

E-MATERI



YAYASAN
PENDIDIKAN
INTERNAL AUDIT



BUILDING RESILIENCE IN TUNA WORLD:

“Control Your Future
or Someone Else Will”

HOTEL TENTREM YOGYAKARTA

5-6 JULI 2023

KONFERENSI & WISUDA YPIA



PLN

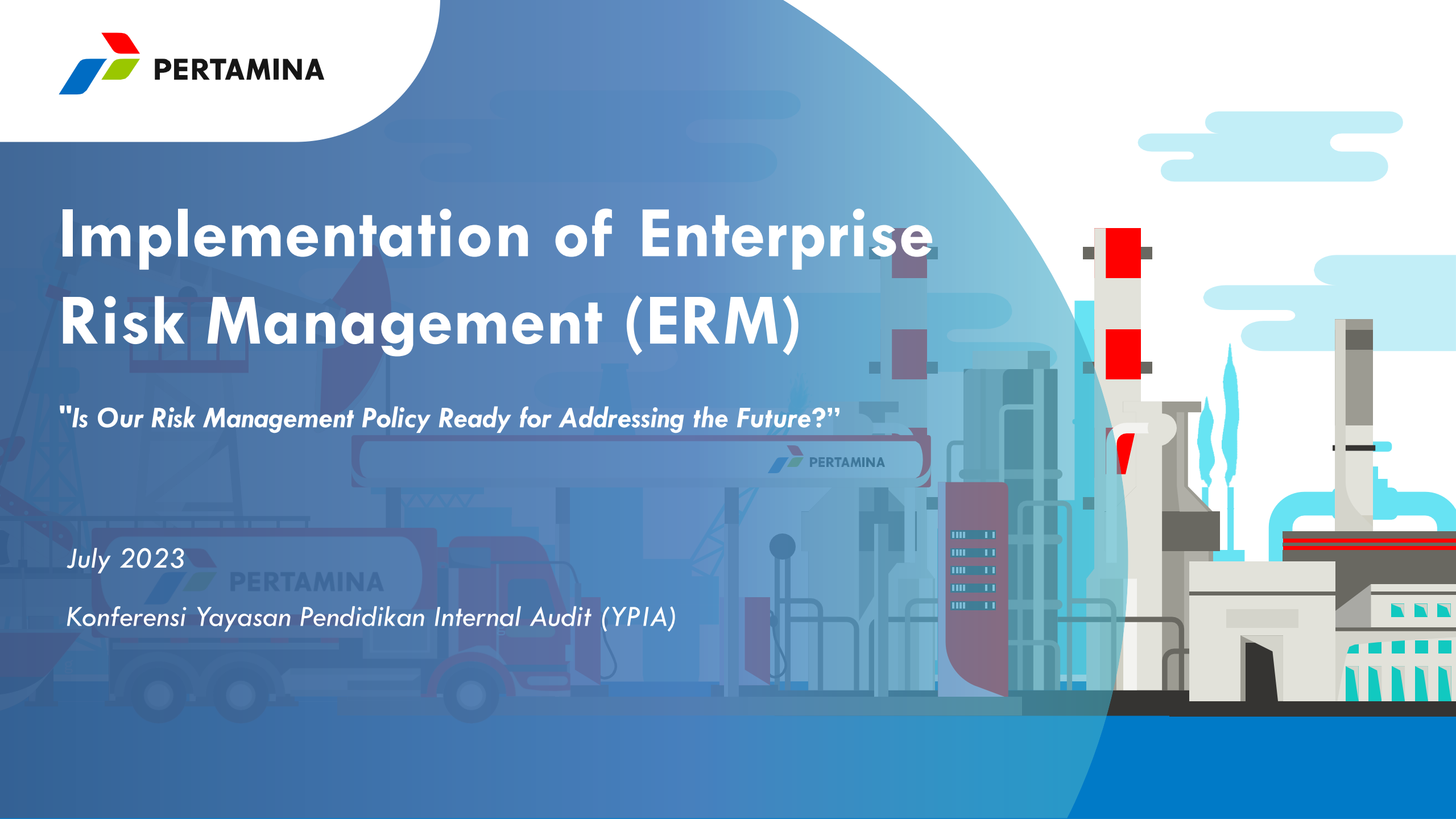


Implementation of Enterprise Risk Management (ERM)

"Is Our Risk Management Policy Ready for Addressing the Future?"

July 2023

Konferensi Yayasan Pendidikan Internal Audit (YPIA)



A top-down photograph of a workspace. On the left, a small green succulent sits in a white pot. In the center, a white laptop keyboard is partially visible. Overlaid on the laptop is a brown leather notebook with a black pen resting on it.


Agenda

1. Enterprise Risk Management (ERM) Overview

2. Integrated ERM Design at Pertamina

3. Integrated ERM Implementation

4. Integrated ERM Evaluation and Improvement

A blurred background image of a business meeting. Several people are gathered around a table, looking at a tablet and various documents. One person's hand is pointing at the tablet screen, while another holds a white marker. The scene is brightly lit, suggesting an office environment.

