



Ministry of Energy & Mineral Resources of the Republic of Indonesia
Directorate General of Oil and Gas
Truthful, Professional, Serving, Innovative, Meaningful



The 2nd edition: International Safety Case Symposium

Oil and Gas Safety

Singapore | 27 March 2019



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Director General of Oil and Gas
Ministry of Energy and Mineral Resources



www.esdm.go.id



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Kementerian Energi
dan Sumber Daya Mineral



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OIL AND GAS INDUSTRY



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UPSTREAM



DRILLING



DRILLING

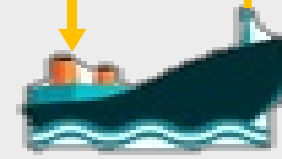


PRODUCTION

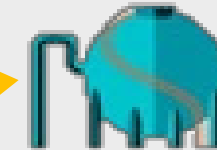
DOWNSTREAM



PROCESSING



TRANSPORTATION



STORAGE



STORAGE



TRADE/RETAIL



TRANSPORTATION



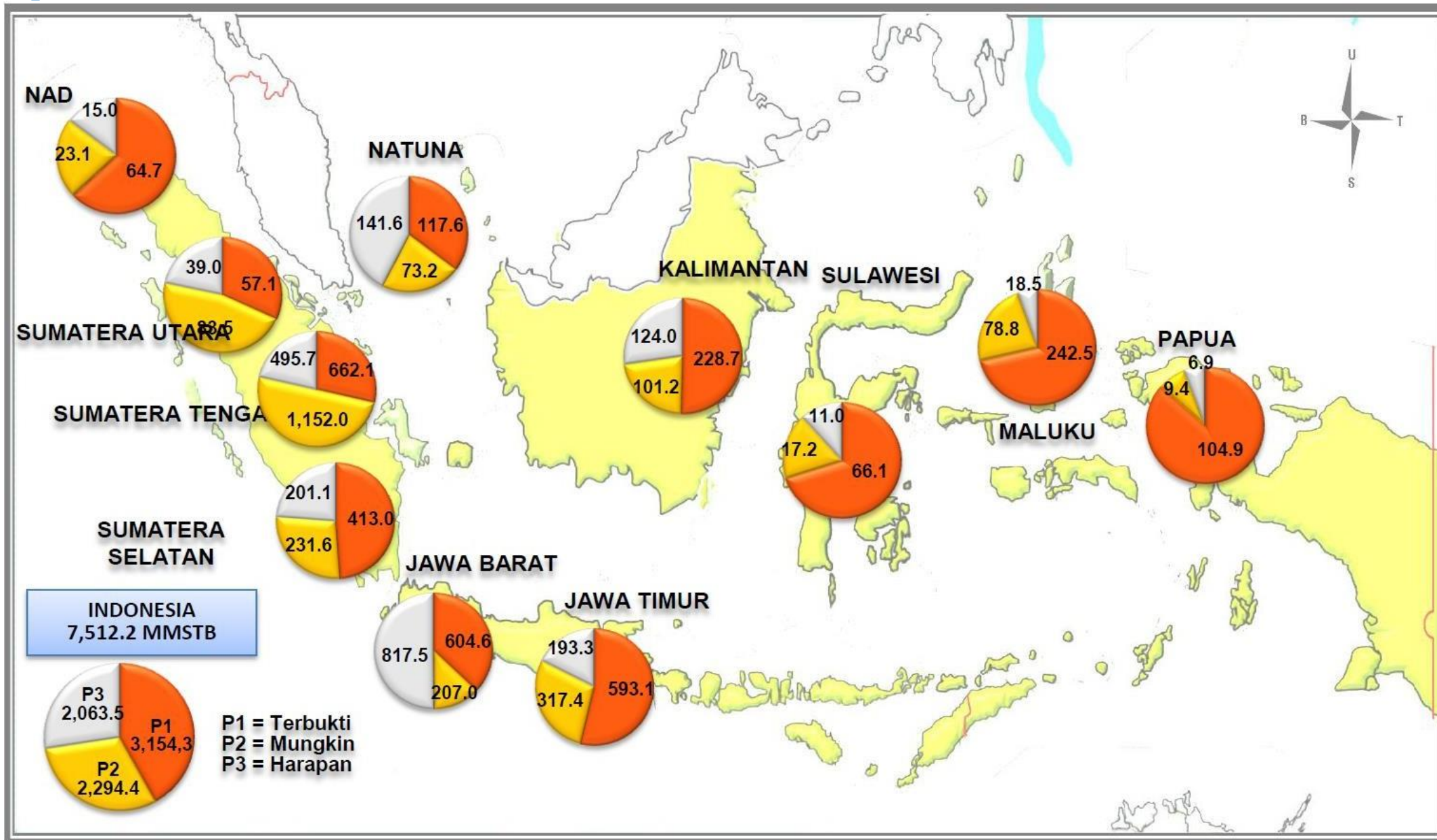
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Indonesia's Oil Reserve



