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IT GOVERNANCE

IT strategies are implemented in an effective and comprehensive IT governance corridor to mitigate risks while still providing added value for the Bank. IT governance is structured according to Bank Mandiri's policy and is subject to the Bank's Operational Policy. IT governance also observes regulatory aspects (of BI and OJK) and best practices.

In general, Bank Mandiri's IT activities are divided into four processes, namely planning, development, operational management, and security. The IT governance framework at Bank Mandiri is illustrated in the following chart:

A. IT Planning

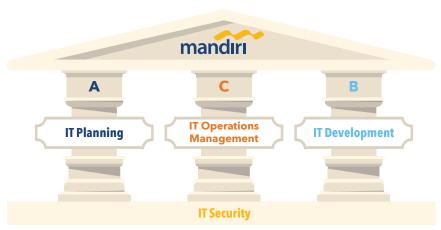
IT planning covers several IT strategic processes at Bank Mandiri, namely:

- Development and review of IT Strategy and Execution Plan as IT long term strategic plan founded upon Bank Mandiri Corporate Plan.
- Annual IT initiative planning to develop IT project portfolio in relevant year based on the requirement of units and adjusted with the Bank Business Plan.
- IT standard management as a reference of IT development that includes application domains, data and infrastructure.

 IT research and strategic analysis to optimize/improve application utilization, IT infrastructure and new technology/business process adoption of highly competitive for the Bank.

B. IT Development

IT development governance includes the end-to-end IT development starting from needs definition, design, to testing and deployment. Bank Mandiri adopts a waterfall and agile System Development Life Cycle (SDLC) development methodology that is tailored to the resource readiness and character of project needs.



Bank Mandiri also implements the DevSecOps method that is an intensive collaboration between each role (Product Team, Development Team, Security Team, Risk Management Team, and Operations Team) supported by the use of various tools.

C. IT Operational Management

Various IT operational management processes are conducted at Bank Mandiri to ensure their solid implementation. These include system operational management, backup and restore process management, network management, system maintenance, and infrastructure management.

D. TI Security

IT security processes are embedded to each process on an end-to-end basis, from IT planning, development, to operations and management. IT security governance focuses on areas of governance & awareness, protection and operations that include security policy, security















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organization & awareness, security risk management, endpoint security, network security, application security, data security, infrastructure security, as well as detection, response, and recovery in a security event and incident.

Bank Mandiri adopts the COBIT framework as a reference of standard framework of IT Governance management practices to connect business processes, control, and operations. In 2021, Bank Mandiri has carried out IT Maturity Level assessment by using COBIT 2019 framework. The results of assessment indicated excellent maturity of IT Governance of Bank Mandiri, in which processes related to technology usage at Bank Mandiri has been standardized, well documented and its performance and compliance can be measured.

STRATEGIES TO SECURE IT SYSTEMS

In implementing technologies and systems to drive the focus of Fit for Growth and Drive Digital Transformation, Bank Mandiri understands that transactions, data, and IT services must remain secure. Therefore, Bank Mandiri's IT is strengthened by the Chief Information Security Office (CISO) Group as a specialized work unit that manages IT security in design, service, and operational aspects.

As a commitment to protect customer data and maintain the sustainability of IT operations safely, CISO Group has developed and implemented an IT security strategy that adopts ISO 27001. The strategy is divided into three areas as follows:

I. People

1. Awareness

Security **Awareness** education program aims to raise awareness about information security in daily conduct and eventually become part of the Bank's culture. The Bank administers security awareness certification for employees in different levels, from the executive (the Board of Commissioners, Board of Directors, employees (across levels in both domestic and overseas branches). as well as third parties. The certification program is held regularly once a year and complemented by monthly and quarterly security awareness campaign programs the form of newsletters, posters, podcasts, phishing drills. The security awareness program covers topics on, among others, data security protection, safe WFH guidelines, and online transaction security.

