BUMN UNTUK INDONESIA

Telkom Indonesia
the world in your hand

BOLD MOVES, BOOSTING SUSTAINABLE GROWTH

ESG

2022 SUSTAINABILITY REPORT

THEME

Bold Moves, Boosting Sustainable Growth

PT Telkom Indonesia (Persero) Tbk (Telkom), as one of the State-Owned Enterprises (SOE), is driving the national economy, which continues to strive to achieve the dream of realizing Indonesia's digital sovereignty through various innovations. We support the government's steps in increasing more equitable domestic development performance. We carry out this step to achieve sustainability with a clear strategy, goals, and direction by balancing environmental, social, and governance (ESG) performance. With the dynamic and fast changes in the business world, we invite all stakeholders to run with us, pursue sustainability goals for a brighter future with us.

DISCLAIMER

PT Telkom Indonesia (Persero) Tbk or "Telkom" has compiled a 2022 Sustainability Report, which presents data and information on the performance of economic, environmental, social, and governance or ESG aspects. Disclosure of material topics in this report is determined based on considering the impact and concerns of stakeholders. The data and information presented come from various reliable sources within the scope of TelkomGroup.

This report also contains Telkom's forward-looking statements, such as targets, expectations, estimates, or future projections. Although it has been carefully considered, Telkom is aware of the risk of uncertainty over these forward-looking views. Therefore, in line with the implementation of good governance, Telkom reminds the readers that there is no guarantee that this will fully meet the views.

Henceforth, "TelkomGroup" in this report refers to Telkom and its subsidiaries. However, the term "Telkom" in this report may refer to the context of Telkom in its business scope, not only as an organizational entity.
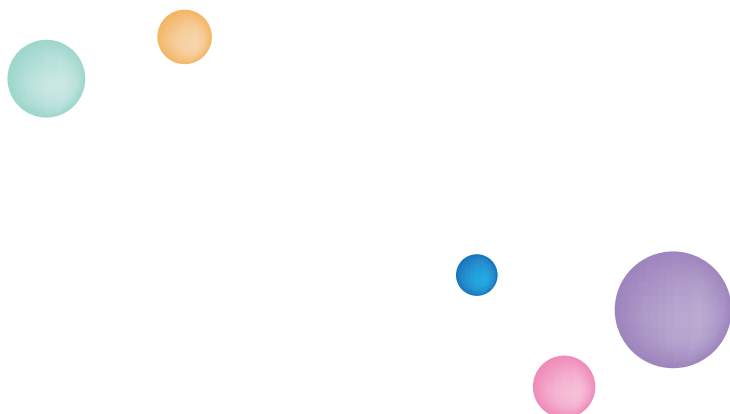
TABLE OF CONTENT

01

HIGHLIGHT

COMPANY PROFILE [2-1, 2-6]

PT Telkom Indonesia (Persero) Tbk is a State-Owned Enterprise (SOE) established on November 19, 1991. 52.09% of Telkom's shares are owned by the Republic of Indonesia, while the public owns the rest. Telkom trades its shares on the Indonesia Stock Exchange (IDX) with the code "TLKM" and on the New York Stock Exchange (NYSE) with the code "TLK".

Telkom's business activities are in the field of information and communication technology (ICT) services, as well as telecommunications networks. Along with the development of technology and information, TelkomGroup's business activities continue to grow and expand to include information and digitization, which are still in the corridors of the telecommunications and information industries. More information regarding Telkom's profile and business activities can be found in the Annual Report, which is made separately from this report and on the Company's website.

COMPANY VALUES

CUSTOMER ORIENTED

In implementing business and operational strategies, TelkomGroup always emphasizes customer oriented. This customer orientation focus was proclaimed by the TelkomGroup in 2022 through one of the Company's main programs, namely "Deliver the best quality of services with excellent customer experience." This customer-oriented company program focuses on using data analytics at every stage of the customer journey, early detection of access failures, and providing appropriate and fast solutions to customers. Therefore, TelkomGroup is transforming into a digital telecommunication company to meet customer needs amid current technological developments. Transformation is also applied to become a leaner and more agile organization in adapting to changes in customer behavior and the rapid changes in the telecommunication industry. The hope is that the success of this transformation will increase efficiency and effectiveness in creating a quality customer experience.

THREE DIGITAL BUSINESS DOMAINS

1. **Digital Connectivity:** business and connectivity technologies covering fiber to the x (FTTx), 4G, 5G, software-defined networking (SDN)/network function virtualization (NFV), satellite, and connectivity infrastructure (such as tower, submarine cable, infrastructure & network service, power, etc).
2. **Digital Platform:** business and technology covering data center (including CDN), cloud, Internet of Things (IoT)/machine to machine (M2M), big data/artificial intelligence (AI), cyber security, payment/blockchain which is used as an enabler for various ICT services and solutions.
3. **Digital Services:** business and digital content products, which include games, video/TV, education, e-commerce, mobile payments, travel, crowd-sourcing, health, and various other industries that are built on the synergy of digital connectivity and digital platforms.

More information about the Digital Business Domain, product and service descriptions, as well as our customers and partners is available at www.telkom.co.id.
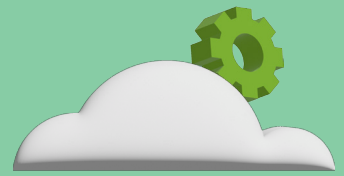
Purpose

To build a more prosperous and competitive nation as well as deliver the best value to our stakeholders.

To be the most preferred digital telco to empower society.

Vision

Mission

1. Advance rapid buildout of sustainable intelligent digital infrastructure and platforms that is affordable and accessible to all.
2. Nurture best-in-class digital talent that helps develop nation's digital capabilities and increase digital adoption.
3. Orchestrate digital ecosystem to deliver superior customer experience.
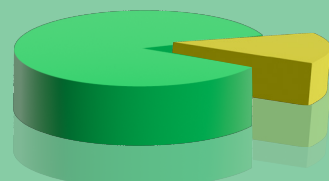
SUSTAINABILITY ACHIEVEMENTS AND OVERVIEW

TelkomGroup recorded a **Rp147,306 billion** revenue and **Rp20,753 billion** net profit of the year

Involvement of local suppliers with a total expense of **Rp31 billion** or **99.6%** of the total spending value

The economic value distributed for the SME Funding Program is **Rp237.52 billion**, and the Social, Economic, and Environmental Empowerment Program is **Rp134.4 billion**

89.97% Consumer Customer Satisfaction Index

87.7% Wholesale and International Business Customer Satisfaction Index

97.7% Enterprise Customer Satisfaction Index

3,032
Employees are women

28.23%
Persons at managerial level

89.79%
Employee Engagement Index

53.27 hours
Average number of employee training hours a year

Rp108.11 billion
Expense on employee education and training

Utilization of eco-friendly alternative energy sources in the form of fuel cells and solar cells (solar power) in the TelkomGroup. **107 BTS** has utilized fuel cells, **951 BTS** has used solar cells

7,516,072 GJ
The use of electrical energy

494,453 GJ
Fuel energy used

8,010,525 GJ
Energy use intensity

1,852,679.3 tons CO_2eq
The resulting GHG emission intensity

278,776 units
of utilization for the reuse of electronic devices

APPRECIATIONS AND AWARDS

ESG/ Sustainability Performance

Rating A, MSCI ESG Rating

Index Weight **15.67%**, Top ten constituents in IDX ESG Leaders August 2022

Index Weight **16.02%**, Top ten constituents in IDX SRI-KEHATI January August 2022

Best Practice Award (World Class) Great Practice of 2022 from Ajang Internasional Global Corporate Sustainability Award (GCSA)

CSR

1ˢᵗ Runner Up at the 2022 United Nations Women's Empowerment Principles (WEPs) Awards in the Community Engagement & Partnership category

Best Practice Award at the Global Corporate Sustainability Awards organized by the Taiwan Institute for Sustainable Energy 2022

Won the **Gold Medal** at the Human Resources (HR) Excellence Awards 2022 in the category of Excellence in CSR Strategy

Bronze Medal in the Indonesia SDGs Action Award, Pelaku Usaha Besar category

Won awards from BCOMMS (BUMN Corporate Communication and Sustainability Summit) 2022, including:
- **1ˢᵗ Place** in Community Involvement and Development (CID) in Education
- **1ˢᵗ Place** in Creating Shared Value (CSV)
- **1ˢᵗ Place** in Small and Medium Enterprise (SME) Development
- **1ˢᵗ Place** in CSR of the Year

1ˢᵗ Place at the Anugerah IDX Channel Awards 2022 in the category of Economic Development Initiatives

Index **83.08%**, CSR measurement includes 4 dimensions, namely Social Accountability and Social Investment **(SASI)**, Ethics and Human Resources **(EHR)**, Corporate Governance and Economic Responsibility **(CGER)**, and Environment Protection and Sustainability **(EPS)**

Human Capital

#153 World's Best Employer from Forbes

Top Companies Indonesia from LinkedIn

Award for **Gender Inclusive Workplace** Category from UN Women Indonesia

Inclusive and Disability Friendly Workplace Award from the Indonesian Ministry of Manpower

Best Workplace in Asia Award from Great Place to Work Institute, United States of America

Customer Service

Best Customer Service Fixedline Broadband Company Award from The Iconomics: Indonesia Customer Service Awards 2022

Won awards at the **2022 Stevie Awards for Sales & Customer Service**:
- **Gold Stevie Winners** in category Customer Service Department of the Year – Telecommunications
- **Bronze Stevie Winners** in category Customer Service Team of the Year – Recovery Situation – Technology Industries
- **Crystal People's Choice Stevie Award**, Favorite Customer Service – Telecommunications

Won awards at the 2022 Stevie Awards Asia Pacific 2022:
- **Gold Stevie Winners** in category Most Innovative Facebook Page
- **Gold Stevie Winners** in category Most Innovative Twitter Feed

Won awards at the Contact Center World Asia Pacific 2022:
- **Gold Winner** in category Best Customer Service
- **Gold Winner** in category Best Outbound Campaign
- **Gold Winner** in category Best Contact Center Supervisor
- **Gold Winner** in category Best Contact Center Trainer
- **Gold Winner** in category Best Customer Service Professional
- **Gold Winner** in category Best Contact Center Professional – HR
- **Gold Winner** in category Best Quality Auditor
- **Silver Winner** in category Best Contact Center
- **Silver Winner** in category Best Analyst
- **Bronze Winner** in category Best Social Media Team

OPERATIONAL AREA AND NETWORK
[2-1, 2-6][TC-TL-000.D]

7	Telkom Regional Offices	**372**	GraPARI in Indonesia, including 9 GraPARI TelkomGroup in Jakarta, Tangerang, Bandung, Medan, Palembang, Pangkal Pinang, Pematang Siantar, Sorong, Surabaya, and 2 GraPARI Lite in Bukit Tinggi and Bekasi
61	Telecommunication Areas		
387	Plasa Telkom Outlets		
11	Global offices in Australia, Hong Kong, Malaysia, Myanmar, Singapore, Taiwan, Timor Leste, Dubai, USA also Global Sales Representative in UK and Philipines	**750**	IndiHome Sales Car Units
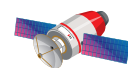
Merah Putih (108°E)

Telkom-3S (118°E)

EIG

C2C

APCN-2

SJC

SMPCS

BBG

IMEWE
SEA-ME-WE 5

SEA-ME-WE 4

IGG
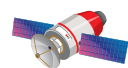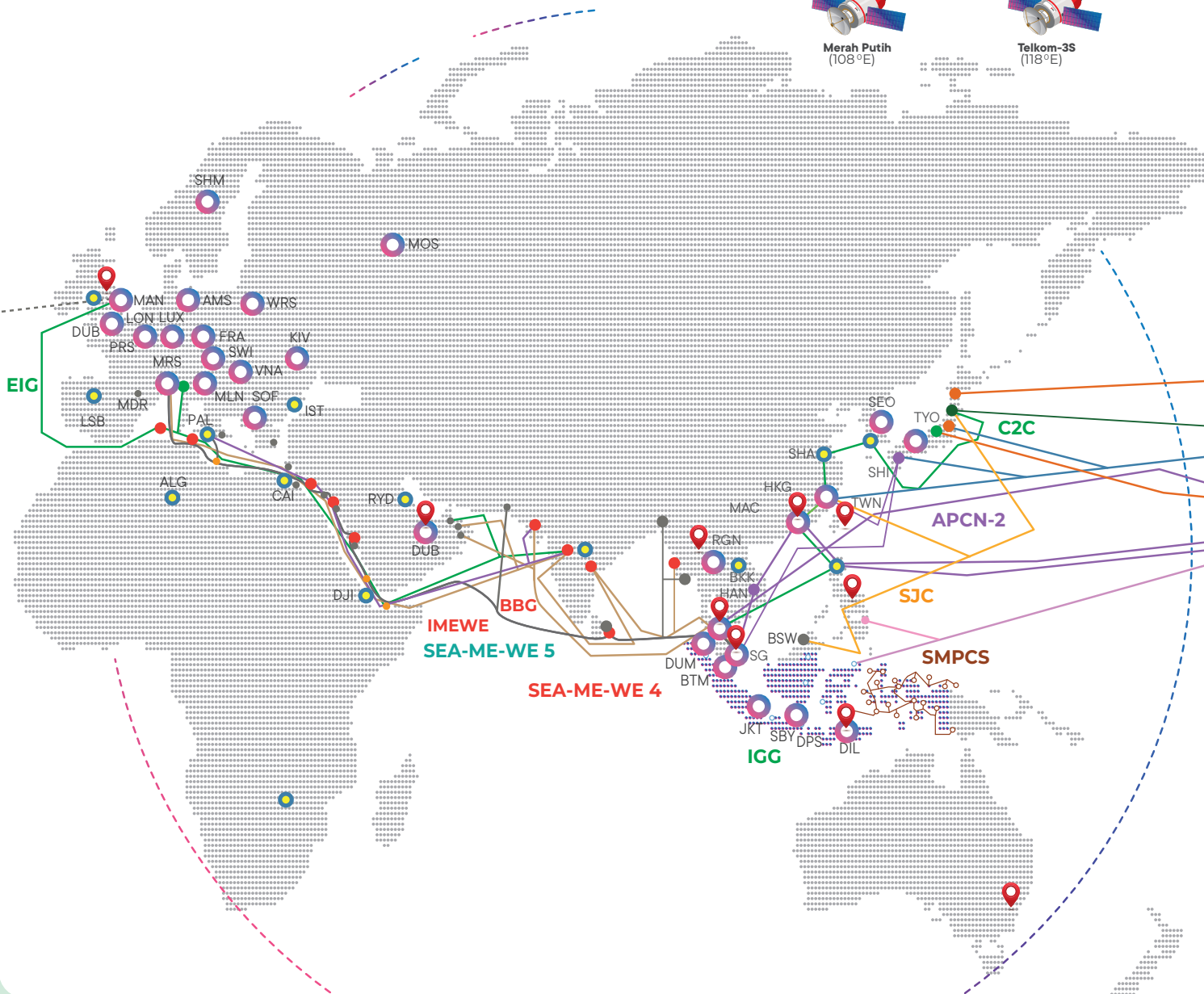
173,266 km	Optic Backbone Network	**265,194**	Mobile Network BTS
122	Point of Presence (PoP)	**40,588**	Towers
2	Satellites with a total capacity of 109 TPE	**391,317**	Wi-Fi Access Point

JUS

UNITY

FASTER

TNG-IA

GUA

HWI

AAG

SEA-US

TOR

SJ

CHC

WYX

ASH

LAX

SLO

SP

- Point of Presence (POP)
- International Direct Dialing (IDD)
- Submarine Fiber Optic (SEA-ME-WE 4)
- Submarine Fiber Optic (SEA-ME-WE 5)
- Submarine Fiber Optic APCN-2
- Submarine Fiber Optic EIG
- Submarine Fiber Optic SEA - US
- Submarine Fiber Optic IGG
- Submarine Fiber Optic SMPCS
- Telekomunikasi Indonesia Internasional (TELIN)

CERTIFICATIONS [2-23]

To ensure reliable operations, TelkomGroup operates a management system based on applicable standards and principles, both nationally and internationally. Apart from that, TelkomGroup also applies sustainability principles which include ESG aspects. Several certificates owned by TelkomGroup reflect a commitment to managing ESG aspects.

No.	Recipient	Year	Certification	Institution Provider	Validity Period
1.	Telkom	2020	ISO 37001:2016 Anti-Bribery Management System	Sucofindo	2023
		2022	ISO 9001:2015 QMS	TUV Rheinland	2025
		2022	ISO 27001:2013 ISMS	TUV Rheinland	2025
		2022	ISO 22301:2019 BCMS	TUV Rheinland	2025
		2022	ISO 20000-1:2018 ITSMS	TUV Rheinland	2025
2.	Telkomsel	2013	ISO/IEC 27001:2013	British Standards Institutions (BSI)	2022
3.	AdMedika	2019	ISO/IEC 27001:2013	British Standards Institutions (BSI)	2022
		2019	ISO 45001:2008 Standard	MSC Global	2022
		2020	ISO 9001:2015 Standard	MSC Global	2023
4.	MD Media	2018	IT IL Foundation Certificate in IT Service Management	IT IL Foundation	Applied onwards
5.	Infomedia	2016	ISO 27001:2013	TUV NORD Indonesia	**)
6.	Telkomsigma	2020	ISO 20000-1:2018	British Standards Institution (BSI)	2023
		2021	ISO 27001:2013	British Standards Institutions (BSI)	2024
		2022	PAS 99:2012	British Standards Institutions (BSI)	2025
		2022	ISO 9001:2015	British Standards Institutions (BSI)	2025
7.	Telkom Data Ekosistem (TDE)	2016	EMS ISO 14001:2015	British Standards Institution (BSI)	2022
		2017	Data Center Tier III	Uptime Institute	Applied onwards as long as there are no changes
		2018	Data Center Tier IV	Uptime Institute	Applied onwards as long as there are no changes
		2020	Data Center Certificate of Conformance Constructed Facilities ANSI/TIA-942-B:2017 Rate 3	EPI	2023

No.	Recipient	Year	Certification	Institution Provider	Validity Period
8.	Telin	2019	ISO 27000-1:2013	Intertek	2023
		2019	ISO 22301:2012	Intertek	2022
		2019	ISO 45001:2018	British Standards Institution (BSI)	2022
9.	Telin Singapore	2019	SS 564 for Telin-3 Data Centre	TUV SUD	2023
		2019	ISO 50001 Energy Management System for Telin-3 Data Centre	TUV SUD	2023
10.	Telkom Property	2019	ISO 9001:2015	LLOYD Register	2022
		2019	OHSAS 18001:2007	Sucofindo	2022
		2019	SMK3	Sucofindo	2022
11.	Telkomsat	2019	ISO 9001:2015	TUV Rheinland	2022
12.	Telkom Akses	2019	Telecommunications Network Contractor CIQS 2000:2018	Telkom Professional Certification Center (TPCC)	2022
		2019	Quality Management System ISO 9001:2015	British Standards Institutions (BSI)	2022
		2020	Occupational Health and Safety Management ISO 45001:2018	British Standards Institutions (BSI)	2023
		2021	Information Security Management System ISO 27001:2013	British Standards Institutions (BSI)	2024
		2022	Anti-Bribery Management System ISO 37001:2016	British Standards Institutions (BSI)	2025
13.	PINS	2019	CIQS 2000:2009	Telkom Professional Certification Center (TPCC)	2022
		2020	ISO 14001:2015	Quality Certification Services	2023
		2020	OHSAS 18001:2007	Quality Certification Services	2023
14.	Dayamitra Telekomunikasi	2019	ISO 9001:2015	SGS	2022
15.	Digiserve	2019	ISO/IEC 20000 Service Management System	Intertek	**)
16.	TelkoMedika	2018	SNI ISO 9001:2015	International Certification Services Management	2024
		2018	SNI ISO 14001:2015	International Certification Services Management	2024
		2018	SNI ISO 45001:2015	International Certification Services Management	2024

Remarks:
*) Update process every year.
**) On renewal process.