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Status 1.1.2018

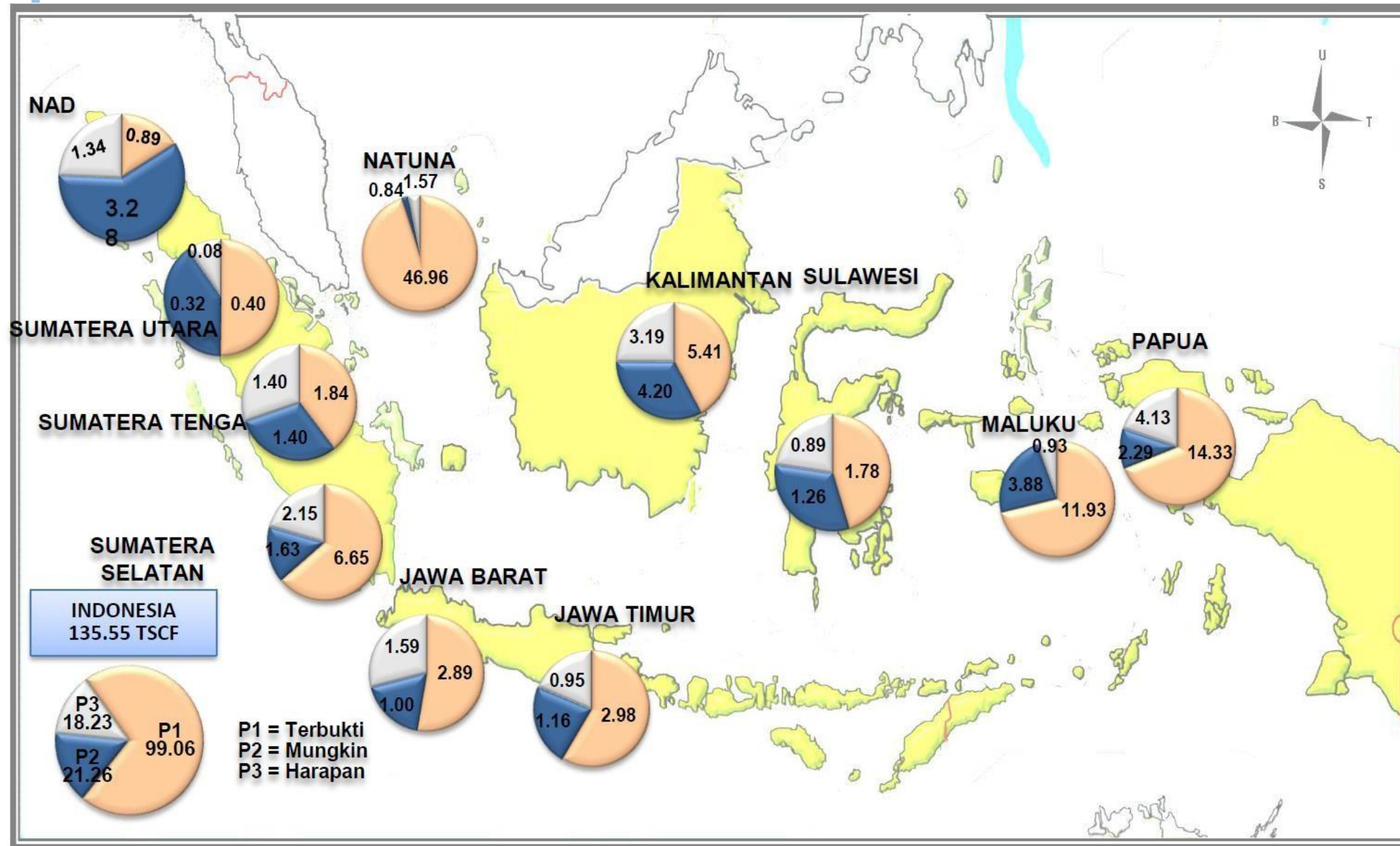


Indonesia's Gas Reserve



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On Going and Upcoming Upstream Oil and Gas Projects



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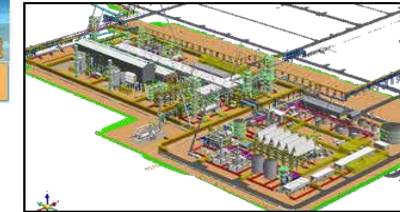
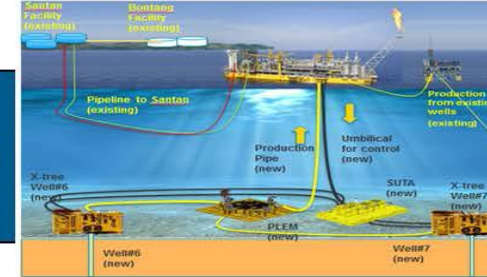


BLOCK A ACEH

Gas Reserves: 563 bscf
Investment: US\$ 1.3 Billion
Production: Q4 2017

ANDE ANDE LUMUT EAST NATUNA

Production (Q1 2021): 25000 bopd
Gas Reserves: 46 TCF
CO₂ Content: 72%



IDD BANGKA

Gas Reserves 100.41 bscf
Investment: US \$ 8 Billion
Production: 110 MMSCFD (onstream)

JANGKRIK COMPLEX PROJECT

Gas Reserves: 2.27 TCF
Investment: US\$ 4.1 Billion
Production (Q3 2017): 450 MMSCFD



JAMBARAN TIUNG BIRU

Gas reserves: 97 bscf
CO₂ Content: 34%
Investment US \$ 2.2 Billion
Production (Q4 2019): 330 MMSCFD

MADURA

Production (Q1 2017): 110 MMSCFD
Investment: US\$642Million

TANGGUH TRAIN 3

Gas reserves 5.7 TCF
Investment: US \$ 8 Billion
Production (Q2 2020): 700 MMSCFD