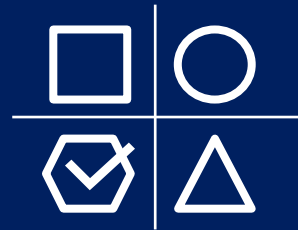
“If you don’t invest in risk management,
it doesn’t matter what business you’re in, it’s a risky business.”

Gary Chon
Vice chairman of IBM



Enterprise Risk Management Overview

Traditional Risk Management



*Traditional risk management treats risks as **individual hazards**.*

Enterprise Risk Management



*Enterprise risk management views risks as part of **business strategy**.*

<https://www.g2.com/articles/risk-management>

The goal of any risk management plan is not to remove all risk, but rather protect and create value for the organization with prudent risk decisions.

The possibility of the strategy not aligning with an organization's mission, vision, and core values.

A chosen strategy must support the organization's mission and vision. A chosen strategy must support the organization's mission and vision. A misaligned strategy increases the possibility that the organization may not realize its mission and vision, or may compromise its values, even if a strategy is successfully carried out.

Therefore, ERM considers the possibility of [strategy not aligning with the mission and vision of the organization](#).

The implications from the strategy chosen.

When management develops a strategy and works through alternatives with the board, they make decisions on the trade offs inherent in the strategy. Each alternative strategy has its own risk profile.

[The board of directors and management need to determine if the strategy works in tandem with the organization's risk appetite](#), and how it will help drive the organization to set objectives and ultimately allocate resources efficiently.

Two aspects to ERM that can have far greater effect on an entity's value: The possibility of the strategy not aligning, and The implications from the strategy chosen.

Source:
COSO ERM 2017: Integrating with Strategy and Performance p. 4-5



**Integrated ERM Design
at Pertamina**

Pertamina Group's Structure

Pertamina has established itself as **the only Indonesian company and the only SOE** in the Fortune Global 500 (ranked #223 in 2022)



Types of Risk Management Frameworks in the World

There are several types of risk management frameworks that have been widely adopted by companies from various parts of the world to help manage the risks faced by companies. In choosing the framework used, it needs to be considered and adjusted to the objectives, characteristics, and regulations that apply to the organization.



COSO Enterprise Risk Management: 2017



International
Organization for
Standardization

ISO 31000:2018
Risk Management – Guidelines



AS/NZS 4360:2009
Australia/New Zealand Risk Management Standards



EXCELLENCE

- 1 It has become a best practice referenced by more than 50 countries
- 2 It is general in nature so it is easy to do tailor-made according to risk management needs and can be combined with other frameworks
- 3 Can be tailored to Pertamina's risk management needs consisting of various business sectors
- 4 ISO 31000:2018 will be the basis for standardization of maturity measurements from both the Ministry of SOEs and the National Standardization Agency



For BCMS (Business Continuity Management System), Pertamina become the first SOE who received international recognition from British Standard Institution on ISO 22301:2019 implementation with result of **zero non conformity**.

Risk Management Framework



Integration

In integrating the risk management framework, it is necessary to:

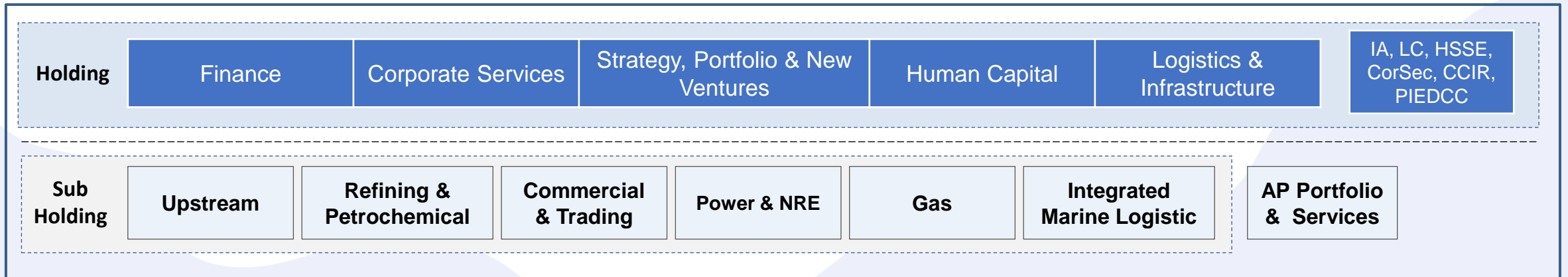
1. Risk management is carried out at all levels in the Company's organizational structure.
2. Risk Management System is integrated with other management systems.

The ERM function has a group wide scope of work and coordination of risk management which includes Holding, Subholding, and Subsidiaries covering 2 (two) main activities, Ongoing Business & Investment/Divestment.
Risk management is carried out in stages through the Risk Management Function/PIC in each Entity.