2. HR Development

Bank Mandiri develops the capabilities of its employees through various certification programs, among others: Certified Cloud Security Professional (CCSP), Certified Ethical Hacker (CEH), ISO 27001 Lead Implementer & Lead Auditor, Certified Information Security Manager (CISM) Certified in Risk & Information System Control (CRISC), dan Offensive Security Certified Professional (OSCP).

II. Process

1. Three Lines of Defense (3LoD)

Bank Mandiri has implemented a risk management mechanism consisting of three levels of defense.

CISO Office Group as part of the 1st line of defense is responsible for the Bank's information security through three main functions, namely:

- **Design,** designing the security architecture and security requirements that are embedded from the beginning of the development and procurement of a system/application until it operates.
- Services, preparing, reviewing, and disseminating standard procedures, awareness programs, risk management, implementing security controls the IT planning and development process.
- Operations, carrying out 24/7 hours monitoring, detecting attack threat anomalies and handling information security incidents which include identification, protection, detection, response, and recovery for cyber security incidents.













Quarter III	Monthly/quarterly review of the Company's performance.
	Quarterly review of the Company and Subsidiaries' performance.
	Monthly review of strategic, business and human capital plans.
	Review on Integrated Governance implementation.
	Discussion on Financial and Business Plan Fiscal Year 2022.
Quarter IV	Monthly/quarterly review of the Company's performance.
	Quarterly review of the Company and Subsidiaries' performance.
	Monthly review of strategic, business and human capital plans.
	Review on Integrated Governance implementation.
	Discussion on Financial and Business Plan Fiscal Year 2022.

Board of Directors Meetings Implementation

The following are agenda, date and participants of the Director's Meeting in 2021.

Board of Directors Meetings Agenda

No.	Date Meetings Agenda		Participants	Unattending participant	Reasons of Absence
1	11 January 2021	 General Discussion IT Strategy Update & Proposal 	All Directors	-	-
2	13 January 2021	 Financial Performance December 2020 Update Consolidated Financial Statements 31 December 2020 (Audited) Risk Management Proposal 	All Directors	-	-
3	18 January 2021	 General Discussion: The Company Latest Development Update Human Capital Proposal Office of Chief Economist Update SISM Update 	All Directors	-	-
4	20 January 2021	 Performance Assessment 2020 SISM Update 	All Directors	-	-
5	26 January 2021	 Financial Performance December 2020 Public Expose & Analyst Meeting Q4 2020 Preparation Update Human Capital Proposal SISM Update 	& Analyst Meeting Q4 2020 odate -		
6	27 January 2021 Join Meeting	 Macroeconomics Development Update Financial Performance December 2020 	All Directors	-	-
7	2 February 2021	 The 2021 Annual GMS Implementation Update Human Capital Proposal 	All Directors	-	-
8	8 February 2021	 General Discussion: The Company Latest Development Update Corporate Secretary Proposal Human Capital Proposal 	All Directors	-	-
9	15 February 2021	 General Discussion: The Company Latest Development Update Financial Performance January 2021 Loans Strategy 	All Directors	-	-
10	22 February 2021	 General Discussion: The Company Latest Development Update Bank Mandiri Pension Fund Proposal Loans Strategy Human Capital Proposal 	All Directors	-	-