WASAMBO

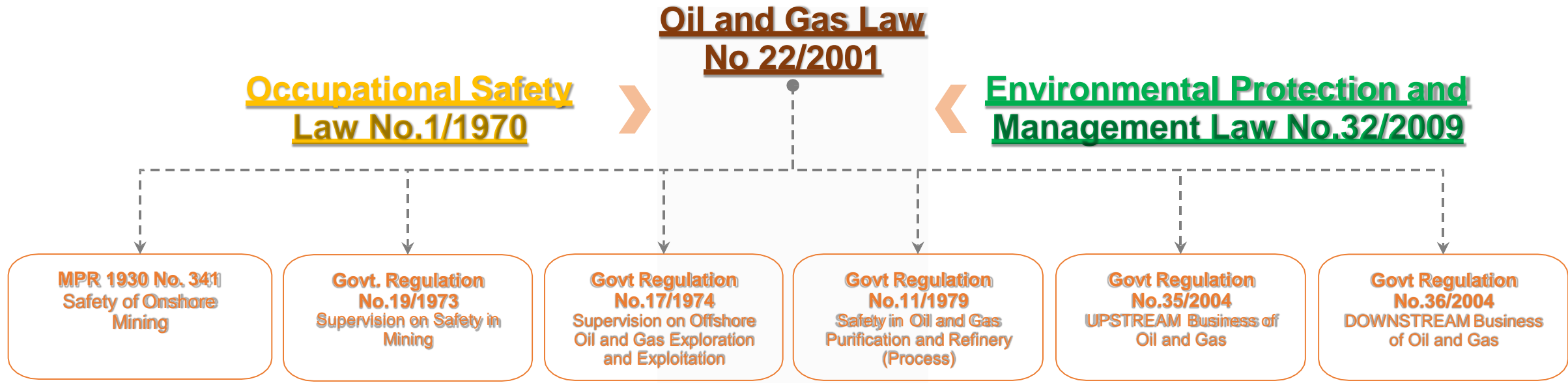
Production (Q1 2017): 70 MMSCFD
Investment: US \$ 55.2 million

MASELA

Gas Reserves: 10.73 TCF *
Investment: US \$ 15-16 Billion



1945 CONSTITUTION OF THE REPUBLIC OF INDONESIA



Minister of Energy and Mineral Resources Regulation

- No.18/2018 Safety Assurance of Equipment and Installation in Oil and Gas Sector
- No.31/2012 Gas Flaring
- No.15/2008 Enforcements of National Standard in Oil and Gas Transportation and Distribution System by piping or pipelines as Mandatory
- Stipulation No.300K/1997 Safety of Oil and Gas Pipelines

GUIDELINES

Accidents Statistic



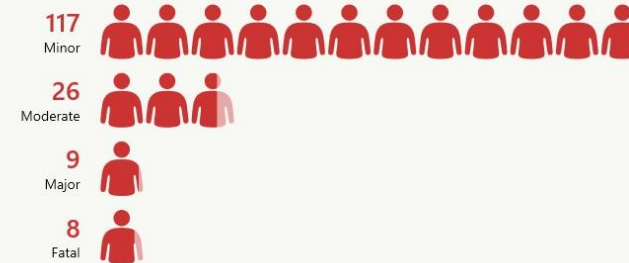
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Number of Accidents related to Worker in Oil and Gas Sector

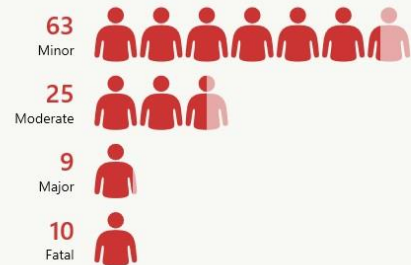
2015



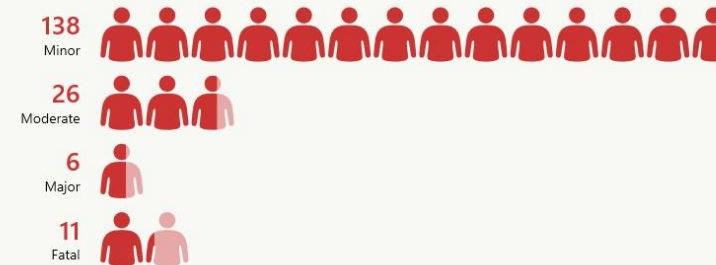
2016



2017



2018



2019



* Status Feb 2019



Minor

First Aid and
no Loss Time



Moderate

Loss Time < 21 days



Major

Loss Time > 21 days
or Disabled



Fatality



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Development & Supervision of Oil and Gas Safety



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VISION

“Effective, Efficient, Safe, Reliable,
and Environmentally Friendly Oil and
Gas Installation (3A Principle)”