Enterprise Risk Management

Ongoing Business

Investasi/Divestasi



Risk Management Framework

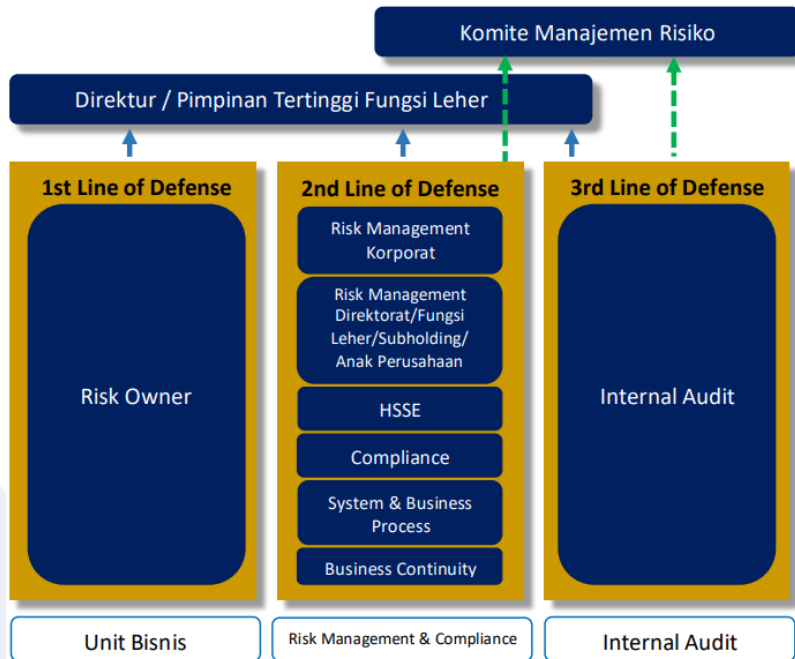


Design

Risk Management in the Company is designed to be applied effectively by:

1. Context Alignment baik internal maupun eksternal
2. Commitment Articulating
3. Communication

Ref: Pedoman Manajemen Risiko No. A4-001/H30000/2021-S9



1 st Line	2 nd Line	3 rd Line
<ul style="list-style-type: none"> • Ensure strong internal control over potential risks in each Function. • Apply predefined Risk Management policies. • Considering risks in decision making and activities carried out in achieving the Company's goals. 	<ul style="list-style-type: none"> • Responsible for developing policies and monitoring the implementation of the Company's risk management. • Ensure that Risk Owner activities are carried out based on Risk Management policies set by the Company. • Monitor and report the company's risks thoroughly to the Board of Directors 	<ul style="list-style-type: none"> • Responsible for evaluating the effectiveness of the overall Risk Management implementation. • Ensure that risk management in the first and second layers runs effectively.

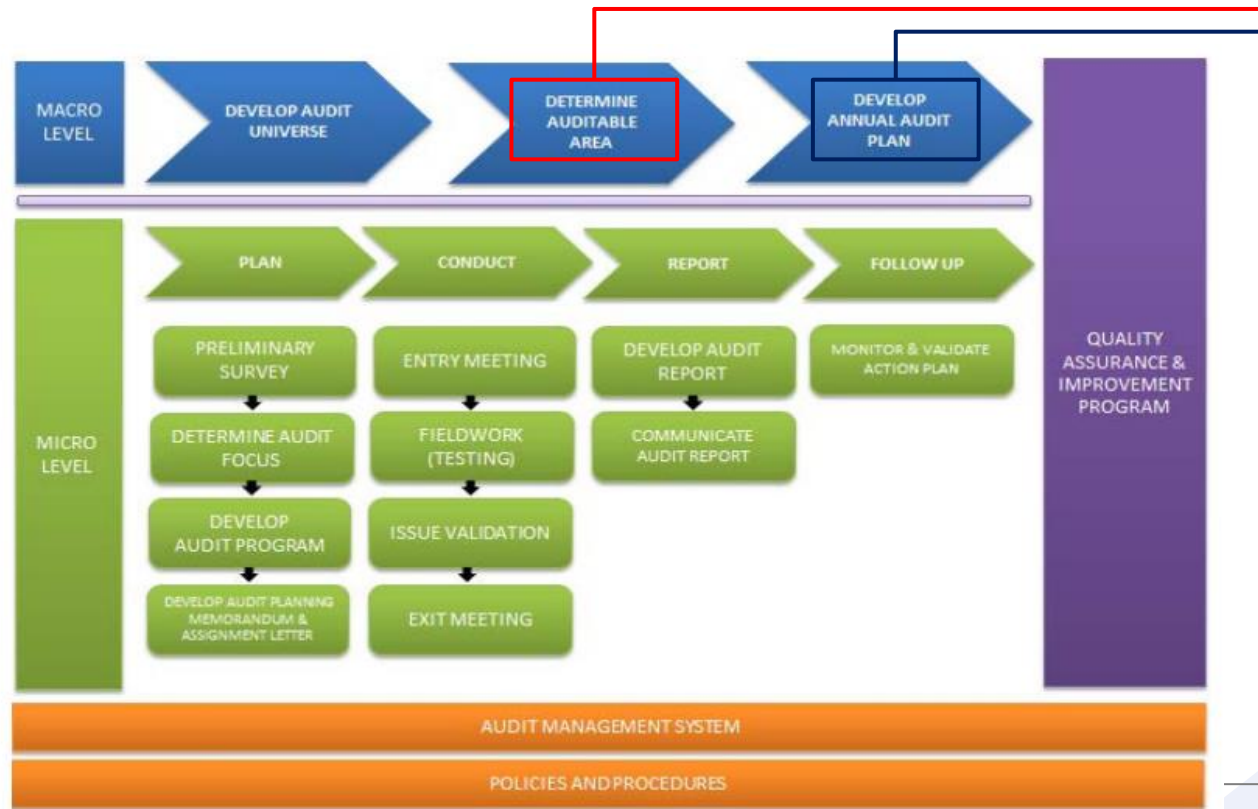
The Relationship of Corporate Risk Management Function with Internal Audit Function in the context of 3 LOD



Internal Audit carries out Risk Management Audit activities based on **Risk Based Audit** by referring to **Internal Audit policies**.

