engin served as Department Head in Treasury, International Banking and Overseas Financial Institutions. He was appointed as the Executive Vice President in charge of Corporate Banking in 1996 and after 1998, Engin continued to serve as Executive Vice President in charge of International Banking and Overseas Financial Institutions Marketing.

Eyüp Engin was appointed to the position of Head of Internal Audit in 2007 and during 2007-2019 he served on Boards of Directors of Bank’s subsidiaries as the President of the Audit Committee. He is a graduate of Middle East Technical University, Faculty of Economics and Business Administration. Engin was elected as Executive Board Member in March 2019.

Additionally, Eyüp Engin is a Board Member of TT Mobil İletişim Hizmetleri A.Ş. and TTNET A.Ş. and also Chairman of Ağaç Yarım ve Bilişim Teknolojileri Sanayi ve Ticaret A.Ş.

Yiğit BULUT  
Independent Board Member

Chief Advisor of President, Economist. Financial Analyst, Banker, Journalist, Columnist. He worked as economy commentator in Kanal 6, Kanal E and CNN Türk and columnist in Radikal, Vatan, Refah and HaberTurk. He was the producer and the presenter of Parametre and Finans Analiz TV programs. He also worked as a lecturer in Dokuz University. Between 2009 and 2012, he was the Chief Production Director of HaberTürk TV, economy commentator in Bloomberg TV and columnist in HaberTurk Newspaper. Between 2012 and 2013, he was the Chief Production Director of 24 TV and columnist in Star Newspaper. He continued to present the TV discussion program “Sansurzuz” in 24 TV, transferring from HaberTürk TV. He has served as the Prime Minister’s Chief Advisor between July, 2013 and August 2014 and has been serving as Chief Advisor of President since August 2014. He was graduated from Galatasaray High School and Bilkent University, Faculty of Banking and Finance. He studied for master degree in Sorbonne University. He speaks English and French.

Dr. Nureddin NEBATI  
Independent Board Member

Nureddin Nebati was born in Viranşehir, Şanlıurfa on January 1st, 1964. He studied at the Department of Public Administration the Faculty of Social Sciences, Istanbul University. He took his Master's Degree in International Relations at the Institute of Social Sciences, Istanbul University. He took his PhD in Political Science and Public Administration at the Institute of Social Sciences, Koçaeli University. He gave lectures in political science, Turkish politics, state and political sociology at a variety of universities.

He took up his duties as an Academic Advisor and was a member of MÜSİAD’s High Advisory Board. He continued to act as a Member of the Alumni Foundation and Association of the Faculty of Social Sciences at Istanbul University, the Society of Scientific Dissemination, Ersay TÜCVA, ÖNDER, UTESAV, TDİD, BİK, İDD, İDV, Kültür Foundation and similar foundations and associations.

He is currently the President of the Foundation UTEV and the Turkish President of the Inter-Parliamentary Jerusalem Platform, and a Member of the Scientific Board at Opinion Center for Esenler Municipality. He has two books entitled ‘From National View to Conservative Democracy’ and ‘The Dominant Party System and Justice and Development Party (AKP) as Turkey’s First Dominant Party’.

He was elected as a Member of the AK Party’s Central Decision Board at its 4th Ordinary Congress. He also served as the president of AK Party’s Central Financial and Administrative Affairs and the Deputy Party Leader.

He was elected as a Member of the Parliament for Istanbul in the 24th term, for Şanlıurfa in the 25th term and for Istanbul once again in the 26th term. After serving as the Deputy Minister of Treasury and Finance, he was appointed as the Minister of Treasury and Finance on December 2, 2021.

He speaks English fluently, and knows some Arabic. Mr. Nebati is married and father of 4.

Selim DURSUN  
Independent Board Member

Selim Dursun was born in Istanbul in 1957. He was graduated from Mechanical Engineering Department of Istanbul Technical University in 1980. He worked in the private sector as Mechanical Engineer and served in executive positions between the years of 1980-2002. He served as Advisor to Minister in the Ministry of Transport between 2003-2005, as Executive Assistant of Ministry of Transport between 2005-2011, as General Manager and Chairman in TÜDEMSAŞ between 2011-2012 and as Advisor to the Minister in Ministry of Transport between the years of 2012-2015. He was elected as a Member of Parliament from Sivas province in the 25th and 26th Parliaments of Turkey. In the same period, he worked as the Chair of Peru Friendship Group of Parliament of the Republic of Turkey. He carried out various social activities in Non-Governmental Organizations as chairman, manager and member. He served as a Board Member of the Taekwondo Federation between 2004-2007, as the Chairman of Transportation Sports Club Association between 2006-2015 and as the president of Sivas Demirspor Club between the years of 2011-2012. He has been working as the Deputy Minister of the Ministry of Transport and Infrastructure of the Republic of Turkey since July 2018. He is married and father of 4.

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The Board of Directors

Can YÜCEL
Member of Board of Directors
Can Yücel was born in Ankara in 1978 and graduated from Middle East Technical University with a bachelor's degree in Economics in 1999. He started his business life as an auditor in T. İş Bankası A.Ş. and in his 20 years of service for İş Bankası, he mainly worked on monitoring, underwriting and project finance in the Corporate Loans, Department of the Bank. He also served as a member of Board of Directors in several subsidiaries of İş Bankası and following his duty as the department head in Corporate Loans, Underwriting Division, he is currently heading Başakent Corporate Branch in Ankara. Can Yücel is married and he is fluent in English.

Avni Aydın DÜREN
Member of Board of Directors
Avni Aydın Düren graduated from the Faculty of Law at Istanbul University and earned his graduate degree on International Law from the American University, Washington College of Law. After serving as an associate, partner and managing partner for over 18 years at international private law firms in New York, London and Istanbul, Mr. Düren joined Garanti BBVA on February 1, 2009 as Executive Vice President in charge of Legal Services. Mr. Düren has been appointed as a Board Member and Audit Committee Member on 17 June 2020. Furthermore, Mr. Düren is serving as the Chairman of Garanti Payment Systems, Garanti Operation Services and Legal Operation Services and Legal Collections.

Aclan ACAR
Member of Board of Directors
Aclan Acar started his career in 1974. After working for the state-owned Halkbank for three years, he joined the Central Bank of Turkey in 1978 where he served in different departments until 1990. During this period Mr. Acar undertook several managerial responsibilities including establishing trading room, managing open market operations, reorganizing and managing foreign exchange transactions division of money markets and treasury department of the Central Bank.

Mr. Acar continued his career within The Dogus Group, one of the leading conglomerates of Turkey, between September 1990-December 2018. First, he started at Garanti Bank, one of the leading private banks in the country, as the Executive Vice President in charge of Treasury and Financial Institutions. At this position, he also undertook administration of international branches and representative offices of Garanti Bank. Between 1994-1996 period, he served as the President and Chief Executive Officer of Bank Ekspress, then owned by the Group. Following acquisition of Ottoman Bank, the oldest and one of the most respected banks of the country, by the Dogus Group in June 1996, Mr. Acar was appointed as the President and Chief Executive Officer of the Bank. Between April 2000-December 2018, he served as a Member of Board and the Executive Committee of Dogus Group. Between the years 2001-2005 he served as the Chairman of TANSAN and in the meantime as the Chairman of Garanti Insurance and Garanti Pension Company. Between January 2006-March 2018, he served as the Chairman of Dogus Otomotiv. Between March 2018-December 2018, he served as the Chairman and CEO of Dogus Media Group. In 2019 he established his own advisory company. Since 2019 he serves as Advisor of Global Exchange Company.

After successfully carrying out his duties in the General Directorate of Highways, Enver Iskurt assumed the position of the Head of the Inspection Board. He is carrying out the Deputy Minister of Transport and Infrastructure duty. During his duty, he carried out the project development and approval processes of the 15 July Martyrs and Faith Sultan Mehmet Suspension Bridges, took part in the projecting and construction of the Ormangazi and Yavuz Sultan Selim Suspension Bridges, which were built within the scope of BOT projects, and he has also concluded the construction tender with project development and approval processes of the 1915 Çanakkale Bridge, which is still under construction. He is married and father of 2.

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CEO Message

As Turkey’s leading integrated telecommunication operator, we demonstrated a strong performance in all areas in 2021 with the experience we have gained from our deep-rooted history of more than 180 years.

In addition to the plethora of challenges it brought, the year 2021 offered us the opportunities to innovate, to improve ourselves and to work determinedly. We left behind a year when the impacts of the pandemic were reflected to our lives despite the course of normalisation, the pace of digitalisation was increased, while in the field of telecommunications, preparations on 5G and next-generation technologies intensified with the increasing fibreisation. In the new normal, the inclusion of business, education and even social life on digital platforms paved the way for a permanent transformation in consumer behaviour. High demand for speed and data remained strong throughout the year.

As the founder and developer of Turkey’s communication infrastructure, we seamlessly met the intense levels of traffic and the rapid growth in customer demand experienced during this period, and came out of this process stronger and bigger. On the path we have set out to “Make Everyone Feel Valuable”, we focused on providing the best service to our customers, while overseeing our financial and operational performance and our responsibilities to our stakeholders. We have continued to lead our country’s digital transformation journey with our investments that will expand 5G and the fibre infrastructure which will support 5G.

We achieved successful results in 2021, in spite of the pandemic, which was felt intensely particularly in the first half of the year. We revised our 2021 guidance upwards three times during the year with the performance exceeding our expectations since the beginning of the year. Consolidated revenues increased by 21.2% to TL 34.3 billion, marking the highest annual growth since the IPO. Operational revenue growth was 19.5% year on year exceeding the 2021 guidance of 18%.

EBITDA increased by 24.0% to TL 16.4 billion, surpassing our 2021 guidance of TL 16.2 billion, with an EBITDA margin of 47.9%. Operating profit increased by 29.9% to TL 10.2 billion. Net income surged by 81.3% to reach TL 5.8 billion. At the end of the year, we had a long FX position of USD 242 million, while our Net Debt/EBITDA ratio decreased from 1.15x compared to the previous year, to 1.1x, despite the significant depreciation of Turkish Lira during the year. Our strong balance sheet, cash flow and our FX neutral hedging policy supported us in challenging times marked by sharp exchange rate movements, and significantly offset the financial risk.

Capital expenditures stood at TL 8.8 billion. We focused primarily on Turkey’s fibre rollout, bringing high speed internet to as many people as possible, developing and implementing 5G and beyond next-generation technologies in our 2021 investments. We worked with tremendous motivation in building the infrastructure that will support 5G and beyond next-generation technologies without a break from our growing investments to add value to our country, alongside our human-centred approach.

In order to drive this motivation, we implemented the Employee Specific Working Model, which we built on the focus of efficiency and sustainability, by utilising insights gained from the experiences of our employees since the beginning of the pandemic. Our employees were included in one of the four different working models, namely mobile, office, hybrid and remote working models depending on their roles and responsibilities with the new system which we started to implement during the year. Moreover, we included dozens of bright young university students in our ecosystem within the scope of START, as in the previous years. While using all the blessings offered by digitalisation in our business, we continued to create employment for our country’s future, with our staff of over 35 thousand employees.

Demand for speed came to stay, driving the switch to premium packages

Our total number of subscribers stood at 51.8 million with a net addition of 1.5 million subscribers in 2021. The net increase in the fixed broadband subscriber base was stronger than our guidance thanks to our consistently successful churn management performance. We see that customer behaviour and the customers’ relationship with technology have changed irrevocably in the post-pandemic world. Trends demonstrate that the demand for speed and data has now become permanent with increasing digitalisation, adaptable new work models and changing tools for socialising. While the share of high speed fixed internet sales in total sales continued to grow throughout the year, switch to premium packages became an important component in the growth of fixed broadband ARPU. In the retail segment, the share of
We increased our fibre network length across Turkey to 366 thousand kilometres, and the fibreisation ratio in Turkey’s infrastructure to 92% in 2021, with our continuously increasing fibre investments. We recorded an annual growth rate of 14.2% by maintaining our double digit healthy ARPU growth.

We increased our fibre network length across Turkey to 366 thousand kilometres, and the fibreisation ratio in Turkey’s infrastructure to 92% in 2021, with our continuously increasing fibre investments. Our fibre homepass, which stood at 26.8 million last year, exceeded 30.2 million in 2021. Our total number of fibre subscribers reached 9.6 million with an annual increase of 54.3%. While the weight of fibre subscribers in the fixed and broadband subscriber base was 46% in 2020, it stood at 67% at the end of 2021.

Turk Telekom has covered the most of the distance to be passed in the bar of customer experience higher, with its own. Turk Telekom strives to develop methods to support the effective use of existing infrastructures and to prevent repetitive investments and the waste of our country’s resources. During the year, we provided significant discounts on the prices of the access products we offered to operators at the wholesale level, with the aim of ensuring increased use of Turk Telekom's widespread fibre network.

We focus on 'Value Growth' in mobile
We focus on generating higher value in mobile and achieve impressive results along with the subscribers’ preference for premium packages. In the mobile segment, which became more dynamic with the increasing mobility in the second half of the year, we closed the year strongly thanks to the operational performance accompanied by new records in many fields. Our mobile subscriber base increased to 24.0 million, with 844 thousand net subscriber additions during the year. We started the productisation and premunimation, became more visible during the year. The number of postpaid subscribers, followed a healthy course, reaching around 65% of total mobile subscribers. As of 2021 year-end, the share of the LTE subscribers in our mobile subscribers stood at 67%. The share of Prime mobile subscriber base rose to 31.6%, as personalised offers accelerated the upsell performance. Mobile data consumption, which increased even more vigorously with the mobility and seasonality in the second half of the year, maintained its strong course. Average monthly data usage per LTE user increased by 13.9% YoY to 12.6GB in Q4 2021. As a result, our mobile revenue grew by 16.5% YoY with mobile ARPU growth of 13.8% YoY in 2021.

Our focus on improved mobile network quality and the best customer experience was recognised once again by Opensignal, an independent research and analytics organisation specialised in customer experience and mobile network connectivity. Opensignal ranked Türk Telekom 1st in four categories for the first time in its Turkey’s Mobile Network Experience evaluation in December 2021. We outranked our competitors in four of the seven categories focusing mostly on the customer experience. We are proud once again that the supremacy of our network and technology is recognised by a reputable international independent organisation.

With Tivibu, our digital TV platform where we bring the latest technologies in broadcasting to users, we continue to air every branch of sports. While the number of TV home subscribers maintained its current trend with 1.5 million subscribers in 2021, our investments in the new TV platform continued. We will be more active in the field of TV by fibre infrastructure, with our new platform planned to be launched in 2022.

We are the readiest operator for 5G
We are working hard to shape the future with 5G and next-generation technologies. While pursuing our work on 5G field testing, we continue to produce technology for the world through our group companies, which have been generating value in this field for a considerable period of time.

The speed and flexibility that 5G will provide will manifest itself primarily in industry and production. In this context, our leadership continues in the development of the 5G industrial network. As part of the trial projects conducted on smart factories since 2019, when we carried out Turkey’s first Industry 4.0 trial. During the year, we completed an international CEA5G project with our subsidiary, Arçelik. We were able to provide low latency data transmission, high level privacy and accessibility over 5G to the factories involved in the project. We signed a strategic partnership agreement with Arçelik, one of our country’s technology giants, to establish Turkey’s first industrial mobile network.

In addition, after breaking the 5G world speed record in 2019, we set a new record by reaching speeds over 4.5Gbps in the test we conducted this year on the 5G test network at 26GHz, the millimetre wave spectrum of 5G.

We produce technology for the world
As Turkey’s leading integrated telecommunication operator, we are among the players that set the next-generation technologies’ standards in the rapidly transforming world. Through our collaborations with the world’s leading technology companies in 2021, we demonstrated once again that we are among the leading operators, not only in Turkey but also in the world.

We continued to produce technology for the world by strengthening our position in the heart of technology, Silicon Valley, through our subsidiary Angela and its innovation arm, Netsea in the USA. The technologies which we developed and produced for the virtualisation of both 5G and next-generation fibre networks attracted a great deal of interest from the world’s leading operators.

We entered into a valuable cooperation with Juniper Networks in January 2021, one of the world’s leading network equipment manufacturers, to license and market Netsea’s smart vRAN solution, RIC (Radio Intelligent Controller) on a global scale. We took our collaboration with Juniper to the next level in September. Thus, Türk Telekom will be the first operator to use the RIC technology, while our group companies, Angela and Innova, will be involved in the after-sales processes of the RIC solutions.

The testing phases of Netsia BB Suite, the open-source broadband network solution developed by Netsea specifically for SEBA, continue with a good number of leading operators in Latin America, Europe and Asia. This product, which will provide operators with security, service agility, capacity and scale management by minimising the delay in data transfer via centralised management of networks, promises generating revenue for our group, also with after sales service agreements.

We have recently added a new one to our collaborations, which demonstrate our determination to produce technology for the world. As a result of our collaboration with Sweden-based Net Insight in December, we started the productisation of a technology which will break new ground in the field of 5G time and frequency synchronisation. There is significant market potential for this innovative and unique solution, which will significantly reduce operators’ costs in this field, increase service continuity for mobile operators globally and accelerate the launch of 5G. We view these worldwide achievements of Turkish engineering as a tremendous source of pride for both Türk Telekom and our country.

We diversify our digital capabilities
We have given priority to creating digital routes in Turkey’s digital transformation. With the cooperation agreement we signed with the Istanbul Chamber of Commerce (ITO) in April, we have expanded our role in the digital transformation of the SMEs as the strategic partner of ITO’s digital platform.

Our subsidiaries, Innova, Türk Telekom International and TT Odeme have also played a significant role in this transformation process. While contributing to the digitalisation processes of its customers with its broad IT solutions portfolio, Innova also takes an important part in supporting Turkey’s national technological development.

Our international subsidiary, Türk Telekom International, provides a point-to-point telecommunication route between end points through the managed wavelength,
CEO Message

We consider generating value for all of our stakeholders and society our duty, with our sustainability approach.

Value creation goal

platforms, with the aim of introducing the ventures we support to the international arena. We will continue our support for new unicorns to emerge from our country by continuing our investments in the ventures which we believe have the potential to carry their success to the global arena.

We create value for a sustainable society

We consider serving our country with national understanding, social responsibility and sense of duty as the essential element of our existence, and we work with the goal of transforming technology into a benefit for people, society and nature. We are aware that a sustainable world and environment, social equality and the efficient use of resources are vital for our planet. With our sustainability approach, we consider generating value for society our duty.

We remain committed to the United Nations Global Compact, the world’s largest corporate sustainability initiative, which we joined in January 2020. We certified our use of green energy in our data centres, with our recently obtained Renewable Energy Certificate (REC). In this context, we are delighted to grow our added value by making our data centre customers use green energy as well.

We continue to conduct our projects for the efficient use of energy resources and the systematic reduction of carbon emissions. In this context, we are one of the few telecom operators in the world to have reduced its electricity consumption in recent years, despite significant increases in the total number of subscribers and infrastructure for these new technologies. We completed our integration processes with the servers installed in our country.

For a better and sustainable world, while we increase efficiency by saving energy, time and labour with the Next-Generation Smart City applications which add value to human life, we improve our cities and strengthen the ecosystem by supporting local solution partners.

We are the gateway to globalisation for Turkish ventures

We attach great importance to entrepreneurship, the rising value of the new world, and we embrace it with care. We continued to support entrepreneurs this year in line with our goal of strengthening the entrepreneurship ecosystem. We have provided approximately TL 16 million in cash support to 91 ventures to date with our PILOT, our venture acceleration program. The total investment received by our PILOT graduates, the majority of whom operate worldwide, has exceeded USD 16 million.

In 2021, we doubled our portfolio size with the investment we made in four artificial intelligence ventures with TT Ventures. We collaborated with Plug and Play, one of the world’s largest entrepreneurship and innovation

We are growing by transforming technology into benefit

We are making a solid start to 2022 with our deep-rooted history, our solid foundations and values, in addition to our robust financial and operational performance. We will continue to grow in the fixed and mobile markets by placing priority on sustainable growth and the customer experience accompanied by our networks equipped with the state-of-the-art technologies, our comprehensive know-how and superior competencies. We will maintain our investments in 5G and fibre infrastructure in the new operating year as well. In 2022, we expect that our operational revenues will grow by 23%-25%, annually, our 57 million consolidated EBITDA will be in the range of TL 175-183 billion, and our capital expenditures will be around TL 12.5 billion.

We aim to stand out strongly with our human capital, technology, risk management tools and smart marketing and pricing strategies in 2022, and we will continue to create value, expand our ecosystem and discover new ventures, while maintaining the financial strength of our company.

We will continue to guide Turkey’s digitalisation journey and increase the speed of the digitalisation process, especially in the health, education and energy sectors, while connecting all corners of the country with fibre internet. We will remain committed to increasing the average internet speed by switching our customers to faster packages. We will prioritise investments in our mobile business line in order to sustain our progress in coverage, network quality and customer experience ahead of the 5G transition. We will stand by all institutions, whether small or large, with our domestic and national technologies which reduce Turkey’s foreign source dependency. While contributing to the country’s economy and employment through our investments, we will pursue making all our stakeholders “Feel Valuable.”

I would like to sincerely thank every member of the Türk Telekom family who worked devotedly throughout 2021 and achieved successes which go beyond borders, our esteemed Board of Directors, whose support was unwavering throughout the year, our shareholders, who have spumed us on with their trust, our solution partners that we crossed paths with and our nearly 52 million subscribers throughout Turkey.

Respectfully,

Unit Onal
CEO - General Manager

Türk Telekom 2021 Annual Report

Financial Information Corporate Governance Türk Telekom Group Companies 2021 Activities Management 2021 at a Glance Türk Telekom in Brief
Ümit ONAL
CEO – General Manager

Ümit Onal, a graduate of Istanbul University Faculty of Communication, started his professional career in media and communication sector. He joined Turk Telekom Media Group in 2001 and served as the General Manager of ATV, Advertising Group President and Executive Board Member respectively, until 2015. After being appointed as the Board Member and CEO of Digiturk in 2015, he managed Digiturk’s sales process to BeIN Media Group. Having more than 20 years of experience in the media and communication sector, Onal has contributed significantly to the period of radical changes in the Turkish & International media, and he continues to lead the digital and technological transformation of Turkey in Türk Telekom. Throughout his career, Ümit Onal has actively taken positions in national and international associations. Onal served as the Chairman of the Board of Mobile Telecommunication Operators Association (m-TDO) until 2020; he is still actively the Chairman of TV Monitoring and Research Committee (TİAK A.Ş.); Board Member at Advertising Association (AVÜD); Member to Foreign Investors Association (YASED); and US Business Council (TUSİAD). Also, he represents Türk Telekom at Association of TV Broadcasters (TVYD). Önal joined Türk Telekom family as the Assistant General Manager responsible for Sales and Customer Services. In August 2019, he was appointed as the CEO of the company. He is still serving as the acting Assistant General Manager responsible for Marketing and Customer Services.

Kaan AKTAN
CFO – Finance Assistant General Manager

Kaan Aktan, after Galatasaray High School, graduated from Boğaziçi University, Economics in 1995. He started his career at Anadolu Group. He worked in PepsiCo Turkey Operation in 2002 and afterwards he worked at Texas Pacific Group Investment Fund Turkey Asset Management companies as finance manager since 2007. He joined Türk Telekom in 2010 as Director of Finance. He was appointed as TİMET (CDF) in March 2013. During his successful term of employment, he has also taken on several management roles at Türk Telekom and Türk Telekom Group Companies. Mr. Aktan is serving as Türk Telekom CFO since December 2016.

İsmail BÜTÜN
Consumer Sales Assistant General Manager

İsmail Butun graduated from Business Administration Department of Boğaziçi University in 1994. Ismail Butun started his professional career at Çukurova Holding Moscow Office. Between 1997 and 2000, Mr. Butun worked at Enka Group within Foreign Trade department in Moscow as Sales and Business Development Manager. After joining the marketing team of Nestle turkey in 2000, he worked at Nestle as CPW Turkey Country Manager, Regional Marketing Director for Central Asia and Savonarola Marketing and Sales Director for Russia. He was also appointed as a Executive Committee Member. Between 2009 and 2015, he was appointed as the General Manager of NESCAFE and also as a Board Member of Nestle Turkey.

In 2016 January, he joined Turkcell as “Senior Vice President of Retail Sales” in charge of Consumer Sales and was also appointed as an Executive Committee Member. Between July 2016 and January 2019, he served as the Chief Marketing Officer and Executive Committee member. He completed “New Frontiers” program at MIT (Massachusetts Institute of Technology) in 2017, and “Innovative Marketing for Strategic Advantage” program at Stanford University in 2018. In January 2020, Mr. Butun joined Turk Telekom International as Chief Commercial Officer. Ismail Butun is serving as Chief Consumer Sales Officer since May 2020.

Dr. Mehmet BEYTUR
Support Services and Procurement Management Assistant General Manager

Dr. Mehmet Beytur, an Industrial Engineer, is serving as Support Services and Procurement Management Assistant General Manager since September 2019.

Dr. Mehmet Beytur is a graduate of Istanbul Technical University, Industrial Engineering. He completed his Master’s Degree in Economics at Marmara University with his thesis on “Energy Resources and Cooperation Opportunities of Islamic Countries” in 2008, he received doctorate degree in Gebze Institute of Technology with his thesis on “Utilization of Outsourcing” in the field of Business Administration.

He started his career as an access engineer at Türk Telekom (at that time PTT) in 1981 and after serving as Chief Engineer, Manager, Assistant Region Manager and Provincial Manager, he has served as Istanbul Region Manager for more than 10 years. In his duties, he carried out sales, customer relations, commercial and all related support functions and financial roles, especially in technical areas. He has worked in technology, customer, system and management-based transformation projects in the company and the sector.

Dr. Mehmet Beytur is the Chairman of the Board of Directors of Türk Telekom SYS (Health and Social Aid Foundation); the Chairman of the Board of Directors of Türk Telekom BYS (Saving and Aid Fund), as well as a member of the Board of Directors of Türk Telekom Basketball Club and Board Member in Türk Telekom Group Companies.

Dr. Mehmet Beytur (PhD) is serving as Support Services and Procurement Management Assistant General Manager since September 2019.
Mustafa ESER
Corporate Sales Assistant General Manager
Mustafa Eser graduated from the Department of Physics of Hacettepe University in 1996. Between 1996 and 1998, he conducted his master’s degree studies at the University of Cologne and Heinrich Heine University in Düsseldorf. Since 1998, he worked in information and education sectors as an entrepreneur and a manager. Between 2007 and 2014, he worked at Turkcell A.Ş. as Director. Between 2014 and 2017, he worked as the Manager responsible from Public Sector Relations and Regulation at Digitürk. Since May 2017, he served as the Public Sales Director at Türk Telekom. Mustafa Eser, who is also the head of the basketball branch of Türk Telekom Sports Club, is married and has three children.

Mustafa Eser is serving as Corporate Sales Assistant General Manager since April 2020.

Ali GÜRSOY
Head of Enterprise Risk and Business Continuity
Ali Gursoy graduated from Bilkent University, Faculty of Management in 1993. He started working for Sisecom Group as Assistant Specialist in 1995 and continued his professional life at Esbank TA Ş., as Specialist in marketing department. He went to the United States in 1997 and worked as a Financial Analyst at ATB Consulting (New York) and then as a Financial Risk Manager at Argon Asset Management (Chicago), respectively. Ali Gursoy continued his education while working in the USA and completed M.S. in Investment Management (2001) at Pace University and Computer Science (2003) and M.S. in Financial Mathematics (2005) at Columbia University. In Turkey, he took M.S. in Data Analytics (2003) at Sabancı University. After his return to Turkey in 2006, Ali Gursoy worked as Assistant General Manager at Risk Türk Financial Software Company for five years. During this period, he led the team that provided software and consultancy services related to market risk, credit risk, asset liability management and portfolio management, and managed the customer portfolio consisting of Turkey’s leading banks, investment and portfolio management companies.

After his return to Turkey in 2006, Ali Gursoy worked as Assistant General Manager at Risk Türk Financial Software Company for five years. During this period, he led the team that provided software and consultancy services related to market risk, credit risk, asset liability management and portfolio management, and managed the customer portfolio consisting of Turkey’s leading banks, investment and portfolio management companies.

Continuing his professional life since 2011 at Turk Telekom Group, he led the establishment of Corporate Risk Management, Business Continuity, Internal Control and Sustainability functions within the Group. In addition, he was appointed as Finance Assistant General Manager of Türk Telekom A.Ş., one of the Türk Telekom Group companies.

Ali Gursoy is serving as Head of Enterprise Risk and Business Continuity at Türk Telekom since December 2019.

Tahsin KAPLAN
Legal and Regulation Assistant General Manager
Tahsin Kaplan graduated from Marmara University Faculty of Law in 1999. He has more than 20 years of experience in the field of Corporate Law and Regulation in both private and public institutions.

After starting his career as a freelance lawyer, he took office under the titles of Legal Advisor, Group Head of Legal Affairs, and held several Board Memberships in finance and media sectors. He has continued to work as a freelance lawyer since 2016.

Tahsin Kaplan is serving as Legal and Regulation Assistant General Manager at Türk Telekom since August 2021.

Yusuf KIRAÇ
Technology Assistant General Manager
Married and father of two children, Yusuf Kıraç, graduated from Hacettepe University, Electrical and Electronics Engineering in 1994. Following his undergraduate studies, in 1996 he started working as a Financial Analyst at ATB Consulting (New York) and then as a Financial Risk Manager at Argon Asset Management (Chicago), respectively.

After his return to Turkey in 2006, Ali Gursoy worked as Assistant General Manager at Risk Türk Financial Software Company for five years. During this period, he led the team that provided software and consultancy services related to market risk, credit risk, asset liability management and portfolio management, and managed the customer portfolio consisting of Turkey’s leading banks, investment and portfolio management companies.

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Ali Gursoy is serving as Head of Enterprise Risk and Business Continuity at Türk Telekom since December 2019.

Yusuf Kıraç started working in Türk Telekom in 2008, taking part in the team that carried out the successful transformation projects in Türk Telekom’s All IP Architecture with Rural Transformation, Türk Telekom NGN and Fibre Transformation projects. In 2010, he assumed the role of Türk Telekom Network Director and led many projects such as Fibre Transformation, DWDM, MPLS, DC Conversion and IT Open. In addition to his current role, he also chaired the NNI Working Group of ETSI, European Telecommunication Operators Organization, headquartered in Brussels, between 2010 and 2014. During his presidency at ETSI, he worked closely with international organisations such as the European Commission, ICANN, RIPE, Rotor, BCP and很多其他国家的电信运营商组织.

Between December 2016 and August 2018, he served as Türk Telekom International General Manager As the Assistant General Manager of Corporate Management (CTO) at Türk Telekom, he has been managing the Company’s work in the fields of fibreisation and digital transformation, 5G, SDN, NFV, IPv6, Artificial Intelligence, IT product and channel singularity, Real Time Pricing, Cyber Security, Data Centre since August 2018. Yusuf Kıraç presides over the localisation initiative in telecommunication infrastructure with the projects he launched in the fields of developing solutions such as SEBA (SDN Enable Broadband Access) and vRAN (Virtual Radio Access Network), performing the network-transformations with open-source technologies, use of domestic products in Türk Telekom network layers.

Yusuf Kıraç also serves as Board Member of ONF (Open Networking Foundation), Board Member of Türk Telekom Group Company, NETSIA, headquartered in USA, Board Member of Innovant A.Ş. and Türk Telekom Youth and Sports Club Chairman.

International Awards and Achievements
- Guinness World Record, June 2013, First operator in the world capable of carrying 8 Terabits over a single fibre hair
- 2011 and 2012 ICCI Energy Efficiency Awards
- Turyos II Türkiye-TRNC Fibre Project Achievement Certificate
Emre Şehsuvaroğlu
Head of Internal Audit

After graduating from Marmara University Business Administration (English) in 1993, Mr. Şehsuvaroğlu started his professional career as an auditor in Deloitte financial services company. He took part in the audit and consulting projects of various clients across sectors for a period of 10 years until 2003. He joined Arkas Holding in 2003, where he led the restructuring of Holding’s internal audit function and the auditing of agency, marine and land transport, port and logistics service businesses. He established the auditing processes in overseas locations of Arkas including Spain, Ukraine and Algeria.

He joined Turkcell by late 2006, where he led the Sarbanes Oxley- SOX compliance efforts of the company as per the listing requirements in the New York Stock Exchange. Apart from Internal Audit, he led Enterprise Risk Management, Information Security and Business Continuity Programs until the end of his employment in Turkcell in late 2011. During this period, he was also the acting CFO in Turkcell’s Ukraine subsidiary Lifecell simultaneously for a year.

In late 2011, he joined Yıldız Holding and restructured the existing Internal Audit functions of national and regional companies of the holding in accordance with the International Standards of Internal Auditing. He started internal auditing processes of global operations of the holding subsidiaries Godiva and United Biscuits. He led these efforts by establishing local audit teams based in New York and Shanghai to support existing team in Istanbul.

In October 2018, he left Yıldız Holding and assumed the role of Chief Compliance Officer in Netaş. During this tenure, he executed the adoption, monitoring and management of business processes in Netaş as per the best practice standards of compliance.

Emre Şehsuvaroğlu is serving as Head of Internal Audit since September 2020.

Mehmet Emre Vural
Human Resources Assistant General Manager

After receiving bachelor’s degree in Electrics & Electronics Engineering from Turkish Military Academy in 1990, Mehmet Emre Vural, completed Artillery and Rocketry school in 1991. He started his career in Kraft Foods Turkey (formerly Kar Gıda A.Ş.) in 1994. He was responsible for Human Resources, Administration, IT and Legal functions where he successfully took chief manager and coordinator positions.

In 2002, he joined Ulker Group and served as Recruitment Manager, HR Business Partner, HR Director responsible for International Operations and Yıldız Holding HR Director. After joining Telsim A.Ş. in 2012 as General Manager and board member, he took CEO position in Destek Holding from 2014. Through his career, he completed numerous re-organisations, renovation, implementation and launch projects.

Mr. Vural is serving as Human Resources Assistant General Manager since December 2019.

Yavuz Yıldırım
Wholesale Assistant General Manager

Yavuz Yıldırım graduated from Uludağ University, Faculty of Economics and Administrative Sciences, Department of Business Administration in 1999. Following his past work experiences in trading, he started his career in 2002 at Telsim, followed by various positions in sales and marketing units at Nortel Networks Netaş between 2004 -2006, and then in Vodafone between 2006-2009. Mr. Yıldırım joined Türk Telekom in 2009 as Manager of SME Sales, Operations and contributed to the establishment of SME sales channel. In November 2011, he undertook the Wholesale Sales Director role and served as the President of Türk Telekom Wholesale Clients Business Unit between April 2015 - December 2016. Mr. Yıldırım is serving as Wholesale Assistant General Manager since December 2016.
CEOs of Türk Telekom Group Companies

Bülent KAYTAZ
Argela CEO

Bülent Kaytaz got a bachelor’s degree in Electrical and Electronics from Marmara University in 1981. He also obtained his Master’s degree in MIS (Management Information Systems) and MBA from European University in Belgium in 1994. In addition to his business activities, Bülent Kaytaz served as a visiting lecturer in Computer and Communications Engineering Departments at Marmara and Istanbul Universities. In former roles, he had a five-year stint at Nortel and more than 10 years of experience at Alcatel, where he managed key software development projects in the areas of communications and internet in Belgium, Norway and Turkey. Mr. Kaytaz brings over 30 years of design, development, business development and successful leadership experience in the field of telecommunications. He founded two companies in the telecommunication technology area and led the innovation drive at both companies via intensive R&D activities. He founded Oksijen Technology, which was formerly a provider of intelligent networks and core infrastructure elements for wireless and wireline communications networks. Within three years of operation, the company brought considerable recognition to the global and Turkish telecommunications industries through strong regional growth and worldwide visibility. Bülent Kaytaz is the CEO and the founder of Argela. He also established Netiss, an Argela subsidiary based in California’s Silicon Valley, which works on developing 5G technologies.

Haktan SARAN
AssisTT CEO

Haktan Saran joined the family of AssisTT as Operations Assistant General Manager in December 2018. Since December 2019, he holds the position of CEO at AssisTT.

Serdar TORAMAN
Innova CEO

Serdar Toraman received his Bachelor’s Degree from the Istanbul University Electronic Engineering department in 1999. He started his professional life in IBM and has served in various positions at Ericsson Türkiye, Sentrim, ServisNET Telekomünikasyon Hizmetleri, which was a NETAŞ subsidiary. Toraman undertook important roles in leading tech companies and served in executive positions at Avnet Technology (Techdata), Bilisa Istanbul, and Information and Communication Technologies Authority (BTK). He then served as IT Director and Consultant in a Türk Telekom subsidiary, AssisTT Rehberlik ve Müşteri Hizmetleri and lastly as General Manager in PTT Bilgi Teknolojileri A.Ş. Serdar Toraman is serving as Innova CEO since December 2020.

Salih ÇİL
SEBİT CEO

Çılı graduated from Télélysis University, Department of History in 1998. Çılı started his career at İGDAŞ A.Ş. in the same year, performed various managerial duties there. Between 2010 and 2015, he worked as the Purchasing and Tender Manager at Istanbul Metropolitan Municipality Health Inc. Çılı, who also served as the General Manager of the Youth Foundation of Turkey in 2015, worked in the position of General Manager in İSPER A.Ş., a subsidiary of Istanbul Metropolitan Municipality and the largest human resources company in local administrations in Turkey in terms of both budget and personnel, in 2017. Salih Çılı joined one of Türk Telekom Group subsidiaries, İnov A.Ş., and worked in the positions of Financial and Administrative Affairs Assistant General Manager and Sales Assistant General Manager. Since December 2021, he has been serving as SEBIT CEO, another Türk Telekom Group subsidiary, which produces national and international education solutions by using technology innovatively and effectively.

Sükri KUTLU
Türk Telekom International Group CEO

Sükri Kutlu graduated from the Faculty of Law at Ankara University in 1991. He completed his Master’s Degree in the Department of Private Law at East University with a thesis titled “Interconnection Contracts in Telecommunications”. He started his career in 1992 as an Assistant Auditor in the Court of Accounts and then he continued his career by serving as the Auditor and Lead Auditor in the head office and for the regional on-site audits. In 2003, he started working at Türk Telekom as the Human Resources, Regulation and Support Assistant General Manager, a position which he held for 14 consecutive years. Between February 2015 and April 2016, he served as the Board Member and the General Director of Çubuktaş T.A.S. Mr. Sükri Kutlu rejoined Türk Telekom in October 2016 and served as Human Resources, Regulation and Support Assistant General Manager until September 2019. Kutlu has been working as Türk Telekom International Group CEO since September 2019. He also holds Attorney, Notary License and Public Accountant Certificates.
Capital Structure

Turk Telekom is among Turkey’s leading companies with its strong capital structure. LYY Telekomünikasyon A.Ş. has 55% share, the Republic of Turkey Ministry of Treasury and Finance has 25% share, Türkiye Wealth Fund has 6.68% share (of which 1.68% in free float) in Turk Telekom, while 15% of the shares are public.

- The Republic of Turkey Ministry of Treasury and Finance’s non-public share ownership is 25% (Group B). In addition, the Turkish Treasury owns a (Group C) “Golden Share” with nominal price of TL 0.01.
- LYY Telekomünikasyon A.Ş.’s (Group A) non-public share ownership is 55%.
- Non-public share (Group B) ownership of Türkiye Wealth Fund is 5%, and Türkiye Wealth Fund’s (Group D) public share ownership is 1.68%.
- Public shares (Group D) constitute 15% of total capital.

Note:
1) There is no natural or legal persons whose shareholding exceeds 5% except those shown in the shareholder structure.
2) Türkiye Wealth Fund has 1.68% public share ownership.
Operators, Affiliates and Financial Investments

Organisational Changes

Within its sustainable growth strategy framework, Türk Telekom Group determined its priorities that would serve the vision of leading digital and technological transformation of the country and shaped its organisational structure in this direction. While building its organisational structure, the Group aimed to grow in core business lines, accelerate the digitalisation of the country, redefine the customer experience with agile structures, use data more effectively and provide efficiency with digital transformation. Türk Telekom Group continues to press ahead with strong and confident steps in its focus areas.

Türk Telekom prioritises making the organisation plain, agile and efficient with the perspective of continuous improvement of all business processes, and carrying organisational structures with clear areas of responsibility in order to create value. In this context, Türk Telekom closed the Strategy, Planning and Digital Business Unit effective as of January 1, 2022, in order to respond to today’s needs more quickly and effectively with its organisations and processes.

With the aim of enriching Türk Telekom’s value chain, supporting unity by managing business processes in a more integrated and holistic manner, and maintaining sustainable growth target in financial and operational performance, the functions managed under the position of Strategy Planning and Digital Business Unit are positioned under the General Manager, Assistant General Managers, and group company TT Ventures Proje Geliştirme A.Ş. (TT Ventures).
We pioneer mobile technologies and break new ground in the world and Turkey.
Uninterrupted communication, digital transformation, data security and diversified technological needs remained to be in focus of the leading operators.

According to FTTH Council estimates, Turkey ranks 5th place in fibre household coverage.

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While the use of fixed broadband rapidly becomes widespread, the hike in the mobile internet usage continues.

In the coming period, next generation fixed broadband access services are expected to become widespread along with the increase in mobile and fixed data usage. Global operators brought forward their data usage expectations of 100GB per month per user, and terabit access services are expected to become widespread in developed countries with high income and fast next generation connection networks, while Hong Kong, Singapore, and South Korea maintain their global leadership with coverage rates of over 100%.

As pre-5G mobile network coverage continues to expand worldwide, mobile coverage rates are expected to increase more rapidly in developing regions compared to developed regions. Higher revenue growth is expected in emerging markets such as Latin America, the Middle East and Africa compared to developed markets such as the Asia-Pacific (DVAP).

Operators in the European region, which have achieved coverage rates above the global average, penetrate a wider range of new areas such as fintech, payment systems and content production. While telecommunications revenues in Central and South Africa are predominantly in line with economic growth, revenue growth is expected to continue in the developing Asia-Pacific region, mainly due to rapid subscriber growth in the mobile sector.

While the commercial launch of 5G is underway in different countries, subscriber acquisitions continue in developed markets such as South Korea, the Asia-Pacific (DVAP), North America and Europe, where infrastructure has been brought into use as of the end of 2019. While strengthening its position as the leading integrated operator in Turkey through new subscriber acquisitions, Türk Telekom keeps its 5G preparations by focusing on the technological and digital transformation of the country. The Company’s extensive fibre infrastructure will strengthen Turkey’s position during the transition period.

While providing high capacity fixed broadband internet offers to increase household coverage and encourage customers to use the internet, Türk Telekom launched regional campaigns in fast, unlimited and affordable packages to support internet ownership in districts with low coverage.

Turkey’s fixed broadband household coverage increased from 47% in the last five years to 72% as of the third quarter of 2021, thanks to Türk Telekom’s irroutines. Türk Telekom continues to pursue its goal of increasing penetration to 75% and above in the near future.

Raising the entry package speed from 8Mbps to 16Mbps in the fixed broadband segment in the last two years gave a boost to the strategy of spreading uninterrupted and fast internet to the general public. The addition of a 38Mbps package to the product portfolio contributed to the uplift in ARPU levels.

In Turkey, the fibre (FTTH/B) subscriber base, which stood at 4.6 million in the third quarter of 2021, grew at an average annual rate of 2% over the last three years. Currently, there are 11.3 million xDSL subscribers and 1.4 million cable Internet users in the market.

The average consumption of fixed broadband users in Turkey stood at 206GB in the third quarter of 2021 compared with an average of 30GB of data per month in 2013. While approximately 20% of fixed broadband subscribers enjoyed connection speeds of over 10Mbps in 2013, this rate approached 88% in the third quarter of 2021.

The number of fixed broadband subscribers on Türk Telekom’s infrastructure reached 14.3 million as of the end of 2021 (4Q20 13.4 million), and the Company maintained its leadership in the fixed broadband market.

While high speed internet has become widespread on the back of a growing need for communication, fibre optic coverage in Turkey improved rapidly under the leadership of Türk Telekom.

Investments in the fixed network, fibre internet transformations and expanding household coverage are determinants of the growth in fixed broadband service revenues. The highest fixed broadband coverage is in developed countries with high income and fast next generation connection networks, while some regions, broadband operators are undertaking infrastructure investments and boosting connection speeds faster than consumer demand.

Under Türk Telekom’s leadership, the number of households accessing fibre internet is increasing rapidly throughout the country. As of the end of 2021, Türk Telekom is the operator with the most extensive fibre optic infrastructure in the country by far, with a fibre network extending for 366 thousand kilometres (2020 year end: 331 thousand km). As of the third quarter of 2021, the length of alternative operators’ fibre infrastructure stood at 102 thousand kilometres, 26 thousand kilometres of which are rented and 76 thousand kilometres are owned by them. As the
Mobile data usage is expected to reach 5.5 times of its current level by 2025.

Mobile data usage on the rise

Telecom Market in the World and in Turkey

Mobile data usage is expected to rise 104%. As of the third quarter of 2021, Turkey’s mobile market, where Türk Telekom, Turkcell and Vodafone offer services, the population penetration rate increased to 104%, owner of approximately 76% of Turkey’s fibre infrastructure in terms of length, Türk Telekom offers high speed internet to its customers in 81 provinces and all districts of Turkey. Pressing ahead unwaveringly with its fibre investments, Türk Telekom recorded the most vigorous increase in the sector, increasing its total fibre household coverage by approximately 3.4 million YoY as of the end of 2021, to 30.2 million.

Infrastructure sharing and virtualisation models are gaining prominence around the world as they improve the network quality and increase efficiency of the operators while reducing costs. As infrastructure investment requirements will increase with the transition to 5G, operators and countries turn to different mobile infrastructure sharing models. It is expected that incumbent operators will increase their revenues, with the opportunity to invest in strategic and high value added areas thanks to the savings achieved.

While value added services and the digital transformation precipitate a surge in subscriber numbers and revenues in the mobile segment, data usage has recorded steady growth.

The increase in smartphone penetration, rising demand for data and the migration from prepaid to postpaid lines are expected to continue to drive mobile ARPU levels higher. Mobile intensive operators will continue to increase their contract periods and the ratio of subscribers in the premium segments with innovative digital services while maintaining their existing subscriber base.

In parallel with the expansion in LTE coverage, the increase in the data usage of the services such as TV, gaming and music, and the spread of affordable smartphones, operators are expected to witness growth in subscriber numbers and revenues. Smartphone penetration, which stood at 68% in 2020 around the world, is expected to reach 81% by the end of 2025. By 2025, mobile internet speed and mobile data usage are expected to reach 5.5 times of their current worldwide levels, and mobile data consumption per user is projected to reach 40GB, with the share of 5G connectivity in total traffic reaching approximately 50%.

As of the third quarter of 2021, Turkey’s mobile market reached a total of 86.9 million subscribers. In the mobile market, where Türk Telekom, Turkcell and Vodafone offer services, the population penetration rate increased to 104%.

Turkey’s monthly data consumption is growing

In the third quarter of 2021, monthly data consumption over fixed and mobile broadband connections in Turkey grew by 34% and 22% year on year to 206GB and 11.3GB.

Türk Telekom commanded a 28% market share in terms of mobile subscribers including M2M subscribers, with Turkcell and Vodafone having market shares of 41% and 32% as of the third quarter of 2021. In the same quarter, the share of postpaid subscribers in the market increased by 2.5 percentage points to 66.5%, on the back of operators’ strategy to rise their ratio of high ARPU postpaid subscribers. The fact that this rate is 72% in European countries indicates the growth potential of the postpaid subscriber base with higher ARPU.

The average monthly data consumption per subscriber is increasing rapidly, and with the LTE investments carried out, consumers can use applications which require high internet speed and data usage wherever and whenever they wish. In the third quarter of 2021, monthly data consumption over fixed broadband and mobile connections in Turkey grew by 34% and 22% YoY to 206GB and 11.3GB, respectively.

The data usage of 4G subscribers with SIM cards that are compatible for LTE services stood at 12.7GB per month. The adaptation to high technology and consumption trends set the stage for the opportunities in the sector to continue in the coming years. M2M revenues are projected to continue growing, thanks to the increasing number of connected devices in value added services, as well as devices and applications dedicated to health, home security, fleet and vehicle tracking. Strengthening its position with the 4.5G tender, Türk Telekom is the only operator with a higher spectrum than its subscriber market share in mobile.

5G to continue to support the growth of mobile WiFi

Demand for Mobile WiFi solutions as an alternative to fixed broadband connection continues to grow worldwide in regions with weak fixed broadband connections. Some operators form new partnerships to offer part of the LTE/5G spectrum as high speed mobile broadband.

While mobile WiFi has increased its penetration throughout the world and in Turkey during the pandemic, fixed wireless access (FWA) is expected to become widespread with the rollout of 5G. The number of 5G Mobile WiFi subscribers is expected to edge up to 5% of the fixed broadband subscribers in countries such as the US, Germany, Turkey and Switzerland by 2025.

Rollout of 5G technology continues to drive growth in subscriber penetration and revenues

The digital transformation with 5G technology has got underway in cities, industries and households in North America and Western Europe. It is expected that billions of items will be connected to the internet. Next generation technologies such as big data, virtual reality, augmented reality, artificial intelligence, machine learning and blockchain technology will take their place in daily life, and the production and supply chain in the business world will be digitised to a large extent.

Several operators continue 5G tests and launches. The number of 5G deployments worldwide has continued to increase since 2019. While approximately one hundred 5G networks were installed in 2020, the number of live networks reached 142 in 2021. Operators aim to commercialise 5G services in 2022. Revenue growth areas, which have narrowed due to the high level of mobile coverage in the European region, are expected to expand on the back of the solutions to be offered on different platforms with 5G.
Countries like China, South Korea and the USA are leading the way in the 5G rollout and subscriber growth, having implemented 5G transitions earlier than other countries. During 2020, the regions with the largest number of 5G launches worldwide were Western Europe, Central and Eastern Europe, and Developed Asia-Pacific (SWAP). In addition to them, 5G launches were made in South Africa and Togo in Africa, as well as in certain cities of Brazil in Latin America. South Korea is the fastest growing country in this field. The 5G rollout, which started in 2019, was largely completed by the end of the second quarter of 2020 and continued to grow. China is also proceeding quite rapidly in this area. The world’s largest operator China Mobile, which has nearly 1 billion users as of August 2021, has reached over 300 million active 5G users. The company alone has more 5G users than all European countries combined, including the UK and Germany.

While Asian countries’ rapid adaptation in 5G stands out, operators in European Union are putting 5G networks into service. The 5G launch plans of many operators have continued despite delays in spectrum auctions. 5G related testing studies are conducted in Turkey, with the aim of switching to 5G technology with domestic facilities.

Operators aim to expand their subscriber base by reducing content costs through various strategies and partnerships in the TV market.

The most widely used technologies in Pay TV services are satellite and cable technologies, while the IPTV and OTT Video segments are expected to be the main growth areas in the Pay TV market by 2025. Telecom players in many countries achieve increased penetration with IPTV technology. Global OTT players are expected to increase their market share by investing more in local content in regions with growth potential. OTT players are expected to sustain the rapid growth they have achieved during the pandemic. Worldwide OTT video retail revenue increased by USD 20.6 billion to reach USD 197 billion between 2019 and 2020. Netflix, which accounted for 26% of worldwide retail revenue in 2020, is the largest player in the market. OTT TV retail revenue is expected to surpass conventional Pay TV revenues in 2024. Conventional Pay TV and OTT video retail revenues are predicted to reach USD 181.6 billion and USD 201.2 billion in 2025.

The ratio of Pay TV revenues to total service revenues of global telecom operators is much higher compared to Turkey. Turkey’s Pay TV household penetration rate stands at 30%, which is lower than the world average. DTH stands out as the most common TV technology in the Pay TV market in Turkey. While IPTV services are offered by Türk Telekom Tivibu and Turkcell TV+ in the Pay TV market, Türk Telekom maintains its position as the only telecom operator providing satellite platform services. Türksat is the only operator actively offering Cable TV in Turkey. As Turkey’s first IPTV provider, Türk Telekom started to provide broadcasting services on its satellite platform in 2015 with the aim of reaching wireless households.

Aiming to increase the penetration of Pay TV products, Türk Telekom’s subscriber market share reached 20.6% as of the third quarter of 2021. Türk Telekom Tivibu retained its second place in the pay TV market in 2021. The total number of TV subscribers stood at 2.9 million, while the number of Home TV subscribers was 1.5 million.

Türk Telekom implements a variety of strategies with the goal of improving the TV experience of its customers, diversifying content and increasing the value it generates from its existing customers.

Investments in fintech start ups have grown with the widespread use of the internet and mobile applications.

The revenues of operators from services such as software, security, colocation, hosting and cloud, which become more essential day by day, are expected to grow by 20% in 2021. Total IT spending by SMEs worldwide is expected to reach a record high level by increasing 8% YoY in 2021. Growth is expected to revert to its normalised level of 6% in 2022.

It is envisaged that the leading operators will move their corporate services to cloud and render them more widely available to small and medium sized businesses. Telecom operators continue to invest in growth opportunities, while global technology giants maintain their leading positions in cloud based voice and unified communications.

The corporate segment market continues to grow in parallel with the need for uninterrupted secure bandwidth, increasing demand for next generation access services, the localisation of data and cyber security needs.

Fintech and payment services aim to meet the growing needs of the customers.

Fintech has emerged as the new financial industry making use of technology to improve financial services as implied by the investments received by fintech companies, which have expanded their sphere of influence with the spread of the internet and mobile applications all over the world. Mobile wallets and mobile financial services are key areas for the operators apart from basic connection services, especially in the emerging markets of Africa, Asia and Middle East. Operators providing mobile financial services need to improve their value proposition iniciators, products, colocation, hosting, cloud and security services. The corporate segment market continues to grow in parallel with the need for uninterrupted secure bandwidth, increasing demand for next generation access services, the localisation of data and cyber security needs.

Digitalisation drives the adaptation of SMEs to new technologies and expands areas of growth in the corporate segment.

The demand for plain and simple solutions is increasing each day with digitalisation. There were 150 million debit cards circulating in Turkey as of the end of 2021, the largest card market in Europe. In addition to the number of prepaid cards exceeded 57 million with an annual increase of 32%. In the same period, the share of fintech companies in prepaid cards stood at 45%. On the other hand, while the volume of shopping transactions with prepaid cards grew by 182% in 2021, around 79% of these purchases were conducted with the cards of fintech companies.
The strongest growth in connecting to the Internet of Things is expected to be in the automotive sector, smart cities and services for buildings, with the rise of wireless communication.

Operators investing in various IoT solutions around the world derive the bulk of their income from smart homes, smart vehicles, smart cities and smart factories.

According to the GSMA report, the number of IoT connections, which stood at 13 billion in 2020, will reach 24 billion in 2025, with revenues set to triple to USD 900 billion.

With the effects of the pandemic, the digital transformation has gained pace by necessity, while the revenue growth expectation has increased by 20%. While the revenue growth and cost cutting have accelerated service penetration, legislative transitions remain on the agenda.

On a global scale, mobile operators aim to increase the number of their ecosystem partnerships in addition to undertaking network improvements with a view to become an end to end solution provider for their customers in the field of IoT.

Connected cars, fleet management, smart buildings and healthcare are among the areas with the strongest revenue growth potential in the coming period. There has been a rise in project applications in the health sector during the pandemic, when compared to other sectors.

Sources:
1. Analysys Mason, OECD, GSMA, World Bank, FTTH Council data is used for global telecom market; and ICTA, TÜRKSTAT, BRSA, BKM, World Bank and FTTH Council data is used for Turkey.

As the Private Network LTE/5G market develops, LTE is implemented more widely.

Turk Telekom added its newly developed e-wallet application and prepaid card, Pokus, to its mobile and bill payment services within the scope of TT Ödeme (TT Payment). As one of the companies with the state of the art technology and the largest customer network in Turkey, Turk Telekom aims to lead the process of digitalisation in this field with creative solutions and applications. Pokus stands out as a fast and easy to use digital wallet application with a user friendly interface which provides banking services without the burden of procedures.

Pokus also offers other important features such as working directly on the application as an operator independent service and serving as contactless card using Mastercard scheme, which is valid all over the world.

Private Network LTE/5G networks catch the attention of enterprises

As the Private Network LTE/5G market continues to grow, LTE is being widely applied as a technology which can meet the requirement for indoor connectivity more easily in existing projects.

Private networks have become widespread in industrial sectors such as manufacturing, mining, oil and gas. Industrial equipment and automated guided vehicles are among the common applications, which are widespread in high income regions where IoT markets are maturing, particularly in China. Private network activity currently remains limited in low and middle income countries.

Turk Telekom started the project to establish Turkey’s first 5G ready private wireless network in cooperation with Nokia and Arçelik. Nokia’s private wireless network will support Arçelik’s production video analytics, indoor positioning and advanced Automatic Guided Vehicle (AGV) performance, and Nokia and Turk Telekom will establish the first commercial private 4.9G/LTE network in Turkey. As of November 2021, AGVs started to operate with the establishment of the network at the Arçelik production plant.

The project will serve as a key milestone for Turk Telekom in expanding its horizons as a provider of technology services and solutions, playing a role in strategic areas.
While resolutely continuing its investments, Türk Telekom leads Turkey’s digital and technological transformation.
Türk Telekom’s Strategic Priorities

CORE SERVICES – Growth and digitalisation in main business lines

Pioneer in Turkey’s digital transformation

Turkey’s fixed broadband household penetration increased from 47% in the last five years to 72% as of the third quarter of 2021, thanks to the steps taken by Türk Telekom. The Company maintains its target of increasing its penetration to 75% in the near future. Having contributed significantly to expanding fixed broadband coverage, Türk Telekom also leads the fibre rollout process in Turkey. While possessing a fibre infrastructure of 256 thousand km as of 2017 end, which is composed of 133 thousand km access lines and 124 thousand km transmission lines, the Company extended its network in 2021 to a total of 336 thousand km, comprising 237 thousand km access lines and 129 thousand km transmission lines. Türk Telekom’s fibre optic network extends to all of Turkey’s 81 provinces and 30.2 million households.

Both Türk Telekom’s fibre infrastructure prevalence and the 42% connectivity between its LTE base stations and the fibre optic network as of 2021 end offer Türk Telekom the opportunity to become the operator best able to adapt to the new 5G technology in the mobile market. Türk Telekom’s digital strategy can be summarised as supporting revenue growth with the digitalisation of products and services, as well as realising the digital transformation on the axis of operational efficiency. The Company has achieved significant progress in the field of digitalisation in the last two years fuelled by the change in needs which has come with the pandemic. While providing communication, education, health, media, entertainment, cyber security, fintech, cloud and data analytics services to individual customers, Türk Telekom furthers its solutions to support the development of a domestic ecosystem in the field of digital gaming. The Company considers growing its game portfolio in line with global trends as one of its primary goals in the digital field.

The solutions which Türk Telekom offers its corporate customers include the Be Online, Manage Your Business Online, Online Accounting, Online Advertising and Cloud Technology themes. As part of its vision of digitalisation, the Company plans to continue developing projects in the fields of the cloud, cyber security, digital health applications, cloud based software and data centres and, in particular, artificial intelligence going forward.

Türk Telekom offers innovative cloud based services in order to support the digital transformation of public and private organisations in Turkey. While providing advanced technology services as per the needs, Türk Telekom has started to implement new projects which will also improve the technology venture ecosystem in Turkey. Türk Telekom entered into an agreement with Arçelik for the installation of Turkey’s first commercial private LTE network at the Çayırova factory. Providing a significant contribution to the digitalisation of the manufacturing process with this project, the Company aims to install new private networks in many factories in 2022.

Strong growth and leadership in fixed broadband with a focus on fibreisation

Türk Telekom maintains its goal of leading Turkey’s fibre rollout process with the strength it derives from having the country’s most extensive access network. Investments for expanding and developing the fibre network are the critical milestones in digital and technological transformation journey. These initiatives will ensure Turkey’s rapid and advantageous transition to 5G. Türk Telekom has prioritised its fibre optic investments amid the rising importance of rapid, uninterrupted and secure communication and increased the length of its fibre infrastructure to 366 thousand km.

Türk Telekom updated its fibre offers in view of the needs of its customers and accelerated fibre subscriber acquisitions by including all sales channels in the high speed internet campaigns. In order to support the growth in the number of subscribers in the fibre infrastructure, the Company is taking important steps for the transition of existing customers having suitable infrastructure to fibre packages.

Türk Telekom continued its clear leadership in the fibre subscriber market in 2021. Thanks to Türk Telekom’s widespread fibre infrastructure and wide range of offers, 2021 has been a year in which both high speed and unlimited internet met with many more number of new customers. The number of Türk Telekom fibre subscribers increased by approximately 3.4 million in 2021 compared to the end of 2020, and reached to 9.6 million. This increase was recorded as the highest fibre subscriber acquisition on an annual basis.

67% of fixed broadband subscriber base is fibre

The number of Türk Telekom fibre subscribers in 2021 increased by 3.4 million compared to the end of 2020, and reached to 9.6 million. This increase was recorded as the highest fibre subscriber acquisition on an annual basis.
Türk Telekom continues to grow strongly with its infrastructure investments, expanding coverage area, high speed internet, increasing data usage with mobile applications and new revenue areas. The need for internet has increased with the rapid progress in digitalisation in addition to distance learning and remote working models. Türk Telekom grew its fixed broadband subscriber base by 6.9% in 2021 compared to the previous year. Thus, the Company reached 14.3 million fixed broadband subscribers with an annual net subscriber gain of 919 thousand.

On the other hand, in order to increase Turkey’s internet speed to even higher levels, the Company took the end device technologies installed in customers’ homes to the next level and offered its customers high speed, wide coverage, WiFi 6 supported modems. While Türk Telekom doubled its entry level speed from 8Mbps to 16Mbps in the last 2 years, it has accelerated the spread of uninterrupted and high speed internet to the subscriber base in all channels. The 35Mbps tariff added to the Company’s product portfolio also expanded its subscriber base. The share of 24Mbps and above packages in new sales in the consumer segment increased to 54% in 2021 compared to 23% in 2020.

Priority in gaining revenue market share in mobile

Guided by a value oriented approach, Türk Telekom improves its network and service quality through its mobile frequencies, strong mobile infrastructure integrated with fibre optic network and its investments. With these efforts, the Company is strengthening its position in the market. As an integrated operator, the Company maintains its target of increasing its market share while creating a balanced and sustainable growth in the mobile segment.

Türk Telekom adopted a value focused approach in subscriber acquisitions instead of an aggressive pricing strategy and aimed to improve its infrastructure and services while there was an intensive level of competition in the mobile market in terms of new customer acquisitions in 2021.

With the return of mobility and acquisition of subscribers preferring packages rich in content, the growth in mobile data usage accelerated. Türk Telekom presses ahead with its infrastructure investments in order to expand its capacity and services, providing high quality and 5G readiness.

Türk Telekom has focused on growing the postpaid subscriber base in order to further growth in revenue and ARPU. As of the end of 2021, the number of postpaid subscribers had increased by 5.4% compared to the previous year to reach 15.6 million, accounting for 65% of all mobile subscribers. This compares with a ratio of 72% in Europe, indicating the growth potential of the more lucrative, higher ARPU postpaid subscriber base.

With its focus on creating high value and strong market share in the mobile segment, Türk Telekom achieved improvements in areas such as coverage, network quality and customer experience. With its renewed tariff portfolio, Prime has exceeded 4.5 million subscribers as of year end 2021, 165% more than the number at the end of 2019. Accordingly, Prime subscribers accounted for 31% of the total postpaid subscriber base.

Türk Telekom mobile LTE’s population coverage rate stood at 99% at the end of 2021. The share of the LTE subscribers among the total subscribers reached 67%, marking an increase of 6% YoY.

The 4.5G investments allowed consumers to use applications requiring high internet speed and data usage, as implied by the rapid rise in the average monthly data consumption per subscriber. In the third quarter of 2021, monthly data consumption in Turkey grew by 22%, reaching 11.3GB in the mobile segment, while climbing by 34% in the fixed broadband segment to reach 206GB.

By supporting new initiatives, Türk Telekom meets the mobile communication needs of its customers in different segments, thanks to its strong collaborations with the BIMcell, Pttcell, Vestelcell and Veho brands.

Preparing to create Turkey’s leading digital TV/OTT platform

The ratio of Pay TV revenues to total service revenues for telecom operators in Turkey remains far below the levels seen around the world. Furthermore, the penetration of Pay TV in Turkey is significantly lower than the global average. These two figures demonstrate that Turkey offers significant growth potential. 20% of households in Turkey use Pay TV via satellite, with approximately 70% of households using free to view channels by satellite and the remaining 10% using IPTV and cable TV.

Türk Telekom aims to expand the Pay TV market in Turkey, to be the best TV platform in Turkey and to continue to grow by offering the best content through collaborations. The Company takes strategic steps to increase the value it obtains from existing customers while continuing to acquire new subscribers.

Aiming to achieve the highest levels of customer satisfaction with its Home Internet and technological features, Türk Telekom continues to offer internet services with Tivibu, which provides a transition to premium packages. With the Tivibu Mobile Discount campaign, mobile postpaid subscribers can enjoy the attractively priced Tivibu Satellite Super Package. Meanwhile, to support the expansion of Tivibu, access to Tivibu was provided with Tivibu Go Subscribers. This continues to be the best TV platform in Turkey and to continue to grow by offering the best content through collaborations. The Company takes strategic steps to increase the value it obtains from existing customers while continuing to acquire new subscribers.
CUSTOMER FOCUS - Redefining the customer experience

End to end redesigned and digitalised best in class customer experience

Türk Telekom aims to raise its efficiency by providing its customers with an impeccable end to end experience in the digital channel through the improvements it has carried out in the sales and customer services channels. Focusing on differentiating itself by its value proposition to the customers, Türk Telekom reinforced its presence across the country by expanding its network and office channel. In order for the channel to focus on efficiency by selling more at a lower cost, performance and bonus system processes are singularised, to ensure that all employees in the office channel focus on the same goals. While simplification and optimisation continued in the dealer, office and call centre channels, efficiency gains were achieved in the retail exclusive dealer and wholesale channels. Costs were trimmed by improving the use of digital channels in the call centre and increasing the automation of processes. The dealer bonus system was restructured with a focus on performance in order to ensure a more effective management of dealer sales.

Türk Telekom has achieved significant progress in the field of customer experience with the improvements it has carried out in digital channels, the user interface and the customer lifecycle. Thanks to these steps taken to improve the customer experience, which were also carried out on digital platforms, increases were achieved in the statistics of active single users and visits to the Web and Mobile Online Transactions platforms.

Customer oriented, agile working models

While improvements in the customer experience require the development of end to end and new customer oriented, agile working models by organisations, Türk Telekom prioritises customer processes in the face to face and digital channels. The Company has enhanced operational efficiencies in a sustainable manner through the projects it has been carrying out.

Türk Telekom’s Online Transactions application meets customer needs and expectations in order to maximise the customer experience in the digital fields, providing services with its new functions, opportunities specific to the digital channel, a renewed user friendly interface and simplified user login. Within the scope of digitalisation for the face to face channels, paperless subscription processes were introduced in the exclusive and semi exclusive channels. The use of Single Online Transactions, which is the first digital joint online transactions channel combining mobile, home internet, home phone and TV products, increased with the vision of One Channel, One Login. According to the statistics published by the mobile applications market research house, App Annie, Türk Telekom’s Online Transactions application was the operator application with the highest number of active users with nearly 57 million downloads.

Within the framework of Türk Telekom’s customer satisfaction oriented, differentiated service approach, the after sales needs of customers are met with a customer representative assigned in the corporate customer services call centre channel and corporate customer services personnel in the face to face channel.

Personalised offers and contents

Türk Telekom determined the areas of focus in order to enhance the customer experience in digital fields. Improving the customer experience through personalised offers and synergy campaigns as an integrated operator, Türk Telekom prevented the problem of capacity in communication by enabling calls to be made and SMS messages to be sent over a WiFi connection. Moreover, the Company extends the use of WiFi services through 6 thousand access terminals at around 3 thousand points with an extensive network throughout the country.

Türk Telekom completed the integration with the servers and made its infrastructure compatible with the new eSIM technology. The Company made the domestic digital eSIM available to customers, in which the promotion of national and domestic technologies is promoted in order to ensure the highest level of data security. Focusing on end to end digitalisation of the individual and corporate customer experience, Türk Telekom focuses on effective customer management, holistic channels, social media customer relationship management integration and artificial intelligence. In the corporate field, the Company has focused on system automation, data quality and reporting, renewal of digital channels and the redesign of service contracts in line with customer needs.

EFFICIENCY - Improving efficiency with digitalisation and new operational models

Digitalisation and virtualisation

Türk Telekom is rapidly changing its way of doing business by considering the changing and digitalising world order. The Company develops the technology, marketing, branding and communication, sales and customer services processes on an end to end basis with this focus and works continuously to improve them.

Türk Telekom carries out extensive work to digitalise customer processes, increase operational efficiency, develop innovative digital products which complement basic services and bring them to the market to contribute to the digital transformation of customers and the telecom ecosystem.

