

TNChE 9-11 Jun Y2026

17th Chemical Process Safety Sharing(CPSS)



Topic: i-Risk Management

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Contents



Pain Point

Solution

i-Risk Develop

Outcome

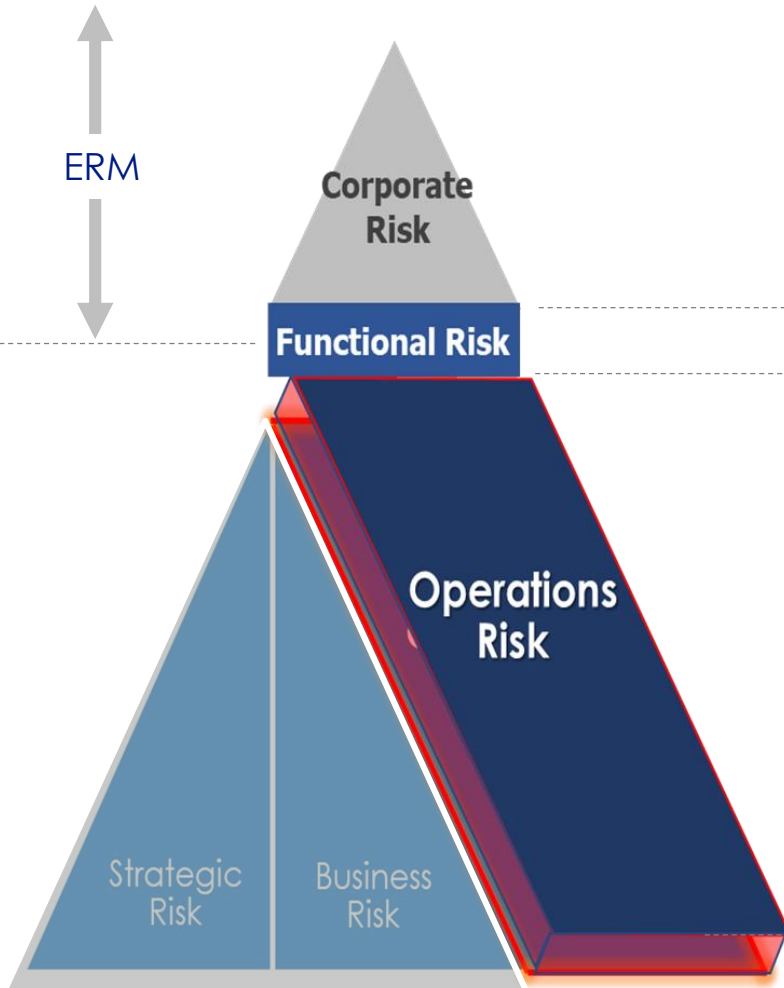
Way Forward



Pain Point

Document Risk Register

Roles and Responsibilities



Corporate Risk Report

	14 Corporate Risks	Level of Risk				
		Start	Q1	Q2	Q3	Target
Strategic Risk	S1. HR Management	E43	E43	H32	H33	M11
	S2. Productivity Improvement					
	S3. High Value Added Product Development			E43	E43	M22
	S4. Domestic & ASEAN Market Penetration	E43	E43	E43	E43	H23
Business Risk	B1. Price Volatility	E43	E43	E43	E43	H42
	B2. Financial	H23	H23	M22	M22	M22
	B3. Compliance	H33	H33	H33	H23	M22
	B4. Digital Security	E43	E43	E43	H23	M13
	B5. Water Crisis	E43	E43	E43	M22	H42
Operational Risk	O1. Operational Efficiency	H42	H42	H42	H42	M31
	O2. Safety	H33	H33	H33	H33	M22
	O3. Environmental Management	H33	H33	H33	H33	M31
	O4. Community	H23	H23	H23	H23	M13
	O5. Plant Reliability	H42	H42	H42	H42	H32

*Risk Owner 8 Line

Strategic Plan Dep.

Functional Risk Report

*Risk Owner 43 Dep.

Plan and Efficiency Div.

Operations Risk Report

Data
QSSHE
Risk

*Risk Owner 118 Div.