Illustration of the Application of RBA Methodology

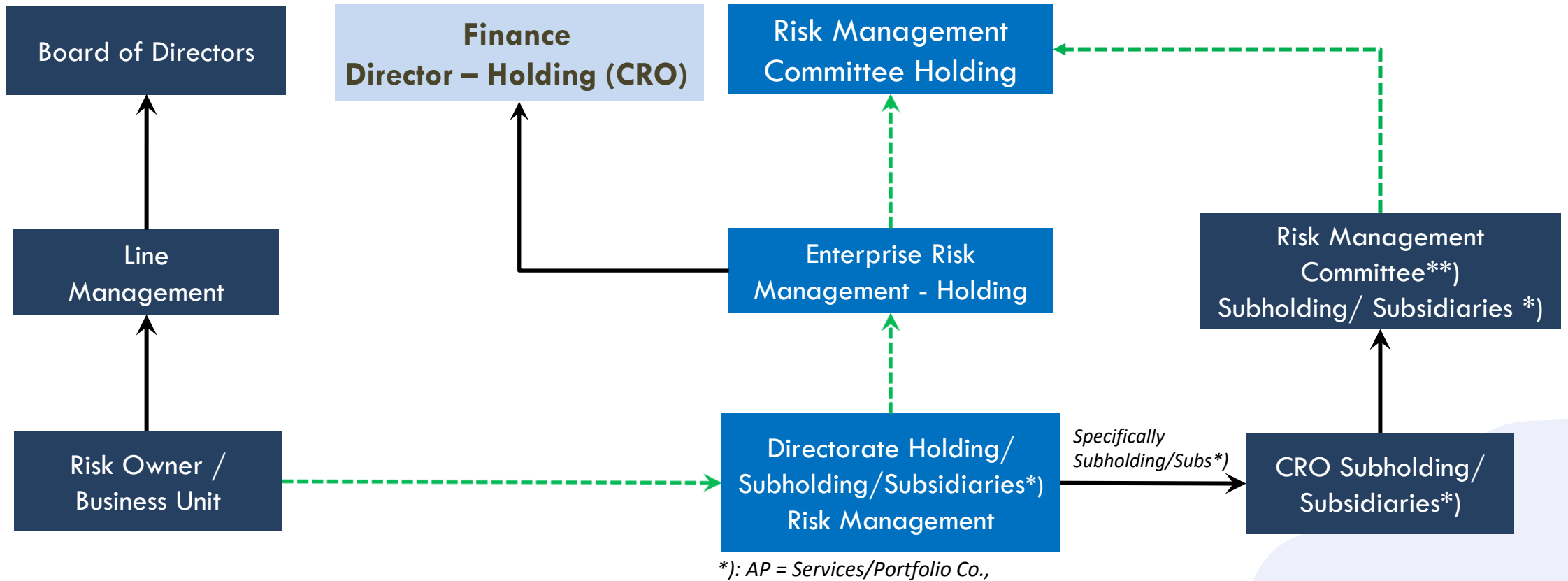
Ref: Pedoman Pengelolaan Fungsi Internal Audit No. A-001/J00000/2015-S9 Revisi ke-3



Internal Audit must determine the auditable area based on the audit universe by considering the following:

1. **Corporate Top Risk.**
2. Significant audit findings or previous period audit opinions.
3. Events in the current year that have caused losses to the company.
4. Long-term plan of area audit.
5. ... Dst

The Annual Audit Plan may be considered for revision if Internal Audit management considers significant changes to **the company's risk profile**, environment and strategy.



→ Management Line
 - - -> Coordinating Line

**) President Director of Subholding and Subsidiaries establishes the Risk Management Committee in Subholding and Subsidiaries by referring to the Holding Risk Management Guidelines in coordination with the Corporate Risk Management Function in the Holding.



Integrated ERM Implementation

3

Risk Management Framework

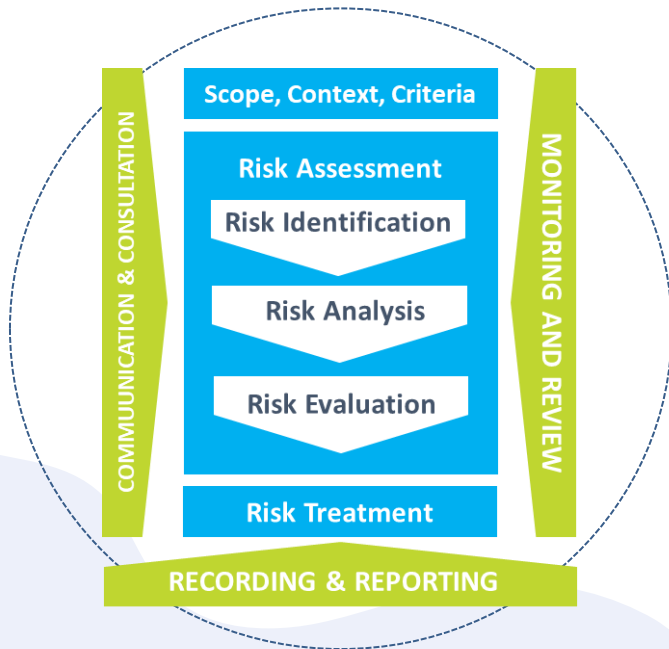


Implementation

In implementing Risk Management, the Company does the following:

1. Implementation of the Company's Risk Management process policy,
2. Establish short-term and long-term Risk Management work plans as outlined in the form of workplans and/or Roadmaps,
3. Establishment of decision-making mechanisms and processes within the Company.

In carrying out the risk management process for ongoing business and investment risks, implementing supports such as methods, tools, and others are needed. Here are some examples of methods and tools used:



Scope, Context & Criteria	Risk Criteria (Impact & Likelihood) and Risk Intelligence Map
Risk Assessment	Fault Tree Analysis, Qualitative & Quantitative Impact, dan Risk Map
Risk Treatment	Risk Treatment Option & Recommendation
Communication & Consultation	Risk Management Academy, Coaching Clinic
Monitoring & Review	Design Implementation Monitoring Method, Project Prescriptive, Corporate Top Risk Dashboard and Monitoring
Recording & Reporting	ERM System, Loss Event Database, Corporate Top Risk Monitoring Report, & Priority Project Monitoring Report

Top Risk is Pertamina's main risk profile that can affect the achievement of organizational strategy and needs major attention from the Board of Directors of the Holding because it exceeds the threshold and/or at the discretion of the Board of Directors of the Holding. Top Risk selection based on Bottom Up and Top Down Mechanisms.

TOP RISK

- 1) Consolidation of Top Risk from Top Down & Bottom Up
- 2) Top Risk Selection

TOP DOWN

- 1) Determination of Profit & Cost Contributors based on RKAP model
- 2) Determination of Top Risk Candidates based on Profit & Cost Contributors
- 3) Shareholder Aspirations (APS) and management aspirations

BOTTOM UP

- 1) Cascading Risk Limits
- 2) Preparation of Risk Register in each function (manager level/equivalent)
- 3) Determination of Top Risk Candidates using the Excess Mean IRE (Quantitative) and RPN (Qualitative) methods



In contrast to Top Risk which has the nature of risk attached to business processes, Emerging Risk is in the form of new and unexpected events and / or evolution of risks that already exist but are not fully understood or not yet contained in business processes.



Characteristics of Emerging Risk



Significance may be uncertain, not well understood.



Difficult to quantify due to lack of data and/or volatility.

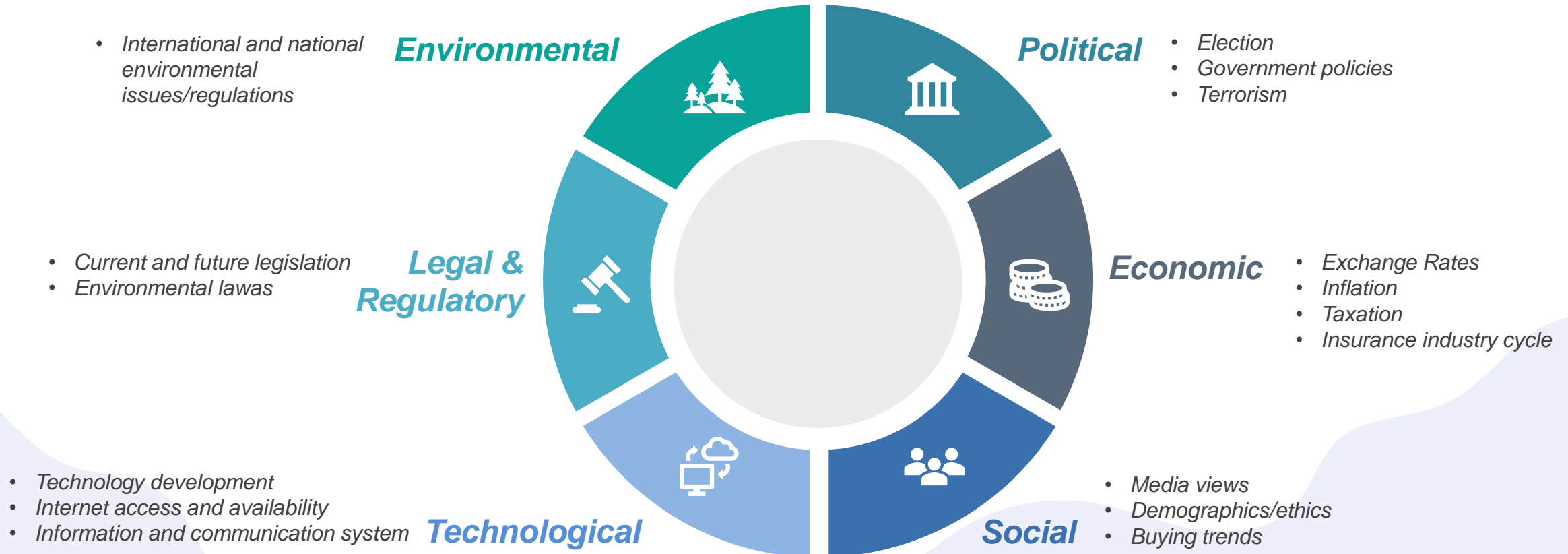


Consequences and implications can be ambiguous.