MEMBERSHIP IN ASSOCIATION [2-28]

No.	National	Member
1.	Masyarakat Telematika Indonesia (MASTEL)	Telkom, Telkomsat, TelkomMetra, Infomedia, AdMedika, Mitratel, Telkomsel
2.	Asosiasi Kliring Trafik Telekomunikasi (ASKITEL)	Telkom, Telkomsel
3.	Asosiasi Penyelenggara Jaringan Internet Indonesia (APJII)	Telkom, Telkomsat, TelkomMetra, Telin, Telkomsel
4.	Asosiasi Telekomunikasi Seluruh Indonesia (ATSI)	Telkom, Telkomsel
5.	Indonesia Telecommunication Users Group (IDTUG)	Telkom
6.	Asosiasi Penyelenggara Pengiriman Uang Indonesia (APPUI)	Telkom, Finnet, Telkomsel
7.	Asosiasi Sistem Pembayaran Indonesia (ASPI)	Telkom, Finnet, Telkomsel
8.	Asosiasi Penyelenggara SKKL Seluruh Indonesia (ASKALSI)	Telkom, Telin, Telkom Infra
9.	Indonesia Mobile Content Association (IMOCA)	Telkom
10.	Asosiasi Televisi Swasta Indonesia (ATVSI)	Telkom
11.	Asosiasi Satelit Indonesia (ASSI)	Telkom, Telkomsat
12.	Forum Komunikasi Satuan Pengawas Internal (FKSPI)	Telkom
13.	Asosiasi Gabungan Pelaksana Konstruksi Nasional Indonesia (GAPENSI)	Graha Sarana Duta, Telkomsat, Mitratel
14.	Keanggotaan Green Building Council Indonesia (GBCI)	Graha Sarana Duta
15.	Keanggotaan Persatuan Perusahaan Real Estate Indonesia (REI)	Graha Sarana Duta
16.	Asosiasi Gabungan Rekanan Konstruksi Indonesia (GARANSI)	Graha Sarana Duta
17	Asosiasi Badan Usaha Jasa Pengamanan Indonesia (ABUJAPI)	Graha Sarana Duta, Swadharma Sarana Informatika (SSI)
18.	Asosiasi Perusahaan Klining Servis Indonesia (APKLINDO)	Graha Sarana Duta
19.	Keanggotaan Kamar Dagang dan Industri (KADIN)	Telkom, Graha Sarana Duta, Telkomsat, Infomedia, Nutech, AdMedika, Bosnet, Swadharma Sarana Informatika (SSI)
20.	Asosiasi Perawatan Bangunan Indonesia (APBI)	Graha Sarana Duta
21.	Asosiasi Kontraktor Ketenagalistrikan Indonesia (AKLINDO)	Graha Sarana Duta
22.	Asosiasi Pengelola Gedung Badan Usaha Milik Negara (APG BUMN)	Graha Sarana Duta
23.	Indonesia Cyber Security Forum (ICSP)	Telkom
24.	Asosiasi Inkubator Bisnis Indonesia (AIBI)	Indigo Creative Nation
25.	Asosiasi Perusahaan Nasional Telekomunikasi (APNATEL)	Telkom, Telkom Akses
26.	Asosiasi Perusahaan Teknik Mekanikal Elektrikal (APTEK)	Nutech, Swadharma Sarana Informatika (SSI)
27.	Asosiasi Perusahaan Pengadaan Komputer dan Telematik Indonesia (ASPEKMI)	Nutech, Infomedia, Swadharma Sarana Informatika (SSI), Telkomsat
28.	Asosiasi Pengusaha Indonesia (APINDO)	Infomedia
29.	Asosiasi Bisnis Alih Daya Indonesia (ABADI)	Infomedia
30.	Indonesia Contact Center Association (ICCA)	Infomedia
31.	Asosiasi Cloud Computing Indonesia	Telkomsigma
32.	Asosiasi Data Center Indonesia (IDPRO)	Telkomsigma

No.	National	Member
33.	Asosiasi PMOI (Project Management Office Professional Indonesia)	Telkomsigma
34.	Asosiasi Perusahaan Jasa Pengolahan Uang Tunai Indonesia (APJATIN)	Swadharma Sarana Informatika (SSI)
35.	Asosiasi Perusahaan dan Konsultan Telematika Indonesia (ASPEKTI)	Swadharma Sarana Informatika (SSI)
36.	Asosiasi Perusahaan Perdagangan Barang Distributor, Keagenan, dan Industri (ARDIN)	Swadharma Sarana Informatika (SSI), Telkomsat
37.	Asosiasi Fintech (AFTECH)	Finnet, Telkomsel
38.	Asosiasi E-Commerce Indonesia (idEA)	Finnet
39.	Ikatan Ahli Ekonomi Islam Indonesia (IAEI)	Telkom
40.	Masyarakat Ekonomi Syariah (MES)	Telkom
41.	BUMN Muda	Telkom
42.	Business 20 (B20)	Telkom
43.	Forum Human Capital Indonesia (FHCI)	Telkom
44.	Asosiasi Pengembang Menara Telekomunikasi (ASPIMTEL)	Mitratel
45.	Asosiasi IoT Indonesia (ASIOTI)	Telkomsel
46.	Asosiasi Emiten Indonesia (AEI)	Telkom
47.	Himpunan Jasa Konstruksi Indonesia (HJKI)	Telkom Akses
48.	Ikatan Akuntan Indonesia (IAI)	Telkom

| No.	International	Member
1.	International Telecommunication Union (ITU)	Telkom
2.	International Telecommunications Satellite Organization (ITSO)	Telkom
3.	International Telecommunications Satellite (INTELSAT)	Telkom
4.	International Marine / Maritime Satellite (INMARSAT)	Telkom
5.	Asia Pacific Telecommunication (APT)	Telkom, Telkomsel
6.	Asia Pacific Economic Cooperation (APECTEL)	Telkom
7.	TM Forum	Telkom, Telkomsel
8.	ASEAN CIO Association (ACIOA)	Telkom
9.	Wireless Broadband Alliance (WBA)	Telkom
10.	Asia-Pacific Satellite Communications Council (APSCC)	Telkomsat
11.	Asia Pacific Network Information Centre (APNIC)	Telkomsel
12.	Bridge Alliance	Telkomsel
13.	Global System for Mobile Communications Association (GSMA)	Telkomsel
14.	PMO Global Alliance (PMOGA)	Telkomsigma
15.	Pacific Telecommunications Council (PTC)	Telin
16.	Mobile Ecosystem Forum (MEF)	Telin
17.	International Cable Protection Committee (ICPC)	Telin

02

MESSAGE OF THE PRESIDENT DIRECTOR
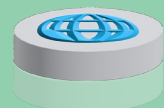
MESSAGE OF THE PRESIDENT DIRECTOR [2-14]

> Telkom implements sustainability practice policies in line with its digital transformation activities to support the society's economic growth, including the digital economy.

Esteemed Stakeholder,

TelkomGroup continuously supports the realization of Sustainable Development Goals (SDGs), and we recognize the importance of managing an ethical business as we create a better future. With regards to improving our sustainability performance, our support is implemented through our consideration for planet, people, partnership, prosperity, & peace (5P) within all our business activities.

We also continue to manage environmental, social, and governance (ESG) risks, in particularly the minimization of negative impacts as we increase value as a positive impact. Moreover, the management of the ESG aspects is accompanied by efforts to improve various telecommunication technology innovations that have become part of the current day-to-day life. We manage ESG aspects in accordance with our scope of business as a digital telco company. To support of these activities, we have also done an ESG risk mapping and mitigation and developed sustainability pillars.

POLICIES TO RESPOND TO CHALLENGES

Telkom implements sustainability practice policies that are in line with its digital transformation activities supporting society's economic growth, including the digital economy. The increasing need for digital technology through telecommunication innovations has to be balanced through the management of social and environmental impacts. We are therefore committed to implementing a sustainability strategy based on three main pillars: the Right Environmental Approach; the Right People; and the Right Governance.

With regard to the Right Environmental Approach pillar, we conduct business in an environmentally responsible manner by working to reduce the negative environmental impact of our operations. The Right People pillar is our commitment to create a positive impact for all, including employees, customers, communities and other stakeholders. Meanwhile, the Right Governance pillar demonstrates our commitment to apply sustainability governance, legal and regulatory compliance, and ethical business practices; to respect customer privacy and human rights; and to manage risk management systems related to data security systems and economic aspects. The three Pillars are intended to encourage a more balanced ESG performance.

SUSTAINABILITY PERFORMANCE ACHIEVEMENTS

Throughout 2022, TelkomGroup carried out initiatives that support sustainability practices and that manage the challenges of a digital telco company. Relating to environmental aspects, Telkom undertook initiatives to reduce energy use and reduce greenhouse gases (GHG) emissions. We have identified that the management of data centers is the biggest energy consumer in the Company's operations. At Telkomsigma, our Subsidiary, we have reduced energy consumption of data centers by adjusting the temperature and humidity of the cooling devices. In 2022, Telkom expanded Telkomsigma's data center segment to PT Telkom Data Ekosistem (NeutraDC) with the aim of developing a data center ecosystem. The development of the data centers is balanced with decarbonization initiatives through the Green Data Center program. As such, we use energy-efficient, cutting-edge technologies in our operational activities to reduce GHG emissions. Additionally, our Base Transceiver Stations (BTS) utilize solar cells and fuel cells, both clean and environmentally-friendly energy sources.

> Throughout 2022, TelkomGroup carried out initiatives that support sustainability practices and that manage the challenges of a digital telco company.

Ririek Adriansyah
President Director

We have been consistent in managing our e-waste and collaborate with other parties so that these can be reused. We have reduced solid waste by using SIM card raw materials, and we have replaced physical vouchers with electronic ones. Moreover, we have continued with our waste management campaign, both internally and externally through the Electronic Device Donation for Education (Eduvice) assistance program. Telkom invites its employees to manage their e-waste by disposing their old devices in the electronics boxes that we've made available. We work with partners to recycle electronic waste into value-added items to be utilized and distributed to the community.

Relating to social aspects, we continued to develop training and education programs to create human resources that can adapt to digital technology. Additionally, we also enforced fair and ethical employment by upholding human rights, gender equality, diversity, and inclusiveness. By the end of 2022, the composition of female employees reached 34% of total employees. There were 596 new hires, of which 52.2% were female new hires. Meanwhile, we recorded an employee engagement index of 89.79%, illustrating the level of comfort that most of our employees have in working for the Company. Through the HR competency development program, we recorded 53.27 hours of training per employee per year.

The social aspects that we manage also include the implementation of Occupational Safety and Health Management System (SMK3). The implementation of SMK3 not only encompasses employees, but vendors and stakeholders in our work areas. To increase awareness regarding the importance of OHS to employees and work partners within TelkomGroup, we promote OHS aspects at various instances. To prevent accidents, some of the mandatory implementations range from Safe Work Readiness Check List and Safety Talk to direct field supervision through HSE Patrol and Management Visits. Additionally, we also ensure that our vendors comply with our safety standards and certifications.

What is more, the management of social aspects related to consumers includes managing data security and privacy, as well as consumer experience and satisfaction. TelkomGroup pays close attention to the handling of technological disruptions that reduce service quality and convenience so that we can provide the best experience to our customers. Telkom always prioritizes consumer convenience by ensuring data security systems and customer privacy. Data security protection is carried out throughout the information lifecycle: from personnel, processes, applications and services, database systems, operating systems, networks to hardware.

Telkom supports the Government's policy to purchase products and use domestic services by prioritizing local supplies to satisfy the procurement of goods and services. This policy is one of our contributions in support of Indonesia's economic growth. Within TelkomGroup's supply chain, we have conducted GSE-related assessments of partners/suppliers. In 2022, 99% of our partners/suppliers are local, and TelkomGroup's Domestic Content Level (TKDN) achievement is around 37.02% of CAPEX expenditure and 75.02% of OPEX expenditure.

As part of the community, TelkomGroup oversees community development programs that are aligned with SDG support. TelkomGroup is a significant contributor to the connectivity and expansion of digital-based telecommunication infrastructures to nearly all regions of Indonesia, including Frontier, Outermost and Least-Developed (3T) areas. In line with the development of the digital economy, we have synergized with stakeholders to develop several strategic programs. To support the growth of the digital ecosystem in Indonesia, Telkom has launched Leap, an umbrella brand for digital products developed by TelkomGroup. We anticipate that digital products and innovations under Leap will help many sectors and industries while enabling collaborations with various agencies to increase digital inclusion.

TARGET ACHIEVEMENT STRATEGY

To ensure the achievement of our performance targets, the Company carries out strategies that strengthen sustainable governance. We have developed a monitoring and evaluation process for the management of the ESG aspects into our business strategies. This includes the application of sustainability governance with the integration of GCG implementations and business ethics.

In carrying out our strategies in support of our sustainability performance, we pay close attention to challenges and opportunities, so as to develop future strategies that are more pertinent. We realize that digital telecommunication offers great opportunities and business prospects that can drive the advancement of the digital economy. In addition to providing convenience and connectivity, digital telecommunications can be used to expand the value chain of a business. Consequently, TelkomGroup will need to prepare a more comprehensive ESG-based risk management system with a view to minimize risks and create new opportunities.

APPRECIATION

We would like to express our appreciation and gratitude to all stakeholders for their support and cooperation. We also thank the Board of Commissioners and Directors, as well as management and employees, for their support and contributions to the achievement of Telkom's sustainability performance.

Challenges will always exist; however, it is necessary to stay optimistic to keep moving forward. We invite all stakeholders to advance towards sustainable growth together with TelkomGroup: "Bold Moves, Boosting Sustainable Growth". Through the synergy of all stakeholders, we are confident we will deliver both added value and positive impact for a better future.

Jakarta, April 30, 2023

Ririek Adriansyah
President Director
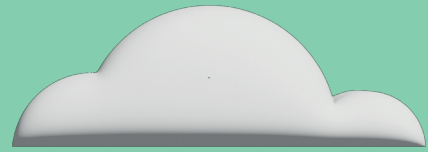
03

TELKOM
SUSTAINABILITY

SUSTAINABILITY GOVERNANCE, PILLARS, AND STRATEGY

SUSTAINABILITY GOVERNANCE [2-9, 2-11, 2-12, 2-13, 2-14, 2-25]

Telkom has a governance structure consisting of a General Meeting of Shareholders (GMS), the Board of Commissioners, the Board of Directors, and committees and divisions under them. Each has an essential role in implementing governance through their functions, duties, and responsibilities. Telkom has carried out the directions from OJK to form a sustainability committee. The Sustainability Committee is in the form of a TJSL Committee which is under the Board of Directors and led by the Director of Human Capital Management.

TJSL Committee in Governance Structure
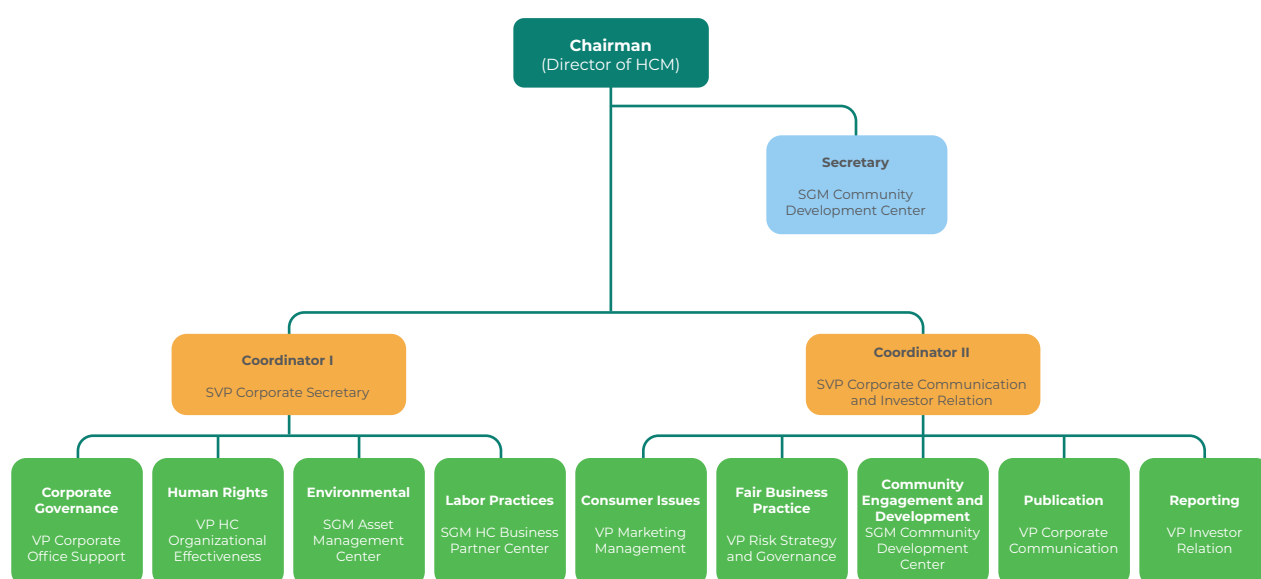
On the other hand, in carrying out sustainability practices and initiatives, each work unit/division up to Subsidiaries in TelkomGroup is involved in an ad hoc manner. Several units closely related to the implementation of sustainability initiatives, namely Corporate Office Support, HC Organizational Effectiveness, Asset Management Center, HC Business Partner, Marketing Management, Risk Strategy and Governance, Community Development Center, Corporate Communication, and Investor Relations. In addition, Telkomsel and Telkom Property as Subsidiaries also play a significant role in the sustainability of TelkomGroup.

Oversight of the effectiveness of the implementation of sustainability initiatives and practices is carried out by the Directorate of Human Capital Management, which has been assisting the Board of Directors in collecting and reporting on the achievements of sustainability initiatives.

ESG RISK PREVENTION AND MITIGATION PRINCIPLES [2-25]

As a SOE, Telkom implements SOE Minister Regulation No. PER.08/MBU/2020 regarding the Strategic Plan of the Ministry of SOE for 2020-2024, which contains initiatives to strengthen the risk management function and implementation of SOE governance. In relation to ESG, Telkom does not only manage business risks that are included in the company's top risk profile. Telkom has identified ESG risks and implemented the precautionary principle.

Holistically, risk management at Telkom refers to ISO 31000:2018 Risk Management - Principles and Guidelines, which consists of three main components:
1. Principle as the foundation of how risk management works to ensure the creation and protection of value;
2. Framework that regulates the commitment to the role and division of risk management functions;
3. Process that describes the activities/stages in carrying out risk management.

A more detailed explanation regarding governance, Board of Directors and Board of Commissioners, and risk management as the application of a precautionary approach and internal control can be read in the 2022 Annual Report in the Corporate Governance Chapter.

ESG RISK IDENTIFICATION AND MANAGEMENT [2-25]

Aspects	Operational Risk and Impact	Influence on Risk Mitigation Stakeholders	Risk Mitigation
Environment (E)	Risk of natural disasters that can disrupt business operations and have a negative impact on financial performance and profits, business prospects and market prices of securities	Customers, Partners, Community, Management	a. Coordination with ASKALSI (All Indonesian Sea Cable Association) for SKKL security b. Preventive & corrective action by preparing a disaster recovery plan and crisis management team c. Transfer risk by using asset insurance to anticipate natural disasters and fires
Social (S)	Disruptions to political stability, and social and security turmoil both domestically and internationally caused by specific issues such as geopolitical crises, trade wars, and so on, which have a negative impact on business growth, operations, financial condition, business results, supply chain of production equipment and prospects and market prices of securities	Customers, Partners, Society, Management, Shareholders	a. Monitoring the influence of socio-political turmoil on operational or service disruptions b. Maintenance of vigilance through enhancing the function of safety & security c. Monitoring supply chain issues related to raw materials and looking for alternatives to materials or device designs
	New technologies that negatively impact competitiveness	Customers, Partners, Community, Management	a. Preparation of a Technology Roadmap by considering future technology and the potential implementation of competitor technology b. Acceleration of the IDN (Indonesia Digital Network) program to support future services

Aspects	Operational Risk and Impact	Influence on Risk Mitigation Stakeholders	Risk Mitigation
	The risk of fulfilling digital talent that has a negative impact on business continuity	Management	a. Preparation of WFP (Work Force Planning) Digital Talent according to the company's digital business priorities b. Improve Recruitment Strategy & Execution for Digital job functions c. Collaboration with tech giants, academics & external experts for expert training & development of training modules
Governance (G)	Risk of penalties/fines by KPPU related to price fixing and class action that can reduce Telkom's revenue and have a negative impact on business, reputation, and profits	Management, Regulator	Strengthening legal review of corporate action plans or certain contracts
	Risk of changes in Indonesian or international regulations that impact business, financial condition, operational performance, and business prospects	Management, Regulator, Customers	a. Analysis of the impact of the regulatory plan on the industry in general and Telkom in particular b. Provide input so that the regulations to be enacted provide positive benefits for the Company and industries
	Internet service competition (Fixed Broadband)	Customers, Partners, Community, Management	a. Strengthening the perception and quality of IndiHome as a new digital life style b. Acceleration of the deployment of fixed broadband service infrastructure
	Risk threats to physical and cyber security, such as theft, vandalism or other actions that have a material adverse effect on business, financial condition and results of operations	Customers, Community, Management	a. Improved Preventive Actions through periodic Vulnerability Assessments and Penetration Tests b. Monitor and identify all attacks in real-time and select and take the necessary actions immediately c. Develop recommendations for handling cyberattacks based on historical incident analysis d. Intensive coordination of parties involved in handling cyberattacks

BUILDING A SUSTAINABILITY CULTURE

Telkom is committed to creating a culture that encourages responsible thinking and behavior. Telkom believes that with the cooperation of all parties and consistency, the Company will achieve sustainable performance targets. Therefore, the Company always builds a culture of sustainability internally and creates awareness among all employees to support sustainability practices. The implementation of sustainability practices and culture considers the management of economic, environmental, social, and governance (ESG) aspects. Likewise, in every policy and strategy set, the Company always pays attention to the risks and opportunities of ESG and economic factors.

SUSTAINABILITY PILLARS [2-22, 2-23, 2-24, 2-27]

TelkomGroup is committed to realizing corporate values in every business activity and becoming the main growth driver through ethical and responsible operations. The management of economic and ESG aspects and the implementation of sustainability practices in the TelkomGroup are carried out based on three main pillars: Right Environmental Approach, Right People, and Right Governance.

Right Environmental Approach	Right People	Right Governance
In running a responsible business, TelkomGroup applies the right approach and environmental management to reduce the environmental impact of operations.	In running a responsible business, TelkomGroup always positively impacts all employees, customers, communities, and other stakeholders.	In running a responsible business, TelkomGroup implements sustainability governance, including fulfilling legal and regulatory compliance, implementing business ethics, respecting customer privacy, and managing a risk management system related to sustainability.

SUSTAINABILITY STRATEGY [2-22]

TelkomGroup's commitment to achieving sustainability targets is pursued by managing economic and ESG impacts integrated with our business model and operating activities. We continuously review our sustainability strategy in managing risks and taking advantage of ESG opportunities. Our sustainability strategy is implemented to support Telkom's pillar of sustainability. In general, the strategies we apply are:

1. Reducing the environmental footprint of operations by managing energy use, working to reduce emissions produced, and managing electronic waste;
2. Carry out various initiatives and programs to provide excellent service and improve customer experience sustainably;
3. Continuously train and educate to create human resources who can adapt to digital technology;
4. Prioritizing customer convenience by running a security system and maintaining customer data privacy;
5. Doing business ethically, complying with applicable policies and regulations, and respecting human rights;
6. Running an adequate risk management system;
7. Carry out community development programs to provide sustainable impact and value.

OVERVIEW OF THE
SUSTAINABILITY REPORT

The Company publishes a Sustainability Report on an annual basis. This report includes data and information on economic sustainability, as well as environmental, social, and governance (ESG) performance. Telkom's Sustainability Report is prepared by referring to the Financial Services Authority Regulation (POJK) No. 51/POJK.03/2017 and OJK Circular Letter No. 16/ SEOJK.04/2021 regarding Form and Content of Annual Reports of Issuers or Public Companies. In addition to these regulations, this Sustainability Report has been prepared with reference to the GRI Universal Standards. In line with the status of Telkom, whose shares are traded on the NYSE, we disclose indicators from the Sustainability Accounting Standard Board (SASB) for the category of Telecommunication Services Sustainability Accounting Standard. [2-3, 2-14]

This report has restated data on energy use, GHG emissions, and company contributions generated in 2020 and 2021 caused by changes in the calculation method, energy & emission calculation conversion tool, and a shift in dividend year in the company's contribution calculation method. The primary financial data and information source come from the Consolidated Financial Statements of Telkom and its Subsidiaries. Information and data on ESG topics come from TelkomGroup that is relevant, significant, and by data availability. [2-2, 2-4]

Telkom has not verified and assured this report. However, all data has been validated by the relevant division. The President Director of the Company acknowledges and approves the publication of this report. [2-5]

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MATERIAL TOPICS AND SIGNIFICANT ISSUES
[3-1, 3-2, 3-3]

In this report, Telkom conveys material topics that significantly impact the Company and influence stakeholder decision-making. There were changes in material topics for the 2022 reporting period. Changes in material topics related to the results of focus group discussion (FGD) decisions conducted by management in reviewing significant issues and material topics during 2022.