No.	Date	Meetings Agenda	Meetings Agenda Participants Unattendin participan			
11	1 March 2021	 March 2021 General Discussion: The Company Latest Development Update Corporate Secretary Proposal Human Capital Discussion 		-	-	
12	8 March 2021	General Discussion: a. The Company Latest Development Update b. The 2021 Annual GMS Resolution Proposal c. Office of The Board Update Policy Revision Proposal	All Directors	Riduan	Annual Leave	
13	16 March 2021	 General Discussion: a. The Company Latest Development Update b. The 2021 Annual GMS Resolution Follow Up Corporate Real Estate Proposal 	All Directors	-	-	
14	22 March 2021	 General Discussion: The Company Latest Development Update IT Update Financial Performance February 2021 Human Capital Proposal 	All Directors	-	-	
15	5 April 2021	 General Discussion: The Company Latest Development Update Human Capital Proposal 	All Directors	-	-	
16	12 April 2021	General Discussion: The Company Latest Development Update	All Directors	-	-	
17	19 April 2021	 General Discussion: The Company Latest Development Update Financial Performance March 2021 IT Update Loans Portfolio Update 	All Directors	Aquarius Rudianto	Sick Leave	
18	26 April 2021	 General Discussion: The Company Latest Development Update Public Expose and Analyst Meeting Q1 2021 Preparation Update led Fitr of 2021 Preparation Update Human Capital Proposal 	All Directors	-	-	
19	3 May 2021	General Discussion: The Company Latest Development Update Corplan Initiative Update	All Directors	-	-	
20	10 May 2021	· · · · · · · · · · · · · · · · · · ·		Ahmad Siddik Badruddin	Annual Leave	
21	17 May 2021	Financial Performance April 2021	All Directors	Ahmad Siddik Badruddin	Annual Leave	
22	20 May 2021 Joint Meeting	Macroeconomics Development Update Financial Performance April 2021	All Directors	Ahmad Siddik Badruddin	Annual Leave	
23	24 May 2021	General Discussion Human Capital Update & Proposal	All Directors	-	-	
24	31 May 2021	 General Discussion: The Company Latest Development Update IT Update and Proposal Loans Portfolio Update 	All Directors	-	-	
25	7 June 2021	 General Discussion Operations Directorate Update Investor Relations Update 	All Directors	-	-	













No.	Date			Unattending participant	Reasons of Absence
26	15 June 2021			-	-
27	21 June 2021	 General Discussion: The Company Latest Development Update Financial Performance and Work Plan & Budget & Bank Business Plan Revision Proposal Loans Strategy & Projections Human Capital Proposal 	All Directors	-	-
28	28 June 2021	General Discussion: The Company Latest Development Update	All Directors	Aquarius Rudianto	Sick Leave
29	5 July 2021	 General Discussion: The Company Latest Development Update Risk Management Proposal 	All Directors	Aquarius Rudianto	Sick Leave
30	12 July 2021	 General Discussion: The Company Latest Development Update Business Strategy & Loans Portfolio Update Strategi BCM Strategy Update Government Solution Proposal 	All Directors	Aquarius Rudianto	Sick Leave
31	19 July 2021	 General Discussion: The Company Latest Development Update Human Capital Proposal Distribution Strategy & Corporate Real Estate Update Financial Performance June 2021 	All Directors	-	-
32	26 July 2021	 General Discussion: The Company Latest Development Update Business Performance and Strategy Update Stress Test of 2nd Batch of Covid-19 Public Expose & Analyst Meeting Q2 2021 Preparation 	All Directors	-	-
33	2 August 2021	 General Discussion: The Company Latest Development Update Business Strategy and Loans Portfolio Update Human Capital Proposal 	All Directors	-	-
34	9 August 2021	 General Discussion: The Company Latest Development Update Darwin Project Update Human Capital Proposal 	All Directors	-	-
35	16 August 2021	General Discussion: The Company Latest Development Update Financial Performance July 2021 Risk Management Proposal Strategic Review on Subsidiaries	All Directors	-	-
36	23 August 2021	 General Discussion: a. The Company Latest Development Update b. SISM Update Human Capital Proposal Digital Platform Update 	All Directors	-	-
37	30 August 2021	 General Discussion: The Company Latest Development Update Periodic Benefits Update & Proposal Investor Relations Update 	All Directors	-	-