Maybe systemic, outside of organizational control.

To be able to identify emerging risks that may be affected, companies can use the PESTLE approach (Political, Economic, Social, Technological, Legal & Regulatory, dan Environmental)



Example : Risk Rating Realization per Subholding YTD Des 2022

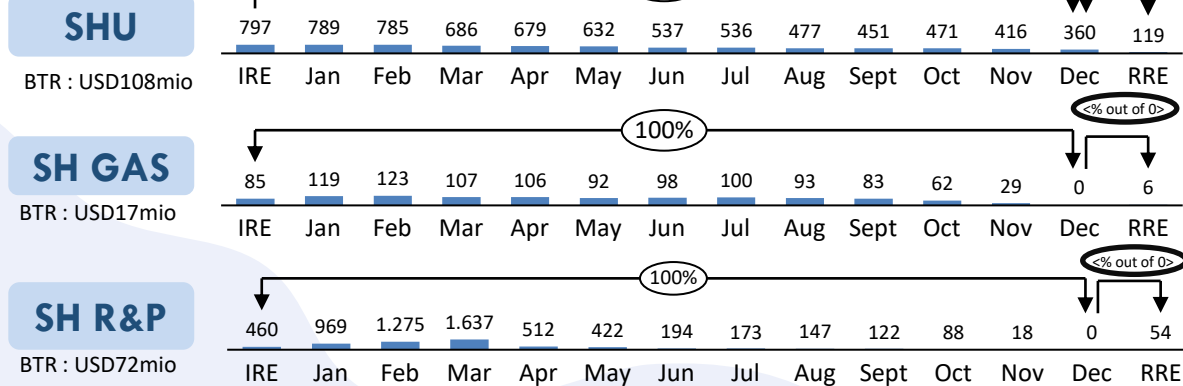
Entitas	Operational	Financial Mgt	Business Strategy	Business Environment	Legal & Governance	Corporate Image	Overall	Loss Event
SH Upstrm	Yellow	Red	Red	Green	Green	Green	Red	Cyber attack (Elnusa), Oil & gas production from M&A volume below target, Asset impairment
SH Gas	Red	Green	Green	Green	Green	Green	Light Green	Fatality, Cyber Attack
SH R&P	Red	Yellow	Yellow	Green	Light Green	Light Green	Yellow	Fatality, Fire Explosion, Blackout (RU V)
SH C&T	Red	Red	Yellow	Red	Green	Green	Red	Retail commercial selling price lower than product economic price, Bad debt performance, Sales volume below target, Cyber Attack
SH IML	Green	Green	Yellow	Green	Yellow	Green	Green	-
SH PNRE	Red	Light Green	Red	Red	Light Green	Light Green	Red	Accident (Lumut Balai), Installed NRE capacity below target

Rating
Total Skor (X)

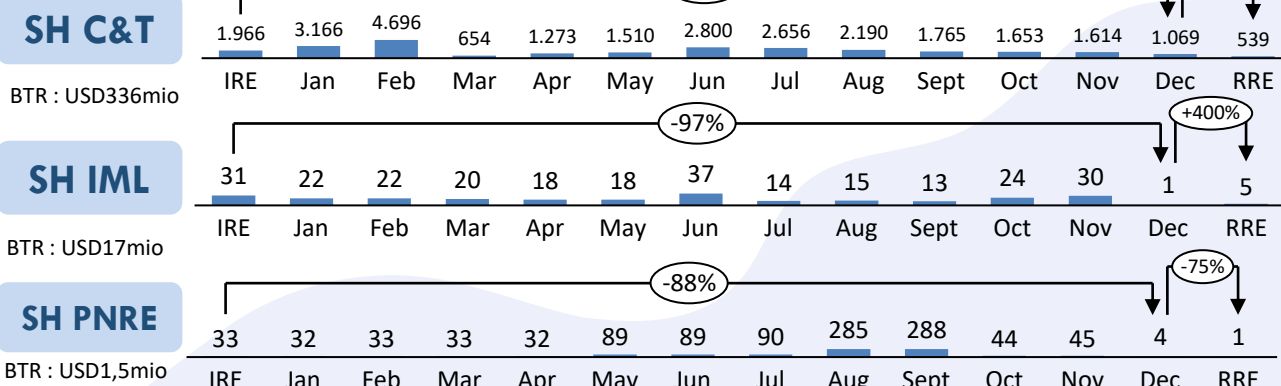
Low	Low to Moderate	Moderate	Moderate to High	High
$1 \leq X < 1.8$	$1.8 \leq X < 2.6$	$2.6 \leq X < 3.4$	$3.4 \leq X < 4.2$	$4.2 \leq \text{Index} \leq 5$

Note: If Current Risk Exposure value excess BTR, then current risk rating considered **HIGH**.