Operations Risk Mgt.
(ORM) Elements

Remark: ERM (Enterprise Risk Management) [Corporate Risk / Functional Risk]
Dep. (Department)
Div. (Division)



Top Down Deploy
KPI to Function to
be Risk

Data QSSHE Risk

Sync. to i-Risk

IDMS, SRA

Assess by toolkit

Risk Assessment Toolkit
What-if, HAZOP, FMEA,
RBI, RCM, SIL, Bow-tie

HRA

= Database System

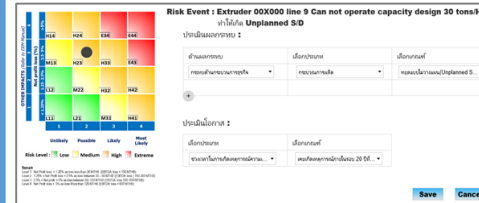
= Database Document



i-Risk

Data Digital Risk Register **i-Risk System** Of Y2025 to Present
“i-Risk One Risk One System”

ERM (Corporate Risk / Functional Risk)

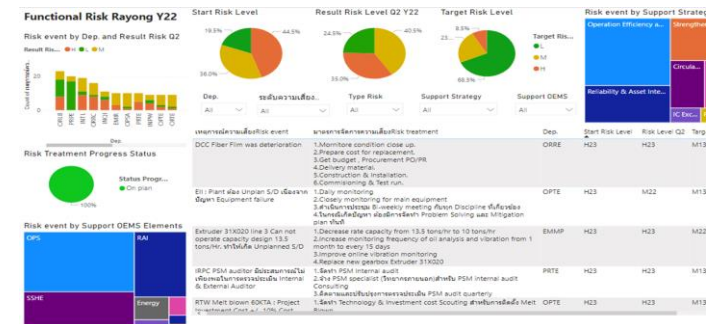


Progress KPI															Progress KRI					Progress Risk Treatment					Progress Risk Level		
Risk Event	KPI	Monitor	KPI Progress	Target YTD	Actual	KRI	Target	Status	KRI	Action By	Status	Progress Risk Treatment	Progress Risk Level	Result Risk Level	Target Risk Level	Up											
Extruder 00X000 line 9 Can not operate capacity	%	Quarter	Q1	98%	96.1%	capacity 3 (PDS ton/hr)	= 25	25	1. Decrease a rate capacity from 30 ton/hr to 25 ton/hr	On plan	50%	H23	M22														
Join to Risk Treatment															Note to Action Risk Treatment												

Operations Risk

Operation Risk
(Bottom up)

Real-time Data i-Risk to Report Dashboard



ORM Develop: Screen Register of Risk Trigger To Applied (OEMS 7 Elements, IDMS, SRA, PSE, BCM, ISO)

Up to Corporate Risk

Dynamic Risk Assessment

Functional Risk

Raise-up risk to Functional Risk for Dep.

[illegible]

Remark: ERM (Enterprise Risk Management) , ORM (Operation Risk Management) , OEMS 7 Elements (SSHE,RAI,OPS,MoC,VCM,MCS,O&C), IDMS (Incident Management System), SRA (Safety Risk Assessment) , PSE (Process Safety Event), BCM(Business Continuity Management), ISO (9001, 14001, 50001, 45001)