Management-approved material topics have been determined, considering global trends, including issues related to ESG and sustainability. In determining material topics, Telkom has also considered managing risks and opportunities for sustainability, the concerns and needs of stakeholders, the impact on the company and stakeholders, human rights (*HAM*), as well as targets and strategies for creating long-term value.

LIST OF MATERIAL TOPICS [3-2]

No.	Material Topics	Significant Issues	SDGs
Right Environmental Approach			
1	Energy Management	Energy efficiency and emission reduction	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 11 SUSTAINABLE CITIES AND COMMUNITIES 13 CLIMATE ACTION
2	Material procurement and efficiency	Integrated waste (waste management)	
Right People			
3	Excellent service	• Management and measurement of customer experience per product • Commitment to complaint management and disruption reduction	4 QUALITY EDUCATION
4	Employee and community engagement	• Involvement of persons with disabilities and low-income communities • Development of micro and small businesses • Recruitment of employees with disabilities	8 DECENT WORK AND ECONOMIC GROWTH 11 SUSTAINABLE CITIES AND COMMUNITIES 17 PARTNERSHIPS FOR THE GOALS
5	Training and education	• Digital talents • Education priority program	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Right Governance			
6	Compliance	The process of law enforcement and compliance with regulatory changes	
7	Business Ethics	• Compliance with business ethics • Anti Corruption • Whistleblowing system • Diversity, fairness, and inclusion	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
8	Privacy and data security	Data privacy and cybersecurity	
9	Risk management system	• Measurement of Risk Maturity Index (RMI) • Monitoring and evaluating the effectiveness of risk mitigation through the ERM Online application • One-on-one evaluation/discussion and advisory with business units as needed • Joint reporting and evaluation with BOD and Planning and Risk Evaluation and Monitoring Committee (KEMPR)	16 PEACE, JUSTICE AND STRONG INSTITUTIONS

MATERIAL TOPICS MANAGEMENT [3-3, 2-23, 2-25]

Energy Management

Essential to Manage	The Company requires much energy to carry out its operational activities. This energy supply is obtained through cooperation with strategic partners.
Impact	The negative impact of energy use is that the emissions produced over time will worsen global warming and climate risks. Thus, TelkomGroup seeks to manage energy use wisely to reduce the footprint of greenhouse gas (GHG) emissions.
Commitment and Target	• Maintain the intensity of energy use each year. • Requires emission reductions each year. • Consistently calculate the total energy use and emissions produced. • Requires an increase in the use of renewable energy each year.
Policy and Strategy	The resulting internal strategies and policies for reducing GHG emissions are through energy use efficiency. Telkom is developing 'Green BTS' through our subsidiaries, namely Telkomsel and Mitratel, by utilizing environmentally friendly alternative energy sources such as fuel and solar cells.
Evaluation of Management Effectiveness	• Total energy consumption 8,010,525 GJ. • Alternative energy sources for the 1,058 BTS sites consist of 951 solar cells and 107 fuel cells. • The number of solar cells increased by 12.3% from 847 to 951 and fuel cells decreased by 50.5% from 216 to 107. • The resulting emissions were 1,852,679.3 tons of CO_2eq.

Material Procurement and Efficiency

Essential to Manage	The Company need much material in the form of equipment to provide communication services. The certainty and availability of this equipment are very crucial, as is the waste management.
Impact	Communication equipment at the end of its life will become waste, so it needs to be managed.
Commitment and Target	Endeavor to reduce the amount of waste generated each year, as well as improving the reduce, reuse, and recycle (3R) waste.
Policy and Strategy	Telecommunication equipment material management is done by reducing the primary material, recycling, and reusing electronic waste.
Evaluation of Management Effectiveness	• Electronic waste (e-waste) is handed over to third parties who have processing permits. • During 2022, there will be no cases related to environmental pollution due to e-waste. • The number of routers that were reused was 278,776 units.

Excellent Service

Essential to Manage	As a service company in the telecommunications sector, excellent service is the key to the Company's success in supporting economic performance.
Impact	Customers are Telkom's priority, and we always want to provide them with the best experience. Excellent service can improve customer experience and growth which will then have a positive impact on financial and operational performance.
Commitment and Target	• TelkomGroup's Net Promoter Score (NPS) for 2022 is targeted at a minimum of 51, with a target in 1st Semester was 50 and a target for 2nd Semester is 51. The target score grows by 2 points compared to the 2nd Semester achievement in the previous year of 49. NPS calculation refers to the standard calculation formula NPS globally, and measurement carried out by third-party surveyor partners to maintain independence and objectivity. • The Consumer segment's Net Promoter Score (NPS) is above 30, with a target of in 1st Semester of 26 and a target of 2nd Semester is 30. The target score grows 30% compared to the previous year's achievement of 23.
Policy and Strategy	Carry out preventive and proactive activities to prevent disruptions, provide after-sales guarantees, and provide the best service, including service delivery, service assurance, and measurement of service quality. Apart from that, we also made radical and comprehensive improvements, which included aspects of people, processes, systems, and tools.
Evaluation of Management Effectiveness	• The achievement of TelkomGroup's NPS score in 2nd Semester of 2022 was 55, with a point increase of 6 points from the accomplishment of the NPS score in 2nd Semester of the previous year. • Telkom's NPS score was 55.53% and for the Consumer segment was 30, a 7-point increase from last year's NPS score. • The trend of technical disruptions decreased by 21% from December 2021 to December 2022. • Average technical repair time was 6.2 hours in December 2022.

Employee and Community Engagement

Essential to Manage	Reliable and highly competent employees are the backbone of the Company in providing services to customers and running operations so that the Company ensures the fulfillment of talent acquisition according to the needs of workforce planning. Likewise, the community becomes part of the service targets that require education and as beneficiaries of our services.
Impact	Having reliable human resources will facilitate business activities. Meanwhile, the existence of a growing and empowered community will support economic growth and become potential customers to support TelkomGroup's performance growth.
Commitment and Target	• The number of beneficiaries of the SME Development Program and Community Engagement and Empowerment grew by 5% annually. • 2.01% employees with disabilities from Telkom Parent until 2030.

Policy and Strategy	HR management at TelkomGroup refers to:
	1. KD.28/PS560/SD M-20/2004 regarding Remuneration System.
	2. PR.2905/r.00/PS800/COP-A4000000/2007 regarding Employee Ethics and Compliance.
	3. PR.205.09/r.00/HK200/COP-A300000/2021 regarding Performance Management System.
	4. PR.204.06/r.00/HK200/COP-A0300000/2022 regarding Talent Acquisition.
	5. PR.206.03/r.01/HK250/COP-B020000/2022 regarding Learning and Development Management.
	6. PR.207.26/r.00/HK200/COP-A0300000/2022 regarding Guidelines for Determining Income for Employees of Subsidiaries and Affiliates within the Scope of the TelkomGroup.
	7. PR.208.07/r00/HK250/COP-A0300000/2022 regarding Career and Succession Management for Employees.
	TelkomGroup also supports the commitment of the Ministry of Manpower and the International Labor Organization (ILO) in realizing an Indonesia free of child labor and implementing gender equality and diversity.
	On the other hand, community involvement is carried out through social responsibility activities that refer to:
	• Directors Regulation No. PD.703.00/r.00/HK200/CDC-A1000000/2021, December 31, 2021, regarding Social and Environmental Responsibility Programs;
	• Director of Human Capital Management Regulation No. PR.703.01/r.00/HK200/CDC-A1000000/2022 dated March 30, 2022, regarding Guidelines for the Operational Implementation of Social and Environmental Responsibility Programs.
Evaluation of Management Effectiveness	• The number of Telkom Parent employees is 8,919 people.
	• The number of women employee in Telkom Parent is 33.99%.
	• 27.32% of women occupy managerial level at Telkom Parent.
	• Employee engagement index of 89.79%.
	• Number of beneficiaries of the community engagement and development program around 68,792 people.
	• Number of SME Foster Partners as much as 5,032 Fostered SMEs.
	• The average SROI value is above 1 of the 3 priority programs.

Training and Education

Essential to Manage	Reliable human resources who are aware of the use of technology need to be supported by training and education so that the benefits of technology support productivity and prosperity. Research and development is also part of the need to provide high-quality services.
Impact	Adequate training and education programs will improve the quality of human resources and their productivity.
Commitment and Target	• 20% digital talent from total TelkomGroup employees until 2025. • Total training hours a year reached 1,331,804 hours, with an average training per employee of 53.27 hours a year.
Policy and Strategy	Training and education are included in the talent journey. On an ongoing basis, Telkom consistently runs training and education programs for employees in class, by self-learning, and by participating in external training. On the other hand, Telkom has Telkom Corporate University, which is an educational institution that the general public can access to develop education.
Evaluation of Management Effectiveness	• Employees who received training were 12,715 people. • Average training hours per employee per year is 53.27 hours. • There are 25 institutions outside the TelkomGroup that have used the services of Telkom Corporate University.

Compliance

Essential to Manage	As part of a SOE, compliance with all regulations is the basis for implementing good governance.
Impact	Compliance with regulations will expedite business activities and minimize operational and other risks, as well as enhance the Company's image.
Commitment and Target	Zero tolerance (Comply 100%).
Policy and Strategy	Carry out compliance related to licensing and Intellectual Property Rights. In addition, we ensure that the company complies with applicable laws and regulations by developing clear policies, procedures, and guidelines. In addition, we also monitor and report compliance, as well as handle violations committed.
Evaluation of Management Effectiveness	TelkomGroup has complied with applicable regulations, laws, and policies in the last three years. There have been no sanctions or fines imposed on TelkomGroup in the previous three years regarding non-compliance.

Business Ethics

Essential to Manage	One part of good governance is the application of business ethics which is the basis of stakeholder trust and the Company's reputation.
Impact	The impact of this topic is related to the Company's integrity and image. Therefore, the Company requires all top management and Telkom personnel to comply with the anti-corruption policy. In addition, vendors and or other stakeholders who work together are also expected to support anti-corruption practices at Telkom.
Commitment and Target	Zero tolerance (Comply 100%).
Policy and Strategy	The Company already has an anti-corruption policy that applies to all Telkom personnel without exception. Socialization and awareness raising are periodically carried out to all employees to increase anti-corruption awareness. Telkom also runs a violation reporting system. In addition, TelkomGroup also implements the signing of integrity pacts, carries out gratuity control, carries out ISO 37001:2016 Anti-Bribery Management System certification, and runs a whistleblowing system (WBS).
Evaluation of Management Effectiveness	• There were no cases of corruption, gratuities, bribes, or fraud. • The areas accessed by ISO 37001:2016 include the SSO Procurement & Sourcing Unit, Yogyakarta Witel Office, Medan Witel Office, West Jakarta Witel Office, Bandung Witel Office, South Surabaya Witel Office, Makassar Witel Office, Balikpapan Witel Office, HCM Recruitment Unit and HCM Gratification Control Unit. • Throughout 2022, the number of complaints entered the WBS was 126. Then 26 met the requirements for proper processing.

Privacy and Data Security

Essential to Manage	For us, superior technology must be accompanied by trust and data security, and guarantees of customer data confidentiality as a form of ethical business.
Impact	The negative impact that needs to be managed from this topic is if there is a data leak or misuse by irresponsible parties. In addition, cybercrime also needs to be addressed. TelkomGroup always strengthens the security management system and improves cybersecurity.
Commitment and Target	No data leaks.
Policy and Strategy	TelkomGroup has a management system and internal policies related to data privacy and security. One of our commitments is to implement a data security management system that refers to ISO 27001 and has received a valid certification until 2025.
Evaluation of Management Effectiveness	There are no cases of material data leakage.

Risk Management System

Essential to Manage	Risk management is the basis for responding to any changes and challenges, and developing strategies to achieve targets.
Impact	The risk management system supports good corporate governance practices, which will increase the confidence of investors and other stakeholders in managing the risks faced by the Company.
Commitment and Target	• Maturity level in 2023 is 4.24-4.34; • Telkom's Risk Maturity Value with a target of 4.07 (achievement 4.17) and Subsidiary's Risk Maturity Value; and • Implementation of application-based and automated Risk Management to get an Early Warning System.
Policy and Strategy	Implement a risk management system that refers to ISO 31000.

Evaluation of Management Effectiveness	The implementation of Telkom's risk management system for 2022 has been running effectively because it can manage various Telkom business risks to support every policy and process in TelkomGroup. To keep the effectiveness of the risk management system, Telkom uses several tools or risk management information systems, namely:
	1. Generic Tools Enterprise Risk Management Online (ERM Online) which are used by all units to manage the Risk Register.
	2. Specific Tools for specific risk management purposes, for example:
	   a. Fraud Management System (FRAMES) application used for an early detection system for potential Customer and Third Party Fraud.
	   b. The i-Library application is managed by the Service Operations Division and is used to manage the Integrated Management System documentation system.
	   c. Online OSHMS application managed by the Security & Safety Unit for managing Health and Safety documentation.
	
	In addition, in 2022 Telkom has carried out an evaluation process to assess the effectiveness of risk management implementation, namely:
	1. Measurement of Risk Maturity Index (RMI).
	2. Monitoring and evaluating the effectiveness of risk mitigation through the ERM Online application.
	3. One-on-one evaluation/discussion and advisory with business units as needed.
	4. Joint reporting and evaluation with Board of Directors and Planning and Risk Evaluation and Monitoring Committee (KEMPR).

STAKEHOLDER ENGAGEMENT [2-29]

Telkom realizes that stakeholders have influence on the Company's business sustainability. Therefore, we mapped out significant stakeholder groups and identified their concerns, needs, and issues that were important to them. Identification of stakeholder groups is carried out based on the aspects of responsibility, impact, dependability, proximity, and representativeness. Telkom always builds good relations with stakeholders, and responds to their needs and concerns.

Shareholders and Investors

Shareholders and investors are significant stakeholders who greatly influence management decision-making. Communication with shareholders and investors is established during the Annual General Meeting of Shareholders (GMS), Extraordinary GMS, and quarterly performance explanations. In addition, investor engagement occurs during Investor Conferences and Non-Deal Roadshows and other scheduled meetings. Essential topics and issues of concern to them include achieving operational and financial key indicators (KPI), good corporate governance practices, and business development. Every year the Company publishes an Annual Report and Sustainability Report as part of the response to convey the Company's performance both from an ESG and financial perspective.

Employees

Employees become internal stakeholders who are essential in supporting the continuity of the Company's business. The relationship built with employees is supported by their involvement in periodic meetings with management, annual training, Labor-Union (Sekar) Telkom, and Collective Bargaining Agreement (PKB) negotiations every two years, as well as through the Employee Complaint Center. Matters of concern and needs of employees include career paths, clarity of rights and obligations, remuneration and other benefits, competency enhancement, and other employment aspects. All employee needs have been responded to according to the Company's capabilities.

Customers

Customers are a stakeholder group that significantly impacts Telkom's business continuity. We build strong relationships with our customers by communicating and engaging them directly. Telkom conducts a customer satisfaction survey at least once a year. In addition, we have a Customer Complaint Center. Topics of customer concern include network connection and coverage, ease of complaint resolution, data security and confidentiality, and excellent service. Telkom has responded well to all the needs and concerns of customers so far.

Government

In conducting business, Telkom always complies with Government regulations. Relationships built with the government include bipartite meetings held at least once a year. In addition, relations are established through hearings with the DPR and working visits carried out according to a schedule. From meetings with representatives from the government, Telkom identified their needs and concerns, including legal compliance and reporting, ethical business practices, and the establishment of harmonious and constructive relationships considering that Telkom is a SOE.

Work Partners

Work partners are a group of stakeholders who also have a significant role in supporting the smooth running of Telkom's business processes. The involvement of work partners is carried out directly during the procurement process in the supply chain. To establish communication and good relations, face-to-face meetings are held during bidding and procurement contracts, vendor selection and management, supplier performance appraisal, as well as other further procurement processes with a frequency according to the needs of both parties.

From the relationships with work partners, Telkom identifies matters that concern them for us to respond to, including a fair and transparent procurement process, an objective selection and evaluation process, work implementation that meets OHS standards, proper and understandable administrative procedures, as well as excellent and sustainable cooperative relations.

Community

Broad community groups outside of them who are customers become Telkom's concern in running the business value chain. They can become customers, and their views influence the Company's image.

Telkom actively seeks input and feedback from communities throughout Telkom's value chain. Community engagement is carried out through deliberations in planning community empowerment activities, implementing activities, and monitoring program realization. Every year community empowerment and other philanthropy programs are carried out. From the relationships that have been established, we identified several community needs and concerns, namely harmonious relations, positive contributions to their economic and social life, as well as participation in other programs, including environmental preservation activities.
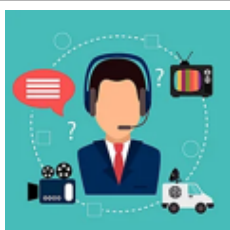
Mass Media

Telkom has good relations with the media and seeks feedback from the mass media. Mass media engagement in our business includes press releases, media gatherings, press conferences, and press briefings held as needed at least once a year. The things that concern them are the news object's accuracy, the latest information, and the transparency of operational, financial, and non-financial conditions.

04

SUSTAINABILITY PERFORMANCE

RIGHT ENVIRONMENTAL APPROACH

TelkomGroup's policies and commitment in carrying out an appropriate environmental management approach refer to Regulation of Minister of Energy and Mineral Resources No. 14 Year 2012 regarding Energy Management. Its application is carried out collectively and supervised by the head of relevant unit. Environmental management carried out by TelkomGroup is manifested in several programs, including energy efficiency, use of renewable energy, waste management, water management and recycling, and the use of hardware that is more energy efficient.

ECO-FRIENDLY WORK CULTURE

To build environmental awareness concern, Telkom implements an eco-friendly work culture. All employees are expected to participate so that this culture can have a positive impact on the environment and change the mindset to care more about environment. This is a manifestation of the implementation of Telkom Wellbeing which has been stated in PK.209.07.01/R.00/HK200/COP-A3000000/2022 regarding Telkom Wellbeing, where Environmental Wellbeing is one of the seven dimensions of Telkom Wellbeing. Not only employees, we also urge partners who carry out their activities in TelkomGroup operational area to support an eco-friendly work culture.

Some forms of activities that are implemented in the Company, namely:
1. Maximizing digitization and utilization of information technology systems to reduce paper usage.
2. Establish policies for the use and dissemination of information through online systems, such as online official memo, virtual meeting, shared files, online survey, and IT-based HR services.
3. Implementing work from home can be a form of reducing motor vehicle emission.
4. Implementing a paperless system in sending invoice to customers.
5. The process of processing waste in several Telkom offices so that the waste can be recycled.

ENERGY AND EMISSION MANAGEMENT [302-1; 302-2; 302-4] [TC-TL-130A.1]

Along with the increasing use of digital telecommunication, TelkomGroup understands that there will be indirect environmental impacts from the use of electrical energy. Therefore, we strive to manage environmental aspects, especially those related to large energy consumption for office operations and data center management and their impact on the amount of emissions produced.

Some of the efforts made by TelkomGroup to reduce the use of electrical energy in office buildings, namely:
1. Use of LED light and cooling system management in office buildings.
2. Use of reflective glass with a thickness of 6 mm in some office buildings thereby reducing incoming heat.
3. Using a lighting zoning scheme, namely differentiating the lighting ignition area as needed so as to save energy.
4. Implement lighting operating schedules and automatic devices to save electricity consumption without disturbing the comfort and safety of building users.
5. Using a collection of capacitors (capacitor bank) to optimize electricity use.
6. Educating employees to save energy.
7. Placing warning boards and stickers in various strategic locations to remind employees to save electricity and water.

On the fixed network, efforts have been made to support energy reduction by means of:
1. Optimization of the conditioning device room system to increase the reliability of cooling system (AC) and electrical energy efficiency by using an inverter system that saves electricity consumption.
2. Revitalization of obsolete and inefficient devices with devices with efficiency levels greater than 90%.

For cellular network, the following are initiatives carried out by Telkomsel in managing BTS:
1. Presenting leading technology that is more energy efficient to support operational activities.
2. Use of Base Transceiver Station (BTS) based on clean or eco-friendly energy.

We have identified that the largest energy use in operations comes from data center management. At Telkom Data Ekosistem, our Subsidiary, reducing energy consumption in data center is carried out by adjusting the temperature and humidity of the cooling devices. We aim to maintain PUE (Power Usage Effectiveness) at an average to efficient level. The environmental management system at Telkom Data Ekosistem refers to ISO 14001:2015 which is assessed annually by an independent institution.

In 2022, Telkom will expand data center segment business at Telkomsigma to PT Telkom Data Ekosistem (NeutraDC) with the aim of developing a data center ecosystem so as to strengthen digitalization. The development of this data center business certainly encourages energy and emission increases. Therefore, NeutraDC took the initiative to decarbonize through the Green Data Center program which includes several efforts, including:

1. Decarbonize data center operation through energy efficiency, reducing GHG emission, having green reserve for DC, and using renewable material.
2. Sustainable water management through effective use of water, using alternative water source, using cooling tower, and conserving water.
3. Green building initiative (green building) through the fulfillment of green building certification.

On the other hand, our Subsidiary, namely Telin, manages data center energy use through several efforts, namely:
1. Use of Internet of Things (IoT) concept through sensor power for non-IT electronic, such as automatic light adjustment that is affected by time/hours.
2. Use of Diesel Rotary Uninterruptible Power Supply (DRUPS) technology for backup power sources (genset). This technology replaces the use of batteries which produce a lot of chemical effects on the environment.

Energy management carried out by Telin-3 Data Center in Singapore is assessed periodically by an independent agency referring to ISO 50001:2018 and SS 564 Part-1:2013.

Electricity Consumption

Electricity Consumption	2022	2021	2020
	kWh		
Fixed Network (STO)	286,640,402	280,779,670	287,927,905
Cellular Network (BTS)	1,644,933,633	1,555,857,416	1,889,032,157
Operational (Buildings)*	72,934,383	53,447,585	71,981,976
Data Center	83,289,380	76,308,287	64,399,582
Data Center Telkom Data Ekosistem	81,251,380	73,964,687	62,777,461
Data Center Telin in Hong Kong	346,000	810,000	251,241
Data Center Telin in Timor Leste	1,692,000	1,533,600	1,370,880
Total Electricity Consumption	**2,087,797,798**	**1,966,392,958**	**2,313,341,620**

Remark :
* Buildings which managed by Telkom Property.