In mio USD



Dalam juta USD





**Integrated ERM Evaluation
and Improvement**

4

Risk Management Framework



Evaluation and Improvement

Evaluation of the implementation of Risk Management carried out through:

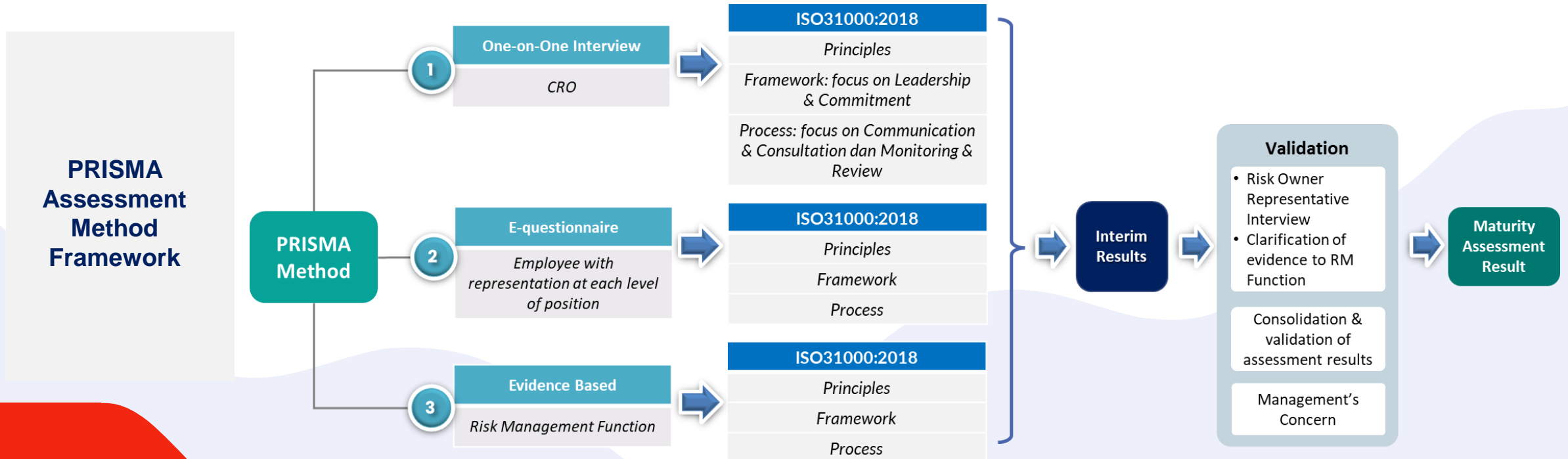
1. Responsive to Change,
2. Maturity Assessment,
3. Adjustment of Risk Management work plan.

Improvement based on the results of the evaluation is carried out through:

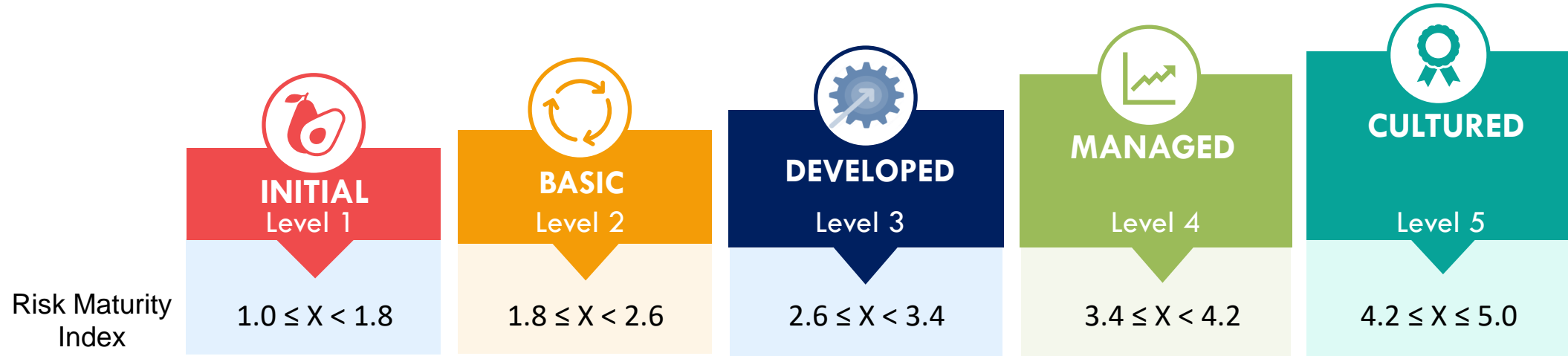
1. Framework adjustment,
2. Improvement of aspects that need to be improved and/or improved.

Risk Maturity Assessment is part of EVALUATION activities in the Risk Management Framework pillar.

Risk Maturity Assessment is a measurement activity needed to determine the maturity level of a company in risk management and get opportunities for continuous improvement to achieve a better level of maturity.



In order to evaluate the implementation of risk management, Pertamina conducts Risk Maturity Assessment using independent consultants. The level of Risk Maturity in Pertamina is described as follows:



The results of Pertamina's Risk Maturity Assessment measurement start from 2018 to 2022. There is still an Opportunity For Improvement (OFI) that can be used for the development of risk management in Pertamina.