Effective cost control and disciplined capital management

Aiming to use the existing assets in its portfolio efficiently and generate value through the ongoing investments, Türk Telekom manages its capital expenditures in compatibility with its revenues. The Company is creating critical control mechanisms which include the preparation, management, organisation, realisation and the analysis of the results of the investment projects. Prioritising its investments in new settlements and regions characterised by intensive competition in the fixed access area, Türk Telekom meticulously monitors the process of converting investments into subscribers. Focusing on the added value through integration, Türk Telekom aims to create synergy by combining fixed and mobile regional field services. Savings are achieved in the switchboard and service buildings, the automation of which has increased with centralisation and new technologies, in line with the needs of the headquarters and the region.

Improved organisation and lean technology

Türk Telekom activates lean technologies and develops the SDN (Software Defined Networking) and NFV (Network Functions Virtualisation) technologies in order to provide faster services and a competitive experience to the customers. The Company continues its comprehensive work on SEBA (SDN Enabled Broadband Access).
Türk Telekom's Strategic Priorities

Türk Telekom continues its technological transformation in order to meet the needs of its customers regarding communication technologies in the most convenient, secure, fast manner while offering a high quality experience within the framework of changing market and requirements. The Company plans to improve its technological capabilities through automation, convergence and virtualisation initiatives, and to transit into a more agile and efficient network structure in parallel with these developments.

NEW INCOME AREAS - Growth in the new areas supporting our main business lines

Next generation 5G solutions and international collaborations

Türk Telekom is leading the transition to 5G in Turkey and stands among the global players which set the standards of new generation technologies. Argela, the Company's subsidiary, and Netsia, the Company's US based innovation branch, offer significant 5G solutions, holding 57 patents registered worldwide in the fields of 5G network slicing, fibre optic networks, blockchain, data analysis and the radio access networks.

Operating in the Silicon Valley, Netsia actively participates in a number of important initiatives together with Türk Telekom, including the following:

- O-RAN (Open Radio Access Networks Alliance)
- ONF (Open Network Foundation)
- BBF (Broadband Forum)
- ONAP (Open Network Automation Platform)
- LFN (Linux Foundation Network – Linux)

The Company also works closely with some of the world's leading telecom companies such as AT&T, Deutsche Telekom and NTT.

Netsia’s flagship open source broadband network solution, "Netsia BB Suite" emerges as a hardened version of the SEBA solution (SDN Enabled Broadband Access), hosted by the ONF (Open Networking Foundation), a potentially attractive solution for telecom operators. The Netsia BB Suite may potentially be the carrier of 5G access through fibre optic infrastructure.

The Netsia BB Suite is currently in the testing phase with a number of key operators in Latin America, Europe and Asia. Going forward, it aims to gather new generation access network equipment provided by different manufacturers under a single roof. The project will generate revenue through product sales and implementation, as well as after sales service agreements.

Türk Telekom signed a sales and cooperation agreement with Juniper Networks Inc. for the vRAN (Software Defined and Sliceable Virtuelised Radio Access Network) project in January 2021. Juniper licenced the vRAN solution which provides a number of operational and commercial benefits such as increased performance, efficiency and scalability in 5G networks, and started to integrate the solution into its worldwide portfolio.

On the other hand, Netsia's licenced RIC (Intelligent RAN Controller) technology enables artificial intelligence based management and orchestration of mobile networks over the cloud through virtualisation and slicing. Türk Telekom will be the first operator to allocate capacity per base station with the use of RIC. In addition, the Company aims to position its group companies, Argela and İnnova, in the new generation urbanism approach.

TV/OTT and ICT/Cloud investments

In addition to telecom operators, OTT providers are now taking a presence among important players of content distribution over the internet. Turkish telecommunication companies have started to issue their own content, messaging and social media apps and cooperate with OTT providers. Revenues from OTT TV retail are predicted to surpass conventional Pay TV revenues worldwide by 2024, indicating new opportunities.

Türk Telekom aims to create a better OTT experience with quality content by leveraging network ownership and scale in order to optimise quality and coverage.

In its digital transformation journey, Türk Telekom diversifies its ICT product portfolio, creating new revenue areas, thereby increasing customer loyalty. The Türk Telekom data centres offer a wide array of services including cyber security and cloud services in three different locations with the Tier III certification, and end to end solutions at global standards.

Türk Telekom aims to increase cross selling and customer loyalty and accelerate the digital transformation by developing innovative digital services in addition to basic services for individual customers. The Company undertook many novel initiatives in the areas with high revenue potential such as with Laff and Tambu in communication, with Mcaffe and TT Payment in security and efficiency, with Vitamin, Round and TT Academy in education, with Tvibuu, Muved and the e-magazine in media and with Digital Warehouse in individual cloud products.

Accessible cloud/IT/IoT services

Türk Telekom aims to expand its revenues by focusing on smart vehicles, smart home/building, smart cities and Industry 4.0, which stand out among IoT verticals and have become of greater importance in the digitalisation process as we enter the new normal following the pandemic.

Türk Telekom invests in technologies which will support the construction of sustainable, efficient cities offering a high quality of life with its smart city projects. It leads important projects with a range of solutions suitable for the new generation urbanism approach.
Türk Telekom’s Strategic Priorities

The Company aims to spread smart city solutions, the projects of which are being carried out in many cities, including Kütahya, Elazığ and Denizli, throughout Turkey in order to achieve income diversity with strong solution partnerships. Türk Telekom plans to increase its revenues with sector specific infrastructure offerings and strategic business partnerships to be established with specialised companies. The Company further develops the ecosystem by supporting local solution partners. The Company structures new generation city technologies in the fields of transportation, security, energy, health, the environment and life.

Türk Telekom, with its subsidiary, Innova, which has a number of initiatives in the cloud and IT ecosystem, aims to provide more accessible services for all companies by focusing on the cloud and IT ecosystem and increasing revenues through segment penetration.

Large scale IT projects

Innova contributes to the digitalisation processes of its customers through its wide IT solutions portfolio. The company continued to expand its corporate network throughout 2021. Innova offers AI (Artificial Intelligence), RPA (Robotic Process Automation), big data, IoT (Internet of Things) and fintech solutions for its customers and plays an important role in supporting Turkey’s national technological development.

Türk Telekom prioritises the digitalisation and technological needs of SMEs, and continues working to expand its product and business partnerships. Türk Telekom and the İTO (İstanbul Chamber of Commerce) signed a cooperation protocol in 2021, which will help 430 thousand small and mid-sized enterprises registered with the İTO to stand out among the competition through digital transformation.

Among the products offered by Türk Telekom to SMEs, the Go Online with Wix and Manage Your Business Online focus on areas such as the e-invoice, e-ledger, e-archive, e-fax, e-mail and online accounting, while Programatik focuses on advertising spaces.

Türk Telekom plans to establish a common platform with its affiliates and strategic business partners in order to ensure that all SME services under development are managed under a single roof.

Venture capital initiatives

Having established Türk Telekom Ventures (TT Ventures) in 2018, Türk Telekom aims to help start up and mid-level initiatives realise their long term business goals, support their growth and develop projects. Investing in eight different initiatives since its establishment, Türk Telekom Ventures targets to benefit the country’s economy by supporting start ups with innovative products, while creating synergy with the existing main business lines and products. Investments undertaken by TT Ventures in this context include B2Metric, Syntonym, Optyol and QuantWf.

Türk Telekom implemented PILOT with the aim of offering innovative products and services to its customers by supporting initiatives in technology, at the same time promoting domestic initiatives. PILOT’s 9th term was completed in 2021. To date, nearly TL 10 million in cash support was provided to 91 start ups graduated from the PILOT initiative, of which 39 have received external investment. Türk Telekom also provided start ups with the opportunity to cooperate with Türk Telekom itself and co-invest with TT Ventures.

Türk Telekom’s decision to enter collaboration with Plug and Play, the world’s largest entrepreneurial and innovation platform, in February 2021 will strengthen the Company’s brand image on a global scale and support the Turkish enterprise ecosystem. Three start ups selected among entrepreneurs who graduated from PILOT in 2021 were offered the chance to participate in the Plug and Play acceleration program.

While social media has become an important communication and perception management instrument, it has also become an effective method of reaching general public easily and quickly. Türk Telekom offers social media platforms as an integrated and secure platform.

Fintech solutions

Participation in technology and digitalisation is growing rapidly in Turkey. Moreover, digital payment systems have come to the forefront as a field requiring renewal, development and updating in line with the current needs. Closely monitoring developments in this field, Türk Telekom, together with its subsidiary, TTÖdeme, has introduced Pokus, a new e-wallet app and prepaid card to the market.

The fintech market is an area which has seen considerable development and growth recently. Digitalisation has paved the way for a surge in demand for simple and easy solutions. As of 2021, there were more than 57 million prepaid cards in circulation in Turkey. The share of fintech companies in this number and the volume of shopping carried out using prepaid cards is growing rapidly. The revenues of fintech companies in Turkey have also tripled between 2016 and 2018 to reach TL 13 billion.

As a company using state of the art technology and boasting the most extensive customer network in Turkey, Türk Telekom is moving forward with the motivation to lead in the digitalisation process with creative solutions and applications in this field.

Türk Telekom’s fintech journey began with TTÖdeme, which was established in 2013. TTÖdeme received a payment services licence from the BRSA in 2017 and an e-money organisation licence in 2019. Mobile Payment and Corporate Bill Payment Services are currently carried out under TTÖdeme.

TTÖdeme’s transaction volume and revenue grew by 30% and 77% in 2021, respectively. Türk Telekom added Pokus, which is its newly developed e-wallet application and prepaid card, to its mobile payment and bill payment services within the scope of TTÖdeme, in 2021.

Türk Telekom aims to have Pokus stand out in the fintech market with its fast and simple design. Türk Telekom carefully designed Pokus to make life simpler for its users by creating an integrated and secure digital platform where users can perform multiple transactions within seconds.

Pokus offers access to banking operators through its contactless payment system. The prepaid card allows customers to spend amounts they have loaded without the payment of a subscription fee and to shop online and offline at Mastercard member merchants in Turkey and abroad.

Türk Telekom targets gaining market share with Pokus, which is designed as an application that prioritises the user experience and responds to consumer needs.

Source: For global telekom market data: Analysys Mason-Fore See Turkey data: KSO, TURKSTAT, BRSA and BIM.
Marketing Activities

As the conditions of the pandemic changed from one quarter to the next, Türk Telekom managed to create opportunities out of the changes in market dynamics and consumer behaviour with its agile structure and superior customer experience, expanding its subscriber base by 3% to 51.8 million.

The leading operator in a changing market in parallel with customer needs
Türk Telekom continued its subscriber growth in 2021 by adding digitalisation focus on its way to perfection in customer experience with the motto of “Making You Feel Valuable”.
Türk Telekom built its main strategy in fixed internet on speed, customer experience and revenue growth, with the support of investments in the fibre optic network and the infrastructure transformations it carried out as the market leader in 2021.
Türk Telekom played an important role in raising household internet penetration to 72% with its infrastructure investments and regional offerings by focusing on increasing fixed internet prevalence in Turkey.

The Company has differentiated itself in the sector with marketing activities exclusive to the focus segments by shaping the changing needs of customers through analytical models.
Maintaining its position as the second major player in the Pay TV market, Türk Telekom met the expectations of users by continuing its focus on IPTV with its enriched content and technological investments that improve user experience.
The Company has continued its market leadership in fixed voice services, which make communication with homes and workplaces possible at all times.
While meeting the 360-degree communication needs of workplaces, Türk Telekom stood by the businesses with the motto of “We Are Together in This Business” in their digitalisation journeys, which gained momentum during the pandemic.
In the mobile segment, 2021 was a particularly important year in terms of making a difference with customer experience and brand image, as well as the focus on revenues and customers.
In 2021, Türk Telekom Group supported its increasing mobile segment investments with “Doubled 4G cells in 2 years” motive and invited its customers to freely experience the expanded coverage with the motto of “Live Mobile” in 81 provinces.

Improving its Online İşlemeler (Online Transactions) application with digitalisation focus, and supporting its offers with analytical models, Türk Telekom accelerated its digital transformation processes by presenting the right offers to its customers at the right time through the online channel.

In line with its value-oriented growth strategy in the mobile segment, the Company supported its Prime offering with a diverse range of content and privileges in many different areas including travel, shopping, entertainment and customer service, in order to create more value and offer the most optimal products to its customers.
Türk Telekom continued to stand by its customers through personalised marketing activities driven by innovative campaigns and analytical models which quickly responded to customers’ different needs and demands.

Consumer Marketing Activities
Türk Telekom continues its strong growth in its main business lines with focus on customer experience
Türk Telekom pressed ahead with its fibre transformation efforts to improve Turkey’s internet usage habits and to offer customers faster internet speeds, in line with the key targets it set in the fixed internet segment. Enhancing its competencies with smart infrastructure investments, the Company has succeeded in upselling millions of subscribers to higher speeds and unlimited internet packages since the beginning of the pandemic to cater for the increased demand for data and speed.
As in the previous periods, Türk Telekom pursued effective subscriber base and revenue management by promoting the customer experience and developed its digital channels.
The low mobility, which characterised the market in 2020 due to the pandemic, continued in the first half of 2021. With the partial lifting of restrictions in the second half of the year, there was an increase in activity compared to the pre-pandemic period.
Tivibu Home maintained its second ranking in the Pay TV market with a market share of 20.6% at the end of the third quarter of 2021.

A market growing with fibre and a high speed internet world
As a result of the pandemic which dominated our lives throughout 2020, customers’ needs for internet exceeded expectations. Although the growth trend slowed after the vast majority of the demand for new subscriptions was met in 2020, the year 2021 closed with strong net subscriber gains, again surpassing expectations.
Türk Telekom continued its marketing activities in 2021 with a focus on increasing Turkey’s internet speeds and digitalisation, while maintaining its position as the market leader in addition to its subscriber growth.
As the demand for household internet increased with accelerated digitalisation amid pandemic, the household broadband penetration rate rose from 59% in 2019 to 72% in 2021. Türk Telekom has pioneered this extraordinary increase over the last two years with its infrastructure investments and leading position in the retail market.
Despite the entry of new internet service providers into the market, the acceleration of investments from existing service providers in their own infrastructure, as well as the aggressive offerings from different players, Türk Telekom remains the clear leader in the retail market with a 60% share of subscribers.

Türk Telekom brings together ever more customers with fibre internet every year
Türk Telekom has pressed on expanding its widespread fibre infrastructure in order to meet the surging need for high speed internet in Turkey resulting from the pandemic. At the end of 2021, the Company’s fibre homepass climbed to 30.2 million, and the length of the fibre network, covering all of Turkey’s 81 provinces, reached 366 thousand kilometres.
The total number of fibre subscribers reached 9.6 million in 2021, constituting 67% of the fixed broadband subscriber base.

In addition to new sales and activities aimed at increasing the number of customers on the fibre infrastructure, Türk Telekom maintained its focus on upselling existing subscribers with eligible infrastructure to fibre packages in 2021. The Company enabled existing customers, whose infrastructure supported fibre internet but had not been converted to a fibre connection yet, to switch to fibre packages so that they could also enjoy the fibre internet experience.

The era of high speed Internet continues with Türk Telekom, Turkey’s fibre powerhouse

As of January 2021, Türk Telekom increased the entry-level connection speed to 16Mbps in its fixed broadband new customer portfolio and created a high speed focus for all channels. As a result of these actions, the share of 24Mbps or above packages in new sales in the consumer segment increased to its highest level of 54% in 2021. Intensified focus on connection speeds of 30Mbps or above, and all channels directed towards this focus, played a significant role in this success.

The focus on high speed was also included in segment-based offers. High speed packages were highlighted in the offers to gamers and university students seeking a faster internet experience. All Türk Telekom channels aligned in accordance with the Company’s high speed strategy and the campaigns designed to encourage speed focus throughout the year were significant factors contributing to the Company’s success.

In addition to the new acquisition activities, the Company significantly increased its average connection speeds for the entire base when analysed by package ownership, by directing existing customers to high speed packages and implementing effective base management activities.

Türk Telekom continued to offer fast and unlimited internet campaigns on a regional basis in order to support internet connectivity in districts with low penetration.

Türk Telekom’s digital platforms make life simpler

Türk Telekom’s digitalisation process in the unlimited internet world kept accelerating in 2021. The Company’s innovations on digital channels were introduced to customers who have grown more accustomed to the comfort brought by the digital channels.

Türk Telekom Online Transactions application achieved 24 million 57 million downloads, being the operator application with the highest number of active users according to results published by App Annie, the mobile application market research company. Along with the Company’s focus on new customer acquisition in the digital area, the number of users completing their digital activation increased five-fold with end-to-end activation opportunities starting from the order and continuing up to the installation.

Existing customers, on the other hand, continued to change their packages and renew their campaign through these channels.

There was also a 14-fold increase in existing customer transactions during 2021. Türk Telekom’s existing customers have enriched their internet experience by purchasing a wide array of digital services such as music, internet security software, training, entertainment and development via digital platforms. Thanks to its effective external communications and digital application management and cross-selling models in fixed internet with mobile and television products, the Company continued upselling to existing subscribers.

Türk Telekom is enriching its portfolio with segment-based and multi-play offers

Türk Telekom, capable of meeting the needs of multiple type of communication for its customers thanks to its wide product range, has pressed ahead with its subscriber growth through multi-play offers. The Company improved its cross-product sales focus and expanded its portfolio offers to meet customer expectations with internet, television, landline phone and mobile products included in its multi play offerings.

In accordance with the interests and needs of customers, Türk Telekom has continued to collaborate with e-commerce companies which hold significant positions in their sectors. The Company, offered special benefits to gamers in popular games that belong to companies operating in the international arena, as well as the benefits of e-commerce through leading companies in their sectors to new customer applications via its digital channels.

The Türk Telekom family continues to grow

On the back of its actions in subscriber acquisition, Türk Telekom’s total number of fixed broadband subscribers reached 14.3 million in 2021 with 919 thousand net additions. The retail segment accounted for 75% of the total base. The total number of fibre subscribers, which constitutes 67% of the fixed broadband subscriber base, rose to 9.6 million with an annual growth of 54.3%.

Türk Telekom maintained its strong growth in fixed broadband ARPU this year, with an increase of 14.2% year on year. Providing unlimited internet usage to its customers, the Company achieved the highest annual revenue growth in this segment, increasing its fixed broadband revenue by 29% year on year thanks to upselling and cross selling activities combined with an effective commitment strategy.

Focusing on digital communication in the fixed internet category in 2021, Türk Telekom also maintained its efforts on brand communication in the TV segment. Embracing the back-to-school season, The Company and fulfilled its customers’ essential needs during this time.

In order to raise customer awareness of fibre internet and the perception of high speeds as well as contributing to the image of Türk Telekom brand as Turkey’s fibre powerhouse, regional “Fibre is Here” communications were carried out in locations where the fibre rollout is gaining pace.

Türk Telekom strengthens its marketing capabilities with its focus on digitalisation and the customer experience, by conducting customer researches, analytical and modelling studies, and system and process developments in order to improve the customer experience and bring customers more targeted offers.

Value oriented growth in mobile

The mobile market continued to suffer the negative impacts of the pandemic in the first half of 2021. With the process of normalisation which started in the second half of the year, the increase in mobility as restrictions were relaxed was reflected positively to the market. Competition in number porting market throughout the year reduced customer activity and the market contracted when compared to the pre-pandemic period. However, Türk Telekom continued to grow thanks to its value-
Türk Telekom has doubled the number of 4.5G cells over the last 2 years with its mobile infrastructure investments.

**Doubling of 4.5G cells in two years**

With its focus on integrating digital services with offerings for mobile customers in 2022, Türk Telekom plans to pursue the success the Tivibu Go Super Package, Muud Premium subscription, Türk Telekom Digital Depot and Türk Telekom WiFi services were included in the tariff and offered to customers in the premium Prime portfolio. Türk Telekom renewed its focus on integrating digital services with offerings for mobile customers in 2022.

With digitalisation, average mobile internet consumption per customer continued to increase, and average monthly data usage per LTE user increased by 13.9% year on year to 10.2GB in Q4'21. Prime subscriber base growth accelerated along with the increase in postpaid subscribers. Türk Telekom continued to increase its Prime tariff portfolio with a diverse range of content to create more value and present the most ideal products to its customers by adapting to changing market conditions. In addition, the Company added value to the lives of its customers by expanding the range of privileges offered in Prime with advantages ranging from travel, shopping and entertainment to customer specific services.

As a result of these efforts, the number of Prime subscribers increased from 3.2 million at the end of 2020 to 4 million at the end of 2021, with the Prime subscriber base accounting for 31.6% of the total postpaid base. In 2021, the rationalisation trend in the mobile activation market gathered pace. Although some short term low price based campaigns were rolled out periodically by the operators, these campaigns did not give rise to a new price competitive environment in the market. Türk Telekom’s main priorities were to pressing ahead with investments in mobile network and reinforcing the quality perception among customers, increasing the focus on digitalisation, and intensely using postpaidisation, premiumisation and customer analytics. In line with these priorities, Türk Telekom emphasised its investments in the mobile network, and progress achieved in network coverage and quality through regular communications with the slogan of “Doubled 4.5G cells in 2 years”.

Despite the fallout of the pandemic, the growth in Türk Telekom’s mobile subscriber base and ARPU continued. The number of mobile subscribers reached 24.0 million in 2021, with a net addition of 844 thousand. Blended ARPU, on the other hand, grew by 13.8% displaying highest annual growth.

Mobile revenues reached TL 11.5 billion in 2021, marking an increase of 16.5% year on year. With more mobile subscribers owning LTE sim cards and compatible devices, the share of subscribers using the LTE service actively by the end of 2021 increased to 67% of the total mobile subscriber base. The postpaid subscriber base accounting for 65% of the mobile subscriber base, grew by 794 thousand in 2021. The switch from prepaid to postpaid was influenced in the expansion of postpaid subscribers’ base. Aiming to present the right offers to the customer in the most appropriate way, Türk Telekom came up with more efficient campaigns in the analytical models it uses to identify customers with high tendency to switch to postpaid lines, and in the channels through which such subscriber are contacted. With the target of 360-degree offers from every channel, Türk Telekom manages its existing customer base much more efficiently thanks to the development of customer analytics models.

The Company’s new upselling strategy that offers customers higher GB quotas at affordable additional rates enabled prepaid subscribers to load more data and also supported the increase in the number of individual postpaid subscribers switching to higher-paid tariffs. With Selfy, high data offerings enriched with digital content aimed at meeting the young customers’ needs were provided.

While maintaining its value oriented approach in 2022, Türk Telekom will focus on creating a healthy ARPU and revenue growth. Pressing forward with its network investments and communications, the Company aims to intensify its investment and project focus on digitalisation in the future, and to diversify the digital products and value added services it offers to its customers.

Going forward, Türk Telekom plans to reinforce its focus on upselling, cross-selling, the acquisition and retention of high value subscribers by enriching the benefits offered to customers and continuing to invest in the Prime brand.

**Collaborations continue to contribute in the rise of mobile subscribers**

Türk Telekom meets the mobile communication needs of its customers in different segments through its strong collaboration with the BİMcell, Pttcell, Telimoscell and Vestelcell brands.
Türk Telekom continues to meet the needs of customers through its strong collaborations.

Strong collaborations

Pttcell, set up in a joint collaboration between the PTT and Türk Telekom in 2013, continued its activities with its extensive channel network in 81 provinces and with postpaid and prepaid tariff portfolios which meet the needs of customers.

Within the framework of the ongoing cooperation with BIMcell since 2012, affordable prepaid tariff and package offerings to customers in BIM stores continued throughout 2021. Launched in May 2015 in collaboration with the Sabancı Group, Telinosacell met customers in all Telkomsa stores throughout Turkey in 2021. Initially providing only postpaid mobile offers, Telinosacell also launched prepaid offers in April 2018. The work on selling Telinosacell lines at Sabancı Group’s CarefourSA market chain has been ongoing.

The Vestelcell brand, offered jointly by Vestel and Türk Telekom, started its brand communication in mid-2021. The customers can access Vestelcell tariffs and packages at Vestel dealers in line with their mobile needs. Moreover, Vestel gift coupon presentations and cross-selling campaigns with Vestel products continue in Vestelcell line purchases.

Prioritising customer experience, Tivibu has become indispensable for homes thanks to its enriched content.

Reaching 7.3 million subscribers in Turkey, the Pay TV market grew by 3% year on year in 2021. With its 1.5 million subscribers, Tivibu Home demonstrated a successful performance and maintained its position as the second largest player in the market. Türk Telekom’s TV business line revenues grew by 11% year on year in 2021.

Prioritising IPTV, which offers a new generation TV experience, Türk Telekom provided its new customers with multiple game setups along with the home internet, fixed-line and mobile products.

In 2021, the Company strengthened all sports content on Tivibu with a competitive perspective: Bundesliga, Bundesliga 2, the FA Cup, the Spanish King’s Cup, the W Series, ATP250 and Blast CS. GO were added to the content of the Tivibu Sports channels; while the Italian Serie A was added on the 5 Sport channels in 2021. In October 2021, the Tivibu Spor 5 channel broadcasted. In order to stand out in the market with the strengthened sports content, a Sports Package was launched for sports-loving customers. Thus, sport viewers were provided with access to sports content at preferential rates.

Tivibu has also set itself apart in the market with its diverse range of content in the documentary and children’s categories. The content was expanded by adding Habitat TV, Viasat History and Love Nature documentary channels as well as the Epic Drama series channels to the portfolio.

Türk Telekom introduced wireless connection devices to provide satellite receivers with IPTV functionality. This device offers customers an IPTV experience with easy installation without requiring a cable connection.

Providing a multi-screen experience, Tivibu Go continued to offer its customers options suitable to their needs with the Smart TV feature as well as sports packages added to the portfolio.

Summer Tivibu, Smart TV and digital channels were added to the offers designed to meet customer needs.

Thanks to its effective base management, Türk Telekom achieved a revenue growth as well as a 23% improvement in the number of cancellations by suitable offers to its existing customers. While the weight of IPTV revenues increased among existing customers, the majority of customers continued to enjoy the next generation experience.

In 2021, a communication path was determined by focusing on Tivibu’s content based renewed visual experience. While the technical specifications and the next generation TV experience were explained to the customers in IPTV, the advantageous pricing and easy installation features of the satellite service were highlighted. Tivibu Go, which serves its customers with preferential offers where they can access all content at any time from any location, underlined Smart TV’s versatility and ease of use.

Communications for all products proceeded through digital media throughout the year.

Türk Telekom aims to improve customer experience with renewed TV infrastructure

With the renewal of the IPTV platform infrastructure and advanced campaign management capabilities, Türk Telekom aims to contribute to new subscriber acquisitions and promotion activities and improve the customer experience.

The Company intends to complete the project, which will also provide a platform change for OTT, in the first half of 2022, to offer a better customer experience with new features, and to create Turkey’s leading digital TV/OTT platform which includes extensive content and innovations.

Consumer Fixed Voice

In 2021, Türk Telekom conducted activities focused on raising awareness of the Alo Paket (WLR-Wholesale Line Rental) product for fixed line services. The Company supported revenue management by undertaking device campaigns for both existing subscriber retention and new subscriber acquisitions in its home phone (PSN) product.

The PSTN portfolio was diversified with new offerings including minute bundles and devices for new subscriber acquisition.

The free cordless wireless telephone device campaign, offered to increase utilisation by customers receiving Internet at home together with fixed line services and to support ARPU, was repeated in 2021.

Türk Telekom continued its upselling activities for both the Alo-Package and PSTN products throughout the year, aiming to switch active fixed voice subscribers to packages with higher minute offering at preferential rates. The Company proposed tariff upselling offers with outbound calls, based on segments created according to customers’ calling tendencies from an analytical point of view.

Türk Telekom organised minute giveaway campaigns and carried out WLR activity studies in order to encourage the use of minutes in its existing customer portfolio, as it had with new sales.

Digital communication activities aimed at increasing Alo Package awareness continued throughout the year.

The Company maintained its fixed phone cancellation rate below its own projections this year thanks to its effective base management efforts.

1 ICTA market data report was used for Turkish telecom market data.
Corporate Marketing Activities

Türk Telekom’s corporate customer segmentation includes tradesmen and shopkeepers, SMEs, large-scale and strategic customers, as well as public institutions and local governments.

Türk Telekom offers its corporate customers technological solutions with digital products and value-added services in addition to traditional access services structured according to their segment-based needs.

Increased growth in fixed data and managed services

Secure, uninterrupted fixed data services maintained its importance in 2021 as one of the top needs of corporate companies. Türk Telekom has maintained its efforts to raise market awareness of the Eco VPN service it offers in order to meet the data needs of price-sensitive customers, such as retail chains. Aiming to grow rapidly throughout Turkey, Agricultural Credit Cooperative markets started to use the Eco VPN service. Türk Telekom achieved 102% revenue growth in Eco VPN through its existing subscriber base and new subscriber acquisitions.

The Company obtained 56% revenue growth from its TTVPN Global service, which connects corporate customers’ offices located abroad with their domestic offices, thanks to the new sales and existing customer campaigns in 2021.

Türk Telekom pursued activities and campaigns to increase sales of Metro Ethernet Internet services, especially for strategic and large customers. Metro Ethernet Internet was enriched with cross-selling setups such as SD-WAN, Security and ICT, offered under the TT Smart Network brand. Supported by these efforts, Metro Ethernet Internet sales increased by 28% compared to the previous year.

Türk Telekom WiFi service becoming more widespread

Türk Telekom offers WiFi service with 6 thousand access terminals at around 3 thousand points throughout Turkey. As the number of WiFi hotspots offered through Türk Telekom’s strong infrastructure increases day by day, mobile and broadband subscribers take advantage of free WiFi services. In addition, customers who are not receiving services from Türk Telekom are also eligible to benefit from the WiFi experience.

With the Türk Telekom WiFi İşyerim (WiFi Workplace) product, launched in December 2021, SME customers started to offer their own customers a secure internet connection through Türk Telekom’s internet infrastructure, without the need for any additional installations or device, requiring only software installed remotely to the modem.

This product became a big step towards the digitalisation of SMEs. SMEs were provided with the opportunity to contact their customers, conduct activities to strengthen their loyalty, report analytical data, and adjust WiFi settings as they wish through the customised portal.

Solutions compatible with the new normal in fixed internet and voice services

Türk Telekom highlighted high speed and high minute packages in line with changing customer needs in corporate fixed broadband and voice products in 2021.

Fixed broadband subscriber growth exceeded expectations following normalisation in the second half of the year after the stagnation experienced during intensive pandemic-related restrictions and the increase in digitalisation.

The increasing need for fixed broadband as a result of the digitalisation of workplaces and increasing data usage during the pandemic started to evolve into a need for higher speeds. In this vein, Türk Telekom launched the High Speed for Every Business (Her İşe Yüksek Hız) campaign thanks to its strong infrastructure, offering preferential pricing in the 50Mbps and 100Mbps packages for corporate customers.

As the leader of digital transformation in Turkey, Türk Telekom has analysed the needs of workplaces under pandemic conditions and strategically added important digital solutions to its portfolio in addition to powerful virtual internet packages for tradesmen and SMEs. Mediating digital solutions for new customers, Türk Telekom enriched Techno Packages, and worked to reach larger audiences in 2021. In order to increase awareness of Techno Packages and reach all businesses, the Company supported its digital transformation focus with digital communication activities.

The acceleration of e-commerce activities in Turkey with the pandemic has turned the transition of tradesmen and SMEs to digital media into a necessity. Türk Telekom continued its strategic partnership with WIX, the world’s leading website creation platform, during 2021 and offered effective solutions for the digital transformation of SMEs. SMEs were offered a security package for device and workplace security, an online accounting package which simplifies accounting processes and allows them to be managed from a single centre by digitising the processes and a Static IP product which especially gained popularity during the pandemic. Digital solutions offered to SMEs have been enriched with the Tivibu GO package options. As the leader of the corporate fixed voice market, Türk Telekom also expanded its campaign portfolio for the communication needs of tradesmen and SMEs during the pandemic. Within the scope of applications for tradesmen in need of easy payment processes, the Support for Tradesmen campaign was launched, offering its customers and Business Phone Support offered to existing customers.

Alongside businesses from past to the future

Although the effects of the pandemic receded to some extent in 2021, the health crisis affected world trade. In particular, the trend of small businesses turning to digital tools and products to offset their lost turnover and rising costs demonstrates that the transition to the new normal is not something limited to individuals only.

Türk Telekom continued its actions by observing the transformative effect of the pandemic on business life and businesses. The Company continued its infrastructure investments in response to the growing demand for the internet and the growth in subscriber base. By providing....
new products and services which businesses may need in the new era, the Company supported small and medium-sized businesses which have encountered difficulty due to the pandemic.

It is critical that corporate customers are able to keep their costs under control and have access to offers that are appropriate for their new usage habits at any time. In this context, together with the investments in digital channels, tariff sets which fit to the usage habits of corporate customers and assigned customer representatives were proactively offered and channel diversity was increased.

Türk Telekom followed a balanced policy by prioritising customer satisfaction in order to prevent unwanted increases in bills from the perspective of businesses besides taking advantage of the opportunities created by the increased data consumption with the pandemic.

The growing mobile needs of businesses were met by diversified offers and channels. Türk Telekom presented optimised solutions and offers to businesses by effectively using its analytical skills. As a result of the actions taken, the churn of corporate mobile customers decreased to an all-time low in 2021, reflecting the success achieved in meticulously conducted studies and data management.

A product portfolio enriched with innovative customer-oriented solutions

Maintaining its leadership in the Special Service Numbers (SSN) market with 444 numbers, Türk Telekom also included 0850 numbers in its SSN portfolio. With this move, the Company aimed to increase its penetration especially in the SME and large-scale segments.

The TTSS Eco service, which does not require investments like switchboards, IP phones and end devices and is managed on an end to end basis by Türk Telekom, has been launched. TTSS Eco, a cost-effective virtual switchboard solution, is expected to pave the way for an increase in penetration, especially in the SME and Large Customer segments.

Türk Telekom launched its Corporate Service Management offering in June 2021 in order to increase the quality of service for corporate customers. Through this service, customers’ circuit defects are resolved more rapidly in the fixed data, internet and voice services, and the circuits can be monitored proactively to fulfill the need for coordination and instant notification in the event of potential defects. In addition, comprehensive reports on service performance and details of malfunction have also started to be provided.

Information and Communication Technologies (ICT) Activities

A pioneer in cyber security with the most advanced technologies

Based on Türk Telekom figures, the number of cyber-attacks doubled in 2021 compared to the previous year. Türk Telekom services successfully blocked over 4 thousand DDOSs (Distributed Denial of Service) attacks of a size of 1Gbps or greater.

Türk Telekom provides backbone-level protection against both volumetric and application-layer attacks with layered DDOS protection solutions within the scope of shared security services. Services such as firewall, content filtering, antivirus and active defence (IPS) services, which are basic cyber security solutions, as well as advanced threat prevention (ATP) services to tackle zero-day attacks and the WAF (Web Application Firewall), which provides protection at the application layer, are also offered at the backbone level.

Türk Telekom aims to increase the variety of services it offers in the shared model by expanding its customer base each day. In line with its domestic and national product strategy, the Company adds both products and services developed by domestic manufacturers and Türk Telekom engineers, utilising internal resources to its portfolio.

Türk Telekom commissioned its Shared SSL VPN service in 2021 to meet the secure connection needs of employees with remote access. Within the scope of the service offered at the backbone level, without the need for any device investment at customer location, pricing was set out with a flexible tariff model based on the number of users.

As the first and only operator offering a WAF service at the backbone level in Turkey, Türk Telekom has enlarged its capacity by carrying out WAF investments for new locations with its increasing customer base. At the same time, it has ramped up its capacity with new investments for the first DDOS+ (application layer DoSs attack protection) service which is offered for the first time at the backbone level in Turkey and in the world.

The Cyber Bulletin, the fifth issue of which was published in 2021, contributed to the sharing of Türk Telekom’s knowledge and experience in this field by including both important developments around the world and statistics of cyber-attacks provided by Türk Telekom.

Türk Telekom plans to press ahead unwaveringly with its investments in cyber security in 2022. The Company is preparing to add a range of new services such as e-mail security, shared 5651 logging, DNS security, shared basic cyber security for DSL, subscribers and 5651 logging solutions, ZTNA (Zero Trust Approach) to its portfolio.

A 360-degree approach to cyber security

Türk Telekom’s largest Cyber Security Operations Centre, the largest of its kind, is located in Ankara and Istanbul. The centre’s competent cyber security experts provide brand-independent services with the support of technologies such as Artificial Intelligence and machine learning. The centre offers a gamut of solutions such as SIEM (Security Incident Management Software) installation, configuration rule software. 24/7 incident monitoring, SIEM consulting and incident response, which are currently considered to be the basics of the SOC service.

Türk Telekom believes in the importance of Turkey being able to produce its own cyber security technologies. By cooperating with domestic manufacturers in the cyber ecosystem, intelligence services are offered to customers in a shared environment with Shared SIEM and Cyber Atlas. In addition, the Altay Fishing Simulation service developed by Türk Telekom engineers serves to enhance cyber security awareness in the institutions.

Unlike traditional cyber security centre services, Türk Telekom carries out a holistic security operation whose processes are automated with SOAR (Security Orchestration, Automation and Incident Response), and enriched with Cyber Atlas, endpoint security included with EDR (Endpoint Detection and Response) and MDR (Managed Detection and Response) with internationally certified, competent human resources.

Türk Telekom is the first and only operator in Turkey to offer EDRT technology together with 24/7 monitoring and management competence in a shared environment.

Türk Telekom offers solutions aimed at the increasing maturity of security levels of institutions in a variety of subjects such as penetration testing, vulnerability testing, gap analysis, cyber drills and red team services under the testing and consulting services conducted at the Cyber Security Centre.

The Centre, which was accredited with the TSE A Penetration Test Certificate on the TSE side in 2021, further strengthens its competent human resources with global certificates such as OSWP, OSCP and CEH.

Special solutions for cyber security

In order to ensure the confidentiality, integrity and accessibility of all critical infrastructures, Türk Telekom deploys security technologies within its services to enable...
the detection of attacks and cyber security incidents, the activation of response mechanisms against detections and the swift return to the pre-attack situation.

Offering a range of end to end solutions including infrastructure and end user security, Türk Telekom differentiates itself in the market with its wide range of solution partners to tackle the increasing incidence of cyber-attacks with new technologies such as cloud, IoT, mobility and big data, and expands its solution partnership structure through its domestic product strategy.

Türk Telekom creates solutions in order to meet customer needs more accurately through sector specific collaborations. The SME KVKV Consultancy Service and Basic Cyber Security Box catalogue products, which the Company has started to offer, aim to provide organisations with sustainable cyber security overview solutions.

Events and sponsorships for new projects

The IDC Security Summit

Türk Telekom participated as the sponsor of the Security Summit event organised by the IDC on September 22, 2021. Commercial and technical security leaders guided the sector with presentations which reflected the Company’s vision of a data-driven approach to cyber security and a 360-degree understanding of cyber security.

Türk Telekom Cyber Security Camp

As the leader of Turkey’s digital transformation, Türk Telekom supports young people seeking to advance themselves in the field of cyber security. In line with this purpose, the Company held its second Cyber Security Camp on August 16–27, 2021 and offered unique training and development opportunities for young people.

Data Centre and Cloud Services

Türk Telekom offers a range of solutions, including cyber security and cloud services, with its data centres in three different locations.

The Company obtained ISO5001 Energy Management System Certificate in 2021 as a result of efforts to increase energy efficiency in the Esenyurt, Umkoń and Gayrettepe data centres.

To meet demand from customers, the Company initiated investments in a new shared lounge located at the Esenyurt Data Centre, Istanbul, with a high energy capacity per cab. The new lounge is planned to be opened to customers during 2022.

With the rapid growth in the e-commerce sector, the need to protect the infrastructure of sector participants in data centres which offer levels of reliability documented with international certifications has become key. One of the sector’s leading companies entrusted its data to Türk Telekom under a special agreement in 2022.

Today, data is critical for every business. As a result of the rapid spread of new generation technologies and internet usage, augmenting volumes of data raises threats to data security. Data loss and damage to sensitive data greatly threatens both the brand integrity and customer relationships of organisations.

In 2021, Türk Telekom focused on cloud services, with a particular emphasis on its service portfolio for backup and replication of data. In this vein, the Company prevented data losses by securely backing up the critical data of institutions in the cloud environment and carried out a backup relaunch which includes solutions assuring business continuity.

Türk Telekom ensures business continuity by backing up its customers’ data as well as its own in its data centre providing access in the event of disaster.

In 2021, the main focus of Türk Telekom’s activities in the data centre was on the YorenTT Content (CDN–Content Delivery Network) service in the portfolio. Product positioning carried out primarily for the e-commerce, media and public sectors resulted with an increase of approximately 70% in revenues from this product compared to the previous year.

In order to contribute to customer satisfaction and customer experience, a certified private support team has been positioned to serve the data centre and cloud portfolio. Customer support was offered on a 24/7 basis, with the level and quality of support reinforced in the installation and request processes.

As a result of these efforts which are planned to be completed in the first half of 2022, Türk Telekom aims to add managed services and platform services (PaaS) to its portfolio.

Professional services

Turkey is home to an ICT market of around TL 150 billion. With its leadership in technology, Türk Telekom provides new generation technologies optimised for existing technology infrastructure, ways of doing business and the digital transformation needs of its corporate customers in different sectors.

Türk Telekom is positioned as an end to end solution provider in the hardware, service and consulting services categories with its solution partnership ecosystem. The Company continues to support its corporate customers in their communication needs and new business models during and after the pandemic.

Türk Telekom divides its corporate customer base into basic segments such as tradesmen, SMEs, large scale, strategic customers and public and local governments. The Company offers basic products and services such as fixed data, fixed broadband, fixed voice, mobile and Tivibu to sub-segments which are connected to both the intermediate and main segments. In addition, it implements end to end technological solutions in a variety of areas such as cyber security, ICT products, digital and value added services.

Support for organised industrial zones in their digital transformation journey

With its applications for organised industrial zones (OIZs), Türk Telekom paves to way for resource savings for OIZs, which have the biggest role in the development of industrialisation in Turkey. In addition, it maintains its leading role in Turkey’s communication and technology with its wide portfolio of modern, environment friendly, innovative and technological solutions.

In 2021, the results obtained from visits to organised industrial zones throughout Turkey contributed to the design of innovative solutions for digitalisation goals. For example, the License Plate Recognition Systems, Camera Systems, Camera Monitoring Room and Infrastructure services provided to Adana Hacı Sabancı OIZ supported its end to end digital transformation.

Projects supporting Turkey’s digital transformation

In 2021, during the digital transformation wave which was driven forward by Covid–19, Türk Telekom maintained its support for SMEs operating in the industrial and service sectors in Turkey, reaching 3.2 million SMEs with its professional services to increase their competitiveness and helping them adapt to the technological transformation.

Within the scope of hardware, service and consultancy services, Türk Telekom provided the new generation technologies which best fit existing technology infrastructures, business practices and the digital transformation needs of SMEs from a single point and on an end to end basis with a strong solution partnership ecosystem.
In the public segment, the Hittite Culture and Tourism Project was implemented jointly with the Ministry of Culture and Tourism in 2021. Within the scope of the project, which will run until the end of 2024, the applications required in all units of the Ministry of Culture and Tourism were combined under a single system. Additional fibre optic cabling will be installed and the Central Organisation, State Theatres, Cultural Heritage, Manuscripts Library, Museums and Provincial Directorates will be served with high speed fibre internet.

Türk Telekom will digitise 1,085 libraries in Turkey’s 81 provinces to provide uninterrupted and secure internet between the units.

Under the Intelligent Transportation Systems project covering the Çanakkale 1915 Bridge and the Kınalı Highway, intelligent signalling systems, information and routing screens, network and system hardware equipment, collection and payment systems and project infrastructure and superstructure will be configured on an end to end basis jointly with the Communication Services and Data Centre Services. The installations continue at a pace in line with the opening schedule.

**Türk Telekom Next Generation City projects**

The smart solutions implemented by Türk Telekom in 13 cities with implemented six verticals in the fields of new generation transportation, energy, environment, health and security under the banner of the Next Generation City Platform contribute to the construction of sustainable and safe cities with a high quality of life.

Türk Telekom leads the next generation city transformation with artificial intelligence technologies. With the solutions implemented in 13 cities with the New Generation Urbanism Initiative: energy savings were achieved in all areas of smart living, ranging from traffic and public safety to irrigation and street lighting. Türk Telekom ensures the effective use of public resources with the data it interprets on the IoT (Internet of Things) platform, while also supporting sustainable urban living.

With the smart solutions implemented, Türk Telekom has so far enabled savings of 40% in electricity and 30% in irrigation costs for municipalities.

**Healthy and environment friendly innovative technologies for cities**

Within the scope of Türk Telekom’s new generation urbanisation activities, positive results were obtained with the Electronic Control System in Karaman, Kars, Antalya, Kırşehir, Edirne, Kocaeli and Konya, and with New Generation Intersections in traffic at Düzce, Mersin and Elazığ. Furthermore, next generation city solutions were provided to the Kütahya Municipality with Public WiFi, Next Generation City Furniture and the Mobile application, while the number of municipalities with a “Digital and Interactive Municipality” vision receiving support through Social Media Management Software increased to 51.

Cities equipped with intelligent transportation systems witnessed significant reductions in the amount of time lost in traffic as well as the number of accidents and delays caused by roadworks. Türk Telekom recently implemented the “Next Generation Bicycle Project” with the Aksaray Municipality. Initiated with 120 bicycles, the project provides urban residents with alternative opportunities for environment friendly and sustainable transportation.

Getting around by bicycle offers a direct or indirect contribution to Good Health and Well-Being, Sustainable Cities and Communities, and Climate Action goals included in the United Nations’ Sustainable Development Goals.
Marketing Activities

Digital Products and Services

Digital transformation continues under the leadership of Türk Telekom

Turk Telekom continues its digital transformation in a strong manner within the framework of channel management, customer experience, big data and data analytics, and organisational structure while expanding its digital portfolio with different products and services. Having determined digital transformation as its main focus, Türk Telekom continues its services in a wide range of areas from sales and service channels to organisational structures, from customer experience to marketing processes.

Türk Telekom revised its analytical and reporting structures for effective management of channels, while developing artificial intelligence solutions in sales and service means. Also the Company launched activities for user interface and usability. The Company prioritises the production of more efficient and effective technology and targets to operate the organisation with minimum required human resource by using robotic process automation technologies for repetitive processes that require lower competence. As such, existing technological competencies reached a stronger development trend together with teams managed under agile organisation.

In addition to its transformation initiatives, Türk Telekom introduces new technologies in addition to its transformation initiatives.

In 2021, Türk Telekom added new features such as Near Field Communication (NFC) and voice verification to its Online İşlemler application to enable end to end digital subscription for mobile postpaid line sales. The company embedded its existing operations such as Tivibu Go sales, Muud Premium membership, Tivibu package change, Home Internet connection controls, and many other transactions that improve the customer experience in the Online İşlemler application portfolio.

Türk Telekom started offering campaigns through the application and made design improvements that will provide user friendly experience in order to ensure a quick adaptation to evolving industry conditions. In line with its vision of digitalisation, the company plans to launch new projects in 2022, with the aim to increase the active use of digital channels and improve the end to end customer experience to a next level.

Muud - Operator independent unbound music platform

Muud offers its customers an ever growing music platform with more than 5 million local and foreign tracks enabling them to enjoy this experience freely. With its operator independence and accessibility to everyone, In addition, volume of TL uploads and amount of online invoice payments through digital channels increased respectively by 71% and 23% compared to the previous year.
Users who have not yet become a Premium subscriber can take advantage of the Premium subscription campaign with the first month free of charge.

**e-dergi**

Turk Telekom e-dergi application is Turkey’s digital magazine and newspaper reading platform. Turk Telekom e-dergi application is Turkey’s digital magazine and newspaper reading platform that features hundreds of magazines in various categories from health and food to economy, fashion, along with the daily newspapers that are uploaded on a daily basis. In 2021, the number of publishers offering both magazine and daily content was increased, providing subscribers with a richer content.

The vast majority of Türk Telekom mobile customers can access content that is enhanced every day, free of charge, as part of their mobile tariffs. Other mobile operator users can also use the application within the specified fees and rights.

In 2021, nearly 1 million monthly users with guest rights enjoyed a more functional and engaging e-dergi application with newly added features and modernised software. The upgraded software resulted in significant improvement in application’s boot time and access time to categories. With these developments, the new features are aimed to be finalised more swiftly and effectively in the coming period.

**Pokus**

In 2021, the Pokus mobile application entered the application markets. The prepaid Pokus Card, which works under a Pokus account, took its place both in Türk Telekom stores and retail chains as well as e-commerce platforms.

Playstore – the leading and expanding digital gaming platform

Turk Telekom revised its Gamer campaign in collaboration with Microsoft, improved its value proposition for its customers and offered its customers 50% more Playstore wallet codes with a Welcome discount. In addition, with this innovation, the X-Box Game Pass Ultimate package (PC + Console) was made available for free for 3 months.

**The digital gaming initiative**

Prioritising investment in domestic and national technologies, focusing on talent and competence development in a wide variety of fields across the country, Türk Telekom included the game category, which has become an important part of the digital experience, into its digital portfolio.

As part of its growth strategy in gaming, Türk Telekom prioritises firstly enhancing its capabilities internally. In addition to the curriculum, promotional materials were also prepared for a very comprehensive learning program that will include leading trainers from valuable domestic start-ups, incubation centres of universities and technology companies that dominate the global market. The program launch is scheduled for early 2022.

In addition, Türk Telekom undertook the necessary agreements over a theme and passed on to the technical advancement stage through exploring on gaming concepts and different partnership models with the local game initiatives.

Türk Telekom’s Fintech company TT Ödeme offers services that add value to both its customers and the industry with its innovative and reliable payment solutions.

Türk Telekom’s Fintech company TT Ödeme (TT Payment) offers services that add value to both its customers and the industry with its innovative and reliable payment solutions.

Türk Telekom offers innovative services in the field of financial technologies that generates the highest revenue and transaction volume of the digital ecosystem, via TT Ödeme ve Elektronik Para Hizmetleri A.Ş (TT Payment and Electronic Money Services).

TT Ödeme, which received the payment license in January 2017, develops and continues its activities, including the Türk Telekom Mobile Payment product.

The prepaid Pokus Card that works under a Pokus account, took its place in Türk Telekom stores and retail chains as well as e-commerce platforms in 2021.

TT Ödeme prioritises collaborations with popular member businesses in order to provide its customers safe and high quality content. Following this perspective in 2021 TT Ödeme made important collaborations and completed the mobile payment integration with lynco and Exxen by 2021 in-app purchase volume increased by 33% in Google Play and 38% in App store compared to last year. Mobile payment volume increased by 21% year on year.

Türk Telekom is working on new campaigns for the future around popular services in various categories including the Türk Telekom Mobile Payment product.

In addition, Türk Telekom offers innovative and reliable payment solutions.

Corporate digital transformation services

More than 3 million small and medium sized enterprises (SMEs) operate in Turkey. However, although almost all of these enterprises have the main information technology tools such as computers and smart phones, about 90% of them are far from using medium level information
Dijital Depo

With its automatic backup feature, Dijital Depo prevents the problem of limited storage space on phones by securely backing up documents.

Marketing Activities

Dijital Depo

Turkey Telekom detailed its digital products and services for SMEs in different areas such as digital appearance, online sales, digital advertising, business management and cyber security. As part of its strategic partnership program with Wix, the company offered packages through which institutions can easily set up their own websites with domain name and hosting services. Within this framework, institutions can easily convert their own platforms into e-commerce sites. The option to reflect the payment on the invoice is also offered to institutions as an alternative payment method. Pre-accounting, e-fax, mobile field, mobile academy, e-mail and storage services are included in the portfolio for the effective management of existing works.

Turkey Telekom places corporate digital transformation at the centre of its main digital growth axis. In 2021, the company made the necessary plans by identifying the technology products and services. Therefore, the SME segment in our country needs a wide range of digital transformation tools.

Turkey Telekom's digital products and services for SMEs are among the leading digital product and service categories that will be needed in the future in addition to its existing portfolio. Turkey Telekom customers can use all features of the application together with 2GB of free storage. In addition, periodic campaigns are launched, which can be increased for a certain period of time. In 2021, the renewal project of the application was initiated in line with both infrastructure requirements and emerging user experience needs. The project has been largely completed and is scheduled to become available in the first months of 2022.

Analytical and blockchain value propositions

Today, big data and generating value from data gain importance. As the leading manufacturer of technological services, Turkey Telekom's projects in this area are offered in the local market with a high strategic value, attracting attention.

With the aim of generating revenue from data, the company evaluated prominent innovative ideas in both the global and local markets within the scope of the Mucit program and determined its roadmap in line with the contents coming from business units and suppliers. Uncovering value propositions from comprehensive data pools, providing valuable data driven insights to financial service providers, and launching innovative products and services in the field of blockchain are among Turkey Telekom’s prioritised areas.

Consumer and Corporate Sales Activities

While the demand for communication networks and the increase in data usage continued in 2021, Turkey Telekom brought all its sales channels and employees together under the focus of effectiveness, customer experience and revenue management.

Consumer Sales Activities

In-store digital transformation continues

Turkey Telekom implemented digital screen projects in numerous Turkey Telekom Offices and Contact Points in 2021 in order to create visual richness and engage customer attention, within the scope of digital transformation, which has become even more important with the pandemic. Having made interface improvements on digital screens to increase their use within the framework of the project, Turkey Telekom aims to increase the interaction of touchscreens and digital screens in 2022.

Activities to increase store traffic and visibility

With the aim of increasing the store traffic, which has declined due to the pandemic, Turkey Telekom carried out Yıldızlı Günler (Starry Days) communication activities, with special discounts applied to selected tariffs on certain days of the month, used price oriented visuals in select provinces, and worked on creating interest in special numbers through social media video advertisements and social media. The company also supported the interior and exterior visuals of stores with various projects.

Focus on Tivibu increased with holistic activities carried out throughout the year

Turkey Telekom increased its focus on Tivibu with several activities carried out in 2021. These activities include trainings for sales channels, strategic positioning in channel campaigns, and enriching the stores with visuals to bring Tivibu to the forefront.

The goal of increasing the commitment of the sales channel employees

Turkey Telekom made several launches to support employee commitment and performance for Retail and Wholesale Channel employees, and sent motivation packages to them. These packages included a certificate of achievement, working time incentive, Güz Sendiri (The Power is with You) mobile tariff, discounts and advantages of several brands.

Activities focused on the development and motivation of store employees

Turkey Telekom organised Cross-Selling, Digital Product,
The changing customer expectations with the new normal and provided all channels with training on compliance with Covid-19 measures. The Company organised competency trainings to meet the changing needs during the pandemic, with the help of activities implemented throughout the year. The share of 24Mbps and higher fixed internet packages in new sales for the consumer segment increased to 54% in 2021 from 23% in 2020.

Mobile focus has been increased along with the channel campaigns and the focused sales strategies. Prime tariffs were rewarded them while supporting employee commitment.

Prime subscriber ratio increased while revenue focus with continued revenue focus in mobile products. Prime subscriber ratio in postpaid subscriber base increased from 21% at the end of 2020 to 32% at the end of 2021. The increase in the number of incoming tourists and expats, following the removal of international flight bans in the second half of 2021, positively affected the need for communication. Türk Telekom achieved a sales increase in all its products, with the help of activities implemented at entry points of the country and visuals in foreign languages addressing that need.

The distribution of regions and dealers was rearranged in order to optimise the Wholesale Channel. The tourist potential was utilised by effectively benefiting the tourism season. The increase in the number of incoming tourists and expats, following the removal of international flight bans in the second half of 2021, positively affected the need for communication. Türk Telekom achieved a sales increase in all its products, with the help of activities implemented at entry points of the country and visuals in foreign languages addressing that need.

Although the number of events held decreased during Women’s Day, Mother’s Day, Father’s Day and Your Retirement celebrations, Türk Telekom sponsored, and supported sales by creating opportunities to present its products or inform customers.

Sales team and dealer meetings continued with precautions. Türk Telekom organised meetings with dealers in all cities, sessions to exchange ideas and mini workshops with sales teams in accordance with the pandemic conditions.

The premium systems of Türk Telekom Contact Points and Premium Sub-Channel were renewed to encourage higher number of activations. Premium systems were prioritised in Türk Telekom stores showcases.

High speed became primary sales focus in fixed internet. Türk Telekom broke a record in the sales of high speed fixed internet packages in 2021 thanks to the sales focus created by the visual designs, channel campaigns and trainings prepared to increase the sales of high speed fixed internet packages. The share of high speed fixed internet sales in total sales continued to increase throughout the year. The share of 24Mbps and higher packages in new sales for the consumer segment increased to 54% in 2021 from 23% in 2020.

Office Channel
In line with the general strategy, premium systems were updated in order to increase the sales of high speed packages in fixed internet products in the Office Channel.

The record sales of high speed fixed internet packages in 2021 thanks to the sales focus created by the visual designs, channel campaigns and trainings prepared to increase the sales of high speed fixed internet packages. The share of high speed fixed internet sales in total sales continued to increase throughout the year. The share of 24Mbps and higher packages in new sales for the consumer segment increased to 54% in 2021 from 23% in 2020.

Sales activities in events
Although the number of events held decreased during the pandemic, Türk Telekom participated in the events it sponsored, and supported sales by creating opportunities to present its products or inform customers.

Prime subscriber ratio increased while revenue focus continued in mobile products.

Wholesale Channel Optimisation
Prime subscriber ratio increased white revenue focus continues in mobile products.

The focus on quality and revenue was emphasised in the钗/>

Prime subscriber ratio in postpaid subscriber base increased from 21% at the end of 2020 to 31.6% at the end of 2021 along with the channel campaigns and the focused sales strategies. Prime tariffs were launched specially for the Yildiz Günleri to increase Prime sales rates and special trainings including Prime tariff information and advantages were given to the store employees. Prime focused visuals were prioritised in Türk Telekom stores showcases.

Prime subscriber ratio increased while revenue focus in postpaid subscriber base increased from 21% at the end of 2020 to 32% at the end of 2021.
Arçelik, Nokia and Türk Telekom signed Turkey’s first 4.9G/LTE project, which is critically important for the digital transformation of the Arçelik Çayırova factory.

Arçelik 4.9G/LTE Project

2021 was a year when digital transformation continued unwaveringly while institutions and corporations carried on conducting their activities under the pandemic conditions and reshuffled their investments in accordance with the new conditions. During the year, companies switched to new working models such as remote, hybrid working and etc. With the new working models, strong infrastructure, digital security against cyber attacks and easy accessibility issues have come into the focus.

Türk Telekom continued to develop solutions to address the diversifying technological needs of corporate customers in 2021.

 strategic Segment Projects

Arçelik 4.9G/LTE Project
Arçelik, Nokia and Türk Telekom signed Turkey’s first 4.9G/LTE project, which is critically important for the digital transformation of the Arçelik Çayırova factory. The project is designed to build infrastructure for the applications planned to be run in the factory.

Within the scope of the project, widespread, reliable and low latency coverage area will be provided throughout the facility in order to increase the performance of Automatic Guided Vehicles (AGV) in the first place. A significant increase in operational efficiency is expected with the use of AGVs within the framework of part logistics throughout the production period. The coverage area will provide real time asset location tracking that supports the indoor positioning system with high accuracy. Furthermore, factory safety will also improve, thanks to the new applications based on video analytics.

Canakkale Highway Project
Türk Telekom became the smart transportation systems contractor for the highway section of the Canakkale Highway and Bridge project, the construction and operation of which was undertaken by DLSY Joint Venture, as a result of the build-operate-transfer tender of the General Directorate of Highways. As part of the project, Türk Telekom will provide two data centres, the main control centre, variable message and traffic signs, camera systems and establish infrastructure and redundancy systems.

Trendyol Projects
Türk Telekom added a new server hosting service in 2021 to the one provided to Trendyol last year. The speeds of leased lines installed in 2020 have been increased this year. The high speed symmetrical internet line was put into use along with a different switchboard backup facility for the purpose of accessing the data centre. In addition, DDoS security service was provided for the cyber security needs. High speed Metro Ethernet Internet was sold to Trendyol Logistics.

 Başkent University Artificial Intelligence Project
Türk Telekom is preparing to break new ground with Vrasoft, of which it is an investor, in digital pathology services, new artificial intelligence based modules will be developed for different types of cancer by processing the data obtained by Başkent University overs years on liver transplantation, kidney transplantation and gynaecological diseases, and the results will be made available to experts all over the world in published scientific articles.

Hepsi Emlak
The Mobile and Fixed Voice Integrated Call Management project carried out by Türk Telekom at Hepsi Emlak, allows calls made by Hepsi Emlak users from mobile numbers on the website to be forwarded to numbers belonging to real estate consultants. Through the software located in Türk Telekom Data Centre, the project enables opportunity tracking in the real estate sector with detailed reports containing information such as the number and duration of calls directed.

Large Scale Customer Projects

Municipal Projects
The smart bicycle solution has started to be offered to citizens together with the Municipality of Aksaray, in order to ease the city traffic and encourage citizens to use bicycles, which is a healthy solution. In the project, a total of 131 bicycle stops and 120 bicycles were made available to citizens at 11 bicycle stations.

Within the scope of the Smart City project, being carried out with Metropolitan Municipality of Antalya, YöneTT WiFi was installed at 70 points in order to provide free internet service to citizens by the municipality.

Türk Telekom started the held works of the Electronic Detection System (EDS), which is intended to be implemented by the Metropolitan Municipality of Kocaeli to provide a safer and more controllable traffic across the city. The project will be commissioned in 2022, after the official delivery of work.

As part of cooperation with the Municipality of Elazığ, dynamic junction control system and communication circuits over Point to Point Metro Ethernet were installed at 12 junctions in the city centre.

BiletAll Project
Having virtualised 200 active servers of BiletAll, which manages the ticket automation system of more than 250 bus companies, Türk Telekom positioned the servers in 2 cabins in the data centre. Secure accessibility was ensured with DDoS, IPS, WAF PLUS services.

Salmaz Gümrük TTVPN Project
Türk Telekom designed the entire technological infrastructure of Salmaz Gümrük (Salmaz Customs) with Mobile, TTVPN and corporate cloud server services. Within the scope of the project, TT Mobil provided 800 personnel lines in the project. In addition, core services were provided in a topology, where all branches would access the internet via Türk Telekom Data Centre with TTVPN.

BiletAll Project

As part of the Hitit Culture and Tourism project, Türk Telekom digitalises over a thousand libraries, cultural centres, archaeological sites, provincial directorates of culture, museums and the entire Central Organisation of the Ministry of Culture in Turkey.

Cultural Tourism Project

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Public Projects

TRT Cyber Security Project

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Cultural Tourism Project

As part of the Hitit Culture and Tourism project, Türk Telekom digitalises over a thousand libraries, cultural centres, archaeological sites, provincial directorates of culture, museums and the entire Central Organisation of the Ministry of Culture in Turkey.
In line with the Digital SMEs Web Platform Cooperation Protocol signed with the Istanbul Chamber of Commerce (İTO), Türk Telekom aims to lead the digital transformation of SMEs.

ULAK Project
As part of the SDWAN (Software Defined Wide Area Network) protocol signed with the Ministry of Agriculture, Turkey’s first domestic and national SDWAN was put into operation at 190 of the 2,400 points belonging to the Ministry. As a result of the ongoing work within the framework of the project, 480 points will be converted into ULAK SDWAN.

National Archive Project
Fixed data, fixed broadband, fixed voice and ICT products are bundled together at the campuses of the Directorate of State Archives located in Istanbul and Ankara. With this infrastructure, which lays the ground for the preliminary preparation efforts of the National Archive project, Türk Telekom aims to grow its ICT business in 2022.

SME Projects
Istanbul Chamber of Commerce - Türk Telekom Project
In line with the Digital SMEs Web Platform Cooperation Protocol which was signed with the Istanbul Chamber of Commerce (İTO), Türk Telekom aims to lead the digital transformation of SMEs and support them in gaining an advantage over their global competitors. In this context, Türk Telekom became the strategic partner of the platform, which is the final product of İTO’s European Union supported SMEs Digitisation project, and can be accessed from the website digitalkobim.org. It is aimed to meet the digital transformation needs of 430 thousand members in Istanbul, thanks to the project.

The Metropol Project
In accordance with the cooperation agreement signed with Metropol in 2021, it is planned to sell Türk Telekom corporate products to more than 20 thousand contracted authorised member workplaces through the sales representatives of Metropol company. Sales activities within the scope of the project started in August 2021.

RD Global
Türk Telekom met the Metro Ethernet, IP multi-line, 254 cameras/alarms and 444 ÖSNs (Special Service Numbers) service needs at 3 locations of RD Global, which aims to become the leading medical device manufacturing base in the European region with its new factory established in Ankara.

Financial Information Corporate Governance Türk Telekom Group Companies 2021 Activities Management 2021 at a Glance Türk Telekom in Brief

Cooperation with İstanbul Chamber of Commerce

Consumer and Corporate Sales Activities

Wholesale Activities

Türk Telekom contributes to the change and development of the telecommunication sector by expanding Turkey’s electronic communication infrastructure.

As of the end of 2021, the number of customers receiving fixed broadband service through Türk Telekom infrastructure from all over Turkey exceeded 14.3 million.

14.3 million fixed broadband subscribers

Türk Telekom has become the pillar of strength for its customers at the wholesale level during the period when the internet became vital due to the pandemic. Despite the fact that the daily life, which has been negatively affected by the pandemic all over the world, started to normalise over the past year, the need for uninterrupted, fast and unlimited communication systems remains relevant. In such an environment, Türk Telekom aims to provide faster and higher quality service to its customers at the wholesale level with its strong and widespread fibre infrastructure, within the framework of its responsibility derived from its deep-rooted past.

Türk Telekom accelerated its fibre infrastructure investments to meet high speed internet demands and increased its fibre homepass to over 30.2 million as of the end of 2021. FTTC homepass reached 21.4 million, while FTTH/B homepass increased to 8.8 million. This way, Türk Telekom continued to increase customer satisfaction in 2021.

Türk Telekom facilitates the use of secure internet services for its subscribers

With the regulation introduced by the ICTA (BTK), all subscriptions will benefit from secure internet service, while subscribers who prefer otherwise will be exempted from this feature. Türk Telekom complies with this regulation and produces solutions that facilitate the use of secure internet services for its subscribers.

In order to reach a service variety that will meet the rapidly increasing needs, Türk Telekom offers high-speed fibre internet tariffs

Türk Telekom applied to ICTA to add high speeds from 200Mbps to 1Gbps to its portfolio with the aim of providing higher speeds in internet usage through fibre infrastructure. The Company expects these speeds to be available for subscribers by the first quarter of 2022.
Wholesale Activities

Türk Telekom has prepared for 5G with products that will optimally support the infrastructure costs of mobile operators.

Türk Telekom increased the remote management capability of end devices in fibre services

Türk Telekom has updated the technical infrastructure that facilitates the remote management of end devices, the last parts at subscribers’ homes in the fibre network, without the need to go to the household. Thus, all the capabilities enabled by the next generation technologies were made available to operators. Through this infrastructure, service providers were equipped with the opportunity to handle all kinds of subscriber complaints and to meet customer demands, without going to the household.

Aiming to perfect end to end customer experience in responding to household faults with innovative solutions

For services outside the Türk Telekom network, the processes of systems that produce solutions for infrastructure parts used in the households were improved. Considering the need in this area, the Home Support Service was put into use. Türk Telekom intervened in all areas that could harm the end to end experience of its subscribers benefiting from this service, and diversified its solutions in order to reach the highest service quality allowed by the infrastructure.

Türk Telekom updated download speed definitions in order to prevent the speeds offered to its subscribers from being affected by instant loads

Türk Telekom updated the port definitions of download speeds in order to meet the growing need for data and speed and to ensure that the speed values are not considered lower than they actually are in applications affected by instantaneous load increases, especially in speed tests.

Türk Telekom supports operators in order to expand the fixed broadband market and ensure superior customer satisfaction

Türk Telekom continued to support operators with low subscriber base with campaigns in order to grow the fixed broadband market in a healthy way and to maintain the market balance. In this context, the company provided additional sales support for districts with low internet usage in order to increase the fixed broadband penetration rate and made it easier for operators to connect households with internet needs.

Türk Telekom also supported migration to higher speed packages for subscribers who received service from entry packages within the scope of the Internet Bıçak (Internet on Us) campaign, which targeted households that are new to the internet and was discontinued in 2020.

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New products suitable for operators’ internet needs with the Passive Fibre Optic Network (G PON) infrastructure

Türk Telekom designed a new internet product over the G PON infrastructure that has reached 3.5 million households. Aiming at a competitive price level in the market with this high priority product, the company plans to save labour and time by using the existing fibre (12 asymmetry).

Customer support improved with renewed wholesale data reference offers in line with market needs

Türk Telekom’s Reference Leased Line Offer (RKDT) was approved by ICTA in August 2021. In addition, the proposal for new connection fee model, which allows reflecting the connection costs of fibre services requested from the company to price quotes, on project basis and more dynamically was put into use. Prices have come to a level where operators that need fibre for transmission can receive this service from Türk Telekom at much more reasonable prices and thus meet their transmission needs.

Türk Telekom predicts that the market demand for the use of existing infrastructure through capacity based leasing will be met at reasonable costs, when considered the volume based discount to be offered to operators with high volume usage.

A product that provides internet services from border points to countries of the region comes with a new revenue potential

A new member of Türk Telekom’s portfolio, TT IP Transit service, which is offered at border points over the MPLS (Multi-Protocol Label Switching) network, attracted demand from various countries.

End to end Customer Experience

It was aimed to improve the resolution times in fault processes by introducing the Wholesale Service Management.

