



TYPES OF RISK AND MANAGEMENT METHOD

Telkom established Risk Management Unit to assist the Company's management in identifying strategic risks related to business processes. The following table presents some of the main risks that affect Telkom's business activities.

Table of Risk and Management Method			
Type of Risk	Risks That Is Faced	The Impact to Telkom	Mitigation/Risk Management
1. Risks Related to Indonesia			
Political and Social	The disruption of political stability and social instability to specific issues.	Have negative impact to the business, operation, financial condition, business proceeds and prospect as well as market price for securities.	<ul style="list-style-type: none"> a. Monitoring of the influence of social political instability to the disruption of operational/service. b. The maintenance of awareness through the improvement of safety & security functions.
Macro Economy	The change of global, regional, or Indonesian economic activities.	1. Have the impact on the business, financial condition, business result or business prospect.	a. Monitoring of the influence of macroeconomy to the change to increase the expense through Cost Leadership program.
	The fluctuation of Rupiah Exchange rate.		
	The increase of loan interest rate.	2. Have a material adverse effect to the business, financial, condition, business proceeds or business prospect.	b. To look for the opportunity to increase the spending of APBN pursuant to the Government focus (Maritime, Tourism, Energy, Transportation, etc).
	The decrease of Government or Company's credit rating.		
Risk of Disaster	Flood, thunder, storm, earthquake, tsunami, volcano eruption, epidemic, fire, drought, power shut down and other event beyond Telkom's control.	Disrupting its business operations and give negative impact to the financial performance and profit, business prospect as well as market price of securities.	<ul style="list-style-type: none"> a. Transfer of risk by using the insurance of assets to anticipate the natural disaster and fire. b. Coordination with ASKALSI (Indonesian Sea Cable Association) to secure SKKL. c. Preventive & corrective action by preparing the disaster recovery plan and crisis management team.
Other Risks	<p>Indonesian corporate information disclosure standard is significantly different than what is implemented in other countries including the United States of America.</p> <p>The difference in the regulation of dividend determination.</p> <p>The issue on the legal certainty in Indonesia and United States of America including the implementation of law.</p> <p>The possibility on the difference in the interest of controlling Shareholders with the interest from other Shareholders.</p>	Disrupting its business operation and giving the negative impact to the financial performance and profit, business prospect as well as market price of securities.	The use of a competent legal consultant that has experience with the issues on corporate law in other countries particularly the United States of America.

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Type of Risk	Risks That Is Faced	The Impact to Telkom	Mitigation/Risk Management
2. Business Related Risks			
Operational Risk	The failure in the sustainability of network operation, main system, gateway on Telkom's network or other operator's network.	Has the negative impact to the business, financial condition, proceeds from the operation and business prospect.	a. Implementation of BCM, BCP, and DRP. b. Certification of Integrated Management System (IMS) for infrastructure management.
	Threat of physical and cyber security, such as theft, destruction, or other action.	Has the negative impact to the business, financial condition, result from the operation materially.	a. The upgrade of Preventive Action in the form of Vulnerability Assessment and Penetration Test periodically. b. Monitor and Identify all types of attack in the real-time as well as to choose and conduct a necessary action immediately. c. Preparing the recommendation to handle cyber attack based on the historical incident analysis. d. Intensive coordination with relevant parties to handle the cyber attack.
	Risk regarding internet service.	May face a lawsuit and damage the reputation.	To be more prudent in the preparation of contract with content provider partner.
	Leak of revenue due to the internal capability weakness or external factor.	Has a negative impact to Telkom's business result.	a. Acceleration of leak detection time and revenue indicated as an external fraud in real-time. b. Monitoring the critical point of the leak of revenue especially on the rejected billing call.
	New technology.	Has an impact on the competitive power.	a. The preparation of Technology Roadmap by taking into account future technologies and the possible implementation of competitor's technologies. b. Acceleration of IDN (Indonesia Digital Network) program to support future services.
	The limit of operation period, damage or ruin, delay or failure to launch, or the revocation of satellite license.	Can create loss to financial condition, operation result and capability to give services.	a. The planning to change the satellite of which operation period will be immediately expired. b. The insurance of satellite operation during the active period. c. Insurance for manufacturing and launching of new satellite. d. Developing the understanding with Regulator in relation to the satellite operation by Telkom.