	Assessment 2018	Assessment 2020	Assessment 2022
PT Pertamina (Persero)	3.63 of 5 ¹⁾	3.98 of 5 ²⁾	4.27 of 5 ³⁾
			4.2 of 5 ⁴⁾

Pertamina places its Sustainability Policy to drive compliance towards stipulated regulation and create long-term value for its stakeholders through building a sustainable practice throughout Pertamina business



“PERTAMINA’s ambition is to be a leading and reputable Global Energy Company and to be recognized as:



Environmentally Friendly Company



Socially Responsible Company



Good Governance Company”

In October 2022, Pertamina received an ESG Risk Rating of 22.1 or at Medium Risk of experiencing material financial impacts from ESG factors from sustainalytics

Current ESG Risk Rating will Replace Previous Rating

	Old Rating	New Rating
Rating Score	28.1	22.1
Note: lower score is better		
Risk Level	MEDIUM RISK	MEDIUM RISK
Rating Date	Sep 2021	Oct 2022
Methodology	Comprehensive Rating	Comprehensive Rating
Type	Solicited	Solicited



Rank: 15
Rank: 7

Oil & Gas Industry
Integrated Oil & Gas

Rank: 7
Rank: 2

Source: ESG Management Traction, Sustainalytics,

How do we compare against peers?

No	Benchmark	Score	Rating	Industry ¹ Rank (out of 254)	Subindustry ² Rank (out of 54)
1	Pertamina	22.1	Medium	7	2
2	Repsol	26.5	Medium	13	5
3	ENI	27.5	Medium	15	7
4	TotalEnergies	30.2	High	22	9
5	PTT Public Co	30.3	High	23	10
6	Petronas Gas ³	31.4	High	296	47
7	BP	32.7	High	33	13
8	Exxon Mobil	36.5	High	62	17
9	Shell	37.6	High	70	19
10	Chevron	37.6	High	69	18
11	Petrobras	39.1	High	77	21
12	ADNOC	43.6	Severe	115	30
13	CNPC	66.3	Severe	253	53

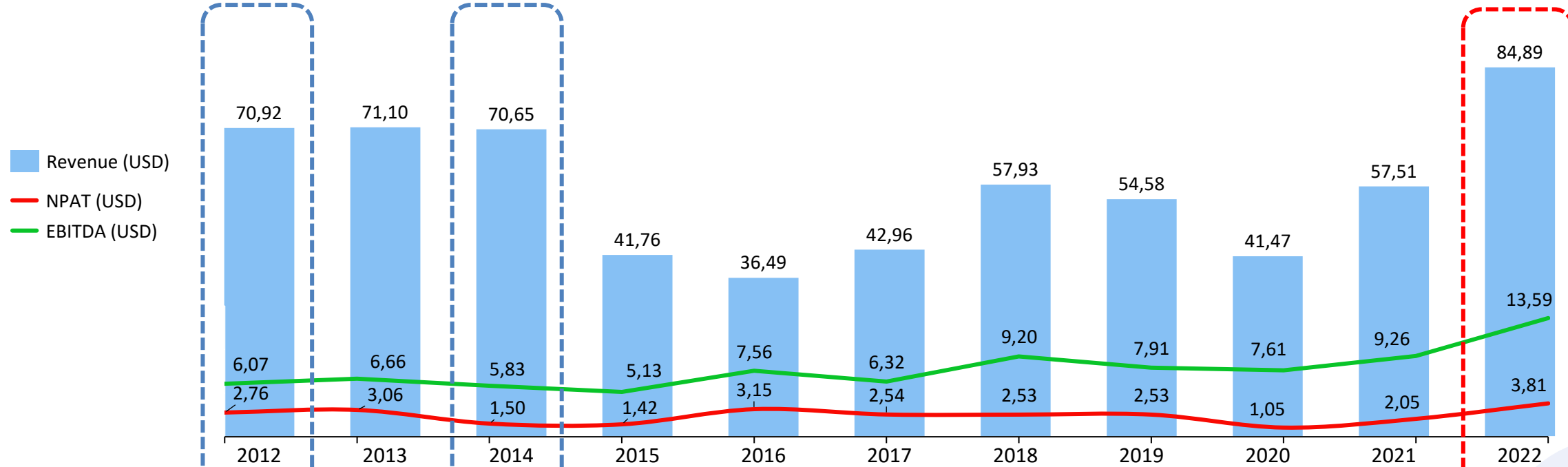


The Highest Financial Performance in History - FY 2022

For Revenue, EBITDA & NPAT



In USD Bio



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Sales Quantity (Mio KL)	81,11	84,54	84,73	80,02	81,95	85,74	88,72	91,01	82,81	88,64	89,78
Cost to Revenue (%) *	93%	93%	94%	91%	83%	89%	89%	91%	90%	91%	89%
Exchange Rate	9.380	10.451	11.878	13.392	13.307	13.384	14.246	14.146	14.572	14.312	14.871
ICP	113	106	97	49	40	51	67	62	40	68	97

Contact Information

ENTERPRISE RISK MANAGEMENT
Direktorat Keuangan

 Location

PT Pertamina (Persero)

Grha Pertamina, Fastron Building 17th Floor.,

Jl. Medan Merdeka Timur No.11-13, Jakarta Pusat

10110 Indonesia