New product development studies continue along with the preparations for 5G technology

The need for base stations is expected to increase significantly with the 5G rollout. With this increase, it will become inevitable for operators to seek savings in both device and equipment investment costs and transmission expenditures. In addition to this, the need for more flexible technology and lower latency in data transfer will arise.

Türk Telekom-enabled operators to meet their transmission needs at much lower costs with the updates it made in RKDT tariffs in September. Considered together with the volume based discount to be given to the operators, the company anticipates that the market demands for the use of its existing infrastructure through capacity based leasing will be met considerably at reasonable costs.

In addition, Türk Telekom has planned Mobil Transport and Mobil Transport Same Switchboard Level products in order to proactively address the high capacity and low latency needs of operators along with 5G.

Supporting fixed voice market by switching to IP interconnection model

In order to support the fixed voice market and increase cooperation with customers, Türk Telekom implemented the IP interconnection model by integrating technological developments into its commercial processes.
Customer Care Activities

Türk Telekom Call Centre scored 8.4 out of 10 in the customer satisfaction survey conducted through the fixed voice, fixed internet, mobile and TV channels in 2021.

Türk Telekom continued to support its customer experience focus with technological developments

Türk Telekom Call Centre significantly increased the first contact resolution rate of calls received from customers. In particular, the resolution rate of fibre fault complaints at the first contact improved by 34% compared to the beginning of the year.

When the number of complaints received by Türk Telekom Call Centre is compared to the beginning of the year, mobile product group improved by 30% and Internet at Home product group improved by 26%.

Türk Telekom Customer Care works in full capacity along with its vision of becoming the solution centre to offer the best customer experience in all channels.

Türk Telekom’s Customer Care consists of customer care personnel across a widespread office and dealer network, call centre customer representatives providing 24/7 support, and strong self-service channels. Moreover, within the customer care framework, services are offered to VIP and corporate customers to address their needs in the fastest way possible through customer representatives specifically dedicated to them.

Türk Telekom Call Centre continues to provide uninterrupted service with remote working

The Türk Telekom Call Centre provides services for all products, including mobile, internet, fixed voice and TV segments, with its wide staff consisting of 8,369 consumer segment and 920 corporate segment representatives in 30 provinces.

Following a significant increase in call volumes in the first year of the pandemic, the Türk Telekom Call Centre raised its capacity and service level rapidly to avoid any interruption in its functions due to intensity, especially after the increase in the Internet at Home product group. In 2021, call numbers to the call centre returned to pre-pandemic figures.

The Call Centre received 74 million calls in 2021. Türk Telekom continued to address the product and solution needs of its customers in all product groups through the call centre channel.

Infrastructure improvements and automation in interactive voice response systems enable customers to easily and quickly to solutions for their needs.

With the infrastructure improvements made in its interactive voice response systems in 2021, Türk Telekom enabled its customers to easily access information and solutions for their needs without connecting to the call centre.

Türk Telekom uses robotic automation technologies also in its customer care processes. By meeting customer needs swiftly with its new technologies, the Company aims to increase customer satisfaction and ensure savings.

Türk Telekom continues to provide uninterrupted, face to face services to its customers in all of its offices.

Türk Telekom Offices serve Türk Telekom customers with 1,108 consumer and 402 corporate customer care personnel. In 2021, a total of 21 million customer care requests were processed at Türk Telekom Offices.
We maximise our digital value proposition by developing services and products that make our customers’ lives easier.
Investments and Infrastructure Projects

Being the pioneer of digitalisation, Türk Telekom, continued its new investments and infrastructure operations in order to offer the best experience to nearly 52 million subscribers with its diverse product portfolio and advanced service quality.

Fibre infrastructure transformations of 11 million broadband subscribers were completed in 2021. The number of fibre hompass reached 30.2 million with an increase of approximately 3.4 million.

Fiberisation and infrastructure investments
Türk Telekom continued its fibre rollout and infrastructure investments unabated in 2021
Türk Telekom has been maintaining intensive investment operations for a long time to make sure its fixed network spreads throughout the country. This strategy allowed the Company to seamlessly meet the massive increase in network traffic across the country in 2020 and 2021.
Türk Telekom, with ongoing investments, increased its IP network installed port capacity by 140Tbps in 2021 reaching approximately 1 million customers. Access to 831 thousand households without infrastructure in the new residential areas has been completed. 582 thousand households covered by existing infrastructures have been converted to FTTH infrastructure.
Türk Telekom’s fibre infrastructure length, reached 366 thousand kilometre by the end of 2021 along with new investments. Türk Telekom offered its customers speed options up to 10Gbps, depending on their tariff demands and network infrastructures, thanks to the fibre rollouts implemented throughout the year.

The carrier network serves with more flexible and higher capacity
Türk Telekom has started the installation of a new DWDM (Dense Wavelength Division Multiplexing) network, covering its 88 large offices in order to serve as an alternative to the existing backbone DWDM network, which was modernised in 2020.
As of the end of 2021, the installation has been completed in 57 centres. The new backbone DWDM network has a direction-wavelength-content independent and flexible spectrum usage infrastructure similar to the current one. Moreover, the network is expected to support additional protection functions with the automatically switched optical network feature and to provide speeds of 400Gbps and above.
Türk Telekom and its subsidiary Türk Telekom International provided a significant back up infrastructure by transferring some of the international traffic on to the Black Sea Fibre Optic System (KAFOS).

Domestic production of lithium batteries
Türk Telekom continues its lithium battery development studies with local companies with a view to encourage domestic lithium battery production for use in the 5G network.
Türk Telekom continues its fibre infrastructure length, reached 366 thousand kilometre by the end of 2021 along with new investments. Türk Telekom offered its customers speed options up to 10Gbps, depending on their tariff demands and network infrastructures, thanks to the fibre rollouts implemented throughout the year.

30.2 million fibre hompass

Türk Telekom 2021 Annual Report Türk Telekom 2021 Annual Report
As of the end of 2021, while the LTE population coverage rate in Turk Telekom mobile network has reached 99%, the LTE access point has doubled in the last two years and the rate of sites where LTE service is provided has reached 90%.

Turk Telekom increases its capacity with LTE base station installations and improves its mobile network with next generation call services

As of the end of 2021, while the LTE population coverage rate in Turk Telekom mobile network has reached 99%, the LTE access point has doubled in the last two years and the rate of sites where LTE service is provided has reached 90%. Total number of mobile sites of Turk Telekom exceeded 23 thousand as of 2021 year end. In 2021, the Company heavily invested on divided roads, highways and high speed train lines, and increased its coverage rate to 95% in these areas.

As part of TT Mobil transport network 5G preparations, Turk Telekom has made the access capacity compatible with 5G in 15% of its approximation 9 thousand fibre points. The Company converted 10Gc connections to 100Gc connections by taking the necessary actions in the core transport network. The works on converting the total capacities of devices (router) to support speeds from 2Tbps to 11Tbps continue.

 Turk Telekom conducted feasibility studies on 5G products and services in the fields of product service and information systems, in addition to feasibility studies on radio network, transmission network, core network. The Company analysed network elements and worked on core-transmission-radio-information systems in addition to laboratory and field trials. The Company created RFIs (Request for Information) and RFPs (Request for Proposal) for new upcoming 5G equipment.

The Company accelerated its network virtualisation operations, which continued in parallel with the aforementioned studies, according to its roadmap. With field based trials, preparedness level was raised by gaining know-how through studies such as function and feature tests, pilot commissioning, operation and performance monitoring in trial sites and areas such as Istanbul Airport, Ataturk Cultural Centre.

WiFi Call and VoLTE

Turk Telekom reached 76 million VoLTE (Voice over LTE) and 3.4 million WiFi call subscribers as of the end of 2021, as part of its efforts to expand service usage. About 29% of Turk Telekom call traffic is generated by IMS (VoLTE/VoWiFi) subscribers.

Turk Telekom continues to improve its operations

A new era in operations: digital, analytical and converged services for customers

The expectations of customers from operators changed with the increased time spent at home and the rise in demand for remote working and education during the pandemic. Accordingly, Turk Telekom changed its business model in operational workflows in line with the converged services structure for customer. Within this business model, the Company started to work on improving its processes in 4 basic axes, under the headings of Digitalisation in Operations, Operational Analytics, WiFi Operations and Solution in All Areas.

Cloud Market Service

The Cloud Market Service Platform, implemented within Turk Telekom, allows customers to meet all their infrastructure and service needs from a single point with cost advantage.

With artificial intelligence based proactive and reactive solutions in business processes under the heading of digitalisation in operation, the ratio of remote digital solutions increased to 75%. Turk Telekom started to use mathematical models in field operations for the first time with operational analytics. With the use of these models, the Company established Analytical Operations teams that provide solutions with rational, objective and fully automated processes and decision mechanisms.

WiFi operations became Turk Telekom’s primary operational transformation area in the post-pandemic era. In this period, the increased number of connected devices at homes and the need for more than one uninterrupted service running at the same time for the purposed increases completely changed the expectations of customers from operators and their demand trends. With WiFi Analytics & Solution developed with Grafana, TT Ventures investment partner, Turk Telekom took its place among the few operators in the world that provide solutions in this field.

Local Net Analysis

Within the scope of the Local Net Analysis solution, Turk Telekom expanded the service quality analyses used in the DSL infrastructure to the FTTH infrastructure. FTTH fault localisation, service quality metrics, port analysis, link quality analyses for active and passive equipment became reportable. Speed optimisation studies, developed by Turk Telekom and carried out fully automatically, allow for a better customer experience.

Turk Telekom expands its products and services according to changing needs on the way to digital transformation

Turk Telekom Cloud Market Service

Turk Telekom conducted studies to offer next generation cloud technology services and to provide its customers with a real cloud experience in 2021 in order to compete with companies on a global scale in the field of cloud services. The Cloud Market Service Platform implemented within Turk Telekom, which is in line with the Company standards, allows customers to meet all their infrastructure and service needs from a single point with cost advantage.

Digital Subscription Processes

Subscription processes through online channels, which have become even more important with the pandemic, have been digitised with up to date technologies such as voice verification and NFC (Near Field Communication). Offering mobile and internet sales processes through online channels, which are the first contact point with customers in the digital transformation journey, Turk Telekom has taken digital maturity and customer experience to the next level.

ChatBot

Turk Telekom developed an artificial intelligence technology based interaction channel/system that communicates via webchat on its website and responds to customers in real time. The Company offers many transaction features including buying packages, paying bills and participating in campaigns through this channel.

Real-time pricing, information and quota management with instant pricing system

Turk Telekom aims to offer instant pricing and real-time invoice, quota monitoring and management experience to its mobile customers with Turkkuar programme. With the first phase of the programme launched at the end of 2019, Non-exceeding Tariffs were put into use. As of the end of 2020, all postpaid subscribers were able to receive service...
Investments and Infrastructure Projects

Pokus is a prepaid card and mobile wallet application that provides features such as spend-split, earn money back, bill payment, P2P and money transfer.

Cyber Security Activities

Cyber security risks are increasing for all customer groups with the rapid spread of information technologies. Possible cyber-attacks on the infrastructures of corporate and public customers can lead to dire consequences such as access to personal information of citizens and customers, misuse of the obtained information, deterioration of the integrity of the information and deletion.

The products and services offered by Türk Telekom’s Cyber Security Centre constitute Turkey’s largest cyber security portfolio. The Company provides security incident monitoring, analysis, intervention services and consultancy services as well as its existing corporate security services.

Cyber Security Centre aims to meet the security needs of its customers from a 360° perspective, especially with its shared security services family. The Centre has further expanded its product portfolio with cyber intelligence, phishing, detection and intervention services for end device threats, and security testing services that it started to offer in 2021.

Information Security Policies

Türk Telekom determines the steps to be taken in order to be protected from cyber-attacks, unauthorised access and data leaks with various policies. The Company’s information Security Policy, which is prepared to ensure information security and establish standards and which can be accessed through the corporate Türk Telekom Portal, constitutes the general umbrella policy. In addition, the Company has a wide range of information security policies, procedures and standards such as Access Control Policy, Password Protection Policy, Log Management Policy. All accesses, authorisations and controls are performed in line with these standards.

Türk Telekom’s technology infrastructure, information security management systems, business continuity and emergency plans were audited by external auditors in 2021.

The Company has Cyber Risks and Technology Professional Liability Insurance for information security breaches or other cyber security incidents.

ISO 27001 and PCI-DSS certificates renewed

The TS ISO / IEC 27001 certificate held by Türk Telekom is renewed following the audits conducted to ensure the continuity of the PCI-DSS certificate, which is the data security standard in the credit card industry.

Compliance with the Presidency Digital Transformation Office Information and Communication Security Guide

With the Presidential Circular on Information and Communication Security Measures No. 2019/12, it became obligatory to comply with the procedures and principles set forth in the guide for new information systems to be established in all public institutions and organisations and businesses providing critical infrastructure services. Considering the security level priorities, it became necessary to gradually harmonise the existing information technology infrastructures with these principles within the framework of the plan to be included in the Guide.

Türk Telekom carried out intensive studies covering the entire Company within the scope of compliance with the Presidency Digital Transformation Office Guide. In this context, the Company which identified the unfulfilled requirements according to the rating measure analysis in the guide by grouping all technology assets, assigned them to the teams in order to take the relevant actions and started a follow up process.

Database Activity Monitoring Product - DAM

Türk Telekom localised the foreign-origin DAM product, which is used for 24/7 monitoring, updating and recording of transactions carried out on databases, by making the necessary improvements. Thus, the Company added a new product to the local ecosystem, while also providing a significant cost advantage.

Revenue assurance activities

As part of its revenue assurance activities, Türk Telekom effectively and closely monitors invoice reconciliations, preventing any revenue losses. In this way, while the services offered to millions of subscribers are monitored, incompatible services provided to the subscribers are corrected, and significant revenue losses are prevented.

Extension of DDoS7+ service

The topology design of the L7 Anti-DDoS service was arranged for the use of all corporate metro ethernet and data centre customers, and the service was expanded.

Turkey Telekom 2021 Annual Report
Investments and Infrastructure Projects

Türk Telekom launched the Cyber Security Idea Marathon with the theme of Next-Generation Identity and Access Management Solutions in cooperation with Bilişim Vadisi and the Turkey Open-Source Platform.

Deployment of managed end device monitoring
Research shows that the vast majority of cyber-attacks originate from user devices. Türk Telekom deployed the end device security incident detection and intervention service for the detection and prevention of such cyber-attacks and offered it to large-scale institutions. Infrastructure installation and integration of the service have been completed.

Deployment of security test services
In 2021, cyber security infrastructure renewal activities performed for SIEM (Security Information and Event Management) infrastructure, mobile network security, mobile data centre security and e-mail security. DLIP (Data Loss Prevention), SOAR, data classification and labelling, Ministry of National Education-Fatih project and data centres. In addition to these activities, Identity Authentication, Vulnerability Management and Anti-DDoS infrastructure improvement studies were also carried out during the year.

While DDoS attacks were mostly volume- and protocol-oriented in 2020, application-oriented attacks were in the majority in 2021, and Türk Telekom prevented the attacks with its security services. The number of DDoS attacks blocked in 2021 increased by 20% year on year, and the number of cyber security products, services and customers increased by 30%.

Cyber Security Idea Marathon
Türk Telekom launched the Cyber Security Idea Marathon with the theme of Next-Generation Identity and Access Management Solutions in cooperation with Bilişim Vadisi (Technology Development Zone) and the Turkey Open-Source Platform. The winners of the Cyber Security Ideas Marathon, which aims at the development of innovative cyber security solutions by young people and to reveal their talent in this field, won a total prize of TL 100 thousand.

Cyber Security B2B Event
Türk Telekom aims to reduce the country’s import volume in items such as hardware/software and license by supporting the domestic and national ecosystem, and to provide better service to its corporate customers with its domestic product and service portfolio within the scope of “Cyber Homeland”. At the Cyber Security B2B event, the Company listened and evaluated the solutions of companies in the domestic ecosystem.

Research and Innovation Activities

TÜRK TELEKOM PRESSES AHEAD ITS PREPARATORY WORK STEADFASTLY TO EXPAND THE 5G TECHNOLOGY, WHICH WILL LEAD TO A MAJOR TRANSFORMATION IN DAILY LIFE AND INDUSTRY, ALL OVER TURKEY.

Türk Telekom plays a leading role in Turkey’s digital transformation with its innovative services and products.

Türk Telekom works to create a more resilient economy and society by ensuring digitalisation in every field during and after the ongoing pandemic. Playing a pioneering role in the digitalisation process, which is among the factors that will eliminate the effects of the pandemic on the national economy, the Company offers its customers an innovative, safe and user-friendly service and product portfolio.

A first from Türk Telekom: Online surgical operation with 5G
Türk Telekom brought Turkish surgeons from different cities together in a real surgery environment through its next generation domestic and national interactive platform. Prof. Dr. Lütfi Tunç, and his team broke new ground in Turkey with the online surgery they performed at Ankara Acıbadem Hospital using 5G connected smart glasses.

Türk Telekom successfully completed the EU-supported 5G R&D project
Being the first Turkish operator in the 5G consortium supported under Horizon2020, the European Union Innovation Programme, Türk Telekom successfully completed the industrial 5G project. Türk Telekom and its subsidiary Argela have revealed that lower-latency data transmission, ultra-high reliability and accessibility can be achieved in factories with 5G within the scope of the international Clear5G (ultra-reliable 5G machine-type communication for the factories of the future) project they participated in. The Clear5G project also enabled all machines that communicate in different standards to talk to each other using the internet of things (IoT) technology.

A world record in 5G from Türk Telekom
As the leader of digital transformation in the country, Türk Telekom continues its efforts unwaveringly with the aim of putting Turkey among the countries that test, produce and export new technologies. The Company broke the world record by reaching speeds over 4.5Gbps in its test with Nokia on the 5G test network.

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Türk Telekom continues its R&D activities with national and international projects in 2021 as well. Türk Telekom added new ones to the innovative solutions it developed in many fields with projects funded by the European Union and TÜBİTAK, to which it applied in 2021 as part of its R&D activities. The Company continues to maintain its collaborations in many vertical sectors, from healthcare to AR/VR applications and from factory automation to autonomous UAV (Unmanned Aerial Vehicle) services with consortiums that have been established. This way, Türk Telekom continues to offer innovative solutions in the national and international arenas with its strong ecosystem and the technologies produced.

Türk Telekom added another field to its R&D On-Site Master’s/PhD Programme. Türk Telekom took another important step in its investing in people activities, which is one of the most important components of investment in innovation. The Company added the field of industrial engineering in the 2021-2022 academic year to the R&D On-site Master’s/PhD Programme, which had started in the fall semester of 2020-2021 and continued successfully in the field of computer engineering.

Türk Telekom achieved significant results in its R&D Centre activities in 2021. Türk Telekom continues to carry out important studies on intellectual property with its patent proposals in many areas from network transformation to innovative services and platforms and from analysis of rich data sources to data centres. In 2021, 129 patent applications were filed, 1 of which was international and 128 were national. From among the applications made in previous years, 22 patent applications were registered by the Turkish Patent Institute in 2021. In addition, Türk Telekom shared its knowledge with the academic community with a total of 25 publications in national and international journals and conferences. 4 R&D projects, funded by the European Union and TÜBİTAK, were successfully completed in Istanbul and Ankara R&D Centres. During this period, 3 international and 2 national R&D project applications were made. Türk Telekom participated in 2 national projects as a stakeholder.

Research and Innovation Activities

Türk Telekom established Turkey’s first 5G-ready private wireless network for Arçelik. The private wireless network to be established by Türk Telekom in cooperation with Nokia at the Arçelik Çayırova washing machine factory will support Arçelik’s video-based production process analysis, indoor positioning and Automated Guided Vehicles (AGV) performance. The first phase of the End to End Domestic and National 5G project has been completed.

Türk Telekom continued to increase its support for the End-to-End Domestic and National 5G Communication Network project and 4.5G domestic base station ULAK, carried out within the scope of Communication Technologies Clustering (HTK) studies and supported by TÜBİTAK. The 7th Executive Board and the Closing Meeting of the First Phase, held by HTK on June 24, 2021, was hosted by the Information and Communications Technologies Authority. At the meeting, prototypes of domestic and national 5G products developed within the scope of the project were introduced to the public. In the programme, the first voice call with the domestic and national 5G infrastructure was made.

Technology export from Türk Telekom to the world

Türk Telekom and Juniper Networks sealed a significant collaboration in 5G technologies. The patented RIC (RAN Intelligent Controller) technology offered by Nettia, the subsidiary of Türk Telekom Group Company Argela in the USA, will be exclusively integrated into Juniper’s product portfolio to provide efficiency and flexibility to mobile networks all over the world. RIC technology enables artificial intelligence-based management and orchestration of mobile networks over the cloud through virtualisation and slicing. Türk Telekom will be the first operator to allocate capacity per base station using RIC. Moreover, Türk Telekom aims to position its group companies Argela and İnnova for the after-sales processes of RIC solutions in order to generate more revenue from Turkey and nearby locations in areas that require expertise such as installation and maintenance.

Domestic and national Test Automation Platform from Türk Telekom

Together with the networks information technologies company, Türk Telekom implemented the Türk Telekom Innovation Centre Automation Tool (TTiMoT), which has completely domestic software and hardware, in order to develop domestic and national technology products that will add value to the country. With TTiMoT, end user terminals are automatically tested at international standards, untouched by human hands.

Blockchain-based projects are put into practice within Türk Telekom

With the blockchain-based identity management platform project, it is aimed to keep the official documents of customers such as identity card and diploma on the blockchain-based platform, and to share documents’ information to the relevant institution if requested. With the first domestic NFT (Non-Fungible Token) platform to be developed within the scope of the NFT digital content sales platform project, customers will be able to sell their own digital content in Turkish lira.

Improvements in robotic processes

As part of the RPA (Robotic Process Automation) studies initiated by Türk Telekom with the digital transformation process, 15 processes have been automated so far in this context, a saving of 340 Man./Day was attained as of the end of 2021. Increase in operational efficiency, minimisation of human-induced errors, digitisation and control of process data, shifting of employees to value added works by leaving routine tasks to robots, thus increasing their motivation were achieved by putting the robotic processes into practice.

Two important signatures in Silicon Valley

Türk Telekom expanded its existing cooperation with the US technology company Juniper Networks. The Company cooperated with Plug and Play, an entrepreneurship platform based in Silicon Valley, to contribute entrepreneurs in Turkey become global players.

Silicon Valley

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**Research and Innovation Activities**

Netsia BB Suite creates the opportunity to minimise the delay in data transfer with centralised management of networks while providing security, service agility, capacity and scale management.

A first in the world: Open-source SEBA technology is in Turkey with Türk Telekom

Türk Telekom, with its subsidiary Argela, has sealed another project that will make a tremendous impact worldwide. The Company became the first operator in the world to implement SEBA with internet, IPTV and voice services on the live site. SEBA was developed on the international ONF (Open Network Foundation) platform and will provide strategic supremacy in network technologies. Built on virtualisation and developed on an open source platform, SEBA, with which high speeds can be attained on the access network, aims to reduce third party dependency and accelerate domestic production. SEBA has been working live on Türk Telekom’s fibre access network since 2019. SEBA offers a variety of benefits, both operationally and economically. In this respect, Netsia BB Suite, which is developed by putting on additional functions, creates the opportunity to minimise the delay in data transfer with centralised management of networks while providing security, service agility, capacity and scale management. With these features, the product provides optimisation and scale effects in savings of operating expenses and capital expenditures. Moreover, Netsia BB Suite paves the way for personalised solutions thanks to virtualisation and cloud-based technology.

Netsia BB Suite solution, which has already become the leader in the world market, attracts more attention every day. It will help Türk Telekom, Argela and Netsia to deliver the benefits of this product to a larger audience with its more widespread use over time in Türk Telekom’s entire network. Today, Netsia BB Suite is in testing phase with many leading operators in Latin America, Europe and Asia. The project promises to generate revenue not only through the sale and implementation of the product, but also through after-sales service agreements.

**The Future of Business hackathon was held**

Türk Telekom organised the first hackathon called The Future of Business for two days. 429 teams applied to the event, which was organised for university students and new graduates. 15 teams that were eligible to participate in the hackathon, developed innovative ideas and prototypes in areas such as remote brainstorming, gamification of tasks and socialisation, within the framework of the main theme of The Future of Business for two days.

**Human Resources**

Türk Telekom has extended its vision of carrying Turkey into the future to all its work processes by investing in human capital, digitalisation and agility while building a human resources approach in pursuance of making everyone it touches “Feel Valuable”.

As the founder and developer of Turkey’s communication infrastructure, Türk Telekom continued to take on its leadership role in the digital transformation process in 2021. The Company re-designed its approach to employee experience in line with the needs of the future through its focus on sustainability.

Türk Telekom sees technology as a tool for the good of society and a means to serve people, society and nature. The Company continued to construct its strategic moves in line with its goal of making human resources, its most important asset, feel valuable.

The Company carried out significant improvement in automated recruitment, interviewing, evaluation, training and development processes with the principle of Digital Human Resources in 2021.

Türk Telekom implemented the Employee Specific Working Model by adapting the universal principles of sustainability to its business model by taking rapidly changing priorities and expectations into account.

The Company continued to provide training activities for its employees in a virtual classroom environment and on online platforms with the Türk Telekom Academy, which is one of Turkey’s largest corporate schools.

Having launched the agile transformation journey in its organisational structure, Türk Telekom took pioneering actions to ensure that the agile working model was adopted and implanted in the corporate culture.

**Strong support for employment throughout Turkey**

The Türk Telekom Group aims to gain a qualified workforce which is in line with its corporate culture and values, and to be the most preferred employer in the telecommunication sector through the implementation of innovative human resources strategies. The Group serves as a big family of 35,868 people in total, consisting of 18,057 employees under Türk Telekom and 17,811 employees under its subsidiaries across Turkey.

In terms of age groups, 35% of Türk Telekom employees are between the ages of 21 and 35, 50% are between the ages of 35 and 45 and 15% are 45 and above. Among Türk Telekom subsidiaries, 68% of employees are aged between 21 and 35, 24% are aged between 35 and 45 and 8% are 45 and above. The average age of employees at Türk Telekom is 37, and 36 in its subsidiaries.

19% of the Türk Telekom employees are women and 81% are men. Among Türk Telekom subsidiaries, on the other hand, 56% of the employees are women and 44% are men.
The Türk Telekom Group provides services throughout Turkey with its large family of 35,868 employees who are specialised in their fields, with 18,057 employees at Türk Telekom and the 17,811 employees at Türk Telekom subsidiaries.

Türk Telekom places priority on women candidates in the recruitment processes to increase female employment. In order to increase the representation of women in senior management, the Company prioritises women candidates in the recruitment and promotion processes. In 2021, 32% of staff recruited in the headquarters and 46% of employees recruited within the scope of START, the Young Talent program, were female. Excluding the field teams, the ratio of female employees in the headquarters is 37%.

10% of Türk Telekom’s employees hold a master’s degree or a doctorate, 37% hold a bachelor’s degree and 65% have graduated with a 2-year diploma in higher education. Among Türk Telekom subsidiaries, the distribution is 3%, 35% and 26% respectively.

Youth employment with the transformation of the workforce

With its contribution to employment in its headquarters and regional offices spread across Turkey, the Company provided employment opportunities to numerous professionals in the head office units and to hundreds of people at its regional offices within the scope of the Field Transformation project in 2021. Türk Telekom focuses on the inclusion of young people into its vision of carrying Turkey to the future. In line with this goal, it implemented the Young Engineer program, and it offered positions to the trainee engineers who had successfully undergone the interview processes in different regional offices throughout Turkey.

Mutual negotiation through social dialogue in work life

Türk Telekom supports the right of its employees to establish an association and their right to a Collective Bargaining Agreement. The Company signed the 14th Collective Bargaining Agreement, effective between 1 March 2021 and 28 February 2023, with the Turkish Haber-İş Labour Union in August 2021, which determines the wages, other social rights and working conditions of over 10 thousand union member employees all around Turkey.

Processes designed with a focus on the employee experience

Türk Telekom takes actions towards increasing work efficiency, company loyalty and employee motivation, strengthening the employer brand and reducing the rate of employee turnover by taking employee experiences into consideration. Accordingly, the Company develops tools to measure and improve employee experience at all touch points within the employee lifecycle, in order to establish an equation of happy customers through happy employees.

With a sustainable and holistic perspective, Türk Telekom defines as candidate to graduate, the Company aims to ensure that the experiences of candidates, employees and graduates who have different qualifications, priorities and know-how in different processes and stages, are understood and strengthened.

Human Resources

The Employee Specific Working Model was designed by taking into account the employees’ roles and responsibilities with an approach focused on sustainability.

To this end, the Company develops employee-oriented designs in all human resources practices, and then restructures and digitalises them through the 7 main touch points of employee lifecycle, within the scope of employee experience road map. The 7 main contact points consist of the following headlines:

- Candidate Experience
- Recruitment/Adaptation to Work and the Company (Onboarding)
- Training
- Career Management
- Performance & Feedback
- Transition to a New Career & Retirement Incentive (Outplacement)
- Exit Process (Offboarding)

The Employee Specific Working Model at Türk Telekom

In line with its business model and long-term business strategies, Türk Telekom adopted the Employee Specific Working Model. The Company structured this model in a sustainable and permanent manner by taking into account the expectations and needs of the employees in line with their roles through examining a range of local and global examples.

Within the scope of the Employee Specific Working Model, employees continue to work in four different modes: mobile, office, hybrid and remote, according to their roles and responsibilities. Under the Employee Specific Working Model, which was put into practice on 11 October 2021, Türk Telekom aims to support sustainability by expanding the digital footprint of its employees. The Company develops systematic upgrades to support the digital transformation that comes with the adoption of this new work model.

Digital recruitment system

Türk Telekom implemented SANTRAL, a digital process platform which handles the talent acquisition processes on a centralised basis through the in-house digital transformation journey, with the perspective of designing employee-oriented processes and systems.

Transition to a new career and retirement incentive

Türk Telekom structured the Transition to a New Career Program to provide support to its employees who have been in working life for a long time and who are transitioning to retirement, in order to support them in managing the period of change they are experiencing. 23 people benefited from the program and a total of 1,184 retired employees were presented with recognition plaques in appreciation of their efforts.
Awarded employee experience approach, designed with corporate empathy at Türk Telekom
Türk Telekom’s Transition to a New Career and Retirement Incentive Programs won the silver award in the Design and Management of Side Benefits category, which assesses successful practices, at the Stevie Awards for Great Employers, one of the world’s most prestigious awards, and in which successful companies and teams are awarded every year.
Türk Telekom designed and implemented a wide array of programs and projects in 2021, as follows;
- The In-House Career Mobility Program, offering different career opportunities to its employees and aiming to develop them;
- The Employee Participation and Feedback Platform, which includes employees in the managerial tasks and ensures they receive feedback;
- The Generation Program, to prepare the children of employees of Türk Telekom, who are attending high school or university, for the future;
- The Employee Well-being Program, to ensure and develop the holistic well-being of employees;
- The TT Alumni Club Project, to maintain relations with employees leaving employees and to create an alumni network.
Türk Telekom’s employee experience approach won the silver award in the category of the Best Human Resources Management Approach for 2021 at the Brandon Hall Group Excellence Awards, which are among the most prestigious awards in the sector.

The agile organisation approach
The number of teams acting in line with the agile working model continued to grow in 2021, to serve Türk Telekom’s strategic goals.
Having taken actions to affect improvement by measuring the agile maturity levels of the teams, the Company held an agile workshop throughout the organisation with the contribution of employees supporting agile applications.
During the workshop, the improvements achieved through agile working and the obstacles to agility were identified. Türk Telekom prepared a road map to improve agile processes based on these findings and continues its work in this direction.
Türk Telekom’s Agile Centre of Excellence project in the field of agility won the bronze award in the Leading Transformation Award category under the Achievement heading at the 2021 Stevie Awards for Great Employers.

Digital Learning
In 2021, digital learning (virtual classroom/e-learning) accounted for 95% of personal training hours thanks to alternative training technologies.
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Development journey of the feedback process with a focus on performance
Türk Telekom completed the evaluation of 7,416 employees in 2021 under the 2020 Year-End Evaluation and Feedback Period as part of the 2020 Performance Management calendar. This year, the average satisfaction score for employees with managerial feedback stood at 4.42 out of 5, with an increase of 3% compared to the previous year.
In contrast with previous years, the Company shared its work on the content of the feedback period with the managers and employees by turning these into the Feedback Development Journey within its concept of competency development calendar, and thus contributed to the culture of feedback. In addition, Türk Telekom identified the areas open for development in order to enhance the quality of feedback and carried out necessary additions.
Within this framework, the Company shared its work on communication, which is the biggest driving force of its process, system and analysis work, with target audiences.

Türk Telekom Academy, the sector’s leading corporate academy, is also the leader in transformation of human resources.
Türk Telekom Academy, which has a total of 264 training classes and 381 active internal trainers in 81 provinces throughout Turkey, continued to provide training and development services by using up-to-date training technologies in 2021. During the year, 691 in-class and 2,559 virtual classroom training sessions were held.
The education prevalence rate came in at 71.2% with an average of 41 training hours per employee.
Türk Telekom renewed the interface of the Türk Telekom Academy Training Management System software during the pandemic. It implemented the gamification module, and made the Türk Telekom Mobile Academy application accessible by employees.

The Company provided 696 thousand hours of distance learning in this period. Average hours of distance learning, virtual classroom training and in class training per person were 15.3, 23.8 and 2.0 respectively in 2021. With the use of alternative education technologies, the amount of distance-learning and virtual classroom training hours increased around 226% compared to the previous year. Türk Telekom started to design hybrid training and development journeys in the last quarter.
Türk Telekom Academy created 160 educational contents, which were presented to customers on the Tivibu platform in 4 different categories.

Türk Telekom Academy’s internationally awarded development programs
Business Schools, Professional and Personal Development: The Technology, Marketing, Corporate Sales, Retail Sales, Customer Services, Human Resources, Finance Business Schools, which were structured specifically for the main business functions in order to support professional depth and specialisation, and the OHS (Occupational Health and Safety) and Internal Trainer School continued their activities. The Strategy and Digital, Procurement, Logistics and Data Analytics Business Schools were launched for the first time in 2021. In addition to business schools in professional development, 23 different training catalogues were published specifically for business units to support professional behaviour and personal development.

Award for Human Resources

Türk Telekom 2021 Annual Report
Digital Gateway

An approach which adopts and develops the culture of leadership

School of Leaders and Talent Development Programs: A total of 329 employees participated to the School of Leaders vision and compass program, which were designed with the goal of strengthening the leadership culture, aiming to advance Türk Telekom forward. 43 employees participated in the Personal Leadership Program in the World of VUCA (Volatility, Uncertainty, Complexity, Ambiguity), which is organised with the aim of supporting talent development.

Manager’s HR Window: The Remote Team Management topic was added to the program, which aims to support the teamwork management skills of managers along with Türk Telekom HR applications in line with the current needs brought about by the pandemic. The program won silver award in the Best Leadership Development Program category in the international award ceremony organised by Brandon Hall in 2021.

Online Coaching and Internal Mentoring Program: 67 mentors from different business units volunteered to support their mentees in areas of development where they required support by sharing their experience. A total of 37 employees were supported in their development during the online program, which consisted of online coaching exercises and face-to-face meetings held with professional coaches.

START Development Programs: Vision sessions and the START training camp were held with the participation of 159 university students who applied to the Young Talent Program, START, and whose evaluation process was proceeding successfully, in order for them to know Türk Telekom more closely and gain awareness in the telecom sector.

Professional and personal development training on 102 different subjects was provided to a total of 10,296 participants. In addition to the catalogue training, e-training was provided to 4,081 participants to reinforce learning in a blended learning setup. An online Internal Trainer Day organisation was held on 24 November 2021, for 227 internal trainers that actively provide training.

Digital Orientation Work Adaptation Program: Turkey’s first gamified online orientation program was launched under the name of the Digital Gateway in September. With the Digital Orientation Program, an enjoyable orientation experience was digitalised on an end to end basis. Training contents in the program, initially experienced by 29 employees recruited within the scope of the 2021 START, were added under the Development Journey headline on the Academy portal. A total of 258 employees who were recruited in September participated in the Digital Orientation Program.

Competency Development Calendar: The Competency Development Calendar, which includes developmental tools as book suggestions, e-learning programs, videos and individual learning actions, was shared with employees monthly in order to provide a structured development process. The application won the gold award in the category of the Best Customised Content in the competition organised by Brandon Hall, the international prestigious business awards event. In 2021, LinkedIn Learning Platform: In order to provide up-to-date and alternative solutions to the corporate training—developmental needs with digital training content, corporate collaboration was established with LinkedIn Learning, which has more than 15 thousand items of content covering a wide range of topics such as personal and professional development and certification preparation training.

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development and their demonstration of effective performance by taking their strengths as a basis. The 360° Competency Assessments, which help employees increase their individual awareness and receive feedback by the assessment of corporate competencies from different perspectives, were completed for 6,648 employees in 2021. A total of 53 Talent Management Committee Meetings were held on the basis of business units, in which all assessment results and development needs of the employees were reviewed.

The Leadership Climate project, which will enable the Türk Telekom leaders to evaluate the atmosphere that they have created beyond the measured satisfaction of the leadership culture, was implemented in 2021. Türk Telekom Leadership Principles were determined through the interviews conducted with senior managers. The review process that 141 people attended and Climate Measurement Questionnaire conducted for 1,500 participants in the project.

Quality management
As part of the efforts to improve Türk Telekom’s commercial capabilities, standardise its work processes, maintain its prestige and build a sustainable working culture, audit processes pertaining to ISO 9001, ISO 14001, ISO 45001, ISO 10002 standard certifications were successfully completed. Activities were carried out to ensure Türk Telekom maintains its status as a company among potential employees and to increase the employer brand. Employers brand communications at Türk Telekom

Employer brand communications at Türk Telekom

Employer brand communication activities were carried out in order to ensure Türk Telekom is a preferred company among potential employees, and to increase the commitment of existing employees. Strategy works

As a result of the employer brand communication activities conducted in line with the insights obtained from the implemented employer brand perceptions, the Türk Telekom employer brand rose to the 26th place in the Most Popular Companies survey conducted by ReFaia in 2021, a rise of 58 places compared to the previous year.

Campus communications
In order to contribute to Türk Telekom’s employer brand perception and ensure that it is a preferred company among university students, Türk Telekom met approximately 38 thousand young talents in 2021 at a total of 50 campus events. The Company promotional activities, experience sharing platform, Hackathon and competition events were held at the campus events. The young talent candidates were informed about Türk Telekom and the telecommunication sector.

Türk Telekom Development Base

New projects were carried out under the roof of the Türk Telekom Development Base which is designed to enhance the brand perception of Türk Telekom as an employer, and to present a wide range of framing and development programs of Türk Telekom Academy with a sense of social responsibility for the development of university students.

The events, the Hackathon of the Future of Work, which offers young people the opportunity to develop innovative solutions for problems brought by the pandemic to working life, the Türk Telekom-Cyber Security Camp, which was held for the second time this year, and the Cloud Computing Camp for young people, looking to start their career in cloud technologies, targeting young people under the roof of the Türk Telekom Development Base, attracted a great deal of interest. Around 9,000 young people applied to the Development Base projects in 2021, and over 100 young people had the chance to take part in training and competitions.

The Development Base came first in the Innovative Project and Case Studies category at the #AnbeanYanimda awards, where 12,500 talented individuals voted on companies’ projects aimed at young people. In the 2021 Youth Awards, which 46 thousand university students participated in the voting, the Development Base won second place in the category of the Digital Event Most Popular with Young People.

Social media communications
Employer brand communication activities continued with video and static content, designed to explain the opportunities for career and development at Türk Telekom to university students and new graduates, through the Türk Telekom Career social media accounts.

The Türk Telekom Career Instagram page won a bronze award in the Career category at the Social Media Awards-Social Brands Data Analytics Awards, which awards the social media performances of brands from all sectors throughout the year.

An intensive and comprehensive range of communication activities were carried out during the application process of the START, Young Talent Program. These communication activities, which were aimed at reaching qualified candidates, led to a 20% increase in the number of applications compared to 2020, with approximately 24 thousand applications received. Moreover, the START rose by 29 places in the ranking of the Young People’s favourite 100 Most Popular Internship programs, from 42nd to 13th place, in the Top Talent TOP100 program.

Posts reflecting the expertise and knowledge of Türk Telekom employees were shared with young people through The Career Blog section that was added to the Türk Telekom Career website.

Employee communications at Türk Telekom

In 2021, Türk Telekom brought its Internal Communication organization under the aegis of the Corporate Communication Directorate in order to handle all messages directed to employees and the tone of the messages in a holistic manner and centralise all internal communication activities within the Company.

This year, communication channels were diversified, including the Instant Notification App, which provides instantaneous notifications on computer screens, the Türk Telekom Port, which is the in-house communication portal, and Mobil Port, the mobile app allowing access to communication as well as the interaction of this portal with employees.

Communication Activities for Special Days: In order to touch the lives of employees and make them motivated on special days throughout the year, communication activities were carried out to mark events such as Earthquake Week from 1-7 March, International Women’s Day on 8th March, Cancer Week from 1-7 April, World Water Day on 22nd March, World Health Week between 7-13 April, the Month of Ramadan, World Photography Day on 19th August, Longest Day on 21st June and World Cinema Day on 14th November.

Practices increasing the employee motivation and loyalty

Inventor Idea Development System: The Inventor Idea Development System is an innovative online platform, which allows Türk Telekom employees to participate in the Company’s management, where ideas are gathered and evaluated. To date, 1,774 inventors have submitted a total of 4,109 new ideas to the system, which was implemented to reveal innovative ideas, encourage efficiency, achieve savings and improve service quality.

The Inventor, which has taken on a new dimension with the Gamification project, has been transformed into a fun-filled, live, interactive, dynamic and smarter innovation platform.

Achievements supported with Instant Rewarding:

Improvements were implemented under the Instant Reward system, which awards innovative work and out of the box achievements. Accordingly, the evaluation criteria and the representation structure of the selective committee were expanded.
Investor Relations

Sticking to transparent management
Türk Telekom Investor Relations emphasizes stakeholders’ right to access information by providing timely, effective and detailed information. It aims to strengthen Türk Telekom’s investment profile by reaching out to potential investors, while strengthening the Company’s position in the eyes of investors through constant communication.

Türk Telekom builds open and trust-based communication by informing all investors on time and in detail
Türk Telekom’s Investor Relations reports to the CFO with respect to management of relations with existing and potential shareholders and bond investors on a regular basis, to answer questions of investors and analysts in the most effective manner, and to carry out activities with the aim of increasing the value of the Company.

Since the effects of Covid-19 continued in 2021, it became a necessity to organise the investor conferences across geographies virtually. Despite the ongoing challenging process, Türk Telekom, which considers establishing close relations with its investors, and providing timely, continuous and accurate information among its top priorities, held meetings with nearly 290 equity and bond investors from all over the world in 2021.

In 2021, Türk Telekom Investor Relations participated in 19 conferences online, and organised two meetings where local portfolio managers met with senior management. Moreover, following the disclosure of the quarterly financial and operational results, Investor Relations held teleconferences in order to share the assessment of the Company’s senior management for the quarter, and to provide investors and analysts the opportunity to direct their questions to the senior management of the Company.

Paying utmost attention to the implementation of the Corporate Governance Principles issued by the Capital Markets Board, Türk Telekom oversees the interests of all shareholders and stakeholders equally in a transparent and close relationship.

Türk Telekom Investor Relations Director is also a member of the Company’s Corporate Governance Committee.

Effective and efficient communication with shareholders
Türk Telekom maintains its leading position in the field of investor relations with the up to date practices it has developed.

The Company updates its website content promptly to ensure easy access to accurate and timely information by taking into account the needs of its target audience composed of individual and corporate investors, analysts and shareholders. Accordingly, the website offers a comprehensive investment theme with financial, operational and strategic information updated quarterly.

The content of the site is available in both Turkish and English in order to appeal to all shareholders and stakeholders. The English version of each added information is published on the website simultaneously with the Turkish version. Türk Telekom also aims to increase the inclusiveness of its Investor Relations approach in line with its motto of accessible accurate information.

The contact form on the website maintains its importance as an effective channel where shareholders and stakeholders can directly reach Türk Telekom officials.

Türk Telekom shares up to date announcements such as regulatory disclosures shared on the Public Disclosure Platform (KAP) simultaneously with its comprehensive distribution list of analysts and investors. The company also shares these announcements on its Twitter account, informing the public in detail.

Türk Telekom takes its position in the field of sustainability to the next level with its meritorious practices in environmental, social and governance issues
Türk Telekom is the only telecommunication Company which has been included in the BIST Corporate Governance Index since 2009.

Türk Telekom has also been included in the BIST Sustainability Index since its inception in 2014.

Türk Telekom’s exemplary practices in environmental, social and governance fields play a key role in its successful performance in the BIST Sustainability Index.

The Company continues to improve its score since the year of its inclusion in the BIST Sustainability Index.

Türk Telekom, which is also a part of the international FTSE4Good index, achieved a rating above the sector average, particularly in the environmental and governance fields, thanks to the steps it took and improvements it made in the environmental, social and governance areas in 2021.

In the evaluation conducted by Sustainalytics in 2021, Türk Telekom lowered its risk scale by increasing its environmental management system and environmental management certificate scores.

Türk Telekom increased its overall rating from BBB to A in the assessment conducted by the MSCI Sustainability Index, recording a significant grade increase, especially in the category of privacy and data security.

The Company aims to reduce its carbon emissions by 35% and increase its solar power generation capacity by 60% by 2023 in line with its target to systematically reduce its carbon footprint.

Türk Telekom has been reporting on the Carbon Disclosure Project (CDP) since 2011, an international initiative that supports the transition to a low carbon economy and is considered one of the most prestigious environmental projects in the world.

Türk Telekom conducts its relations with its employees, customers, suppliers, business partners and all stakeholders within the framework of the policies published with the approval of the Board of Directors. The policies prepared with a corporate governance and sustainability perspective are reviewed and regularly followed every year.

Türk Telekom pays absolute attention to the implementation of the Corporate Governance Principles published by the Capital Markets Board. Accordingly, the Company obtains an independent Corporate Governance Compliance Rating on an annual basis.

On 14 December 2021, the corporate governance rating report of Türk Telekom was prepared by SAHA Kurumsal Yönetim ve Kredi Derecelendirme Hizmetleri A.Ş. (SAHA A.Ş.), which holds an operating license to perform rating assessment in Turkey in line with the CMB’s Corporate Governance Principles. As a result of this study, with a score of 9403 Türk Telekom continued to be among the companies with the highest scores in the categories of Public Disclosure and Transparency and Stakeholders.

Türk Telekom gives great consideration to compliance of the internal processes with the CMB legislation. The Company updated the CMB Legislation Compliance Training in 2021, which is held mandatory for its employees, in order to comply with the current CMB legislation and to increase employee awareness.

Thanks to this training, awareness among Türk Telekom employees about the responsibilities of working in a publicly traded company has been established. The
Effective and efficient communication with shareholders

As a pioneer in the field of investor relations, Türk Telekom prioritises shareholders’ access to transparent and reliable information.

question and answer sections in the training offered employees the opportunity of active learning.

The Company created a database that is updated periodically so that employees who have access to insider information can be systematically tracked through a platform.

The second TL bond issuance application from Türk Telekom

Türk Telekom, whose main shareholders are LYY Telekomünikasyon A.Ş. (55%), Republic of Turkey Ministry of Treasury and Finance (25%) and Türkiye Wealth Fund (6.68% of which 1.68% is in free float), operates as an integrated telecommunication and technology services provider.

15% shares of the Company trade on Borsa İstanbul (BIST) under the TTKOM ticker. Türk Telekom had a market cap of TL 33.7 billion at the end of 2021.

Following successful Eurobond issuances in 2014 and 2019, Türk Telekom undertook its first domestic bond issuance with a maturity of January 2022 in December 2021. In December 2020, the Company completed its application to the CMB for a new bond issuance of up to TL 500 million.

Turk Telekom's Credit Rating

Credit rating agency Fitch Ratings affirmed Türk Telekom’s BB- credit rating with ‘Stable’ outlook after its annual assessment in November 2021 and kept Türk Telekom's Long-Term National rating at ‘AAA (tur)’. Fitch also affirmed Türk Telekom’s local currency rating (IDR) as ‘BB-’ and its outlook as “Stable” in the same assessment. Türk Telekom’s foreign currency rating (IDR) was affirmed as “BB-” and its senior unsecured foreign currency debt rating as “BB-”.

As a result of its December 2021 assessment, Fitch revised Turkey's long-term foreign currency rating outlook from “Stable” to “Negative”. Accordingly, Fitch affirmed Türk Telekom’s long-term foreign currency rating as “BB-” and revised its outlook from “Stable” to “Negative”.

Parallel to the country rating revision, S&P Global Ratings affirmed the long/short-term foreign currency credit ratings of the Company with its “BB-/B” ratings, and revised its rating outlook to “Negative”, with the update it made in December 2021.

Shareholder profile analysis

Türk Telekom regularly conducts studies that analyse its shareholder base. These studies also help keep track of the shareholder changes between periods.

According to the latest study conducted by an independent service provider in August 2021, Türk Telekom has 130 corporate investors worldwide. The study states that the majority of Türk Telekom's shareholder base is composed of investors focused on both growth and reasonably priced companies. Value, Growth, and Index take a high portion amongst the remaining investment focus areas.

Türk Telekom 2020 Annual Report ranked 1st in the Europe, Middle East and Africa (EMEA) and Turkey rankings at the LACP Vision Awards.

LACP Vision Awards, which is held at an international level every year by the League of American Communications Professionals.

The LACP International Vision Awards have been held continuously since 2001 by the League of American Communications Professionals, which sets standards for excellence in the field of communication. More than 500 companies from 20 different countries participated in this year's competition.

Türk Telekom’s 2020 Annual Report, which was awarded a total of 13 awards in four different categories it competed in, received 98 points out of 100 in three categories and 98 points in one category. Ranked 1st among all annual reports published on a global scale by the jury in 2020, Türk Telekom’s 2020 Annual Report ranked 1st both in Europe, Middle East and Africa-All Sectors (EMEA) and Turkey-All Sectors rankings.

Türk Telekom Annual Report was evaluated by the LACP jury in the telecommunication sector, as well as in the category of company groups and holdings, with its annual and integrated report features. Türk Telekom was deemed worthy of 5 platinum and 3 gold awards in total, including the platinum award it received in the EMEA ranking in the field of “Best Report Narrative”. With its 2020 Annual Report, Türk Telekom also became one of the 5 telecommunication companies that received platinum and gold awards on a global scale, while also being the 4th in the world in the top 100 ranking of the sector. The report came 1st in the world with the platinum award it received in the group of companies and holdings category.

Türk Telekom 2020 Faiyit Raporu – EMEA (Avrupa, Orta Doğu ve Afrika) bölgeleri ve Türkiye’ye sıralanmış 1 sui. öld. 
Aiming for a sustainable future, we increase our contribution in transition to a digital society.
In addition to achieving a strong financial performance, Türk Telekom considers creating value for its stakeholder as one of the key pillars of sustainability and carries out all its activities with this approach.

Sustainability
Türk Telekom Makes You Feel Valuable
Being a supporter of the United Nations Sustainable Development Goals and a party to the Global Compact, Türk Telekom works steadfastly to create value in line with the principle of “Makes You Feel Valuable” with its sustainability focus.

Türk Telekom’s sustainability approach
The communication sector offers basic solution tools in the fields of economy, innovation, health, education, ensuring social equality, protecting the environment and combating the climate crisis, reducing emissions, improving quality of life and many more across the world. Thus, the sector also directly serves the global Sustainable Development Goals.

Türk Telekom considers creating value for its stakeholder as one of the key elements of sustainability in addition to attaining a strong financial performance.

Türk Telekom aims to contribute to a more liveable future by using technology in the process of transforming the country into an information society, and to create sustainable value for all stakeholders. To this end, the Company aims to strengthen the working environment with the Sustainability Management System for a long term, robust and successful business model, and to manage effectively the impacts of its activities on economic, corporate, environmental and social issues by monitoring them closely.

Having set out with the strategy of creating value for its stakeholders in the transition to the digital age, Türk Telekom operates with the ultimate goal of meeting the product and service needs of its stakeholders by supporting them to create value for the society. Based on this approach, Türk Telekom identifies the effects of its activities on sustainability in economic, corporate, environmental and social axes, and determines its policies in view of the expectations of all its stakeholders in these fields. The company shapes these policies in light of its responsibilities, obligations and duties towards the environment, its employees, all stakeholders and society.

Türk Telekom, which is one of the major actors of the transition to the information society, beyond just being a telecommunication operator, attaches importance to the principles and requirements of quality, environment, occupational health and safety and customer satisfaction management systems in all its business processes.

Türk Telekom takes utmost care to protect the rights of its stakeholders regulated by relevant legislation and mutual agreements with its strong corporate governance perspective in its operations and activities. On the contrary, the Company ensures the protection of these rights as per the goodwill principles and Universal Human Rights within the limits of its capacity.

Türk Telekom holds a general approach towards Environmental, Social and Governance (ESG) focus areas and principles. Carrying out its activities in line with the principle of “Accessible communication for all”, the Company commits to act in accordance with the 10 basic universal principles of the United Nations Global Compact (UNGC) and takes the Sustainable Development Goals as its guide in its way of doing business.

Türk Telekom is aware that institutions should take responsibility in sustainability. Operating in all provinces of Turkey with its 51.8 million customers and 35,868 employees, the Company presses ahead in two axes by reducing negative impact areas and supporting the efforts to create positive results for the society, in order to manage the environmental and social impacts that may arise especially with the growth and rapid transformation.

Türk Telekom offers a whole range of products and services in cybersecurity with the aim of preventing potential cyber attacks against its customers’ infrastructures, access to personal information of customers and misuse of the obtained information. The number of blocked DDoS attacks in 2021 increased by 20% compared to the previous year.

Türk Telekom takes all necessary measures to ensure data security by prioritizing the personal data protection in all its internal and external business processes. All the number of the relevant persons and the diversity of processed data is high due to the nature of the telecommunication sector, the company conducts all its work with great discipline and awareness.

Sustainability Focus Areas
Türk Telekom believes in the importance of cooperating with its employees for the success of its sustainability strategy. Managers and employees working at different levels of the Company contribute to and support sustainability processes and take part in the implementation of the Sustainability Management System.

Türk Telekom defines its focus areas in designing a sustainable future as follows:
- Focus on Trust - Doing Business Responsibly
- Focus on Climate Change and Environment
- Focus on Value for Human
- Focus on Customer
- Focus on Contributing to Society

Sustainability Committee
Türk Telekom values the participation and ownership of the top management in achieving its goal of taking economic, environmental and social factors into account in company activities and decision mechanisms along with corporate governance principles, and effectively managing the risks associated with these factors. The Sustainability Committee, which has been formed based on this approach, determines the long term sustainability vision and strategies, reviews sustainability activities and makes evaluations within the scope of sustainability targets.

The Committee, which consists of management representatives, carries out its activities under the leadership of the CEO. The Head of Corporate Risk and Business Continuity, who also serves as the secretariat of the Committee, conducts the overall coordination and management activities on sustainability in the organisation.

The Sustainability Committee establishes sustainability working groups on the Company’s material issues with the aim of ensuring the effective execution of operational activities by the relevant responsible persons, and the coordination between the teams.
## Sustainability and Corporate Social Responsibility

**The Relationship Between Sustainability Targets and Sustainable Development Goals**

<table>
<thead>
<tr>
<th>SUBJECT OF FOCUS</th>
<th>DESCRIPTION OF THE FOCUS</th>
<th>DESCRIPTION OF THE TARGET</th>
<th>BASE YEAR</th>
<th>TARGET YEAR</th>
<th>TARGET</th>
<th>RELATED SDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate Change and Environment</td>
<td>Reducing our carbon footprint systematically</td>
<td>Targeting to reduce emissions by 35%</td>
<td>2020</td>
<td>2023</td>
<td>35% reduction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increasing the production capacity from solar energy by 60%</td>
<td>2020</td>
<td>2023</td>
<td>60% increase</td>
<td></td>
</tr>
<tr>
<td>Value for the Human</td>
<td>Supporting the development of our employees</td>
<td>The rate of employees receiving training throughout the organisation (Number of Employees Receiving Training for At Least One Day / Total Number of Employees)</td>
<td>2020</td>
<td>2021</td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>Contribution to Society</td>
<td>Serving the sustainable society and providing equality of opportunities through information and communication technologies</td>
<td>Digital marketing trainings for 5 thousand women</td>
<td>2019</td>
<td>2021</td>
<td>Reaching 5 thousand women</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mentoring 100 women</td>
<td>2019</td>
<td>2021</td>
<td>Providing mentorship to 100 women</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Workshop on design-focused thinking for 500 women</td>
<td>2019</td>
<td>2021</td>
<td>Providing a design workshop for 500 women</td>
<td></td>
</tr>
</tbody>
</table>

**Türk Telekom continued to expand its next generation cities activities**

Türk Telekom invests in smart city technologies that will support sustainable construction, efficient and high-quality cities. The Company leads the largest smart cities projects in Turkey with solutions suitable for the next generation urbanisation approach. The range of solutions offered by the next generation city technologies under the headings of transportation, security, energy, health, environment and life was expanded in 2021. The smart solutions implemented by Türk Telekom in 13 cities in new generation transportation, energy, environment, health and safety under the Next Generation City Platform, contribute to the construction of sustainable and safe cities with high quality of life.

While spreading the concept of smart city technologies in Turkey, Türk Telekom further develops the ecosystem by supporting domestic and national solution partners. With the smart solutions implemented by the Company, 40% in electricity and 30% in irrigation of resource savings have been achieved in municipalities so far.

Türk Telekom manages the services within the scope of smart city solutions through the city management platform. The platform enables single centred monitoring, management and integration of different urban planning applications. The collected data enables city administrations to make forward looking decisions.

In 2021, Türk Telekom included Konya Metropolitan Municipality, Kocaeli Metropolitan Municipality and Kınıkkale Municipality into the next generation city journey with the electronic supervision system, one of the components of next generation city transportation. With next generation city furniture and mobile application, Burdur Bucak Municipality, Artvin Yusufeli Municipality and Antalya Metropolitan Municipality, and with smart junction, Duzuce Municipality and Mersin Metropolitan Municipality were included in the next generation city journey.

Türk Telekom developed the next generation bicycle solution with domestic and national resources and incorporated it into the ecosystem as a new member of the next generation city family in 2021. Smart bicycle, a major component of next generation city in the journey of mitigating the growing risks of climate change, reducing the rate of carbon gas emissions and digitising cities, provides alternative solutions for urban mobility as well.
Nature friendly air conditioning gas is used in base stations to reduce greenhouse gas emissions. 336 next generation efficient air conditioners were switched in 2021.

The new member of the ecosystem, the smart bicycle, was first implemented in Aksaray Municipality and was highly appreciated by the end users. Bicycle transportation contributes directly or indirectly to 17 goals, including Healthy and Quality Life, Sustainable Cities and Communities, and Climate Action, which are among the United Nations Sustainable Development Goals.

Türk Telekom added new components to the solutions as well as projects in 2021. The Company supported digital municipality vision with social media management software, one of the newly added elements of next generation life. Established in 46 municipalities so far, this system has enabled citizens to reach city administrations through all channels, convey their demands, complaints and requests, and allowed municipalities to respond quickly to their citizens. By establishing an interactive relation between the two sides, the satisfaction of the citizens was improved with quality interaction.

As the pandemic continued in 2021, Türk Telekom added HES code inquiry devices, a digital health risk status detection solution, to its next generation city solutions. Smart poles which contain various components from WiFi service to city information screens and operate on environmentally friendly energy solutions, started to offer alternative services to citizens in Antalya province.

Focusing on citizen satisfaction, which is the priority of all municipalities, Türk Telekom aims to implement new projects considering the public interest. The Company is committed to making cities safe and sustainable and offers high quality of life.

Türk Telekom continues its efforts to maximise energy efficiency at its base stations.

The activities conducted for energy efficiency at base stations and the solutions developed are given below:

• Türk Telekom replaced the high energy consuming base station equipment in use with lower energy consuming models in line with its goal of increasing energy savings. The Company switched to more efficient equipment with lower energy consumption at more than 3 thousand base stations in İzmir and Bursa regions. With this project completed in 2021, Türk Telekom achieved 27 million kWh energy savings annually, and prevented 12,750 tons of carbon emissions.

• Türk Telekom implements efficient and eco-friendly solutions in the energy and cooling infrastructure in its base stations. With 700 free cooling devices commissioned in 2021, the Company achieved savings in cooling energy as well as spare parts and maintenance costs.

Türk Telekom commissioned another 200kW solar energy system in the last year, increasing its total installed power of renewable energy systems to 2.5MW. In this way, approximately 2,150 tons of carbon emissions per year were prevented.


• Türk Telekom replaced the direct current energy sources, which lead to high energy loss, with high efficiency models.

• Türk Telekom ensures the safe operation of base stations for people and the environment by making electromagnetic field measurements before and after the installation.

• Türk Telekom takes utmost care to minimise human and environmental interference at its base stations during the planning, design, installation and operation stages and takes all necessary precautions.

For human health and environmental safety, which is considered a top priority, Türk Telekom uses and updates all necessary security equipment so that its base stations are not affected by natural disasters, and the environment and public health are not endangered. In 2019, the Company examined 750 base station towers in detail and updated them in line with the needs and made plans for the tower controls of the base stations to be conducted in 2022.

• Türk Telekom monitors the base stations for 24 hours and provides the highest level of operational efficiency by responding to the field in the event of emergencies and natural disasters as quickly as possible.

Türk Telekom attaches importance to investments in energy efficiency and renewable energy.

Aware of the impact of high energy consumption on society and the environment, Türk Telekom appreciates investments and activities in the fields of energy efficiency and renewable energy. The activities conducted in this context and the achievements are summarised below:

The total power of Türk Telekom’s eco-friendly green power switches increased to 2.5MW.

Systematically reducing its carbon emissions and continuing its investments and optimisation activities in energy efficiency unceasingly, Türk Telekom commissioned another 200kW solar energy system last year. With these investments, the total installed power of renewable energy systems increased to 2.5MW, a level that can meet the energy needs of more than 3 thousand residences. This also means that approximately 2,150 tons of carbon emissions were prevented annually.
Türk Telekom has launched user friendly smart energy management system project, which provides faster access to energy equipment in its fixed and mobile networks.

Cooling Systems Conversion Projects
Türk Telekom continues its projects to replace the air conditioners used in fixed and mobile networks with next generation efficient devices, and to commission the free cooling box devices with the aim of ensuring direct cooling of mobile base stations and telecom system halls with outside air at lower costs. These conversions in cooling systems, saved 9 million kWh of energy per year and prevented 4,250 tons of carbon emissions.

CDP and climate change activities at Türk Telekom
Türk Telekom is included in the International Carbon Disclosure Project (CDP), which reports globally on how climate change risks are managed by companies every year, and possesses the world’s largest climate change data.

CDP, which plays a key role in managing the environmental impacts of environmentally conscious companies, certifies the carbon transparency and provides a worldwide valid report. Türk Telekom, which completed its first reporting to the CDP in 2011, was the first Turkish telecommunication company to participate in this global initiative.

Within the scope of the 2021 CDP reporting carried out by Türk Telekom, which continues its efforts to reduce greenhouse gas emissions, the emission calculations resulted from the Company’s activities were verified by PwC, an independent authorised organisation. The CDP report prepared according to 2020 data scored the C level.

Aware of the need to reduce greenhouse gas emissions, one of the most important causes of climate change, Türk Telekom continues its projects to reduce greenhouse gas emissions arising from its corporate activities.

The Company, which involves greenhouse gas management and combating climate change in its overall strategy, aims to set an example for the sector in combating climate change and support companies in other sectors at this stage.

Türk Telekom set its target to reduce emission by 35% by 2023 and to further reduce its carbon emissions that can be managed at the Company scale.

<table>
<thead>
<tr>
<th>Türk Telekom Greenhouse Gas Emissions (ton CO₂e)</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>111,683</td>
<td>111,462</td>
<td>111,761</td>
</tr>
<tr>
<td>Scope 2</td>
<td>591,720</td>
<td>594,437</td>
<td>601,635</td>
</tr>
<tr>
<td>Scope 3</td>
<td>9,917</td>
<td>9,474</td>
<td>6,710</td>
</tr>
<tr>
<td>Total</td>
<td>713,492</td>
<td>715,363</td>
<td>719,815</td>
</tr>
</tbody>
</table>

Smart Energy Management System Project
Türk Telekom has launched the user friendly smart energy management system project, which provides faster access to all energy equipment (generator, DC system, UPS, air conditioner, digital thermostat, meter, etc.) in its fixed and mobile networks, receiving the data created with the information obtained from the devices securely and presenting and reporting this data effectively to the end user by achieving operational quality and high efficiency as a result of artificial intelligence supported analysis.

In the first phase of the project, the integration of meter, generator and DC energy systems was completed. With studies such as field based electricity consumption analysis, instant detection of faults affecting consumption, control of air conditioner temperature set values, control of operating redundancies of devices, change in electricity consumption of telecommunication devices, the potential for energy efficiency will be determined and necessary optimisations will be carried out promptly. Analyses to be made with the alarm, fault and maintenance data of the equipment will provide improvement in device replacement processes, faults and spare parts usage.

By transferring services provided through old generation systems that have completed their technological lifespan to new generation systems, Türk Telekom achieves ease of maintenance and operation, energy savings and increases its service quality.

With building/system hall optimisation projects in Türk Telekom offices, space saving was made, and accordingly, a reduction in energy consumption in cooling was achieved.

In addition, the use of energy saving light bulbs, thermal insulation and sheathing, building automation, environmentally friendly vehicle fleet, paper recycling, electronic document and documentation system (EDİTT), central printing systems, e-learning, telepresence and video conferencing, contributed to recycling, savings and carbon emissions reduction.

Electricity use and management at Türk Telekom
Türk Telekom mobile and fixed network reduced its total electricity consumption by 3% in the last 5 years as a result of the projects aimed at technological transformation, savings and efficiency.

According to the report published in 2019 by the global e-sustainability initiative GeSI operating in sustainability, the Company has become one of the few operators in the world that has reduced its electricity consumption in recent years, despite the increase in the number of its customers and bandwidth.

In the face of increases in data amount and infrastructure investments due to the strong subscriber base growth in 2021, Türk Telekom managed to reduce its electricity consumption per subscriber compared to last year.

Water use and management at Türk Telekom
Caring for the use of water as a part of its sustainability approach, Türk Telekom carries out activities to reduce water consumption and monitors consumption closely.

Türk Telekom’s most important project in reducing water consumption is the Building Centralisation project. In this context, the Company has been reducing the amount of water used every year since 2013 by optimising building utilisation and reducing the number of buildings with employees. In buildings, where only area optimisation is carried out, wet areas are reviewed, and unnecessary ones are closed, while the amount of utility water and water used in cleaning these areas are reduced.

In addition, in 2012, the Company started to use water more efficiently by attaching a saving device cap (aerator
Türk Telekom conducts systematic efforts to improve occupational health and safety management, reduce occupational accidents and occupational diseases and improve the process within the scope of ISO 45001 Occupational Health and Safety Management System Certificate.

As of 2021, usage values are reported with net usage values directly taken from the field, not by averaging the unit prices.


Türk Telekom operates within the scope of ISO 14001 Environmental Management System and ISO 45001 Occupational Health and Safety Management System.

Within the scope of the ISO 14001, the Company conducts systematic efforts to improve environmental management, reduce environmental damage and improve processes. With this approach, Türk Telekom became one of the pioneer companies that carried out many activities in order to protect its employees and public health during the pandemic, which affected the entire world and Turkey. Türk Telekom did not suffer any environmental accidents and was not issued any environmental fines in 2021.

Türk Telekom started to act in conformity with the instructions of the Ministry of Health to prevent the spread of the disease in all its workplaces during the pandemic and continued to implement the measures. Besides distributing disinfectants, colognes and masks to its employees in order to provide the necessary hygiene conditions, the Company undertaken numerous activities like providing online psychological support and taking physical measures, demonstrating that it is always by the side of its employees. Türk Telekom was entitled to receive the TSI (Turkish Standards Institute) Covid-19 Safe Service Certificate for its headquarters campuses thanks to its efforts during this period.

Türk Telekom provides qualified training for its employees to build a sustainable world

Since December 2011, Türk Telekom has been providing online trainings to all of its employees, covering subjects such as climate change, risks regarding the climate change and simple habits which can be changed in daily life to reduce these risks. The Company also provides in-class and remote trainings on waste management, water savings, energy efficiency and occupational health and safety legislation, as well as hygiene.

Türk Telekom 2021 Annual Report

As of 2021, usage values are reported with net usage values directly taken from the field, not by averaging the unit prices. The retrospective data has been updated in this context. The data includes the water consumption amount of Türk Telekom, TT Mobile and TTNET companies.

ISO 45001

Annual Water Consumption in Türk Telekom* The Amount of Consumption (thousand m³)

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage</td>
<td>940</td>
<td>898</td>
<td>749</td>
<td>653</td>
<td>433</td>
<td>438</td>
</tr>
</tbody>
</table>

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Türk Telekom 2021 Annual Report
In 2021, 1,884 Türk Telekom employees received in-class occupational health and safety legislation training, while 18,000 received it through e-class. The Company organised activities in environment and occupational health and safety on June 5, World Environment Day and May 4-10, Occupational Health and Safety Week.