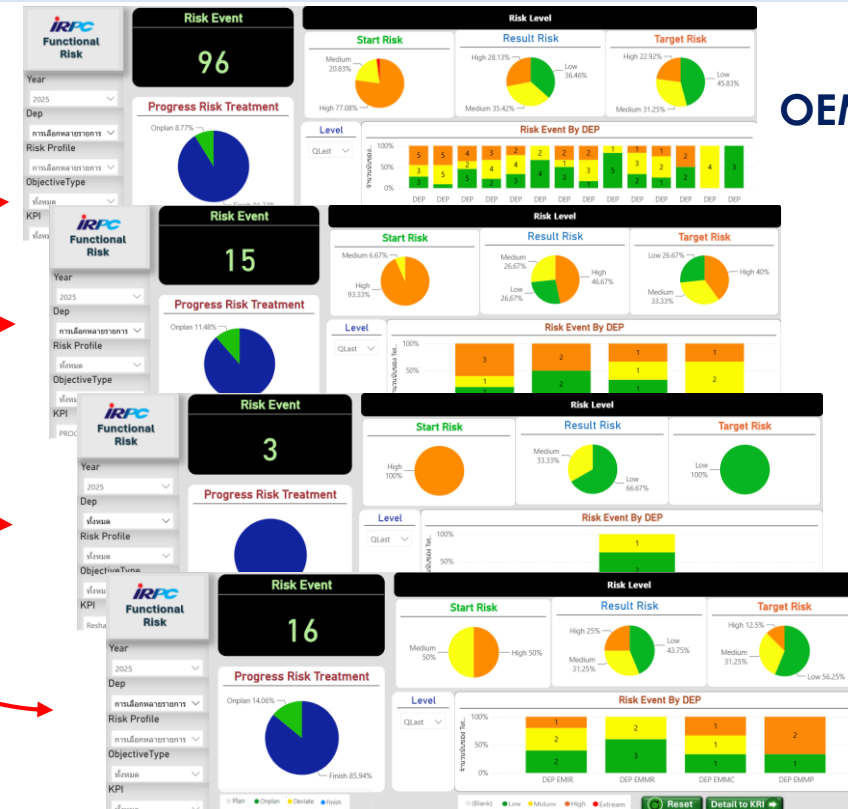
i-Risk Dashboard



Central Dashboard



Separate Dashboard



OEMS 7 Elements

PSE

BCM

IDMS

Remark: ERM (Enterprise Risk Management) , ORM (Operation Risk Management) , OEMS 7 Elements (SSHE,RAI,OPS,MoC,VCM,MCS,O&C), IDMS (Incident Management System), SRA (Safety Risk Assessment) , PSE (Process Safety Event), BCM(Business Continuity Management), ISO (9001, 14001, 50001, 45001)

i-Risk System Functions and Features



User Group	Functions	Features
All employees	It can connect to platforms related to internal organizational risk assessment.	It has the capability to assess additional and add risks at any time.
	Dashboard can be displayed separately.	The dashboard can be extracted to generate reports outside the system.
	Control measures can be added at any time to appropriately manage current risks.	Relevant update documents can be attached for tracking purposes to ensure they are up-to-date.

Central Risk Mgt.

A systematic approach to gathering risks enables faster and more agile risk management and governance.

99.8%

Reduction in Report Generation Time

By eliminating manual data exports and formatting, we have reclaimed 99.8% of the time previously spent collating reports. The transforms our workforce from data gatherers into strategic risk analysis.

13.1%

Reduction in Overall Risk Level (Y24 Vs Y25)

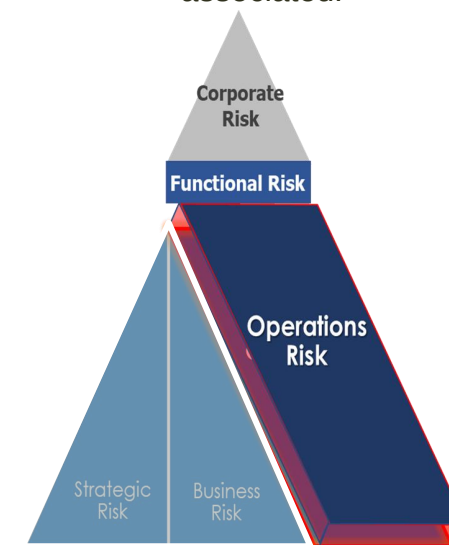
Real-time visibility empowers us to act proactively. With instant threat detection via automated dashboards, we are driving a substantial reduction in high risk and build greater Safety for 2025, surpassing our 2024 performance.



3.1M_{THB}

Save on the cost of developing systems from external provider

By developing this system as an in-house project, we have successfully implemented advanced functionalities tailored to our internal operations, while effectively avoiding the substantial costs associated.





i-Risk

- Sharing Best Practices Develop i-Risk of Risk Management in PTT Group
- Outside Service to Provide for Develop of Risk Management Applied in PTT Group





Thank you for your attention