Energy data is reported to include electricity consumption from building operations, fixed networks (STO), cellular networks (BTS), data center, and operational vehicles. In total, electricity consumption in 2022 increased by 6.17% from 1,966,392,958 kWh in 2021 to 2,087,797,798 in 2022. The increase in electricity consumption was due to the addition of BTS, increase in operational electricity for buildings due to office activities during recovery of COVID-19 pandemic, and consolidation of 3S data center and HDC belongs to Telkom Data Ekosistem.

In addition to electrical energy, we use energy from fuel oil (BBM). So far, Telkom has been trying to reduce fuel consumption through several initiatives, namely:
1. During STO operations, generator capacity optimization is carried out for efficiency in diesel fuel consumption by adjusting generator capacity to load capacity.
2. Use of energy efficient and environmentally friendly technology for BTS operations.
3. Build a Smart Energy Management Systems that aims to obtain energy saving opportunities in office buildings.
4. Utilizing renewable energy from rooftop solar power for some viable buildings.

Fuel Consumption

Fuel Consumption		2022		2021		2020
		Liters				
Fixed Network (STO)		575,475		952,913		1,082,622
Cellular Network (BTS)	±	11,437,661	±	8,396,831	±	9,979,993
Operational Vehicle*		1,691,921		1,953,809		2,100,567
Telkom Data Ekosistem Data Center		17,735		19,954		18,215
Telin Data Center in Timor Leste		12,000		10,000		9,000
Total Fuel Consumption	±	**13,734,792**	±	**11,333,507**	±	**13,190,397**

Remark :
* Buildings which managed by Telkom Property.

The majority of us use BBM for the operational needs of BTS, STO, data center, and vehicles. In 2022, TelkomGroup recorded fuel consumption of 13,734,792 liters, increased by 21.19% from last year. The increase in fuel usage for BTS operations was due to the increased number of running generators.

Total energy from electricity and fuel consumption in Gigajoule (GJ) conversion in 2022, is recorded at 8,010,525 GJ.

Total Energy Consumption

Energy Consumption	2022	2021*	2020*
	Gigajoule (GJ)		
Electricity Consumption	7,516,072	7,079,015	8,328,030
Fuel Consumption	494,453	408,006	474,854
Total Energy Consumption	**8,010,525**	**7,487,021**	**8,802,884**

Remark :
* Restatement.

NEW AND RENEWABLE ENERGY USE [302-1; 302-4] [TC-TL-130a.1]

The goal of energy management is to achieve energy use efficiency and reduce the amount of emissions produced. In energy management, we utilize new and renewable energy sources to reduce the amount of emissions produced. In practice, our Subsidiary, namely Telkomsel, has been developing 'Green BTS' since 2016 which utilizes solar cell and fuel cell as energy sources. It was recorded that at the end of 2022, Telkomsel BTS used 336 solar cells site, while 107 used fuel cells site. Our Subsidiary, namely Mitratel, also has BTS that utilizes solar cells at 615 sites.

EMISSION PRODUCED [305-5]

In 2022, TelkomGroup's operational activities produce Green House Gas (GHG) emissions of 1,852,679.3 ton CO_2eq, bigger than GHG emission produced last year. The amount of GHG emission produced in 2022 is bigger because it is influenced by the increase in BTS electricity consumption and building operation as well as BTS fuel energy consumption. This was due to the increase in the number of BTS for cellular network expansion and the increase in the Company's offline operational activities at the office.

GHG Emission Produced

Description	Unit	2022	2021*	2020*
Emission from Electricity Consumption	ton CO_2eq	1,815,853.6	1,710,201.6	2,012,182.1
Emission from Fuel Consumption	ton CO_2eq	36,825.7	30,407.6	35,383.3
Total Emission Generated	**ton CO_2eq**	**1,852,679.3**	**1,740,609.2**	**2,047,565.4**

Remark:
* Restatement.

WASTE MANAGEMENT [306-2]

Waste produced from our operations, namely electronic, packaging, and paper waste. Waste management has been carried out consistently through several sustainability programs and initiatives. However, there is also waste handed over to external parties to be managed. Organic and non-organic solid waste that is not e-waste will be handed over to local Sanitation Agency, while solid electronic waste will be handed over to a third party who has a processing permit.

On the other hand, we also produce liquid waste such as oil and fuel spills in insignificant amounts. We ensure that liquid waste is manageable and does not have a negative impact on the environment. Throughout 2022, there will be no significant spills of liquid waste containing hazardous and toxic materials in our operational areas. Likewise, there were no complaints regarding environmental pollution throughout 2022.

PRODUCT WASTE AT END OF LIFE MANAGEMENT [TC-TL-440A.1]

Customer Premises Equipment (CPE) that reaches its end of life will become e-waste in the value chain of our operations. CPE electronic components include IT hardware such as computer, peripheral, server, and router. We place hardware such as modem and IP-Set Top Box along with remote control at IndiHome customers' premises.

Management of CPE that has exceeded its useful life but is still in good condition, will be reused as a backup in the event of a disturbance or during the process of replacing equipment ordered to accelerate installation on site (temporary). For CPE whose condition is not suitable for use, it will be temporarily stored in a warehouse and awaiting management's decision for the next management step. Telkom is also trying to sort and repair electronic waste to be reused as an educational support tool for community groups in need.

Several reasons for withdrawing CPE, among others:
1. Customers unsubscribe;
2. CPE is damaged;
3. Customer is in arrears for up to 2 consecutive months;
4. Customer downgrades the package.

Withdrawn CPE and Its Management [301-3]

CPE Type	Unit	Treatment Method	2022	2021	2020
Modem (ONT)	Unit	Reuse Utilization	278,776	427,900	217,495

REDUCING SIM CARD PRINTING AND PHYSICAL VOUCHER

Regulation of Minister of Communication and Information No. 12/2016 which regarding obligation of every cellular phone subscriber to register for each new SIM card, has had an impact on the decrease in the number of requests for new SIM card. In line with these regulation, we are reducing SIM card printing as an effort to reduce waste generation from product. Another effort to reduce the generation of solid waste from product is to reduce the size of the physical card to 3-in-1 for new SIM card starter pack and physical voucher.

Meanwhile, through Go Digital Channel program, Telkom changed physical voucher to electronic ones to reduce waste generation. In addition, this program can not only reduce the solid waste of physical voucher but also support the reduction of printing, logistic/storage, and distribution cost.

WASTE MANAGEMENT EDUCATION

Telkom presents Electronic Device Donation for Education (Eduvice) assistance program to increase awareness of climate change mitigation. This program was launched as a form of commitment to reducing electronic waste (e-waste). Eduvice is socialized for internal and external parties. To support the implementation of this program, Telkom provides electronic boxes which are placed in the main offices. The aim is to encourage employees to collect their own e-waste, excluding company-produced waste, into the electronic box provided.

The collected electronic waste will be managed into value-added goods. The company works with partners who provide waste management services to sort and refurbish electronic waste so that it can be utilized and distributed to the public.

Not only internally, Eduvice is also socialized to external parties, namely Vocational High School student. In order to reduce electronic waste, Telkom teaches Vocational High School student to repair electronic equipment waste. These initiatives also indirectly become part of student learning practices. The results of the repaired electronic devices can be reused by school/student who need them. Until the end of 2022, Telkom has distributed 191 Eduvice devices to 12 beneficiary communities.

WATER MANAGEMENT [303-5]

Environmental aspect management includes clean water consumption management in the office building that we use. TelkomGroup always encourages all employees to use clean water wisely. Initiatives that have been running to support water conversion, namely:

1. Implement a water saving policy throughout the building.
2. Use of automatic faucets in most buildings.
3. Utilization of remaining water from cooling devices (AC) in the Telkom building in Jakarta.
4. Installing Wastewater Treatment Plant (IPAL) system to process used water so that it can be reused for washing cars, or watering plants.
5. Making biopores and infiltration wells to control rainwater in several Telkom buildings.
6. Utilizing gutters on the rooftop to collect rainwater which will be processed and used for water consumption in Jurong-3.

Water Consumption

Water Consumption	2022	2021	2020
	m³		
Water Consumption*	1,472,761	1,327,897	1,588,177
Total Water Consumption	**1,472,761**	**1,327,897**	**1,588,177**

Remark :
* The source of water consumed comes from Perusahaan Daerah Air Minum (PDAM) or Regional Drinking Water Company and data presented comes from buildings managed by Telkom Property.

ENVIRONMENTAL AND BIODIVERSITY CONSERVATION

INTEGRATED WASTE MANAGEMENT SOLUTION AND CIRCULAR ECONOMY DEVELOPMENT

Telkom's concrete step to protect the environment as well as increase community welfare are manifested in an integrated waste management program through providing education on waste and domestic waste in the community and processing organic waste into compost, which consist of several steps, namely:

1. Integrated garbage and waste (household) management training.
2. Assistance with disposal facility and plastic waste chopping machine.
3. Fertilizer production and compost-based biogas.

In addition, throughout 2022, the use of waste recycling machine and training on "Recycle & Eco Enzyme Serial Garbage Bank" has been carried out by involving the community around the Company's operational areas at 2 location points as well as the development of waste disposal facilities in 39 locations.

Particularly in the development of Integrated Waste Management in Tuksongo Village, Telkom managed to manage 1 ton of household waste and recycle 700 kilograms of waste. Revenue generated by Temporary Shelter/Landfill (TPS) through a circular economy approach Rp7.5 million per month.

E-WASTE REDUCTION THROUGH DIGITAL DEVICE RECYCLING

Education on sustainable consumption and production pattern is an interest and business responsibility. Telkom is making efforts to reduce the amount of electronic waste by collecting it by means of donation, sorting and repairing it for further distribution as an educational support devices for groups of people who need it. This effort has succeeded in collecting 191 electronic devices which were then distributed to 12 beneficiary communities.

HANDLING CLIMATE CHANGE THROUGH FOSTERED FOREST RESTORATION AND CONSERVATION

Telkom initiated digitization in the environmental sector through a digital-based reforestation and forest conservation program using Geographic Information System (GIS) as a monitoring system for tree growth and development. Telkom distributes digital-based restoration and conservation assistance throughout Indonesia through coordination with competent parties in the environmental field in selecting critical land location and implementing conservation process. This program initiative was carried out in 5 locations with a total number of trees planted of 50,700 tree seedlings for 50 hectares of conservation land.

REDUCING GREEN HOUSE GAS EFFECT THROUGH PLANTING MANGROVE LAND AND CORAL REEF

Telkom's efforts in preserving the environment as well as reducing the green house gas effect are realized through the initiative to plant mangrove and coral reef. Throughout 2022, Telkom has planted 31,550 mangrove trees on the coast at 3 locations, namely Semarang Mangrove Center, Karimunjawa, and Cirebon.

In addition, Telkom organizes a coral reef conservation program in Badul Island area, Sumur District, Pandeglang Regency by involving fishermen and local environmentalist community. Telkom supports the expansion of coral reef conservation areas by providing around 500 spider racks as planting media and 550 coral reef substrates. This program is expected to contribute to protecting coral reef ecosystem which are an important component in preserving marine ecosystem, as well as for the survival and growth of coastal ecosystem.

RIGHT PEOPLE
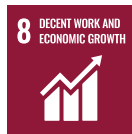
Telkom's presence in the community is expected to have a positive impact on others, whether they are employees of the Company, customers, general public or other stakeholder. We strive to manage mutual relationship and create sustainable shared value.

CUSTOMER AS MAIN PRIORITY

EXCELLENT SERVICE AND QUALITY PRODUCT
[TC-TL-000.A, TC-TL-000.B, TC-TL-000.C]

Telkom treats customer as the main partner in its business activity and development. To ensure business continuity, we always maintain customer satisfaction by providing customer needs for product and service while maintaining quality to provide the best customer experience. In addition, we also strive to provide excellent service and develop innovative way of working to increase effectiveness and efficiency.

Telkom always ensures that the product marketed have been checked and gone through a safety evaluation process for use and the wider community. The electronic device accompanying our product and service have also met the requirement that apply in Indonesia regarding a proper level of security for customer. In addition to aspect of product and service safety, TelkomGroup runs Telkom Integrated Quality Assurance (TIQA) program as a form of guarantee for product and service to consumer. TIQA provides after-sales guarantee and implement customer service policies that focus on service delivery, service assurance, and measuring service quality. Until now, there have been no product recall for reason of security risk that could harm consumer.

On the other hand, we also ensure our customers' right to receive accurate information regarding the product purchased. Each product has accurate information contained in mobile starter pack packaging. In addition, product information can be found on the website, as well as through our promotional activity and marketing communication.

CUSTOMER EXPERIENCE AND CUSTOMER COMPLAINT SERVICE IMPROVEMENT

In order to provide the best customer experience, TelkomGroup is committed to continuously improving service quality through several approaches and programs, including:
1. Preventive and Proactive Activities, namely efforts to prevent disruption that occur to customer through preventive and proactive activities so that any potential disruption can be followed up before the customer report.
2. After-sales warranty, which is a program implemented to ensure compliance with after-sales service standard.
3. Customer Service, which is a form of Telkom's commitment to provide the best service to customer, includes:
   a. Service Delivery, which is a service to fulfill customer needs in the form of product or solution from Telkom accompanied by a guarantee of good delivery quality;
   b. Service Assurance, a service that guarantee optimal product performance through the fulfillment of certain quality standard to meet customer satisfaction;
   c. Measurement of Service Quality, namely measuring quality at several stages according to the service process. In the interaction process with distribution channels, Telkom performs mystery shopping and mystery calling. The indicator used is Service Quality Index.

We continue to improve the customer experience on an ongoing basis by minimizing the occurrence of disruption and accelerating the resolution of disruption and preventing recurring disturbances (Corrective Action). Telkom's efforts to minimize disturbances are carried out by:
1. Proactive, namely repairing or solving problem before customers feel disturbed (report) by utilizing Big Data.
2. Preventive, namely minimizing the potential for interference from the start of several indications that appear.
3. Predictive, namely preventing interference from design and with the utilization of Big Data, Artificial Intelligence, and RPA.

We continually improve the customer experience on an

ongoing basis, one of the efforts being made is to seek customer feedback and then act on it actively. We are carrying out continuous improvement through the Close-the-loop Program, by caring for and solving customer pain point/ negative voice of customer to improve customer experience (Corrective).

In addition, we strive to improve the quality of company interaction with customer on an ongoing basis through digital touch point, namely myIndiHome (for Consumer segment), MyCarrier (for Wholesale segment), and MyTEnS (for Enterprise segment).

Disruption Trend

Description	2022	2021	2020
	% Disturbed customers		
Q Disruptions(*)	3.59	5.12	6.6

Remark :
(*) Q disruptions represent the number of disrupted customers per 100 customers in a 30 day measurement period.

Mean Time to Repair

Description	2022	2021	2020
	Hour		
Mean Time to Repair	6.2	6.1	8.5

NET PROMOTER SCORE (NPS)

Net Promoter Score (NPS) measurement aims to find out the latest voice of customer, as input for improving customer experience and ensuring that the improvement made are appropriate. NPS tracking and monitoring is carried out through two levels of measurement namely:
1. Top-down NPS (strategic NPS), which is the customer's overall perception of Telkom as measured by external parties.
2. Bottom-up NPS (transactional NPS), which is the customer experience while interacting directly with Telkom in every episode of customer journey through internal survey.

NPS TelkomGroup Year 2021-2022

Customer Experience	2022		2021	
Net Promoter Score	2H 2022	1H 2022	2H 2021	1H 2021
Telkom	55	51	49	47
Point Increase	4	2	2	2

NPS Consumer Year 2021-2022

Customer Experience	2022		2021	
Net Promoter Score	2H 2022	1H 2022	2H 2021	1H 2021
Telkom (Consumer)	30	26	23	19
Point Increase	4	3	4	4

NPS Enterprise Year 2021-2022

Customer Experience	2022		2021	
Net Promoter Score	**2H 2022**	**1H 2022**	**2H 2021**	**1H 2021**
Telkom (Enterprise)	66	65	60	58
Point Increase	1	5	2	2

NPS Wholesale Year 2021-2022

Customer Experience	2022	2021
Net Promoter Score		
Telkom (Wholesale)	64	55
Point Increase	9	1

Remark:
NPS WIB measurement is carried out once a year.

NPS Telkomsel Year 2021-2022

Customer Experience	2022	2021
Net Promoter Score		
Telkomsel	53	49
Point Increase	4	

CUSTOMER SATISFACTION MEASUREMENT

TelkomGroup consistently conducts consumer satisfaction survey every year. The survey conducted including Customer Satisfaction Index (CSI), Customer Loyalty Index (CLI), and Customer Dissatisfaction Index (CDI).

Customer Satisfaction Survey

Customer Satisfaction and Loyalty Survey (CSLS)	2022	2021	2020
	%		
Consumer			
Customer Satisfaction Index (CSI)	89.97	89.38	88.72
Customer Loyalty Index (CLI)	88.89	86.94	86.59
Customer Dissatisfaction Index (CDI)	0.72	0.15	0.44
Enterprise			
Customer Satisfaction Index (CSI)	97.7	97.90	96.20
Customer Loyalty Index (CLI)	95.1	94.30	92.40
Customer Dissatisfaction Index (CDI)	0.9	0.40	0.80
Wholesale			
Customer Satisfaction Index (CSI)	87.7	83.4	89.3
Customer Loyalty Index (CLI)	84.7	83.1	88.8
Customer Dissatisfaction Index (CDI)	0.0	0.6	0.3

In addition, Mobile segment through Telkomsel measures customer satisfaction through the Customer Satisfaction Index where in 2022 Telkomsel gets a value of 7.56, an increase of 0.03 compared to 2021 of 7.53.

We use a structural equation modeling (SEM) approach based on product dimension, price, delivery system, service mindset, and relationship in measuring customer satisfaction, dissatisfaction, and loyalty indices. The use of this approach will make it easier to trace technical and non-technical factor which then become TelkomGroup Opportunity for Improvement (OFI).

COMPLAINT HANDLING

In order to maintain the level of consumer satisfaction, TelkomGroup has provided a complaint resolution mechanism. There are differences in the service of individual customer complaint with corporate customer. For individual customer, Telkom has Plasa Telkom as a channel to accommodate complaint.

CORPORATE CUSTOMER complaints, can be submitted via:

MSME CUSTOMERS
0800-1835566 and e-mail: tele-am@telkom.co.id
Facebook: @Smartbisnis
Twitter: @Smart_Bisnis

CORPORATE CUSTOMERS AND GOVERNMENT INSTITUTIONS
08001 Telkom atau 08001035566
e-mail: c4@telkom.co.id
Facebook: @TelkomSolutionID
Twitter: @TelkomSolution

WHOLESALE AND INTERNATIONAL CUSTOMERS
OLO Care Center: 0800-1444-777
e-mail: occ@telkom.co.id
LinkedIn: Telkom DWS Official
Facebook: @dwstelkom @neucentrix
Instagram: @dws_tekom @neucentrix
Twitter: @neucentrix

MOBILE CUSTOMER complaints, can be submitted via:

Telkomsel Virtual Assistant at tsel.me/veronika
Twitter & Instagram @telkomsel
e-mail: cs@telkomsel.co.id

Call center "Caroline" on number
188 (24 hours x 7 days) for postpaid (free) and prepaid (Rp 300) subscribers
+628110000333 from Overseas
Nearest GraPARI

INDIVIDUAL CUSTOMER complaints, can be submitted via:

Application: myIndiHome.
Facebook: @IndiHome
Instagram: @IndiHome
Twitter: @IndiHome
Complaint facility via web chat at www.indihome.co.id

e-mail: customercare@telkom.co.id
Call Center: 147
Telkom Plasa

HUMAN RESOURCES MANAGEMENT

Human resources (HR) have a significant role in business continuity and long-term growth. To build quality human resources, we carry out employment practice based on international business regulation and norm. In line with our commitment to implementing sustainability practice, TelkomGroup implements professional HR management and respect human rights. We also respect the various perspectives of employees and strive to create creative, dynamic, professional and fun human resources in accordance with TelkomGroup employee value proposition.

TelkomGroup HR Management includes seven activities, namely:
1. Talent Acquisition;
2. Learning & Development;
3. Career & Succession Management;
4. Performance Management;
5. Reward Management;
6. Way of Work; and
7. Exit Management.

GET TO KNOW OUR EMPLOYEE [2-7]

At the end of 2022 period, TelkomGroup was recorded as having 23,793 employees, consisting of 8,919 employees from parent company and 14,874 employees from Subsidiary companies, with 99% (23,549 employees) from the total of TelkomGroup employees located in Indonesia and 1% (244 employees) located outside country.

A brief overview of our employees (Telkom as parent company) based on gender, age, education level, and employment status is presented in the following chart.

Employee Based on Gender

- Women 3,032
- Men 5,887

Employee Based on Age

- > 45 years 3,941
- < 30 years 2,570
- 30 - 45 years 2,408

Employee Based on Education Level

- Pre College 1,036
- Diploma 607
- Bachelor 5,485
- Postgraduate 1,791

Employee Based on Employment Status

- Professional 404
- Rehire 284
- Retirement Preparation Period 37
- Study Assignment 21
- Permanent Employee 8,173

Until the end of 2022, all employees (100%) have their rights and obligations covered and regulated in Collective Bargaining Agreement (CBA). In line with that, throughout 2022, management of Telkom and Subsidiaries will also have a good relationship with the Labor Union. This is reflected in the result of the employee engagement index, namely 88.97 for TelkomGroup and 89.79 for Telkom Indonesia. [2-30]

TelkomGroup provides work opportunities for all Indonesian citizens (WNI) to work and have a career. Throughout 2022, we will carry out the recruitment process for new employees of 596 people, consisting of 52.2% women and 47.8% men.

Telkom Employee Recruitment Based on Gender [401-1]

Description	2022		2021		2020	
	Men	Women	Men	Women	Men	Women
Entry Level						
a. Age range 18-25 years old	128	190	228	270	210	211
b. Age range 26-30 years old	147	112	74	35	8	12
c. Age > 30 years old	10	9	0	0	1	0
Sub Total	**285**	**311**	**302**	**305**	**219**	**223**
Total		**596**		**607**		**442**

Minimum age for employees to be accepted is 18 years and we ensure that there is no child labor within TelkomGroup.