Support for sustainable development through waste management strategies
Waste management strategies, aimed at preventing the rapid consumption of natural resources and transforming waste from being a threat to the environment and human health into an input for the economy, constitute the basis of the sustainable development approach that is becoming a priority policy target on a global scale. Türk Telekom carries out intensive work on waste management within the scope of its sustainable environment policy.

The Zero Waste project
Türk Telekom launched the Zero Waste project in Turkey with the aim of protecting its resources, controlling waste, and leaving a clean and developed Turkey and a habitable world to future generations within the framework of sustainable development principles. Within the scope of the Zero Waste activities initiated by Türk Telekom employees who voluntarily participated in the Zero Waste project, waste was separated by type, collected, and recycled.

As a result of the 2018-2019-2020 Zero Waste project, the recycling of 26 tons of glass, 340 tons of paper, 13.7 tons of metal and 27 tons of plastic waste prevented the damage to nature. Türk Telekom prevented water pollution and contributed to biodiesel production by recycling waste oils generated as a result of its activities in 2021.

Waste management
Türk Telekom takes actions for the recycling of wastes in a manner which does not harm the environment and in accordance with the standards and methods specified in the relevant regulations, and disposal of waste if recycling is not possible.

Highlights from the results of waste management and Zero Waste projects carried out in Türk Telekom in 2020:

- 1,149 kg of raw materials were saved, and 83,980 kg of greenhouse gas emissions were prevented by recycling 884 tons of waste metal.
- 32,829 barrels of oil were saved by recycling 2,014 tons of waste plastics.

Electronic waste collection campaign
Türk Telekom has obligations according to the Regulation on Waste Electrical and Electronic Goods Control. As per the regulation, Türk Telekom collects Waste Electrical and Electronic Goods (Electronic Waste) in line with the rates determined in the relevant regulation, depending on the amount of electrical and electronic equipment it has put on the market.

Between 2017 and 2019, more than 18 tons of electronic waste was collected and recycled through Electronic Waste Collection campaigns carried out among Türk Telekom personnel both in the general directorate and regional directorates, in cooperation with TÜBİSAD.

Türk Telekom continued to cooperate with TÜBİSAD in electronic waste management and fulfilled its legal obligations in the following years. Revenue generated from collected waste contributed to the qualified education of 55 children, and some electronic waste was used in the electronic workshop trainings organised for gifted children. Türk Telekom gave bicycles to the employees who collected the largest amount of waste during the electronic waste collection campaign in order to support a healthy life.

In the electronic waste management, Türk Telekom presses ahead with its efforts to fulfil its obligations as per the regulation in cooperation with TÜBİSAD.

Türk Telekom is taking initiatives that will contribute to the environment in its sales channels as well

**E-invoice application**
Türk Telekom aims to increase the proportion of customers using e-invoices in order to reduce paper consumption and corporate carbon footprint. The proportion of customers receiving their bills via e-mail or SMS is 84% at Türk Telekom.

Türk Telekom’s contribution to the environment thanks to the use of e-invoices in 2021 was as follows:

- 62,885 trees,
- 15,166,462 kWh energy,
- 118,372 cubic meters of water saving.

**Digital document application**
The mobile subscription without paperwork was rolled out to sub-dealers in addition to the main dealers in September 2021.

Apart from that, improvements have been made in the mobile postpaid line application through Online İşlemlet. Thanks to this, the application and activation stages of the process were completed through the app. Thus, the digitalisation process was completed and brought into use in December 2020.

Thus, in mobile subscription applications performed through the Online İşlemlet channel, the process of obtaining identity information by scanning the identity card, verifying the compatibility of the ID photo with a selfie over the application, and document signature and sim card activation after the delivery of the sim card have been completely digitised.

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Sustainability and Corporate Social Responsibility

Turk Telekom offers information technologies, which play a leveraging role in sustainable development, to everyone and carries out social responsibility projects that add value to life for social transformation.

Corporate Social Responsibility

In its social responsibility activities, Turk Telekom aims to eliminate the economic, social, regional or physical disadvantages that prevent access to information, by taking advantage of technological opportunities and offer equal opportunities to all its stakeholders.

Describing the contribution to the country’s digital transformation as one of the key elements of its social responsibility approach, the Company prioritises everyone’s equal participation in social life and easy access to information.

The library has more than 2 thousand audiobooks and content in more than 50 categories.

Life is Simple with Internet for the Woman with Goals project has reached 5 thousand women as of June 2021. A Digital Marketplace event was held on March 8, International Women’s Day, with the participation of 100 women who applied and passed the qualifying rounds.

Life is Simple with Internet for the Woman with Goals project reached its 5 thousand women target.

Women’s participation to workforce and their employment are among the most essential elements of sustainable development. Additionally, this issue is also important in terms of ensuring continuity in economic growth, and fully achieving social development and social justice.

Taking the United Nations Sustainable Development Goals as its guide, Turk Telekom continues its activities in line with the principle of accessible communication for all. The Company designs and implements corporate social responsibility projects that add value to Turkey, particularly within the scope of Quality Education and Reduced Inequalities objectives.

Turk Telekom led numerous social responsibility projects in light of “Türkiye’ye Deger” motto. The social responsibility projects conducted by Turk Telekom in accordance with its motto of “Bir fark yeter, Türkiye’ye Deger” (Even the smallest difference matters, Turkey is Worth All Our Efforts), include Hedefi Olan Kadına Internetle Hayat Kolay (Life is Simple with Internet for the Woman with Goals), Telefon Kütüphanesi (Books on the Phone), Günışığı (Sunshine), EyeSense Programme, Türk Telekom Okullan (Turk Telekom Schools), Türk Telekom Amator Spor Kulüpleri (Turk Telekom Amateur Sports Clubs), Abonebilki Bağış Sistemi (Subscription Based Donation System) and Erişilebilir Yaşam (Accessible Life).

Local social responsibility activities organised by Türk Telekom Provincial Directorates are also carried out under the umbrella of “Turkey is Worth All Our Efforts”.

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Taking the United Nations Sustainable Development Goals as its guide, Türk Telekom continues its activities in line with the principle of accessible communication for all. The Company designs and implements corporate social responsibility projects that add value to Turkey, particularly within the scope of Quality Education and Reduced Inequalities objectives.

Turk Telekom led numerous social responsibility projects in light of “Türkiye’ye Deger” motto. The social responsibility projects conducted by Turk Telekom in accordance with its motto of “Bir fark yeter, Türkiye’ye Deger” (Even the smallest difference matters, Turkey is Worth All Our Efforts), include Hedefi Olan Kadına Internetle Hayat Kolay (Life is Simple with Internet for the Woman with Goals), Telefon Kütüphanesi (Books on the Phone), Günışığı (Sunshine), EyeSense Programme, Türk Telekom Okullan (Turk Telekom Schools), Türk Telekom Amator Spor Kulüpleri (Turk Telekom Amateur Sports Clubs), Abonebilki Bağış Sistemi (Subscription Based Donation System) and Erişilebilir Yaşam (Accessible Life).

Local social responsibility activities organised by Türk Telekom Provincial Directorates are also carried out under the umbrella of “Turkey is Worth All Our Efforts”.

The library has more than 2 thousand audiobooks and content in more than 50 categories.

Corporate Social Responsibility

In its social responsibility activities, Turk Telekom aims to eliminate the economic, social, regional or physical disadvantages that prevent access to information, by taking advantage of technological opportunities and offer equal opportunities to all its stakeholders.

Describing the contribution to the country’s digital transformation as one of the key elements of its social responsibility approach, the Company prioritises everyone’s equal participation in social life and easy access to information.

The library has more than 2 thousand audiobooks and content in more than 50 categories.

Life is Simple with Internet for the Woman with Goals project has reached 5 thousand women as of June 2021. A Digital Marketplace event was held on March 8, International Women’s Day, with the participation of 100 women who applied and passed the qualifying rounds.

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The Günışığı Open Learning Platform provides early intervention education remotely for the first time. The project stands out as the only example of its kind in Turkey and in the world. TahtApp installations have been performed at 25 schools in 9 provinces so far.

“Thanks to the early intervention education provided by Günışığı, children with low vision are able to participate in social life easily on an equal footing with their peers.”

Thanks to Türk Telekom’s technology and infrastructure, the social responsibility project Günışığı (Sunshine) provides early intervention education remotely for the first time. The project stands out as the only example of its kind in Turkey and in the world.

Developed by Türk Telekom’s R&D unit, the “TahtApp” software offers an innovative solution which facilitates the follow up of in-class education for Günışığı children, who study in the same classes with their peers without disabilities.

Thanks to TahtApp, the standardisation needed for children with differences in reading and light perception, while following the lesson in the classroom is successfully achieved.

All activities of the Günışığı project had strong social impacts.

The software detects content of the classroom board with a camera and transfers it to the tablets provided to children included in the project, in real time. The transferred content is arranged by visual processing techniques on tablets and converted into a format through which students can follow the lesson.

During this transformation, actions such as removing the teacher in front of the board from the image, increasing the contrast in the image colours and the font size can be performed. By transferring the images of the completed lesson to the device through the application’s automatic lesson recording feature, students are provided with the opportunity to review the lesson subjects later.

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The Günışığı Open Learning Platform was established in April 2020 for children with low vision, considering the pandemic conditions. In this way, children with low vision and their families were supported with the live-broadcast training given by different branch teachers every weekday. In 2021, the goal of expanding the project to 81 provinces was achieved, and the low vision awareness trainings provided to 70 Günışığı Children and their families were completed through distance learning.

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The Sunshine of Art Education Programme, conducted by Türk Telekom and Istanbul Modern in cooperation, brought the children of Company employees and children of Günışığı together with art. In 2021, 10 art workshops and 4 online museum tours were held as part of the programme.

On April 23, National Sovereignty and Children’s Day, one of the online museum tours was gifted to children. Günışığı children and Türk Telekom children participated in another online museum tour organised to mark Father’s Day with their fathers. In the Portrait Workshop organised within the scope of Mother’s Day, children drew portraits of their mothers and prepared surprises for them.

The software detects content of the classroom board with a camera and transfers it to the tablets provided to children included in the project, in real time. The transferred content is arranged by visual processing techniques on tablets and converted into a format through which students can follow the lesson.

During this transformation, actions such as removing the teacher in front of the board from the image, increasing the contrast in the image colours and the font size can be performed. By transferring the images of the completed lesson to the device through the application’s automatic lesson recording feature, students are provided with the opportunity to review the lesson subjects later.

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In addition, EyeSense allows users to recognise objects with its object recognition feature and to distinguish the colours of objects with its colour recognition feature. The programme runs on the device and can easily recognise faces with the flash of the phone, even in dark environments.

Culture and art at AT&T are blended with technology through Türk Telekom’s knowledge and know-how.

As a step towards its human-centric approach, Türk Telekom put its seal on a major collaboration at the Istanbul Atatürk Cultural Centre (AKM), which left its mark on Turkey’s culture and art memory. Türk Telekom became the main supporter of AKM with the agreement signed between the Ministry of Culture and Tourism and Türk Telekom in November. In addition, the main opera hall with a capacity of 2 thousand 40 people, where the red globe, the symbol of AKM, is located, was named Türk Telekom for 7 years.

According to the protocol, the entire communication and technology infrastructure of AKM is also provided by Türk Telekom. With this cooperation, Türk Telekom aims to transfer its technology and digital transformation experience to the field of culture and art. In addition to providing WiFi hotspots, LTE and 5G mobile services and all-end-end telecommunication services for art lovers to experience innovative technologies inside AKM and on Beyoğlu Culture Road, the Company plans to offer its visitors pleasant moments and privileged experiences with entertainment-leisure-experience areas and special events bringing technology and art together.

By presenting its own existence, power, experience and what it can add to life with the project as the main supporter, Türk Telekom is instrumental in transforming AKM, which was opened on October 29 and defined as the basis of socio-cultural consensus, into a valuable place which is alive at all hours, like an inclusive and diversified environment for students in 78 Türk Telekom educational project, Türk Telekom offers a modern educational environment for students in 78 Türk Telekom educational environments.

Türk Telekom Okulları project offers a modern educational environment to students.

With the Türk Telekom Okulları (Türk Telekom Schools) project, Türk Telekom offers a modern educational environment for students in 78 Türk Telekom educational buildings, including 53 schools established across Turkey. Every year, thousands of students graduate from these schools and educational buildings, 34 high schools and 19 primary schools, which are mostly located in the Eastern and South-eastern Anatolia regions and transferred to the Ministry of National Education. Moreover, every year Türk Telekom awards scholarships to successful students with insufficient financial means, while providing the necessary support to the library and computer classrooms in the schools.

Türk Telekom’s civil defence movement: TTAKE

Turk Telekom Search and Rescue Team (TTAKE) operates within the Company as a voluntary civil defence movement composed entirely of Türk Telekom employees. Established in 2010, TTAKE aims to reach the spot as quickly as possible to help those in distress within the scope of its authority and possibilities, in all kinds of natural disasters, natural accidents that may occur in Turkey and in the world and other adverse conditions that require search and rescue activities.

In 2021, the number of its members increased from 150 to 200. TTAKE members, who received a total of 11 trainings during the year, also took an active part in the Antalya Manavgat fire. The AFAD accreditation process of the TTAKE team has also come to its final stage.

Türk Telekom values Turkey’s sports

Türk Telekom continues to provide sports equipment, to allocate space and to provide financial support to Türk Telekom Amateur Sports Clubs, which have been operating in 33 different branches for 11 years. Türk Telekom contributes to more than 5 thousand athletes playing sports in 33 branches from basketball and fencing to swimming and badminton in 40 cities, 41 clubs.

Accessible Life

Having developed Accessible Life mobile application in compliance with accessibility standards and offering it free of charge, Türk Telekom brings the disabled people together with technologies that facilitate and enrich their lives.

In addition to the national athletes which the Company has transferred for our country so far, it has approximately 100 national athletes who actively play sports in clubs.

In 2021, the athletes supported by Türk Telekom represented Turkey abroad, achieving significant degrees in the World, European and Balkan Championships, and they won numerous medals in national-international competitions in different branches.

Institutions make a difference by using Türk Telekom Subscription-Based Donation System,

Türk Telekom became the first operator in Turkey to launch the Subscription-Based Donation System, which makes it easier for those who want to make donations via SMS. The system, which was used by Turkish Red Crescent for the first time in 2020, aims to ensure the continuity of donations.

The donor just needs to send an SMS to make a regular donation. Thus, the user can regularly donate every month during the subscription period. The amount of donation is reflected on the user’s invoice monthly, or deducted from their remaining balance, and the user can unsubscribe at any time.

Following Turkish Red Crescent, Türk Telekom’s Subscription-Based Donation System has also started to be used by the Turkish Aeronautical Association, the Turkish Religious Foundation, and the Educational Volunteers Foundation of Turkey.

Life standards of disabled individuals are rising with the Accessible Life mobile application

Türk Telekom brings the disabled people together with technologies that facilitate and enrich their lives with the Accessible Life mobile application. Developed according to accessibility standards and offered free of charge, the application was deemed worthy of the gold award in the category of Best Mobile Applications for Customers at the Stevie Business Awards, one of the most prestigious awards in the world. It was shortlisted at the Digital Communication Awards, where selected applications are featured, and won the Outstanding Customer Service Initiative category award at the Global Business Excellence Awards. It received the Highly Commended Brand award in the Best Use of Mobile within a Loyalty Strategy category of The Loyalty Magazine Awards.

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Türk Telekom’s highly appreciated activities by its stakeholders and its countless services and products are rewarded for years by many national and international reputable organisations. The Company’s innovative practices and activities in 2021 were appreciated both at home and abroad while bringing many awards to Türk Telekom.

Awards

With 180 years of experience...

Türk Telekom
Employee Experience
Branden Hall Group Excellence Awards-Silver award in Best Human Resources Management Approach for 2021 category

Türk Telekom
Agile Centre of Excellence
Stevie Awards for Great Employers-Bronze award in Leading Transformation Award category

Türk Telekom
Annual Report
LACP Vision Awards-1st in both Europe, Middle East and Africa (EMEA) and Turkey and 11th in global rankings, 5 platinum and 3 gold awards in total

Türk Telekom
Accessible Life Application
Stevie Business Awards-Gold award in Best Mobile Applications for Customers category

Innova
Big Star
Deloitte Technology Fast 50 Turkey Program

AssisTT
Call Centre School
2021 Branden Hall Excellence Awards-Gold award in the Best Competence and Skill Development category
Argela and its subsidiary located in Silicon Valley, Netsia, take the lead in the development of next generation telecommunications technologies, primarily the 5G ecosystem, by developing products and intellectual property with their R&D and innovation-oriented activities.

Next generation telecommunications technologies

Founded in 2004 and incorporated into Turk Telekom in 2007, Argela is headquartered in Istanbul. The Company, which also provides services with its offices in Ankara and Izmir, has a subsidiary called Netsia, which was established in 2008 in Sunnyvale, USA and still operates in Silicon Valley, Santa Clara.

Together with Netsia, Argela carries out R&D and innovation activities on next generation telecommunication technologies, and develops technology, products and intellectual property on 5G.

Argela develops solutions for telecom operators in the global market and for telecom companies, public and defence industry organisations in Turkey. The Company continued its activities to increase its recognition abroad and expand its customer portfolio in 2021, and it developed business partnerships in a number of countries such as the USA, Ethiopia, Azerbaijan, the UK, Germany and Taiwan.

Argela creates added value both in Turkey and in the world with its patent applications and the intellectual property it has developed in the USA on next generation telecommunication technologies, and 5G technologies in particular. Within the scope of the sales and cooperation agreement signed between Argela, Turk Telekom and Juniper Networks Inc., the Company reached the point of generating financial value through product sales by taking its operations to a higher level.

Product and solution portfolio that adds value

Argela and its subsidiary Netsia take an active role in Broadband Forum (BBF), 3GPP, GSMA, Small Cell Forum and Silicon Valley based ONF (Open Networking Foundation), which include the world’s leading companies operating worldwide. Its activities in these organisations allow the Company to play a leadership role in directing technology and open-source development.

In addition to these activities, Argela carries out joint projects with many universities and companies within the scope of the European Union’s Horizon2020 and Erdf projects. The Company, which has contributed to the technological development of Turkey through these studies, also creates EU supported funding for R&D activities.

Argela’s portfolio includes programmable base station solutions (vRAN), software defined networks (SDN), network performance monitoring, subscriber analytics, customer satisfaction management, LTE base stations, solutions, as well as software-defined fixed network access solutions and applications such as SEBA (SDN Enabled Broadband Access).

In 2021, within the framework of its Multi-Access Edge Cloud (MAC) architecture activities, Argela enabled the development of a basic edge cloud computing infrastructure called Türk Telekom Value Added Cloud Services Infrastructure Management Platform, which is compatible with NFV architecture and consists of open-source components, within the structure of Türk Telekom Group.

Value-added cloud services such as IaaS, PaaS and SaaS, which will be integrated into Türk Telekom’s infrastructure and will create additional income through the platform, are planned to be offered to public and general end users. Tests on the platform have been successfully completed and work is underway on its pilot product, which is planned to be implemented in the first half of 2022.

Another SSB project, the Domestic DPI Device Development project (DEFINE) carried out with the stakeholders under the roof of OTAK Technology, in which Argela is also a partner, started with the contract signed at the end of 2019. The first phase including passive DPI features was completed in November 2021. The second phase, which will provide operator-grade active DPI features, is planned to be completed by the end of 2022.

In addition to all these, Argela’s joint work with a number of universities in Turkey includes next generation technology projects such as 5G, software-defined networks, virtualisation of network functions, cyber security, self-organising mobile networks and big data processing.

**Rollout of open and smart 5G radio infrastructure in all operators**

Turk Telekom, Argela and Netsia, have collaborated with Juniper Networks on technologies supporting 5G. As part of this cooperation, RIC (Intelligent RAN Controller) developments continue via Argela’s expert staff. Furthermore, the works are underway for the integration of RIC into Juniper’s product portfolio and joint innovation on Open RAN (Open Radio Access Network).

Within the framework of the agreement, Netsia’s RIC…
Netsia BB Suite, which will be highly important in terms of both broadband internet and 5G infrastructure and will allow the fibre optic network to be managed with cutting-edge smart technologies, has become active in Turkey. technology will be developed by Juniper and integrated into Juniper’s orchestration platform. In this way, it will be possible to provide a secure and guaranteed service experience that enables end to end network slicing and orchestration, to service providers. With its critical function that makes Open RAN technology operational, RIC enables smart control of sliced mobile networks over the cloud, bringing in increased efficiency and flexibility. This new slicing technology allows the desired capacity to be allocated to the desired base station by programming the base station virtually. As such, for instance, it will be possible to prioritise the first aid calls and rescue teams at times of disasters and to prevent failed calls by increasing the capacity of a certain region.

The cooperation with Juniper will strengthen the Open RAN and 5G ecosystem by rolling out the open and smart 5G radio infrastructure in all operators, especially Turk Telekom, and will enable operators to achieve numerous operational and commercial benefits, including increased performance, efficiency and scalability.

Broadband access technology of the future for fixed networks: Netsia BB Suite

Argela and Netsia develop solutions also for fixed internet providers. In this context, Netsia Broadband Suite, which enables the management of passive fibre optic (PON) broadband access networks based on software and edge cloud, has been made available for the use of fixed internet providers.

Netsia BB Suite was launched in Turk Telekom’s live networks in 2021. The product, which started to serve in three regions in Istanbul, is aimed to be rolled out throughout the country. In this context, Turk Telekom announced to the world with a press release, its goal of Netsia BB Suite solution to reach 1 million subscribers. Netsia BB Suite has been put into trial in various domestic and international operators. In this context, tests in Taiwanese operator Chunghwa Telecom’s laboratories were completed, proving the product’s success in the course of open and stand-alone broadband solution.

Netsia BB Suite is aimed to use the product in the operator’s live sites as part of the continuation of the work.

On behalf of Turk Telekom, a member of ONF Board of Directors, Argela and Netsia support the open source SEBA project, in which companies such as AT&T, Deutsche Telekom, Telefonica and NTT are contributors. Netsia, one of the 5 members of the ONF SEBA Board of Directors, has been representing Turk Telekom Group in the ONF Technical Board of Directors since 2018.

On the other hand, Netsia has been a member of BBF since 2019 as well. Virtualised fibre network solutions around the world are shaped around two main institutions. One is ONF, which Netsia is working closely with, and the other one is BBF. While ONF is strong on the ready-made open source software side, BBF, which has a large number of members worldwide, is more active in terms of standards. Netsia closely follows the developments in these two fields and aims to combine the strengths of both organisations from a technical point of view.

Argela continues to expand its geographical footprint and add value to its customers

Argela implements activities for the sales of NPM (Network Performance Monitoring) and CEM (Customer Experience Management) products abroad. In 2021, the Company continued its activities with the aim of expanding its geographical footprint and adding value to its customers.

Argela won the NPM/CEM tender opened by Ethio Telecom (Ethiopia), one of the largest mobile operators in Africa, and started acceptance tests in the last quarter of 2021. Having achieved a major success by winning the tender opened by Azerbaijan’s leading operator Azercell in 2019, the Company successfully passed the acceptance tests, and the product was put into use.

Argela won Turkcell’s fixed voice network performance monitoring tender in 2021 and started the field installations of the project.

Argela’s NPM solution provides meaningful data to fixed and wireless service providers, enabling them to monitor end to end network performance, detailed customer behaviour and service quality and to maintain the service quality at a certain level as well. For this purpose, signalling and data probes have been developed for a number of protocols in mobile, fixed and IP networks.

The NPM solution enables effective use of network resources with end to end and real time visualisation of the network through probes that operate on a real time basis.

The CEM solution, on the other hand, provides meaningful analysis and behavioural information about customers’ experiences in networks such as voice, data access, data usage, and messaging. This solution, which allows operators to monitor the activity of their customers at an individual level in real time, is used for advanced analysis and, to accelerate and improve customer care services.

Development activities continue to make NPM and CEM products compatible with 5G networks. With the first phase development, NPM/CEM 5G was turned compatible with NSA (Non-Stand Alone) architecture. Probe software development studies continue for the 5G SA (Stand Alone) architecture.

Investments that will increase domestic and national solutions continue

Argela makes great contribution to the localisation of technologies used in Turkey. Among the most significant of these is the production of domestic DPI (Deep Pocket Inspection) device that was developed under the roof of Otak A.S, which was established at the beginning of 2019 by Turkish companies and in which Argela also has a 20% share.

With these works progressing under the name of DEFINE project, it is aimed to develop a software which will be capable of operating in both active and passive modes, can be used in public and commercial communication transmission networks, offers enhanced security features, will analyse the traffic in detail on a package basis, will generate traffic related meta data and forward the desired content to other devices.
In a constantly evolving and highly competitive environment, Innova offers services that effectively meet the needs of its customers, with a wide range of information technology solutions.

Being the closest business partner to organisations in their digital transformation journeys, Innova offers sector-specific innovative IT solutions as well as analytics, artificial intelligence, RPA, IoT and cloud-based technologies.

Local technology solutions along the digital transformation journey

One of Turkey’s pioneering information technology companies, Innova Bilişim Çözümleri A.Ş., has been providing its customers competitive, cost and profitability advantages in their digital transformation journeys with the innovative solutions it has offered since its foundation in 1999. In line with its vision of guiding the needs of the industry and customers, Innova offers end-to-end information technology solutions and brings the customer experience to the highest level.

Being a 100% owned subsidiary of Türk Telekom since 2007, Innova is building up strength by expanding through its investments in new business lines. The Company executes its operations through head offices located in Istanbul and Ankara, and 12 support offices, with its expert team of more than 1,300 people. Continuously investing in its qualified personnel, Innova pays remarkable attention to its employees to hold the latest technology certifications.

Innova provides telecommunications, finance, banking, insurance, retail, energy, automotive, production and other services in the private sector. The Company operates in health, education, transportation, security and infrastructure in the public sector.

Based on its ample capabilities in artificial intelligence technologies, big data, data analytics, IoT (Internet of Things), RPA (Robotic Process Automation) and fintech, Innova provides services under the following brands:

- PayFlex Innova, for fintech solutions such as payment, loyalty and collection,
- SkywaveIoT, for internet of things,
- LEGA and ATS, in administrative and legal receivables follow-up,
- HERMES, for the end to end fault request management,
- Network 360, for network management and monitoring

Moreover, the Company offers a wide range of end-to-end solutions through Biometric Signature, E-Solution, Document Management, Treasury Portal, Portal Management, Arena and Nova. Innova also administers manageable services, outsourcing and consultancy services along with local and national product software Innova uses SAP, business intelligence, CRM, IT governance, RPA and project management solutions for third-party products and services while providing hardware, kiosk & digital signature and infrastructure services on the system integration side.

Innova continues to maintain a strong presence abroad

Innova makes a significant contribution to Turkey’s national technology movement with its technology solutions that are 100% locally and nationally engineered products. Innova maintains its strong presence abroad with its projects in Qatar, Kuwait, Lebanon, Bahrain, Algeria, Saudi Arabia and the United Arab Emirates and its kiosks in Greece through exporting its products and services to 37 countries in 4 continents to date.

Highlighted Projects

Network 360, network management system

Network 360, with its domestic network management system, enables customers to monitor the instant status of devices covered in the network by scanning their status and create an alarm or actions towards malfunctioning. According to its ability to find the topology based root cause in complex-wide network structures enables detecting malfunctions in the right location and device and field teams to be informed instantly. Currently, in 5 institutions, about 150 thousand devices are monitored by Network 360.

HERMES

Hermes is a software product developed by Innova, where customers can manage requests and malfunctions within their companies. Hermes uses the specified workflow model of the companies to organise its responses to the open-malfunction notifications or requests created by stakeholders and users. The malfunction notification and requests can be tracked through the process since they are identified in Hermes by the needed actions and duration, responsible party or team.
physiotherapy violations, payment follow-up processes and collection acceptance before legal action, preparation for the legal actions with data enrichment, initiation of the legal process, and the management of all enforcement/ litigation processes in the legal operations were designed through LEGA.

**MNG Kargo Smart Cabin Data Centre Solution**

With the goal of consistency and high quality in customer services, the old infrastructure of MNG Kargo has been modernised with an innovative data centre solution. Thanks to the new service model, high cost and increased malfunction response time caused by operation and maintenance personnel having to travel in the field were prevented.

**Hatikbank Q-matic Project**

To contribute to Hatibank’s in-branch digital transformation, the Q-matic devices in one thousand branches across Turkey were replaced and the devices were managed.

**Valeo Managed Service Project**

Management, installation and problem detection of Valeo Otomotiv’s system and network equipment are conducted. Services such as system and network monitoring, on-site intervention and consultancy are also provided by Innova experts.

**ACEP (Integration of Smart Technologies in Prisons Project)**

Under the goal of providing high consistency and quality in customer services, the new infrastructure of ACEP (Integration of Smart Technologies in Prisons Project) aims to place kiosks in the wards to meet specific individual needs of the prison inmates and maintain operational processes in prisons and detention houses, allowing these processes to be continued without prison personnel. Thanks to the use of kiosks, prison inmates will be able to make video calls with their relatives, canteen shopping and e-doctor arrangements without leaving the ward.

**Cyber Security Projects**

Turk Telekom and Innova are working on the strategy of joint product development and sales channel creation in areas such as cyber threat and intelligence in the corporate market, UTM (Unified Threat Management), EDR (Endpoint Detection and Response), EPP (End Point Protection), MDM (Mobile Device Management).
İnnova won 10 awards in the world of technology in 2021 with its domestic solutions.

**Awards received by İnnova from its business partners**

- Big Project Sales Partner and Consistent Leading Sales Partner Award at Huawei Turkey Ecosystem Partner Summit 2021
- SD-WAN Partner of the Year 2020 Award at Fortinet Partner Synergy 2021 Turkey event
- Rising Star Award of the Year 2020 at the Partner Meeting 2021 event held by McAfee
- Pure Storage Turkey Business Partner of the Year Award thanks to the successful projects realised with Pure Storage in 2020
- Special Project of the Year Award at the Partner Summit Turkey 2021 event held by Veeam on March 16
- 2020 Solution Sales Elite Award at the Partner Kick-Off event held by H3C on March 10

As the customer experience company of Türk Telekom, AssisTT has integrated the state-of-the-art technologies into its structure, operating with a human-oriented approach since its establishment in 2007. The Company offers multi-channel solutions to leading sectors in the fields of call centre, sales-marketing, face-to-face service, outsourcing, social media management and revenue management.

AssisTT, which provides strategic companionship to its customers in various sectors from media and logistics to health and telecommunications, displayed a rapid growth especially in e-commerce and banking sectors in 2021.

**End to end excellent customer experience**

Proceeding with the goal of becoming a technology-producing company in the call centre sector, AssisTT continues its investments in infrastructure virtualisation and simplification by highlighting IVR (Interactive Voice Response), robotic automation, speech analysis, written channel service (chatbot) and social media management applications.

Among the most important investments of AssisTT in the recent period are data analytics, smart monitoring systems, RPA and studies to establish information technology infrastructures and processes that minimise human intervention called No-Touch Operation.

The first Call Centre School of the sector develops rapidly

AssisTT contributes to the competent human resources of Turkey by presenting its knowledge and experience to the sector through the Call Centre School that it implemented in 2019. In this context, providing training to industry professionals, students of call centre departments of universities, and anyone interested in the industry, the Company offers internship and job opportunities in addition to theoretical education. The number of people who have received training at the AssisTT Call Centre School has reached 1,760.

**Trainings have started at the Call Centre School, which is a first in the sector. The school provides training opportunities to anyone who wants to improve their skills in the sector.**
AssisTT continues to create employment
Providing a wide range of services to the brands it cooperates with through its over 14 thousand employees in 22 provinces, AssisTT continues to create employment with a view to contributing to the Turkish economy. The Company, which created nearly 6 thousand new jobs in 2021 compared to the previous year, has a female employee ratio of 69%.

AssisTT is once again on the Turkey’s Best Workplaces list
With its investments in employee experience, AssisTT managed to meet the criteria of Great Place to Work with a high trust culture in 2021 as well. Increasing its loyalty score by 9 points compared to last year, the Company was awarded the Great Place to Work certificate for the third time. AssisTT also achieved another remarkable success by being included in the Turkey’s Best Workplaces list in the category of 5,000+ employees for the first time this year.

More than an employee experience journey
Having identified employee experience as one of its strategic priorities, AssisTT launched its employer value proposition with the aim of creating a work culture where employees can put their efforts forward with dedication and happiness. AssisTT built its value proposition with the motto of “more than” on foundations such as success, happiness, development and future.

The projects are crowned with national and international awards
AssisTT won the gold award in the Best Competence and Skill Development category at the 2021 Brandon Hall Excellence Awards with its Call Centre School project. At the Stevie Awards for Great Employers, the Company won a bronze award in the Most Innovative Use of HR Technology category with its Online Interview Base project. In addition, AssisTT was awarded the first prize in the category of Outsourcing Service of the Year at the 500 Bilişim Company Research Award, organised by BThaber.

AssisTT implemented the Türk Telekom DönüşüMM (Transformation) project in order to improve and transform human resources processes, technological infrastructure, operational development, process and project management. Seeking to take customer satisfaction to the highest level with this project, AssisTT aims to ensure the continuity of human resources, its most important value, and to reduce the workforce turnover rate of experienced and high performing teams.

Since the launch of Türk Telekom DönüşüMM project, the received calls have decreased by 15% in home internet operations, 18% in home fixed voice operations and 8% in mobile operations. The improvement in the workforce turnover rate of experienced and high performing teams was 8.5%.

A new interpretation of remote working: Free Working Model (Özgür Çalışma Modeli)
AssisTT implemented the next generation Free Working Model by redesigning its business processes and working models. The Company provides remote, part-time and flexible working opportunities for new employees, especially university students, housewives and disabled individuals as well as the call centre employees. With the remote working model, individuals have the opportunity to easily devote time to their other responsibilities by working 4-5 hours a day in their preferred time zones, regardless of their location.

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SEBİT is changing the dynamics of education in Turkey and in the world.

Developing national and international solutions by using technology in an innovative and effective way, SEBİT is one of Turkey’s leading education companies with its 33 years of R&D experience in the field of educational technologies.

Leading solutions from SEBİT for the education approach of the 21st century

With the educational solutions it has developed since its establishment as an R&D laboratory under the roof of TÜBİTAK in 1988, SEBİT has been playing a leading role not only in Turkey but also abroad. In this context, the company develops national and international products and services focusing on social benefits and the educational needs of individuals, with a 21st century education approach.

Drawing strength from the synergy it has established with Türk Telekom, SEBİT unceasingly develops and diversifies its product and service portfolio by making use of innovative technology and plays a key role in the global transformation of education.

With its competent and creative human resources and numerous awards, SEBİT is recognised as one of the top-notch educational technology companies in the world by many international education authorities.

Support for mass online education with EBA

SEBİT updates the changes in the course content, study plans, question-exam systems and the curriculum of all grades on the Education Informatics Network (EBA), the portal of the Ministry of National Education. The company has been meeting the need for access to live classes, which became prominent during the pandemic through this portal since March 2020.

In response to the need for mass use emerged in this period, software architecture of EBA was parsed with functions to withstand instantaneous loads. EBA was recognised by SimilarWeb as the website that attracts the world’s highest traffic in the education category.

Professional development support for teachers

EBA Professional Development, which was developed by SEBİT in order to conduct teacher trainings online, is the official professional development portal of the Ministry of National Education. In 2021, reporting and collaboration tools and functions aiming to improve the efficiency continued to be added to the portal. Teacher trainings prepared for the effective implementation of distance education with the support of technology have reached 1 million teachers through the EBA platform.

SEBİT VCloud offers privileges in adaptation of schools to technological processes

SEBİT VCloud platform, a first in Turkey by carrying the collaboration and sharing-based educational approach online, helps private schools to rapidly transform their educational systems. While SEBİT VCloud prevents students from being passive viewers in online education environment and engages them in the process with a personalised education approach, it enables teachers to manage the process and to have learning-focused interactions with their students.

Thanks to the virtual classroom module and interaction functions, the product proved its value in contributing to the transformation of education even after the end of the distance education period. SEBİT VCloud is used by nearly 100 thousand students, teachers and administrators in around 800 private schools. Work is underway to add reporting and data analysis functions to the social learning infrastructure with VCollab, which is integrated into SEBİT VCloud.

Raunt: The most effective solution with personalised guidance to university preparation

Developed by SEBİT, Turkey’s first and only personalised university preparation product Raunt, is a leading solution for both the corporate use of private schools and for individually preparing students.

The entire high school program, from the 9th to the 12th grade, was designed by using Raunt’s artificial intelligence-supported infrastructure and the data accumulated through its usage since 2015. Aiming to enable candidates study according to their goals by using their time in the most efficient way, Raunt offers mobile application support in addition to Turkey’s most long-established and experienced publishers’ books in preparation for university.

SEBİT VCloud is leading the educational understanding of the new era with its collaboration and sharing based structure.

Education approach in the new era

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The preparation and course support program for the High School Entrance Exam

The curriculum updated in the 2018–2019 academic year in Turkey, is an important step forward in the direction of activity-based experiential learning, and measuring and evaluating the competencies developed by this method. The change in educational approach has also manifested itself in the exam for higher level education, and the High School Entrance Exam (LGS) began to be designed on a competency basis.

Distance education started after the pandemic marked the 2019–2020 academic year. The teachers, who had to prepare and teach their classes in the virtual classroom environment, frequently resorted to digital resources and course designs, particularly the SEBİT VCloud platform and Vitamin content.

The growing interest in educational technologies has brought forward the development of preparation and course support software for LGS. The current measurement-evaluation infrastructure and functions enabled the design and development of the exam preparation software. The focus and study discipline of the relevant age group and the adaptation of a special system to the single step LGS became necessary. The alpha version of the product is planned to be launched in the near future, and the beta version with updated software will be launched in early 2023.

Ministry of National Education (MEB) Academic Support Program added to the national educational technology infrastructure

As part of the MEB 2023 Vision, the MEB Academic Support platform has been added to the national education technology infrastructure in order to relieve the pressure on the education system brought about by the transition exams between grades. This platform played a key role in supporting education with online tools during the pandemic.

Implemented by SEBİT, the MEB Academic Support addresses both the university preparation and academic support needs of 11th and 12th grade students in public schools. Studies to increase the measurement and evaluation capacity of the platform through established publisher ecosystem are underway. In addition, the R&D studies for the response evaluation system with natural language processing in Turkish continue with the aim of establishing an open-ended exam infrastructure.

Innovative solutions for different educational needs

Developed by SEBİT in 2000, Turkey’s leading online education product Vitamin is renewed in parallel with the development of digital information and communication technologies, and is updated in line with the changes made in the curriculum and developments in the platform.

The content of Vitamin, which is offered to public schools through EBA and private schools via SEBİT VCloud, has been included in the learning process with the Vitamin Books and made available both as digital and in printed materials. Meanwhile, the project to enrich Vitamin content with 360° video and AR/VR technologies in line with the possibilities offered by the upcoming 5G technology are in full swing.

Another product in SEBİT’s portfolio is DinamikMAT. Turkey’s first and only smart question generation system DinamikMAT offers students an unlimited number of examples of a question in maths classes that measure the same knowledge and skills.

Developed by SEBİT within the scope of the Horizon2020 R&D Program and considered to be the most successful project by the European Commission’s Technology-Supported Education unit, BEACONING offers an unconventional educational content than usual, thanks to its game-based learning application.

Offering an easy to use visual programming language for both teachers and students, V-Fabrika product allows creating highly interactive content without any knowledge of coding, while providing next generation e-content that users learn by practicing and have active learning experiences.

Hızlico improves the reading speed and gives an advantage in exams

Hızlico, the online speed-reading system which increases the speed of reading by using scientific methods, is suitable for mass user with its updated new interface, enhanced customisation features and smart tutoring system adapted to user’s level.

In Hızlico, which increases the speed of reading without causing loss of meaning, the texts are arranged in a library structure prepared in appropriate length and difficulty levels for the 5th to 12th grade students and adults.

Data driven, continuous improvement in education

The data-driven approach in school development activities via learning and education analytics tools continues under the leadership of SEBİT together with the contributions of academicians. The work on School Profile Evaluation (SPE), a web-based product for measuring the added value provided by schools and teachers to students and for planning the school development activities accordingly have been completed.

In 2021, a board involving nearly 20 academics was formed under the leadership of SEBİT to measure the effects of school atmosphere on the social and emotional development of students. The board carried out the validity and reliability tests in pilot schools by applying the scale developed by adapting the examples from the world to Turkey.

Based on the results, this study was reformed so that it could work for private schools through SEBİT’s VCloud product as well. It is expected that this decision support component for school development, pilot study of which was initiated with TED Colleges, having nearly 40 schools, will add great value to the SEBİT VCloud platform.

SEBİT's activities on a global scale

SEBİT is taking firm steps towards becoming one of the leading companies globally in educational technologies with innovative and effective use of technology. The products developed by the Company are used in many countries. While the global sales cooperation with Microsoft is ongoing, the Turkish Republic of Northern Cyprus (TRNC) MEB EBA platform, which was launched in 2020 for the benefit of the TRNC Ministry of Education and Culture, continues its activities.
Türk Telekom International offers its customers a full-range of high quality communication services with a constantly evolving product portfolio in a geography stretching from the Far East to Europe.

Türk Telekom International carries out its activities and operations through its subsidiaries located in 17 countries

Türk Telekom International, a global member of the Türk Telekom Group, is headquartered in Budapest, Hungary. Company’s field of activity also covers Central and Eastern Europe, the Middle East, the Caucasian, Central and South Asia, Latin America and the Far East as well as Turkey.

Türk Telekom International’s major customers are fixed and mobile telecommunication operators, international alternative infrastructure operators, domestic and international internet service providers and corporations. Among the services offered by the company are the following:
- full-range internet and data communication,
- IP transit,
- direct and full-range access to Türk Telekom IP network,
- network planning and implementation,
- fibre optic infrastructure and access,
- international voice and messaging services at wholesale level,
- international mobile roaming and mobile services, product and market development,
- global MTN and SD-WAN for enterprise customers,
- dedicated access to cloud service providers.

Türk Telekom International connects continents with its widespread data infrastructure

With its fibre optic network approximately 45 thousand km, mainly located in Central and Eastern European countries, Türk Telekom International plays a key role in placing Turkey and Türk Telekom as a communication bridge and data junction between the European and Asian continents.

Türk Telekom International, which offers internet and IP services to numerous operators and companies with over 110 points of presence (PoP) in 25 countries, also provides data and internet access to Türk Telekom with a capacity of 11.9 Tbit/s.

The company continued to strengthen its global position in 2021 with its activities conducted with the support of the Türk Telekom brand, which has a high level of recognition not only in its own geographical region, but also in the global arena.

Expansion into new markets continues in international wholesale voice, messaging and mobile roaming fields

Türk Telekom International is also an important regional player in the field of international wholesale voice and mobile roaming as well as international data services. The company’s strength in emerging markets such as Africa, the Far East and Latin America is gaining momentum.

Türk Telekom International has established more than 200 business partnerships with the world’s most important telecommunication operators in international wholesale voice. In this context, the transit traffic carried from Eastern Europe, Turkey, the Middle East, the Commonwealth of Independent States, Africa, Latin America and the Far East reached billions of minutes annually.

Türk Telekom International also has agreements with more than 800 mobile operators in over 200 countries in the field of international mobile roaming. The company, which has mutual international mobile roaming agreements with more than 320 operators within the scope of LTE technology, continues its work on 5G mobile roaming at full speed. Additionally, Türk Telekom International took a key step towards becoming a regional player in the field of SMS Hubbing business, which was implemented in 2021.

Türk Telekom International – with its own infrastructure and as part of wider consortium submarine fibre optic cable systems – strengthens Turkey’s position as a communication bridge between Asia and Europe.

Türk Telekom International is a full member of the SEA-ME-WE-S consortium, which consists of 19 leading operators in their fields. The SEA-ME-WE-S is the fifth-generation international submarine fibre optic cable system project within the SEA-ME-WE System connecting Southeast Asia to Western Europe.

The company actively uses MEDTURK, which connects Turkey, the Middle East and Europe, and KAFOS (Black Sea Fibre Optic System) cable systems opening to Europe from the Black Sea. In this way, Türk Telekom International further strengthens Turkey’s position as a communication bridge and data junction between East and West.

Türk Telekom International continues to expand its infrastructure with state-of-the-art technology upgrades

Türk Telekom International strengthened its infrastructure with the New Backbone project that was completed in 2020 and actively used in 2021, and started to offer high-speed and quality service to its customers.

The New Backbone establishes a connection to Sofia, Budapest and Vienna with the fibre networks, each of which extending to more than 3,400 km from two different protected routes in Turkey and Europe, with Istanbul, Edirne and Frankfurt being the endpoints. In addition to providing access to high-capacity Internet, the project also allows the provision of value added services in the field of data.

In 2021, the agreement process between the operators in relevant countries and Türk Telekom International for the implementation of The Alternative Middle East Europe Route-2 (AMEER2) was completed. AMEER2 consists of 7,550 km long terrestrial and submarine segments that will connect Bahrain, the United Arab Emirates, the Kingdom of Saudi Arabia and Jordan to Europe via the Mediterranean Sea and Turkey.

AMEER2, which is much shorter route compared to its peers, and is planned to be activated at the beginning of 2022, traffic can be transported from the Middle East to Europe in the most efficient way, with high capacity and low cost.

Türk Telekom International’s IP products contribute to the transformation of Istanbul into a global centre of attraction for global internet players

The infrastructure and value added services offered by Türk Telekom International strengthened Istanbul’s position as a centre of attraction by providing access to high-speeds and capacities. In this context, Türk Telekom International offers IP service to leading service and content providers based in overseas. The service enables companies with international content to reach Istanbul through Türk Telekom International infrastructure and host their servers in Türk Telekom International’s Istanbul Data Centre.

In 2021, the world’s major cloud and content providers such as Microsoft, Amazon, LimeLight, Cloudflare, Tencent began their operations in Istanbul.

On the other hand, Türk Telekom International offers an extremely fast and secure connection to OTT traffic, which is spread across the country with the IP Transit service offered from border points to neighbouring countries.
Important Developments After the Accounting Period

01 January 2022 dated Regulatory Disclosure - Organisational Changes

Effective as of January 1, 2022, Türk Telekomünikasyon A.Ş.’s Board of Directors decided:

In line with our approach to continuously improve our processes, make them lean, agile and efficient within organisational structures where responsibilities are clearly defined and adapt Türk Telekom’s organisation and business processes to current needs, our Strategy, Planning and Digital Assistant General Management has been closed. Barış Karakulukçu, “Assistant General Manager of Strategy Planning and Digital”, left our company.

In order to enrich Türk Telekom’s value chain, to support unity by managing business processes in a more integrated and holistic manner, and to maintain our sustainable growth target in our financial and operational performance, the following functions, which were managed under the Strategy Planning and Digital Assistant General Manager, are structured as follows:

• Our 100% subsidiary TT Ventures Proje Geliştirme A.Ş. (TT Ventures) has been restructured in purpose of opening up its investments to global markets, managing the operations of the Venture Capital Investment Fund which will be established by TT Ventures, accelerating financial returns and developing the Türk Telekom brand value. In this context, the Business Development and New Entrepreneurship Directorate organisation is positioned under TT Ventures.

• In order to manage the product and service organisation, which was under different units within the company, with a holistic perspective, to operate the product development processes more efficiently and to grow the products in a healthy way, the Digital Product and Service Development Directorate has been closed. Its functions are positioned under the Product and Service Management Directorate reporting to the Marketing and Customer Services Assistant General Manager.

• The functions carried out under the Financial Technologies Directorate will continue under the Assistant General Manager of Finance, in purpose of increasing the integration of those functions with the Company’s financial processes and managing them more effectively in a holistic approach.

• In order to achieve more agile and effective results by managing the processes in an integrated and holistic manner Strategy, Investment and Business Planning Directorate functions and Programme and Subsidiary Management Office Directorate will continue under the General Manager of Türk Telekom.

17 January 2022 dated Regulatory Disclosure - Extraordinary General Assembly Meeting

Our Company’s Extraordinary General Assembly Meeting, dated 17.01.2022 could not hold due to Covid-19. General Assembly meeting date will be announced when determined.

General Assembly meeting minute is available at the link: https://www.kap.org.tr/en/Files/994790

20 January 2022 dated Regulatory Disclosure - The 4th Coupon Payment and Redemption of TRSTTLK12216 ISIN Coded TL Bond

The fourth coupon payment and principal redemption of our Company’s bond with ISIN code of TRSTTLK12216 was made on 20.01.2022.

15 February 2022 dated Regulatory Disclosure - Guidance for 2022 Consolidated Financial Results

Guidance for 2022 is as below:

• Consolidated revenue growth (excluding IFRIC 12) to be between 23-25% over 2021
• Consolidated EBITDA to be between TL 17.5-18.3 billion
• Consolidated CAPEX to be around TL 12.5 billion level

15 February 2022 dated Regulatory Disclosure - 2021 Year End Consolidated Financial and Operational Result

2021 year end financial and operational results are announced:
https://www.kap.org.tr/en/Files/1009133
https://www.kap.org.tr/en/Files/1009132

18 February 2022 dated Regulatory Disclosure - Fitch Ratings Credit Rating Announcement

On February 11, 2022, Fitch Ratings revised Turkey’s Long-Term Issuer Default Ratings (IDRs) to ‘B+’ from ‘BB-’, and affirmed the outlook as “Negative”.

Subsequent to the above, Fitch Ratings:

• revised Türk Telekomünikasyon A.Ş.’s foreign currency long-term IDR to ‘B+’ from ‘BB-’, and affirmed the outlook as “Negative”;
• affirmed Türk Telekomünikasyon A.Ş.’s local currency long-term IDR as ‘BB-’; and revised the outlook to ‘Negative’ from ‘Stable’;
• revised the long-term senior unsecured instrument rating to ‘B+’ from ‘BB-’.

Dividend Distribution Proposal

As of the date of announcement of Annual Report, the Board of Directors has not made a proposal to General Assembly for dividend distribution. Once the Board of Directors makes a proposal, it will be announced separately.

01.01.2021 - 31.12.2021 Accounting Period Conclusion of Affiliation Report

This Report is prepared and issued in reliance upon paragraph (5) of Article 199 of the Turkish Commercial Code No. 6102, to the extent of knowledge of the Board of Directors of our Company, with respect to the relations of our Company with its Controlling Company and with other affiliates of its Controlling Company in the 2021 fiscal year. Therefore, it is undersigned and hereby declared that each legal transaction mentioned in the Report is balanced with an appropriate counter performance, and that our Company has not incurred any damages or losses due to any measure taken or avoided.
Corporate Governance Compliance Report

Statement of Compliance with Corporate Governance Principles

Türk Telekomünkasyon A.Ş. (“Türk Telekom”) pays utmost attention to implementing the Corporate Governance Principles published by the Capital Markets Board of Turkey (“CMB”). The Company updates its annual and interim activity reports and corporate website, and makes them available to its shareholders within the framework of the said principles. Shareholders have access to comprehensive information through the Türk Telekom Investor Relations website, which is constantly kept up-to-date, and may also direct their queries to the Investor Relations Department.

On 14 December 2021, the corporate governance rating assessment report of the Company was prepared by SAHA A.Ş. (SAHA), which holds an operating license to perform rating assessment in Turkey in line with the CMB Corporate Governance Principles.

The Company received an overall average rating of 9.40 as a result of a corporate governance rating assessment. The Company’s Corporate Governance rating was determined with the assessment carried out under four main categories (Shareholders, Public Disclosure and Transparency, Stakeholders, Board of Directors) with weightings assigned within the framework of the CMB’s Corporate Governance principles. The breakdown of corporate governance rating under these major categories was as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Weighting</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholders</td>
<td>25%</td>
<td>87.59</td>
</tr>
<tr>
<td>Public Disclosure &amp; Transparency</td>
<td>25%</td>
<td>98.85</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>15%</td>
<td>99.51</td>
</tr>
<tr>
<td>Board of Directors</td>
<td>25%</td>
<td>92.93</td>
</tr>
</tbody>
</table>

The rating of 9.40 assigned by SAHA A.Ş. based on the Corporate Governance Principles is a clear indicator that the Company is largely compliant with the CMB Corporate Governance Principles and has brought the necessary policies and measures into effect. The Company will maintain its efforts to fully comply with the Principles of Corporate Governance.

Reasons for non-compliance with certain Corporate Governance Principles

Pursuant to the Communiqué No. II-171 dated 3 January 2014 of the Capital Markets Board on the Corporate Governance, and relevant regulations, the non-complied issues and their grounds are listed below. No conflict of interest has occurred to date due to the principles that are not complied.

Presence of voting privileges of shareholders

The privileges attached to the Golden Share held by the Ministry of Treasury and Finance of the Republic of Turkey are statutory (the law numbered 4673), and the Company is not authorised to amend these privileges.

Mechanisms and models to encourage the participation of stakeholders, particularly Company employees, in the management of the Company are not regulated by the Articles of Association or the Company’s internal regulations

Models for the participation of the Company’s employees in the management have not been included in the Articles of Association, however, such models have been developed and put into practice within the Company’s internal directives. The Company's organisational structure is formed by the Board of Directors, the committees established at the Board of Directors and senior management level, senior management and directorates affiliated to the senior management. All levels are in effective and close communication. Moreover, models for the participation of the Company’s employees in the management, such as the Occupational Health and Safety Boards, Disciplinary Boards, the Disputes Resolution Board and the Inventors’ Idea System are developed.

Non-Presence of articles in the Articles of Association to extend minority rights to shareholders, which hold less than one twentieth of the capital

The Articles of Association of the Company was prepared taking into account the ratio determined by the Turkish Commercial Code in relation to minority rights.

Each member of the Board of Directors’ participation is not limited to one committee

Due to the number of independent members of the Board of Directors of the Company, some Independent members of the Board of Directors are assigned in more than one committee.

No performance assessment of Board of Directors has been conducted to evaluate whether the Board of Directors have fulfilled their responsibilities effectively

No assessment has yet been carried out as of the publication date of the Annual Report.

Shareholders and Stakeholders

Investor Relations Department

At Türk Telekom, the activities with respect to regular management of relationships with existing and potential shareholders and fixed income investors, responding efficiently to queries from investors and analysts, and activities targeted at increasing the value of the Company are carried out by Investor Relations Department (“the Department”) which reports to Assistant General Manager of Finance (CFO).

Execution of the responsibility arising from capital markets legislation and coordination of corporate governance practices is supervised by the Director of Investor Relations, Güslen Ayaz, who holds Capital Market Activities Level 3 and Corporate Governance Rating licenses, and is also responsible for the management of Investor Relations activities.

The primary activities handled by the Department are as follows:

- Including all kinds of cases related to Corporate Governance and Public Disclosure, performing the requirements of the Capital Market Regulations, and handling necessary internal and external disclosures and monitoring related processes,
- Introducing and presenting the Türk Telekom Group to domestic and foreign, individual and institutional, existing and fixed income investors,
- Keeping existing and potential equity investors and fixed income investors regularly informed of the Company’s activities, financial standing and strategies in a simultaneous, equal, accurate and complete manner,
- To ensure that records related to correspondences between investors and the Company and other information and documents are maintained in a manner that is sound, reliable and up-to-date,
- Responder to written information requests from equity and fixed income investors related to the Company,
- Preparing documents required for submission for shareholders’ review with regard to the General Assembly Assembly meetings, and taking precautions to ensure the organisation of the General Assembly meeting in accordance with related regulation, the Articles of Association and other regulations within the corporation,
- Responding to requests for information from research analysts, ensuring the Company is presented in the best way and providing necessary information to make sure that reports for investors are prepared in an accurate and complete fashion,
- Sharing the interim and year-end statements, investor presentations, press releases and annual and interim activity reports regarding financial and operational results with investors and the press, and updating the Investor Relations website regularly to ensure that shareholders have access to accurate and complete information,
- Ensuring that the reporting required for the rating processes of the sustainability indices and independent assessment institutions are timely and reflect the Company’s current status accurately, thus improving the Company’s Environmental, Social and Corporate Governance (ESG) reporting activities,
- Keeping investors regularly informed about Türk Telekom and the developments in Turkish Capital Markets by participating in conferences and investors meetings,
- Monitoring public disclosures that are carried out pursuant to the Company’s Disclosure Policy and applicable legislation,
- Sharing stock related information within the Company, by monitoring the composition of domestic/foreign investors and significant changes in trading volume of Türk Telekom shares which are traded on the Borsa İstanbul.

For questions related to dividends and voting at the General Assembly, please contact the Corporate Governance and Compliance Manager, Eren Öner via investorrelations@turktelekom.com.tr e-mail address.

The Department received over a thousand requests for information by telephone and email during 2021 and all these inquiries were responded to.

Since the effects of Covid-19 continued in 2021, it became a necessity to ensure the investor conferences across geographies virtually. Despite the ongoing challenging process, Türk Telekom, which considers establishing close relations with investors and providing timely, continuous and accurate information among its top priorities, held meetings with nearly 290 equity and bond investors from all over the world in 2021.
Corporate Governance Compliance Report

In 2021, Türk Telekom Investor Relations participated in 19 conferences online. In addition, two meetings were organised where local portfolio managers met with senior management.

Employees of Investor Relations Department

<table>
<thead>
<tr>
<th>Name and Last Name</th>
<th>Job Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ömer Abdurrahman Demircan</td>
<td>Assistant Associate</td>
</tr>
<tr>
<td>Hazal Koçoğlu</td>
<td>Assistant Associate</td>
</tr>
<tr>
<td>Tuğçe Cengiz</td>
<td>Associate</td>
</tr>
<tr>
<td>Özge Arcasoy</td>
<td>Manager</td>
</tr>
<tr>
<td>Gülsen Ayaz</td>
<td>Director</td>
</tr>
</tbody>
</table>

Phone: +90 212 309 96 30
E-mail: investorelations@turktelekom.com.tr

Use of Shareholders’ and Stakeholders’ Right to Obtain Information

Within the framework of the Turkish Commercial Code No. 6102, queries other than those relating to trade secrets and undisclosed information received from shareholders and analysts by the Investor Relations Department by letter, telephone, email or other means are answered in the fastest and most effective way possible upon contacting the relevant person with the highest authority on the related matter. More than a thousand information requests were answered by Türk Telekom in the relevant period. Furthermore, information and developments related to Türk Telekom, which may be of concern to the shareholders, are published both in Turkish and English, related to Türk Telekom, which may be of concern to the shareholders, are published both in Turkish and English, on the Investor Relations website of the Company.

Article 19 of the Articles of Association stipulates, “The General Assembly shall be the main decision body of the Company, possessing every kind of authority in relation to the business of the Company provided by law.” Article 21 of the Articles of Association lists the “Material Decisions to be adopted by the General Assembly” as follows and a special quorum has been stipulated for these decisions:

a) the presentation of any petition for winding-up,

b) any change to these Articles of Association,

c) any change in the corporate name of the Company,

d) any change to the accounting reference date or accounting policies, other than as required by law,

e) any change in the share capital or the creation, allotment or issue of any shares, or of any other security or the grant of any option rights or rights to subscribe to the capital, or to convert any instrument into such shares or securities other than bonus shares,

f) any reduction of capital or variation of the rights or securities other than bonus shares,

g) any decision on any of the matters referred to in Article 12(a) to (f) above to the extent that such matters have not been approved in accordance with Article 12,

h) the entry into any contract or commitment not provided for in the Budget under which the Group Company may incur costs (per transaction) of more than USD 50 million,

i) the acquisition of any assets or property (other than in the ordinary course of business) at a total cost (per transaction) of more than USD 50 million,

j) the sale or disposition of any fixed assets for a total price per transaction of more than USD 10 million,

k) the borrowing of amounts by a Group Company which when aggregated with all other borrowings of that Group Company would exceed USD 150 million, except for the loans obtained from banks in the ordinary course of business,

l) entering into any agreement (other than any management agreement referred to in Article 12(g) below) between a Group Company and a Shareholder (other than the holder of the Group B Shares) or its Associates which (x) is not at arm’s length terms or (y) involves the transfer of money or goods and services of a value greater than USD 30 million,

m) the appointment of any representative to act for the Company at any General Assembly meeting of any Group Company (other than the Company or TT Mobil),

Pursuant to Article 18 of the Articles of Association, right holders who have joined the General Assembly Meetings of the Company may participate in these meetings electronically as well, in accordance with article 1527 of Turkish Commercial Code.

2021 General Assembly Meetings

On 19 March 2021, the Ordinary General Assembly Meeting convened at the address of Türk Telekomumunaksyon A.Ş. Genel Muduru Kultur Merkezi, Turgut Özal Bulvarı, 06103 Adıyaman, Ankara, where 92.3% of the Company shares were represented. During this meeting, no questions were raised by shareholders or their proxies attending either through the electronic platform or individually. Minutes of the Meeting can be accessed from https://www.tyyatirimciiliskileri.com.tr/en-us/corporate-governance/pages/general-assembly-meeting.

No proposals for agenda items were tabled by shareholders during the meeting other than the sub-agenda items.

Particulars related to the said Ordinary General Assembly Meeting dated 19 March 2021 were registered by Ankara Trade Registry Directorate on 1 April 2021, and were published in the Turkish Trade Registry Gazette dated 1 April 2021.

Furthermore, public disclosures announced by the Company regarding the General Assembly meeting were also published on the Public Disclosure Platform as of the date of the meeting. Press or shareholders did not participate to the General Assembly Meetings.

According to Article 31 of the Company’s Articles of Association, General Assembly Meetings are announced at least 21 days in advance of the meeting date, excluding the dates of announcement and meeting, in the Turkish Trade Registry Gazette and in two national newspapers in accordance with Article 414 of the Turkish Commercial Code, so as to inform the shareholders in advance of the General Assembly Meetings.

Information on General Assembly Meetings, General Assembly agenda, letters of invitation, proxy sample forms and information note, which includes detailed information regarding agenda items are also posted on the Investor Relations website and the e-company portal of the Central Registry Agency.

Shareholders who wished to exercise their rights attached to their shareholding and who fulfilled the necessary procedures for participation in General Assembly Meetings pursuant to applicable legislation attended the General Assembly Meetings.

The announcement and explanations which the Company is required to disclose in accordance with the principles of corporate governance, the Information Set forth and the invitation to the General Assembly Meetings and the Minutes of the Meeting are made available for uninterrupted access to the shareholders on the website https://www.tyyatirimciiliskileri.com.tr/en-us/corporate-governance/pages/general-assembly-meeting e-company portal of the Central Registry Agency and the Public Disclosure Platform.

There were no transactions that required the positive vote of a majority of Independent Board Members in order to be resolved by the Board of Directors, or which were left to the discretion of General Assembly due to the negative votes of independent Board Members.

In line with the donation policy of the Company, total donations in a fiscal year cannot exceed TL 40 million. In the Ordinary General Assembly Meeting held on...
The Company’s Articles of Association contain the provisions that entry rights are to be exercised by shareholders representing at least 5% of the paid-in capital. However, minority shareholders are not represented on the Board of Directors.

There is no cross-ownership in the Company’s share capital.

**Dividend Right and Profit Distribution Policy**

The Articles of Association do not grant any privileges regarding participation in the Company’s profit. Each share is entitled to an equal profit share; however, the holder of the Class C share does not receive any share from the profit. Türk Telekom dividends are paid within the legally prescribed periods of time as set out by the applicable legislation.

The Company adopts a policy of distributing the maximum amount of distributable profit in accordance with Articles 28, 29 and 30 of our Company’s Articles of Association. The Dividend Distribution policy was approved by shareholders in the Ordinary General Assembly Meeting for 2013 convened on 27 May 2014. On the other hand, the Board of Directors considers the short-term financial liabilities of group companies and the conditions of those contracts signed with creditors in determining the Company’s dividend proposal.

As stated in the Company’s Articles of Association, the dates and the manner of distribution of the annual profit to shareholders is decided by the General Assembly upon the proposal by the Board of Directors, in accordance with the provisions of the Capital Market Law and applicable legislation.

Company’s Dividend Distribution Policy is disclosed to the public through Investor Relations website (https://www.tartircrktisilki.com.tr/media/avuc5ih0/dividend-policy.pdf) and stated in Company’s annual report.

In the Board of Directors meeting held on 18 March 2021, it was decided that 692,428,452.78 TL of the 1,872,535,000.00 TL to be distributed in total cash shall be distributed from the statutory net profit for the period 1-5 October 2021.

The distribution of the cash dividends to shareholders took place between 1-5 April 2021, 1-5 July 2021 and 1-5 October 2021.

The Company did not buy back its shares in 2021.

**Transfer of Shares**

The provisions of the Company’s Articles of Association restricting transfer of shares are as follows:

- Without prejudice to Article 6/A of the Company’s Articles of Association, all shares of Türk Telekom can be transferred except for one privileged (golden) share of Group C.
- The purpose of protecting the national interest in issues of national security and the economy, the following actions and resolutions cannot be taken without the affirmative vote of the holder of the Group C Privileged Share at either a meeting of the Board of Directors or the General Assembly. Otherwise, such transactions shall be invalid:
  - a) Any proposed amendments to the Articles of Association,
  - b) The transfer of any registered shares in the Company, which would result in a change in the management control of the Company.
  - c) The registration of any transfer of registered shares in the Company’s share register.

Pursuant to the Articles of Association and the Telegram and Telephone Law numbered 406, the holder of the Group C Privileged Share appoints one member representing the Privileged Share to the Board of Directors of Türk Telekom. The Group C Privileged Share owner cannot participate in capital increases.

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Corporate Governance Compliance Report

2021 Company Guidance

The Company revised its guidance three times on 5 May 2021, 9 August 2021 and 2 November 2021, after the financial reporting periods, due to the operational and financial performance recorded above the expectations in the business lines in 2021. The revisions made are as follows:

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Revenue Growth (excluding IFRIC 12)</td>
<td>03.02.2021</td>
<td>05.05.2021</td>
<td>09.08.2021</td>
<td>02.11.2021</td>
</tr>
<tr>
<td>EBITDA</td>
<td>Around 14%</td>
<td>Around 16%</td>
<td>Around 17%</td>
<td>Around 18%</td>
</tr>
<tr>
<td>CAPEX</td>
<td>Around TL 7.7 billion</td>
<td>Around TL 8.0 billion</td>
<td>Around TL 8.5 billion</td>
<td>Around TL 8.7 billion</td>
</tr>
</tbody>
</table>

Realised performance in 2021

While the consolidated revenue (excluding IFRIC 12) increased by 19.5% slightly higher than the Company’s annual revenue growth guidance, the EBITDA recorded as TL 17.5 billion compared to the latest guidance of TL 16.2 billion. During the same period, the Group invested TL 8.8 billion, slightly higher than the consolidated CAPEX guidance.

Guidance for 2022 Consolidated Financial Results

2022 guidance is as follows:

- Consolidated revenue growth (excluding IFRIC 12) to be between 23%-25% over 2021,
- Consolidated EBITDA to be in the range of TL 17.5-18.3 billion,
- Consolidated CAPEX to be around TL 12.5 billion.

The Investor Relations Website and its Content

The Investor Relations website can be accessed from www.ttinvestorrelations.com, and is actively used in achieving transparency and public disclosure in parallel with Capital Market legislation, CMB and BIST rules and regulations and the CMB’s Corporate Governance Principles. The information on the website is provided in both Turkish and English. The main headings covered on the website are listed below:

- Detailed information about the company profile
- Vision, mission and values
- Company management and shareholding structure
- Information about Members of the Board of Directors and Senior Management of the Company
- Company’s Articles of Association and the Turkish Trade Registry Gazette where the amendments are published
- Trade registry information
- Financial statements and activity reports
- Public disclosures of material events
- Earnings releases
- Investor presentations
- Stock performance information
- Bond information

Trade Registry Information

Date of Registration: 30 June 1994
Date of publishing the corporation in Turkish Trade Registry Gazette: 1 July 1994
Registration Number: 103633
Trade Registry Office: Ankara Trade Registry Office
Central Registration System Number: 0876005220500084

Disclosure of Ultimate Controlling Individuals

Not subject to the registered capital system, the Company has a share capital of TL 3,500,000,000 which is fully paid-in. The distribution of the paid-in capital among the shareholders is as shown below:

<table>
<thead>
<tr>
<th>Shareholders</th>
<th>Share in Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTY Telekomunikasyon A.Ş.</td>
<td>1,925,000,000.00</td>
</tr>
<tr>
<td>Republic of Turkey Ministry of Treasury and Finance</td>
<td>875,011,884.975</td>
</tr>
<tr>
<td>Republic of Turkey Ministry of Treasury and Finance</td>
<td>875,011,884.975</td>
</tr>
<tr>
<td>Turkey Wealth Fund</td>
<td>174,988,115.015</td>
</tr>
<tr>
<td>Free Float</td>
<td>525,000,000.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3,500,000,000.00</td>
</tr>
</tbody>
</table>

Note: According to the Official Gazette which was published on 7 February 2017, the Council of Ministers decided to transfer the 6.68% stake (5% B Group shares and 1.68% A Group (free float) shares) of the Company belonging to Republic of Turkey Ministry of Treasury and Finance to the Turkey Wealth Fund. The share transfer instruction was completed in 2017.