No.	Date	Meetings Agenda	Participants	Unattending participant	Reasons of Absence
38	6 September 2021	 General Discussion: The Company Latest Development Update Risk Management Update Human Capital Proposal 	All Directors	-	-
39	13 September 2021	 General Discussion: The Company Latest Development Update Human Capital Proposal Strategic Review on Subsidiaries Human Capital Proposal 	All Directors	-	-
40	20 September 2021	 General Discussion: The Company Latest Development Update Financial Performance August 2021 Strategic Review on Subsidiaries 2022 Business Strategy Update Human Capital Proposal 	All Directors	-	-
41	23 September 2021 Joint Meeting	Financial Performance August 2021	All Directors	-	-
42	27 September 2021	 General Discussion: The Company Latest Development Update Distribution Strategy Update Darwin Project Update 2022 Business Strategy Update 	All Directors	-	-
43	4 October 2021	 General Discussion: The Company Latest Development Update 2022 Business Strategy Human Capital Proposal 	All Directors	-	-
44	11 October 2021	General Discussion: a. The Company Latest Development Update b. Digital Platform Development Update Wholesale Banking Business Strategy 2022 Update	All Directors	-	-
45	18 October 2021 1. General Discussion: The Company Latest Development Update 2. Financial Performance September 2021 3. Retail Banking Strategy 2022 Update 4. Operations Directorate Update		All Directors	-	-
46			All Directors	Rohan Hafas	Annual Leave
47	1 November 2021	General Discussion: a. The Company Latest Development Update b. Human Capital Proposal	All Directors	Panji Irawan Rohan Hafas	Annual Leave Annual Leave
48	8 November 2021	 General Discussion: The Company Latest Development Update Digital Platform Development Update Network & Retail Banking Update Work Plan & Budget 2022 and Bank Business Plan 2022-2024 Proposal 	All Directors	Ahmad Siddik Badruddin	Annual Leave















No.	Date	Meetings Agenda	Participants	Unattending participant	Reasons of Absence
49	15 November 2021	 General Discussion: The Company Latest Development Update Financial Performance October 2021 Work Plan & Budget 2022-2026 Proposal dan Recovery Plan Update Proposal Human Capital Proposal 	All Directors	-	-
50	22 November 2021	 General Discussion: The Company Latest Development Update Human Capital Proposal Retail Business Development Update Corporate Real Estate Proposal 	All Directors	Aquarius Rudianto	Annual Leave
51	29 November 2021	General Discussion: a. The Company Latest Development Update b. Digital Platform Development Update	All Directors	Aquarius Rudianto	Annual Leave
52	6 December 2021	 General Discussion: The Company Latest Development Update Digital Platform Development Update Human Capital Proposal 	All Directors	-	-
53	13 December 2021	 General Discussion: a. The Company Latest Development Update b. Digital Platform Development Update Financial Performance November 2021 	All Directors	Agus Dwi Handaya	Annual Leave
54	20 December 2021	 General Discussion: The Company Latest Development Update IT Update Office of Chief Economist Update 2022 Chinese New Year Event Proposal Bank Mandiri Pension Fund Benefits Proposal Risk Management Proposal 	All Directors	Alexandra Askandar	Annual Leave

Meeting Frequency and Attendance

During 2021, the Board of Directors held 54 (fifty-four) meetings. The frequency and attendance of Director's meetings can be seen in the table below.

News	De elstere	BOD Meetings		Joint Meeting of BOD & BOC		Total	Total and	%
Name	Position	Total Meetings	Total Attendance	Total Meetings	Total Attendance	Meetings	Attendance	76
Darmawan Junaidi	President Director	51	51	3	3	54	54	100%
Alexandra Askandar	Vice President Director	51	50	3	3	54	53	98%
Ahmad Siddik Badruddin	Director of Risk Management	51	48	3	2	54	50	93%
Rico Usthavia Frans ¹⁾	Director of Information Technology	11	11	1	1	12	12	100%
Agus Dwi Handaya	Director of Compliance & HR	51	50	3	3	54	53	98%