EMPLOYEE TURNOVER [401-1]

To retain employee, Telkom strives to create a decent, safe, and conducive work environment. In addition, management also strives to maintain positive industrial relation and employee satisfaction level. In 2022, number of employees who leave the Company is 530 people which are influenced by various reasons. Telkom recorded an employee turnover rate of 5.94%, lower than last year of 13.08%. From these numbers, it can be seen that employee retention at TelkomGroup is still showing positive result.

Employee Turnover

Description	2022	2021	2020
Total of Telkom employees (people)	8,919	8,789	9,745
Total of employee turnover	530	1,150	1,746
Job transfer by choice	56	55	25
Become a Director of SOE or Government official	1	2	4
Discipline violations	1	6	-
Retired	436	1,022	1,678
Pass away	36	65	39
Percentage of Turnover (%)	**5.94**	**13.08**	**17.92**

Employee Turnover by Age and Gender

Description	2022		2021		2020	
	Men	Women	Men	Women	Men	Women
a. Age < 30 years old	14	19	27	7	17	5
b. Age range 30-50 years old	22	14	15	16	24	7
c. Age > 50 years old	398	63	932	153	1,185	508
Sub Total	**434**	**96**	**974**	**176**	**1,226**	**520**
Total		**530**		**1,150**		**1,746**

DIVERSITY, EQUALITY, AND EQUAL OPPORTUNITY

We are committed to upholding Human Rights by implementing equality and diversity practices in labor management. We also provide equal opportunity for all employees without discrimination. TelkomGroup also respects gender equality, but we realize that the low interest of women compared to men to work and pursue career in telecommunication industry is a challenge in itself. To increase the percentage of female employees, the Company carries out initiatives that can attract women to work at Telkom. On the other hand, we also run program aimed at female employees so that they feel comfortable at work, are more productive, and can develop themselves to reach a higher career level or become leader.

One of the reasons women often limit themselves in their career is because they have other roles in the family. Knowing these reasons, Telkom has developed alternative solutions that can increase the comfort and productivity of female employees without having to put aside their role in the family. The Company has several policies to support working mothers, among others:
1. Job Transfer by Choice to join and live in the same city with family without need to resign.
2. There is an option to apply for Work from Home (WFH).
3. Provides daycare facility and lactation room.

Telkom is also developing a gender-inclusive workplace to seek peace and comfort for women at work by providing flexible work arrangement. Other efforts to support gender inclusiveness in the workplace include innovative approaches to equal and non-discriminatory recruitment, equal opportunity to develop career and fill position, objective performance appraisal, equality in remuneration system to equality in retirement preparation, until providing a women's community forum called Srikandi TelkomGroup.

FEMALE EMPLOYEE AT MANAGERIAL LEVEL REPRESENTATION

In 2022, Telkom records that the number of female employees at Band I level is 0.43% of total female employees.

Number of Employees by Managerial Position and Gender of Telkom [405-1]

Description	2022		2021		2020	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Band I	126	13	126	10	122	7
Band II	549	88	550	79	564	65
Band III	1,602	755	1,684	675	1,914	600
Sub Total	**2,277**	**856**	**2,360**	**764**	**2,600**	**672**
Total		**3,133**		**3,124**		**3,272**

OPPORTUNITY AND EQUALITY FOR EMPLOYEE WITH DISABILITIES

Telkom does not only implement gender equality practices, but also implements equality and equal opportunities for employees with disabilities in their career path. Telkom also opens vacancies for employees with disabilities. As of the end of 2022, we have 11 employees with disabilities consisting of physically impaired, deaf, blind, and speech impaired. Placement for employees with disabilities is adjusted to the level of expertise and skill that can keep them productive. We strive to provide a safe and comfortable workplace and ensure that there is no bad or discriminatory treatment in the work environment.

TRAINING AND EDUCATION [404-1, 404-2]

EMPLOYEE COMPETENCY DEVELOPMENT

Every employee has equal job opportunities to improve their competence according to the needs of the TelkomGroup. We also emphasize that there is no discrimination in the implementation of education and training programs for both male and female employees.

Along with technology development and digitization, Telkom also adopts digitalization in education process by continuing to update it by adding e-learning module according to the needs of employees and company. During 2022, a number of 895 new module have been added in e-learning system. To enhance self-learning, Telkom also provides a knowledge repository based on business needs that can be accessed at any time.

In 2022, TelkomGroup has organized various trainings for 12,715 employees, with a total of 1,331,804 hours of training a year. Average hours of training per employee recorded 53.27 hours. Total hours of training for category of Telkom Parent employees is 998,853 hours, while Subsidiaries category is 332,951 hours. The costs incurred by TelkomGroup for employee training amounted to Rp108.11 billion.

Telkom Employee Training Data Based on Gender [404-1]

Description	2022			2021			2020		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Certification Training	620	334	954	2,663	1,077	3,740	1,179	481	1,660
Leadership Development Program	428	231	659	430	331	761	614	344	958
Regular Training	7,216	3,886	11,102	8,990	4,896	13,886	6,500	6,010	12,510
Total	**8,264**	**4,451**	**12,715**	**12,083**	**6,304**	**18,387**	**8,293**	**6,835**	**15,128**

EDUCATION PRIORITY PROGRAM

Telkom also supports employee to study at a higher level. We provide a scholarship program for those who wish to pursue master and/or doctoral degree. Through this program, Telkom hopes that the knowledge and competency that will be acquired by employee after completing their education can again be of benefit to Company. There were 2 people who receive scholarships to continue their education at domestic universities and 21 others to continue their education abroad. Meanwhile, from Great People Scholarship Program (GPSP) in 2022 there will be 100 people studying abroad in 2023.

DIGITAL TALENT [404-2]

Increased capacity and capability in digital field is urgently needed to support the realization of digital transformation in TelkomGroup. We have implemented a strategy to build a digital culture and increase the number of "digital ready" employee, by implementing Digital Capability Strategy and preparing required Design Development Plan.

Currently, Telkom has digital talent with 37.16% of the total employees. Telkom sees more and more talented young talents and is optimistic that digital talent will become the forerunner of the Company's young leader going forward.

In facing future challenges, Telkom is transforming while at the same time trying to continue to develop young digital talent as the nation's successor. Employee digital capability development is carried out through Digital Talent Readiness program. In Digital Talent Readiness program, employees develop their soft skills through debriefing related to Digital Mindset & Behavior as well as their technical skills through innovation program, digital project-based, and certification related to digital skill needs.

Furthermore, as a digital telecommunication company as well as a SOE, Telkom contributes to encouraging the growth of digital talent in Indonesia through its superior digital product, Pijar Mahir. This is also in line with the government's program through Ministry of SOE which plays a role in developing global standard digital ecosystem and talent within SOE.

Pijar Mahir will become a digital learning platform that can be used by all SOE. Digital talents will receive learning material in the form of video, reading material, quiz, and more. It is hoped that this collaboration will be able to create 200,000 SOE digital talents up to 2024.

WORK TIME AND LEAVE RIGHTS [401-3]

We clearly regulate work, rest and leave arrangements as stated in CBA and Company regulation. The employee's working hours policy does not exceed the maximum amount regulated by law. Therefore, we ensure that there is no forced labor practice within the TelkomGroup.

Since COVID-19 pandemic, TelkomGroup has implemented flexible work time setting (FWA) which is divided into Work from Home (WFH), Work from Office (WFO), and Hybrid (WFO-WFH). In telecommunications industry, the work settings are very suitable to be applied

in our environment. The calculation of working hours from the application of FWA is a maximum of eight hours per day. To monitor and ensure that employees remain productive even outside the office, Telkom has developed an information system "HC Super Apps" related to monitoring the work performance of both WFO and WFH employees. The application is also used for attendance and recording of daily activities that can be monitored by the direct supervisor.

Meanwhile, employee leave rights are regulated in PKB with the provisions of each employee entitled to 12 days of annual leave. Beside annual leave, Telkom also provides other leave rights such as:
1. Hajj leave for 45 days.
2. Parental leave, with the provisions for women paid maternity leave for up to 3 months can be taken before and after giving birth, while paid father leave can be taken for 7 days.
3. Major leave every 3 years for a maximum of 45 days.
4. Leave with important reason for a maximum of 7 days.

EMPLOYEE REMUNERATION [401-2, 405-2]

Employee remuneration is managed based on general principles of internal equity between positions (internal equity), alignment with law and regulation (regulation compliance), and increasing competitiveness in the industry to ensure the Company's ability to attract and retain the best talent (competitiveness). The policy was developed with a 3P + 1L principled strategy namely; Pay for Person (according to the required competencies), Pay for Position (according to the level of responsibility and accountability), Pay for Performance (according to performance in achieving targets), and Pay for Location (according to the city of work location). This principle proves the Company's commitment to maintaining internal equality which does not differentiate remuneration for male and female employees, both at the lowest level up to the senior management level.

The remuneration policy is prepared by referring to the applicable regulation and their amendment. Telkom and its Subsidiaries comply with the provision of Provincial Minimum Wage (UMP) regulation by setting the lowest employee salary above UMP. TelkomGroup includes a number of Subsidiary and Affiliate entities engaged in various industries. The remuneration strategy carried out to increase synergy and mobilize resources is carried out through the issuance of guidelines for determining the income of employees of Subsidiaries and Affiliates within the scope of the TelkomGroup. The implementation of these guidelines is carried out by each entity through a ratification or adoption scheme.

EMPLOYEE PERFORMANCE MEASUREMENT [404-3]

Employee performance measurement is carried out using two methodologies, namely Performance Appraisal measurement and Competency & Behavior Appraisal measurement. Since 2022, there has been a full implementation of system changes for measuring employee performance, namely using KPI-OKR hybrid system and Competency & Behavior Appraisal (CBA) system.

Performance Appraisal is carried out in a KPI-OKR hybrid manner by using a combination of Joint KPI based on Unit Performance Scores as a representation of shared/collective performance and OKR Score based on values from OKR Committed as a representation of individual/specific performance. Meanwhile, Competency & Behavior Appraisal (CBA) is carried out using a multi-rater and supervisor's assessment. The result of Performance Appraisal is the P (Performance) value and CBA produces a K value (Competence) and a B value (Behavior).

Employee performance goes through a review process that is carried out every year. Starting in 2022, employee performance is measured based on the success of completing activities to support the achievement of integrated targets both as units and sub units. This mechanism is carried out through the development of an Objective Key Result (OKR) based performance appraisal system.

In addition to assessing the ability of employees to complete tasks, Telkom also conducts Competency & Behavioral Analysis assessment using a multirater or 360 degree scheme.

In 2022, all employees (100%) have received performance appraisals.

PENSION PROGRAM [201-3, 404-2]

Since starting a career in TelkomGroup, employees will be included in *Program Pensiun Manfaat Pasti* (PPMP) and *Program Pensiun Iuran Pasti* (PPIP). PPMP applies to permanent employees who start working at TelkomGroup before July 1, 2002, while PPIP applies to permanent employees who join TelkomGroup after July 1, 2002. Both programs do not apply to the Board of Directors.

PPMP is regulated in Indonesian Pension Law and managed by *Dana Pensiun* Telkom (DAPEN). Paid pension benefits are calculated based on basic salary when starting to retire and employee years of service. Employee contribution is 18% (before March 2003: 8.4%) of the basic salary, while the company's contribution to the pension fund ended on December 31, 2022 of Rp719 billion.

On the other hand, PPIP is managed by *Dana Pensiun Lembaga Keuangan* (DPLK). The company's contribution provisions in DPLK are calculated based on a certain percentage of employee salaries. As of the end of 2022, the company's contribution to PPIP to DPLK was Rp48 billion.

In addition to the pension fund program, Telkom also provides training for employees who are entering retirement age of 56 years old. Training is provided to improve their abilities so that they are expected to still be able to work after retirement. The training program provided includes training related to psychological, spiritual, and welfare programs as needed. In addition, we also prepare workshop with themes that are useful for employees who are entering retirement age.

FREEDOM OF OPINION

One form of TelkomGroup's compliance with Perpu No. 2 Year 2022 regarding Job Creation and Law No. 21 Year 2000 regarding Trade Union/Labour Union, namely by guaranteeing freedom of opinion and association of all employees. There are several unions in TelkomGroup as a forum for their aspirations, namely:
1. *Serikat Karyawan* Telkom Indonesia (SEKAR TELKOM);
2. *Serikat Pekerja* Telkomsel (SEPAKAT);
3. *Serikat Pekerja* Infomedia Nusantara (SPIN);
4. *Serikat Pekerja* Metra Digital Media (*Serikat Pekerja* Digital or SPMD); and
5. *Serikat Karyawan* Graha Sarana Duta (*Serikat Pekerja* Graha Sarana Duta or SKATA).

Other media that can be used by employee to express their opinion, criticism, and suggestion to the company, namely e-mail, telephone, message via WhatsApp Chat, and Telegram.

MANAGE EMPLOYEE FEEDBACK [406-1]

To identify employment problems and minimize the negative impacts that may occur, TelkomGroup provides complaint channels for employee. The existence of a complaint mechanism is part of an effort to realize a healthy industrial relationship between the company and employee.

TelkomGroup receives advice, criticism, and complaint from employee through:

HC Help Desk	HC Wiki	With-U
1. E-mail-in service hr_helpdesk@telkom.co.id 2. Phone-in service to number 1500305 3. Chat-in via WhatsApp to number 08111-900-305 4. Telegram @hchelpdesk_bot	Search engine service to find information about employment and Telkom's human capital policy catalog.	Counseling services regarding personal issues, performance and general issues. Employees can schedule the counseling through HC Helpdesk and carry it out via 1on1 video conference.

During 2022, we received 17,033 complaints/feedbacks to be followed up by the relevant units. When compared to last year, there was an increase in the number of complaints of 37.69%. The majority of complaints/feedbacks are related to Administration & Service category. In addition, throughout 2022 there were complaints/reports related to violations of the code of ethics, which have been processed by Telkom as many as 13 cases. We do not tolerate acts of harassment or violence, and will provide strict sanction to perpetrator of harassment, discrimination, harassment, violation of the code of ethics or any other allegations of inappropriate behavior.

OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT

OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT SYSTEM (OSHMS) [403-1, 403-8]

To support the smooth running of operation, TelkomGroup is trying to create a decent and safe work environment. We apply Occupational Safety and Health Management System (OSHMS). The implementation of (OSHMS) refers to Regulation of the Board of Directors No. 37 Year 2010 regarding Company Security and Safety Management Policy on October 26, 2010 (KD No. 37/2010). OSH aspect is also regulated in PKB VIII Article 51 where there is a statement that "Telkom is required to carry out occupational safety and health program in accordance with applicable laws and regulation".

The application of OSH does not only apply to employee, but also for vendor or stakeholder in our work area. OSH is strictly implemented in all project location carried out by TelkomGroup. Every job is carried out both by TelkomGroup employee and partner must pay attention to various work safety procedure that apply in TelkomGroup.

HAZARD IDENTIFICATION AND INCIDENT REPORTING [403-2]

Every person must be responsible for their own safety and increase awareness of others' safety and work environment when they were. The incident reporting mechanism in TelkomGroup refers to KD No. 37/2010. The incident can be reported in security and safety unit in the regional office or at Telkom head office. We have identified several types of high-risk work, namely:
1. Work at height;
2. Work at risk of high voltage;
3. Work at ground tank;
4. Work at manhole; and
5. Work at optical splicing.

Periodically, monitoring and evaluating the potential hazard and OSH risk in TelkomGroup work environment to prepare risk mitigation.

OSH FACILITIES [403-3, 403-6]

To support employee health at the workplace, Telkom provides health facilities in accordance with Resolution of the Director of Human Capital & General Affairs of the Company's (Persero) KR.08/PS600/COP-B0012000/2008 regarding Guidelines for Implementation of Health Services for Employees and their families. The available health facilities namely:
1. General and dental polyclinic;
2. Gym;
3. Lactation room;
4. Basic life support simulation room; and
5. Midwifery check-up.

In addition, Telkom has *Yayasan Kesehatan* (YAKES) or health foundation to manage employee's health. YAKES is responsible for planning, controlling and maintaining employee's health, retirees and families, organizing polyclinics in head office, counseling, physical promotive, as well as company hygiene and work safety.

COMMUNICATION, SOCIALIZATION, AND CONSULTATION RELATED TO OSH [403-4]

To increase employee awareness and partner within TelkomGroup environment on the importance of OSH, we always communicate OSH aspect on various occasions. TelkomGroup also seeks to instill OSH into corporate culture. Communication, socialization, and OSH consultation activities are realized through the following programs:
1. Safety Talk;
2. Safety Risk Observation Round (SROT);
3. Check list for working readiness;
4. Management Visit;
5. HSE Patrol;
6. HSE Training;
7. Manufacture and Installation of HSE Signs;
8. HSE Team Meeting;
9. Basic Life Support (BLS); and
10. Formation of Emergency Response Team.

TRAINING RELATED TO OSH [403-5]

We hold various OSH training for employee with the aim of increasing their awareness and expertise in order to reduce the risk of work accident. There are some compulsory training and special training in accordance with certain jobs and the risk of their work.

OSH Training Data in 2022

Type of Training	Number of Employees	Number of Training Hours
General OSH Expert	568	4,797
OSH Firefighter Type D	12	100.6
OSHMS Auditor Certification	27	1,041
Total	**607**	**5,938.6**

OCCUPATIONAL DISEASES PREVENTION [403-10]

TelkomGroup identified several Occupational Diseases, including:
1. Physical: Electrocuted, noise, dim lighting and ergonomic factor that can cause physical fatigue, muscle pain, bone deformity, changes in shape due to the position of the chair and table when used do not meet ergonomic requirement.
2. Infection: Contracted from Corona virus through office or workplace.
3. Chemical: Daily chemicals (eg: floor cleaners) that can cause skin diseases such as dermatitis, common in GSD colleagues.
4. Psychological: Lack of work-life balance. Severe and continuous work demands can cause burnout or mentally exhausted.

As part of monitoring occupational health, every employee has the right to routine Medical Check Up (MCU).

OSH PERFORMANCE REPORT [403-9]

TelkomGroup implements OSHMS in accordance with industry best practices and international standard. Throughout 2022, we note that all areas of Regional Offices and Telecommunication Regional Offices (Witel) have received Golden Flag certification from the Ministry of Manpower of the Republic of Indonesia.

OSH PREVENTION AND MITIGATION THAT DIRECTLY IMPACT BUSINESS RELATIONSHIP [403-7]

In the operating value chain, Telkom always seeks OSH management system runs well so that it does not have a negative impact or hamper business relationship. We always take into account the risk of OSH to work partner or vendor. We will invest adequate resource to ensure that everyone who works in TelkomGroup environment remains safe, regardless of who is doing the work.

Telkom has procedure and safety guideline, as well as extensive operation with detailed guideline on safety protocol, especially at project location and tower. Some implementation is mandatory to reduce the accident incident, namely by running a Check List of safe work readiness and Safety Talk, also conduct direct supervision in the field through HSE Patrol and Management Visit. In addition, we also ensure vendor compliance with safety standard and certification.

ENGAGEMENT AND COMMUNITY DEVELOPMENT [203-2] [413-1]

The Indonesian government has established regulation related to implementation of Social and Environmental Responsibility (TJSL) for business actors in Indonesia. In TelkomGroup, implementation of compliance is based on internal policies, namely Regulation of the Board of Directors Number: PD.703.00/r.00/HK200/CDC-A1000000/2021 dated December 31, 2021 regarding Social and Environmental Responsibility Program and Regulation of the Director of Human Capital Management Number: PR .703.01/r.00/HK200/CDC-A1000000/2022 dated March 30, 2022 regarding Guidelines for the Operational Implementation of Social and Environmental Responsibility Program.

Environmental responsibility program have been submitted in the chapter 'Right Environmental Approach', so that in this chapter we report on community involvement & development/CID development program. The social activities that we carry out are compiled and designed to answer the needs of the community, support achievement of SDG in Indonesia, and create added value through creating shared value (CSV) approach. Periodically, Telkom evaluates each activity result using success parameter, including community satisfaction index, Net Promoter Score/NPS, the effectiveness of fund distribution and its collectibility level. In addition, we also measure Social Return on Investment (SROI) of the implemented program.

INCREASING DIGITAL INCLUSION AS AN EFFORT TO EQUALIZE ACCESS TO THE NATION'S QUALITY OF EDUCATION

In order to support the digitalization of education sector, Telkom has developed Digital Innovation Learning School Program. This program aims to accelerate the creation of inclusive education and learning process for the community through the use of digital technology. In 2022, Device, Network, Application (DNA) devices have been distributed to 364 schools in the 3T area with a total of 18,200 beneficiaries. It is hoped that with the help of digitalization of educational facilities it will provide benefit in equal distribution of the quality of education so that it can support the formation of quality and competitive human resources.

DIGITAL CERTIFICATION PROGRAM FOR VOCATIONAL

Telkom's efforts to support the improvement of digital education competence in Indonesia are realized through the implementation of digital certification program for High School/Vocational High School student. Throughout 2022, this program has been attended by 4,917 applicants from 25 provinces, with 1,040 participants from 540 schools successfully passing certification.

DIGITAL COMPETENCE IMPROVEMENT PROGRAM FOR MILLENNIALS

Telkom is committed to continuously increasing the competency of digital education in Indonesia through Digital Bootcamp for Millennials program which is held at *Rumah* BUMN. Digital Bootcamp for Millennials was held in 3 locations and was attended by 516 participants.

EMPOWERMENT OF DISABLED GROUP IN THE CONTEXT OF INCREASING SELF-RELIANCE OF VULNERABLE COMMUNITIES

Telkom also supports the empowerment and independence of people with disabilities, through the assistance of educational facilities, devices/tools for people with disabilities, and skill training for 326 people with disabilities in 8 locations, in the form of:
1. I-Chat application for people with deaf and speech disabilities;
2. Braille computer (including application) for people with visual disabilities;
3. Props for people with mentally and physically disabled; and
4. Digital skill training for people with disabilities.
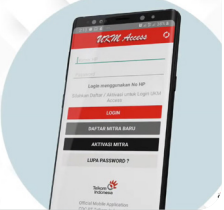
SUPPORTING DIGITAL ECONOMIC GROWTH THROUGH SME EMPOWERMENT

Micro, Small, and Medium Enterprise (MSME) occupy an important role as the main pillar of the country's economy, which contributes more than 60% of national GDP also absorbs a lot of labor. In accordance with government policy, Telkom as a SOE has the obligation to support micro and small businesses (SME) to continue to move swiftly to follow the flow of digital economy development through the provision of infrastructure, platform, and qualified digital service.