Türk Telekom 2021 Annual Report
Corporate Governance Compliance Report

Real and legal persons owning shares directly and indirectly in the Company are as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hacı Ömer Sabancı Holding A.Ş.</td>
<td>5%</td>
</tr>
<tr>
<td>Banco Bilbao Vizcaya Argentaria</td>
<td>11.6%</td>
</tr>
<tr>
<td>Türkiye Garanti Bankası</td>
<td>19.0%</td>
</tr>
<tr>
<td>Lyly International Limited</td>
<td>15%</td>
</tr>
<tr>
<td>Other</td>
<td>11.7%</td>
</tr>
<tr>
<td>LYY (UK)</td>
<td>25%</td>
</tr>
<tr>
<td>Türk Telekom A.Ş.</td>
<td>22.1%</td>
</tr>
<tr>
<td>República of Turkey Ministry of Treasury and Finance</td>
<td>25%</td>
</tr>
<tr>
<td>Free Float</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: 1) There is no real or legal person whose shareholding exceeds 5% except those shown in the shareholder structure.
2) Türkiye Wealth Fund has 1.68% share in free float.

Other Information in Accordance with Legislation
The content of the annual activity report is prepared in accordance with the New Turkish Commercial Code and the regulations of the Capital Market Board. There were no conflicts of interest arising between Türk Telekom and the related organisations which offer investment advice, investment analysis, and rating activity.

The Chief Executive Officer is not the Chairman of the Board of Directors.

No administrative sanction or penalty has been imposed on any member of the Board of Directors.

As there is no cross ownership in the Company’s share capital, no information regarding this issue is provided in the activity report.

The Board of Directors
Structure and Formation of the Board of Directors
During the Extraordinary General Assembly Meeting of the Company held on 25 January 2019, Article 8 of the Articles of Association of the Company, entitled Board of Directors was amended and the number of the members of the Board of Directors was set at nine, and members of the Board of Directors were elected for a term of 3 years.

In accordance with the Company’s Articles of Association, members of the Board of Directors may be nominated as follows:

a) The Group A Shareholder as all be entitled to nominate five (5) persons for election as Directors;

b) provided that the Treasury and Türkiye Wealth Fund, as Group B Shareholders shall hold;

- 15% or more of the shares (but less than 30% of the shares), the Treasury shall be entitled to nominate two (2) persons for election as independent board members who carry the independence criteria as defined in the Capital Markets legislation;
- During the calculation of 15% and 30% of the shares mentioned above paragraphs, the amount of Group B shares and Group D shares held by the Treasury and Türkiye Wealth Fund shall be considered together;

- c) As long as the Treasury and Türkiye Wealth Fund holds 15% or more of the Shares (but less than 30% of the Shares), the Group A shareholder shall be entitled to nominate one (1) person, who carry the independence criteria as defined in the Capital Markets legislation, for election as independent Board members and five (5) persons for election as Director;

- d) While the Treasury holds the Group C Privileged Share, the Treasury shall be entitled to nominate, a further one (1) person, for election as Director for the C Group Privileged Share.
### Turk Telekomünikasyon A.Ş. Members of the Board of Directors

<table>
<thead>
<tr>
<th>Name - Surname</th>
<th>Date of First Appointment to the Board of Directors</th>
<th>Duties at Turk Telekomünikasyon A.Ş. Over the Last Five Years</th>
<th>Duties Outside Turk Telekomünikasyon A.Ş.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Ömer Fatih Sayan</td>
<td>Chairman of the Board - 21.12.2018 Board Member - 04.09.2019</td>
<td>Deputy Minister at the Ministry of Transport and Infrastructure of the Republic of Turkey</td>
<td></td>
</tr>
<tr>
<td>Yiğit Bulut</td>
<td>06.05.2014</td>
<td></td>
<td>Chief Advisor to the President of the Republic of Turkey Member of the Economy Policies Committee of the Presidency of the Republic of Turkey</td>
</tr>
<tr>
<td>Can Yücel</td>
<td>01.06.2020</td>
<td>01.06.2020-Still: Board Member of TT Mobil İletişim Hizmetleri A.Ş. 01.06.2020-Still: Board Member of TTNET A.Ş. 11.09.2020-Still: Board Member of AssisTT Rehberlik ve Maşın Hizmetleri A.Ş. 11.09.2020-Still: Board Member of İnnova Bilişim Çözümleri A.Ş. 11.09.2020-Still: Chairman of the Board of SEBİT Eğitim ve Bilişim Teknolojileri A.Ş.</td>
<td>Türkiye İş Bankası A.Ş. Assistant General Manager Board Member of LYY Telekomünikasyon A.Ş.</td>
</tr>
<tr>
<td>Selim Dursun</td>
<td>04.09.2018</td>
<td></td>
<td>Deputy Minister at the Ministry of Transport and Infrastructure of the Republic of Turkey</td>
</tr>
<tr>
<td>Dr. Nureddin Nebati</td>
<td>Group B - 27.12.2018 Group A - 02.11.2018</td>
<td></td>
<td>Minister at the Ministry of Treasury and Finance of the Republic of Turkey</td>
</tr>
<tr>
<td>Avni Aydın Duren</td>
<td>17.09.2021</td>
<td></td>
<td>Board Member of T. Garanti Bankası A.Ş. Vice Chairman of Garantibank International N.V. Board Member of Garanti Odereme Sistemleri A.Ş. Board Member of Garanti Konut Finansmanı Dağıtım ve Hizmetleri A.Ş. Board Member of LYI Telekomünikasyon A.Ş. Vice Chairman of T. Garanti Bankası A.Ş. Pension and Provident Fund Foundation Member of the Board of Trustees of Teachers Academy Foundation</td>
</tr>
<tr>
<td>Aclan Acar</td>
<td>07.03.2019</td>
<td></td>
<td>Independent Board Member of Nuh Çokmento A.Ş. Independent Board Member of Qua Grant A.Ş. Board Member of LYI Telekomünikasyon A.Ş. Global Exchange Foreign Exchange Trade Authorised Corporation - Consultant Chairman of Forum İstanbul Member of the Advisory Board of TKYD - Corporate Governance Association of Turkey Member of the Advisory Board of TÜYİD - Investor Relations Association Member of the Advisory Board of YKTD - the Women on Board Association Turkey Member of the Advisory Board of Turkish Education Foundation (TED) Member of the Board of Trustees of TED University Member of the Board of Trustees of TED Istanbul College Board Member of the Finance Executives Foundation of Turkey - Finance Club</td>
</tr>
<tr>
<td>Enver İlykurt</td>
<td>19.03.2021</td>
<td>28.12.2018 - 19.03.2021: Chairman of the Board of TTNET A.Ş.</td>
<td>Deputy Minister at the Ministry of Transport and Infrastructure of the Republic of Turkey</td>
</tr>
</tbody>
</table>
Members of the Board of Directors were elected at the General Assembly held in accordance with Article 10 of the Company’s Articles of Association, the term of office of the members of the Board of Directors listed in the table above is 3 years from this date. In this context, expiry date of the members of the Board of Directors is 25 January 2022.

There are no executive Board members in the Company. Biographies of the members of Turk Telekom’s Board of Directors are provided in the Board of Directors Section of the Annual Report and Investor Relations website. Pursuant to the Article 10 of the Articles of Association, the members of the Board of Directors shall hold office for a term of 3 years.

In line with the Capital Markets Board legislation, the Corporate Governance Committee performed the member nomination responsibility of the Nomination Committee for the designation of the independent members of the Board of Directors whose nominations were discussed and decided at the Extraordinary General Assembly Meeting, which was held on 25 January 2019. Group B shareholders presented three nominees: Independent Board member to the Corporate Governance Committee, and the Corporate Governance Committee prepared a report dated 4 January 2019 on the suitability of the nominees with respect to the independence criteria, and presented this report to the Board of Directors on the same date. After the Capital Markets Board provided consent for the nominees, three nominees and members of the Board of Directors were submitted to the General Assembly’s approval and were also elected.

Statements of Independence that each independent Director presents are presented in the appendix of this report. No circumstances were found which could jeopardise the independence of the Board of Directors in the activity period. No company rules have yet been internally established regarding the positions to be held by the members of Board of Directors outside the Company.

Changes in the Members of the Board of Directors in 2021

On 19 March 2021, Board Member Entuğrul Altun resigned from his position, and Enver Iskurt was appointed as Board Member on 19 March 2021. On 17 September 2021, Board Member Dr. Muammer Cüneyt Sezgin resigned from his position, and Arni Aydin Duren was appointed as Board Member on 17 September 2021 for the Board Membership position that became vacant upon the resignation of Dr. Muammer Cüneyt Sezgin.

Board Member status of Enver Iskurt and Aydin Aydin Duren shall be submitted to the approval of the General Assembly at the first General Assembly Meeting to be held.

Principles of Activity of the Board of Directors

Pursuant to the Articles of Association, the Board of Directors shall meet at least four times a year or shall meet whenever the Company’s business so requires. The activities of the Board of Directors are run by the Board Secretariat. At least 10 business days before the meeting, a notice of the time of meeting is sent to the members of the Board of Directors via e-mail. The agenda of the meetings of the Board of Directors is set by e-mail in view of the proposals set forth by members of the Board of Directors, the CEO, General Manager, Assistant General Managers and Executive members of the departments. The agenda is finalised by receiving the consent of the Chairman of the Board in 2021. The Company’s Board of Directors convened 13 times in total to evaluate the strategic matters concerning the Company. The overall attendance rate of board members to the meetings was 96.3%. Pursuant to the Article 12 of Articles of Association, resolutions of these meetings are passed by a simple majority of the votes of the Directors present at such meetings unless the resolution relates to a “Supermajority Decision Regarding the Board”. Supermajority Decisions Regarding the Board as stated in the Articles of Association are taken with the presence and affirmative vote of seven Directors, at least one of which shall be a Director representing the Ministry of Treasury and Finance and the Republic of Turkey. Questions arising at the meeting of Board of Directors and issues with multiple views are recorded into the minutes with the appropriate grounds of negative votes in detail. The rights of members of the Board of Directors representing the C Group shareholder are set out in the section of Voting Rights and Minority Shares. No negative votes on these resolutions were received. There were no significant transactions presented for approval at the independent board meeting.

The Corporate Governance Committee shall provide the implementation, improvement and adoption of corporate governance principles within the Company and shall convene as often as deemed necessary to ensure the effectiveness of its work. In 2021, the Corporate Governance Committee held four meetings and carried out its tasks effectively.

Nomination Committee

Independent Board Member Dr. Nureddin Nebati serves as the Chairman of the Nomination Committee. He was re-elected on 11 January 2019, and re-elected on 17 December 2019. The Committee held four meetings in 2021 and reviewed and monitored Türk Telekom Group’s processes of accounting, finance and auditing as well as their regulatory framework, monitoring compliance with the law and regulations and their own code of business conduct, as well as such other matters which may be delegated specifically to the Committee by the Board from time to time, thus, carried out its duty effectively.

Corporate Governance Committee

The Corporate Governance Committee was established with the Board Resolution dated 17 October 2012.

With the Board Resolution dated 11 January 2019, independent Board Member Nureddin Nebati was appointed as Chairman of the Corporate Governance Committee, and independent Board Member Selim Dursun and Board Member Dr. Muammer Cüneyt Sezgin were elected as members of the Corporate Governance Committee. Dr. Muammer Cüneyt Sezgin, who resigned from his duty in the Board of Directors on 17 September 2021, also left his duty in the Committee, and Arni Aydin Duren was appointed as a committee member. Independent Board Member Yiğit Bulut serves as the Chairman of the Remuneration Committee.

The Corporate Governance Committee shall provide the implementation, improvement and adoption of corporate governance principles within the Company and shall convene as often as deemed necessary to ensure the effectiveness of its work. In 2021, the Corporate Governance Committee held four meetings and carried out its tasks effectively.

The Corporate Governance Committee shall provide the implementation, improvement and adoption of corporate governance principles within the Company. The Corporate Governance Committee shall present reports to the Board of Directors on these issues.

Remuneration Committee

Independent Board Member Yigit Bulut serves as the Chairman of the Remuneration Committee established with the resolution issued by the Company’s Board of Directors on 16 December 2019, while Vice Chairman of the Board of Directors Eyüp Engin serves as a member of the Remuneration Committee. Dr. Muammer Cüneyt Sezgin, who resigned from his duty in the Board of Directors on 17 September 2021, also left his duty in the Committee, and Arni Aydin Duren was appointed as a committee member.

Remuneration Committee convenes at the frequency required by the tasks assigned to it, provided that such frequency shall not be less than two meetings per year. The Committee did not hold any meetings in 2021.

Early Identification and Management of Risks

The Early Identification and Management of Risks Committee was established with the Board Resolution dated 14 August 2013.

Pursuant to the Board Resolution dated 11 January 2019, independent Board Member Yiğit Bulut serves as the Chairman of the Early Identification and Management of Risks Committee, and independent Board Member Dr. Muammer Cüneyt Sezgin serves as the member of the Committee.

The Early Identification and Management of Risks Committee met four times in total to evaluate the strategic matters concerning the Company, and carried out its tasks effectively. In 2021, the Committee held a total of four meetings. The Early Identification and Management of Risks Committee was established with the following aims:

To identify any potential risks that could jeopardize the existence, development and continuity of the Company.

To establish the Corporate Risk Management System to implement necessary measures and actions with the aim of eliminating identified risks, and to ensure the system's continuity and to improve if necessary.

To conduct activities related to the risk management and monitoring via risk management tools within the scope of a risk management system.

To ensure that the findings received from the Corporate Risk Management System form an important component of the decision-making mechanism, and to present reports to the Board of Directors on these issues.

The Corporate Governance Committee shall provide the implementation, improvement and adoption of corporate governance principles within the Company and shall convene as often as deemed necessary to ensure the effectiveness of its work. In 2021, the Corporate Governance Committee held four meetings and carried out its tasks effectively.

The Corporate Governance Committee shall provide the implementation, improvement and adoption of corporate governance principles within the Company and shall convene as often as deemed necessary to ensure the effectiveness of its work. In 2021, the Corporate Governance Committee held four meetings and carried out its tasks effectively.
Corporate Governance Compliance Report

Independent Board Member Yigit Bulut is serving as the Chairman of the Early Identification and Management of Risks Committee, Chairman of the Audit Committee and Chairman of the Remuneration Committee, while independent Board Member Selim Dursun serves as both the Member of the Corporate Governance Committee and the Member of the Audit Committee, and independent Board Member Dr. Nureddin Nefsi serves as both the Chairman of the Corporate Governance Committee and the Member of the Nomination Committee.

Türk Telekom Risk Management and Internal Control Mechanism

Corporate Governance Structure

Risk management and Internal Control is a natural part of the activities carried out by all Türk Telekom employees. The Corporate Risk Management approach is aimed at serving as an integral part of decision-making processes at all levels. The Board of Directors holds both the final authority and responsibility for the effectiveness of Corporate Risk Management. The Board of Directors conducts this responsibility, which involves more of a supervision, through the Early Identification and Management of Risks Committee. All organisational levels of the Group, particularly the senior management and risk holders, contribute to and support the Corporate Risk Management and Internal Control implementation processes. Within the scope of the Risk Management and Internal Control efforts, it is aimed to internalise a risk and control culture throughout the Group and all activities are carried out with the contribution of all stakeholders to whom risks are associated. Risk Management and Internal Control is a natural part of the work undertaken by all employees.

Türk Telekom Group Corporate Risk Management Governance Model

According to the Türk Telekom governance structure, the Board of Directors examines and supervise the risks and opportunities to which Türk Telekom Group is exposed, in line with the Group strategies.

Early Identification and Management of Risks Committee was established with the decision of the Board of Directors dated 14 August 2013 in accordance with Article 378 of the Turkish Commercial Code No. 6102, and the relevant regulations of the Capital Markets Board. Its organisation, duties and responsibilities were published under the title of The Tasks and Working Principles of the Early Identification and Management of Risks Committee mechanisms by integrating the approach into activities and processes at all levels.

The Board of Directors holds both the final authority and responsibility for the effectiveness of Corporate Risk Management. The Board of Directors conducts this responsibility, which involves more of a supervision, through the Early Identification and Management of Risks Committee. All organisational levels of the Group, particularly the senior management and risk holders, contribute to and support the Corporate Risk Management and Internal Control implementation processes. Within the scope of the Risk Management and Internal Control efforts, it is aimed to internalise a risk and control culture throughout the Group and all activities are carried out with the contribution of all stakeholders to whom risks are associated. Risk Management and Internal Control is a natural part of the work undertaken by all employees.

On 5 December 2019, the Corporate Risk Management Directorate was restructured as the Enterprise Risk and Business Continuity Department directly reporting to the CEO to be in charge of corporate risk management, business continuity and crisis management on behalf of the Türk Telekom Group.

In 2020, the Department of Internal Control was established under the Enterprise Risk and Business Continuity Department and started its activities in 2021. An Internal Control Policy was formed in order to define Türk Telekom Group’s internal control implementation principles, to determine the standards required to achieve the objectives specified in the internal control policy, and to create a common internal control language and practice that will support communication between employees.

While the Enterprise Risk and Business Continuity Department reports to our Company’s General Manager, it also works functionally under the Early Identification and Management of Risks Committee, which was established within the Board of Directors.

The Enterprise Risk and Business Continuity Department is responsible for determining and improving the standards related to the Corporate Risk Management System. The coordination of Corporate Risk Management processes carried out throughout the Group, monitoring of the current and improvement levels of identified risks and reporting them to the relevant management levels and the coordination of business continuity management activities as the bearer of the business interruption risk, which is one of the most important risks of the company. Business units take the necessary measures by assuming responsibility of the risks. Risk management is a natural part of the work of all employees. All Company employees are responsible for complying with the risk management policy, effectively managing risks related to their field of activity and taking the necessary measures to comply with the relevant legislation.

The risks of the Group companies are also managed in line with the risk management standards, which were established for Türk Telekom.

Risk Lifecycle

Work is carried out to manage potential risks effectively and under a holistic approach. For this purpose, the risks the Company exposed to are identified by the business and technology teams, and the root causes and potential consequences of the identified risks are determined. With the Bow-Tie Analysis used in this process, the end-to-end complete risk profile is determined, including checkpoints, from root causes to their effects on targets.

The current status of the risks is measured and monitored by evaluating the possibility of their realisation and the effects they will create when they occur. While conducting a risk analysis, it is considered that the impact of a risk may affect more than one area. Existing controls on the risks which have been identified, evaluated and prioritised by the relevant parties are determined, and their effectiveness is evaluated. In order to achieve the objectives, actions are set out which aim to be compatible with risk appetite by seeking to ensure the optimal balance between risk and reward. When making decisions to manage risks, risk owners conduct cost-benefit analysis and take stakeholder expectations into account. Moreover, assessment is carried out to see whether the management of the risk requires special expertise which is not available within the business units. The four main options to be evaluated in this context are as follows:

- Accept the Risk
- Reduce the Risk
- Transfer the Risk (Share)
- Avoid the Risk

Internal Control Environment

In order to achieve strategic objectives at Türk Telekom, to ensure the effectiveness of its activities, to ensure the reliability and accuracy of financial information, to protect the customers’ personal data and the Company assets, and to ensure compliance with laws, regulations, policies and procedures, the necessary internal control environment was established within the Company.

The controls are actions which help operational objectives to be achieved by reducing the probability of risks being realised and/or the impact that would occur if the risks were realised. It is aimed to integrate the control activities into systems and processes while the relevant structure is still in the design phase.

The risk owner identifies the existing controls together with the stakeholders for accurate determination of the level of the risk and also performs self-assessment of the effectiveness of these controls together with the control owners.

With the periodic control activities carried out by the Internal Control Department, it is aimed to provide reasonable assurance regarding the processes by testing the control points designated in the processes.

Prohibition on Carrying out Business and Competing with the Company

On this subject, the Company has adopted practices that are aligned with Articles 395 and 396 of the Turkish Commercial Code, and pursuant to Corporate Governance annexed to Communiqué II-171 on Corporate Governance.

During the Ordinary General Assembly Meeting dated 19 March 2021, the General Assembly permitted the members of the Board of Directors to perform the works set forth in Articles 395 and 396 of the Turkish Commercial Code, and pursuant to Corporate Governance Communiqué No. II-171, the General Assembly was informed of the transactions realised during the year by Türk Telekom 2021 Annual Report Türk Telekom 2021 Annual Report
the controlling shareholders, members of the Board of Directors, the senior executives and their spouses and their relatives by blood and marriage up to the second
degree to conduct material transactions which may cause
a conflict of interest for the Company or the Company’s
subsidiaries and/or to perform any transaction in the
category of commercial affair falling into the scope of the
fields of activity of the Company or its subsidiaries on
their own or others’ behalf or to acquire shares in another
company engaged in the same type of commercial
activities under the capacity of unlimited partner.

Remuneration of Members of the Board of Directors and
Senior Executives

Shareholders were informed of the remuneration basis
and criteria which are used to determine all kinds of
rights, benefits and salaries provided to the Members of
the Board of Directors and the Senior Executives in the
Ordinary General Assembly Meeting dated 19 March 2021.
This information was publicly disclosed and was also
posted on the Investor Relations website of the Company.
Remuneration of members of the Board of Directors is
determined by the General Assembly in accordance with
Article 408 of Turkish Commercial Code No. 6102 and
Article 8 of the Company’s Articles of Association.

During the Ordinary General Assembly Meeting held
on 19 March 2021, it was decided that the monthly net
remunerations’ per member determined at the Ordinary
General Assembly Meeting held on 25 July 2020, would
be increased in line with the 2020 annual consumer price
index (CPI) announced by the Turkish Statistical Institute
(TurkStat), and that the bonuses, which are to be paid six
times in a year, would also be raised by the same amount
as the monthly remunerations.

There is no performance measurement and a
performance-based rewarding system in place for
Board members. The Company has never lent money or
extended loans to any Board member or executive, no
credit has been extended under personal loans through
third persons, nor have any guarantees been provided
such as suretyship in their favour.

Remuneration of directors and other members of key management for 2020 and 2021 are as follows:

(TL thousand) 1 January - 31 December 2020 1 January - 31 December 2021

<table>
<thead>
<tr>
<th>Category</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term benefits</td>
<td>97,873</td>
<td>109,771</td>
</tr>
<tr>
<td>Remunerations and similar fees</td>
<td>87,631</td>
<td>102,189</td>
</tr>
<tr>
<td>Attendance fees</td>
<td>10,242</td>
<td>7,582</td>
</tr>
<tr>
<td>Social Security Institution Premiums</td>
<td>2,779</td>
<td>2,624</td>
</tr>
<tr>
<td>Total</td>
<td>100,052</td>
<td>112,395</td>
</tr>
</tbody>
</table>

Stakeholders

Stakeholders of Türk Telekom are individuals, institutions or interest groups such as employees, creditors,
customers, suppliers, dealers, trade unions and various
non-governmental organisations which have a share
in achieving the Company’s goals or are involved in
the fulfilment of the Company’s activities.

In its operations and activities, Türk Telekom takes every
effort to protect the rights of its stakeholders as regulated
by relevant legislation and mutual agreements.

In cases where the rights of the stakeholders cannot be
protected by legislation and mutual agreements, the
interests of the stakeholders are protected in accordance
with the rules of good faith and to the extent of the
Company’s capabilities.

Company Policies Regarding Stakeholders

Türk Telekom’s policies regarding its employees are
pursued in accordance with the human resources and
human rights policies, while its relations with suppliers,
are guided by the practices described in its procurement
policy.

As a responsible employer, Türk Telekom assigns utmost
priority to the execution of the business processes
and transactions of stakeholders with whom it has a
connection, in accordance with the labour and social
security laws and the Company’s Human Rights Policy.

Türk Telekom listens to the requests and suggestions of its
customers and exercises maximum effort to resolve their
complaints as quickly as possible, in a fair, impartial and
confidential manner, in accordance with laws, regulations
and the Company rules.

Türk Telekom attaches importance to ensuring that its
relations with companies such as dealers, contractors
and business partners, with which it has engaged in
commercial business relations, are proper, consistent and
resilient, and that all kinds of business carried out in
conformity with the relevant contracts, laws or regulations
in the contracts signed with the mentioned companies,
objective criteria such as compliance with principles
and practices, and the benefits and costs by taking into
account the opinions of legal and relevant business units,
are taken into consideration.
1.5.2 - The Articles of Association extend the use of minority rights to those who own less than one twentieth of the outstanding shares, and expand the scope of the minority rights.

1.4.3 - The company withholds from exercising its voting rights at the General Shareholders' Meeting; and as there are many donations and beneficiaries, a summary information of the agenda of the General Assembly included a separate item detailing the amounts and beneficiaries of all donations and beneficiaries.

214

2.1.4 - The company website is prepared in other related persons, as well as the officers who are responsible for the preparation of the financial statements were present at the General Shareholders' Meeting.

2.1.1 - The company website includes all elements listed in Corporate Governance Principle 2.1.1. X

1.3.10 - The agenda of the General Shareholders' Meeting included a separate item detailing the amounts and beneficiaries of all donations and contributions.

1.3.7 - Insiders with privileged information have informed the board of directors about transactions conducted on their behalf within the scope of the company's activities in order for these transactions to be presented at the General Shareholders' Meeting.

1.3.11 - The General Shareholders' Meeting was held open to the public, including the stakeholders, without having the right to speak.

1.3.2 - The company ensures the clarity of the General Assembly agenda, and that an item on the agenda does not cover multiple topics.

1.3.8 - Members of the board of directors who are concerned with specific agenda items, auditors, and other related persons, as well as the officers who are responsible for the preparation of the financial statements were present at the General Shareholders' Meeting.

1.3.1 - There is no restriction preventing shareholders from exercising their shareholder rights.

1.4.1 - There are no restrictions preventing shareholders from exercising their shareholder rights.

1.4.2 - The company does not have shares that carry privileged voting rights.

1.4.3 - The company withholds from exercising its voting rights at the General Shareholders' Meeting: of any company with which it has cross-ownership, in case such cross-ownership provides management control.

1.5.1 - The company pays maximum diligence to the exercise of minority rights.

1.5.2 - The Articles of Association extend the use of minority rights to those who own less than one twentieth of the outstanding shares, and expand the scope of the minority rights.

2.2.1 - The board of directors ensures that the annual report represents a true and complete view of the company's activities.

2.2.2 - The annual report includes all elements listed in Corporate Governance Principle 2.2.2.

16. D. DIVIDEND RIGHT

16.1. - The dividend policy approved by the General Shareholders' Meeting is posted on the company website.

16.2. - The dividend distribution policy comprises the minimum information to ensure that the shareholders can have an opinion on the procedure and principles of dividend distributions in the future.

16.3. - The reasons for retaining earnings, and their allocations, are stated in the relevant agenda item.

16.4. - The board reviewed whether the dividend policy balances the benefits of the shareholders and those of the company.

17. TRANSFER OF SHARES

17.1. - There are no restrictions preventing shares from being transferred.

23. CORPORATE WEBSITE

23.1. - The company website includes all elements listed in Corporate Governance Principle 2.3.1.

23.2. - The company website is prepared in other selected foreign languages, in a way to present exactly the same information with the Turkish content.

2.1. - Management did not enter into any transaction that would complicate the conduct of special audit.

1.1.2 - Up-to-date information and disclosures which may affect the exercise of shareholder rights are available to investors at the corporate website.

1.2. RIGHT TO OBTAIN AND REVIEW INFORMATION

1.2.1 - Management did not enter into any transaction that would complicate the conduct of special audit.

1.1.1 - TheArticles of Association provide for the protection of the minority shareholders and the management rights of the group.

1.1.3 - The Articles of Association do not provide for compensation of the shareholders in case of removal of the directors.

2.3.1 - The company's activities in order for these transactions to be presented at the General Shareholders' Meeting.

2.3.2 - The company's activities in order for these transactions to be presented at the General Shareholders' Meeting.

2.3.3 - The company's activities in order for these transactions to be presented at the General Shareholders' Meeting.

2.3.4 - The company's activities in order for these transactions to be presented at the General Shareholders' Meeting.

2.3.5 - The company's activities in order for these transactions to be presented at the General Shareholders' Meeting.

2.3.6 - The company's activities in order for these transactions to be presented at the General Shareholders' Meeting.

Financial Information Corporate Governance Türk Telekom Group Companies 2021 Activities Management 2021 at a Glance Türk Telekom in Brief

Türk Telekom 2021 Annual Report Türk Telekom 2021 Annual Report
3.2 - The Articles of Association, or the internal regulations (terms of reference/manuals), regulate the participation of employees in management.

3.2.1 - There are internal directives about the topic. Models for participation of company employees in management such as Social Councils, Disciplinary Boards, Dispute Resolution Boards, Inventor Idea System continued to be developed in 2021.

3.2.2 - Surveys/other research techniques, consultation interviews, observation method etc. were conducted to obtain opinions from stakeholders on decisions that significantly affect them.

3.3 - The company has a policy on human resources development, and organises trainings for employees.

3.3.1 - The company has adopted an employment policy ensuring equal opportunities, and a succession plan for all key managerial positions.

3.3.2 - Recruitment criteria are documented.

3.3.3 - The company has a policy on human resources development, and organises trainings for employees.

3.3.4 - Meetings have been organised to inform employees on the financial status of the company, and that effective risk management is in place.

3.3.5 - Employees, or their representatives, were notified of decisions impacting them. The opinion of the related trade unions was also taken.

3.3.6 - Job descriptions and performance criteria have been prepared for all employees, announced to them and taken into account to determine employee remuneration.

3.3.7 - Measures (procedures, trainings, raising awareness, goals, monitoring, complaint mechanisms) have been taken to prevent discrimination, and to protect employees against any physical, mental, and emotional mistreatment.

3.3.8 - The company ensures freedom of association and supports the right for collective bargaining.

3.3.9 - A safe working environment for employees is maintained.

3.4 - The company addresses conflicts of interest among stakeholders in a balanced manner.

3.4.1 - The company measured its customer satisfaction, and operated to ensure full customer satisfaction.

3.4.2 - Customers are notified of any delays in handling their requests.

3.4.3 - The company has in place adequate controls to protect the confidentiality of sensitive information and business secrets of its customers and suppliers.

3.4.4 - The company has in place adequate controls to prevent corruption and bribery.

3.5 - The company has been mindful of its social responsibility, and has adopted measures to prevent corruption and bribery.

3.5.1 - The board of the corporation has adopted a code of ethics, disclosed on the corporate website.

3.5.2 - The company has been mindful of its social responsibility, and has adopted measures to prevent corruption and bribery.

4.1 - The board of directors has ensured strategy and plans do not threaten the long-term interests of the company, and that effective risk management is in place.

4.2 - The agenda and minutes of board meetings indicate that the board of directors discussed and approved strategy, ensured resources were adequately allocated, and monitored company and management performance.

4.3 - The company has provided a code of ethics, disclosed on the corporate website.

4.4 - The company has in place adequate controls to protect the confidentiality of sensitive information and business secrets of its customers and suppliers.

4.5 - The board of directors has approved the policy and its composition, setting a minimal target of 25% for female directors. The board annually evaluates its composition and nominates directors so as to be compliant with the policy.

4.6 - The company has subscribed to a Directors and Officers liability insurance covering more than 25% of the capital.

4.7 - The board of directors continues to develop a high standard of internal control system.

4.8 - The company has in place adequate controls to protect the confidentiality of sensitive information and business secrets of its customers and suppliers.

4.9 - The board of directors has approved the policy on its own composition, setting a minimal target of 25% for female directors. The board annually evaluates its composition and nominates directors so as to be compliant with the policy.

4.10 - At least one member of the audit committee has at least 5 years of experience in audit/accounting and finance.
Corporate Governance Compliance Report

Corporate Governance Information Form

Shareholders

1. Facilitating the Exercise of Shareholders Rights

The number of investor meetings (conference, seminar, etc.) organized by the company during the year.

In 2021, Türk Telecom Investor Relations participated in 10 conferences, all of which were online, and conducted two meetings where local portfolio managers met with senior management. Moreover, following the disclosure of the quarterly financial and operational results, Investor Relations directorate held teleconferences in order to share the assessment of the Company’s senior management for the quarter, and to provide investors and analysts with the opportunity to directly question the management to the direction of the Company.

1.2 Right to Obtain and Examine Information

The number of special audit request(s) were not made for the appointment of a special auditor in the reporting period.

The number of special audit requests that were accepted at the General Shareholders Meeting.

None

1.3. General Assembly

Link to the PDP announcement that demonstrates the information requested by Principle 1.3.1 (a-d).

https://www.kap.org.tr/en/Bildirim/922503

https://www.kap.org.tr/en/Bildirim/921565


Whether the company provides materials for the General Shareholders Meeting in English and Turkish at the same time.

Documents are also shared simultaneously on Public Disclosure Platform (KAP) and on the company’s investor relations website in English.

The links to the PDP announcements associated with the transactions that are not approved by the majority of independent directors or by unanimous votes of present board members in the context of Principle 1.1.9

No such transaction took place during the year

1.4 Voting Rights

The percentage of ownership of the largest shareholder.

55%

Whether the shares of the company have differential voting rights.

No

In case that there are voting privileges, indicate the center and percentage of the voting majority of shares.

There is no differential voting rights. Group (A), (B) and (C) shareholders are granted the privilege to nominate candidates for the Board of Directors in Article 8 of the company’s Articles of Association.

The percentage of ownership of the largest shareholder.

55%

Whether the scope of minority rights enlarged (in terms of content or the ratio) in the articles of the association.

No

If yes, specify the relevant provision of the articles of association.

There is no provision in the Articles of Association to grant minority rights to shareholders who have less than one twentieth of the capital. However, compliance with the use of minority rights within the scope of TTK and CMB regulations is ensured.

15. Minority Rights

The name of the section on the corporate website that describes the dividend distribution policy.


Minutes of the relevant agenda item in case the board of directors proposed to the general assembly not to distribute dividends, the reason for such proposal and information as to use of the dividend.

PDP link to the related general shareholder meeting minutes in case the board of directors proposed to the general assembly not to distribute dividends.

-
Corporate Governance Information Form

2. DISCLOSURE AND TRANSPARENCY

2.1. Corporate Website

Specify the name of the sections of the website providing the information requested by the Principle 2.1


List of languages for which the website is available

Turkish, English

2.2. Annual Report

The page numbers and/or name of the sections in the Annual Report that demonstrate the information requested by principle 2.2.2.

a) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on the duties of the members of the board of directors and executives conducted out of the company and declarations on independence of board members

Corporate Governance Principles Compliance Report section

b) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on committees formed within the board structure

Corporate Governance Principles Compliance Report section

c) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on committees formed within the board structure

Corporate Governance Principles Compliance Report section

3. STAKEHOLDERS

3.1. Corporation's Policy on Stakeholders

The name of the section on the corporate website that demonstrates the corporation's policy on stakeholders


In cases for executive position changes that might lead to disruptions in company management, back-up plans are prepared for the determination of the new managers to be appointed.

The name of the section on the corporate website that demonstrates the corporation's policy on stakeholders


Diversity

Turk Telekom values diversity and considers it as an asset, and strives to make its employees feel like they are a part of the Company. Accordingly, Turk Telekom is committed to equal opportunity, and takes into account the qualifications, performance, skills and experience of its employees for recruitment, placement, development, training, promotion, compensation and recognition from the Company. It is aware that diversity in its fabric contributes to achievement of the Company targets, and strives to recruit candidates with diverse backgrounds and experience, and employ them for a long term. Fulfils its legal obligations in relation to employment of people with disabilities, and other entities.

3.2. Supporting the Participation of the Stakeholders in the Corporation's Management

The name of the section on the corporate website that demonstrates the corporation's policy on stakeholders


In cases for executive position changes that might lead to disruptions in company management, back-up plans are prepared for the determination of the new managers to be appointed.

The name of the section on the corporate website that demonstrates the corporation's policy on stakeholders


Diversity

Turk Telekom values diversity and considers it as an asset, and strives to make its employees feel like they are a part of the Company. Accordingly, Turk Telekom is committed to equal opportunity, and takes into account the qualifications, performance, skills and experience of its employees for recruitment, placement, development, training, promotion, compensation and recognition from the Company. It is aware that diversity in its fabric contributes to achievement of the Company targets, and strives to recruit candidates with diverse backgrounds and experience, and employ them for a long term. Fulfils its legal obligations in relation to employment of people with disabilities, and other entities.

Whether the company provides an employee stock ownership programme

There isn't an employee stock ownership programme.
**Corporate Governance Information Form**

The number of the section on the corporate website that demonstrates the company’s code of ethics:


Any measures combating any kind of corruption including embezzlement and bribery:


Information about any measures taken on environmental, social and corporate governance issues:


Composition of Board of Directors:

<table>
<thead>
<tr>
<th>Name, Surname</th>
<th>Position</th>
<th>Declaration Independency</th>
<th>Considered By Director</th>
<th>Includes The Experience of Least 5 Years’ Experience on Finance and/or Management of RisksCommittee</th>
<th>Candidate: The Director Has At Least 5 Years’ Experience on Audit, Accounting and/or Finance or Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Ömer Fatih Sayan</td>
<td>Non-executive</td>
<td>Not independent</td>
<td>No</td>
<td>/</td>
<td>No</td>
</tr>
<tr>
<td>Eyüp Engin</td>
<td>Non-executive</td>
<td>Not independent</td>
<td>Yes</td>
<td>-</td>
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<tr>
<td>Yigit Bulut</td>
<td>Non-executive</td>
<td>Independent member</td>
<td>/</td>
<td>/</td>
<td>/</td>
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<tr>
<td>Can Yurdakul</td>
<td>Non-executive</td>
<td>Independent member</td>
<td>/</td>
<td>/</td>
<td>/</td>
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<tr>
<td>Selim Duran</td>
<td>Non-executive</td>
<td>Independent member</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Barışcan Teke</td>
<td>Non-executive</td>
<td>Independent member</td>
<td>/</td>
<td>/</td>
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<tr>
<td>Asli Aydin Duran</td>
<td>Non-executive</td>
<td>Independent member</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Aslan Aras</td>
<td>Non-executive</td>
<td>Independent member</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Dr. Derin Işık</td>
<td>Non-executive</td>
<td>Independent member</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
</tbody>
</table>

The number of definitive convictions the company is subject to in relation to bribery and corruption:


The number and ratio of female directors within the Board of Directors:

0

**Link(s) to the PDP announcement(s) with the board committee charters**

Audit Committee: https://www.kap.org.tr/en/Bildirim/659174
Nomination Committee: https://www.kap.org.tr/en/Bildirim/708083
Corporate Governance Committee: https://www.kap.org.tr/en/Bildirim/728732
Early Identification and Management of Risks Committee: https://www.kap.org.tr/en/Bildirim/803744

**Link(s) to the PDP announcement(s) with the board committee charters**

- https://www.kap.org.tr/en/Bildirim/304033 Corporate Governance Committee
- https://www.kap.org.tr/en/Bildirim/304035 Early Identification and Management of Risks Committee
- https://www.kap.org.tr/en/Bildirim/304033 Corporate Governance Committee
- https://www.kap.org.tr/en/Bildirim/304035 Early Identification and Management of Risks Committee
## Corporate Governance Information Form

<table>
<thead>
<tr>
<th>Name Of the Board Committee</th>
<th>Name of Committee Member</th>
<th>Whether Committee Chair or Not</th>
<th>Whether Board Member or Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Governance Committee</td>
<td>Dr. Nuri Alpınak</td>
<td>Yes</td>
<td>Board member</td>
</tr>
<tr>
<td>Corporate Governance Committee</td>
<td>Selim Dursun</td>
<td>No</td>
<td>Board member</td>
</tr>
<tr>
<td>Corporate Governance Committee</td>
<td>Aynur Ayat</td>
<td>Yes</td>
<td>Board member</td>
</tr>
<tr>
<td>Corporate Governance Committee</td>
<td>Gülsen Ayar</td>
<td>No</td>
<td>Not board member</td>
</tr>
<tr>
<td>Audit Committee</td>
<td>Yigit Bulut</td>
<td>Yes</td>
<td>Board member</td>
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<tr>
<td>Audit Committee</td>
<td>Selim Dursun</td>
<td>No</td>
<td>Board member</td>
</tr>
<tr>
<td>Committee of Early Detection of Risk</td>
<td>Yiğit Bulut</td>
<td>Yes</td>
<td>Board member</td>
</tr>
<tr>
<td>Nomination Committee</td>
<td>Yiğit Bulut</td>
<td>Yes</td>
<td>Board member</td>
</tr>
<tr>
<td>Nomination Committee</td>
<td>Dr. Nuri Alpınak</td>
<td>Yes</td>
<td>Board member</td>
</tr>
</tbody>
</table>

### 4.6. Financial Rights

**Specify where the activities of the audit committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the activities of the corporate governance committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the activities of the nomination committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the activities of the early detection of risk committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the activities of the remuneration committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the operational and financial targets and their achievement are presented in your annual report (Page number or section name in the annual report):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the section of the annual report where remuneration policy for executive and non-executive directors is presented:**

Corporate Governance / Policies

https://www.ttyatirimciiliskileri.com.tr/medias/bfpg0g5/remuneration_policy.pdf

**Specify where the individual remuneration for board members and senior executives are presented in your annual report (Page number or section name in the annual report):**

Annual Report / Corporate Governance Principles Compliance Report Section

Financial Right: Provided to the Members of Board of Directors and to the Senior Executives

### 4.6. Financial Rights

**Specify where the activities of the audit committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the activities of the corporate governance committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the activities of the nomination committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the activities of the early detection of risk committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the activities of the remuneration committee are presented in your annual report or website (Page number or section name in the annual report or website):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the operational and financial targets and their achievement are presented in your annual report (Page number or section name in the annual report):**

Annual Report / Corporate Governance Principles Compliance Report Section


**Specify where the section of the annual report where remuneration policy for executive and non-executive directors is presented:**

Corporate Governance / Policies

https://www.ttyatirimciiliskileri.com.tr/medias/bfpg0g5/remuneration_policy.pdf

**Specify where the individual remuneration for board members and senior executives are presented in your annual report (Page number or section name in the annual report):**

Annual Report / Corporate Governance Principles Compliance Report Section

Financial Right: Provided to the Members of Board of Directors and to the Senior Executives

---

### Sustainability Principles Compliance Form

<table>
<thead>
<tr>
<th>Company Compliance Status</th>
<th>Yes</th>
<th>Partial</th>
<th>No</th>
<th>Exempted</th>
<th>Not Applicable</th>
<th>Explanation</th>
</tr>
</thead>
</table>

#### A. GENERAL PRINCIPLES

**A1. Strategy, Policy and Goals**

**Environmental, Social and Corporate Governance (ESG) priority issues, risks and opportunities have been identified by the Board:**

**Environmental, Social, and Governance (ESG) priorities, risks, and opportunities have been identified by the Board:**

Within the scope of Enterprise Risk Management, Environmental, Social Governance (ESG) risk headings are currently followed by related departments. ESG policies will be determined and reported to the sustainable management system.

**ESG policy has been established by the Board:**

X

Human Rights Policy, Human Resources Policy, Anti-Bribery and Anti-Corruption Policy, Information Security Policy, Purchasing Policy, Integrated Management System Policy, Disclosure Policy, Dividend Policy, Remuneration Policy, Board of Directors Women Membership Policy, Donation Policy, Compensation Policy, Code of Ethics, Sustainability Policy

**Documents such as in-partnership guidelines, business procedures, etc. for the effective implementation of ESG policies have been prepared:**

X

ESG policies approved by the Board of Directors are published on the monitor relations website. The implementation is specified in the policies.

**A decision for the ESG policies have been taken by the board and policies have been disclosed to the public:**

X

All policies have been approved by the Board of Directors. There are policies that are not disclosed to the public yet.

**Partnership Strategy has been determined in accordance with ESG policies, risks and opportunities:**

X

With the implementation of the Sustainability Management System of the Company, the strategy will be determined and disclosed to public in this report.

**In line with the partnership strategy and ESG policies, short and long term targets have been set and disclosed to the public:**

X

The targets are disclosed in the Sustainability section of the Annual Report.

**A2. Implementation / Monitoring**

Committees and / or units responsible for the implementation of ESG policies have been determined and disclosed to the public:

X

Responsible committees and units are determined for some of the published policies and disclosed to the public. Studies on undefined units still continue.

**The designated committees and / or units reported their activities within the scope of ESG policies to the Board at least once a year, and in any case within the maximum periods specified in the relevant regulations of the Board of Directors for the annual report:**

X

The units responsible for the policies are partially determined and the relevant process management is in preparation.

**ESG Key Performance Indicators (KPI) have been determined and the indicators are disclosed in a yearly basis:**

X

With the implementation of the Sustainability Management System, ESG Key Performance Indicators (KPIs) are planned to be determined.

**KPIs are presented together with local and international sector comparisons (in case of verifiable data):**

X

With the Sustainability Management System implementation, making international sector comparisons will be evaluated in the coming years.
**Sustainability Principles Compliance Form**

<table>
<thead>
<tr>
<th>Company Compliance Status</th>
<th>Yes</th>
<th>Partial</th>
<th>No</th>
<th>Exempted</th>
<th>Not Applicable</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation activities for business processes or products and services that improve sustainability performance are explained</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>A3. Reporting</td>
<td>Sustainability performance goals and actions have been reported at least once a year and disclosed to the public: Information on sustainability activities have been disclosed in the annual report</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Information and targets related to sustainability activities are explained under the Sustainability section of the annual report</td>
<td></td>
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<tr>
<td>In order for the stakeholders to understand the position, performance and development of the partnership, important information have been shared in a direct and concise manner (Detailed information and data can also be explained on the corporate website and separate reports that directly meet the needs of different stakeholders can be prepared)</td>
<td></td>
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<tr>
<td>Sustainability performance, goals and actions have been reported at least once.</td>
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<tr>
<td>Maximum care has been taken in terms of transparency and reliability in disclosures and reporting. Within the scope of the balanced approach, all kinds of developments about material issues in disclosure and reporting have been objectively explained</td>
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<tr>
<td>The company has adopted the principle of transparency and meeting the requirements of the legislation principle on the disclosure of matters which can influence investors’ decision and share of the financial and operational data</td>
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<tr>
<td>Information was provided on which of the United Nations Sustainable Development Goals the activities are related to</td>
<td>Turk Telekom is a participating member of UNGC. With the sustainability report which is planned to be published, associations with developments goals will be announced</td>
<td>X</td>
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</tr>
<tr>
<td>Disclosures have been made regarding the lawsuits filed and / or concluded against ESG issues</td>
<td>With the implementation of the Sustainability Management System, reporting will be evaluated</td>
<td></td>
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<tr>
<td>A4. Verification</td>
<td>Sustainability performance measurements have been disclosed to the public. If verified by independent third parties (independent sustainability assurance providers)</td>
<td>X</td>
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</tr>
<tr>
<td>Environmental indicators (Greenhouse gas emissions (Scope-1 Direct), Scope-2 (Energy indirect), Scope-3 (Other indirect)), air quality, energy supply, product and service management, waste management, biodiversity impacts), information on environmental impacts has been reported periodically in a comparable manner</td>
<td>Turk Telekom reports to CDP. CDP reports are available on the Investor Relations website</td>
<td>X</td>
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</tr>
<tr>
<td>B. ENVIRONMENTAL PRINCIPLES</td>
<td>Policies and practices, action plans, environmental management systems (ISO 14001) and programs created within the scope of environmental management have been explained</td>
<td>Turk Telekom operates within the scope of ISO 14001 Environmental Management System and ISO 45001 Occupational Health and Safety Management System. The details of the program have not been disclosed</td>
<td>X</td>
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</tr>
<tr>
<td>Turk Telekom fully meets the legal requirements as required by the environmental law. In addition to legal provisions, Turk Telekom operates within the scope of ISO 14001 Environmental Management System and ISO 45001 Occupational Health and Safety Management System</td>
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</tr>
<tr>
<td>The status of environmental indicators (increase or decrease) for the reporting year in comparison with previous years has been disclosed</td>
<td></td>
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</tr>
<tr>
<td>No long-term goals have been determined to reduce environmental impacts and these goals (if set) are explained</td>
<td>Turk Telekom aims to reduce its emissions by 35% and increase its solar power generation capacity by 80% by 2023, with the aim of systematically reducing its carbon footprint. Turk Telekom undertakes to support the development of its employees with its focus on human value to provide equal opportunity in accessing information and communication technologies with its focus on contribution to society and to encourage women’s participation in working life.</td>
<td>X</td>
<td></td>
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</tr>
</tbody>
</table>
The program or procedures established to combat the climate crisis have been explained. It is planned to be disclosed with the sustainability report.

Actions taken to reduce environmental impacts, the total number of projects and initiatives carried out, and the environmental benefits/benefits and cost savings provided by them have been explained.

Total energy consumption data (excluding raw materials) are reported and energy consumption is given in the report as Scope 1 and Scope 2 respectively. Emission calculation resulting from Scope 1, Scope 2 and Scope 3 is included in the CDP and Annual report.

Studies on increasing the use of renewable energy, transition to zero or low carbon electricity have been carried out and these studies have been announced.

Renewable energy production and usage data were announced.

Energy efficiency projects have been carried out and the amount of energy consumed and emission reduction achieved through these studies has been announced. Details of Zero Waste and waste management related to energy efficiency is provided under Sustainability section of the Annual Report and in the CDP Report.

The amount of water withdrawn, used, recycled and discharged from underground or aboveground, its sources and procedures (total water withdrawal by source, water sources affected by water withdrawal, percentage and total volume of recycled and reused water, etc.) have been reported.

It is explained whether the operations or activities are included in any carbon pricing system (Emission Trading System, Cap & Trade or Carbon Tax).

Information and details regarding the carbon credits accumulated or purchased during the reporting period have been announced.

If carbon pricing is applied within the partnership, the details of this application have been announced.

All mandatory and voluntary platforms where environmental information is disclosed have been announced.

The strategy and actions to combat the climate crisis have been explained. It is planned to be disclosed with the sustainability report.

Actions and projects carried out to reduce environmental impacts are provided in the Sustainability section of the Annual Report.

The actions taken to reduce environmental impacts, the total number of projects and initiatives carried out, and the environmental benefits/benefits and cost savings provided by them have been explained.

Total energy consumption data (excluding raw materials) are reported and energy consumption is given in the report as Scope 1 and Scope 2.

Information was given on electricity, heat, steam and cooling data generated and consumed in the reporting year.

Turk Telekom takes utmost care to increase renewable energy usage and reduce carbon emissions. Information in this context is provided in the Sustainability section of the Annual Report and CDP Report.

Renewable energy production and usage data were announced.

Energy efficiency projects have been carried out and the amount of energy consumed and emission reduction achieved through these studies has been announced. Details of Zero Waste and waste management related to energy efficiency is provided under Sustainability section of the Annual Report and in the CDP Report. More detailed information is planned to be disclosed in sustainability report.

The Company carries out studies regarding the recycling of used water and not reported yet.

The information in this manner is provided in the Company’s Human Rights Policy.

The Company is not included in the carbon pricing system due to the sector in which it is located.

The Company is not included in the carbon pricing system due to the sector in which it is located.

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The Company is not included in the carbon pricing system due to the sector in which it is located.

With the implementation of the Sustainability Management System of the Company it will be evaluated.


data were announced. X

The processes are included in detail under the Company’s Code of Ethics. At the same time, information is included in the Stakeholders section of the annual report.

The precautions taken in order to prevent occupational accidents and to protect health and accident statistics are explained.

Under the DIVERSITY section of the Human Rights Policy it is disclosed as: "Turk Telekom values diversity and considers this as an asset, and strives to make its employees feel like they are a part of the Company. Accordingly, Turk Telekom fulfills its legal obligations in relation to employment of people with disabilities, and disadvantages." In addition, important developments regarding corporate social responsibility are included in the annual report.

The information in this manner is provided in the Company’s Human Rights Policy.

The processes are included in detail under the Company’s Code of Ethics. At the same time, information is included in the Stakeholders and Human Resources sections of the annual report.

The processes are included in detail under the Company’s Code of Ethics. At the same time, information is included in the Stakeholders and Human Resources sections of the annual report.

There is an Integrated Management System Policy. At the same time, information is included in the Company’s Investor Relations website.

The information in this manner is provided in the Human Resources section of the Annual Report.

The company is not included in the carbon pricing system due to the sector in which it is located.

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It is published in the Company’s Human Rights Policy.

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<th>Exempted</th>
<th>Not Applicable</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Protection of personal data and data security policies have been created and shared with the public.</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ethical policy (including work, work ethics, compliance processes, advertising and marketing ethics, open disclosure, etc.) has been created and disclosed to the public.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Studies within the scope of social investment, social responsibility, financial inclusion and access to finance have been explained.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Informative meetings and training programs regarding ESG policies and practices have been held for employees.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Stakeholder communication is carried out continuously and transparently.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Developments in sustainability activities were explained. The developments in sustainability activities and the views of stakeholders were communicated with for what purpose, on what subject and how often have been explained.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>The adopted international reporting standards (Carbon Disclosure Project (CDP), Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Climate-Related Financial Disclosures Task Force (TCFD) etc.) have been disclosed to the public.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Activities in the field of sustainability are carried out by taking into account the needs and priorities of all stakeholders (employees, customers, suppliers and service providers, public institutions, shareholders, society and non-governmental organizations, etc.).</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The customer satisfaction policy regarding the management and resolution of customer complaints has been prepared and disclosed to the public.</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sustainability activities are carried out by taking into account needs and priorities of all stakeholders.</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Recent announcements such as regulatory disclosers made by Türk Telekom on the Public Disclosure Platform (KAP) are sent simultaneously to the distribution list of the stakeholders, including analysts and investors who opt to receive them. In addition, Communication with all stakeholders is carried out equally and transparently through the channels such as Corporate Communication, Marketing, Media, Supply Chain etc.</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>With the implementation of the Sustainability Management System of the Company, it will be evaluated.</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>With the implementation of the Sustainability Management System of the Company, it will be evaluated.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>The information in this manner is included in the Human Rights Policy and Investor Relations website.</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Code of Ethics is disclosed to public on the Investor Relations website.</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>The information is provided in the Corporate Social Responsibility section of the annual report.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The Company provides training programs regularly to all its employees on ESG policies.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Türk Telekom became a participant member of UNGC in 2020.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Türk Telekom took utmost care to implement the principles stipulated in the Corporate Governance Principles issued by the Capital Markets Board. In this context, an independent corporate governance compliance assessment is carried out annually. The Company’s rating was 94.03 in 2021.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>While determining the corporate management strategy, the issue of sustainability, the environmental impacts of the activities and the principles on this issue are taken into consideration.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>As stated in the Corporate Governance Principles, necessary measures are taken to comply with the principles regarding stakeholders and to strengthen communication with stakeholders.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Opinions of stakeholders are sought in determining measures and strategies in the field of sustainability.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Activities are carried out to raise awareness on the issue of sustainability and the importance of sustainability through social responsibility projects, awareness activities and trainings.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Türk Telekom reports to CDP. CDP reports are available on the Investor Relations website.</td>
<td>X</td>
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</tr>
<tr>
<td>Türk Telekom is listed on the BIST Sustainability and FTSE4Good Index, as well as on the MSCI S&amp;P Global, Sustainability and Vigeo Ethics platforms.</td>
<td>X</td>
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</tr>
<tr>
<td>Sustainability risks and opportunities regarding Corporateまり are followed by the Company. With the scope of implementation of the Sustainability Management System strategy, it will be taken into account.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Türk Telekom takes utmost care to the communication with stakeholders and adopts transparency principle in its explanations.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>With the implementation of the Sustainability Management System of the Company, it will be evaluated.</td>
<td>X</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Activities are carried out to take awareness on the issue of sustainability and the importance of sustainability through social responsibility projects, awareness activities and trainings.</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Türk Telekom became a participant member of UNGC in 2020.</td>
<td>X</td>
<td></td>
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<tr>
<td>Türk Telekom in Brief</td>
<td>X</td>
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</tbody>
</table>

**D. CORPORATE GOVERNANCE PRINCIPLES**

### SIGNATORY (or member international organizations or principles (Equator Principles, United Nations Environment Program Finance Initiative (UNEP-FI), United Nations Global Principles (UNGP), United Nations Principles for Responsible Investment (UNPRI) etc.), international principles adopted (International Capital Market Association (ICMA) Green/Bond Principles etc.) has been disclosed to the public.

### CONCRETE EFFORTS

- Efforts are being made to become a member of international standards and initiatives on sustainability and to contribute to studies.
- Policies and programs regarding the fight against bribery and corruption and the principal of tax integrity are explained.

**Anti-bribery and Anti-corruption policy which is approved by the Board of Directors has been published on the Investor Relations website.**
Statements of Independence

I have been nominated for the vacant independent board membership of Türk Telekomünikasyon A.Ş. ("The Company"). Pursuant to Corporate Governance Principles attached to the Communiqué No: II-17.1 on the Corporate Governance, I declare that:

• A relationship of an executive position with important duties and responsibilities has not been established by me, my spouse or up to third degree relatives by blood or marriage within the last five years and I do not jointly or separately hold more than 5% of capital or voting right or privileged share or have significant commercial relationship, with Türk Telekomünikasyon A.Ş., associations that Türk Telekomünikasyon A.Ş. holds management control or has significant effect on, and shareholders that hold Türk Telekomünikasyon A.Ş.’s management control or have significant effect on Türk Telekomünikasyon A.Ş. and entities whose management control held by these shareholders.

• I have not worked in a management position undertaking important duty and responsibilities for firms, particularly audit (including tax audit, legal audit and internal audit), rating and consultancy firms, firms that Türk Telekomünikasyon A.Ş. purchases or sells goods or services considerably, in the period that goods and services are purchased or sold, and also have not been appointed as board member to those firms within the last five years.

• I have necessary educational background, information and experience for fulfilling independent board member duties.

• Pursuant to Income Tax Law No.193 dated by 31.12.1960, I am a resident in Turkey.

• I have the ethical standards, reputation and experience enabling them to contribute to activities of the Company, protect their impartiality with regard to conflict of interest that may arise among shareholders, make independent decisions by taking into account the rights of stakeholders.

• I have time to follow the requirements of the business activities of Türk Telekomünikasyon A.Ş. and to precisely perform the tasks I have undertaken.

• I do not serve as an independent board member in more than three of the Türk Telekomünikasyon A.Ş.’s or the companies whose management control held by shareholders that hold Türk Telekomünikasyon A.Ş.’s management control and also in total more than five of publicly traded companies.

• I am not registered and announced on behalf of the legal entity elected as Board Member.

Yiğit Bulut

Statements of Independence

I have been nominated for the vacant independent board membership of Türk Telekomünikasyon A.Ş. ("The Company"). Pursuant to Corporate Governance Principles attached to the Communiqué No: II-17.1 on the Corporate Governance, I declare that:

• A relationship of an executive position with important duties and responsibilities has not been established by me, my spouse or up to third degree relatives by blood or marriage within the last five years and I do not jointly or separately hold more than 5% of capital or voting right or privileged share or have significant commercial relationship, with Türk Telekomünikasyon A.Ş., associations that Türk Telekomünikasyon A.Ş. holds management control or has significant effect on, and shareholders that hold Türk Telekomünikasyon A.Ş.’s management control or have significant effect on Türk Telekomünikasyon A.Ş. and entities whose management control held by these shareholders.

• I have not worked in a management position undertaking important duty and responsibilities for firms, particularly audit (including tax audit, legal audit and internal audit), rating and consultancy firms, firms that Türk Telekomünikasyon A.Ş. purchases or sells goods or services considerably, in the period that goods and services are purchased or sold, and also have not been appointed as board member to those firms within the last five years.

• I have necessary educational background, information and experience for fulfilling independent board member duties.

• Pursuant to Income Tax Law No.193 dated by 31.12.1960, I am a resident in Turkey.

• I have the ethical standards, reputation and experience enabling them to contribute to activities of the Company, protect their impartiality with regard to conflict of interest that may arise among shareholders, make independent decisions by taking into account the rights of stakeholders.

• I have time to follow the requirements of the business activities of Türk Telekomünikasyon A.Ş. and to precisely perform the tasks I have undertaken.

• I do not serve as an independent board member in more than three of the Türk Telekomünikasyon A.Ş.’s or the companies whose management control held by shareholders that hold Türk Telekomünikasyon A.Ş.’s management control and also in total more than five of publicly traded companies.

• I am not registered and announced on behalf of the legal entity elected as Board Member.

Selim Dursun
FINANCIAL TABLES APPROVED BY THE BOARD OF DIRECTORS STATEMENT OF RESPONSIBILITY AS PER ARTICLE 9 OF THE CAPITAL MARKETS BOARD COMMUNIQUE NO: II-14.1

RESOLUTION DATED: 15.02.2022

RESOLUTION NO: 3

We hereby state that:

1) We have reviewed the Consolidated Financial Tables of our Company for the accounting period ending on 31 December 2021.

2) According to information to which we have access as a part of our duties and responsibilities within the Company, the Consolidated Financial Tables do not contain any material inaccurate disclosures or any shortcomings which may prove to be misleading because of the date of disclosure.

3) According to information to which we have access as a part of our duties and responsibilities within the Company, the Consolidated Financial Tables, which have been prepared in accordance with the Capital Markets Board Communiqué No: II-14.1, faithfully reflect the assets, liabilities, financial standing and profits and losses of the Company.

Kind regards,

Yiğit Bulut  
Audit Committee Chairman

Selim Dursun  
Audit Committee Member

Ümit Onal  
General Manager-CEO

Kaan Aktan  
Finance Assistant General Manager

Dr. Nureddin Nebati

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- I am not registered and announced on behalf of the legal entity elected as Board Member.

Dr. Nureddin Nebati

Statements of Independence

Statements of Responsibility

FINANCIAL TABLES APPROVED BY THE BOARD OF DIRECTORS STATEMENT OF RESPONSIBILITY AS PER ARTICLE 9 OF THE CAPITAL MARKETS BOARD COMMUNIQUE NO: II-14.1

RESOLUTION DATED: 15.02.2022

RESOLUTION NO: 3

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3) According to information to which we have access as a part of our duties and responsibilities within the Company, the Consolidated Financial Tables, which have been prepared in accordance with the Capital Markets Board Communiqué No: II-14.1, faithfully reflect the assets, liabilities, financial standing and profits and losses of the Company.

Kind regards,

Yiğit Bulut  
Audit Committee Chairman

Selim Dursun  
Audit Committee Member

Ümit Onal  
General Manager-CEO

Kaan Aktan  
Finance Assistant General Manager

Dr. Nureddin Nebati

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Dr. Nureddin Nebati

Statements of Independence

Statements of Responsibility

FINANCIAL TABLES APPROVED BY THE BOARD OF DIRECTORS STATEMENT OF RESPONSIBILITY AS PER ARTICLE 9 OF THE CAPITAL MARKETS BOARD COMMUNIQUE NO: II-14.1

RESOLUTION DATED: 15.02.2022

RESOLUTION NO: 3

We hereby state that:

1) We have reviewed the Consolidated Financial Tables of our Company for the accounting period ending on 31 December 2021.

2) According to information to which we have access as a part of our duties and responsibilities within the Company, the Consolidated Financial Tables do not contain any material inaccurate disclosures or any shortcomings which may prove to be misleading because of the date of disclosure.

3) According to information to which we have access as a part of our duties and responsibilities within the Company, the Consolidated Financial Tables, which have been prepared in accordance with the Capital Markets Board Communiqué No: II-14.1, faithfully reflect the assets, liabilities, financial standing and profits and losses of the Company.

Kind regards,

Yiğit Bulut  
Audit Committee Chairman

Selim Dursun  
Audit Committee Member

Ümit Onal  
General Manager-CEO

Kaan Aktan  
Finance Assistant General Manager

Dr. Nureddin Nebati

I have been nominated for the vacant independent board membership of Türk Telekomünikasyon A.Ş. ("The Company"). Pursuant to Corporate Governance Principles attached to the Communiqué No II-17.1 on the Corporate Governance, I declare that:

- A relationship of an executive position with important duties and responsibilities has not been established by me, my spouse or up to third degree relatives by blood or marriage within the last five years and I do not jointly or separately hold more than 5% of capital or voting right or privileged share or have significant commercial relationship, with Türk Telekomünikasyon A.Ş., associations that Türk Telekomünikasyon A.Ş. holds management control or has significant effect on, and shareholders that hold Türk Telekomünikasyon A.Ş.’s management control or have significant effect on Türk Telekomünikasyon A.Ş. and entities whose management control held by these shareholders.

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- I am not registered and announced on behalf of the legal entity elected as Board Member.

Dr. Nureddin Nebati
Statement of Responsibility

ANNUAL REPORT APPROVED BY THE BOARD OF DIRECTORS STATEMENT OF RESPONSIBILITY AS PER ARTICLE 9 OF THE CAPITAL MARKETS BOARD COMMUNIQUE NO: II-14.1

RESOLUTION DATED: 28.02.2022
RESOLUTION NO: 4
We hereby state that:

a) We have reviewed the Board of Directors Annual Report for the January 1-December 31, 2021 which has been prepared in accordance with II-141 “Communiqué on Principles of Financial Reporting in Capital Markets” and have reviewed the “Corporate Governance Compliance Report” and the “Corporate Governance Information Form” which have been prepared in accordance with the mandatory formats specified by the Capital Markets Board (CMB) decision no: 2/49 on 10 January 2019 as per II-171 “Communiqué on Corporate Governance”

b) Based on our knowledge within the scope of our duties and responsibilities in the Company, the Annual Report including explanations within the compliance framework of sustainability principles do not contain any misleading statements with regards to important matters or do not contain any shortcomings any missing information that would be interpreted as misleading as of the date of disclosure

c) Based on our knowledge within the scope of our duties and responsibilities in the Company, the Annual Report faithfully reflects the development and performance of the business and the consolidated financial situation of the Company along with the risks and uncertainties that the Company is facing.

d) Based on our knowledge within the scope of our duties and responsibilities in the Company, the “Corporate Governance Compliance Report” and the “Corporate Governance Information Form” faithfully reflect the information provided in such reports.

Yiğit Bulut
Audit Committee Chairman

Sevim Dursun
Audit Committee Member

Ümit Önal
General Manager-CEO

Kaan Aktan
Finance Assistant General Manager

INDEPENDENT AUDITOR’S REPORT ON THE ANNUAL REPORT OF THE BOARD OF DIRECTORS

To the General Assembly of Türk Telekomünikasyon A.Ş.

1) Opinion
We have audited the annual report of Türk Telekomünikasyon A.Ş. (“the Company”) and its subsidiaries (“the Group”) for the period of 1/1/2021-31/12/2021

In our opinion, the consolidated financial information provided in the annual report of the Board of Directors and the discussions made by the Board of Directors on the situation of the Group are presented fairly and consistent, in all material respects, with the audited full set consolidated financial statements and the information we obtained during the audit.

2) Basis for Opinion
We conducted our audit in accordance with standards on auditing as issued by the Capital Markets Board of Turkey and Independent Auditing Standards (InAS) which are part of the Turkish Auditing Standards as issued by the Public Oversight Accounting and Auditing Standards Authority of Turkey (POA). Our responsibilities under those standards are further described in the Auditor’s Responsibilities for the Audit of the Annual Report section of our report. We are independent of the Group in accordance with the Code of Ethics for Independent Auditors (Code of Ethics) as issued by the POA, and we have fulfilled our other ethical responsibilities in accordance with the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

3) Our Auditor’s Opinion on the Full Set Consolidated Financial Statements
We have expressed an unqualified opinion in our auditor’s report dated 15 February 2022 on the full set consolidated financial statements of the Group for the period of 1/1/2021-31/12/2021.

4) The Responsibility of the Board of Directors on the Annual Report
In accordance with Articles 514 and 516 of the Turkish Commercial Code 6102 (“TCC”) and the provisions of the “Communiqué II-141 on the Principles of Financial Reporting In Capital Markets” (“the Communiqué”) of the Capital Market Board (“CMB”), the management of the Group is responsible for the following items:

a) Preparation of the annual report within the first three months following the balance sheet date and submission of the annual report to the general assembly

b) Preparation and fair presentation of the annual report, reflecting the operations of the Group for the year, along with its financial position in a correct, complete, straightforward, true and honest manner. In this report, the financial position is assessed according to the consolidated financial statements. The development of the Group and the potential risks to be encountered are also noted in the report. The evaluation of the board of directors is also included in this report.

(Convenience translation of a report originally issued in Turkish)
c) The annual report also includes the matters below:

- Subsequent events occurred after the end of the fiscal year which have significance,
- The research and development activities of the Group,
- Financial benefits such as salaries and bonuses paid to the board members and to those charged governance, allowances, travel, accommodation and representation expenses, financial aids and aids in kind, insurances and similar deposits.

When preparing the annual report, the board of directors takes into account the secondary legislative arrangements published by the Ministry of Trade and related institutions.

5) Auditor’s Responsibilities for the Audit of the Annual Report

Our aim is to express an opinion, based on the independent audit we have performed on the annual report in accordance with provisions of the Turkish Commercial Code and the Communiqué, on whether the consolidated financial information provided in this annual report and the discussions of the Board of Directors are presented fairly and consistent with the Group’s audited consolidated financial statements and to prepare a report including our opinion.

The independent audit we have performed is conducted in accordance with InAS and the standards on auditing as issued by the Capital Markets Board of Turkey. These standards require compliance with ethical provisions and the independent audit to be planned and performed to obtain reasonable assurance on whether the consolidated financial information provided in the annual report and the discussions of the Board of Directors are free from material misstatement and consistent with the consolidated financial statements.

The name of the engagement partner who supervised and concluded this audit is Seda Akkuş Tecer.