INDICATOR



Zero
ENVIRONMENTAL POLLUTION



Zero
EQUIPMENT/
INSTALLATION
DAMAGE

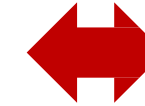


Zero
WORKING ACCIDENT

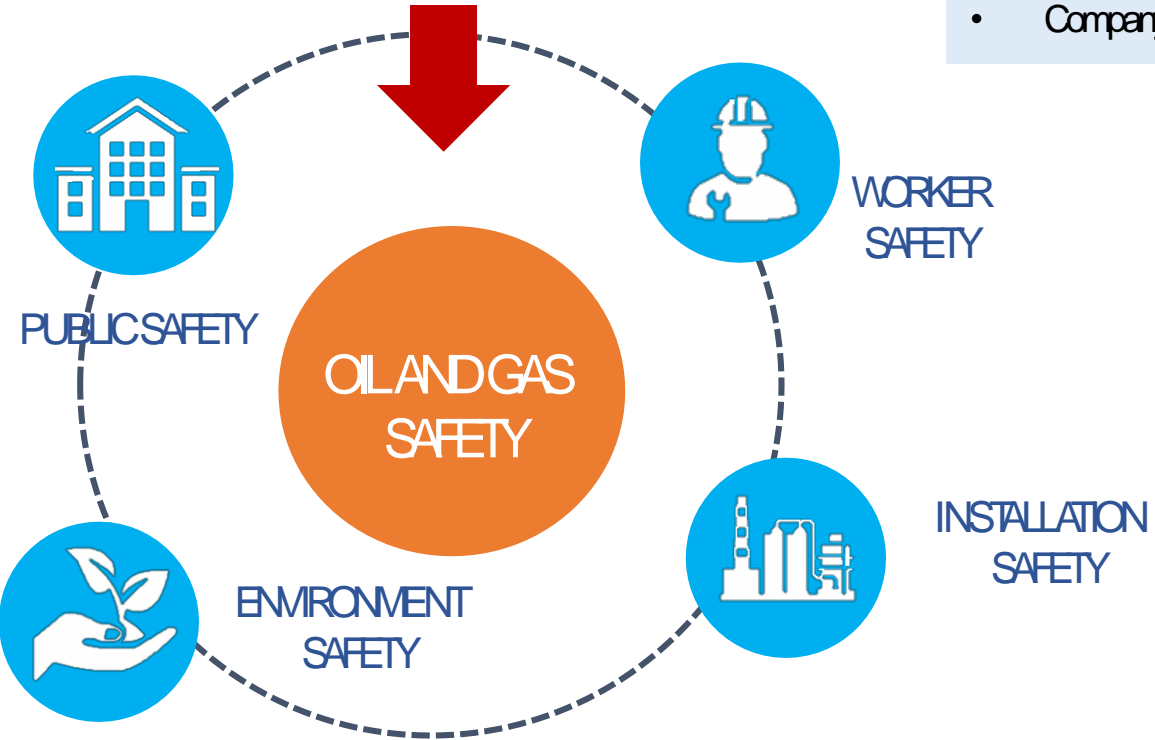


Zero
SOCIETY LOSS

DEVELOPMENT AND SUPERVISION OF OIL
AND GAS OPERATION SAFETY



- Laws and Regulations
- SNI/SKKNi
- Standard/Code
- Company Specification



Oil and Gas Safety Inspection & Audit



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INSPECTION

- ✓ Reliability
- ✓ Safety
- ✓ Availability
- ✓ Profitability

OIL AND GAS VALUE CHAIN

PRE-OPERATION

1. Planning
2. Construction
3. Commissioning

OPERATION

1. Operation
2. Maintenance

POST-OPERATION

1. Decommissioning
2. Reclamation

**ZERO
ACCIDENT**

Reliable, Safe, Accurate, Efficient, Effective, and Environmentally friendly



AUDIT OF OIL AND GAS SAFETY MANAGEMENT SYSTEM

1. Commitment, Policy, Organizational and Administrative Leadership
2. Risk Management
3. Operational Management
4. Asset and Installation Management
5. Training, Communication and Culture
6. Security Management
7. Crisis and Emergency Management
8. Incidents and Fulfilment Guarantee
9. Monitoring, Performance Measurement
10. Management Audit and Review