Telkom responds to the challenge of developing MSME from the aspect of financing, human resources, marketing by providing ecosystem solution for developing SME and adopting digital technology, including access to capital, access to competence, and access to commerce. In the aspect of access to capital, Telkom distributes funding program to SME operating in 7 sectors namely industry, trade, agriculture, farm, plantation, fishery, and services. In the aspect of access to competence, Telkom provides guidance on Go Modern and Go Digital which includes training, certification and other development activities through *Rumah* BUMN spread from Sabang to Merauke. In the aspect of access to commerce, Telkom conducts Go Online and Go Global coaching which includes training and assistance related to expanding market reach via online and consistently encouraging superior fostered SME to participate in national and international scale exhibition.

Telkom has channeled regular loan funds and coaching funds with the aim of opening up opportunity for economic growth for SME. By the end of 2022, Telkom has disbursed Rp247.47 billion in loans to more than 5,032 fostered SME. In order to support fostered SME to upgrade, Telkom has provided guidance including the implementation of incubation/training for 1,625 SME, assistance of halal certification for 244 SME, Business Identification Number (NIB) for 3,785 SME, and Household Industry Food Production License (P-IRT) for 989 SME. The digital solution that we have developed to support the commercialization of SME product is through MySooltan which currently has 1,767 active users and PaDi UMK with 2,506 active users.

SUPPORT THE REALIZATION OF SUSTAINABLE CITY

Telkom's support in realizing a sustainable city and community is realized through a house renovation assistance program, place of worship renovation assistance program, making sports facilities, and green open space. Throughout 2022, as many as 31 houses has been renovated. Telkom helped renovate as many as 246 points of place of worship, while the improvement of sport facilities and green open spaces are carried out at 116 point.

In addition, Telkom contributed to overcoming infrastructure problem by building a suspension bridges in 10 points in rural and 3T areas and building rural roads in 13 points throughout 2022. The value of usefulness obtained from this infrastructure assistance are around 23.000 villagers have access to a proper infrastructure.

JEMBATAN RAWAYAN BANTUAN DARI PT. TELKOM INDONESIA

SUPPORT FOR STRENGTHENING GOVERNANCE SYSTEM AND IT SUPPORT

The values expected by Telkom to the community in managing TJSL program include an understanding and point of view in building peace, creating equal justice for all parties, and developing strong institution. To make this happen, Telkom is digitizing the management of TJSL program. The use of *Sistem Informasi Manajemen* (SIM) TJSL as well as the utilization of data analytic and decision support system aims to improve the governance system and strategic decision making of TJSL program. Through strengthening the governance system with IT support, it is hoped that community development program can be managed in an accountable manner.

RIGHT GOVERNANCE

TelkomGroup's policy and commitment in carrying out corporate governance include the implementation of GCG and sustainability governance, complying on all regulations that are mandatory for TelkomGroup, and carrying out business activities in accordance with the principles of business ethics. By carrying out the right governance, we hope that TelkomGroup can make a significant contribution to sustainability, provide value to all stakeholders, and support the achievement of SDG.

BUSINESS ETHICS AND COMPLIANCE [2-27]

Implementation of sustainability practice needs to be supported by ethical behavior both from TelkomGroup and all stakeholders. In running his business, Telkom applies business ethics in accordance with Regulation of the Board of Directors No. PD.201.01/R.00/PS150/COP-B0400000000/2014 regarding Business Ethics in TelkomGroup Environment. The main aspects regulated in the implementation of Telkom's business ethics consist of:

1. **Commitment to Customer**
   a. Provide clear and easy-to-understand information about the rights and obligations of the customer before the contract/subscription contract is signed by both parties;
   b. Fulfill the rights of customer in providing service as promised in Service Level Guarantee (SLG);
   c. Provide and manage customer contact media to make it easier for customer to submit complaint, feedback and seek information about product/service.

2. **Commitment to Partner**
   a. Provide increased skill, competency and training on product/service, service procedure and service ethics to agent, reseller, installer, and setter in order to provide product knowledge so as to improve service to customer;
   b. The process of procurement of good and service is carried out in a fair, transparent and accountable manner by involving prospective supplier/partner who have a reputation with good classification, in accordance with applicable law and regulation and GCG principles;
   c. Mandatory to do selection and evaluation of partner objectively.

3. **Commitment to Competitor**
   a. Attempt to obtain information about competitors' businesses are conducted in an honest manner and obtained from legitimate sources;
   b. It is prohibited to obtain competitor information by illegal and unethical ways, such as espionage, wiretapping, and/or theft.

4. **Commitment to Social Community**
   a. Build and foster harmonious relationships as well as providing benefits to the community around the company's place of business;
   b. Encourage the emergence of sense of belonging from the community to the company with the aim that the community participates in protecting the company;
   c. Minimize impacts on the environment to the minimum, including but not limited to excavation of cable lines and frequency usage.

5. **Commitment to Employees**
   Avoid discriminatory practices of employees through:
   a. Respect the human rights of employees as well as the rights and obligations in accordance with the agreement in the cooperation agreement;
   b. Provide equal opportunities regardless of age, group, ethnicity, nation and religion, alma mater, and gender;
   c. Respect religious freedom;
   d. Provide equal and fair treatment in terms of employment, providing benefits, and other compensation as outlined in the collective work agreement.

   Maintaining health, security, safety and comfort of the work environment through:
   a. Provide health insurance for employees and their families;
   b. Provide appropriate remuneration and pension guarantees according to the company's ability;
   c. Accommodate employee aspirations through employee unions and making them a constructive partner in building the business;
   d. Provide a comfortable work environment.

RUNNING HEALTHY BUSINESS COMPETITION PRACTICE [206-1] [TC-TL-520A.1]

In 5G era, cellular operator require a wide frequency bandwidth to be able to provide optimal service and promising use experience. A strong and fast network is needed along with the acceleration of technology and digitalization. Therefore, competition in 5G era will be more competitive.

Competition that occurs is not limited to network quality, but also in terms of service range, price, feature offered, and customer service. In dealing with competition, Telkom is principled to run a healthy business competition. We also apply the principle of caution for product development so as not to violate regulation related to business competition.

As the largest telecommunication company in Indonesia, until now Telkom and Subsidiaries have running out the practice of healthy business competition and have never received complaint related to monopoly action or non-compliance with business competition regulation in Indonesia. We comply with Law No. 5 year 1999 regarding Prohibition of Monopoly Practices and Unfair Business Competition ("*UU Persaingan Usaha*").

ANTI-CORRUPTION, ANTI-BRIBERY, AND ANTI-FRAUD POLICIES [205-1, 205-2, 205-3]

TelkomGroup is committed to running a business that is free from corruption, collusion, and nepotism. In addition, we also uphold anti-bribery and anti-fraud. This commitment is supported by the application of *Sistem Manajemen Anti Penyuapan* (SMAP) based on ISO 37001: 2016 in all Witel class A and Subsidiaries.

To increase knowledge and vigilance for gratification and bribery practice, Telkom requires all employees to access e-learning prevention of gratification. On the other hand, upholding anti-corruption, anti-bribery, and anti-fraud, we require members of the Board of Directors and Commissioners, as well as employees at Band I-III (especially for Kakandatel) level to fill out the LKHPN.

Telkom has conducted an assessment regarding the risk of corruption in operations. Several areas with potential corruption risks were found in several operations in the Company's business units. We do not tolerate acts of corruption, bribery or fraud, and will provide strict sanctions to the perpetrators. In 2022, there were no incident of corruption within TelkomGroup.

WHISTLEBLOWING SYSTEM

In line with TelkomGroup's commitment to run business ethic and support transparency, we implement a Whistleblowing System (WBS). Anyone can submit complaint to TelkomGroup. On January 31, 2022, we launched Telkom Integrity Line, which is a reporting service for alleged violation that provide opportunity for the community and employee to report alleged violation.

Complaints we received throughout 2022 were as many as 129 reports. From the incoming complaint, as many as 26 complaints are feasible to be followed up in accordance with WBS criteria and procedure. More complete information about WBS is in Annual Report.

Complaints Data Received by WBS

Description	Total			Remarks
	2022 (Deloitte)	2021	2020	
Total Complaints	129	36	48	Complaint received
Fulfill the requirements	26	0	1	Complaints feasible to be followed up
Follow-up				
1. Closed (not proven/not fulfilled)	16	0	0	
2. Additional data	9	0	1	
3. Further studies according to the procedure	1	0	0	

SYSTEMIC RISK MANAGEMENT [201-2] [TC-TL-550A.1, TC-TL-550A.2]

To minimize systemic risk, TelkomGroup continues to monitor technological and district disruption. The disruption that we face is one of them is caused by natural condition, such as damage in sea cable infrastructure due to volcanic eruption and earthquake in the sea. We also monitor disruption in fiber optic backbone system originating from sailing activity, road excavation work and vandalism, such as copper cable theft, ODC, BTS, and others. Other causes of disruption come from migration of new infrastructure/system, process of integration between different system does not run well, as well as the management of asset protection system that are less effective.

Throughout 2022, we faced 3,927 disruptions to fiber optic network and 19 disruptions of wet plant on submarine cable communication system (SKKL). The following table presents data on fiber optic backbone and SKKL disruption for the past three years.

Fiber Optic Backbone and Submarine Cable Communication System Disruptions

Description	2022	2021	2020
	Total disruptions		
Fiber Optic Backbone	3,927	4,125	2,982
Submarine Cable Communication System			
a. Wet Plant*	19	7	6
b. Dry Plant**	4	-	-

Remarks:
* Wet plant = OSP (Out Side Plant)
  are components or devices in Submarine Cable Communication System (SKKL) in the waters/sea consisting of sea optic fiber cable, repeater, equalizer, and branching unit.
** Dry plant = ISP (In Side Plant)
  are components or devices in Submarine Cable Communication System (SKKL) in the waters/sea consisting of optic fiber cable, SLTE, DWDM, PFE, and others.

On the other hand, TelkomGroup has conducted a study related to the impact of climate change and its effect on telecommunication infrastructure. Likewise, TelkomGroup has conducted a study and measurement of financial implication, both risk and opportunity of climate change.

REPLACEMENT SYSTEM DURING SERVICE INTERRUPTION [TC-TL-550A.2]

Our commitment to provide the best experience to customer, one of which is manifested in management of service interruption. We have carried out some mitigation to prevent IT network/infrastructure disruption that have an impact on service interruption, namely:
1. Make risk transfer to insurance company.
2. Coordination with *Asosiasi Kabel Laut Seluruh Indonesia* (ASKALSI) and *Badan Keamanan Laut* (BAKAMLA) to secure submarine cable communication system (SKKL).
3. Preparation of Disaster Recovery Plan and Crisis Management Team.
4. Increasing coordination and monitoring of third party work.
5. Coordination with law enforcement official for operation at a crime-prone location and conduct an environmental development program.
6. Improve maintenance and improvement of asset protection system (Hydrant, Fire Protection System, APAR, CCTV).
7. Ensure that backup system function according to standard.

INCLUSIVE TELECOMMUNICATIONS ACCESS [203-1]

In order to realize inclusive telecommunication, Telkom continues to focus on building infrastructure in all regions, especially 3T area to be able to provide inclusive digital solution for all levels of society. With the spirit of transformation, Telkom is also committed to not only presenting various digital services, but also increasing digital literacy among public so that they can create a comprehensive digital ecosystem. The use of digital technology is believed to accelerate economic recovery.

Telkom's real step in building digital connectivity to remote corners of the archipelago, is realized by having a fiber optic network infrastructure reaching 171,654 km or the equivalent of 4 times circumference of the earth. This connectivity is supported by 2 satellites with a total capacity of 109 transponders that can reach remote villages. With comprehensive network connectivity, people in the regions have the same opportunities in running a business and getting qualified facilities to support their lives.

In addition, Telkom also supports the realization of digital inclusion continuously by building telecommunication infrastructure, both in remote areas of Indonesia and internationally. Through Telin, we joined Southeast Asia-Middle East-Western Europe 6 (SEA-ME-WE 6) international maritime cable communications system consortium. The SEA-ME-WE 6 consortium consists of various major operators from various countries in the world, including Bangladesh Submarine Cable Company, Bharti Airtel Ltd. (India), Dhiraagu (Maldives), Djibouti Telecom, Mobily (Saudi Arabia), Orange (France), Singtel (Singapore), Sri Lanka Telecom, Telecom Egypt, Telekom Malaysia, Telin (Indonesia), and Trans World Associates (Pakistan).

INTERNET POSITIVE AND PARENTAL CONTROL PROGRAM

Currently, people use the internet more for communication, such as electronic mail (e-mail) and social networking because it is more effective and efficient. However, the ease of internal access and increased digital media still have risks that need to be managed, such as digital addiction, non-educational, and unhealthy content. The influence of negative content can interfere with the mental health of its users. Telkom cares about the impact of internet usage for consumers. Therefore, we continue to campaign for a healthier internet presence.

One of TelkomGroup's efforts to promote a healthier internet is by blocking content on the internet related to gambling, pornography, racism, fraud, copyright infringement, normalization of violence, and content that does not reflect the noble moral values of the Indonesian nation. Apart from that, we also provide parental control features on IndiHomeTV to limit viewing or content for families.

PRIVACY AND DATA SECURITY

Currently, we all have to face increasingly sophisticated technological development, but this is also followed by an increase in cyber crime, especially the theft and misuse of personal data. Telkom as a digital telco company manages the topic of privacy protection and customer data security to increase customer trust.

Telkom's commitment to provide protection for customer data privacy is in accordance with Regulation of the Minister of Communication and Information Permen Kominfo No. 20 year 2016 regarding Protection of Personal Data in Electronic Systems. Telkom complies with these regulation to carry out the governance of obtaining, collecting, processing, analyzing, storing, using, disseminating, and destroying personal data and or customer transaction data.

In addition, our commitment is also in accordance with *Undang-Undang Pemrosesan Data Spesifik* (PDP) or Specific Data Processing act Year 2022. In implementing PDP Law, we are required to seek consent from the owner of personal data when processing data, namely from collection to deletion. The agreement has 6 options, namely: Approval (consent); Contract; Legitimate interests; Legal obligations; Public task; and Vital Interests.

POLICIES AND PRACTICES REGARDING DATA PRIVACY AND SECURITY [TC-TL-220A.1, TC-TL-230A.2]

TelkomGroup's compliance with PDP Law Year 2022 and Minister of Communication and Information No. 20 year 2016 has been supported by internal policies regarding privacy and customer data protection practices, as well as data security and cyber security practices. In order to monitor data privacy and security practices, Telkom already has an internal organization, namely Data Protection Governance which is chaired by Director of NITS. This organ aims to manage data governance with the aim of maintaining confidentiality, integrity, authenticity, access, availability, and utilization of information. Data security protection is carried out throughout the information lifecycle which includes personnel, processes, applications and services, database system, operating system, network, and hardware.

Several internal policies to support privacy protection and security of customer personal data include:
1. Resolution of the Board of Directors of Limited Liability Company (Persero) PT Telekomunikasi Indonesia Tbk, Number: KD.06/HK000/COP-D0020000/2011, regarding Company Document Management Policy.
2. Regulation of the Board of Directors Number PD.404.00/r.00/HK200/COP-CO300000/2014 Year 2014 regarding Guidelines and General Policies of IT Governance which adopt COBIT 5 IT Governance Framework.

3. Regulation of the Director of Network & IT Solution Number PR.404.03/r.01/HK.270/COP-D0031000/2022 year 2022 regarding Data Security Governance (Data Governance) which adopts the DAMA-DMBOK 2nd Edition Data Governance Framework.
4. Regulation of the Board of Directors Number PD.406.00/r.00/HK.200/COP-D3000000/2018 Year 2018 regarding Information Security Management which adopted ISO/IEC 27001:2013 Information Security Management System.
5. Regulation of the Director of Network & IT Solution PR 146/r.00/COP-D003100/2018 year 2018 regarding Information System Access Control Management Standard.
6. Regulation of the Director of Network & IT Solution S/NITS-ITSG.1/20 regarding TelkomGroup Application Security Verification Standard.
7. Standards derived from related company regulations, such as IT service process standard, information system access control management standard, information system acquisition process standard, and data control standard.

Telkomsel has also implemented policies related to privacy protection and customer data security with the following policies:
1. Resolution of the Board of Directors of the Company Number:007/12.01/PD-00/IV/2018 regarding Information Security Management Policy.
2. Resolution of the Board of Directors of the Company Number: 008/06.01/PD-00/V/2017 regarding Company Data Policy.
3. Resolution of the Board of Directors of the Company Number:022/TC01/PD-00/V/2006 regarding Implementation of Information Technology Business Processes Based on Framework of Information Technology Infrastructure Library (ITIL FRAMEWORK).
4. IT Management Charter Document Number: ITSM/M02, Document Issue Date: September 25, 2014.

Telkomsel customer can access retail customer privacy data policies through website https://www.telkomsel.com/privacy-policy or can contact customer service via e-mail cs@telkomsel.co.id or telephone number 188. For IndiHome customer data, you can accessed via website https://indihome.co.id/syarat-ketentuan#, or customer can contact customercare@telkom.co.id or call telephone number 147.

MONETIZION USING CUSTOMER PERSONAL DATA

In accordance with PDP Law, there are rules relating to the use of customer data. Telkom strives to stay within the sign to comply with the rules for using customer personal data. This is requires customer approval. This monetization has been carried out since November 5, 2020, where IndiHome Consumer Division and Telkomsel have actively requested customer consent from customer.

DATA GOVERNANCE SYSTEM

In TelkomGroup, we implement a data governance mechanism by paying attention to coordination, agreement and collaboration. The DG Council acts as the head of governance, assisted by DG Council Steering Committee to oversee data management from the data owner.

TelkomGroup Data Governance Organization
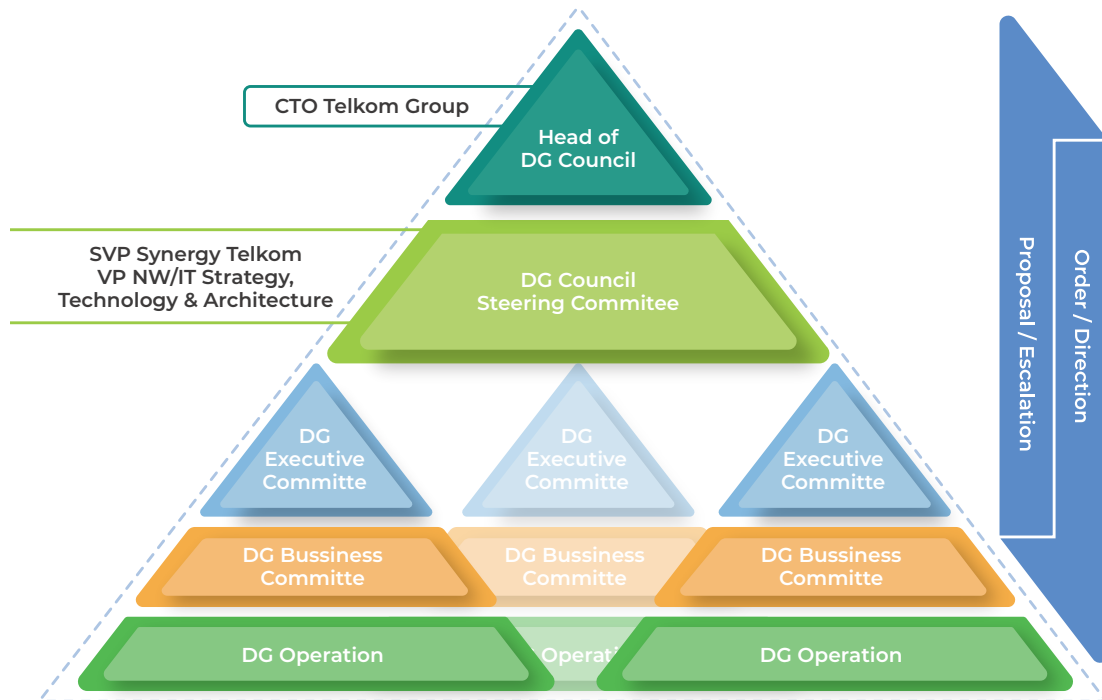
Telkom Data Governance Committee (Parent)

Chairman : VP Network/IT Strategy, Technology & Architecture
Vice Chairman : EVP Digital Business & Technology
 EGM Information Technology Division
Secretary : AVP Network/IT Program Management & Digitization
Members : VP Performance & Governance Management NITS
 OVP Cyber Security
 VP Synergy
 VP Legal & Compliance
 VP Information Technology Audit
 All EGM & EVP CFU/FU

Chairman : DEVP Digital Business Builder DBT
Vice Chairman : DEGM IT Development DIT
 DEGM IT Operation DIT
Secretary : AVP Advance Network/IT Orchestration
Members : AVP Integrated Governance & Quality Mgmt. NITS
 SYNERGY Project Leader One Data & CFU Mobile
 All Deputy EGM CFU/FU
 All Deputy EVP CFU/FU
 AVP Infrastructure & Service Performance NITS
 AVP Infrastructure SLA Management NITS
 AVP Integrated Governance & Quality Mgmt. NITS
 AVP Legal Settlement
 AVP Legal Counsellor
 AVP Application Transaction Audit
 AVP Information System Operation Audit
 AVP Information Security Audit
 All AVP, SM & OSM CFU/FU
 All TRIBE LEADER Digital Business Builder Sub-Division
Data Owner: All DATA OWNER*

*according to CTO designation

In implementing data governance system, Telkom implements several data security mechanisms, including:

1. Obligation of approval from the Director of relevant unit that carries out business activities that require data transactions.
2. Data control by appointing a Data Owner for each unit.
3. Cryptography, so that only certain PIC have the right to access data and it is confidential.
4. Masking to disguise all personal data.

In addition, we have carried out awareness-raising programs, as well as conducted an internal audit process for data management system in both Subsidiaries and Telkom. Audit for Specific Data Processing (PDP) will only be implemented in mid 2022.

CUSTOMER DATA MANAGEMENT FOR SECONDARY PURPOSES [TC-TL-220A.2, TC-TL-220A.4]

Practice of managing personal data for secondary purposes usually occurs when the data is to be displayed to third parties. In this practice, customer are given option by electronic system operator to give approval whether or not personal data can be used and/or displayed to third parties.