Sedik Başarır Derestem ve Sıhhiyeye Mal Vakıfbilir Anonim Şirketi
A member firm of Ernst & Young Global Limited

Seda Akkuş Tecer, SMMM
Partner
28 February 2022
İstanbul, Türkiye
Independent Auditor’s Report

We have audited the consolidated financial statements of Türk Telekomünikasyon Anonim Şirketi (the company) and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2021, the consolidated statement of profit or loss, the consolidated statement of other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended, in accordance with Turkish Financial Reporting Standards ("TFRSs").

The consolidated financial statements of the Group for the year ended December 31, 2020 were audited by another audit firm, who has expressed an unmodified opinion on those statements on February 3, 2021.

We have audited the consolidated financial statements of Türk Telekomünikasyon Anonim Şirketi (the company) and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2021, the consolidated statement of profit or loss, the consolidated statement of other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

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The consolidated financial statements of the Group for the year ended December 31, 2020 were audited by another audit firm, who has expressed an unmodified opinion on those statements on February 3, 2021.
Refer to Note 2.3 and Note 15 for derivative financial instruments.

The key audit matter

We have performed the following audit procedures for the key audit matter:

- Examining and assessing the reasonableness and completeness of the derivative financial instruments recognized by the company for the period under audit and verifying the effectiveness of the internal control systems
- Obtaining written confirmation from counter parties of the transactions and comparing the details of derivative financial instruments presented in consolidated financial statements of financial position with fair values and the fair values are continuously updated
- Verifying the fair values of derivative financial instruments determined through application of valuation techniques and utilization of assumptions and estimates
- Assessing the reasonableness and completeness of the derivative financial instruments valued using relevant market data and calculating the effect of the transactions, futures transactions and all other derivative financial instruments

How the matter was addressed in our audit

We have performed the following audit procedures for the key audit matter:

- Obtaining written confirmation from counter parties of the transactions and comparing the details of related derivative financial instruments
- Verifying the fair values of derivative financial instruments determined through application of valuation techniques and utilization of assumptions and estimates
- Assessing and challenging the assumptions and judgments underlying the derivative financial instruments
- Obtaining an understanding of the derivative financial instruments and hedge accounting
- Performing audit procedures responsive to the risks identified and obtaining audit evidence that is sufficient and appropriate to provide a reasonable assurance that the derivative financial instruments have been accounted for in accordance with the requirements of the TFRIS.
**Independent Auditor’s Report**

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor’s report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

**B) Report on Other Legal and Regulatory Requirements**

1) Auditors’ report on Risk Management System and Committee prepared in accordance with paragraph 4 of Article 398 of Turkish Commercial Code (“TCC”) is submitted to the Board of Directors of the Company on 15 February 2022.

2) In accordance with paragraph 4 of Article 402 of the TCC, no significant matter has come to our attention that causes us to believe that the Company’s bookkeeping activities for the period 1 January - 31 December 2022 and financial statements are not in compliance with laws and provisions of the Company’s articles of association in relation to financial reporting.

3) In accordance with paragraph 4 of Article 402 of the TCC, the Board of Directors submitted to us the necessary explanations and provided required documents within the context of audit.

The name of the engagement partner who supervised and concluded this audit is Seda Akkuş Tecer

Ganeş Bayırmez Denetim ve Serbest Muhasebe Icin Mali Mtrapiklik Anonim Sirketi
A member firm of Ernst & Young Global Limited

Seda Akkuş Tecer, SMMM
Partner
15 February 2022
İstanbul, Türkiye

**Table of Contents**

- CONSOLIDATED STATEMENT OF FINANCIAL POSITION
- CONSOLIDATED STATEMENT OF PROFIT OR LOSS
- CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
- CONSOLIDATED STATEMENT OF OTHER COMPREHENSIVE INCOME
- CONSOLIDATED STATEMENT OF CASH FLOWS

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

- NOTE 1 REPORTING ENTITY
- NOTE 2 BASIS OF PRESENTATION OF FINANCIAL STATEMENTS
- NOTE 3 SEGMENT REPORTING
- NOTE 4 CASH AND CASH EQUIVALENTS
- NOTE 5 FINANCIAL LIABILITIES
- NOTE 6 TRADE RECEIVABLES AND PAYABLES FROM AND CONTRACT ASSETS TO UNRELATED PARTIES
- NOTE 7 RIGHT OF USE ASSETS
- NOTE 8 DUE FROM AND DUE TO RELATED PARTIES
- NOTE 9 OTHER RECEIVABLES AND PAYABLES
- NOTE 10 INVENTORIES
- NOTE 11 DEFERRED TAX ASSETS AND LIABILITIES
- NOTE 12 OTHER CURRENT ASSETS, OTHER LIABILITIES AND EMPLOYEE BENEFIT OBLIGATIONS
- NOTE 13 PREPAID EXPENSES AND DEFERRED REVENUES
- NOTE 14 FINANCIAL INVESTMENTS
- NOTE 15 DERIVATIVE FINANCIAL INSTRUMENTS
- NOTE 16 GOODWILL
- NOTE 17 ASSETS HELD FOR SALE
- NOTE 18 INVESTMENT PROPERTY
- NOTE 19 PROPERTY, PLANT AND EQUIPMENT
- NOTE 20 INTANGIBLE ASSETS
- NOTE 21 PROVISIONS
- NOTE 22 PAID IN CAPITAL, RESERVES AND RETAINED EARNINGS
- NOTE 23 SHARE BASED PAYMENT
- NOTE 24 COMMITMENTS AND CONTINGENCIES
- NOTE 25 SUPPLEMENTARY CASH FLOW INFORMATION
- NOTE 26 SUBSEQUENT EVENTS
- NOTE 27 REVENUE
- NOTE 28 OPERATING EXPENSES
- NOTE 29 EXPENSES BY NATURE
- NOTE 30 OTHER OPERATING INCOME/(EXPENSE)
- NOTE 31 INCOME/(EXPENSE) FROM INVESTING ACTIVITIES
- NOTE 32 FINANCIAL INCOME/(EXPENSE)
- NOTE 33 TAXATION ON INCOME
- NOTE 34 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES
- NOTE 35 INDEPENDENT AUDIT FEES AND OTHER FEES RELATED SERVICES RECEIVED FROM INDEPENDENT AUDIT FIRM

**Türk Telekom 2021 Annual Report**

**Türk Telekom 2021 Annual Report**
### Consolidated Statement of Financial Position

**As at 31 December 2021**

(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated, all other currencies are also disclosed in thousands)

(Convenience translation of a report and financial statements originally issued in Turkish)

<table>
<thead>
<tr>
<th>Item</th>
<th>Current period</th>
<th>Prior period</th>
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<tbody>
<tr>
<td><strong>Assets</strong></td>
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<tr>
<td>Total assets</td>
<td>60,337,635</td>
<td>44,727,520</td>
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<td>- Cash and cash equivalents</td>
<td>7,669,870</td>
<td>5,007,927</td>
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<tr>
<td></td>
<td>Trade receivables</td>
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<td></td>
<td>- Trade receivables due from related parties</td>
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<tr>
<td></td>
<td>- Trade receivables due from unrelated parties</td>
<td>9,122,921</td>
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<td>Other receivables</td>
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<td></td>
<td>- Other receivables due from related parties</td>
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<td></td>
<td>- Other receivables due from unrelated parties</td>
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<td>Contract assets</td>
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<tr>
<td></td>
<td>- Contract assets from sale of goods and service contracts</td>
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<td></td>
<td>Non-current assets</td>
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<td></td>
<td>- Non-current assets classified as held for sale</td>
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<td></td>
<td>Prepayments</td>
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<td></td>
<td>- Prepayments to unrelated parties</td>
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<td></td>
<td>Current tax assets</td>
<td>8,949</td>
</tr>
<tr>
<td></td>
<td>Other current assets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Other current assets due from unrelated parties</td>
<td>59,402</td>
</tr>
<tr>
<td><strong>Sub total</strong></td>
<td>20,722,963</td>
<td>13,252,104</td>
</tr>
<tr>
<td><strong>Non-current assets classified as held for sale</strong></td>
<td>56,418</td>
<td>37,367</td>
</tr>
<tr>
<td><strong>Total non-current assets</strong></td>
<td>37,558,254</td>
<td>31,433,055</td>
</tr>
<tr>
<td>Financial investments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other financial investments</td>
<td>13,671</td>
<td>17,956</td>
</tr>
<tr>
<td>Trade receivables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Trade receivables due from related parties</td>
<td>127,851</td>
<td>204,132</td>
</tr>
<tr>
<td></td>
<td>Other receivables</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Other receivables due from unrelated parties</td>
<td>38,739</td>
</tr>
<tr>
<td></td>
<td>Contract assets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Contract assets from sale of goods and service contracts</td>
<td>59,402</td>
</tr>
<tr>
<td></td>
<td>Derivative financial assets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Derivative financial assets held for trading</td>
<td>39,980</td>
</tr>
<tr>
<td></td>
<td>Right of use assets</td>
<td>1,578,893</td>
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<tr>
<td></td>
<td>Investment property</td>
<td>15,483</td>
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<tr>
<td>Property, plant and equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Land and premises</td>
<td>6,398,268</td>
<td>5,694,276</td>
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<tr>
<td></td>
<td>Buildings</td>
<td>592,875</td>
</tr>
<tr>
<td></td>
<td>- Machinery and equipments</td>
<td>10,862,961</td>
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<td></td>
<td>- Other property, plant and equipment</td>
<td>1,119,642</td>
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<tr>
<td>Intangible assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Goodwill</td>
<td>44,944</td>
<td>44,944</td>
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<tr>
<td></td>
<td>Rights regarding concession agreements</td>
<td>5,426,301</td>
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<td></td>
<td>Concession agreements assets</td>
<td>1,315,334</td>
</tr>
<tr>
<td></td>
<td>Licenses</td>
<td>2,014,880</td>
</tr>
<tr>
<td></td>
<td>Other intangible assets</td>
<td>5,440,553</td>
</tr>
<tr>
<td>Prepayments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Prepayments to unrelated parties</td>
<td>19,998</td>
<td>13,372</td>
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<tr>
<td>Deferred tax asset</td>
<td>2,362,407</td>
<td>1,268,525</td>
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<tr>
<td>Other non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other non-current assets due from unrelated parties</td>
<td>97</td>
<td>92</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>58,337,635</td>
<td>44,722,520</td>
</tr>
</tbody>
</table>

**Liabilities**

<table>
<thead>
<tr>
<th>Item</th>
<th>Current period</th>
<th>Prior period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total current liabilities</td>
<td>17,997,064</td>
<td>14,228,270</td>
</tr>
<tr>
<td>Financial liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Financial liabilities from related parties</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Bank loans</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Financial liabilities from unrelated parties</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Bank loans</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>- Lease liabilities</td>
<td>5</td>
</tr>
<tr>
<td>Current portion of long term financial liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current portion of long term financial liabilities from unrelated parties</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Bank loans</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>- Lease liabilities</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>- Issued debt instruments</td>
<td>5</td>
</tr>
<tr>
<td>Trade payables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Trade payables to unrelated parties</td>
<td>6</td>
<td>5,293,521</td>
</tr>
<tr>
<td>Employee benefit obligations materials</td>
<td>12</td>
<td>199,768</td>
</tr>
<tr>
<td>Other payables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other payables to unrelated parties</td>
<td>9</td>
<td>999,710</td>
</tr>
<tr>
<td>Derivative financial liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Derivative financial liabilities held for trading</td>
<td>15</td>
<td>310,161</td>
</tr>
<tr>
<td>- Derivative financial liabilities held for hedging</td>
<td>15</td>
<td>47,533</td>
</tr>
<tr>
<td>Contract liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Contract liabilities from sale of goods and service contracts</td>
<td>13,252</td>
<td>623,339</td>
</tr>
<tr>
<td>Current tax liabilities</td>
<td>33</td>
<td>172,456</td>
</tr>
<tr>
<td>Current provisions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Current provisions for employee benefits</td>
<td>21</td>
<td>276,460</td>
</tr>
<tr>
<td>- Other current provisions</td>
<td>21</td>
<td>166,944</td>
</tr>
<tr>
<td>Other current liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other current liabilities to unrelated parties</td>
<td>12,252</td>
<td>18,743</td>
</tr>
<tr>
<td><strong>Total non-current liabilities</strong></td>
<td>26,090,667</td>
<td>18,456,874</td>
</tr>
<tr>
<td>Financial long term liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Long term financial liabilities from unrelated parties</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Bank loans</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>- Lease liabilities</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>- Issued debt instruments</td>
<td>5</td>
</tr>
<tr>
<td>Other payables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other payables to unrelated parties</td>
<td>9</td>
<td>43,656</td>
</tr>
<tr>
<td>Derivative financial liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Derivative financial liabilities held for hedging</td>
<td>15</td>
<td>347,286</td>
</tr>
<tr>
<td>Contract liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Contract liabilities from sale of goods and service contracts</td>
<td>13,252</td>
<td>1,008,522</td>
</tr>
<tr>
<td>Non-current provisions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Non-current provisions for employee benefits</td>
<td>21</td>
<td>1,214,789</td>
</tr>
<tr>
<td>- Other non-current provisions</td>
<td>21</td>
<td>8,506</td>
</tr>
<tr>
<td>Deferred tax liabilities</td>
<td>11</td>
<td>755,133</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>44,267,732</td>
<td>32,685,557</td>
</tr>
</tbody>
</table>
### Consolidated Statement of Financial Position as at 31 December 2021

(Currency in thousands of Turkish Lira ("TL") unless otherwise stated; all other currencies are also disclosed in thousands)

<table>
<thead>
<tr>
<th>Notes</th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity attributable to owners of parent</td>
<td>14.249.904</td>
<td>12.037.376</td>
</tr>
<tr>
<td>Issued capital</td>
<td>3.500.000</td>
<td>3.500.000</td>
</tr>
<tr>
<td>Inflation adjustments on capital</td>
<td>(239.752)</td>
<td>(239.752)</td>
</tr>
<tr>
<td>Other accumulated comprehensive income/(loss) that will not be reclassified in profit or loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains/(losses) from investments in equity instruments</td>
<td>(11.840)</td>
<td>-</td>
</tr>
<tr>
<td>Gains/(losses) on revaluation and remeasurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Losses on revaluations of defined benefit plans</td>
<td>(911.454)</td>
<td>(782.420)</td>
</tr>
<tr>
<td>- Increases on revaluation of property, plant and equipment</td>
<td>5.231.590</td>
<td>4.766.342</td>
</tr>
<tr>
<td>Losses due to change in fair value of financial liability attributable to change in credit risk of liability</td>
<td>76.534</td>
<td>(88.747)</td>
</tr>
<tr>
<td>Effect of business combinations under common control</td>
<td>(1.320.942)</td>
<td>(1.320.942)</td>
</tr>
<tr>
<td>Other accumulated comprehensive income/(loss) that will be reclassified in profit or loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Losses on hedges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Losses on cash flow hedges</td>
<td>876.407</td>
<td>(320.668)</td>
</tr>
<tr>
<td>- Losses on hedges of net investment in foreign operations</td>
<td>(115.022)</td>
<td>(593.149)</td>
</tr>
<tr>
<td>Change in value of time-value of options</td>
<td>(4.074.549)</td>
<td>(777.854)</td>
</tr>
<tr>
<td>Exchange differences on translation</td>
<td>1.555.755</td>
<td>721.066</td>
</tr>
<tr>
<td>Restricted reserves appropriated from profits</td>
<td>2.568.388</td>
<td>2.398.634</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>2.395.335</td>
<td>1.536.993</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>5.761.454</td>
<td>3.177.873</td>
</tr>
<tr>
<td>Total liabilities and equity</td>
<td>58.337.635</td>
<td>44.722.520</td>
</tr>
</tbody>
</table>

### Consolidated Statement of Profit or Loss For the Year Ended 31 December 2021

(Currency in thousands of Turkish Lira ("TL") unless otherwise stated; all other currencies are also disclosed in thousands)

<table>
<thead>
<tr>
<th>Notes</th>
<th>1 January - 31 December 2021</th>
<th>1 January - 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>3.27</td>
<td>34.272.934</td>
</tr>
<tr>
<td>Cost of sales (-)</td>
<td>28.25</td>
<td>28.288.875</td>
</tr>
<tr>
<td>Gross profit</td>
<td></td>
<td>14.858.493</td>
</tr>
<tr>
<td>General administrative expenses (-)</td>
<td>26</td>
<td>(2.735.464)</td>
</tr>
<tr>
<td>Marketing, sales and distribution expenses (-)</td>
<td>28.25</td>
<td>(2.644.196)</td>
</tr>
<tr>
<td>Research and development expenses (-)</td>
<td>28</td>
<td>(273.817)</td>
</tr>
<tr>
<td>Other operating income</td>
<td>30</td>
<td>662.899</td>
</tr>
<tr>
<td>Other operating expense (-)</td>
<td>30</td>
<td>(706.908)</td>
</tr>
<tr>
<td>Operating profit</td>
<td></td>
<td>8.101.012</td>
</tr>
<tr>
<td>Impairment gains/losses and reversals of impairment losses determined in accordance with IFRS 9, net</td>
<td>(186.174)</td>
<td>(278.652)</td>
</tr>
<tr>
<td>Investment activity income</td>
<td>31</td>
<td>1.143.333</td>
</tr>
<tr>
<td>Investment activity expenses (-)</td>
<td>31</td>
<td>(16.785)</td>
</tr>
<tr>
<td>Profit before financing expense</td>
<td>5.620.842</td>
<td>3.801.941</td>
</tr>
<tr>
<td>Finance income</td>
<td>32</td>
<td>5.015.420</td>
</tr>
<tr>
<td>Finance costs (-)</td>
<td>32</td>
<td>(8.445.964)</td>
</tr>
<tr>
<td>Profit from continuing operations, before tax</td>
<td></td>
<td>9.051.386</td>
</tr>
<tr>
<td>Tax (expense)/income, continuing operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Current period tax expense</td>
<td>33</td>
<td>(617.550)</td>
</tr>
<tr>
<td>- Deferred tax (expense)/income</td>
<td>33</td>
<td>758.162</td>
</tr>
<tr>
<td>Profit for the year</td>
<td></td>
<td>8.761.454</td>
</tr>
<tr>
<td>Earnings per shares attributable to equity holders of the parent from (in full Kuruş)</td>
<td>22</td>
<td>1.6461</td>
</tr>
<tr>
<td>Earnings per diluted shares attributable to equity holders of the parent from (in full Kuruş)</td>
<td>22</td>
<td>1.6461</td>
</tr>
</tbody>
</table>
The accompanying notes form an integral part of these consolidated financial statements.

<table>
<thead>
<tr>
<th>Other accumulated comprehensive income/(loss) that will not be reclassified in profit or loss</th>
<th>Other accumulated comprehensive income/(loss) that will be reclassified in profit or loss</th>
<th>Retained earnings/(losses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect of business combinations under common control</td>
<td>Gains/(losses) due to change in fair value of financial liability attributable to change in credit risk of liability</td>
<td>Gains/(losses) on hedge</td>
</tr>
<tr>
<td>Issued capital</td>
<td>Inflation adjustments on capital</td>
<td>Share-based payments</td>
</tr>
<tr>
<td>Transfers</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total comprehensive income</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Profit for period</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Other comprehensive income</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dividends paid (Note 22)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transfer of gains/(losses) due to change in fair value of financial liability attributable to change in credit risk of liability fund to accumulated comprehensive income</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transfer of share-based payments reserve to accumulated comprehensive income</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance at 31 December 2020</td>
<td>3.500.000</td>
<td>(239.752)</td>
</tr>
<tr>
<td>Balance at 1 January 2021</td>
<td>3.500.000</td>
<td>(239.752)</td>
</tr>
<tr>
<td>Transfers</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total comprehensive income</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Profit for period</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Other comprehensive income</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dividends paid (Note 22)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other adjustments (Note 22)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balance at 31 December 2021</td>
<td>3.500.000</td>
<td>(239.752)</td>
</tr>
</tbody>
</table>
### Consolidated Statement of Other Comprehensive Income

**For the Year Ended 31 December 2021**

(Currency in thousands of Turkish Lira ("TL") unless otherwise stated; all other currencies are also disclosed in thousands)

<table>
<thead>
<tr>
<th>Current Period</th>
<th>Prior Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Profit for the period</strong></td>
<td>5,761,454</td>
</tr>
<tr>
<td>Other comprehensive income</td>
<td></td>
</tr>
<tr>
<td>Other comprehensive income that will not be reclassified to profit or loss</td>
<td></td>
</tr>
<tr>
<td>Gains/(losses) from investments in equity instruments</td>
<td>489,655</td>
</tr>
<tr>
<td>Gain from revaluation of property, plant and equipment</td>
<td>518,828</td>
</tr>
<tr>
<td>Losses on remeasurements of defined benefit plans</td>
<td>160,582</td>
</tr>
<tr>
<td>Change in fair value of financial liability attributable to change in credit risk of liability</td>
<td>206,601</td>
</tr>
<tr>
<td>Tax effect of other comprehensive income items not to be reclassified to profit or loss</td>
<td></td>
</tr>
<tr>
<td>- Taxes relating to remeasurements of defined benefit plans</td>
<td>31,549</td>
</tr>
<tr>
<td>- Tax effect of revaluation of property, plant and equipment</td>
<td>(53,580)</td>
</tr>
<tr>
<td>- Taxes relating to change in fair value of financial liability attributable to change in credit risk of liability</td>
<td>(41,320)</td>
</tr>
<tr>
<td>Other comprehensive income that will be reclassified to profit or loss</td>
<td></td>
</tr>
<tr>
<td>Gains/(losses) on cash flow hedges</td>
<td>2,166,046</td>
</tr>
<tr>
<td>Gains/(losses) on hedges of foreign exchange transactions</td>
<td>834,689</td>
</tr>
<tr>
<td>Gains/(losses) on change in value of time value of options</td>
<td>(4,915,869)</td>
</tr>
<tr>
<td>Tax effect on other comprehensive income items to be reclassified to profit or loss</td>
<td></td>
</tr>
<tr>
<td>- Taxes relating to cash flow hedges</td>
<td>(2,433,933)</td>
</tr>
<tr>
<td>- Taxes relating to (gains)/losses on hedges of net investments in foreign operations</td>
<td>140,968</td>
</tr>
<tr>
<td>- Taxes relating to change in value of time value of options of other comprehensive (loss)/income</td>
<td>839,174</td>
</tr>
<tr>
<td>Total comprehensive income</td>
<td>4,085,063</td>
</tr>
</tbody>
</table>

The accompanying notes form an integral part of these consolidated financial statements.
### Consolidated Statement of Cash Flows

For the Year Ended 31 December 2021

(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Period</th>
<th>Prior Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net cash used in operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash flows from operating activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from sales of property, plant and equipment</td>
<td>1,290,068</td>
<td>407,862</td>
</tr>
<tr>
<td>Proceeds from the sale of investments</td>
<td>4,099,756</td>
<td>3,045,870</td>
</tr>
<tr>
<td><strong>Net cash used in investing activities</strong></td>
<td>7,393,088</td>
<td>6,762,468</td>
</tr>
<tr>
<td><strong>Net cash provided by / used in financing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from borrowings</td>
<td>3,305,686</td>
<td>2,248,336</td>
</tr>
<tr>
<td><strong>Net increase (decrease) in cash and cash equivalents</strong></td>
<td>2,700,068</td>
<td>-150,000</td>
</tr>
</tbody>
</table>

### Notes to the Consolidated Financial Statements

As at and for the Year Ended 31 December 2021

(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)

### 1. Reporting Entity

Türk Telekomünikasyon Anonim Şirketi (“Türk Telekom” or “the Company”) is a joint stock company incorporated in Turkey. The Company has its history in the Posthane-i Amirane (Department of Post Office) which was originally established as a Ministry on 23 October 1840. On 4 February 1924, under the Telephone and Telegraph, the authorization to install and operate telephone networks throughout Turkey was given to the General Directorate of Post, Telegraph and Telephone (“İPTT”). The Company was founded on 24 April 1995 as a result of the split of the telecommunication and postal services formerly carried out by the IPTT. All of the personnel, assets and obligations of the IPTT pertaining to telecommunication services were transferred to the Company, the shares of which were fully owned by the Republic of Turkey Ministry of Treasury and Finance (“the Treasury”).

On 24 August 2005, Oger Telekomünikasyon A.Ş. (“OTAS”), entered into a Share Sale Agreement with the Turkey's Privatization Authority for the purchase of a 55% stake in the Company. A Shareholders Agreement and a Share Pledge Agreement for the block sale of the Company were signed on 14 November 2005 and then after, OTAS became the parent company of the Company.

Out of TL 3,500,000 nominal amount of capital, 15% of the Company’s shares owned by the Treasury corresponding to a nominal amount of TL 525,000 have been issued to the public through an initial public offering with the permission of Directorate of Istanbul Stock Exchange on 15 May 2008. Since then Company shares are traded in Borsa Istanbul with the name of TTKOM.

As per the regulatory disclosure made by Türk Telekom on 15 August 2018, within the scope of the process, which is carried out in relation to takeover of OTAS’s 55% shares in our Company, Türk Telekom, by a special purpose vehicle (“SPV”), which the creditor banks of OTAS will be shareholders, a notification was made to our company by some of the creditor banks.

Transfer of the Group A shares, which constitutes 55% of the Company’s capital, to the afore-mentioned SPV, LYV Telekomünikasyon A.Ş. (“LYV”) as of 21 December 2018 has been notified to the Company in accordance with Article 198 of the Turkish Commercial Code. Pursuant to Article 499 of the Turkish Commercial Code, LYV has been registered as a new shareholder in the Company’s shareholders’ ledger.

As of 31 December 2021, the parent company and controlling party of the Company is LYV Telekomünikasyon A.Ş.

A concession agreement (“the Concession Agreement”) was signed by the Company and Turkish Telecommunication Authority (now named the Information and Communication Technologies Authority (“ICTA”)) as of 14 November 2005. The Concession Agreement covers the provision of all kinds of telecommunication services, establishment of necessary telecommunications facilities and the use of such facilities by other licensed operators and the marketing and supply of telecommunication services for 25 years starting from 28 February 2006. In the conditions where the Concession Agreement is expired or not renewed, the Company shall transfer all equipment that affects the operation of its systems in full working order and the real estate in its use where those equipment are deployed to the ICTA or to an institution designated by the ICTA.

The Concession Agreement will expire at the end of its time period. However, the Company may apply to the ICTA and request for extension thereof no later than 1 year prior to the expiry of the duration of the Concession Agreement. The ICTA may decide to renew the Concession Agreement at the latest before 180 days of the date of expiration considering new conditions and within the scope of the legislation and the regulations of the ICTA.
### Notes to the Consolidated Financial Statements

As at and for the Year Ended 31 December 2021

(Exchange rates of Turkish Lira ("TL") are otherwise stated; all other currencies are also disclosed in thousands)

#### 1. REPORTING ENTITY (CONTINUED)

The details of the Company’s subsidiaries as at 31 December 2021 and 31 December 2020 are as follows:

<table>
<thead>
<tr>
<th>Name of Subsidiary</th>
<th>Place of establishment</th>
<th>Principal activity</th>
<th>Functional Currency</th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Türk Telekomünikasyon Anonim Şirketi ((&quot;TT&quot;)</td>
<td>Turkey</td>
<td>Information services provider</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>TT Mobil iletişim Hizmetleri A.Ş (&quot;TT Mobil&quot;)</td>
<td>Turkey</td>
<td>GSM operator</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Angelia Vodafon ve Web Telekomünikasyon Sanayi ve Ticaret Anonim Şirketi (&quot;Anelga&quot;)</td>
<td>Turkey</td>
<td>Telecommunication solutions</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>İnovare İhaneleri (Coteli) Anonim Şirketi (&quot;İnovare&quot;)</td>
<td>Turkey</td>
<td>Telecommunication solutions</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Saat Elişleri ve Büyük Telekomünikasyon A.Ş (&quot;Saat&quot;)</td>
<td>Turkey</td>
<td>Wholesale learning</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>NETSIA Inc.</td>
<td>USA</td>
<td>Telecommunications solutions</td>
<td>U.S. Dollar</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Saattel LLC (&quot;LLC&quot;)</td>
<td>USA</td>
<td>Wholesale learning</td>
<td>U.S. Dollar</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>TT International Holding B.V./TT (International)</td>
<td>Netherlands</td>
<td>Holding company</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International AT GmbH (&quot;TTINT Austria&quot;)</td>
<td>Austria</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International Hı Hı (TTINT Hungary)</td>
<td>Hungary</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>S.C. Eurowebb România S.A. (&quot;TTINT România&quot;)</td>
<td>Romania</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International Bulgaria EOOD (&quot;TTINT Bulgaria&quot;)</td>
<td>Bulgaria</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International CZ s r.o (&quot;TTINT Czech&quot;)</td>
<td>Czech Republic</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International S.R. d.o.o (&quot;TTINT Serbia&quot;)</td>
<td>Serbia</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International Slovakia a.s. (&quot;TTINT Slovakia&quot;)</td>
<td>Slovakia</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International Slovakia s r.o (&quot;TTINT Slovakia&quot;)</td>
<td>Slovakia</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International S.R. S.A. (&quot;TTINT Italy&quot;)</td>
<td>Italy</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International NL ODOEL (&quot;TTINT Netherlands&quot;)</td>
<td>Netherlands</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International RU LLC (&quot;TTINT Russia&quot;)</td>
<td>Russia</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International Euro GmbH (&quot;TT (Euro)&quot;)</td>
<td>Germany</td>
<td>Mobile service marketing</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Türk Telekom International d.o.o. (&quot;TTINT Croatian&quot;)</td>
<td>Croatia</td>
<td>Internet/data services, infrastructure and wholesale voice services provider</td>
<td>Euro</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net Elan TV ve Medya Hiz. A.Ş (&quot;Net Elan&quot;)</td>
<td>Turkey</td>
<td>Electrical energy trading</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>TTES Elektrik Teknoloji Satış A.Ş (&quot;TTES&quot;)</td>
<td>Turkey</td>
<td>Electric energy trading</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>TT Odemir ve Elektronik Para Hizmetleri A.Ş. (&quot;TTOdı&quot;)</td>
<td>Turkey</td>
<td>Mobile finance</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net Elan TV ve Medya Hiz. A.Ş (&quot;Net Elan&quot;)</td>
<td>Turkey</td>
<td>Television and radio broadcasting</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net Elan TV ve Medya Hiz. A.Ş (&quot;Net Elan&quot;)</td>
<td>Turkey</td>
<td>Television and radio broadcasting</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net Elan TV ve Medya Hiz. A.Ş (&quot;Net Elan&quot;)</td>
<td>Turkey</td>
<td>Television and radio broadcasting</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net Elan TV ve Medya Hiz. A.Ş (&quot;Net Elan&quot;)</td>
<td>Turkey</td>
<td>Television and radio broadcasting</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net Elan TV ve Medya Hiz. A.Ş (&quot;Net Elan&quot;)</td>
<td>Turkey</td>
<td>Television and radio broadcasting</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net Elan TV ve Medya Hiz. A.Ş (&quot;Net Elan&quot;)</td>
<td>Turkey</td>
<td>Television and radio broadcasting</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>TT Satış ve Dağitim Hizmetleri Anonim Şirketi</td>
<td>Turkey</td>
<td>Selling and Distribution Services</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Ventures Proje Geliştirme A.Ş</td>
<td>Turkey</td>
<td>Corporate Venture Capital</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>TT Denizli Hizmetleri A.Ş</td>
<td>Turkey</td>
<td>Provider of combined facilities support services</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>APPYAP Teknoloji ve Bilim A.Ş</td>
<td>Turkey</td>
<td>Web portal and computer programming activities</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>TSC Finansal Teknoloji ve A.Ş</td>
<td>Turkey</td>
<td>Financial Advisory Services</td>
<td>Turkish Lira</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

#### 2. BASIS OF PRESENTATION OF THE CONSOLIDATED STATEMENTS

##### 2.1 Basis of presentation of the consolidated financial statements

**a) Statement of compliance with TAS**

The accompanying consolidated financial statements are prepared in accordance with Turkish Financial Reporting Standards (“TFRS”) published by Public Oversight Accounting and Auditing Standards Authority (“POAA”) as set out in the Communique numbered II.141 “Communique on Principles of Financial Reporting in Capital Markets” published in the Official Gazette numbered 28876 on 13 June 2019. TFRS consists of standards and interpretations which are published as Turkish Accounting Standards ("TAS"), Turkish Financial Reporting Standards, interpretations of TAS and interpretations of TFPS.

The consolidated financial statements are presented in accordance with the TFRS Taxonomy developed based on the illustrative Financial Statements and User guide published in the Official Gazette numbered 30794 on 7 June 2019.

Approval of the financial statements is deprived of the Company’s Board of Directors on 15 February 2022. General Assembly has the right to change the consolidated financial statements.

**b) Correction of financial statements during the hyperinflationary periods**

CMB, with its resolution dated 17 March 2005, announced that all publicly traded entities operating in Turkey was not obliged to apply hyperinflationary accounting effective from 1 January 2005. In this resolution, the hyperinflationary accounting does not apply to the TFRS financial statements as of 31 December 2021, since the cumulative change in the general purchasing power of the last three years according to Consumer Price Index (CPI) is 24.4%. In this respect, consolidated financial statements as of December 31, 2021 are not adjusted for inflation in accordance with TAS 259.

**c) Basis of measurement**

The consolidated financial statements have been prepared on the historical cost basis except for the property, plant and equipment other than lands and investment property acquisitions prior to 1 January 2000 for which the deemed cost method was applied in accordance with TAS 29 Financial Reporting in Hyperinflationary Economies. Lands, derivative financial instruments, issued debt instruments which have been measured at fair value through profit or loss. Investment properties and tangible assets other than lands which are recognized with deemed cost method are valued with fair values as of 1 January 2000, lands accounted for property, plant and equipment, derivative financial instruments and issued debt instruments which have been measured at fair value through profit or loss, are valued with fair values as of balance sheet date. The methods used in fair value measurement are also specified in note 2.3 (t).
As at and for the Year Ended 31 December 2021

Notes to the Consolidated Financial Statements

2. BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

2.1 Basis of presentation of the consolidated financial statements (continued)

The accompanying consolidated financial statements include the accounts of the parent company Türk Telekom, its subsidiaries and joint operation. The financial statements of the entities included in the consolidation have been prepared as at the date of the consolidated financial statements. The functional currencies of the subsidiaries and Company's joint operation are presented in Note 1.

2.2 Basis of consolidation

The accompanying financial statements include the accounts of the parent company Türk Telekom, its subsidiaries and joint operation. Functional currencies of the subsidiaries and Company's joint operation are presented in Note 1.

2.2 Basis of consolidation (continued)

2.2.1 Basis of consolidation (continued)

The accounting principles described in Note 2 (defined as Turkish Accounting Standards/Turkish Financial Reporting Standards) to the accompanying consolidated financial statements differ from International Financial Reporting Standards (“IFRS”) issued by the International Accounting Standards Board (“IASB”) with respect to the application of inflation accounting, classification of some income statement items and also for certain disclosures requirement of the POA.

2.3 Revenue recognition

Transactions in financial currencies are translated to the functional currencies of the Group entities at the exchange rates ruling at the date of the transactions. Monetary assets and liabilities denominated in foreign currencies at reporting date are translated to the functional currency at the exchange rate ruling at the date of the transactions.

2.4 Foreign currency transactions

Foreign currency differences are recognized in other comprehensive income and presented in the foreign currency translation reserve in equity. Foreign currency differences are recognized in other comprehensive income and presented in the foreign currency translation reserve in equity. The Group uses USD, EUR or TL, as functional currency since these currencies are used to a significant extent in, or have a significant impact on, the operations of the related Group entities and reflect the economic substances of the underlying events and circumstances relevant to those entities. All currencies other than the functional currency selected for measuring items in the financial statements are treated as foreign currencies.

2.4.1 Foreign currency transactions (continued)

The financial statements of subsidiaries that report in the currency of an economy formerly accepted as hyperinflationary (Turkey) are restated to the unit of currency effective at the reporting date until 1 January 2005. As stated above, with the resolution dated 17 March 2005 to end the hyperinflation accounting for the periods starting after 31 December 2004, TL is not assessed as a currency of a hyperinflationary economy effective from 1 January 2005.

2.4.2 Foreign currency transactions (continued)

The foreign currency exchange rates as of the related periods are as follows:

<table>
<thead>
<tr>
<th>Average</th>
<th>Period end</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 December 2021</td>
<td>31 December 2020</td>
</tr>
<tr>
<td>EUR/TL</td>
<td>10.4419</td>
</tr>
<tr>
<td>USD/TL</td>
<td>8.8567</td>
</tr>
</tbody>
</table>

(Continued)

iii) Hedge of net investment in a foreign operation

The Company acquires foreign currency bank loans in order to hedge its net investment in a foreign operation. Foreign exchange gains or losses arising from the subsidiary's net investment portion of this loan are reclassified to other comprehensive income. Foreign exchange gain and/or loss resulting from the subsidiary's net investment portion of this loan reclassified to other comprehensive income will be transferred to profit and loss in case of disposal. Tax effects of foreign exchange gain and/or loss resulting from the subsidiary’s net investment portion of this loan is recognized under other comprehensive income as well.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)

2. BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

2.2 Basis of consolidation (continued)

a) Financial instruments (continued)

i. Recognition and initial measurement
Trade receivables are initially recognized when they are originated. All other financial assets and financial liabilities are initially recognized when the Group becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition or issue. Trade receivable without a significant financing component is initially measured at the transaction price.

ii. Classification and subsequent measurement

Financial assets

On initial recognition, a financial asset is classified as measured at: amortized cost, (“FVOCI”) - equity investment, or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cash flows, and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment’s fair value in other comprehensive income. This election is made on an investment-by-investment basis. The Group holds 6.84% of shares of Cetelem as equity investment and has elected to present changes in fair value of Cetelem in other comprehensive income.

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets (Note 10) and equity investments measured at FVTPL.

On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI as at FVTPL, if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Financial assets: Business model assessment

The Group assesses the objective of the business model in which a financial asset is held at a portfolio level because this best reflects the way the business is managed and information is provided to management. The information considered includes:

- the stated policies and objectives for the portfolio and the operation of those policies in practice. These include whether management’s strategy focuses on earning contractual interest income, maintaining a particular interest rate profile, matching the duration of the financial assets to the duration of any related liabilities or expected cash outflows or realizing cash flows through the sale of the assets;
- how the performance of the portfolio is evaluated and reported to the Group’s management;
- the risks that affect the performance of the business model (and the financial assets held within that business model) and how those risks are managed;
- how managers of the business are compensated – e.g. whether compensation is based on the fair value of the assets managed or the contractual cash flows collected; and
- the frequency, volume and timing of sales of financial assets in prior periods, the reasons for such sales and expectations about future sales activity.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales.

Financial assets that are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)

2. BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

2.3 Significant accounting policies (continued)

a) Financial instruments (continued)

ii. Classification and subsequent measurement (continued)

Financial assets: Assessment whether contractual cash flows are "solely payments of principal and interest"

Principal is defined as the fair value of the financial asset on initial recognition. Interest is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as a profit margin. In assessing whether the contractual cash flows are "solely payments of principal and interest", the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition.

In making this assessment, the Group considers:

- contingent events that would change the amount or timing of cash flows;
- terms that may adjust the contractual coupon rate, including variable rate features;
- prepayment and extension features;
- and terms that limit the Group’s claim to cash flows from specified assets (e.g. non-recoverable features).

A prepayment feature is consistent with the solely payments of principal and interest criterion if the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for early termination of the contract. Additionally, for a financial asset acquired at a significant discount or premium, if the contractual par amount, a feature that permits or requires prepayment at an amount that substantially represents the contractual par amount plus accrued (but unpaid) intra-period interest (which may also include reasonable additional compensation for early termination) is treated as consistent with this criterion if the fair value of the prepayment feature is insignificant at initial recognition.

Trade receivables and other receivables meet solely payments of principal and interest test since principal is the present value of the expected cash flows. Those receivables are managed in line with the held to collect business model.

Financial assets: Subsequent measurement and gains and losses

Financial assets at FVTPL

Financial assets at FVTPL are comprised of derivatives. These assets are subsequently measured at fair value. Net gains and losses, including any interest, are recognized in profit or loss.

Financial assets at amortized cost

Financial assets at amortized cost are comprised of cash and cash equivalents, trade receivables, other receivables and other assets. These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on de-recognition is recognized in profit or loss.

Equity investments at FVOCI

Equity investments at FVOCI include the Group’s 68.4% of share of Cetelem. These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in OCI and are never reclassified to profit or loss.
2.3 Significant accounting policies (continued)

(a) Financial instruments (continued)

Cash and cash equivalents:

Cash and cash equivalents include cash held in cash deposits held in banks and other liquid investments with maturities of 3 months or less. Cash and cash equivalents used in the reporting of cash flows comprise cash and cash equivalents with a maturity of less than 3 months, excluding accrued interest income and blocked deposits. The Group calculates impairment by using the expected credit loss model in cases where cash and cash equivalents are not impaired for a certain reason. The expected credit loss calculation considers the past experiences of credit losses as well as the Group’s forecasts for the future.

Financial liabilities:

Classification, subsequent measurement and gains and losses:

Financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held-for-trading or if it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss. The Group does not have any financial liabilities at FVTPL except for derivative and issued debt instruments.

Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognized in profit or loss. Any gain or loss on derecognition is also recognized in profit or loss.

Non-derivative financial liabilities

The Group initially recognized debt securities issued and subordinated liabilities on the date that they were originated. All other financial liabilities were recognized initially on the trade date, which was the date that the Group becomes a party to the contractual provisions of the instrument.

The Group classified non-derivative financial liabilities into the other financial liabilities category except for issued debt instruments. Such financial liabilities are contractual obligation for the Group to deliver a variable number of its own equity instruments; or a derivative that would be settled at a variable number of its own equity instruments; or a derivative that would be settled in another entity’s own equity instruments; or a derivative that would be settled only by the Group exchanging a fixed amount of cash or another financial asset for a fixed number of its own equity instruments.

Borrowing costs:

If financing costs arising from the loans are associated with acquisition or construction of qualifying assets, they are included in cost value of qualifying assets. Qualifying assets refer to assets which require a long time to be available for use or sales as intended. Other borrowing costs are accounted in statement of profit or loss in the period they occur.

Derecognition

Financial assets

The Group derecognized a financial asset when the contractual rights to the cash flows from the asset expired or it transferred the rights to receive the contractual cash flows in a transaction in which substantially all the risks and rewards of ownership of the financial asset were transferred. Any interest in such transferred financial assets that was created or retained by the Group was recognized as a separate asset or liability.

Notes to the Consolidated Financial Statements

As at and for the Year Ended 31 December 2021

(Turkish lira thousands ("TL") unless otherwise stated; all other currencies are also disclosed in thousands)

Notes to the Consolidated Financial Statements (continued)
ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls.

ECLs are discounted at the effective interest rate of the financial asset.

For trade receivables, other receivables, other assets and contract assets the Group applies the simplified approach to providing for expected credit losses prescribed in TFRS 9, which requires the use of the lifetime expected loss provision for all trade receivables. The Group performed the calculation of ECL rates separately for individual, corporate, public and wholesale customers. The ECLs were calculated based on actual credit loss experience over the past years.

Exposures within each group were segmented based on common credit risk characteristics such as delinquency status.

Actual credit loss experience was adjusted to reflect differences between economic conditions during the period over which the historical data was based and current conditions and the Group’s view of economic activity and the expected lives of the receivables. Future collection performance of receivables is estimated by considering general economic conditions to incorporate forward looking information to the expected credit loss calculations.

Impairment losses on other financial assets are presented under ‘general administrative expenses’, similar to the presentation under IFRS 9. Impairment losses related to trade and other receivables, including contract assets, are presented separately in the statement of profit or loss.

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets.

Impairment losses related to trade and other receivables, including contract assets, are presented separately in the statement of profit or loss. Impairment losses on other financial assets are presented under ‘general administrative expenses’, similar to the presentation under IFRS 9, and not presented separately in the consolidated statement of profit or loss due to materiality considerations.

At each reporting date, the Group assesses whether financial assets carried at amortized cost are credit-impaired. A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable data:
- significant financial difficulty of the borrower or issuer;
- a breach of contract such as a default or being more than 90 days past due;
- the restructuring of a loan or advance by the Group on terms that the Group would not consider otherwise;
- it is probable that the borrower will enter bankruptcy or other financial re-organization;
- or the disappearance of an active market for debt securities.

Presentation of impairment in the statement of financial position

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets.

Impairment losses related to trade and other receivables, including contract assets, are presented separately in the statement of profit or loss. Impairment losses on other financial assets are presented under ‘general administrative expenses’, similar to the presentation under IFRS 9, and not presented separately in the consolidated statement of profit or loss due to materiality considerations.

Write-off

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group’s procedures for recovery of amounts due.

Financial assets are written off when there is no reasonable expectation of recovery, such as a debtor failing to engage in a repayment plan with the Group. Where trade receivables, other receivables, other assets and contract assets have been written off the Group continues to engage in enforcement activity to attempt to recover the receivable due. Where recoveries are made, these are recognized in profit or loss.

v. Derivative financial instruments

The Group has adopted TFRS 9 Financial Instruments, replacing TAS 39 in accordance with the risk management strategy and objectives as of 1 July 2018. The high-level aim of the new hedge accounting model is that financial reporting will reflect more accurately how an entity manages its risk and the extent to which hedging mitigates those risks. Specifically, the new model aims to provide a better link between an entity’s risk management strategy, the rationale for hedging and the impact of hedging on the financial statements.

The Group enters into participating cross-currency swap transactions in order to hedge the changes in cash flows of floating and fixed rate financial instruments. While applying cash flow hedge accounting, the effective portion of gains and losses is included in profit or loss. The changes recognized in equity is removed in profit or loss in the same period when the hedged cash flows effect the profit or loss. In addition, time value of options included in participating cross-currency swaps are accounted for cost of hedging and recognized under other comprehensive income.

Under IFRS 9, a hedging relationship is discontinued in its entirety when as a whole it no longer meets the qualifying criteria after considering the rebalancing of the hedging relationship. Voluntary discontinuation when the qualifying criteria are met is prohibited. Hedge accounting is discontinued when the risk management objective for the hedging relationship has changed; the hedging instrument expires or is sold, terminated or exercised; there is no longer an economic relationship between the hedged item and the hedging instrument or when the effect of credit risk starts dominating the value changes that result from the economic relationships.

When the Group discontinues hedge accounting for a cash flow hedge it shall account for the amount that has been accumulated in the cash flow hedge reserve in accordance as follows:
- if the hedged future cash flows are still expected to occur, that amount shall remain in the cash flow hedge reserve until the future cash flows occur;
- if the hedged future cash flows are no longer expected to occur that amount shall be immediately reclassified from the cash flow hedge reserve to profit or loss as a reclassification adjustment. A hedged future cash flow that is no longer highly probable to occur may still be expected to occur. The amount recognized in OCI prior discontinuation will be reclassified from OCI to Profit and Loss, in accordance with the contractual cash flow of the hedged item.

The new hedge effectiveness testing model is prospective only and can be qualitative, depending on the complexity of the hedge. Effectiveness range 80%-125% in TAS 39 is replaced by an objective-based tool that focuses on the economic relationship between the hedged item and the hedging instrument, and the effect of credit risk on that economic relationship.

b) Property, plant and equipment

i) Recognition and measurement

Property, plant and equipment (’PPE’) of the Group other than lands is carried at cost less accumulated depreciation and any accumulated impairment losses. The Group elected to measure property, plant and equipment of the Company on a deemed cost basis in the first period of application of TAS 29 ‘Financial Reporting in Hyper Inflationary Economies’ since detailed records of the acquisition data and costs of forms of PPE were not available for the Company prior to 1 January 2000. The deemed cost values for PPE as at the date of acquisition were determined by CBM licensed real-estate valuation companies. The network equipment and vehicles values were appraised by Detecon International GmbH (a subsidiary of Deutsche Telecom AG). Other than the PPE for which cost was determined on a deemed cost basis, the cost of PPE generally comprises its purchase price, including import duties and non-refundable purchase taxes and any directly attributable costs of bringing the asset to its working condition and location for its intended use. When PPE that are recognized at deemed cost basis or at cost are restated for the effects of inflation until 31 December 2004 in accordance with TAS 29.

Lands accounted as property, plant and equipment are measured at revalued amount. Revalued amount for lands is the fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Revaluations are performed in regular intervals depending on the changes in fair values of the items of lands being revalued.

The increase in carrying amount of lands as a result of revaluation is recognized in components of other comprehensive income. When lands’ carrying amount declines as a result of a revaluation, this declined amount is recognized in profit or loss.

However, the decline shall be recognized in other comprehensive income to the extent of any credit balance existing in the revaluation surplus. Thus, the relevant decline reduces the accumulated amount in equity under the heading of revaluation surplus.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
Notes to the Consolidated... all other currencies are also disclosed in thousands (Convenience translation of a report and financial statements originally issued in Turkish)
2. BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)
2.3 Significant accounting policies (continued)
b) Property, plant and equipment (continued)
i) Recognition and measurement (continued)
Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour costs are located and capitalized borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalized as part of that equipment. When parts of an item of property and equipment have different useful lives, they are accounted for as separate items (major components) of property and equipment.
Gains and losses on disposal of an item of property and equipment are calculated as the difference between the net proceeds from disposal and the carrying amount of the item and are recognized net within ‘income/(expense) from investing activities’ in profit or loss.

ii) Subsequent cost
The cost of replacing part of an item of property and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group and its cost can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing of property and equipment are recognized in consolidated statement of profit/(loss) as incurred.

iii) Depreciation
Depreciation is calculated effectively from purchase or replacement date to write off the cost of items of property, plant and equipment less their estimated residual values using the straight-line basis over their estimated useful lives. Land is not depreciated.

Useful lives of property, plant and equipment are as follows:

<table>
<thead>
<tr>
<th>Property and equipment</th>
<th>Useful life (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings</td>
<td>20-50 years</td>
</tr>
<tr>
<td>Outside plant</td>
<td>5-21 years</td>
</tr>
<tr>
<td>Transmission equipment</td>
<td>5-21 years</td>
</tr>
<tr>
<td>Switching equipment</td>
<td>5-8 years</td>
</tr>
<tr>
<td>Data networks</td>
<td>5-30 years</td>
</tr>
<tr>
<td>Vehicles</td>
<td>5 years</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Set-top box and satellite receiver</td>
<td>4-5 years</td>
</tr>
<tr>
<td>Other property, plant and equipment</td>
<td>2-8 years</td>
</tr>
</tbody>
</table>

Useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

The remaining useful lives of the PPE of the Company are limited to the concession periods. Considering the Concession Agreement, the remaining useful lives of tangible fixed assets are 5 years at the most.

Leased assets are depreciated by the same method used for property and equipment over the shorter of the lease term and their useful lives.

c) Intangible assets

i) Goodwill

Goodwill that arises on the acquisition of subsidiaries is included in intangible assets.

The Group measures goodwill at the acquisition date as:
- The fair value of the consideration transferred, plus
- The recognized amount of any non-controlling interests in the acquiree, plus
- If the business combination is achieved in stages, the fair value of the pre-existing equity interest in the acquiree, less
- The net recognized amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

When the excess is negative, a bargain purchase gain is recognized immediately in profit or loss. The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognized in profit or loss. Transactions costs, other than those associated with the issuance of debt or equity securities, that the Group inures in connection with a business combination are expensed as incurred.

Subsequent measurement

Goodwill is measured at cost less accumulated impairment losses.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Earnings in thousands of Turkish Lira ("TL") unless otherwise stated and other currencies are also disclosed in thousands)

2. BASES OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

2.3 Summary of significant accounting policies (continued)

a) Assets held for sale

The Group classifies a non-current asset as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use. For this to be the case, the asset (or the group of assets held for sale) must be available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such assets and its sale must be highly probable. The disposal of the asset must be unlikely to change within the next 12 months. The asset (or the group of assets held for sale) and an active program to sell the buyers and complete the plan must have been initiated. Furthermore, the asset (or the group of assets held for sale) must be actively marketed for sale at a price that is reasonable in relation to its fair value. In addition, the sale should be expected to qualify for recognition as a completed sale within one year from the date of classification and actions required to complete the plan should indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn. In case the period to complete sale of assets is extended due to circumstances which are not under the control of the Group, the assets will continue to be classified as assets held for sale provided that the Group has still an active sales program.

The Group measures assets held for sale at the lower of its carrying amount and fair value less costs to sell. The Group does not depreciate a non-current asset when it is classified as held for sale and the gain or loss arising from the sale of the assets is classified at income statement from investing activities accounts.

f) Leases

The Group has applied TFRS 16 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under TAS 17 and TFRS interpretation 4. The details of accounting policies under TAS 17 and TFRS interpretation 4 are disclosed separately.

g) Inventory

Inventories are recognized at the lower of cost and net realizable value. Costs comprise purchase cost and, where applicable, the overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average method. Net realizable value is the less marketing, selling and other various expenses to be incurred in order to realize sale.

h) Impairment

Non-financial assets

(Continued)

At each balance sheet date, the Group assesses whether there is an indication that any of its PPE and intangible assets may be impaired. If such an indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. The recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognized in the consolidated income statement.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined if no impairment loss had been recognized in the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognized immediately in the consolidated income statement.

Contingent liabilities

Goodwill is reviewed for impairment, annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. Whenever the carrying amount exceeds the recoverable amount, an impairment loss is recognized in the consolidated income statement.

For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the cash-generating units or groups of cash-generating units that are expected to benefit from the synergies of the acquisition, irrespective of whether other assets or liabilities are assigned to these units or groups of units. Each unit or group of units to which the goodwill is allocated represents the lowest level within the Group at which the goodwill is monitored for internal management purposes.

Impairment is determined by assessing the recoverable amount of the cash-generating unit (group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash-generating unit (group of cash-generating units) is less than the carrying amounts of the net assets assigned to the cash-generating unit, an impairment loss is recognized. Impairment losses relating to goodwill cannot be reversed in future periods.

i) Reserve for employee severance indemnity

Payments to defined contribution retirement benefit plans are charged as an expense in the year in which the contributions relate to payments made to the Social Security Institution of Turkey and Turkish Republic Retirement Fund are dealt with as defined contribution benefit plans where the Group’s obligations under the plans are equivalent to those arising in a defined contribution retirement benefit plan. The Group pays contributions to the Social Security Institution of Turkey on a mandatory basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognized as an employee benefit expense in the period to which the employees’ service relates.

For defined benefit plans and other long-term employment benefits, the cost of providing benefits is determined using the projected unit credit method with actuarial valuations being carried out at each balance sheet date. The Company recognizes the service cost of the period previous as expense at the earlier of the dates below:

- The date of the change or reduction in the plan, and
- The date of the recognition of the related restructuring costs (see TAS 37) or the benefits deriving from the termination of the employment contract.

The remeasure benefit obligation recognized in consolidated statement of financial position represents the present value of the defined benefit obligation as adjusted for any unrecognized past service cost. There is no funding requirement for defined benefit plans. The Group recognizes actuarial gains and losses in the other comprehensive income.

j) Provisions

Provisions are recognized when the Group has a present obligation as a result of a past event, and it is probable that an outflow of resources embodying economic benefits will be required to settle that obligation, and a reliable estimate can be made of the amount of the obligation. Provisions are measured at the management’s best estimate of the expenditure required to settle the obligation at the balance sheet date and are discounted to present value where the effect is material.

k) Contingent assets and liabilities

Possible assets or obligations that arise from past events and for which their existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not entirely within the control of the Group are treated as contingent assets or liabilities.

A contingent liability is disclosed, unless the possibility of an outflow of resources embodying economic benefits is remote. If the possibility of transfer of assets is probable, contingent liability is recognized in the financial statements.

A contingent asset is disclosed in consolidated financial statements when the possibility of an inflow of economic benefits to the entity is probable, and it has become virtually certain that the inflow of economic benefits will arise, the asset (or the group of assets held for sale) and an active program to set the buyers and complete the plan must have been initiated. Furthermore, the asset (or the group of assets held for sale) must be actively marketed for sale at a price that is reasonable in relation to its fair value. In addition, the sale should be expected to qualify for recognition as a completed sale within one year from the date of classification and actions required to complete the plan should indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

l) Related parties

a) Parties are considered related to the Company if a person or a close member of that person’s family is related to a reporting entity:

i. Is a member of the key management personnel of the reporting entity or any other entity is a member of the group.

ii. Has significant influence over the reporting entity, or

iii. Is a member of the key management personnel of the reporting entity or a parent of the reporting entity.

b) The entity and the reporting entity are members of the same group.

- The entity and the company are members of the same group.
- One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of which the other entity is a member).
- Both entities are joint ventures of the same third party.
- One entity is a joint venture of a third entity and the other entity is an associate of the third entity.
- The entity is a post-employment benefit plan for the benefit of employees of either the reporting entity or an entity related to the reporting entity. If the reporting entity is itself such a plan, the sponsoring employers are also related to the reporting entity.

The entity is controlled or jointly controlled by a person identified in (a).

A person identified in (a) who has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

2. BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

2.3 Summary of significant accounting policies (continued)

m) Revenue

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Group recognizes revenue when it transfers control over a product or service to a customer.

i) Fixed line revenues

Revenues from fixed-line telecommunication services like network access, local usage, domestic and international long distance and infrastructure leases are recognized on an accrual basis as services are provided. Connection fees that are assessed as distinct are recognized as revenue. Connection fees for activities that are an improvement to or an extension of the Group’s own network, rather than a transfer of goods or services to the customer are determined as not distinct and no separate revenue is recognized. For distinct connection fees in a bundle, revenue recognized is measured based on their stand-alone selling prices. The stand-alone selling prices of connection fees are estimated based on expected cost plus a margin approach. Distinct connection fees are immediately recognized as revenue when connection services are provided and the cost of connection is also recognized immediately as an expense.

Revenues from sale of indefeasible right of use contracts, which are long term capacity/line rental arrangements, are accounted over the term of the contract.

ii) Mobile revenues

Revenues generated from mobile telecommunication services such as outgoing and incoming traffic, roaming revenues, revenues from value-added services and monthly fees which are recognized at the time services are rendered. With respect to prepaid outgoing revenues, the Group generally collects cash in advance by selling scratch cards to dealers and distributors. In such cases, the Group does not recognize revenues until the subscribers use the service and present such amounts under deferred revenues in the consolidated financial statements.

The Group recognizes revenue based on the agreement between the Group and the content providers. As the Group is the primary obligor of the service, the revenue received from gross basis and the portion paid to the content providers is recognized as operating expense.

iii) Equipment sale revenues

Revenues from sales of phone device, modem and other network equipment are recorded as revenue when control over a product or service is transferred to a customer.

For bundled packages, the Group accounts for individual products and services separately if they are distinct - i.e. if a product or service is separately identifiable from other items in the bundled package and a customer can benefit from it either on its own or together with other resources that are readily available to the customer. The consideration is allocated between distinct products and services in a bundle based on their stand-alone selling prices. The stand-alone selling prices of the content are based on the list prices at which the Group sells those products and services separately. For items that are not sold separately the Group estimates stand-alone selling prices using the expected cost plus a margin approach. Equipment revenues are presented in other revenues. Cost of products and services are recognized as expense when related revenue is recognized.

iv) TV revenues

Revenues from TV subscriptions are charged to contract customers on a monthly basis. Revenues are invoiced and recorded as part of the periodic billing cycle and are recognized as the services are provided. Pay-per-view revenue is recognized when the movie is rented.

v) Other revenues

Revenues from sales of phone device, modem and other network equipment are recorded as revenue when control over a product or service is transferred to a customer.

For bundled packages, the Group accounts for individual products and services separately if they are distinct - i.e. if a product or service is separately identifiable from other items in the bundled package and a customer can benefit from it either on its own or together with other resources that are readily available to the customer. The consideration is allocated between distinct products and services in a bundle based on their stand-alone selling prices. The stand-alone selling prices of the content are based on the list prices at which the Group sells those products and services separately. For items that are not sold separately the Group estimates stand-alone selling prices using the expected cost plus a margin approach. Equipment revenues are presented in other revenues. Cost of products and services are recognized as expense when related revenue is recognized.

vi) Significant financing component

To estimate the transaction price in a contract, the Group adjusts the promised amount of consideration for the time value of money if that contract contains a significant financing component. Significant financing component exists if the timing of payments agreed to by the parties to the contract either explicitly or implicitly provides the customer or the Group with a significant benefit of financing the transfer of goods or services to the customer.

Indefeasible right of use (“IRU”) contracts of the Group is adjusted for significant financing component. For bundled contracts where the control of equipment is transferred to the customer upfront but collection is made in instalments, no significant financing component is recognized based on materiality considerations.

 Türk Telekom 2021 Annual Report

 Türk Telekom 2021 Annual Report
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

2 BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

2.3 Summary of significant accounting policies (continued)

i) Deferred tax (continued)

Deferred tax is not recognised for:
- Temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit and loss.
- Temporary differences related to investments in subsidiaries, associates and joint arrangements to the extent that the Group’s ability to control the timing of the reversal of the temporary differences and it is probable that they will not reverse in the foreseeable future and
- Taxable temporary differences arising on the initial recognition of goodwill.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

The Company and the other consolidated subsidiaries have reflected their deferred tax asset and liabilities by netting their individual balances, however, there is no netting on a consolidation basis. Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset realised.

Deferred tax assets are recognised for unused tax losses, unused tax credits, a deductible temporary difference to the extent that it is probable that future taxable profits will be available against which they can be used. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

The Group has revalued certain tangible assets in its financial statements prepared in accordance with the Tax Procedure Law, in accordance with the provisions of the Law No. 7326 on the revaluation of immovables and other depreciable assets. As a result of the revaluation, the change in revaluation of immovables and other depreciable assets is accounted for in a special fund account under shareholders’ equity in the financial statements prepared in accordance with the Tax Procedure Law. Since the related revaluation increases are an inflation adjustment in substance, revaluation increases have not been recognised in the financial statements prepared in accordance with TFRS. The deferred tax calculated on the temporary differences resulting from this adjustment has been recognised in profit and loss.

iii) Tax exposures

In determining the amount of current and deferred tax the Group considers the impact of uncertain tax positions and whether additional taxes and interest may be due. This assessment relies on estimates and assumptions and may involve a series of judgments about future events. New information may become available that causes the Group to change its judgment regarding the advisability of existing tax liabilities, such changes to tax liabilities will impact the period in which that a determination is made.

The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience.

s) Segment reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Group’s other components. All operating segments’ operating results are reviewed regularly by the Group’s Board of Directors to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available.

1) Determination of fair values

A number of the Group’s accounting policies and disclosures require the determination of fair value, for both financial and non-financial assets and liabilities. Fair values have been determined for measurement and/or disclosure purposes based on the following methods. When applicable, further information about the assumptions made in determining fair values is disclosed in the notes specific to that asset or liability.

i) Trade and other receivables

The fair values of trade and other receivables is estimated as the present value of future cash flows discounted at the market rate of interest at the reporting date. Short-term receivables with stated interest rates are measured at the original invoice amount if the effect of discounting is immaterial. This fair value is determined at initial recognition and at the end of each reporting period for disclosure purposes.

ii) Derivatives

The fair value of interest rate swaps and forward exchange contracts are based on broker quotes. Those quotes are tested for reasonableness by discounting estimated future cash flows based on the terms and maturity of each contract and using market interest rates for a similar instrument at the measurement date. Fair values reflect the credit risk of the instrument and include adjustments to take account of the credit risk of the Group entity and counterparty when appropriate.

The amendments provide temporary relief to entities from having to meet the separately identifiable requirement when an RFR instrument is designated as a hedge of a risk component.

1.5 Anti-corruption, 2021 in Brief
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
Notes to the Consolidated ... in thousands of Turkish Lira (“TL”) unless otherwise stated, all other currencies are also disclosed in thousands

2 BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

2.3 Summary of significant accounting policies (continued)
i) The new standards, amendments and interpretations which are effective as of January 1, 2021 are as follows (continued)

Additional disclosures
Amendments need additional TFRS 7 Financial Instruments disclosures such as:

How the entity is managing the transition to IFRS. Its progress and the risks to which it is exposed arising from financial instruments due to IFRS 9, quantitative information about financial instruments that have yet to transition to IFRS 9 and IFRS 9 IFRS 9 has given rise to changes in the entity’s risk management strategy, a description of these changes

The amendments are mandatory, with earlier application permitted. While application is retroactive, an entity is not required to restate prior periods.

The amendments did not have a significant impact on the financial position or performance of the Group

As at 31 December 2021, the derivative variable and non-derivative financial instruments owned by the Group consist of loans, Eurobonds and bonds. As of 31 December 2021, the interest rates applicable to existing financial instruments have not changed as a result of the IFRS 9 IFRS 9 has given rise to changes in the entity’s risk management strategy, a description of these changes


In June 2020, the POA issued amendments to IFRS 16 Leases to provide relief to lessees from applying IFRS 16 guidance on lease modifications to rent concessions arising as a direct consequence of the Covid-19 pandemic. On April 7, 2021, POA extended the exemption to include concessions that cause a decrease in lease payments whose maturity expired on or before June 30, 2022.

A lessee will apply the amendment for annual reporting periods beginning on or after 1 April 2021. Early application of the amendments is permitted. The Group is in the process of assessing the impact of the amendments on financial position or performance of the Group.

ii) Standards issued but not yet effective and not early adopted

Standards, interpretations and amendments to existing standards that are issued but not yet effective up to the date of issuance of the consolidated financial statements are as follows. The Group will make the necessary changes if not indicated otherwise, which will be affecting the consolidated financial statements and disclosures, when the new standards and interpretations become effective.

Amendments to TFRS 10 and TAS 28: Sala or Contribution of Assets between an Investor and its Associates or Joint Venture

In December 2017, POA postponed the effective date of this amendment indefinitely pending the outcome of its research project on the equity method of accounting. Early application of the amendments is still permitted. The Group will wait until the final amendment to assess the impacts of the changes.

Amendments to TFRS 3 - Reference to the Conceptual Framework

In July 2020, the POA issued amendments to TFRS 3 Business combinations. The amendments are intended to replace a reference to a previous version of the Conceptual Framework (the 1989 Framework) with a reference to the current version issued in March 2018 (the Conceptual Framework) without significantly changing requirements of TFRS 3. At the same time, the amendments add a new paragraph to TFRS 3 to clarify that contingent assets do not qualify for recognition at the acquisition date. The amendments issued to TFRS 3 which are effective for periods beginning on or after 1 January 2022 and must be applied prospectively. Earlier application is permitted if, at the same time or earlier, an entity also applies all of the amendments contained in the Amendments to the Conceptual Framework in TFRS standards (2018 Version).

The Group is in the process of assessing the impact of the amendments on financial position or performance of the Group.

Amendments to TAS 16 - Proceeds before intended use

In July 2020, the POA issued amendments to TAS 16 Property, plant and equipment. The amendment prohibits entities from deducting from the cost of an item of property, plant and equipment (PPPE), any proceeds of the sale of items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and costs of producing those items, in profit or loss. The amendments issued to TAS 16 which are effective for periods beginning on or after 1 January 2022. Amendments must be applied prospectively only to items of PPPE made available for use on or after beginning of the earliest period presented when the entity first applies the amendment. There is no transition relief for the first-time adopters. The Group is in the process of assessing the impact of the amendments on financial position or performance of the Group.

Amendments to TFRS 17 - The new Standard for insurance contracts

In August 2021, the POA issued amendments to TFRS 17 Insurance contract recognition, measurement, presentation and disclosure. TFRS 17 model combines a current balance sheet measurement of insurance contract liabilities with the recognition of profit over the period that services are provided. TFRS 17 will become effective for annual reporting periods beginning on or after 1 January 2023, early application is permitted. The standard is not applicable for the Group and will not have an impact on the financial position or performance of the Group.

Amendments to TFRS 17 - Classification of Liabilities as Current and Non-CURRENT Liabilities

On January 15, 2021, the POA issued amendments to “TAS 1 Presentation of Financial Statements”. The amendments issued to TAS 1 are effective for periods beginning on or after 1 January 2023. Amendments to the classification of liabilities as either current or non-current. Amendments must be applied prospectively in accordance with “TAS 8 Accounting Policies, Changes in Accounting Estimates and Errors” Early application is permitted.

The Group is in the process of assessing the impact of the amendments on financial position or performance of the Group.

Amendments to TFRS 18 - Definition of Accounting Estimates

In August 2021, the POA issued amendments to TFRS 8, in which it introduces a new definition of ‘accounting estimates’. The amendments issued to TFRS 8 are effective for annual periods beginning on or after 1 January 2023. The amendments clarify the definitions between changes in accounting estimates and changes in accounting policies and the correction of errors. Also, the amendments standard clarifies that the effects on an accounting estimate of a change in an input or a change in a measurement technique are changes in accounting estimates if they do not result from the correction of prior period errors. The previous definition of a change in accounting estimate specified that changes in accounting estimates may result from new information or new developments. Therefore, such changes are not corrections of errors. This aspect of the definition was retained by the POA. The amendments apply to changes in accounting policies and changes in accounting estimates that occur on or after the start of the effective date. Earlier application is permitted.

Overall, the Group expects no significant impact on its balance sheet and equity.