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Oil and Gas Safety Culture

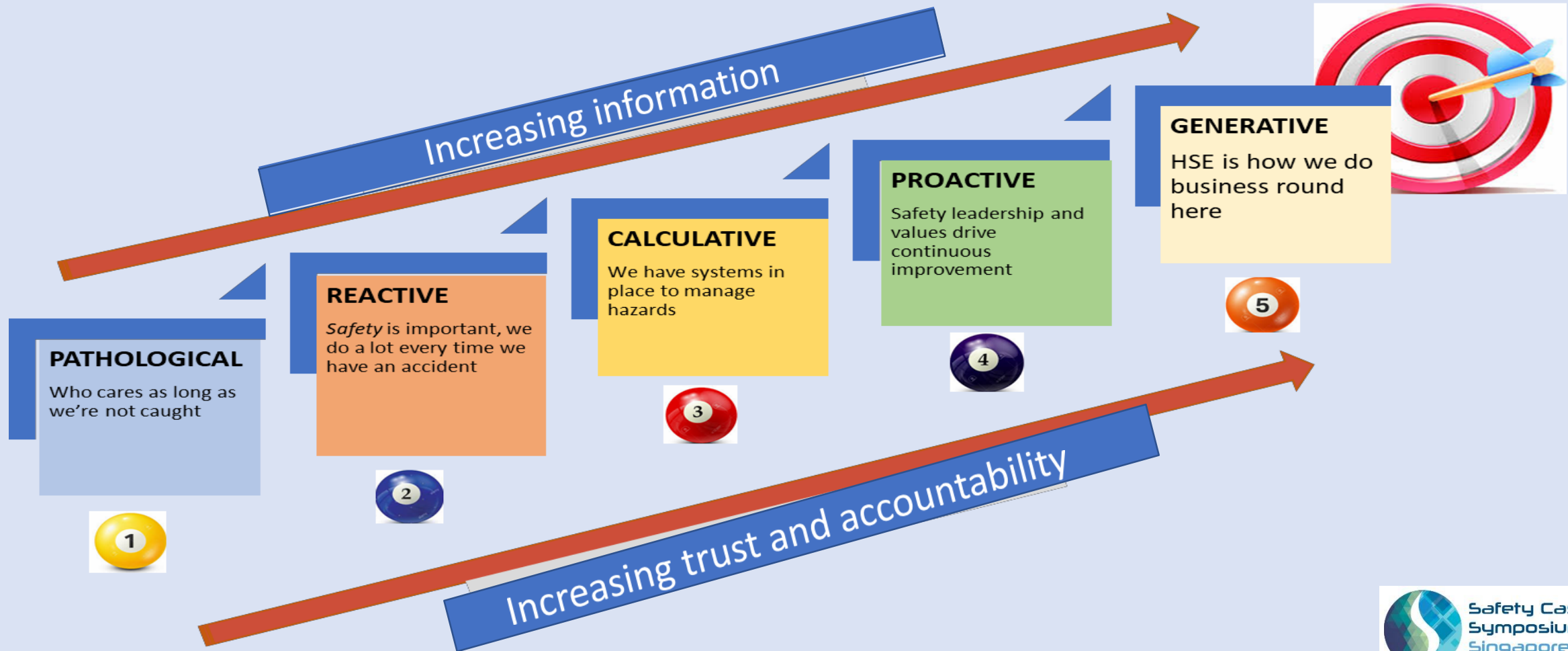


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Safety culture as the *core values* and *behaviours of all members* of an organization that reflect a commitment to conduct business in a *safe and environmentally* responsible manner.

(BSEE: Bureau of Safety & Environmental Enforcement, 2013)





Safety is the engine,
and you are the key that starts it



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Thank you!

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