An example of using data for secondary purposes is when law enforcement official have the right to submit request for using customer data to resolve a case, especially fraud case. Management of this practice at Telkom refers to Regulation of the Director of Compliance & Risk Management No. 603.01/r.00/HK000/COP-D0020000/2011 dated July 6, 2011 regarding Implementation Guidelines for Providing Records and Data Usage of Telecommunication Facilities to Law Enforcement Official.

Throughout 2022, law enforcement officials was submit 25 requests related to tracking of IP address usage, call data record, and customer data. Telkom provides assistance in providing data with the aim of helping resolve case and all request have been fulfilled.

IMPROVING CYBER SECURITY [TC-TL-230A.2]

Along with the increasing development of technology, the types and cyber threats are also increasingly diverse. Therefore, we need to strengthen our security system to mitigate cyber threat. As part of preventive measure, TelkomGroup has identified several causes that may raise information security risks, including:

1. Lack of accuracy and stakeholder concern of information security aspect.
2. There are certain motivation such as cybercriminal who seek financial gain, competitor who damage the opponent's reputation, and hacker who seek publicity.
3. Weakness in the supply chain (various vendors and technology used allow for security gap that give rise to security threat).
4. Increasing and widespread use of innovative technology, such as cloud, make hacker and cyber adversary challenged to exploit the weakness of the technology and their ecosystem.
5. Security gap in information security system, both physical and non-physical.

We recognize that cyber threat and attack can impact a Company's revenue and reputation. Therefore, TelkomGroup continues to mitigate and manage cyber threat/attack on network, application, and data so as not to cause significant negative impact. Some of the controls that we have implemented to mitigate these threat include:

1. Increase stakeholder awareness of the company's information security aspect.
2. Improve preventive action in the form of periodic vulnerability assessment and penetration test.
3. Perform daily security check on IT infrastructure.
4. Prepare recommendation based on information security management.
5. Carry out intensive coordination with parties related to handling cyber security (such as National Cyber Crypto Agency).

Telkom's efforts to improve cyber security are by developing a Cyber Security Operation Center which has a function as a center for monitoring, detecting, and executing responses to information security incident. The main activities of Cyber Security Operation Center are security monitoring, incident response management, vulnerability assessment, penetration testing, log management & analysis, and security awareness. This center operates 24x7 to help Telkom anticipate and respond more quickly and effectively in providing information related to cyber security.

In addition, TelkomGroup's efforts to deal with cyber security threats are by increasing awareness and procedures for maintaining data privacy. The awareness activities that we carry out include awareness campaigns on cyber security through the Company's mass communication media. One of them is via e-mail, messages via WhatsApp, Telkom's internal portal, as well as TelkomGroup's internal collaboration application Diarium.

PERSONNEL CERTIFICATION AND INFORMATION SECURITY SYSTEM CERTIFICATION

Information security management system at TelkomGroup has been implemented and certified by SNI ISO/IEC 27001:2013. Information security management system certification is one of our efforts to strengthen the security of IT infrastructure from the risk of cyber attack. In addition, the personnel in charge of cyber security have also been certified. As many as 2,604 employees have been recorded as having at least one type of certification related to information security system.

These certifications, among others:
1. Certified Ethical Hacker (CEH)
2. Certified Ethical Hacker Practical (CEH Practical)
3. Computer Hacking Forensic Investigator (CHFI)
4. Certified Information System Auditor (CISA)
5. Certified Information Security Manager (CISM)
6. Certified Data Center Specialist (CDCS)
7. Certified Data Center Professional (CDCP)
8. Certified Digital Transformation Professional (CDTP)
9. Certified Information System Security Professional (CISSP)
10. Cisco Certified CCNA Cyber Ops
11. Cisco Certified CCNA Security
12. Certified Risk Management Officer (CRMO)
13. CompTIA CySA+ Cybersecurity Analyst (CySA+)
14. COBIT 2019 Foundation (COBIT 2019)
15. EC-Council Certified Incident Handler (ECIH)
16. EC-Council Certified Security Analyst (ECSA)
17. GIAC Certified Forensic Analyst (GCFA)
18. ITIL 4 Foundation (ITIL 4)
19. Offensive Security Certified Professional (OSCP)
20. Certified Risk Management Officer (CRMO)

INFORMATION SECURITY VIOLATION [TC-TL-230A.1]

Throughout 2022, Telkom detected 40.6 million cyber threats against our server. Most threats are non-intrusive, but none cause concern and deserve special attention.

Total Frequency of Information Security Violations

Description	2022	2021	2020
Brute Force Attack to Network Element (attempts)	9,579	125,949	297,985
Longest Duration in DDoS Attacks (minutes)	6,779	841	490
Largest Volume Used in DDoS Attacks (Gbps)	210.7	299.7	115.71
Defacement	-	-	-

Remarks:
Brute Force Attack   Process of finding a solution by continuously trying many possible variants of information such as password, deciphered kes, etc., randomly.
(reference:https://www.cybrary.it/glossary/d-the-glossary/distributed-denial-service-ddos/, https://www.cybrary.it/glossary/d-the-glossary/denial-of-service-attack/)
DDoS Attack   Distributed Denial of Service technique, an attack on a network or a machine to make it available to other or important user, which uses multiple host to carry out the attack.
(reference:https://www.cybrary.it/glossary/b-the-glossary/brute-force-attack/)
Defacement   Alteration or destruction of a Web page or Web site by an unauthorized individual or process, usually a hacker.
(reference:https://www.trendmicro.com/vinfo/us/security/definition/website-defacement)

SUSTAINABLE ECONOMIC VALUE CREATION
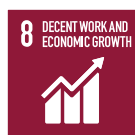
ECONOMIC PERFORMANCE

Implementation of sustainability practice and management of ESG aspect cannot be separated from financial support so that business activities remain a going concern. Our financial performance in 2022 generally shows improvement from the previous year. TelkomGroup's revenue was recorded at Rp147,306 billion, or increased 2.9% from last year which was Rp143,210 billion. From revenue minus expenses, TelkomGroup was able to record a net profit for the year of Rp20,753 billion, decreased 16.2% compared to last year which was Rp24,760 billion.

Generated and Distributed Economic Value [201-1]

Description	2022	2021	2020
	(Rp billion)		
Income	147,306	143,210	136,462
Net profit	20,753	24,760	20,804
Contribution to Country *	43,098	49,894	49,034
Payment to Investor **	7,118	7,974	7,312
Payment to Creditor	48,368	48,166	29,148
Payment to Supplier and Partner ***	45,559	44,811	40,533
Payment to Employee	13,195	13,660	12,593

Remarks:
*   Dividend contribution for 2022 uses the dividend figure for the 2021 Annual General Meeting of Shareholders which will be held in 2022. The numbers for 2021 and 2020 are restated using the approach as above and as an improvement to the numbers in the 2021 Sustainability Report which are recorded at 48,963 for 2021 and 49,754 for 2020.
**   Payment to investor include dividend on public shares of the previous financial year paid out for that year.
***   Payment to supplier and partner for direct and indirect operational cost.

From generated economic value, we record economic value distributed to stakeholder involved in TelkomGroup's value chain. Our tax payment to government amount to Rp26,238 billion and payment of Non-Tax State Revenue (PNBP) of Rp9,121 billion, which will contribute to the country for sustainable development in Indonesia. Expenditures for supplier and partner including local parties were recorded at Rp45,559 billion.

Distribution and direct impact of economic value to employee, namely in the form of salary and benefit. Realization of salary, benefit, and expenses for employee training amounted to Rp13,195 billion. Meanwhile, the form of distribution of economic value to community is realized through community involvement and development activities with a total value of Rp371.9 billion.

Apart from being in the form of community engagement and development program, Telkom's communication and broadband network have helped the community a lot to communicate in working, teaching-learning, and other activities that can provide benefit in the form of a multiplier effect in digital economy segment. Until now, TelkomGroup has never received a negative report or report of a conflict and potential conflict with public that is critical related to the impact of product, service, and business process that carried out.

Together with Telkom to Boost Indonesia's Digital Transformation

BUMN UNTUK INDONESIA

Telkom Indonesia
the world in your hand

FEBRUARY
- With a focus on accelerating digital inclusion, Telkom was elected Chairman of the B20 Indonesia TF Digitalization.
- Agreed to support the digitalization of Agricultural PMO.
- Digitalization of SMEs mentored by Telkom in Lampung.

MARCH
- To reinforce the international infrastructure, Telin joined the SEA-ME-WE 6 consortium to build a 19,200 km-long submarine cable system.
- Minister of State-Owned Enterprises launched Leap - Telkom Digital to accelerate Indonesia's digital transformation.
- Telkom provided the ICT infrastructure throughout the Mandalika MotoGP Series.

JANUARY
- Sinergy between Finnet and Posfin to promote financial inclusion in Indonesia. Smart Government Digitalization in Medan, North Sumatera.
- Telkom launched the Pijar Camp Scholarship program to prepare Indonesia digital talents.

APRIL
- Expanding its market to the Middle East, Telkom opened its 11th international representative office in Dubai, United Arab Emirates.
- Joined the "Proudly Made in Indonesian" movement for MSMEs in West Sumatera.
- Strategic alliance between Telkom and Singtel for a Regional Data Center.
- Strategic partnership between Telkom and Microsoft to drive Indonesia's digital acceleration and intelligent infrastructure.

9.2 Million IndiHome Subscribers **96%** Coverage

156.8 Million Telkomsel Subscribers **99%** Coverage

28 Data Centers Domestic and overseas, including tier 3 and 4

DIGITAL CONNECTIVITY

DIGITAL PLATFORM

173,266 km Fiber Optics

265,194 Unit Telkomsel Base Transceiver Station

35,418 Mitratel Tower

DIGITAL SERVICE

Numerous Digital Services

PeduliLindungi

MAY
- Telkom reinforced Telkomsigma to fulfill the needs of the Cloud and IT Services market in Indonesia.
- Pijar Sekolah to help Middle and High Schools in Tarutung.
- Telkom AGM for the Year 2021 distributed dividends to the value of Rp14,86 trillion.

JUNE
- Telkomsat obtained Starlink docking rights from Kominfo to push equitable access to the internet throughout Indonesia.
- Telkom unveiled its smart city solutions at London Tech Week 2022.
- To reinforce connectivity in Eastern Indonesia, Telkom built the Bifrost Jakarta - Balikpapan - Manado – America submarine cable communication system (SKKL).
- Digitalizing education for SLBN special needs schools.

JULY
- Celebrating 57 Years of Telkom Indonesia "Digital Bisa untuk Semua" (Digital is accessible to all).
- Launched the Second Gateway Manado, a digital toll gate in Eastern Indonesia.
- Telkom supported the infrastructure and services at the 2022 ASEAN Para Games XI.
- Telkom donated and distributed 900 Qurban animals on Eid al-Adha 1443H.

AUGUST
- Inauguration of neuCentrIX Sepaku and Digital Community Center at Ibu Kota Nusantara.
- An international alliance between ITDRI and the Massachusetts Institute of Technology.
- Indigo Demo Day 2022, a meet up for startups mentored by Telkom with venture capitalists.

SEPTEMBER
- A strategic partnership between Telin and Expereo in regard to SD-WAN cloud solutions.
- Telkom's strategic alliance with Amazon Web Services provides cloud computing solutions for digital industry players.
- Batic 2022 strengthens the Indo-Pacific connectivity ecosystem to become a Regional Digital Hub.

OCTOBER
- Digital Innovation Learning School for digitalization in education in the 3T area.
- Business matching, investor talk, and corporate day at the SOE International Conference 2022.
- Tourism Collaborative Platform, a collaboration between Telkom dan Injourney to digitize the tourism ecosystem.

NOVEMBER
- TelkomGroup provided first-rate infrastructure during the peak of the 2022 G20 Summit.
- Formed a strategic alliance with global tech giants during the 2022 B20 Summit (Google and Indosat Ooredo Hutchitson).
- TelkomGroup matched investors with Indonesian startups, generating US$399 million in funding.
- Recycling and upcycling electronic waste through the Eduvice Program.

DECEMBER
- Telkom formed a strategic partnership with Cisco regarding IoT Control Center and SDN for the growth of Industry 4.0 in Indonesia.
- Groundbreaking NeutraDC Hyperscale Data Center in Batam.
- TelkomGroup Siaga NARU 2022/2023.

Financial Performance (Year 2022)

Revenue
Rp147.31 trillion
(+2.9% YoY)

EBITDA
Rp78.99 trillion
(+4.3% YoY)

Net Profit
Rp20.75 trillion
(-16.2% YoY)

Awards

Forbes 2022 World's Best Employer

1st Linkedin: Top Companies 2022

BCOMMS 2022

1st Most Valuable Brand
The 9th Brand Finance Indonesia
Top 100 Most Valuable Brands

The 2022 Grand Stevie® Award
for Organization of the Year Asia Pacific Stevie Awards 2022

Best 3: Press Release and Website Category
Anugerah Media Humas 2022

Indonesia's SDGs Action Awards 2022
Large Business Category

#digitalbisa
#UntukIndonesiaLebihBaik

RESPONSIBLE SUPPLY CHAIN [2-6]

In line with our commitment to carrying out business ethic, TelkomGroup also practices fair and transparent supply chain management. The management policy is implemented in reference to the Resolution of Director of Finance Number PR 301.08/r.05/HK240/COP-K0700000/2022 dated May 25, 2022 regarding Guidelines for Procurement Implementation. Each partner is required to sign an integrity pact containing a statement not to engage in corrupt practices, price collusion, conflict of interest, fraud, and anti-bribery in every procurement process that carried out.

TELKOMGROUP SUPPLY CHAIN

New Supplier
1. Infrastructure Facilities
2. Transport
3. Access
4. Switching & Routing
5. Information Technology

R & D TelkomGroup

Supplier
1. Infrastructure Facilities
2. Transport
3. Access
4. Switching & Routing
5. Information Technology
6. Professional Services
7. Lease
8. General & Administration

New Supplier
6. Professional Services
7. Lease
8. General & Administration

Telkom Telkomsel & Others — Type of Product — Corporate Customer

Telkom Telkomsel & Others — Type of Product — Individual Customer

Telkom Telkomsel & Others — Type of Product — Residential Customer

Remarks:
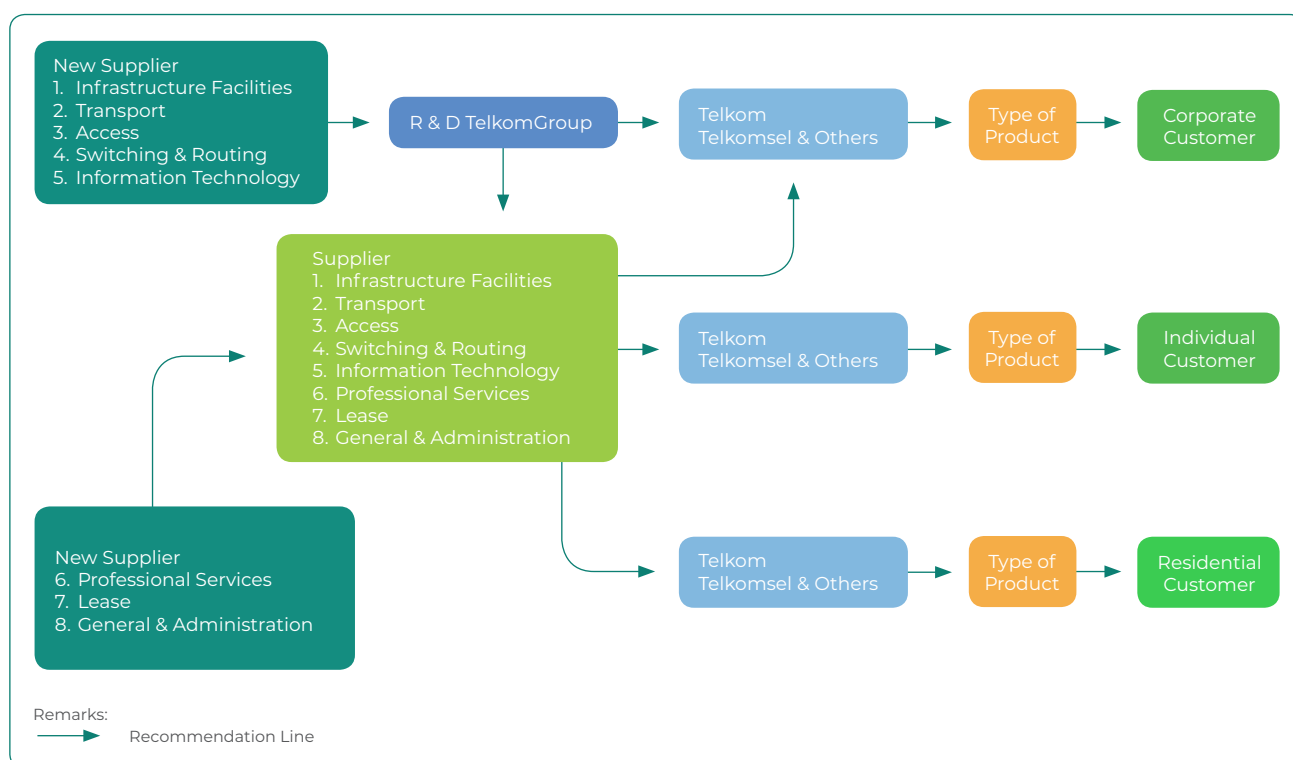→ Recommendation Line

Selection of partner is carried out through three main stages, namely:
1. Online registration stage through Supply Management and Logistic Enhancement (SMILE) application.
2. Selection stage includes an assessment according to business classification and other criteria to produce a short-list.
3. Determining eligible bidder stage, namely potential partner who are entitled to be involved in the procurement process.

Prospective partner are directed to register through SMILE application, then all potential partner will be checked for the completeness of company document in general. Furthermore, committee will conduct a selection that includes an assessment aspect of Quality, Cost, Delivery and Service (QCDS). This policy is in accordance with Company Regulation No.PR.301.03/r.00/HK.240/COP-D0050000/2012 dated June 29, 2012 regarding Supplier Management. Supplier evaluation includes aspect of Quality, Cost, Delivery and Service (QCDS).

In addition, TelkomGroup also assesses ESG aspect of potential partner. We pay attention to the policies and compliance of prospective partner with respect to fulfilling integrity and socio-environmental aspects such as implementing a code of ethics, respecting human rights, implementing OSH, and managing the environment.

The result of selection will produce a short-list up to the determination of the winner/executor of the procurement. The next stage is an assessment of the partner's performance in carrying out the procurement of related good and/or service up to the handover/ acceptance of work.

When already working together, Telkom conducts supplier performance assessment to ensure that there is a good, sustainable cooperative relationship, and of course provides optimal benefit for both parties. Assessment includes mandatory and option aspects. This performance assessment is a form of our mitigation effort against existing risk and to ensure there is no fraud in the supply chain. The result of assessment will determine the risk level of the partner. If there is a high risk, monitoring and re-evaluation will be carried out on the partner concerned.

In 2022, there were no blacklist action against partners who have poor performance based on evaluation results. We also noted that none of the partners had their employment terminated because they were deemed unable to carry out the work. On the other hand, from the implementation of the assessment of ESG aspects in TelkomGroup supply chain, we note that there were no partners who are currently involved in legal sanctions related to socio-environmental non-compliance.

LOCAL PARTY ENGAGEMENT [204-1]

Engagement of local party including local supplier can contribute to supporting economic growth in Indonesia. Telkom seeks to prioritize local supplier to meet the procurement of good and service, and use domestically produced component. Local partner/supplier, namely supplier who are domiciled in Indonesia, can support TelkomGroup operation in various regions of the archipelago and help reduce environmental impact, namely a lower carbon footprint when compared to supplier from abroad.

Telkom is involved in cooperation with 99% or 893 local (Indonesian) partners out of 898 total partners, as well as 1% foreign partners as of the end of 2022. The engagement of local parties has increased by 1.02% when compared to last year, namely from 884 in 2021 become 893 work partners in 2022.

DOMESTIC COMPONENT LEVEL (TKDN)

As a SOE, Telkom supports TKDN to increase. However, the use of domestic product in every procurement process carried out by TelkomGroup still considers quality aspect and economic financial aspect of good and/or service procured. Throughout 2022, TelkomGroup's TKDN achievements are recorded at around 37.02% of CAPEX expenses and 75.02% of OPEX expenses.

05

APPENDICES

APPENDIX 1:
GLOSSARY

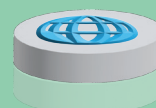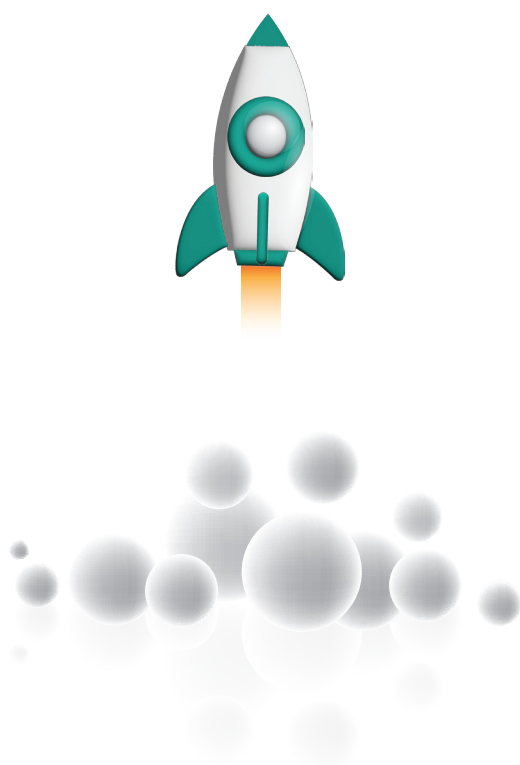| Glossary	Descriptions
3P + 1L	Pay for Person (according to the required competencies), Pay for Position (according to the level of responsibility and accountability), Pay for Performance (according to performance in achieving targets), and Pay for Location (according to the city of work location).
Backbone	The main communication network consisting of transmission and switching facilities that connect several network access nodes. The transmission network between node and switching facilities includes microwaves, submarine cables, satellites, optical fibers, and other transmission technologies.
Bandwidth	The capacity of a communication link.
Broadband	Signaling methods that include or handle relatively wide frequency ranges (or bands).
BTS	Base Transceiver Station, equipment that transmits and receives radio telephony signals to and from other telecommunication systems.
CPE	Customer Premises Equipment is a handset, receiver, set-top box or other device used by customers of wireless, fixed or broadband telecommunications services, which are the property of certain network operators and are placed at the customer's location.
Cyberattack	A cyberattack is deliberate of the exploitation of computer systems, technology-dependent enterprises, and networks. Cyberattack use malicious code to alter computer code, logic or data, resulting in disruptive consequences that can compromise data and lead to cybercrimes, such as information and identity theft.
Cyber Security Operation Center	Center for monitoring, detecting, and implementing response to information security incidents.
Dry Plant	ISP (In Side Plant) is a component or device in the Submarine Communication Cable System (SCCS) located in the waters / sea consisting of fiber optic cable, SLTE, DWDM, PFE, etc.
e-Commerce	Electronic Commerce, the buying and selling of products or services over electronic systems such as the internet and other computer networks.
Eduvice	The program was launched as a form of commitment to reducing electronic waste (e-waste).
ESG	Environmental, Social, and Governance is a set of operational standards that refer to three main criteria (environmental, social, and governance) in measuring the sustainability and impact of an investment in a company.
Fiber Optic	Cables that use optical fiber and laser technology where the reflected light representing data is sent through thin glass filaments.
FTTx	Fiber to the "X" is a collective term used to describe a wide selection of broadband network architectures that use fiber optics. One example of this architecture is FTTH or fiber-to-the-home, which is a fiber optic network from an Internet Service Provider (ISP) to a home or business location.
Gbps	Gigabits per second is the average number of bits, characters, or blocks per unit of time that moves between devices in the data delivery system. Usually measured in units of bits per second or bytes per second.
GraPARI	Telkomsel customer service center.
GRI	Global Reporting Initiative is an organization that sets internationally accepted Sustainability Reporting standards.
GRI Standards	GRI Standards or Global Reporting Initiative Standards are the highest international standards in preparing sustainability reports that regulate the mechanism of content writing and material disclosure.
IDX	The Indonesia Stock Exchange is one of the institutions in the capital market formed through a merger between the Jakarta Stock Exchange and the Surabaya Stock Exchange.
IoT	The Internet of Things (IoT) is the network of devices, vehicles, and home appliances that contain electronics, software, actuators, and connectivity which allows those things to connect, interact and exchange data.