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Financial Risk	Interest Rate Risk.	Has an adverse effect to the business, financial condition and result from the operation.	Interest rate swap contract from the float interest rate to become the fix interest rate upon certain loan term.
	Foreign exchange rate risk.	Has negative impact on the financial condition or result from the operation.	Placement of time deposit and hedging to cover the fluctuation risk of foreign exchange.
	The limit to fund capital expenditure.	Has a material adverse effect to the business, financial condition, operational performance, and business prospect.	Maintaining and improving the Company's performance to obtain the trust from National or Global fund institution/source.
Legal and Compliance Risk	Penalty/fine by KPPU in relation to the price-fixing and the occurrence of class action.	Reducing Telkom's revenue and has negative impact to the business, reputation, and profit.	Strengthening legal review towards corporate action plan or certain contract.
Regulation Risk	The change of Indonesian or International Regulation.	Has the impact to the business, financial condition, operational performance, and business prospect.	<ul style="list-style-type: none"> a. Analysis on the impact of the regulation plan towards the industry in general and Telkom in particular. b. Giving inputs so that the regulation that will be stipulated will give positive impact to the Company and industry.
Fixed and Mobile Telecommunication Business Risk	Losing the cable phone customers and revenue from the service of cable phone voice call.	Has a material adverse effect on the result from operation, financial condition, and Telkom's business prospect.	<ul style="list-style-type: none"> a. Improving QoS – Quality of Service for cable phone customers. b. Giving value added service.
	Competition on the internet service (Fixed Broadband).	Has a negative impact on the business, financial condition operational performance and business prospect.	<ul style="list-style-type: none"> a. Strengthening the perception and quality of IndiHome as New digital life style. b. Acceleration on the launching of the infrastructure for fixed broadband service.
	The competition on mobile service.	Has a negative impact on the business, financial condition operational performance and business prospect.	<ul style="list-style-type: none"> a. Acceleration of the launch of the infrastructure for 4G service. b. Improving QoS – Quality of Service.

RISK MANAGEMENT SYSTEM'S REVIEW ON THE EFFECTIVENESS

Implementation of Telkom's risk management system during 2021 has been effective, because it is able to manage Telkom's various business risks to support every policy and process in TelkomGroup. To support 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 is used by all units to manage Risk Register.
2. Specific Tools for certain risk management which are:
 - a. Fraud Management System (FRAMES) application is used as an early detection system for the possibility of Customer and Third Party Fraud.
 - b. i-Library application managed by Service Operation Division and to be used to manage the documentation system of the Integrated Management System.
 - c. SMK 3 Online application managed by Security & Safety unit for Health and Safety documentation management.

In addition, in 2021 Telkom has carried out a process of evaluating the effectiveness of risk management implementation, namely:

1. Measurement of Risk Maturity Index (RMI).
2. Monitoring and evaluation of 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 BOD and Committee for Planning and Risk Evaluation and Monitoring (KEMPR).

STATEMENT OF THE BOARD OF DIRECTORS AND/OR THE BOARD OF COMMISSIONERS ON ADEQUACY OF RISK MANAGEMENT SYSTEM

In an effort to ensure the implementation of risk management, the Board of Directors and the Board of Commissioners through Committee for Planning and Risk Evaluation and Monitoring hold regular meetings with Risk Management Department. The meeting discussed risk monitoring within the Company and the follow-up actions taken by the risk owner to minimize the risks that occurred. Risk Management Department will report to the Board of Directors and the Board of Commissioners about the result of risk monitoring on a quarterly basis.

In 2021, the Board of Directors and the Board of Commissioners assess that the risk management system at Telkom has run well in accordance with and meets the adequacy of the policies and standards referred. This adequacy includes:

1. Adequacy of Risk Management Information System
 Risk management system that implemented in the Company has referred to ISO 31000:2018 framework and adopted various international standards to ensure the best implementation of a risk management. Preparation of risk register and risk profile of the Company has utilized the ERM Online application, as well as the monitoring and evaluation process as well as the dashboard.
2. Adequacy of Identification, Measurement, Monitoring, and Risk Control Process
 The Board of Directors through Internal Audit function has examined, evaluated, reported, and/or recommended improvements to the adequacy and effectiveness of the risk management process which was then followed up through an evaluation by Committee for Planning and Risk Evaluation and Monitoring.