Amendments to TFRS 18 - Disclosure of Accounting Policies

In August 2021, the POA issued amendments to TFRS 8, in which it provides guidance and examples to help entities apply materiality judgments to accounting policies disclosures. The amendments issued to TFRS 8 are effective for annual periods beginning on or after 1 January 2023. In the absence of a definition of the term ‘significant’ in TFRS, the POA decided to replace it with ‘material’ in the context of disclosing accounting policies. Material is a defined term in TFRS and is widely understood by the users of financial statements, according to the POA. In assessing the materiality of accounting policy information, entities need to consider both the size of the transactions, other events or conditions and the nature of them. Examples of circumstances in which an entity is likely to consider accounting policy information to be material have been added.

Overall, the Group expects no significant impact on its balance sheet and equity.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Convenience translation of a report and financial statements originally issued in Turkish)

2 BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

2.3 Summary of significant accounting policies (continued)

ii) Standards issued but not yet effective and not early adopted (continued)

Amendments to TAS 12 - Deferred Tax related to Assets and Liabilities arising from a Single Transaction

In August 2021, the POA issued Amendments to TFRS Standards 2018-2020 Cycle, amending the following:
- TFRS 1 First-time Adoption of International Financial Reporting Standards - Subsidiary as a first-time adopter: The amendment permits a subsidiary to measure cumulative translation differences using the amounts reported by the parent, as amended:
- TFRS 9 Financial Instruments - Fees in the “10 per cent test” for derecognition of financial liabilities: The amendment clarifies that fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the financial liability:
- TFRS 41 Agriculture - Taxation in fair value measurements: The amendment removes the requirement in paragraph 22 of TAS 41 that entities compute tax on fair value gains or losses on measuring fair value of assets within the scope of TFRS 41.

Improvements are effective for annual reporting periods beginning on or after 1 January 2022. Earlier application is permitted for all.

The Group is in the process of assessing the impact of the amendments on financial position or performance of the Group Annual Improvements - 2018-2020 Cycle

The Group makes sales campaigns with suppliers under which they bundle telecommunication services with equipment supplied by the suppliers. The Group management accounts bundled offers as an agent if the sale satisfies the following conditions:
- Group has no inventory risk.
- Group does not make any modification on the equipment.
- Group earns either a fixed rate of commission or profit on the transaction.
- Group is not the main contractor in the sale.
- Group has no control over device sales prices.

Prepaid Card Sales Agent - Principal Analysis: Since TT Mobil is primarily responsible for providing the service, has credit and inventory risk and determines in setting prices, starting from April 2020, TT Mobil recognizes prepaid card incomes on a gross basis.

Key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are discussed below:

The Group determines whether property, plant and equipment are impaired by estimating the recoverable amount of the assets. Key sources of estimation uncertainty

The Group determines whether property, plant and equipment are impaired by estimating the recoverable amount of the assets.

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Prepaid Card Sales Agent - Principal Analysis: Since TT Mobil is primarily responsible for providing the service, has credit and inventory risk and determines in setting prices, starting from April 2020, TT Mobil recognizes prepaid card incomes on a gross basis.

2.4 Significant accounting assessments, estimates and assumptions (continued)

iv) Significant accounting assessments, estimates and assumptions (continued)

Assumptions used by Company in goodwill impairment test are explained in Note 16. The Group determines the useful life of an asset considering general economic conditions to incorporate forward looking information to the expected credit loss calculations.

Assumptions used by Company in goodwill impairment test are explained in Note 16. The Group determines the useful life of an asset considering general economic conditions to incorporate forward looking information to the expected credit loss calculations.

2.4 Significant accounting assessments, estimates and assumptions (continued)

v) Liabilities within the scope of vendor financing: For capital expenditures, the Group carries out vendor financing with some of the suppliers in accordance with the agreements made with banks and those suppliers. Since the terms are not substantially different with the discounted present value of the cash flows under the new terms of the liabilities, the Group continues to classify those liabilities as trade payables.

vi) Copper cable disposals: The Group recognizes disposal cost of copper cable in profit or loss corresponding to 26% of the carrying value of the cable during the fiber conversion process.

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Notes to the Consolidated Financial Statements  
As at and for the Year Ended 31 December 2021  
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)  
(Convenience translation of a report and financial statements originally issued in Turkish)

2. BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

The Group’s consolidated financial statements are presented together with the comparatives for the previous year enabling comparison of the financial condition and performance trends. Where necessary, comparative figures of the financial statements have been reclassified to conform to changes in presentation of the current period financial statements. The Group management considered that it is appropriate to have such reclassifications when they provide more relevant information to users of the financial statements.

As of 31 December 2020, the Group reclassified TFRS 15 contract assets amounting to TL 902.616 and TL 77.130, which were accounted under short-term trade receivables and long-term trade receivables, into short-term Contract assets and long-term Contract assets accounts, respectively.

As of 31 December 2020, the Group reclassified the amortization expenses of the assets capitalized within the scope of TFRS Interpretation 12, amounting to TL 599.183, which was accounted under the marketing, sales and distribution expenses account, to the cost of sales account.

The Group has reclassified TFRS 15 contract liabilities of TL 136.445 and TL 102.498, which were accounted under other non-current liabilities and other current liabilities as of 31 December 2020, to contract liabilities account.

3. SEGMENT REPORTING

The Group has two main segments, fixed line and mobile. Fixed line services are provided by Turk Telekom, TNET, Argela, Innovia, Soket, Asctt, TTES, TT Ventures, TT Dostok Hizmetler and TTINT Group whereas mobile services is provided by TT Mobil. Group management assesses segment performance over earnings before interest, tax, depreciation and amortization (“Adjusted EBITDA”). Adjusted EBITDA is calculated by adjusting the operating income by i) adding income/expenditure from investing activities, depreciation, amortization and impairment expenses and ii) deducting exchange gains/losses, interest and redeemable income/expenses on current accounts presented in other operating income and expense. Group management uses adjusted EBITDA as it is comparable with other companies in the sector. EBITDA is not a measure of financial performance indicator defined in TFRS and may not be comparable to similar indicators defined by other companies. As Group management does not monitor Group’s performance over geographical segments, geographical segment reporting is not presented. The segment results and balance sheet items are presented below:

<table>
<thead>
<tr>
<th>Fixed line</th>
<th>Mobile</th>
<th>Eliminations</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 January - 31 December 2021</td>
<td>1 January - 31 December 2020</td>
<td>1 January - 1 January - 31 December 2021</td>
<td>31 December 2021</td>
</tr>
</tbody>
</table>

Revenues (1) 25,270,763 20,554,774 11,526,324 9,930,043 (2,524,153) (2,167,942) 34,272,934 26,288,875
International revenue 2,004,470 1,471,029 - - - - 2,004,470 1,471,029
Contributed revenue (1) 22,797,215 18,432,126 11,475,719 8,956,488 - - 28,691,336 24,744,665
EBITDA 12,852,115 10,455,268 3,581,936 2,638,071 (19,022) (56,427) 16,415,129 13,236,912
Adjusted EBITDA (1) 11,423,383 8,987,131 4,994,716 4,249,761 - - 16,415,129 13,236,912
Capital expenditure (1) 6,342,797 4,498,761 2,484,772 2,257,243 (2,856,045) (8,804,713) 6,738,959
Impairments, losses, net (772,325) (291,529) (479,151) (30,731) - - (220,240) (342,260)
Depreciation and amortization (3,471,892) (2,913,602) (2,697,433) (2,405,390) - - (6,169,325) (5,318,992)

(1) Revenues include international revenues.
(1) Contributed revenue represents operating segments’ revenues from companies other than those included in the consolidated financial statements. Group management does not monitor financial performance of the segments based on their separate financial statements and because of this there is no change at the segment information disclosed. However, contribution of operating segments on the Group’s revenue is presented to give additional information to the readers of the financial statements.

4. CASH AND CASH EQUIVALENTS

<table>
<thead>
<tr>
<th>Fixed line</th>
<th>Mobile</th>
<th>Eliminations</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 December 2021</td>
<td>31 December 2020</td>
<td>31 December 2021</td>
<td></td>
</tr>
</tbody>
</table>

Cash and cash equivalents 7,696,870 5,007,927

As of 31 December 2021, time deposits are all short-term, maturing within one month and denominated in both foreign currencies and TL. The interest rates are between 5.50% and 20.25% for TL deposits, between 0.20% and 11.50% for USD deposits and between 0.25% and 6.55% for EUR deposits (31 December 2020: for TL deposits between 5.50% and 18.75%, for USD deposits between 0.25% and 3.30%, for EUR deposits between 0.85% and 2.90%).

Reconciliation of cash and cash equivalents to the statement of cash flows is as follows:

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents 7,696,870 5,007,927</td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents less: restricted amounts - Unrestricted cash 6,344,885 4,370,917</td>
<td></td>
</tr>
</tbody>
</table>

Notes to the Consolidated Financial Statements  
As at and for the Year Ended 31 December 2021  
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)  
(Convenience translation of a report and financial statements originally issued in Turkish)

3. SEGMENT REPORTING (CONTINUED)

<table>
<thead>
<tr>
<th>1 January - 31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed line contributed EBITDA 11,421,383 8,987,131</td>
<td></td>
</tr>
<tr>
<td>Mobile contributed EBITDA 4,991,746 4,249,761</td>
<td></td>
</tr>
<tr>
<td>EBITDA 16,415,129 13,236,912</td>
<td></td>
</tr>
<tr>
<td>Foreign exchange gains, interest income, discount income on current accounts presented in other operating income 261,406 143,508</td>
<td></td>
</tr>
<tr>
<td>Foreign exchange losses, interest income, discount income on current accounts presented in other operating expense (1) (1,422,942) (442,426)</td>
<td></td>
</tr>
<tr>
<td>Financial income 5,015,420 998,337</td>
<td></td>
</tr>
<tr>
<td>Financial expense (1) (8,445,964) (4,709,106)</td>
<td></td>
</tr>
<tr>
<td>Depreciation, amortization and impairment (6,202,207) (5,375,284)</td>
<td></td>
</tr>
<tr>
<td>Consolidated profit before tax 5,620,842 3,801,941</td>
<td></td>
</tr>
</tbody>
</table>
| ** *) “Contributed EBITDA” represents operating segments’ EBITDA arose from transactions with companies other than those included in the consolidated financial statements.

Financial Information Corporate Governance Türk Telekom Group Companies 2021 Activities Management 2021 at a Glance Türk Telekom in Brief
### 4. CASH AND CASH EQUIVALENTS (CONTINUED)

The Group classifies blocked cash amounts under cash and cash equivalents as they are easily convertible into cash and highly liquid assets that are not exposed to impairment loss. As of 31 December 2021, demand deposits amounting to TL 417,731,000 is restricted due to collection protocols signed with banks for receipts from the subscribers, under which proceeds are made available to the Group a certain number of days after the cash is collected. As of 31 December 2021, other restricted amounts consist of blocked deposits related to Group’s derivative financial instruments.

As of 31 December 2021, the Group maintains available credit line amounting to USD 90,000 until 30 March 2022 and USD 27,000 until 30 March 2023 which in total amounted to USD 117,000.

### 5. FINANCIAL LIABILITIES

#### Bank borrowings

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted average nominal interest rate (%)</td>
<td>Original amount</td>
</tr>
<tr>
<td>Short-term bank loans</td>
<td></td>
</tr>
<tr>
<td>Unsecured EUR bank borrowings with fixed interest rates</td>
<td>1.45%</td>
</tr>
<tr>
<td>Unsecured Y mn bank borrowings with variable interest rates</td>
<td>-</td>
</tr>
<tr>
<td>Interest accruals:</td>
<td></td>
</tr>
<tr>
<td>Unsecured TL bank loans with fixed interest rates</td>
<td>-</td>
</tr>
<tr>
<td>Unsecured EUR bank loans with fixed interest rates</td>
<td>-</td>
</tr>
<tr>
<td>Unsecured Y mn bank borrowings with variable interest rates</td>
<td>-</td>
</tr>
<tr>
<td>Short-term bank loans</td>
<td>-</td>
</tr>
<tr>
<td>Short-term portion of long-term bank loans</td>
<td>-</td>
</tr>
<tr>
<td>Unsecured USD bank loans with variable interest rates 1)</td>
<td>0.87%</td>
</tr>
<tr>
<td>Interest accruals of long-term bank loans:</td>
<td></td>
</tr>
<tr>
<td>Unsecured USD bank loans with variable interest rates 1)</td>
<td>-</td>
</tr>
<tr>
<td>Unsecured Y mn bank borrowings with variable interest rates 2)</td>
<td>-</td>
</tr>
<tr>
<td>Current portion of long-term bank loans</td>
<td>-</td>
</tr>
<tr>
<td>Total short-term bank loans</td>
<td>-</td>
</tr>
<tr>
<td>Long-term bank loans</td>
<td>-</td>
</tr>
<tr>
<td>Unsecured USD bank loans with variable interest rates 1)</td>
<td>-</td>
</tr>
<tr>
<td>Long-term bank loans</td>
<td>-</td>
</tr>
</tbody>
</table>

1) As at 31 December 2021, interest rate varies between Libor + 0.54% and 2.85% (31 December 2020: Libor + 0.54% and 2.85%).
2) As at 31 December 2021, interest rate varies between Euribor + 0.35% and 2.00% (31 December 2020: Euribor + 0.35% and 2.00%).

The current period movements of bank loans are disclosed in Note 26.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

5. FINANCIAL LIABILITIES (CONTINUED)

Issued debt instruments (continued)
The current period movements of issued debt instruments are disclosed in Note 25.
The sales process of the bond issuances amounted to USD 500.000 with 6 years of maturity, and 6.875% coupon rate based on 7% reoffered yield and completed on February 28th, 2019. The bonds are now quoted at Irish Stock Exchange.
The sales process of the bond issuances amounted to USD 500.000 with 10 years of maturity, and 4.878% coupon rate based on 4.982% reoffered yield and completed on June 19th, 2014. The bonds are now quoted at Irish Stock Exchange. The part of the bond amounting to USD 20.000 was repurchased between 5th - 14th February 2019 and was netted off from the total bond amount according to its fair value.
The sales processes of the bond issuances amounted to TL 150.000 with 402-day of maturity and interest rate 1.75% over the BIST TL overnight interest rate (TURF Index) was completed on December 14th, 2020. The issuance was advised by As yatem Monul Debiger A S.
The contractual maturities of issued long term bills, bonds and notes in equivalent of TL are as follows:

A.Ş.

The sales processes of the bond issuances amounted to USD 500.000 with 6 years of maturity, and 6,875% coupon rate based on 7% reoffered yield was completed on February 28th, 2019. The bonds are now quoted at Irish Stock Exchange. The part of the bond amounting to USD 20.000 was repurchased between 5th - 14th February 2019 and was netted off from the total bond amount according to its fair value.
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6. TRADE RECEIVABLES AND PAYABLES FROM AND CONTRACT ASSETS TO UNRELATED PARTIES

Trade receivables

Trade receivables generally have a maturity term of 60 days on average (31 December 2020: 60 days).
The movement of the allowance for doubtful receivables is as follows:

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

6. TRADE RECEIVABLES AND PAYABLES FROM AND CONTRACT ASSETS TO UNRELATED PARTIES

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Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

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Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

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Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

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Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

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As at and for the Year Ended 31 December 2021

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Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

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Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

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As at and for the Year Ended 31 December 2021

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Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

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As at and for the Year Ended 31 December 2021

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The movement of the allowance for doubtful receivables is as follows:
6. TRADE RECEIVABLES AND PAYABLES FROM AND CONTRACT ASSETS TO UNRELATED PARTIES (CONTINUED)

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td></td>
</tr>
<tr>
<td>Trade payables</td>
<td>7,065,738</td>
</tr>
<tr>
<td>Expense accruals</td>
<td>663,429</td>
</tr>
<tr>
<td><strong>Total short-term trade payables</strong></td>
<td><strong>7,729,147</strong></td>
</tr>
</tbody>
</table>

The average maturity term of trade payables is between 30 and 150 days (31 December 2020: 30 and 150 days).

As of 31 December 2021, short term trade payables consist of payables within scope of supplier finance that amounting TL 999,666 (31 December 2020: TL 1,088,089).

7. RIGHT OF USE ASSETS

The carrying amounts of right-of-use assets as of 31 December 2021 are as below:

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site rent</td>
<td>1,006,892</td>
</tr>
<tr>
<td>Vehicles</td>
<td>333,317</td>
</tr>
<tr>
<td>Building</td>
<td>179,201</td>
</tr>
<tr>
<td><strong>Total right of use assets</strong></td>
<td><strong>1,578,893</strong></td>
</tr>
</tbody>
</table>

As of 31 December 2021 the Group capitalized TL 835,616 right of use asset (31 December 2020: TL 909,960).

As of 31 December 2021, the Group recognised TL 3,794,454 of depreciation charges (Site rent: TL 379,454, Building: TL 1,399,743, Vehicles: TL 1,163,133 and Other: TL 847,119 (31 December 2020: TL 693,226) and TL 2,918,548 of financial expense from these leases (31 December 2020: TL 2,051,799).

8. DUE FROM AND DUE TO RELATED PARTIES

DUE FROM RELATED PARTIES

Details of balances and transactions between the Group and other related parties as of 31 December 2021 and 31 December 2020 are disclosed below:

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due from related parties (Trade receivables short - term)</td>
<td></td>
</tr>
<tr>
<td>Türkiye Garanti Bankası A.Ş.</td>
<td>45,378</td>
</tr>
<tr>
<td>Akbank T.A Ş.</td>
<td>6,292</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>53,669</strong></td>
</tr>
</tbody>
</table>

DUE TO RELATED PARTIES

Details of balances and transactions between the Group and other related parties as of 31 December 2021 and 31 December 2020 are disclosed below:

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits held by related parties</td>
<td></td>
</tr>
<tr>
<td>Türkiye İş Bankası A.Ş.</td>
<td>2,029</td>
</tr>
<tr>
<td>Demand Deposit</td>
<td>172,026</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>174,055</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akbank T.A Ş.</td>
<td>12,978</td>
</tr>
<tr>
<td>Demand Deposit</td>
<td>106,992</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>119,970</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Türkiye Garanti Bankası A.Ş.</td>
<td>2,816</td>
</tr>
<tr>
<td>Demand Deposit</td>
<td>142,498</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>145,314</strong></td>
</tr>
</tbody>
</table>

8. DUE FROM AND DUE TO RELATED PARTIES (CONTINUED)

Institutions under state control are defined as related parties due to 25% ownership and the golden share of the Treasury. State controlled entities are defined as related parties but in accordance with the exemption provided by the TAS 24 disclosure requirements, state controlled entities are excluded from general reporting requirements.

The parent company and controlling party of the Company is LYY Telekomünikasyon A.Ş. (‘LYY’).

Transactions with related parties are carried out with the following party/parties;

(1) Equity holders of the parent

Transactions between the Group and its subsidiaries, which are related parties of the Group, are not disclosed in this note as they are eliminated on consolidation.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Currency in thousands of Turkish Lira ("TL") unless otherwise stated; all other currencies are also disclosed in thousands)
(Convenience translation of a report and financial statements originally issued in Turkish)

8. DUE FROM AND DUE TO RELATED PARTIES (CONTINUED)

Hedge Transactions from Related Parties

<table>
<thead>
<tr>
<th>Bank</th>
<th>Instruments Type</th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal Amount</td>
<td>Fair Value Amount (TL)</td>
<td>Nominal Amount</td>
</tr>
<tr>
<td>Albaraka Türk 1A Ş. 1)</td>
<td>Foreign Currency Swaps EUR</td>
<td>49,000</td>
<td>70,022</td>
</tr>
<tr>
<td>Albaraka Türk 1A Ş. 1)</td>
<td>Foreign Currency Swaps USD</td>
<td>80,000</td>
<td>30,961</td>
</tr>
<tr>
<td>Albaraka Türk 1A Ş. 1)</td>
<td>Forwards -</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Albaraka Türk 1A Ş. 1)</td>
<td>Forwards -</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Türkiye Garanti Bankası A.Ş. 1)</td>
<td>Foreign Currency Swaps USD</td>
<td>35,000</td>
<td>39,694</td>
</tr>
<tr>
<td>Türkiye Garanti Bankası A.Ş. 1)</td>
<td>Foreign Currency Swaps EUR</td>
<td>22,000</td>
<td>(5,332)</td>
</tr>
<tr>
<td>Türkiye Garanti Bankası A.Ş. 1)</td>
<td>Forwards USD</td>
<td>8,433</td>
<td>35,263</td>
</tr>
<tr>
<td>Türkiye İş Bankası A.Ş. 1)</td>
<td>Foreign Currency Swaps USD</td>
<td>35,000</td>
<td>50,259</td>
</tr>
</tbody>
</table>

$221,073 (166,422)

The amount of the guarantee given to the related companies for the financing of the device purchases by the distributor companies and sold to the Group customers within the scope of the committed campaigns is disclosed in Note 24.

Transactions with shareholders:
TT Mobil is required under the terms of the TT Mobil Concession Agreement, to pay 15% share to the Treasury (the Treasury Share) of its monthly net revenue to ICTA.

Key management personnel comprise the Group’s members of Board of Directors and top managers.

9. OTHER RECEIVABLES AND PAYABLES

Other short term receivable

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term benefits</td>
<td>-</td>
</tr>
<tr>
<td>Long-term benefits</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>112,395</strong></td>
</tr>
</tbody>
</table>

Key management personnel comprise the Group’s members of Board of Directors and top managers.

9. OTHER RECEIVABLES AND PAYABLES

Other long term receivables

As of 31 December 2021, TL 37,695 (31 December 2020: TL 31,080) portion of other short term receivables consists of receivables from Ministry of Transport and Communications due to the expenditure for service of Universal Service Fund.

As of 31 December 2021, other doubtful provision amounting to TL 5147 (31 December 2020: TL 9,420) is provided while TL 3,377 (31 December 2020: TL 3,606) is reversed.

Other long term receivables

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits and guarantees given</td>
<td>38,739</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38,739</strong></td>
</tr>
</tbody>
</table>

The Group generates revenues from related parties by providing fixed voice, corporate data, mobile and internet services.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(All figures in thousands of Turkish Lira ("TL") unless otherwise stated; all other currencies are also disclosed in thousands)

11. DEFERRED TAX ASSETS AND LIABILITIES
The Group calculates deferred tax assets and liabilities based on temporary differences arising between the carrying amount of assets and liabilities as reported under Turkish Accounting Standards and their tax base for statutory purposes. These temporary differences are mainly due to the timing differences of certain income and expense items in statutory and Turkish Accounting Standards financial statements as disclosed below.

Deferred tax assets
Deferred tax asset/(liability), net
31 December 2021 31 December 2020
Deferred tax asset recognized from tax losses carried forward 1,064,993 606,474 - - 1,064,993 606,474
Deferred tax asset arising from capital increase 329,864 27,241 - - 329,864 27,241
Deferred tax asset recognized from capital allowance 690,962 22,443 - - 690,962 22,443
Provision for long-term employee benefits 209,527 206,606 - - 209,527 206,606
Provision for doubtful receivables 34,332 28,122 (6,148) (10,642) 28,184 17,480
Derivative instruments - - (720,989) (112,714) (720,989) (112,714)
Issued debt instruments 33,254 36,509 - - 33,254 36,509
Temporary differences on property, plant and equipment/intangible assets 754,737 691,379 (989,415) (1,152,494) (234,678) (461,115)
R&D investment incentive 184,701 - - - 184,701 -
Other 1,543,023 22.443 - - 1,543,023 22.443
Deferred tax asset/(liability) before net-off 4,844,593 1,665,476 (2,785,166) (1,292,084) 2,059,427 573,392
Net-off of tax (2,482,186) (1,292,084) 2,482,186 576,951 - - 2,059,427 573,392
Deferred tax asset/(liability) 2,362,407 1,288,525 (302,900) (715,133) 2,059,427 573,392

Deferred tax liabilities
Deferred tax liability 31 December 2021 31 December 2020
Employee’s income tax payables 78,781 72,625 - - 78,781 72,625
Deferred tax liability 31 December 2021 31 December 2020
Provision for doubtful receivables 28,184 17,480 - - 28,184 17,480
Deferred tax liability (320,989) (112,714) (720,989) (112,714) (720,989) (112,714)
Issued debt instruments 33,254 36,509 - - 33,254 36,509
Deferred tax liability (33,254) (36,509) (33,254) (36,509)
Temporary differences on property, plant and equipment/intangible assets 754,737 691,379 (989,415) (1,152,494) (234,678) (461,115)
R&D investment incentive 184,701 - - - 184,701 -
Other 1,543,023 22.443 - - 1,543,023 22.443
Deferred tax liability (548,128) (253,567)

As of 31 December 2021, 20% and 23% tax rate are used for the calculation of deferred tax assets and liabilities for companies established in Turkey depending on the estimation of on which years temporary differences will reverse (31 December 2020: 20%).

12. OTHER CURRENT ASSETS, OTHER LIABILITIES AND EMPLOYEE BENEFIT OBLIGATIONS
Other current assets
31 December 2021 31 December 2020
Value Added Tax ("VAT") and Special Communication Tax ("SCT") 336,480 73,777
Intermediary services for collection (*) 155,026 121,747
Advances given (**) 15,828 44,499
Other current assets 40,794 13,544
Net deferred tax asset/(liability) 2,362,407 1,288,525 (302,900) (715,133) 2,059,427 573,392

Other current liabilities
31 December 2021 31 December 2020
Employee benefit obligations
31 December 2021 31 December 2020
Social security premiums payables 85,148 64,736
Employee’s income tax payables 78,781 62,407
Payables to personnel 51,185 72,625
Net deferred tax asset/(liability) 2,362,407 1,288,525 (302,900) (715,133) 2,059,427 573,392

13. PREPAID EXPENSES AND DEFERRED REVENUES
Short-term prepaid expenses
31 December 2021 31 December 2020
Other prepaid expenses 13,372
Prepaid rent expenses 13,372

1 Other short-term prepaid expenses consist of advances given for fixed asset purchases, prepaid insurance, prepaid maintenance, prepaid advertising and other prepaid expenses.

Long-term prepaid expenses
31 December 2021 31 December 2020
Other prepaid expenses 15,865 11,636
Prepaid rent expenses 1,433 1,756
Net deferred tax asset/(liability) 2,362,407 1,288,525 (302,900) (715,133) 2,059,427 573,392

(*) Intermediary services for collections consist of advances given by the Group to its distributors.
(**) Advances given mainly consists of advances given to suppliers.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)

13. PREPAID EXPENSES AND DEFERRED REVENUES (CONTINUED)

<table>
<thead>
<tr>
<th>Short-term contract liabilities</th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract liabilities from sale of goods and service contracts (1)</td>
<td>713,389</td>
<td>623,339</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Long-term contract liabilities</th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract liabilities from sale of goods and service contracts (1)</td>
<td>1,417,662</td>
<td>1,008,522</td>
</tr>
</tbody>
</table>

(1) Short-term contract liabilities mainly consist of invoiced but unconsumed minutes, deferred monthly fixed fee revenues due to the allocation of total consideration in the contract to all products and services under TFRS 15 and TTINT’s indefeasible right of use contracts.

14. FINANCIAL INVESTMENTS

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (US$)</th>
<th>Trade Date</th>
<th>Amendment Date</th>
<th>Terms</th>
<th>Fair Value Amount as of 31 December 2021 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turk Telekom 500,000</td>
<td>31 March 2016 - 15 December 2017</td>
<td>21 October 2020 - 28 January 2021</td>
<td>Pay TL and receive USD at June 2024</td>
<td>1,176,858</td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 109,500</td>
<td>14 November 2018</td>
<td>11 - 21 June 2021</td>
<td>Pay TL and receive USD between October 2019 - April 2024</td>
<td>312,857</td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 100,000</td>
<td>27 - 28 September 2018</td>
<td>Pay TL and receive USD at July 2032</td>
<td>284,806</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 73,444</td>
<td>6 - 8 January 2020</td>
<td>17 - 26 November 2020</td>
<td>Pay TL and receive USD between April 2020 - October 2022</td>
<td>160,441</td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 54,647</td>
<td>27 September 2019 - 6 September 2021</td>
<td>Pay TL and receive USD between March 2020 - September 2025</td>
<td>112,946</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 50,000</td>
<td>17 December 2020</td>
<td>Pay TL and receive USD at February 2025</td>
<td>141,329</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 49,686</td>
<td>13 November 2018 - 19 July 2019</td>
<td>Pay TL and receive USD between September 2019 - September 2025</td>
<td>124,503</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 5,703</td>
<td>23 July 2019</td>
<td>Pay TL and receive USD between October 2019 - October 2022</td>
<td>13,848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 57,063</td>
<td>16 August 2021</td>
<td>Pay TL and receive EUR between September 2021 - March 2026</td>
<td>78,268</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 48,000</td>
<td>18 August 2021</td>
<td>Pay TL and receive EUR between October 2021 - December 2025</td>
<td>77,911</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 41,000</td>
<td>5 August 2021</td>
<td>Pay TL and receive EUR at August 2022</td>
<td>58,636</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 38,679</td>
<td>13 August 2021</td>
<td>Pay TL and receive EUR between October 2021 - December 2025</td>
<td>52,498</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 20,000</td>
<td>4 June - 1 August 2018</td>
<td>12 - 26 September 2018</td>
<td>Pay TL and receive EUR between November 2018 - November 2022</td>
<td>65,243</td>
<td></td>
</tr>
</tbody>
</table>

The Group holds 6.84% of shares of Cetel as equity investment. As of 31 December 2021, calculated using the average of discounted cash flow method and market approach method, the fair value difference is recognised in other comprehensive income.

15. DERIVATIVE FINANCIAL INSTRUMENTS

Cross currency swap transaction
As of 31 December 2021 fair value of participating cross currency swap transactions amounting to TL 3,165,341 has been recognized under short term derivative financial assets (31 December 2020: TL 40,914 short term derivative financial liabilities, TL 1,206,509 short term derivative financial assets).

Total derivative transactions made by the Group to hedge currency risk amounting to TL 33,234,165 equivalent to 2,493,373 USD.

As of 31 December 2021 fair value of participating cross currency swap transactions amounting to TL 3,165,341 has been recognized under short term derivative financial assets (31 December 2020: TL 40,914 short term derivative financial liabilities, TL 1,206,509 short term derivative financial assets).

Cross currency swap transactions

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (USD)</th>
<th>Trade Date</th>
<th>Amendment Date</th>
<th>Terms</th>
<th>Fair Value Amount as of 31 December 2021 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turk Telekom 500,000</td>
<td>31 March 2016 - 15 December 2017</td>
<td>21 October 2020 - 28 January 2021</td>
<td>Pay TL and receive USD at June 2024</td>
<td>1,176,858</td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 109,500</td>
<td>14 November 2018</td>
<td>11 - 21 June 2021</td>
<td>Pay TL and receive USD between October 2019 - April 2024</td>
<td>312,857</td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 100,000</td>
<td>27 - 28 September 2018</td>
<td>Pay TL and receive USD at July 2032</td>
<td>284,806</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 73,444</td>
<td>6 - 8 January 2020</td>
<td>17 - 26 November 2020</td>
<td>Pay TL and receive USD between April 2020 - October 2022</td>
<td>160,441</td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 54,647</td>
<td>27 September 2019 - 6 September 2021</td>
<td>Pay TL and receive USD between March 2020 - September 2025</td>
<td>112,946</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 50,000</td>
<td>17 December 2020</td>
<td>Pay TL and receive USD at February 2025</td>
<td>141,329</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 49,686</td>
<td>13 November 2018 - 19 July 2019</td>
<td>Pay TL and receive USD between September 2019 - September 2025</td>
<td>124,503</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 5,703</td>
<td>23 July 2019</td>
<td>Pay TL and receive USD between October 2019 - October 2022</td>
<td>13,848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 57,063</td>
<td>16 August 2021</td>
<td>Pay TL and receive EUR between September 2021 - March 2026</td>
<td>78,268</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 48,000</td>
<td>18 August 2021</td>
<td>Pay TL and receive EUR between October 2021 - December 2025</td>
<td>77,911</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 41,000</td>
<td>5 August 2021</td>
<td>Pay TL and receive EUR at August 2022</td>
<td>58,636</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 38,679</td>
<td>13 August 2021</td>
<td>Pay TL and receive EUR between October 2021 - December 2025</td>
<td>52,498</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turk Telekom 20,000</td>
<td>4 June - 1 August 2018</td>
<td>12 - 26 September 2018</td>
<td>Pay TL and receive EUR between November 2018 - November 2022</td>
<td>65,243</td>
<td></td>
</tr>
</tbody>
</table>
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

 Turk Telekomünikasyon Anonim Şirketi and its Subsidiaries

As of 31 December 2021, fair value of participating forward transactions amounting to TL 103,533 has been recognized under short-term derivative financial assets.

As of 31 December 2021, fair value of participating cross currency swap transactions amounting to TL 1,782 has been recognized under short-term derivative financial assets.

Cross currency swap transactions (continued)

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (USD)</th>
<th>Trade Date</th>
<th>Amendment Date</th>
<th>Terms</th>
<th>Amount as of 31 December 2021 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Türk Telekom</td>
<td>325,000</td>
<td>13 April 2016 - 15 December 2017</td>
<td>21 October - 10 November 2020</td>
<td>Pay TL and receive USD at June 2024</td>
<td>252,954</td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>100,000</td>
<td>11 - 12 October 2018</td>
<td></td>
<td>Pay TL and receive USD at January 2021</td>
<td>126,799</td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>50,000</td>
<td>11 October 2018</td>
<td></td>
<td>Pay TL and receive USD at April 2021</td>
<td>53,697</td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>43,976</td>
<td>20 November 2019</td>
<td></td>
<td>Pay TL and receive USD between January 2020 - October 2022</td>
<td>54,191</td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>90,871</td>
<td>6 - 8 January 2020</td>
<td>17 - 26 November 2020</td>
<td>Pay TL and receive USD between April 2020 - October 2022</td>
<td>70,317</td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>22,359</td>
<td>22 - 23 July 2019</td>
<td>Pay TL and receive USD between October 2019 - October 2022</td>
<td>28,557</td>
<td></td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>58,367</td>
<td>27 - 30 September 2019</td>
<td>Pay TL and receive USD between March 2020 - September 2025</td>
<td>63,015</td>
<td></td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>64,682</td>
<td>13 November 2018 - 19 July 2019</td>
<td>Pay TL and receive USD between September 2019 - September 2025</td>
<td>48,495</td>
<td></td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>100,000</td>
<td>27 - 28 September 2018</td>
<td>Pay TL and receive USD at July 2022</td>
<td>83,696</td>
<td></td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>124,500</td>
<td>14 November 2018</td>
<td>Pay TL and receive USD between October 2019 - April 2024</td>
<td>83,274</td>
<td></td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>58,182 (*)</td>
<td>4 June - 1 August 2018</td>
<td>12 - 26 September 2018</td>
<td>Pay TL and receive EUR between November 2018 - November 2022</td>
<td>70,317</td>
</tr>
</tbody>
</table>

Fair Value (TL)

1 Nominal amount of indicated options are Euro.

Copper hedge transactions

Fair Value (TL)

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated, all other currencies are also disclosed in thousands)

Copper hedge transactions

As of 31 December 2021 fair value of participating forward transactions amounting to TL 103,533 has been recognized under short-term derivative financial assets.

As of 31 December 2021, Group has 17 electricity forward contracts which are likely to be realized as of January 2022 and January 2023 and are subject to cash flow hedge accounting.

Forwards

Fair Value (TL)

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated, all other currencies are also disclosed in thousands)

Copper hedge transactions

As of 31 December 2021 fair value of participating cross currency swap transactions amounting to TL 1,782 has been recognized under short-term derivative financial assets.

As of 31 December 2021, fair value of participating forward transactions amounting to TL 103,533 has been recognized under short-term derivative financial assets.

As of 31 December 2021, Group has 17 electricity forward contracts which are likely to be realized as of January 2022 and January 2023 and are subject to cash flow hedge accounting.

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated, all other currencies are also disclosed in thousands)

Forwards

Fair Value (TL)
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

Currency in thousands of Turkish Lira (“TL”) unless otherwise stated, all other currencies are also disclosed in thousands.

15. DERIVATIVE FINANCIAL INSTRUMENTS (CONTINUED)

Interest rate derivative instruments which are not designated as hedge

As of 31 December 2021, fair value of interest rate derivative transactions amounting to TL 351,986 has been recognized under long term derivative financial liabilities, TL 39,980 has been recognized under short term derivative financial assets (31 December 2020: TL 347,286 long term derivative financial liabilities, TL 32,710 short term derivative financial assets).

Cross Currency swaps instruments which are not designated as hedge

As of 31 December 2021, fair value of derivative transactions amounting to TL 728,427 is recognized under short term derivative financial assets and TL 114,611 is recognized under short term financial liabilities (31 December 2020: TL 320,186 short term financial liabilities, TL 958 short term financial assets).

USD/EUR Cross Currency Swaps Instruments

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (USD)</th>
<th>Trade Date</th>
<th>Terms and Maturity Date</th>
<th>Fair Value Amount as of 31 December 2020 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turk Telekom</td>
<td>300,000</td>
<td>29 April - 20 May 2024</td>
<td>Pay fixed rates and receive floating rates between June 2016 - June 2024</td>
<td>392,128</td>
</tr>
<tr>
<td>Turk Telekom</td>
<td>150,000</td>
<td>15 May - 16 May 2024</td>
<td>Pay fixed rates and receive floating rates between June 2016 - August 2016 and June 2024 - August 2024</td>
<td>59,858</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(351,986)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (USD)</th>
<th>Trade Date</th>
<th>Terms and Maturity Date</th>
<th>Fair Value Amount as of 31 December 2020 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turk Telekom</td>
<td>300,000</td>
<td>29 April - 20 May 2024</td>
<td>Pay fixed rates and receive floating rates between June 2016 - June 2024</td>
<td>274,959</td>
</tr>
<tr>
<td>Turk Telekom</td>
<td>150,000</td>
<td>15 May - 16 May 2024</td>
<td>Pay fixed rates and receive floating rates between June 2016 - August 2016 and June 2024 - August 2024</td>
<td>72,327</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(347,286)</td>
</tr>
</tbody>
</table>

Futures

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (USD)</th>
<th>Trade Date</th>
<th>Terms and Maturity Date</th>
<th>Fair Value Amount as of 31 December 2020 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turk Telekom</td>
<td>206,202</td>
<td>15 November - 10 December 2021</td>
<td>Net TL settlement in January 2022 based on the difference between contract price and contract closing price</td>
<td>162,462</td>
</tr>
<tr>
<td>TT Mobil</td>
<td>72,692</td>
<td>16 November - 26 December 2021</td>
<td>Net TL settlement in January 2022 based on the difference between contract price and contract closing price</td>
<td>61,663</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>224,125</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (USD)</th>
<th>Trade Date</th>
<th>Terms and Maturity Date</th>
<th>Fair Value Amount as of 31 December 2020 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT Mobil</td>
<td>180,000</td>
<td>13 - 22 December 2021</td>
<td>Net TL settlement in February 2022 based on the difference between contract price and contract closing price</td>
<td>(91,259)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(91,259)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (USD)</th>
<th>Trade Date</th>
<th>Terms and Maturity Date</th>
<th>Fair Value Amount as of 31 December 2020 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turk Telekom</td>
<td>150,000</td>
<td>19 October - 24 December 2020</td>
<td>Net TL settlement between January and February 2021 based on the difference between contract price and contract closing price</td>
<td>62,824</td>
</tr>
<tr>
<td>TT Mobil</td>
<td>50,000</td>
<td>27 November - 28 December 2020</td>
<td>Net TL settlement between January and February 2021 based on the difference between contract price and contract closing price</td>
<td>8,584</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(71,408)</td>
</tr>
</tbody>
</table>
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)

15. DERIVATIVE FINANCIAL INSTRUMENTS (CONTINUED)

Cross Currency swaps instruments which are not designated as hedge (continued)

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (USD)</th>
<th>Trade Date</th>
<th>Terms</th>
<th>Fair Value as of 31 December 2021 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Türk Telekom</td>
<td>7634</td>
<td>7 October 2021</td>
<td>Pay TL and receive USD at April 2021</td>
<td>31,806</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>23,500 (*)</td>
<td>30 – 31 December 2020</td>
<td>Net TL settlement in February 2021 based on the difference between contract price and contract closing price</td>
<td>958</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(218,966)</td>
</tr>
</tbody>
</table>

(*) Nominal amount of indicated operations are Euro.

USD/EUR Foreign Currency Swap Instruments

<table>
<thead>
<tr>
<th>Company</th>
<th>Notional Amount (USD)</th>
<th>Trade Date</th>
<th>Terms</th>
<th>Fair Value as of 31 December 2021 (TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Türk Telekom</td>
<td>245,000</td>
<td>16 November - 29 December 2021</td>
<td>Pay TL and receive USD at January 2022</td>
<td>373,171</td>
</tr>
<tr>
<td>Türk Telekom</td>
<td>69,000 (*)</td>
<td>29 November - 29 December 2021</td>
<td>Pay TL and receive EUR at January 2022</td>
<td>99,324</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>472,495</td>
</tr>
</tbody>
</table>

(*) Nominal amount of indicated operations are Euro.

The Group performs impairment analysis for goodwill and other non-current asset groups annually as of 31 December. The Group has performed impairment analyses for all of the identified cash generating units.

TT Mobil cash generating unit impairment test
TT Mobil has been considered as a single cash generating unit and has been tested for impairment together for goodwill and all other assets. Recoverable amount is calculated through based on 5 years business plan which is approved by the management.

The discount ratio used for the cash flows is 16.9% (31 December 2020: 17.0%). Cash flow projections after 2026 are estimated by using 10.0% growth rate, considering the inflation rate used in the business plan and expected growth rate of TT Mobil. Company value of TT Mobil has been tested at a sensitivity of 1%/+1% (31 December 2020: +1%/−1%). As a result of the impairment test, it has been noted that there is no impairment identified on goodwill arising on the TT Mobil acquisition.

Innova and Argela cash generating unit impairment test
Innova and Argela, are both considered as single cash generating unit and are tested for impairment for goodwill and all of their other assets. Recoverable amount was determined through the usage value which is calculated based on the 6 years business plan approved by the management. The estimated value of the projected cash flows consists of the discounted cash flows until 2026. Cash flow projections beyond 2026 are estimated by using 10.0% growth rate, considering the inflation rate used in the business plan and expected growth rate of TT Mobil. Company value of TT Mobil has been tested at a sensitivity of 1%/+1% for both Innova and Argela, respectively, considering the inflation rate used in the business plan and expected growth rate of the company. The discount ratio used for the cash flows is 20.4% for Innova (31 December 2020: 20.3%) and 22.0% for Argela (31 December 2020: 21.9%). Valuation has been tested at a sensitivity of +1%/−1% for the WACC calculation, technology companies have been taken as a benchmark for the calculation of the beta coefficient. As a result of the impairment test, no impairment is identified for the cash generating units and the goodwill arising from the acquisition of Argela and Innova.

17. ASSETS HELD FOR SALE

Asset held for sales are measured at the lower of carrying value and the fair value less costs of sale.

As of 31 December 2021, net book value of asset held for sale is TL 56,418 (31 December 2020: 37,901 TL). Assets, the fair value of TL 26,035, has been transferred to the assets held for sale from the property, plant and equipment according to sales planning of the Group management.
### 18. INVESTMENT PROPERTY

The movement of investment property and the related accumulated depreciation for the years ended 31 December 2021 and 31 December 2020 is given below:

<table>
<thead>
<tr>
<th></th>
<th>1 January - 31 December 2021</th>
<th>1 January - 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening balance</td>
<td>40,047</td>
<td>40,047</td>
</tr>
<tr>
<td>Transfer</td>
<td>1,498</td>
<td>-</td>
</tr>
<tr>
<td><strong>Accumulated</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation charge</td>
<td>1,919</td>
<td>1,242</td>
</tr>
<tr>
<td>Impairment (-)</td>
<td>-</td>
<td>251</td>
</tr>
<tr>
<td><strong>Net book value as of 31 December</strong></td>
<td>26,062</td>
<td>22,435</td>
</tr>
</tbody>
</table>

### Notes

The fair value of investment property is TL 160,303 as at 31 December 2021. Independent valuation companies licensed by CMB measure the fair value of investment properties of the Group. As of 31 December 2021, the fair value of investment property is TL 360,303.

### Accumulated depreciation

<table>
<thead>
<tr>
<th></th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening</td>
<td>41,545</td>
<td>40,047</td>
</tr>
<tr>
<td>Transfer</td>
<td>1,498</td>
<td>1</td>
</tr>
<tr>
<td><strong>Accumulated</strong></td>
<td>23,435</td>
<td>22,348</td>
</tr>
<tr>
<td>Transfer</td>
<td>1,496</td>
<td>1,406</td>
</tr>
<tr>
<td>Disposition</td>
<td>1,919</td>
<td>1,242</td>
</tr>
<tr>
<td>Impairment (-)</td>
<td>-</td>
<td>251</td>
</tr>
<tr>
<td><strong>As of 31 December</strong></td>
<td>26,062</td>
<td>22,435</td>
</tr>
</tbody>
</table>

### 19. PROPERTY, PLANT AND EQUIPMENT

The movement of PPE and the related accumulated depreciation for the years ended 31 December 2021 and 31 December 2020 is given below:

<table>
<thead>
<tr>
<th></th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land</strong></td>
<td>16,055,881</td>
<td>16,862,969</td>
</tr>
<tr>
<td>Additions</td>
<td>74,487,051</td>
<td>10,494,051</td>
</tr>
<tr>
<td><strong>Net fixed assets</strong></td>
<td>90,543,932</td>
<td>17,357,020</td>
</tr>
<tr>
<td><strong>Construction in progress</strong></td>
<td>6,397,372</td>
<td>11,959,800</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>96,941,304</td>
<td>29,316,820</td>
</tr>
</tbody>
</table>
### 19. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

<table>
<thead>
<tr>
<th></th>
<th>Land</th>
<th>Buildings</th>
<th>Network and other equipment</th>
<th>Vehicles</th>
<th>Furniture and fixtures</th>
<th>Other fixed assets</th>
<th>Construction in progress</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening balance, 1 January 2020</td>
<td>5,428,051</td>
<td>2,091,458</td>
<td>41,687,897</td>
<td>108,577</td>
<td>871,073</td>
<td>256,967</td>
<td>487,968</td>
<td>50,932,051</td>
</tr>
<tr>
<td>Transfer</td>
<td>1,800</td>
<td>4,869</td>
<td>765,379</td>
<td>84</td>
<td>4,534</td>
<td>(7,986)</td>
<td>(806,206)</td>
<td>(37,526)</td>
</tr>
<tr>
<td>Additions</td>
<td>994</td>
<td>77,777</td>
<td>2,710,258</td>
<td>29,181</td>
<td>82,631</td>
<td>17,972</td>
<td>443,833</td>
<td>2,822,586</td>
</tr>
<tr>
<td>Revaluation</td>
<td>460,035</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td>460,035</td>
</tr>
<tr>
<td>Disposal</td>
<td>(962)</td>
<td>(2,916)</td>
<td>(3,590,641)</td>
<td>(1,087)</td>
<td>(18,541)</td>
<td>(99)</td>
<td>(1,471)</td>
<td>(3,614,907)</td>
</tr>
<tr>
<td>Foreign currency translation differences</td>
<td>3,558</td>
<td>9,105</td>
<td>626,365</td>
<td>634</td>
<td>6,453</td>
<td>1,965</td>
<td>13,448</td>
<td>661,528</td>
</tr>
<tr>
<td><strong>Closing balance, 31 December 2020</strong></td>
<td>5,894,276</td>
<td>2,180,193</td>
<td>41,659,258</td>
<td>137,389</td>
<td>946,250</td>
<td>137,572</td>
<td>51,223,767</td>
<td></td>
</tr>
</tbody>
</table>

### 20. INTANGIBLE ASSETS

<table>
<thead>
<tr>
<th></th>
<th>Licence</th>
<th>Customer relationship</th>
<th>Research and Development</th>
<th>Other intangible assets</th>
<th>Subscriber acquisition retention cost</th>
<th>Concession rights</th>
<th>Concession assets</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening balance, 1 January 2021</td>
<td>4,573,318</td>
<td>1,289,966</td>
<td>529,767</td>
<td>9,943,976</td>
<td>3,887,523</td>
<td>6,563,899</td>
<td>878,366</td>
<td>27,675,815</td>
</tr>
<tr>
<td>Transfers</td>
<td>(1,270)</td>
<td>-</td>
<td>25,199</td>
<td>(37,952)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(4,923)</td>
</tr>
<tr>
<td>Disposals</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(84,843)</td>
<td>-</td>
<td>-</td>
<td>(137,223)</td>
</tr>
<tr>
<td>Additions(*)</td>
<td>-</td>
<td>-</td>
<td>76,670</td>
<td>145,029</td>
<td>427,968</td>
<td>-</td>
<td>-</td>
<td>4,871,649</td>
</tr>
<tr>
<td>Foreign currency translation differences</td>
<td>19,496</td>
<td>274,709</td>
<td>5,034</td>
<td>495,110</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,242,055</td>
</tr>
<tr>
<td><strong>Closing balance, 31 December 2021</strong></td>
<td>4,591,544</td>
<td>1,564,675</td>
<td>636,670</td>
<td>12,146,917</td>
<td>4,661,227</td>
<td>3,101,030</td>
<td>19,252,339</td>
<td></td>
</tr>
</tbody>
</table>

### Accumulated amortization

|                    | Licence       | Customer relationship | Research and Development | Other intangible assets | Subscriber acquisition retention cost | Concession rights | Concession assets | Total          |
|--------------------|---------------|-----------------------|--------------------------|                        |                                       |                   |                   |                |
| Opening balance, 1 January 2021 | 2,168,264      | 1,166,055             | 364,168                  | 711,858                | 2,422,130                             | 3,101,030         | 19,252,339       |                |
| Transfers          | (26)          | -                     | -                        | (6,827)                | -                                     | -                 | -                | (6,853)        |
| Disposals          | -             | -                     | -                        | (83,428)               | -                                     | (137,223)         | -                |                |
| Amortization charge for the year | 310,135        | 30,646                 | 44,226                   | 1,071,357              | 678,900                               | 936,338           | -                | 3,071,602      |
| Impairment         | -             | -                     | -                        | 29,397                 | -                                     | -                 | -                | 29,397         |
| Foreign currency translation differences | 7,291          | 204,677                | 5,034                    | 495,110                | -                                     | -                 | -                | 712,112        |
| **Closing balance, 31 December 2021** | 2,486,664      | 1,401,378             | 413,428                  | 8,653,100              | 4,661,227                             | 3,101,030         | 19,252,339       |                |

### Net book value

|                    | Licence       | Customer relationship | Research and Development | Other intangible assets | Subscriber acquisition retention cost | Concession rights | Concession assets | Total          |
|--------------------|---------------|-----------------------|--------------------------|                        |                                       |                   |                   |                |
| 31 December 2021   | 2,486,664      | 1,401,378             | 413,428                  | 8,653,100              | 4,661,227                             | 3,101,030         | 19,252,339       |                |

(*) Additions amounting to TL 2,571,246 (31 December 2020: TL 1,846,539) comprise intangible assets under scope of TFRS Interpretation 12.

The Group have no capitalized borrowing cost on intangible assets (31 December 2020: TL 342).

For the year ended 31 December 2021, impairment on intangible assets amounting to TL 38,491 is recognized in cost of sales (31 December 2020: TL 3,462), TL 906 in general administrative expenses (31 December 2020: TL 17), and there is no recognized in marketing, selling and distribution expenses (31 December 2020: TL nil).
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)

Convenience translation of a report and financial statements originally issued in Turkish)

20. INTANGIBLE ASSETS (CONTINUED)

<table>
<thead>
<tr>
<th>Licence</th>
<th>Customer relationship</th>
<th>Research and Development</th>
<th>Other intangible assets</th>
<th>Subscriber acquisition/retention cost</th>
<th>Concession rights</th>
<th>Concession assets</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening balance, 1 January 2020</td>
<td>4,554,808</td>
<td>1,183,437</td>
<td>449,711</td>
<td>8,566,741</td>
<td>3,021,232</td>
<td>5,018,755</td>
<td>4,962,926</td>
</tr>
<tr>
<td>Transfers</td>
<td>12,932</td>
<td></td>
<td>-</td>
<td>-</td>
<td>16,247</td>
<td>(19,297)</td>
<td>15,724</td>
</tr>
<tr>
<td>Disposals</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(10,559)</td>
<td>-</td>
<td>(957)</td>
<td>(11,516)</td>
</tr>
<tr>
<td>Additions (†)</td>
<td>53,099</td>
<td>-</td>
<td>-</td>
<td>1,362,702</td>
<td>-</td>
<td>866,291</td>
<td>1,232,993</td>
</tr>
<tr>
<td>Foreign currency translation differences</td>
<td>5,578</td>
<td>106,529</td>
<td>810</td>
<td>344,389</td>
<td>-</td>
<td>-</td>
<td>457,306</td>
</tr>
</tbody>
</table>


Accumulated amortization

Opening balance, 1 January 2020: 1,858,733 (2021: 1,072,452, 316,863, 6,010,718, 1,794,647, 1,746,346, -12,798,759)

Transfers | - | - | - | - | 2,388 | - | 2,388 |
| Disposals | - | - | - | (3,800) | - | (665) | (4,465) |
Amortization charge for the year | 308,579 | 23,517 | 45,365 | 939,630 | 627,483 | 595,868 | 2,540,260 |
Impairment | - | - | - | - | - | 3,462 | 3,462 |
Foreign currency translation differences | 1,952 | 70,086 | 1,940 | 168,922 | - | - | 242,900 |

Closing balance, 31 December 2020: 2,169,264 (2021: 1,166,055, 364,168, 7,117,858, 2,422,130, 2,343,829, -15,583,304)


For the year ended 31 December 2021, depreciation and amortization expense recognized is cost of sales, sales and distribution expenses, general administration expenses, and research and development expenses, respectively, amounting to TL 4,740,358 (2021: TL 3,980,600, TL 765,328 (31 December 2020: TL 715,927) and TL 638,479 (31 December 2020: TL 585,757).

Remaining amortization periods after acquisition of significant intangible assets are as follows:

TT Mobil license: 7 years
TTINT customer relationships: 3.8 years
TTINT other: 8.8 years

There is no restriction or pledge on the intangible as of 31 December 2021 (31 December 2020: N/A)

3G license tender

The tender for authorization of IMT-2000/UMTS services has been held on 28 November 2008 with the participation of all three GSM operators operating in Turkey.

The license fee (excluding 18% VAT) amounting to TL 539,332 is paid by TT Mobil in April 2009 and ultimately the Concession Agreement is signed on 30 April 2009.

The net book value of the 3G license as of 31 December 2021 is TL 177,900 (31 December 2020: TL 201,623).
Notes to the Consolidated Financial Statements

As at and for the Year Ended 31 December 2021

Türk Telekomünikasyon Anonim Şirketi and its Subsidiaries Türk Telekomünikasyon Anonim Şirketi and its Subsidiaries

(Convenience translation of a report and financial statements originally issued in Turkish)

21. PROVISIONS (CONTINUED)

Current provisions for employee benefits (continued)

The movement of provisions is as follows:

<table>
<thead>
<tr>
<th></th>
<th>1 January - 31 December 2021</th>
<th>1 January - 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>As of 1 January</td>
<td>276,460</td>
<td>223,552</td>
</tr>
<tr>
<td>Provision for the period</td>
<td>403,892</td>
<td>296,271</td>
</tr>
<tr>
<td>Provisions paid</td>
<td>(336,487)</td>
<td>(236,940)</td>
</tr>
<tr>
<td>Reversals</td>
<td>(36,311)</td>
<td>(9,251)</td>
</tr>
<tr>
<td>Foreign currency translation difference</td>
<td>10,586</td>
<td>2,828</td>
</tr>
<tr>
<td>As of 31 December</td>
<td>319,540</td>
<td>276,460</td>
</tr>
</tbody>
</table>

Non-current provisions for employee benefits

<table>
<thead>
<tr>
<th></th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined benefit obligation</td>
<td>1,069,183</td>
<td>1,062,589</td>
</tr>
<tr>
<td>Unused vacation provisions</td>
<td>211,831</td>
<td>152,200</td>
</tr>
<tr>
<td></td>
<td>1,281,014</td>
<td>1,214,789</td>
</tr>
</tbody>
</table>

Defined benefit obligation

In accordance with existing social legislation in Turkey, companies are required to make lump-sum payments to employees whose employment is ended due to retirement or for reasons other than resignation or misconduct. The liability is not funded and accordingly there are no plan assets for the defined benefits as there is no funding requirement.

The retirement pay liability as at 31 December 2021 is subject to a ceiling of full TL 8,284,51 (31 December 2020: full TL 7,117,17) per monthly salary for each service year.

In addition to retirement benefits, the Group is liable for certain other non-current employment benefits such as business, service, representation indemnity and jubilee.

i) The movement of defined benefit obligation is as follows:

<table>
<thead>
<tr>
<th></th>
<th>1 January - 31 December 2021</th>
<th>1 January - 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined benefit obligation on January 1</td>
<td>1,062,589</td>
<td>913,107</td>
</tr>
<tr>
<td>Service cost</td>
<td>84,849</td>
<td>74,333</td>
</tr>
<tr>
<td>Interest cost</td>
<td>88,915</td>
<td>88,429</td>
</tr>
<tr>
<td>Actuarial loss (*)</td>
<td>160,582</td>
<td>111,790</td>
</tr>
<tr>
<td>Benefits paid</td>
<td>(334,085)</td>
<td>(132,141)</td>
</tr>
<tr>
<td>Transfer (**)</td>
<td>5,019</td>
<td>1,251</td>
</tr>
<tr>
<td>Foreign currency translation difference</td>
<td>6,333</td>
<td>2,052</td>
</tr>
<tr>
<td>As of 31 December</td>
<td>1,069,183</td>
<td>1,062,589</td>
</tr>
</tbody>
</table>

(*) As at 31 December 2021, actuarial loss amounting to TL 160,582 (31 December 2020: TL 111,790) is recognized in other comprehensive income.

ii) Total expense recognized in the consolidated income statement

<table>
<thead>
<tr>
<th></th>
<th>1 January - 31 December 2021</th>
<th>1 January - 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest cost</td>
<td>88,915</td>
<td>88,429</td>
</tr>
<tr>
<td>Service cost</td>
<td>84,849</td>
<td>74,333</td>
</tr>
<tr>
<td>Total net cost recognized in the consolidated statement of income</td>
<td>173,764</td>
<td>162,762</td>
</tr>
</tbody>
</table>

iii) Principal actuarial assumptions used:

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate</td>
<td>19,0%</td>
</tr>
<tr>
<td>Expected rate of ceiling increases</td>
<td>14,50%</td>
</tr>
</tbody>
</table>

For the years ahead, voluntary employee withdrawal of the Group is 2,17% (31 December 2020: 1,99%).

As of 31 December 2021, sensitivity analysis is performed for the significant assumptions of defined benefit obligation:

<table>
<thead>
<tr>
<th>Sensitivity Level</th>
<th>Discount Rate</th>
<th>Salary Increase Rate</th>
<th>Employee Withdrawal Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,25% decrease</td>
<td>18,75%</td>
<td>(19,25%)</td>
<td>14,25%</td>
</tr>
<tr>
<td>0,25% increase</td>
<td>19,25%</td>
<td>(18,75%)</td>
<td>14,75%</td>
</tr>
<tr>
<td>0,25% decrease</td>
<td>14,25%</td>
<td>(14,75%)</td>
<td>10,25%</td>
</tr>
<tr>
<td>0,25% increase</td>
<td>14,75%</td>
<td>(14,25%)</td>
<td>11,75%</td>
</tr>
</tbody>
</table>

No effect to defined benefit obligation 25,672 (23,943) (24,856) 26,501 (3,852) 3,754

Unused vacation provisions

The movement of unused vacation provisions is as follows:

<table>
<thead>
<tr>
<th></th>
<th>1 January - 31 December 2021</th>
<th>1 January - 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>As of 1 January</td>
<td>211,831</td>
<td>152,200</td>
</tr>
<tr>
<td>Provision for the period, net</td>
<td>85,613</td>
<td>30,547</td>
</tr>
<tr>
<td>Provisions paid</td>
<td>(334,085)</td>
<td>(132,141)</td>
</tr>
<tr>
<td>Transfer (**)</td>
<td>5,019</td>
<td>1,251</td>
</tr>
<tr>
<td>As of 31 December</td>
<td>211,831</td>
<td>152,200</td>
</tr>
</tbody>
</table>

Other non-current provisions

<table>
<thead>
<tr>
<th></th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision for the investments under the scope of TFRS Interpretation 12</td>
<td>10,627</td>
<td>8,506</td>
</tr>
</tbody>
</table>

Sensitivity Level: 0,25% decrease, 0,25% increase,
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
Notes to the Consolidated ... in thousands of Turkish Lira ("TL") unless otherwise stated, all other currencies are also disclosed in thousands)

22. PAID IN CAPITAL, RESERVES AND RETAINED EARNINGS

As of 31 December 2020 and 2021, the shareholders of the Company with their shareholding percentage are as follows:

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>% TL</td>
<td>% TL</td>
</tr>
<tr>
<td>TL Treasury</td>
<td>25 875 000</td>
</tr>
<tr>
<td>TL LyThelkomsan A Ş</td>
<td>19 193 000</td>
</tr>
<tr>
<td>TL Public Share</td>
<td>15 525 000</td>
</tr>
<tr>
<td>TL Turkish Wealth Fund (&quot;TWF&quot;)</td>
<td>5 175 000</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inflation adjustment to share capital (239 752) (239 752)

3 260 248 3 260 248

Council of Ministers decided to transfer 64% (15 Group B & 18 Group D) of the shares of the Company belonging to the Undersecretariat of Treasury to the Turkish Wealth Fund with regards to Law on Establishment of Turkish Wealth Fund Management Incorporated and on Amending Certain Laws numbered 6741 and dated 19 August 2018.

The Company’s share capital is fully paid. Capital of the Company is TL 3,500,000,000, divided into 192,500,000 Group A, 104,999,999,999 Group B, 1 Group C, and 52,500,000 Group D registered shares each with a nominal value of 1 (one) Lira. Group D shares are non-transferable. The holder of the Group A Shares representing 5 percent of the share capital of the Company and Group D Shares representing 16.8 percent of the share capital of the Company, the Treasury is the holder of Group B Shares representing 5 percent of the share capital of the Company and Group C Shares (Golden Share).

The Treasury is the holder of the Preferred Stock (Golden Share) as per the law. This share is non-transferable. It provides certain rights to Treasury in order to protect national interests regarding economy and security: (a) Any proposed amendments to the Company’s articles of association, (b) the transfer of any registered shares in the Company which would result in a change in the management control of the Company and (c) the registration of any transfer of registered shares in the Company’s shareholders’ ledger cannot be realized without affirmative vote of the Golden Share at either a meeting of the Board of Directors or the general assembly. Otherwise, such transactions shall be deemed invalid. The holder of the Golden Share, the Treasury, has one member, representing the Golden Share, among the Board of Directors.

Number of members and independent Board members of the Board of Directors to be nominated by the Group A and Group B Shareholders have been revised by the amendment to the article 8 of the Articles of Association at the Extraordinary General Meeting dated 25.01.2019 Accordingly.

The Board of directors shall be composed of nine (9) members nominated by the Group A Shareholder, Treasury and Turkish Wealth Fund

(a) the Group A Shareholder shall be entitled to nominate five (5) persons for election as Directors,
(b) provided that the Treasury and Turkish Wealth Fund, as Group B Shareholders shall hold
- 30% or more of the Shares, the Treasury shall be entitled to nominate three (3) persons for election as Independent Board Members who carry the independence criteria as defined in the Capital Markets legislation, or
- 15% or more of the Shares (but less than 30% of the Shares) the Treasury shall be entitled to nominate two (2) persons for election as Independent Board Members who the carry the independence criteria as defined in the Capital Markets legislation,
- During the calculation of 15% and 30% of the Shares mentioned in above paragraphs, the amount of Group B Shares and Group D Shares held by the Treasury and Turkish Wealth Fund shall be considered together.
(c) as long as the Treasury and Turkish Wealth Fund holds 15% or more of the Shares (but less than 30% of the Shares), the Group A Shareholder shall be entitled to nominate one (1) person, who carry the independence criteria as defined in the Capital Markets legislation, for election as Independent Board Members and five (5) persons for election as Director
(d) while the Treasury holds the C Group Privileged Share, the Treasury shall be entitled to nominate, a further one (1) person, for election as Director for the C Group Privileged Share.

The chairman of the Board of Directors shall be nominated by the directors nominated by the group A shares from among the directors and be elected and removed by the simple majority votes of those present at the meeting of the Board of Directors.

The Vice Chairman shall be nominated by the directors nominated by the Group B Shares from among the Directors and be elected and removed by the simple majority votes of those present at the meeting of the Board of Directors.

Board resolutions shall be passed by a simple majority of the directors present at such meeting unless the resolution requires a higher majority vote.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Earnings in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)

22. PAID IN CAPITAL, RESERVES AND RETAINED EARNINGS (CONTINUED)

Earnings/losses per share

<table>
<thead>
<tr>
<th>1 January</th>
<th>31 December 2021</th>
<th>1 January</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL 10,000,000</td>
<td>350,000,000.00</td>
<td>TL 10,000,000</td>
<td>350,000,000.00</td>
</tr>
</tbody>
</table>

Net profit/(loss) for the year attributable to equity holders of the Company TL 7,671,454 TL 3,177,873

Basic earnings/(losses) per share (in full Kuruş) 1.6461 0.9080

23. SHARE BASED PAYMENT

According to the Turkish Council of Ministers decision dated 12 December 2007, which was published in the Turkish Official Gazette on 26 December 2007, 52,500,000,000 (45%) shares of Turk Telekom owned by the Treasury, the minority shareholder of Turk Telekom, has been sold in the Turkish public offering (“IPO”) (such shares corresponding to approximately 15% of Turk Telekom’s shares). During the IPO, 12,299,160,300 of such shares have been allocated to the employees of Turk Telekom, PTT and small investors together with 5,220,503,800 shares allocated to domestic investors with high purchasing power with discount pricing varying according to the payment terms and application date (compared to the price applied to the other corporate investors for the remaining shares of 34,980,335,900). The discounts provided to Turk Telekom employees have been considered as within the scope of IFRS 2 (“Share Based Payment”) by the management of Turk Telekom considering the fact that Turk Telekom receives services from its employees.

The market price during the IPO TL 4.60

The average price applied to the employees of Turk Telekom TL 4.2937

The number of shares sold to Turk Telekom’s employees (lot) 31,014,948

The management of Turk Telekom decided that the discounts provided to PTT’s employees, small investors and domestic investors with high purchasing power are not within the scope of IFRS 2 by considering the fact that:

a) Turk Telekom has not received any benefits (goods and services) in exchange for the discounts provided to these groups to and b) The Treasury provided these discounts not as a party acting as a shareholder of Turk Telekom but rather as a State Authority in order to increase the number of small investors as it has been done in all other privatization enhanced through an IPO.

The fair value of the discounts provided to these groups amounts to approximately TL 3,000 in 2018, at the year of the transaction.

24. COMMITMENTS AND CONTINGENCIES

Guarantees received and given by the Group are summarized below

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original currency</td>
<td>TL</td>
</tr>
<tr>
<td>Guarantees received</td>
<td>USD 123,260</td>
</tr>
<tr>
<td>TL 1,471,649</td>
<td>1,471,649</td>
</tr>
<tr>
<td>EUR 26,645</td>
<td>401,985</td>
</tr>
<tr>
<td>GBP 4</td>
<td>68</td>
</tr>
<tr>
<td>3,516,634</td>
<td>2,298,882</td>
</tr>
</tbody>
</table>

Guarantees given (*)

<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original currency</td>
<td>TL</td>
</tr>
<tr>
<td>Guarantees given</td>
<td>USD 168,053</td>
</tr>
<tr>
<td>EUR 1,019,553</td>
<td>1,019,553</td>
</tr>
<tr>
<td>TL 74,064</td>
<td>74,064</td>
</tr>
<tr>
<td>EUR 4,385,069</td>
<td>4,385,069</td>
</tr>
</tbody>
</table>

(*) Guarantees given amounting to USD 10,500 (31 December 2020: USD 10,500) is related to the guarantee provided in the ICTA by TT Mobil with respect to the TT Mobil Concession Agreement, guarantees given amounting to EUR 12,840 (31 December 2020: EUR 12,840) is related with the guarantee provided for 3G license and guarantees given amounting to EUR 12,840 (31 December 2020: EUR 12,840) is related with the guarantee provided for 4G license.

The Company’s guarantee, pledge and mortgage (GPMS) position as at March 31, 2021 and December 31, 2020 is as follows:

A. GPMS given on behalf of the Company’s legal personality
B. GPMS given in favour of subsidiaries included in full consolidation
C. GPMS given by the Company for the liabilities of 3r parties in order to run ordinary course of business
D. GPMS given in favour of other group companies that are not in the scope of B and C

Total 7,033,398 4,527,650

Based on law 126/1 of Turkish Code of Obligations, the Group has given guarantees to distributors amounting to TL 9,382,263 for the financial obligation that would arise during the purchase of devices that will be sold as commitment sales by the Group (31 December 2020: TL 7,860,363). The guarantees have given to the banks TL 201,224, TL 168,437 Altibab T.A.S. and Türkiye Garanti Bankası A.Ş., respectively.

Other commitments

The Group has purchase commitments for sponsorships, advertising and insurance services at the equivalent to TL 517,939 (31 December 2020: TL 730,500) as at 31 December 2021. Payments for these commitments are going to be made in a 7-year period.