Glossary	Descriptions
ISO	The International Organization for Standardization (ISO) is an international standard setting body consisting of representatives from each country's national standardization bodies.
KPPU	The Business Competition Supervisory Commission or KPPU is an independent institution formed to oversee the implementation of Law No. 5 of 1999 regarding Prohibition of Monopolistic Practices and Unfair Business Competition.
LED	Light Emitting Diode is electronic components that can emit monochromatic light when forward voltage is applied.
M2M	Machine-to-Machine is a term that refers to hardware (devices/hardware) that can connect and communicate with each other without human assistance. Examples of M2M communication would be a vending machine that sends inventory information or an ATM machine that is authorized to issue cash.
Mbps	Megabits per second, a measure of speed for digital signal transmission expressed in millions of bits per second.
NFV	Network Function Virtualization is a way to virtualize network services, such as routers and firewalls, that are traditionally run on specific hardware devices. These services are packaged as virtual machines (VMs) on commodity hardware, allowing service providers to run their networks on servers.
NPS	Net Promoter Score is a market research metric used by Telkom to find out the latest voice of customers, as input in improving customer experience. Thus, Telkom can ensure that the repairs are carried out correctly and customer satisfaction is well maintained.
NYSE	The New York Stock Exchange (otherwise known as the NYSE) is one of the stock exchanges in the United States where Telkom shares are listed, other than on the Indonesia Stock Exchange.
OJK	*Otoritas Jasa Keuangan*, or the Indonesian Financial Services Authority, the successor of Bapepam-LK, is an independent institution with authority to regulate and supervise financial services activities in the banking sector, capital market sector as well as non-bank financial industry sector.
OKR	An Objective and Key Results that is a framework in setting, communicating, executing and monitoring the achievement of effective and measurable targets/goals of an organization/company.
PINS	PINS or PT PINS INDONESIA is a company engaged in the trading of Customer Premises Equipment (CPE) and is a subsidiary of Telkom with shares of 100%.
SASB	Sustainability Accounting Standards Board (SASB) provides sustainability accounting standards for use by publicly listed corporations in the U.S. in disclosing material sustainability issues for the benefit of investors and the public.
SCCS	Submarine Communication Cable Systems are cables stretched under the sea between stations built on land to deliver telecommunication signals through submarines.
SDG	The Sustainable Development Goals (SDGs) are 17 goals with 169 measurable achievements and deadlines set by the United Nations as the world development agenda for the benefit of humans and planet earth.
SDN	Software Defined Networking is a software defined network, in which the control function is separated from the forwarding function which allows greater automation and programmability in the network. The control function is a regulatory function on a network device, while the forwarding function is a function of sending information packets.
Service Assurance	Services that guarantee optimal product performance through meeting certain quality standards to meet customer satisfaction
Service Delivery	Services to fulfill customer needs in the form of products or solutions from Telkom accompanied by a guarantee of good delivery quality.
SIM Card	Subscriber Identity Module card is a stamp-sized smart card placed on a mobile phone that holds the key to the telecommunication service.

Glossary	Descriptions
SLA	Service Level Agreement (SLA) which is an agreement between Telkom and customers regarding the level of service quality.
SMILE	Supply Management Information for Logistic Enhancement, an online web application (smile. telkom.co.id) for logistics management that provides solutions in managing work programs/projects in detail and easily.
SOE	State-Owned Enterprise, a government-owned corporation, state owned company, state-owned entity, state enterprise, publicly owned corporation, government business enterprise, or parastatal, a legal entity created by a government to undertake commercial activities on behalf of an owner government.
Switching	An electronic, electrical or mechanical device that opens or closes circuits, completes or stops electrical lines, or selects paths or circuits, used to direct traffic on telecommunications networks.
Wet plant	OSP (Out Side Plant) are components or devices in the Submarine Cable Communication System (SKKL) located in the waters/sea consisting of marine fiber optic cables, repeaters, equalizers, and branching units.

APPENDIX 2: ABBREVIATION

Keyword	Descriptions	Keyword	Descriptions
3T	*Tertinggal, Terdepan, Terluar*	ESG	Environment, Social, and Governance
AI	Artificial Intelligence	FWA	Flexible Working Arrangement
AKHLAK	*Amanah Kompeten Harmonis Loyal Adaptif Kolaboratif*	Gbps	Giga byte per second
ASKALSI	*Asosiasi Kabel Laut Seluruh Indonesia*	GCG	Good Corporate Governance
BBM	*Bahan Bakar Minyak*	GIS	Geographic Information System
BCMS	Business Continuity Management System	GJ	Gigajoule
BLS	Basic Life Support	GraPARI	*Graha Pari Sraya*
BTS	Base Transceiver Station	GSD	*Graha Sarana Duta*
BUMN	*Badan Usaha Milik Negara*	HAM	*Hak Asasi Manusia*
CBA	Competency & Behavior Appraisal	HR	Human Resource
CDC	Community Development Center	HSE	Health, Safety, and Environment
CDI	Customer Dissatisfaction Index	ICT	Information & Comunication Technology
CID	Community Involvement Development	IDN	Indonesia Digital Network
CIQS	Cable Implementation Quality System	IDX	Indonesia Stock Exchange
CLI	Customer Loyalty Index	IEC	International Electrotechnical Commission
CO2	Carbon Dioxide	ILO	International Labor Organizational
COVID-19	Corona Virus Disease 19	IoT	Internet of Things
CPE	Customer Premises Equipment	IPAL	*Instalasi Pengelolaan Air Limbah*
CSI	Customer Satisfaction Index	ISMS	Information Security Management System
CSR	Customer Social Responsibility	ISO	International Organization for Standardization
CSV	Creating Shared Value	ISP	In Side Plant
DDoS	Distributed Denial of Service	ITSMS	IT Service Management System
DaPen	*Dana Pensiun Telkom*	KPK	*Komisi Pemberantas Korupsi*
DNA	*Device, Network, Application*	KPPU	*Komisi Pengawasan Persaingan Usaha*
DPLK	*Dana Pensiun Lembaga Keuangan*	LED	Light Emitting Diode
DRUPS	Diesel Rotary Uninterruptible Power Supply	LTE	Long Term Evolution
Eduvice	Electronic Device Donation for Education	Mbps	Mega bits per second

Keyword	Descriptions	Keyword	Descriptions
MCU	Medical Check Up	SDM	*Sumber Daya Manusia*
MSME	Micro Small Medium Enterprise	SEA-ME-WE 6	Southeast Asia-Middle East-Western Europe 6
MTTR	Mean Time to Repair	SEKAR	*Serikat Karyawan*
NPS	Net Promoter Score	SEM	Structural Equation Modeling
NPWP	*Nomor Pokok Wajib Pajak*	SEPAKAT	*Serikat Pekerja Telkomsel*
NYSE	New York Stock Exchange	SKATA	*Serikat Karyawan Graha Sarana Duta*
OFI	Opportunity for Improvement	SKKL	*Sistem Komunikasi Kabel Laut*
OHSAS	Occupational Health and Safety Assessment Series	SLA	Service Level Agreement
OJK	*Otoritas Jasa Keuangan*	SLG	Service Level Guarantee
OKR	Objective dan Key Result	SMAP	*Sistem Manajemen Anti Penyuapan*
OSH	Occupational Safety and Health	SME	Small Medium Enterprise
OSHMS	Occupational Safety and Health Management System	SMILE	Supply Management and Logistic Enchancement
OSP	Out Side Plant	SNI	*Standar Nasional Indonesia*
PAK	*Penyakit Akibat Kerja*	SOE	State-Owned Enterprise
PD	*Peraturan Direksi*	SPIN	*Serikat Pekerja Infomedia Nusantara*
PDAM	*Perusahaan Daerah Air Minum*	SPMD	*Serikat Pekerja Metra Digital Media*
PDP	*Perlindungan Data Pribadi*	SROI	Social Return on Investment
PKB	*Perjanjian Kerja Bersama*	TCU	Telkom Corporate University
PNBP	*Penerimaan Negara Bukan Pajak*	TIQA	Telkom Integrated Quality Assurance
POJK	*Peraturan Otoritas Jasa Keuangan*	TJSL	*Tanggung Jawab Sosial dan Lingkungan*
PUE	*Program Pensiun Iuran Pasti*	TKDN	*Tingkat Kandungan Dalam Negeri*
PPMP	*Program Pensiun Manfaat Pasti*	TPB	*Tujuan Pembangunan Berkelanjutan*
PR	*Peraturan Perusahaan*	UMP	*Upah Minimum Provinsi*
PPIP	Power Usage Effectiveness	UU	*Undang-Undang*
QCDS	Quality, Cost, Delivery dan Service	WBS	Whistleblowing System
QMS	Quality Management System	WFH	Work From Home
RUPS	*Rapat Umum Pemegang Saham*	WFO	Work From Office
SASB	Sustainability Accounting Standards Board	YAKES	*Yayasan Kesehatan*
SDGs	Sustainable Development Goals		

APPENDIX 3:
OJK REGULATION NO. 51/POJK.03/2017 AND OJK CIRCULAR LETTER NO. 16/SEOJK.04/2021

No Index	Index Name	Page
Sustainability Strategy		
A.1	Elaboration on Sustainability Strategy	27
Summary of Sustainability Aspect Performance		
B.1	Economic Aspects	6
B.2	Environmental Aspects	7
B.3	Social Aspects	6-7
Company Profile		
C.1	Vision, Mission, and Values of Sustainability	5
C.2	Company's Address	28
C.3	Enterprise Scale	10-11, 52-53
C.4	Products, Services, and Business Activities	4
C.5	Membership in Association	14-15
C.6	Significant Changes in Issuers and Public Companies	-
The Board of Directors' Explanation		
D.1	The Board of Directors' Explanation	16-21
Sustainability Governance		
E.1	Responsible for Implementing Sustainable Finance	24
E.2	Competency Development Related to Sustainable Finance	55-56
E.3	Risk Assessment of the Implementation of Sustainable Finance	25-26
E.4	Relations with Stakeholders	36-37
E.5	Problems with the Implementation of Sustainable Finance	66-71
Sustainability Performance		
F.1	Sustainable Culture Development Activities	27
Economic Performance		
F.2	Comparison of targets to performance of production, portfolio, financing targets or investments, revenue, as well as profit and loss	72
F.3	Comparison of target to performance of portfolio, financing targets or investments in financial instruments or projects in line with the implementation of Sustainable Finance	-
Environmental Performance		
General Aspect		
F.4	Environmental Costs That Incur	-
Material Aspect		
F.5	Use of Environmentally Friendly Materials	40
Energy Aspect		
F.6	Amount and Intensity of Energy Used	41-43
F.7	Efforts and Achievements of Energy Efficiency and Use of Renewable Energy	40-41

No Index	Index Name	Page
Water Aspect		
F.8	Water usage	45
Aspects of Biodiversity		
F.9	Impacts from Operational Areas that are Near or Located in Conservation Areas or Have Biodiversity	46
F.10	Biodiversity Conservation Efforts	45-46
Emission Aspect		
F.11	Total and Intensity of Emissions Generated by Type	43
F.12	Efforts and Achievements of Emission Reduction Made	40-41
Waste and Effluent Aspects		
F.13	Amount of Waste and Effluent Generated by Type	44
F.14	Waste and Effluent Management Mechanism	43-44
F.15	Occurring Spills (if any)	43
Complaint Aspects Related to the Environment		
F.16	Number and Material of Environmental Complaints Received and Resolved	43
Social Performance		
F.17	Commitment to Provide Services on Equal Products and/or Services to Consumers	47-50
Employment Aspect		
F.18	Equal Employment Opportunity	54
F.19	Child Labor and Forced Labor	53, 56
F.20	Regional Minimum Wage	56
F.21	Decent and Safe Work Environment	59-61
F.22	Employee Capability Training and Development	55
Community Aspect		
F.23	Impact of Operations on Surrounding Communities	61-63
F.24	Community Complaints	65
F.25	Corporate Social Responsibility (CSR)	61-63
Responsibility for Sustainable Product/Service Development		
F.26	Innovation and Development of Sustainable Financial Products/Services	Not relevant
F.27	Products/Services That Have Been Evaluated for Safety for Customers	47
F.28	Product/Service Impact	66-71
F.29	Number of Product Recalls	44
F.30	Customer Satisfaction Survey on Sustainable Financial Products and/or Services	48-50
Others		
G.1	Written Verification from Independent Party (if any)	28
G.2	Feedback Sheet	96
G.3	Responses to Feedback on the Previous Year's Sustainability Report	-

APPENDIX 4:
GRI CONTENT INDEX

Statement of Use : PT Telkom Indonesia (Persero) Tbk has reported the information cited in this GRI content index for the period January 1 to December 31, 2022 with reference to the GRI Standards.

GRI 1 Used : GRI 1: Foundation 2021.

GRI Standard	Disclosure	Location
GRI 2: General Disclosures 2021	**2-1** Organizational details	4,10-11
	2-2 Entities included in the organization's sustainability reporting	28
	2-3 Reporting period, frequency, and contact point	28
	2-4 Restatements of information	28
	2-5 External assurance	28
	2-6 Activities, value chain, and other business relationships	4, 10-11, 74-75
	2-7 Employees	52-53
	2-8 Workers who are not employees	N/A
	2-9 Governance structure and composition	24
	2-10 Nomination and selection of the highest governance body	Annual Report
	2-11 Chair of the highest governance body	24
	2-12 Role of the highest governance body in overseeing the management of impacts	24
	2-13 Delegation of responsibility for managing impacts	24
	2-14 Role of the highest governance body in sustainability reporting	18-21, 24, 28
	2-15 Conflicts of interest	Annual Report
	2-16 Communication of critical concerns	Annual Report
	2-17 Collective knowledge of the highest governance body	Annual Report
	2-18 Evaluation of the performance of the highest governance body	Annual Report
	2-19 Remuneration policies	Annual Report
	2-20 Process to determine remuneration	Annual Report
	2-21 Annual total compensation ratio	Annual Report
	2-22 Statement on sustainable development strategy	27
	2-23 Policy commitments	12-13, 27, 30-35
	2-24 Embedding policy commitments	27
	2-25 Processes to remediate negative impacts	24-26, 30-35
	2-26 Mechanisms for seeking advice and raising concerns	Annual Report
	2-27 Compliance with laws and regulations	27, 64
	2-28 Membership associations	14-15
	2-29 Approach to stakeholder engagement	36-37
	2-30 Collective bargaining agreements	52

GRI Standard	Disclosure	Location
GRI 3: Material Topic 2021	**3-1** Process to determine material topics	29
	3-2 List of material topics	29-35
	3-3 Management of material topics	29-35
GRI 201: Economic Performance 2016	**201-1** Direct economic value generated and distributed	72
	201-2 Financial implications due to climate change	66
	201-3 Defined benefit plan obligations and other retirement plans	57
GRI 203: Indirect Economic Impacts 2016	**203-1** Infrastructure investment and services supported	67
	203-2 Significant indirect economic impact	61-63
GRI 204: Procurement Practice 2016	**204-1** Proportion of spending on local suppliers	75
GRI 205: Anti-corruption 2016	**205-1** Operations assessed for risks related to corruption	65
	205-2 Communication and training about anti-corruption policies and procedures	65
	205-3 Confirmed incidents of corruption and actions taken	65
GRI 206: Anti Competitive Behavior 2016	**206-1** Legal action for healthy anti-competitive practices, anti-trust, and monopoly	65
GRI 301: Material 2016	**301-3** Reclaimed products and their packaging materials	44
GRI 302: Energy 2016	**302-1** Energy consumption within the organization	40-43
	302-2 Energy consumption outside of the organization	40-43
	302-4 Reduction of energy consumption	40-43
GRI 303: Water and Effluents 2018	**303-5** Water consumption	45
GRI 305: Emission 2016	**305-5** Reduction of GHG emissions	43
GRI 306: Waste 2020	**306-2** Management of significant waste-related impacts	43-44

GRI Standard	Disclosure	Location
GRI 403: Employment 2016	**401-1** New employee hires and employee turnover	53
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	56
	401-3 Parental leave	56
GRI 403: Occupational Health and Safety 2018	**403-1** Occupational health and safety management system	59
	403-2 Hazard identification, risk assessment, and incident investigation	59
	403-3 Occupational health service	59
	403-4 Worker participation, consultation, and communication on occupational health and safety	59
	403-5 Worker training on occupational health and safety	60
	403-6 Improving the quality of workers' health	59
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	61
	403-8 Workers covered by an occupational health and safety management system	59
	403-9 Work-related injuries	61
	403-10 Work-related ill health	60
GRI 404: Training and Education 2016	**404-1** Average hours of training per year per employee	55
	404-2 Programs for upgrading employee skills and transition assistance programs	55-57
	404-3 Percentage of employees receiving regular performance and career development reviews	56
GRI 405: Diversity And Equal Opportunity 2016	**405-1** Diversity of governance bodies and employees	54
	405-2 Ratio of basic salary and remuneration of women to men	56
GRI 406: Non-discrimination 2016	**406-1** Incidents of discrimination and corrective actions taken	58
GRI 413: Local Communities	**413-1** Operations with local community engagement, impact assessments, and development programs	61-63

APPENDIX 5:
SASB STANDARD

Telecommunication Industry		
Code	**Description**	**Page(s)**
Activity Metric		
TC-TL-000.A	Number of wireless subscribers	47
TC-TL-000.B	Number of wireline subscribers	47
TC-TL-000.C	Number of broadband subscribers	47
TC-TL-000.D	Network traffic	10-11
Environmental Footprint of Operations		
TC-TL-130a.1	Total energy consumed, percentage grid electricity, percentage renewable energy	40, 43
Data Privacy		
TC-TL-220a.1	Description of policies and practices relating to behavioral advertising and customer privacy	68
TC-TL-220a.2	Number of customers whose information is used for secondary purposes	70
TC-TL-220a.3	Total amount of monetary losses as a result of legal proceedings associated with customer privacy	N/A
TC-TL-220a.4	Number of law enforcement requests for customer information, number of customers whose information was requested, percentage resulting in disclosure	70
Data Security		
TC-TL-230a.1	Number of data breaches, percentage involving personally identifiable information (PII) and number of customers affected	71
TC-TL-230a.2	Description of approach to identifying and addressing data security risk, including third-party cybersecurity standards	68-71
Product end-of-Life Management		
TC-TL-440a.1	Materials recovered through take back programs, percentage of recovered materials that are (a) reused, (b) recycled, and (c) landfilled	44
Managing Systemic Risks from Technology Disruption		
TC-TL-550a.1	System average interruption frequency and customer average interruption duration	66
TC-TL-550a.2	Discussion of systems to provide unimpeded service during service interruptions	66
Competitive Behaviour & Open Internet		
TC-TL-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	65
TC-TL-520a.2	Average actual sustained download speed of owned and commercially-associated content and non-associated content	N/A

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FEEDBACK FORM OF PT TELKOM INDONESIA (PERSERO) TBK 2022 SUSTAINABILITY REPORT

Thank you for reading our 2022 Sustainability Report. To improve the quality of future Sustainability Report, we want to provide you with feedback by completing the following form:

QUESTIONS

1. In your opinion, this Sustainability Report has provide information on various activities implemented by PT Telkom Indonesia (Persero) Tbk.

   SA   **A**   **M**   **D**   **SD**

2. In your opinion, the material in this Sustainability Report includes data and information are easily understood.

   SA   **A**   **M**   **D**   **SD**

3. In your opinion, the material in this Sustainability Report includes data and information are sufficiently complete.

   SA   **A**   **M**   **D**   **SD**

4. In your opinion, the material in this Sustainability Report includes data and information are accountale and can be valid.

   SA   **A**   **M**   **D**   **SD**

Notes:
SA: Strongly Agree A: Agree M:Moderate D: Disagree SD: Strongly Disagree

5. In your opinion, what information do you feel was useful in this Sustainability Report?
   a. ....
   b. ....
   c. ....

6. In your opinion, what information do you feel was not useful in this Sustainability Report?
   a. ....
   b. ....
   c. ....

7. In your opinion, this information in this Sustainability Report is well presented, design, and layout, whit suitable photographs?
   a. ....
   b. ....
   c. ....

8. In your opinion, what information was missing or incomplete and should be included in future Sustainability Report?
   a. ....
   b. ....
   c. ....

Your Profile

Full name   : . . . .
Age and Sex   : . . . . .Yrs M/F (cross the unnecessary ones)
Institution/Company   : . . . .
Type of Institution/Company   :   ☐ Government   ☐ Industry   ☐ Media
                                        ☐ NGO   ☐ Public   ☐ Other

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