The Group has purchase commitments for fixed assets amounting to USD 593,445, EUR 693,110 and TL 250,750 equivalent to TL 1,536,265 (31 December 2020: TL 999,484) as at 31 December 2021.

Türk Telekom concession agreement

The Concession Agreement was entered into between the Company and ICTA on 14 November 2005 following the privatization of the Company and the resultant reduction in the public shareholding to less than 50%. The Concession Agreement covers:

- the performance of the telecommunications services which are within the scope of the Agreement;
- the establishment and operation of necessary telecommunications facilities and the submission of these facilities to the use of other operators or persons and institutions making a demand as per the law;
- the marketing and provision of telecommunications services.

The Concession Agreement places an obligation on the Company in the event of termination or non-renewal of the Concession Agreement, to transfer all equipment affecting the operation of the system together with all its functions and in good condition, and all immovable properties where such equipment is installed and which the Company uses, to the ICTA, or to any other institution to be designated by ICTA, at no cost.

In case ICTA determines that the Company has not fulfilled its obligations stemming from the Concession Agreement and has not corrected the situation within a period granted to it, or that there is a court decision on bankruptcy or composition against the Company, the Company is granted a grace period of not less than 90 days commencing from written notification by ICTA, to fulfil its obligations. Within this grace period, the Company submits a remedy program for its abovementioned obligations to ICTA. In case ICTA accepts the remedy program, the matters in dispute shall be re-examined at the end of the program provided, if the program is not accepted, then ICTA may terminate the Concession Agreement upon expiry of the period granted to the Company.

The Concession Agreement also places a number of obligations with respect to delivering services on the Company in relation to the provision of telecommunications services.

The Concession Agreement requires that the Company shall meet all payments accrued as a result of the Concession Agreement and the establishment and operation of the telecommunication network in accordance with the applicable legislation or agreements concluded by the Government of the Republic of Turkey. These payments specifically include the payment of the use of frequencies. In addition, the Company is required to pay the ICTA 0.35% of its net sales revenue, as contribution share towards ICTA’s expenses.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

24. COMMITMENTS AND CONTINGENCIES (CONTINUED)

Turk Telekom concession agreement (continued)

Under the Concession Agreement, requests for access in relation to the infrastructure should be met to the extent technically possible and without discrimination. The Company is further required to publish reference access and interconnection offers approved by the ICTA.

The Concession Agreement also contains an obligation on the Company to provide universal services. According to article 6 entitled “Revenues from Universal Service” of the Universal Service Law No:5369, the Company declares the amount of 1% of its net sales revenue to the Ministry of Transport, Maritime Affairs and Communications until the end of the following year and the company inform up to the following month. This amount shall be transferred within the same period to the account of the central accounting department of the Ministry and shall be registered as revenue in the budget under the name of “Revenues for Universal Service”.

The tariffs to be charged by the Company are subject to the approval of the ICTA unless expressly provided to the contrary in any regulation issued by the ICTA.

The content of customer bills is governed by relevant laws and regulations. It is possible to issue a separate invoice for each service, as well as to issue one single invoice for more than one service rendered to a subscriber. The cost of each service shall be demonstrated separately, in the event of preparation of one single invoice for more than one service. A detailed bill is sent to the subscribers upon request, to the extent technically possible and subject to the payment of a fee.

Other provisions of the Concession Agreement provide for the confidentiality of communications and the establishment of effective methods to answer customer complaints.

TT Mobil GSM and IMT-2000/UMTS concession agreement and IMT Authorization Certificate

Regarding the MM and IMT-2000/UMTS concession agreement and IMT Authorization Certificate, the Company shall provide fixed guarantee by cash and/or letter of bank guarantee amounting to 6% of the Company’s License fee and interest rate of 2.5%.

Concession Agreement for Licensing of Establishment and Operation of GSM-1800 Digital Cellular Mobile Telephone System

A concession agreement entered into between TT Mobil and the ICTA (“the TT Mobil Concession Agreement”) on 12 January 2005 which replaced and superseded the previous GSM 1800 license agreements in place in relation to Aykol and Asia. After GSM 900 Frequency Band bidding done by ICA on 20 June, 2008. agreement was reaneged, the contract (the TT Mobil Concession Agreement) was reaneged after the Authorization Tender for IMT Services and Infrastructures made by ICA on 26 August 2015.

The TT Mobil concession agreement covers the establishment, development and operation of a GSM 1800 network and delivery of services in the relevant area. The geographical area covered by the relevant area is the area of the Relevant area.

Pursuant to the TT Mobil Concession Agreement, TT Mobil was granted to use 75 channels in the 1800 MHz band and 12 channels in the 900 MHz band. The term of the TT Mobil Concession Agreement is 25 years from 11 January 2001.

TT Mobil may apply to the ICTA for renewal between dates 24 and 6 months before the end of TT Mobil Concession Agreement. ICTA may at any time require renewal in terms of increasing the required frequency of any such renewal, provided the renewal request according to the operation of the GSM 1800 system. In the event of non-renewal, TT Mobil is under an obligation to transfer the network management center, being the central operation unit of the GSM 1800 system, gateway switchboards and central subscription works systems (including all kinds of technical hardware), together with all equipment affecting the operation of the system and the immovable properties used by TT Mobil to the ICTA or to the establishment to be designated by the Authority at the end of the contracted term as being in an operating condition.

Pursuant to the TT Mobil Concession Agreement, TT Mobil was granted to use 75 channels in the 1800 MHz band and 12 channels in the 900 MHz band. The term of the TT Mobil Concession Agreement is 25 years from 11 January 2001.

TT Mobil may apply to the ICTA for renewal between dates 24 and 6 months before the end of TT Mobil Concession Agreement. ICTA may at any time require renewal in terms of increasing the required frequency of any such renewal, provided the renewal request according to the operation of the GSM 1800 system. In the event of non-renewal, TT Mobil is under an obligation to transfer the network management center, being the central operation unit of the GSM 1800 system, gateway switchboards and central subscription works systems (including all kinds of technical hardware), together with all equipment affecting the operation of the system and the immovable properties used by TT Mobil to the ICTA or to the establishment to be designated by the Authority at no cost.

TT Mobil is also committed to ensure the network in line with technological improvements and international agreements and maintain the adequacy of the network by means of technology until the end of the agreement.

License fees were paid prior to the issuance of the agreement by TT Mobil.

TT Mobil provided a performance bond in the amount of USD 151,500. TT Mobil, additional to that bond, provided performance bond amounting TL 750,000 corresponding to 6% of bidding amount after GSM 900 Additional Frequency Band bidding by ICA on 20 June 2008. Should the operator be found not to have met the contractual obligations, the Authority shall record and confiscate the final guarantee as income.

The TT Mobil Concession Agreement provides that the license may be transferred with the approval of the ICTA and within the terms of the Authorization Ordinance. However, no transfer may be made to an entity which already has a GSM 900 or GSM 1800 license in that geographical area or to parties of such an entity, to the companies or subsidiaries which is owned or managed somehow by shareholders of such entity or to the management of such entity and their first and second blood relatives and relative affinites. In cases such issues are determined, GSM 1800 license given to them by ICTA is cancelled.

Regarding transfer of shares regulation clauses at the date of the transaction will be applied. The approval of the Competition Authority is also required for any changes of control, being a transfer of the shares.

Concession Agreement for Licensing of Establishment and Operation of GSM-1800 Digital Cellular Mobile Telephone System (continued)

Fund payable to the Treasury

TT Mobil will pay an amount equal to 15% of the gross sales on a monthly basis to the Treasury, except for the default interest imposed on their subsidiaries for their late payments, indirect taxes, financial obligations such as charges and fees, amounts obtained by the operator from other mobile operators regarding the installation and operation of the facilities where the mobile base stations are located, remunerations booked in the legal accounting records, which were corrected within the fiscal year, due to: the mistakes in the form or content of the invoice (such as customer information, type, amount, price and amount of the work), mistakes regarding the periods of the service, duplicated (double charged) invoices, and the actual amounts accounted for reporting purposes.

Contribution share to the ICTA

TT Mobil shall pay 0.3% of the annual net sales to the ICTA as contribution share to the ICTAs expenses, last on the last working day of April of the following year.

Coverage area

TT Mobil has guaranteed and undertook to cover (up to 2 Watt outdoors) at least 50% of the population of Turkey within three years after 11 January 2001 and at least 90% of the population of Turkey within five years after 11 January 2001. However, the localities where there are less than 10,000 inhabitants shall not be taken into consideration. This coverage area refers to the area to be covered by TT Mobil along and will not be contributed by national roaming. Upon request of the ICTA, the yearly utmost two settling areas shall be covered with priority by TT Mobil. TT Mobil has completed its related liabilities with respect to coverage on 31 December 2004.

Service offerings

TT Mobil may, at any time, undertake to provide the services specified within the frame of GSM memorandum of understanding applied by GSM association including, but not limited to the services specified by GSM license agreement (call forwarding, barring of outgoing and incoming calls, technical assistance for subscribers and free call forwarding to police and public emergency services).

Interconnection payments

TT Mobil will comply with the telephone service quality standards set down in the International Telecommunication Union (ITU-T) recommendations in the GSM 1800 international standards. These standards require blocking rate of the licensed indoor network to be 5% and the call failure rate not to be more than 2%.

Tariffs

TT Mobil may freely determine its tariffs provided that these tariffs are not contrary to the regulations of the ICTA.

Emergencies

TT Mobil will take the necessary measures with priority in order to satisfy the requirements and the needs of subscribers and users in emergencies, provided that the public authorities and enterprises will have priority in the case of health and security emergencies for which they are responsible. TT Mobil has to provide at least two base stations for the use of Ministry of Transport, Maritime Affairs and Communications in emergency.

Investment plans

TT Mobil pursuant to the relevant regulation, until the first day of December every year, TT Mobil will present its investment plan for the following calendar years to the ICTA. These plans shall be valid for 3 years and will contain information about the dynamic demand forecast and number and locations of the exchange stations, base station units and base controller stations to be established, the period of operation, and the investment costs. Within 120 days of receipt of the investment plan, the ICTA will approve the compliance of plans to the article 6th of the agreement. Investment plan will be presented so as in to inform the ICTA after the requirements arising from the article 6th of the agreement are met.

National roaming

TT Mobil may enter into contracts with other licensed mobile network operators in Turkey for national roaming purposes. Roaming contracts and the financial clause of the contracts has to be presented to ICTA before signature procedures completed.

Suspension of operations

If deemed necessary for public security and national defence in case of war, general mobilization, etc. the Authority may temporarily suspend the application of this Concession Agreement for Licensing of Establishment and Operation of GSM-1800 Digital Cellular Mobile Telephone System. In case of suspension as above will be added to the term of the license and the income of such a period, if any, will belong to TT Mobil.

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

Currency in thousands of Turkish Lira (“TL”) unless otherwise stated, all other currencies are also disclosed in thousands (Convenience translation of a report and financial statements originally issued in Turkish)
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)
(Convenience translation of a report and financial statements originally issued in Turkish)

24. COMMITMENTS AND CONTINGENCIES (CONTINUED)

Concession Agreement for Licensing of Establishment and Operation of GSM-1800 Digital Cellular Mobile Telephone System

(continued)

Termination of the agreement by the ICTA

The ICTA may cancel the license or terminate the Agreement for the following reasons:

i) A final judgement of the competent courts for insolvency of TT Mobil or its composition with creditors;

ii) Determination of the failure of TT Mobil to perform its contractual obligations hereunder and to remedy its default in a reasonable period of time granted;

iii) Determination that TT Mobil extends its activities beyond the frequencies allocated hereunder or other frequencies that may be allocated by the ICTA to TT Mobil for use in the GSM 1800 System, and failure of TT Mobil to cease such activities in a reasonable period of time granted;

iv) Failure of TT Mobil to pay the license fees hereunder.

However, that except for point (iv) above, TT Mobil will be given the opportunity to fulfil its obligations within a period not less than 90 days of written notice by the ICTA. Should TT Mobil fail to perform its obligations during this period, TT Mobil will compensate the ICTA for the cost of the execution of its obligations. If this program is accepted by the ICTA, the points of disagreement will be revised at the end of the program. If the program is not acceptable, the ICTA may terminate the Agreement at the end of a period provided to TT Mobil. Upon termination of this Agreement, TT Mobil shall transfer all of the GSM 1800 system equipment to the ICTA without any remuneration.

Insurance

TT Mobil will maintain adequate all risk insurance for the telecommunication facilities and services established and operated until the end of the license term.

Concession Agreement of the Establishment and Operation of IMT2000/UMTS Infrastructures and Provision of Services

The Concession Agreement with ICTA has been signed on 30 April 2009 and TT Mobil has been granted with 3G license for an amount of EUR 214,000 excluding VAT. The term of the license is 20 years effective from the signature date of the Agreement. 3G services have been launched on 30 July 2009. (“The TT Mobil Concession Agreement”) was rearranged after the Authorization Tender for IMT Services and Infrastructures made by ICTA on 26 August 2010.

According to this Agreement,

i) TT Mobil shall provide subscribers' and users' ITL calls and other emergency situation calls to public security institutions and other public institutions, and to direct those calls to the centres requested by the said institutions, free of charge bearing all costs.

ii) TT Mobil shall keep at least 2 units of IMT2000/UMTS mobile base stations to be used in emergency situations under the request of the Ministry of Transport and Communication.

iii) Within the first five years by the signature of the Agreement, TT Mobil shall obtain the approval of the ICTA for each assignment of TT Mobil shares in ratio exceeding 10% to persons and entities other than the current shareholders and subsidiaries of the current shareholders. Any type of share assignment leading a change in the control of TT Mobil shall be subject to the approval of the ICTA.

iv) TT Mobil shall remit a basic letter of guarantee amounting to EUR 12,840 which is 6% of the license fee. For the required guarantee. Should the TT Mobil be understood to not perform its contractual obligations, ICTA shall record and confiscate the final guarantee. Should the TT Mobil be understood to not perform its contractual obligations; ICTA shall record and confiscate the final guarantee as income. In such confiscation of final guarantee as income is realized, TT Mobil shall grant new final guarantee within 30 days. Should the new final guarantee not granted within the said period, the Agreement might be terminated.

v) During the term of the Agreement, TT Mobil shall each year submit its investment plan related to the subsequent calendar year, 18 December to the ICTA. This plan shall be prepared for three years, and shall include such information as the number, location, coverage areas, investment costs with respect to exchange centres, base stations and control stations to be established, as well as the realization ratio of the previous years investment plan and reasons of deviation, if any.

vi) TT Mobil will pay an amount equal to 5% of the gross sales on a monthly basis to the Treasury, except for the default interest imposed on their subscribers for their late payments, indirect taxes, financial obligations such as charges and fees, and the accrual amounts accounted for reporting purposes.

vii) TT Mobil shall pay 0.35% of the annual net sales to the ICTA as contribution share to the ICTA's expenses, last on the latest working day of April of the following year.

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)
(Convenience translation of a report and financial statements originally issued in Turkish)

24. COMMITMENTS AND CONTINGENCIES (CONTINUED)

Concession Agreement of the Establishment and Operation of IMT2000/UMTS Infrastructures and Provision of Services (continued)

Coverage Area Obligations

Following the signature of the Agreement, TT Mobil shall have under coverage the population within the borders of:

- metropolitan municipalities within 3 years,
- all the municipalities of all provinces and districts within 6 years,
- all the residential locations having a population of more than 5,000 within 8 years,
- all the residential locations having a population of more than 1,000 within 10 years.

Those are the areas which are to be covered by TT Mobil alone and this obligation shall not be fulfilled through roaming.

TT Mobil should maintain service quality in accordance with ICTA regulations, ETSI (European Telecommunications Standards Institute) standards and ITU (International Telecommunication Union) standards, decisions and recommendations given by ITU.

 Upon request of the ICTA, yearly utmost two testing areas shall be covered with priority by TT Mobil, before the specified delay in fulfillment of the coverage area obligations, except the forced major conditions, an administrative fine shall be applied within the frame of Relevant Legislation. If there is any delay in fulfillment of the coverage area obligations for a period of more than two years, then the Agreement might be terminated by the ICTA.

The investments for hardware and software being used in the electronic communications network

Except for the investments made in the lease of places, towers, pipes, pipes, containers, channels, energy transfer lines and similar infrastructure plants, each year TT Mobil shall fulfill the following requirements for its investments related to electronic communications network (hardware, software etc.).

a) To procure at least 40% of such investments from vendor companies employing a R&D center established in Turkey and engaged in developing R&D projects in relation with the information and communication technologies provided at least 200 engineers functioning in such company in the first year after the signature of the Agreement, at least 300 engineers in the second year and at least 500 engineers for the third and subsequent years or from vendor companies employing a R&D center with at least 300 engineers functioning in the first year after the signature of the Agreement, at least 250 engineers in the second year and at least 350 engineers for the third and subsequent years however such company to employ also a Technical Assistance Centre with at least 50 engineers in the said first year, at least 100 engineers in the second year and at least 150 engineers in the third and subsequent years.

b) A vendor company may establish the R&D center and Technical Assistance Centre together with another vendor company, but may not establish with a company, organization or institution resident in Turkey. The vendor company shall have at least 50% share of such centres. Said organization or institution resident in Turkey shall not employ other R&D centres and Technical Assistance Centres that have been established together with other vendor companies functioning in information and communication technologies area.

The university associates may also be employed part time, as engineers to be employed by the vendor company. The number of the university associates may not exceed 5% of the total number of engineers employed by TT Mobil.

TT Mobil is obliged to perform its investments regarding the electronic communications network by auditing and determining whether vendor companies comply with the foregoing terms and conditions.

b) To procure at least 30% of such investments from the vendors in quality of Small and Medium Sized Entities and established in Turkey for the purpose of product and system development.

All the independent software and hardware units to be used in the network of TT Mobil shall have open interface connections with each other.

ICTA may perform audits regarding the execution of this obligation or may commission another organization or institution to perform such audits when deemed necessary. The costs to arise from such audits shall be paid by TT Mobil.

Should TT Mobil be understood to procure goods and services through methods against the foregoing terms and conditions, an administrative monetary penalty shall be applied to TT Mobil up to 1% of its turnover of the previous calendar year.

Should TT Mobil not perform the said obligations, a penalty as 40% of total amount of its investments in the network (hardware software etc.), except for the investments for lease of places, towers, pipes, pipes, containers, channels, energy transfer lines and similar infrastructure plants, shall be applied separately to TT Mobil for each year. This clause is valid for the first three years following the signature date of the Agreement. Annual periods shall start with the signing of the concession agreement.

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)
(Convenience translation of a report and financial statements originally issued in Turkish)
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021
Notes to the Consolidated ... in thousands of Turkish Lira ("TL") unless otherwise stated, all other currencies are also disclosed in thousands)

24. COMMITMENTS AND CONTINGENCIES (CONTINUED)

The Investments for hardware and software being used in the electronic communications network (continued)

Concession Agreement of the Establishment and Operation of IMT2000/UMTS Infrastructures and Provision of Services (continued)

Termination of the Agreement by ICTA:

The Authority might terminate the Agreement for the following reasons:

- A bankruptcy or banknote's certificate decision on TT Mobil given by the judicial authorities;
- TT Mobil not performing some of its contractual obligations and not correcting such breach in the given period;
- TT Mobil operating under the frequencies other than the ones allocated to itself by ICTA;
- Termination of TT Mobil Concession Agreement;
- TT Mobil not performing national roaming obligation stated in the contract.

In such circumstances, ICTA gives TT Mobil the opportunity to fulfill its obligations within 90 days after the written notice. In case TT Mobil cannot fulfill its obligations within the period, the Agreement will be terminated. The license fee or any other fee is not reimbursable in case of termination of the Agreement. In the case of cancellation of agreement by ICTA, TT Mobil will allocate all data and documentation related to the system, software affecting the running of system (including tower, beam, container, channel, energy transmission lines, antenna etc.) and stated in the usage of TT Mobil to ICTA or to the entity ICTA enounces by making sure that there is no pledge, mortgage, levy and related legal blockages on them and they are free of cost and free works of problem.

The contract ("the TT Mobil Concession Agreement") was rearranged after the Authorization Tender for IMT Services and Infrastructures made by ICTA on 20 August 2015.

TT Mobil has been authorized to provide IMT service and Limited Use Authorization Certificate on 27 October 2015. According to the Authorization Certificate:

i) TT Mobil shall provide emergency call services in line with the regulations of ICTA, free of charge bearing all costs and comply with the regulations of ICTA in relation to this matter;
ii) TT Mobil shall keep at least 2 mobile base stations so as to be used for the provision of IMT services upon the Ministry's request, in the case of disaster and emergency;
iii) Within the first 5 years by the signature of the Agreement, TT Mobil shall obtain the approval of the ICTA for each assignment of TT Mobil shares in ratio exceeding 10% to persons and entities other than the current shareholders and subsidiaries of the current shareholders. Any type of share assignment leading a change in the control of TT Mobil shall be subject to the approval of the ICTA.
iv) TT Mobil has accepted a bank letter of guarantee amounting to EUR 73,300 which is 6% of the total fee, for act as final guarantee. Should be understood that TT Mobil to not perform its contractual obligations, ICTA shall record and confiscate the final guarantee as income. In such consecration of final guarantee as income realized TT Mobil shall grant new final guarantee within 30 days. Should the new final guarantee not granted within the said period, the Authorization might be terminated by ICTA.

TT Mobil will pay an amount equal to 15% of the gross sales on a monthly basis to the Treasury, except for the default interest imposed on their subscriptions for their late payments, indirect taxes, financial obligations such as charges and fees, and the accrual amounts accounted for reporting purposes.

TT Mobil shall pay the administrative fee at the rate and in the way determined by ICTA in accordance with the applicable law.

Coverage Area Obligations

Following the authorization, Additionally, following the authorization, TT Mobil shall put at least:

- 95% of Turkey’s population within 8 years;
- 90% of the population in each province and district within 8 years;
- 99% of highways, high speed and very high speed train routes and tunnels longer than 1 km within 3 years;
- 95% of divided highways within 6 years;
- 80% of conventional train routes within 10 years under coverage.

Additionally, following the authorization, TT Mobil shall put at least: 95% of highways, high speed and very high speed train routes and tunnels longer than 1 km added after the first year within 2 years of its entering into service. 95% of divided highways added after the fourth year within 2 years of its entering into service. 95% of conventional train routes added after the eighth year within 2 years of its entering into service under coverage.

Areas covered by TT Mobil pursuant to the IMT-2000/UMTS Concession Agreement shall be deemed to be also covered under this authorization on condition that the service quality criteria set forth in the respective articles are satisfied. Additionally, areas covered by TT Mobil under this authorization for the purpose of provision of IMT services shall be deemed to be covered in the determination of the coverage obligation of IMT-2000/UMTS services.

Coverage obligation shall be fulfilled by TT Mobil on its own and not through national roaming. However, TT Mobil shall be entitled to share radio access network in the areas under the coverage obligation.

Service quality obligation

TT Mobil shall ensure data download at minimum 2 Mbps in the areas subject to coverage obligation at a probability of 95% per user. The matters related to the inspection of this obligation shall be determined by ICTA.

These data transmission speeds are minimum values and ICTA shall determine service quality obligations required to be ensured by TT Mobil considering ETSI standards, ITU standards, decisions and recommendation, our national development targets, technological improvements and user requirements.

Sharing the Radio Access Network

On condition that the provisions of the applicable law are not breached, TT Mobil may install and operate the radio access network to be installed for the provision of IMT services together with other operators authorized to provide IMT services and further, lease necessary transmission lines from authorized operators in order to materialize the connections within the radio access network. This right shall not remove the obligations of TT Mobil under the authorization and shall not constitute a reason for non-fulfilment of such obligations. TT Mobil shall not avoid fulfilling its obligations under the authorization due to reasons arising from the sharing. TT Mobil shall make all reasonable efforts to ensure that there is no interference between the signals of TT Mobil and the signals of the other operators. TT Mobil shall be liable for the damages arising from the interference of the signals provided in the area covered by its license, unless it proves that the interference is caused by the other operator or the operator violating the obligations.

Investments and communication services related to the hardware and software used in the network

Except investments made for property lease, tower, pole, pipe, container, conduit, power transmission lines and similar infrastructure, TT Mobil shall, following the authorization, be obliged to provide:

a) At least 40% of its investments and communication services related to the network (such as hardware, software).

b) At least 10% of its investments and communication services related to the network (such as hardware, software).

In the event that there exist any antenna facilities installed by other operators at the settlements in question following the authorization, additionally, following the authorization, the antenna facilities to be newly installed by TT Mobil under this authorization, at the TT Mobil facility by active sharing of radio access network.

Following this authorization, the antenna facilities newly installed under IMT-2000/UMTS Concession Agreements shall also be subject to the obligation prescribed by this paragraph.

TT Mobil shall be obliged to actively share radio access network in the antenna facilities to be newly installed under this authorization in order to cover highways, high speed railways and divided highways following the authorization. Following this authorization, the antenna facilities newly installed under IMT-2000/UMTS Concession Agreements shall also be subject to the aforementioned obligation.

24. COMMITMENTS AND CONTINGENCIES (CONTINUED)

The Investments for hardware and software being used in the electronic communications network (continued)

Concession Agreement of the Establishment and Operation of IMT2000/UMTS Infrastructures and Provision of Services (continued)

Coverage Area Obligations (continued)

Maximum two settlements per year shall be primarily brought by TT Mobil under coverage upon ICTA's request and under the service quality obligation determined for such areas.

In the event that the fulfilment of coverage obligation is delayed for any reason other than force majeure events, administrative fine shall be applied pursuant to the applicable law. In the event that the fulfilment of the coverage obligation is delayed for more than two (2) years, the Authorization might be terminated by ICTA.

Service quality obligation

TT Mobil shall ensure data download at minimum 2 Mbps in the areas subject to coverage obligation at a probability of 95% per user. The matters related to the inspection of this obligation shall be determined by ICTA.

These data transmission speeds are minimum values and ICTA shall determine service quality obligations required to be ensured by TT Mobil considering ETSI standards, ITU standards, decisions and recommendation, our national development targets, technological improvements and user requirements.

Sharing the Radio Access Network

On condition that the provisions of the applicable law are not breached, TT Mobil may install and operate the radio access network to be installed for the provision of IMT services together with other operators authorized to provide IMT services and further, lease necessary transmission lines from authorized operators in order to materialize the connections within the radio access network. This right shall not remove the obligations of TT Mobil under the authorization and shall not constitute a reason for non-fulfilment of such obligations. TT Mobil shall not avoid fulfilling its obligations under the authorization due to reasons arising from the sharing. TT Mobil shall make all reasonable efforts to ensure that there is no interference between the signals of TT Mobil and the signals of the other operators. TT Mobil shall be liable for the damages arising from the interference of the signals provided in the area covered by its license, unless it proves that the interference is caused by the other operator or the operator violating the obligations.

Investments and communication services related to the hardware and software used in the network

Except investments made for property lease, tower, pole, pipe, container, conduit, power transmission lines and similar infrastructure, TT Mobil shall, following the authorization, be obliged to provide:

a) At least 40% of its investments and communication services related to the network (such as hardware, software).

b) At least 10% of its investments and communication services related to the network (such as hardware, software).

In the event that there exist any antenna facilities installed by other operators at the settlements in question following the authorization, additionally, following the authorization, the antenna facilities to be newly installed by TT Mobil under this authorization, at the TT Mobil facility by active sharing of radio access network.

Following this authorization, the antenna facilities newly installed under IMT-2000/UMTS Concession Agreements shall also be subject to the obligation prescribed by this paragraph.

TT Mobil shall be obliged to actively share radio access network in the antenna facilities to be newly installed under this authorization in order to cover highways, high speed railways and divided highways following the authorization. Following this authorization, the antenna facilities newly installed under IMT-2000/UMTS Concession Agreements shall also be subject to the aforementioned obligation.

Investments and communication services related to the hardware and software used in the network

Except investments made for property lease, tower, pole, pipe, container, conduit, power transmission lines and similar infrastructure, TT Mobil shall, following the authorization, be obliged to provide:

a) At least 40% of its investments and communication services related to the network (such as hardware, software).

b) At least 10% of its investments and communication services related to the network (such as hardware, software).
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

24. COMMITMENTS AND CONTINGENCIES (CONTINUED)

Investments and communication services related to the hardware and software used in the network (continued)

Up to 60 within 2 years and up to 150 within 4 years following the authorisation. The obligation of TT Mobil stated in the law No 4734 and applicable law at least by 40% within the first 4 years and by at least 45% in the following 4 years. Such items among the products supplied by the supplier companies and SMEs to TT Mobil, which are determined to be domestic products, supply capacity of the producers and other conditions shall apply to ICTA indicating the reasons, on no later than six (6) months before the expiry of the obligation period. ICTA may reduce or terminate the obligation for the respective period if deems necessary.

ICTA enounces by making sure that there is no pledge, mortgage, levy and related legal blockages on them and they are free of cost

A supplier company may establish R&D and technical assistance centers together with institutions or bodies, except other suppliers, established in Turkey, which operate in the field of information and communication technologies and do not have a R&D or technical assistance centers established in Turkey. The supplier companies must hold at least 50% of the shares of such centers.

If the obligation under this article is not fulfilled, the provision for such court cases amounts to TL 67.292 as of 31 December 2021 (31 December 2020: TL 61.171).

The Ministry of Trade administrative fine which was imposed on the Ministry of Trade in the year 2022 for the company TT Mobil. The Ministry of Trade administrative fine has not been notified yet as of 31 December 2021. The Company has recognized a provision amounting to TL 25.000 in the consolidated financial statements.

25. DISPOSAL OF SUBSIDIARIES

As of 31 December 2021, TL 33.119 provision provided for ICTA penalties and amounts to be repaid to customers or to the Ministry of Transport and Infrastructure of the Republic of Turkey due to ICTA resolutions (31 December 2020: TL 59.531).

Other issues

Other explanations

- TT Mobil not performing some of its contractual obligations and not correcting such breach within the given period;
- TT Mobil not performing its obligations stated in the articles related to confidentiality of the communication, national security and public order.

In such circumstances, ICTA gives TT Mobil the opportunity to fulfill its obligations within 90 days after the written notice. In case TT Mobil cannot fulfill all the obligations within this period, the Authorization Certificate will be terminated by ICTA.

The license fee or any other fee is not reimbursable in case of termination of agreement. In the case of cancellation of agreement by ICTA, TT Mobil has the right to require compensation for the direct, intangible and indirect losses arising from the termination of the Agreement. However, the compensation amount is subject to the approval of ICTA.

ICTA provided in the consolidated financial statements for the probable court cases against the Group based on the lawyers’ assessments. The provision for such court cases amounts to TL 67.292 as of 31 December 2021 (31 December 2020: TL 61.171). For the rest of the cases, Group lawyers commented that basis of those cases are not realistic and should be appealed. Therefore, no provision has been provided for these cases.

26. SUPPLEMENTARY CASH FLOW INFORMATION

1. January 2021 opening balance

Outflows of cash in net cash used in operating activities amounting to TL 52.907 represents change in restricted cash (Note 4) "Other inflows of cash, net" in net cash used in financial activities amounting to TL 770.640 represents change in other financial assets. "Other adjustment for non-cash items" in movements to reconcile net profit to cash provided by operating activities amounting to TL 295.807 represents change in TFRS 12 interpretation 12.

- Other outflows of cash in net cash used in operating activities amounting to TL 55.353 represents change in restricted cash (Note 4) "Other inflows of cash, net" in net cash used in financial activities amounting to TL 770.640 represents change in other financial assets. "Other adjustment for non-cash items" in movements to reconcile net profit to cash provided by operating activities amounting to TL 295.807 represents change in TFRS 12 interpretation 12.

31 December 2021 closing balance

- Other outflows of cash in net cash used in operating activities amounting to TL 55.353 represents change in restricted cash (Note 4) "Other inflows of cash, net" in net cash used in financial activities amounting to TL 770.640 represents change in other financial assets. "Other adjustment for non-cash items" in movements to reconcile net profit to cash provided by operating activities amounting to TL 295.807 represents change in TFRS 12 interpretation 12.

31 December 2021 closing balance

- Other outflows of cash in net cash used in operating activities amounting to TL 55.353 represents change in restricted cash (Note 4) "Other inflows of cash, net" in net cash used in financial activities amounting to TL 770.640 represents change in other financial assets. "Other adjustment for non-cash items" in movements to reconcile net profit to cash provided by operating activities amounting to TL 295.807 represents change in TFRS 12 interpretation 12.

27. SUBSEQUENT EVENTS (2022)

With the "Law on the Amendment of the Tax Procedure Code and the Corporate Tax Law", whose proposal was submitted on January 11, 2021 by the Grand National Assembly of the Republic of Turkey and approved by the Grand National Assembly of the Republic of Turkey on October 23, 2021, foreign exchange differences, interest, dividends and other incomes of companies that convert their foreign currency assets or various gold instruments into Turkish Lira and keep the Turkish Lira amounts generated from the above transactions deposited and other transactions are exempt from corporate tax. Since the changes made in tax laws after the reporting date are within the scope of "non-adjusting event after the reporting period" in accordance with IAS 10, they did not have an impact on the financial statements of the Group as of 31 December 2021.
Türk Telekomünikasyon Anonim Şirketi and its Subsidiaries

Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

(Currency in thousands of Turkish Lira (“TL”) unless otherwise stated; all other currencies are also disclosed in thousands)

(Convenience translation of a report and financial statements originally issued in Turkish)

27. REVENUE

<table>
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<tr>
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<th>1 January – 31 December 2021</th>
<th>1 January – 31 December 2020</th>
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<tbody>
<tr>
<td>Mobile</td>
<td>11,499,619</td>
<td>9,866,913</td>
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<td>Broadband</td>
<td>10,711,533</td>
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<td>Fixed voice</td>
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<td>IFRIC 12 revenue</td>
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<td>Corporate data</td>
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<td>International revenue</td>
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<td>Other</td>
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<td>Total</td>
<td>34,272,934</td>
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</table>

28. OPERATING EXPENSES

<table>
<thead>
<tr>
<th></th>
<th>1 January – 31 December 2021</th>
<th>1 January – 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of sales</td>
<td>(19,404,441)</td>
<td>(15,705,138)</td>
</tr>
<tr>
<td>General administrative expenses</td>
<td>(2,735,464)</td>
<td>(2,320,713)</td>
</tr>
<tr>
<td>Marketing, sales and distribution expenses</td>
<td>(2,644,196)</td>
<td>(2,439,609)</td>
</tr>
<tr>
<td>Research and development expenses</td>
<td>(273,877)</td>
<td>(247,105)</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>(25,057,918)</td>
<td>(20,712,565)</td>
</tr>
</tbody>
</table>

29. EXPENSES BY NATURE

<table>
<thead>
<tr>
<th></th>
<th>1 January – 31 December 2021</th>
<th>1 January – 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel expenses</td>
<td>(4,697,951)</td>
<td>(3,867,855)</td>
</tr>
<tr>
<td>Taxes</td>
<td>(2,967,636)</td>
<td>(2,610,165)</td>
</tr>
<tr>
<td>TFRS Interpretation 12 related fixed assets additions and capex provision expenses</td>
<td>(2,275,439)</td>
<td>(1,557,809)</td>
</tr>
<tr>
<td>Repair and maintenance expenses</td>
<td>(1,502,591)</td>
<td>(1,198,271)</td>
</tr>
<tr>
<td>International connection</td>
<td>(1,500,646)</td>
<td>(1,087,133)</td>
</tr>
<tr>
<td>Domestic interconnection</td>
<td>(1,487,545)</td>
<td>(1,451,765)</td>
</tr>
<tr>
<td>Utilities</td>
<td>(1,273,503)</td>
<td>(837,909)</td>
</tr>
<tr>
<td>Cost of sales and cost of equipment sales of technology companies</td>
<td>(1,049,902)</td>
<td>(882,597)</td>
</tr>
<tr>
<td>Other expenses</td>
<td>(2,464,478)</td>
<td>(1,843,806)</td>
</tr>
<tr>
<td>Total operating expenses (excluding depreciation and amortization expense)</td>
<td>(18,855,711)</td>
<td>(15,337,281)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1 January – 31 December 2021</th>
<th>1 January – 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation, amortization</td>
<td>(6,169,320)</td>
<td>(5,318,992)</td>
</tr>
<tr>
<td>Impairment expenses</td>
<td>(32,883)</td>
<td>(36,392)</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>(25,057,918)</td>
<td>(20,712,565)</td>
</tr>
</tbody>
</table>

30. OTHER OPERATING INCOME/(EXPENSE)

<table>
<thead>
<tr>
<th></th>
<th>1 January – 31 December 2021</th>
<th>1 January – 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest and discount gains</td>
<td>194,153</td>
<td>124,903</td>
</tr>
<tr>
<td>Rental income</td>
<td>127,981</td>
<td>107,760</td>
</tr>
<tr>
<td>Litigation and indemnity income</td>
<td>56,662</td>
<td>132,805</td>
</tr>
<tr>
<td>Foreign exchange gains</td>
<td>44,170</td>
<td>16,605</td>
</tr>
<tr>
<td>Curtailment and settlement gain</td>
<td>23,083</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>156,850</td>
<td>95,093</td>
</tr>
<tr>
<td>Other operating income</td>
<td>602,859</td>
<td>478,566</td>
</tr>
<tr>
<td>Foreign exchange losses</td>
<td>(1,311,113)</td>
<td>(277,355)</td>
</tr>
<tr>
<td>Litigation provision compensation and penalty expenses (*)</td>
<td>(231,676)</td>
<td>(33,458)</td>
</tr>
<tr>
<td>Interest expenses on employee benefit obligations (Note 21)</td>
<td>(88,915)</td>
<td>(88,429)</td>
</tr>
<tr>
<td>Discount losses</td>
<td>(72,533)</td>
<td>(99,767)</td>
</tr>
<tr>
<td>Other</td>
<td>(155,199)</td>
<td>(99,767)</td>
</tr>
<tr>
<td>Other operating expense (–)</td>
<td>(1,706,903)</td>
<td>(593,362)</td>
</tr>
</tbody>
</table>

(*) Litigation provision, compensation and penalty expenses mainly consist of ICTA penalties, customer return provisions, group litigation provisions, Ministry of Commerce administrative fine and tax assessments in accordance with restructuring provisions as per the Law No. 7326.

31. INCOME/(EXPENSE) FROM INVESTING ACTIVITIES

<table>
<thead>
<tr>
<th></th>
<th>1 January – 31 December 2021</th>
<th>1 January – 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain from scrap sales</td>
<td>1,063,627</td>
<td>388,129</td>
</tr>
<tr>
<td>Gain on sales of property, plant and equipment</td>
<td>79,706</td>
<td>9,799</td>
</tr>
<tr>
<td>Income from investing activities</td>
<td>1,143,333</td>
<td>377,848</td>
</tr>
<tr>
<td>Losses from sales on property, plant and equipment</td>
<td>(96,785)</td>
<td>-</td>
</tr>
<tr>
<td>Expense from investing activities (–)</td>
<td>(16,785)</td>
<td>-</td>
</tr>
</tbody>
</table>

32. FINANCIAL INCOME/(EXPENSE)

<table>
<thead>
<tr>
<th></th>
<th>1 January – 31 December 2021</th>
<th>1 January – 31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign exchange and derivative instruments gains</td>
<td>4,889,475</td>
<td>870,717</td>
</tr>
<tr>
<td>Interest income on bank deposits</td>
<td>121,761</td>
<td>126,966</td>
</tr>
<tr>
<td>Other</td>
<td>4,884</td>
<td>654</td>
</tr>
<tr>
<td>Financial Income</td>
<td>5,015,420</td>
<td>998,337</td>
</tr>
<tr>
<td>Foreign exchange and derivative instruments loss</td>
<td>(6,159,538)</td>
<td>(2,376,742)</td>
</tr>
<tr>
<td>Interest expense</td>
<td>(2,733,638)</td>
<td>(2,301,262)</td>
</tr>
<tr>
<td>Other</td>
<td>(112,808)</td>
<td>(81,102)</td>
</tr>
<tr>
<td>Financial gains</td>
<td>(8,445,964)</td>
<td>(4,759,106)</td>
</tr>
<tr>
<td>Financial expenses, net</td>
<td>(3,430,544)</td>
<td>(3,760,769)</td>
</tr>
</tbody>
</table>
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

320
Türk Telekomünikasyon Anonim Şirketi and its Subsidiaries Türk Telekomünikasyon Anonim Şirketi and its Subsidiaries
As of 31 December 2021 deferred tax expense amounting to TL 672.857 (31 December 2020: TL 115.395) income are recognized in the consolidated statement of other comprehensive income.

The Company and its subsidiaries located in Turkey are subject to taxation in accordance with the tax regulations and the legislation effective in Turkey where the Group companies operate. Corporate tax returns are required to be filed by the twenty-fifth day of the fourth month following the balance sheet date and taxes must be paid in one instalment by the end of the fourth month.

In Turkey, corporate tax rate is 25% as of 31 December 2021. However, the corporate tax rate will be applied as 25% for the corporate income for the 2021 taxation period and 23% for the corporate income for the 2022 taxation period in accordance with the article 91 of the Law No. 7316 on the Procedure for Collection of Public Claims and the Law Amending Some Other Laws and included to the temporary article 13 of Law No. 5520 Corporate Tax Law which are published in the Official Gazette numbered 31462 on 22 April 2021. As of the nine month period ended 30 September 2021, corporate tax provisions have been calculated and accrued at 25%. As of the twelve month period ended 31 December 2021, corporate tax provisions have been calculated and accrued at 25%.

The tax legislation provides for a temporary tax of 25% to be calculated and paid based on earnings generated for each quarter for the period ended 31 December 2021. The amounts thus calculated and paid are offset against the final corporate tax liability for the year.

The tax legislation provides for a temporary tax of 25% to be calculated and paid based on earnings generated for each quarter for the period ended 31 December 2021. The amounts thus calculated and paid are offset against the final corporate tax liability for the year. With the “Law Amending the Tax Procedure Law and the Corporate Tax Law”, which was accepted on the agenda of the Turkish Grand National Assembly on 20 January 2022, the application of inflation accounting was postponed starting from the balance sheet dated on 31 December 2021.

In Turkey, the tax legislation does not permit a parent company and its subsidiaries to file a consolidated tax return. Therefore, provisions for taxes, as reflected in the consolidated financial statements, has been calculated on a separate-entity basis.

Corporate tax losses can be carried forward for a maximum period of five years following the year in which the losses were incurred. The tax authorities can inspect tax returns and the related accounting records for a retrospective maximum period of five years. Dividend payments made to resident and non-resident individuals, non-resident legal entities and corporations resident in Turkey (except for the ones exempt from corporate and income tax), is subject to an income tax of 15%.

Dividend payments made from a corporation resident in Turkey to a corporation also resident in Turkey are not subject to income tax. Furthermore, income tax is not calculated in case the profit is not distributed or transferred to equity.

The dividend income (excluding the participation certificates of investment funds and profit shares derived from the share certificates of investment trusts) derived by entities from the participation in the capital of another resident entity is exempt from corporate tax. Furthermore, 50% of the income derived by entities from the sale of participation shares and real estates (immovable property) preferential rights, founders’ shares and redeemed shares which are carried in assets for at least for two years is exempt from corporate tax as of 31 December 2021.

In order to be able to benefit from the exemption, the relevant income should be kept under a fund account in the liabilities, and should not be withdraw from the enterprise for 5 years. The sales amount should be collected by the end of the second calendar year following the year of sale.
### Credit risk

#### Receivables

<table>
<thead>
<tr>
<th>Receivables</th>
<th>Trade Receivables</th>
<th>Other receivables</th>
<th>Contract assets</th>
<th>Deposits and banks</th>
<th>Derivative Instruments</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 December 2021</td>
<td>Related Parties</td>
<td>Third Parties</td>
<td>Related Parties</td>
<td>Third Parties</td>
<td>Related Parties</td>
<td>Third Parties</td>
</tr>
<tr>
<td>Guaranteed portion of the maximum risk</td>
<td>224,100</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Maximum credit risk exposed to as at the reporting date (A+B+C+D+E)</td>
<td>53,869</td>
<td>6,656,479</td>
<td>-</td>
<td>1,007,052</td>
<td>7,696,351</td>
<td>4,039,063</td>
</tr>
<tr>
<td>A. Carrying amount of financial assets not overdue or not impaired</td>
<td>53,869</td>
<td>5,388,407</td>
<td>-</td>
<td>1,007,052</td>
<td>7,696,351</td>
<td>4,039,063</td>
</tr>
<tr>
<td>B. Carrying amount of financial assets with rediscussed conditions that are considered overdue or impaired if not rediscussed</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C. Carrying amount of financial assets overdue but not impaired</td>
<td>-</td>
<td>1,258,072</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>D. Carrying amount of assets impaired</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E. Off balance sheet items with credit risk</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Financial losses due to Group’s receivables and financial assets which result from not implementing agreement clauses related to financial assets by a customer or other party constitutes credit risk.

When determining the credit risk exposure as at the balance sheet date, items like guarantees received, which increase the credit worthiness have not been considered.

As of 31 December 2021, the maximum credit risk Company exposure is reflected by presenting all financial assets from carrying amount on consolidated balance sheet.

### Liquidity risk

Liquidity risk is uncertainty to cover future financial obligations.

The Group’s objective is to maintain a balance between current assets and liabilities through close monitoring of payment plans and cash projections.

The Group manages current and long-term funding by maintaining adequate reserves, banking facilities, reserve borrowing facilities and loan agreements with suppliers through continuously monitoring forecast and actual cash flows and matching the maturity profile of financial assets and liabilities.

#### Receivables

<table>
<thead>
<tr>
<th>Receivables</th>
<th>Trade Receivables</th>
<th>Other receivables</th>
<th>Contract assets</th>
<th>Deposits and banks</th>
<th>Derivative Instruments</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 December 2020</td>
<td>Related Parties</td>
<td>Third Parties</td>
<td>Related Parties</td>
<td>Third Parties</td>
<td>Related Parties</td>
<td>Third Parties</td>
</tr>
<tr>
<td>Guaranteed portion of the maximum risk</td>
<td>152,107</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Maximum credit risk exposed to as at the reporting date (A+B+C+D+E)</td>
<td>15,334</td>
<td>4,888,810</td>
<td>-</td>
<td>101,221</td>
<td>979,926</td>
<td>5,007,626</td>
</tr>
<tr>
<td>A. Carrying amount of financial assets not overdue or not impaired</td>
<td>15,334</td>
<td>3,828,339</td>
<td>-</td>
<td>101,221</td>
<td>979,926</td>
<td>5,007,626</td>
</tr>
<tr>
<td>B. Carrying amount of financial assets with rediscussed conditions that are considered overdue or impaired if not rediscussed</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C. Carrying amount of financial assets overdue but not impaired</td>
<td>-</td>
<td>1,660,471</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>D. Carrying amount of assets impaired</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E. Off balance sheet items with credit risk</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Financial losses due to Group’s receivables and financial assets which result from not implementing agreement clauses related to financial assets by a customer or other party constitutes credit risk.

When determining the credit risk exposure as at the balance sheet date, items like guarantees received, which increase the credit worthiness have not been considered.

As of 31 December 2021, the maximum credit risk Company exposure is reflected by presenting all financial assets from carrying amount on consolidated balance sheet.
34. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

Liquidity risk (continued)
## Market risk (continued)

### Foreign currency risk

The Group has transactional currency exposures mainly with respect to the financial liabilities and trade payables. Foreign currency denominated borrowings are stated in Note 5.

The following table demonstrates the sensitivity to a reasonably possible change in the USD and EUR exchange rate, with all other variables held constant, of the Group’s net profit for the year (due to changes in the fair value of monetary assets and liabilities):

<table>
<thead>
<tr>
<th>Date</th>
<th>Appreciation of foreign currency</th>
<th>Depreciation of foreign currency</th>
<th>Appreciation of foreign currency</th>
<th>Depreciation of foreign currency</th>
<th>Appreciation of foreign currency</th>
<th>Depreciation of foreign currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 December 2020</td>
<td>Profit/Loss</td>
<td>Other comprehensive income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1- USD net asset/liability</td>
<td>(1,220,859)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Hedged portion of USD risk (-)</td>
<td>1,081,873</td>
<td>(951,038)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3- USD net effect (1+2)</td>
<td>(138,986)</td>
<td>269,821</td>
<td>(323,629)</td>
<td>127,333</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4- EUR net asset/liability</td>
<td>(380,345)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5- Hedged portion of EUR risk (-)</td>
<td>466,961</td>
<td>(454,125)</td>
<td>(382,307)</td>
<td>12,460</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6- EUR net effect (4+5)</td>
<td>86,616</td>
<td>(73,780)</td>
<td>(182,307)</td>
<td>12,460</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7- Other foreign currency net asset/liability</td>
<td>(7108)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8- Hedged portion of other foreign currency (-)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9- Other foreign currency net effect (7+8)</td>
<td>(7108)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (3+6+9)</td>
<td>(59,478)</td>
<td>203,149</td>
<td>(505,936)</td>
<td>139,793</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Market risk (continued)

### Foreign currency risk (continued)

<table>
<thead>
<tr>
<th>Date</th>
<th>Appreciation of foreign currency</th>
<th>Depreciation of foreign currency</th>
<th>Appreciation of foreign currency</th>
<th>Depreciation of foreign currency</th>
<th>Appreciation of foreign currency</th>
<th>Depreciation of foreign currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- USD net asset/liability</td>
<td>(1,987,544)</td>
<td>1,987,544</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Hedged portion of USD risk (-)</td>
<td>1,005,918</td>
<td>(1,368,303)</td>
<td>123,369</td>
<td>199,012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3- USD net effect (1+2)</td>
<td>(981,626)</td>
<td>619,241</td>
<td>123,369</td>
<td>199,012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4- EUR net asset/liability</td>
<td>(680,827)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5- Hedged portion of EUR risk (-)</td>
<td>426,541</td>
<td>(618,389)</td>
<td>(8,280)</td>
<td>323,323</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6- EUR net effect (4+5)</td>
<td>(254,286)</td>
<td>62,438</td>
<td>(8,280)</td>
<td>323,323</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7- Other foreign currency net asset/liability</td>
<td>(2,189)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8- Hedged portion of other foreign currency (-)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9- Other foreign currency net effect (7+8)</td>
<td>(2,189)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (3+6+9)</td>
<td>(1,238,101)</td>
<td>683,868</td>
<td>119,089</td>
<td>522,335</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The interest rate risk table is presented below:

Interest rate risk
The value of a financial instrument will fluctuate as a result of changes in market prices. The Group’s interest rate risk is primarily attributable to its borrowings.

The interest-bearing financial liabilities have variable interest rates, whereas the interest-bearing financial assets have a fixed interest rate and future cash flows associated with these financial instruments will not fluctuate in amount. The Group is subject to interest rate risk due to financial liabilities and finance lease obligations. Policy of the Group is to manage this risk through fixed and variable rate borrowings. In order to cover for these risks, the Group has entered into interest rate swaps (Note 15).

The interest rate risk table is presented below:

<table>
<thead>
<tr>
<th>Financial instruments with fixed interest rate</th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial assets (*)</td>
<td>6.763.055</td>
<td>4.259.967</td>
</tr>
<tr>
<td>Financial liabilities</td>
<td>(13.898.494)</td>
<td>(10.118.519)</td>
</tr>
<tr>
<td></td>
<td>(7.135.439)</td>
<td>(5.858.552)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial instruments with variable interest rate</th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect of hedging</td>
<td>18.925.223</td>
<td>10.217.460</td>
</tr>
<tr>
<td></td>
<td>4.459.800</td>
<td>439.073</td>
</tr>
</tbody>
</table>

(*) Financial assets consist of cash at banks - time deposit (Note 4).

If the base point of denominated interest rates for financial instruments with variable interest rate was higher 0.25%, with all other variables held constant, the Group’s income before tax and minority interest would be lower by TL 28.462 (31 December 2020: TL 4.545) and interest rate was lower 0.25%, with all other variables held constant, the Group’s income before tax and minority interest would be higher by TL 33.230 (31 December 2020: TL 4.545) as of 31 December 2021.

On the other side because of hedging, if the base point of interest rate higher/lower 0.25%, equity would have no effect (31 December 2020: TL 45.058).

Explanation on the presentation of financial assets and liabilities at their fair values

The below table summarizes the carrying and fair values of financial asset and liabilities in the Group’s consolidated financial statements.

Due to their short-term nature, the fair value of trade and other receivables represents their book value. The fair value of borrowings with fixed interests is obtained by discounting the discounted cash flows using the market interest rate effective at the reporting date. The fair value of foreign currency denominated borrowings with variable interests is obtained by discounting the projected cash flows using estimated market interest rates.

Fair value hierarchy table
The group classifies the fair value measurement of each class of financial instruments according to the source, using the three-level hierarchy, as follows:
Level 1: Market price valuation techniques for the determined financial instruments traded in markets (unadjusted)
Level 2: Other valuation techniques includes direct or indirect observable inputs.
Level 3: Valuation techniques does not contain observable market inputs.

Carrying amount Fair value
<table>
<thead>
<tr>
<th>31 December 2021</th>
<th>31 December 2020</th>
<th>31 December 2021</th>
<th>31 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>7.696.870</td>
<td>5.007.927</td>
<td>7.696.870</td>
</tr>
<tr>
<td>Trade and other receivables (including related parties)</td>
<td>6.862.008</td>
<td>5.682.675</td>
<td>6.862.008</td>
</tr>
<tr>
<td>Financial investments (*)</td>
<td>13.671</td>
<td>17.956</td>
<td></td>
</tr>
<tr>
<td>Derivative financial assets</td>
<td>4.039.063</td>
<td>1.240.177</td>
<td></td>
</tr>
<tr>
<td>Financial liabilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank borrowings</td>
<td>15.103.379</td>
<td>12.360.529</td>
<td>15.106.751</td>
</tr>
<tr>
<td>Trade payables and other liabilities (including related parties)</td>
<td>9.238.270</td>
<td>6.422.265</td>
<td>9.238.270</td>
</tr>
<tr>
<td>Derivative financial liabilities</td>
<td>466.756</td>
<td>715.005</td>
<td></td>
</tr>
</tbody>
</table>

(*) Group’s share in financial investments is carried at cost. Information on fair value of share in these investments are not available.
(1) Trade payables and other liabilities item includes trade and other payables, employee benefit obligations and other liabilities contained within other current liabilities. Taxes and other payables contained within employee benefit obligations and advances contained within other current liabilities are excluded.
Notes to the Consolidated Financial Statements
As at and for the Year Ended 31 December 2021

34. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)

Explain on the presentation of financial assets and liabilities at their fair values (continued)

Fair value hierarchy table as at 31 December 2021 is as follows:

<table>
<thead>
<tr>
<th>Financial assets measured at fair value</th>
<th>Date of Valuation</th>
<th>Total (Level 1)</th>
<th>Quoted Prices in Active Markets (Level 1)</th>
<th>Significant Observable Inputs (Level 2)</th>
<th>Significant Unobservable Inputs (Level 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derivative Financial Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>31 December 2021</td>
<td>39,980</td>
<td>-</td>
<td>39,980</td>
<td>-</td>
</tr>
<tr>
<td>Cross currency swaps (*)</td>
<td>31 December 2021</td>
<td>3,773,176</td>
<td>-</td>
<td>3,773,176</td>
<td>-</td>
</tr>
<tr>
<td>Futures</td>
<td>31 December 2021</td>
<td>224,125</td>
<td>-</td>
<td>224,125</td>
<td>-</td>
</tr>
<tr>
<td>Commodity derivative (Copper)</td>
<td>31 December 2021</td>
<td>1,782</td>
<td>-</td>
<td>1,782</td>
<td>-</td>
</tr>
<tr>
<td>Financial liabilities measured at fair value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issued debt instruments</td>
<td>31 December 2021</td>
<td>6,322,835</td>
<td>6,322,835</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Derivative Financial Liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rate swaps</td>
<td>31 December 2021</td>
<td>351,986</td>
<td>-</td>
<td>351,986</td>
<td>-</td>
</tr>
<tr>
<td>Cross currency swaps (*)</td>
<td>31 December 2021</td>
<td>23,352</td>
<td>-</td>
<td>23,352</td>
<td>-</td>
</tr>
<tr>
<td>Futures</td>
<td>31 December 2021</td>
<td>91,259</td>
<td>-</td>
<td>91,259</td>
<td>-</td>
</tr>
<tr>
<td>Commodity derivative (Copper)</td>
<td>31 December 2021</td>
<td>159</td>
<td>-</td>
<td>159</td>
<td>-</td>
</tr>
<tr>
<td>Other financial liabilities not measured at fair value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank loans</td>
<td>31 December 2021</td>
<td>10,103,379</td>
<td>-</td>
<td>10,103,379</td>
<td>-</td>
</tr>
<tr>
<td>Issued debt instruments</td>
<td>31 December 2021</td>
<td>7,226,043</td>
<td>7,226,043</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(*) Cross currency swaps consist of forwards and foreign currency swaps.

The Group specifies the fair value measurement of futures according to the forward exchange rates at the balance sheet date, whereas fair values of cross currency swaps are measured according to the net present value of the estimated future cash flows based on observable yield curves. Measurement methods of fair value for derivative financial instruments and issued debt instruments are explained in Note 23.

Movement table of derivative financial assets and liabilities are disclosed in Note 25.
Glossary

0-9
3G
Third generation of mobile systems. Provide high-speed data transmissions and higher supporting multimedia applications such as full-motion video, video conferencing and Internet access. See “UMTS”.

4.5G / LTE
It is the 4th generation mobile communication technology. It is the general name given to the systems via mobile phones developed to provide high speed broadband services and mobile communication with fully IP-based network structure.

5G
It is the 5th generation mobile communication technology that offers enriched application and services with high speed and low latency.

A
Access Channel
The network element used to connect a subscriber to the nearest switch or concentrator. An access channel generally takes the form of a closed circuit and consists of a pair of copper wires, but may also employ fiber optic cables, microwave links or other technologies.

ADSL (Asymmetric Digital Subscriber Line)
A technology for transferring data that uses an access channel to provide faster network access to the Internet and other popular multimedia and data services at speeds of up to two to six Mbps, a transfer speed 50 times faster than narrowband or dial-up Internet access.

ARPU (Average Revenue per User)
Measures the average monthly revenue generated for each customer unit, such as a mobile phone.

B
Base Station
Fixed transceiver equipment in each cell of a mobile telecommunications network that communicates by radio signal with mobile handsets in that cell.

Bit
The smallest unit of binary data.

Bit stream Access
Access to Turk Telekom equipment connecting a provider to the end user to provide high-speed access services. This form of access differs from wholesale in that, in terms of transmission capacity, it provides access at a binary rate and the operator, as the access provider, decides on the technical specifications for the equipment directly connected to the access channel, as well as on the interface offered at the end-user side.

BPS (Bits per Second)
A data transmission rate.

Broadband Service
A communications service for content requiring high-speed transmission rates such as video transmission.

C
Call Forwarding
A feature permitting the user to program a phone to ring at an alternate location, call forwarding may be in effect at all times or only in certain designated instances, such as when a particular phone is busy or there is no answer.

Call Waiting
A warning signal received when a person is on a call that there is a second incoming call.

Carrier Pre-Selection
A mechanism that allows customers to select competing operators as that user’s default operator without dialing additional codes on the telephone. The customer subscribes to the services of a competing operator and his calls are routed through such operator.

Centrex
An enhanced phone service offered by public exchanges that delivers PBX switchboard-like functions to groups of users without the need for a private exchange within an organization or other group of users.

Churn
A measure of customer turnover due to subscription discontinuities as a result of terminations by customers, switching by customers to competing services, terminations by the service provider due to customer non-payment, and, in the case of mobile communications services, expirations of prepaid cards.

Co-Location
The physical or virtual placement of competitors’ equipment within the facilities of Turk Telekom for purposes of providing telecommunications services to end users, such as interconnection and unbundling.

D
Digital
A method of storing, processing and transmitting information through the use of distinct electronic or optical pulses that represent the binary digits 0 and 1. Digital transmission and switching technologies employ a sequence of these pulses to represent information as opposed to the continuously variable analog signal. Compared to analog networks, digital networks allow for greater capacity, lower interference, protection against eavesdropping and automatic error correction. Signals are encoded into digits for transmission.

DSL (Digital Subscriber Line)
See “xDSL”.

DSLAM (Digital Subscriber Line Access Multiplexer)
Equipment at a phone company’s central location that can be used to link many customer DSL connections to a single high-speed ATM line.

DDWM (Dense Wavelength Division Multiplexing)
A technique enabling several independent flows of digital information to co-exist on the same optical fiber.

EDGE
Enhanced Data Rates for Global Evolution

Ethernet
A local area network allowing several computers to transfer data, typically over a coaxial cable.

F
Frequency band
A specified range of frequencies. Frequency refers to the number of times per second that a wave (e.g., electromagnetic wave) oscillates or swings back and forth in a complete cycle from its starting point to its end point.

FTTC/B/H
It is the distribution of the fiber line to the cabinet (C), building (B) and home (H).

G
Gbps (Gigabits per second)
A data transmission rate. One Gbps equals one billion bps.

GPRS (General Packet Radio Service)
A GSM-based packet-switched data transmission technology standard, established by the European Telecommunications Standards Institute, in which base stations can be directly connected to the Internet, thus bypassing the switching systems typically used to connect mobile traffic to fixed networks. GPRS provides users of mobile communications services better data access capability with virtually instant and permanent connections, as well as speeds up to ten times higher than GSM.

GSM (Global System for Mobile Communications)
A digital mobile telecommunications system standardized by the European Telecommunications Standards Institute based on digital transmission and cellular network architecture with roaming in use throughout Europe, Japan and in various other countries. GSM systems operate in the 900 MHz (GSM 900) and 1800 MHz (GSM 1800, also referred to as DCS 1800) frequency bands.

GSM 900 and GSM 1800
See “GSM”.

I
Interconnection
The linking of telecommunications networks used by the same or different persons in order to allow the users of the services or networks of one person to communicate with the users of the services or networks of the same person or of another person, or to access services provided by another person.

International Roaming
Provision of roaming services in the domestic market to subscribers of a competing operator’s network. See “roaming.”

Internet Access Line
The network element used to connect a subscriber to the nearest switch or concentrator. An access channel generally takes the form of a closed circuit and consists of a pair of copper wires, but may also employ fiber optic cables, microwave links or other technologies.

IP (Internet Protocol)
Protocol used in the Internet for communication among multiple networks.

IPv6
A transmission system with the capacity to transmit two streams of information (voice, text, data or graphics) simultaneously on a single access channel based upon end-to-end digitalization and standardized out-of-band signaling.

ISP (Internet Service Provider)
A company providing access to Internet and other computer based information networks through its servers.
Glossary

IT (Information Technology)
The broad subject concerned with all aspects of managing and processing information, especially within a large organization or company.

IVR (Interactive voice response)
A telecommunications system that uses a pre-recorded database of voice messages to present options to a user, typically over telephone lines.

K
Kbps (Kilobits Per Second)
A data transmission rate. One Kbps equals 1(10) bps.

LAN (Local Area Network)
A short distance data transmission network designed to interconnect personal computers, workstations, minicomputers, file servers and other computing devices within a localized environment, for the purpose of sharing files, programs and various devices such as printers and high-speed modems. LANs may have a decentralized communications management or include dedicated computers or file servers that provide a centralized source of shared files and programs.

Leased line
Voice and data circuits leased to connect two or more locations for the exclusive use of the subscriber.

Local Loop
See: “access channel”.

Local Network Segregated Access
A process that requires mandatory local service providers to present or parse opportunities to their competitors.

M
MByte
A unit of computer data commonly used to measure data storage or transfer.

Mbps (Megabits Per Second)
A data transmission rate. One Mbps equals 2(20) bps.

MHz (Megahertz)
A measurement of frequency. One MHz equals 1,000,000 cycles per second.

MNP (Mobile Number Portability)
A service that allows customers to keep their mobile phone numbers when they change service providers.

MNS (Managed Network Services)
The management and provision of operational support for a network environment while the network hardware and associated assets remain on the client’s books.

MoU (Minutes of Use)
A measurement of customer activity. Average minutes of use per customer, usually presented on a monthly basis.

MPLS (Multiprotocol Label Switching)
A standards-approved technology for speeding up network traffic flow and making it easier to manage. MPLS involves setting up a specific path for a given sequence of packets, identified by a label put in each packet, thus saving the time needed for a router to look up the address in order to forward the packet to the next node.

MVNO (Mobile Virtual Network Operator)
A company that offers mobile services using another company’s network.

N
Narrowband
A channel that provides data transfer rates less than or equal to one voice-grade line. Contrast with broadband speeds of data transfer.

NGN (Next Generation Networks)
/IP/MPLS protocol-based digital packet-switched network.

On-Net
Calls that stay on an operator’s network or a customer private network from beginning to end.

OTT
Internet-based services offered over digital platforms.

Penetration
The total number of subscribers for a carrier divided by the population that it serves expressed as a percentage.

Point-to-Point
A link from one user or network to another using a phone line.

MoP (Point of Presence)
A site where there exists a collection of telecommunications equipment, usually modern, digital leased lines and multi-protocol routers.

Push-To-Talk
Mobile phone technology that allows a mobile phone to be used for real-time one-to-one and one-to-many voice communication, typically requiring the speaker to push a button on the handset to be heard and to release the button to listen.

PSDN (Public Switched Telephone Network)
The international telephone system based on copper wires carrying analog voice data. This is in contrast to newer telephone networks based on digital technologies, such as ISDN.

PTT
The PTT is the General Directorate of Postal Telegraph and Telephone. Turk Telekom operated as part of the PTT from 1924 to 1995, when it was separated from the PTT and incorporated as a joint stock company under the Undersecretary of the Treasury.

R
Registered line
Registered line refers to a line with a valid and effective subscription agreement between the operator and the customer.

Ringback
When the customer gets a busy tone when calling a number, the caller is invited to punch R5. Once the called party’s line is free, the service will call back the customer and will connect them.

RLLO
Turk Telekom’s reference local loop offer. Turk Telekom is required by the Local Loop Unbundling Communiqué enacted on 1 July 2005 to publish a reference offer for access to its local loop. The reference local loop offer must be approved by the Telecommunications Authority every year. Turk Telekom submitted its RLLO for approval on 29 September 2005.

Roaming
The mobile telecommunications feature that permits subscribers of one network to use their mobile handsets and telephone numbers when in a region covered by another operator’s network.

S
SDH (Synchronous Digital Hierarchy)
The European standard for high-speed digital transmission using fibre optic cables.

SIM (Subscriber Identity Module)
An electronic card inserted into a GSM phone that identifies the user account to the network, handles authentication and provides data storage for user data such as phone numbers and network information. It may also contain applications that run on the phone.

SLA (Service Level Agreement)
A contract between a network service provider and a customer that specifies, usually in measurable terms, what services, and in certain cases, the quality of such services that the network service provider will furnish.

SMS (Short Message Service)
A mobile communications system that allows users to send and receive alpha-numeric messages of up to 160 characters from one mobile handset to another via a short message service center.

SOHO
Small Office/Home Office.

T
Termination rate
The interconnection fee received by an operator for incoming calls terminating on its network.

U
UMTS (Universal Mobile Telecommunications System)
The third-generation broadband mobile communications standard. UMTS utilizes Code Division Multiple Access, or CDMA, technology and has the speed and capacity to handle multimedia transmissions. A UMTS system offers mobile telephony, messaging services, wireless access to the Internet and other multi-media services at higher speeds than GSM systems.

USO (Universal Service Obligation)
The obligation placed on Turk Telekom by the Universal Service Law enacted on 16 June 2005 to ensure that standard telephone services, pay phones and prescribed carriage services are reasonably accessible to all people in a particular region on an equitable basis, and with affordable pricing, wherever they reside or carry on business.

Voicemail
Any system for sending, storing and retrieving audio messages, similar to a telephone answering machine.
Glossary

**VoIP**
Voice over Internet Protocol, in which voice traffic is carried over Internet Protocol rather than a circuit-switched network.

**VPN (Virtual Private Network)**
A data network that shares telecommunications infrastructure but acts as a secure private network, with an architecture based on the use of the TCP-IP (Time Compression Multiplexing—Internet Protocol).

**WAP (Wireless Application Protocol)**
A global open specification that supports Internet Protocols on wireless devices, such as mobile phones, two-way radios, smart phones and communicators, to easily access and interact with Internet-based services. With WAP, a mobile phone user can view mini-pages and interact with a small, multiple choice screen.

**WiFi (Wireless Fidelity)**
The generic term used to refer to any type of IEEE 802.11 radio frequency network, in which signals are sent over radio frequencies or infrared using wireless network cards and hubs to provide wireless network access.

**WiMax (World Interoperability for Microwave Access)**
The successor to Wi-Fi. The generic term used to refer to any type of IEEE 802.16 radio frequency network, with a range of up to 80 km and a bandwidth of up to 75bps.

**WLAN**
A wireless network connecting two or more computers or other devices over a short distance, such as within an office, a home or a hot spot. Wi-Fi and its successor, WiMax, are examples of WLANs.

**WLR**
Wholesale Line Rental

**xDSL**
Refers collectively to all types of digital subscriber lines, the two main categories being ADSL and SDSL. Two other types of xDSL technologies are High-data-rate DSL (HDSL) and Very high DSL (VDSL). DSL technologies use sophisticated modulation schemes to pack data onto copper wires. They are sometimes referred to as “last-mile technologies” because they are used only for connections from a telephone switching station to a home or office, not between switching stations.