

The Future of Work

MISSION ZERO POSSIBLE

*COSH 2024, 19 Feb
Kuala Lumpur Convention Center*

Before and After Coronavirus

The Woodlands Causeway between Singapore and Malaysia 1-day apart



- image from <https://www.reuters.com/news/picture/before-and-after-the-coronavirus-idUSRTS3517B/>

THINGS CAN CHANGE IN A DAY

THE FUTURE IS NOW

There will always be change and we can't always predict it.

*But as we cultivate resilience in us, we can create our future today and achieve **ZERO** together as HSE professionals.*

Statement of **PURPOSE**

A progressive energy and solutions partner
enriching lives for a sustainable future

Statement of Purpose supported by...

Mission:
ZERO-Possible



Commit

to do what's right
even when no one is
watching to keep
people, our
environment, our
assets, and our
reputation safe.



Cultivate

consistency,
competency,
concentration,
continuous learning
and care in
everything we do.



Eliminate

complacency,
non-compliances,
and calculative
behaviors.



Anchor

our actions on the
5 Generative HSE
Culture Behaviors.

- figure from PETRONAS Generative HSE Culture Journey communication material

HSE Insights on The Future of Work

The future of work is inherently uncertain in nature, with no one single solution and formula that fits for all.

Nevertheless, as a HSE Leader, we can learn from the lessons learned and hopefully take inspiration from these to better prepare for the future.



TALENT



CULTURE



TECHNOLOGY



- PETRONAS Moving forward Together stock images



TALENT

Upskill and reskill to stay ahead of tomorrow's demands, building HSE Capabilities for the Future



The Kasawari CCS project is planned to be commissioned in 2025

- image from <https://www.offshore-technology.com/news/petronas-xodus-malaysian-carbon/>

HSE Talent Roadmap: A strategic plan of HSE capability & skillset in meeting mid and long-term business needs



Photos shows various engagements conducted as part of our commitment to chart and develop HSE capability across all levels from frontliners to top Leaders, e.g., new and emerging areas e.g., CCUS, solar, hydrogen etc.

- internal photos from Capability Development & Management, Group HSE

HSE Reskilling and Upskilling: A collaborative talent development approach, as we progress & grow as ONE

UTP | **CAPE** | **PETRONAS**

SKG 18: FUNDAMENTALS OF RENEWABLE ENERGY APPLICATION

MODULES

- Hydrogen Technology
- 3 Wind, Tidal, Oceanic Energy & Geothermal Energy
- Solar Energy
- Biomass Energy

TRAINERS:
Prof Dr Abd Rashid Abd Aziz | Prof Dr Hussain H Jaafer Al-Kayiem
AP Ir Dr Nursyarizal Mohd Nor | Ts Dr Jundika Candra Kurnia
Ts Dr Lam Man Kee | Ts Dr Ho Yeek Chia

DATE: 12 - 14 Sep 2023 | **TIME:** 9:00 AM - 6:00 PM

LOCATION: CAPE UTP, Level 8, Permata Sapura, Kuala Lumpur City Centre, Kuala Lumpur

PRICE: RM 3,000 FOR PROFESSIONALS
10% Discount for Early Bird (until 12 Aug 2023) / Group / Students

LEVEL: BEGINNER | **HRDF:** CLAIMABLE

10 CPD HOURS FROM MBOT

COURSE HIGHLIGHTS

- Hydrogen Generation, Transport, Storage & Utilisation
- Scenario of Solar Energy & Solar Technologies
- Wind Power Operation
- Wave and Tidal Energy Operation
- Geothermal Energy
- First, Second and Third Generation of Biofuels

10% Discount for Early Bird (until 16 January 2023) / Group / Students

CPD HOURS: FROM MBOT & BEM*
CEP HOURS: FROM DOSH*

*Cemetry being applied



Shared HSE learning materials to our PETRONAS Scholars, cultivating HSE values at an early stage

Rolled out new training modules in collaboration with our learning institution University Technology of PETRONAS (UTP)

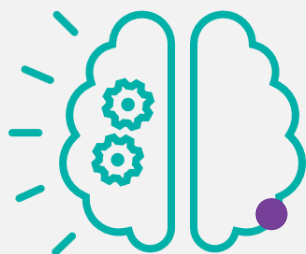
- internal image from Capability Development & Management, Group HSE

Rolled out e-learning modules to SSS and SHO contractors at our project sites, enabling quick and easy HSE learning and refresher



- internal photos from Capability Development & Management, Group HSE

The culture of an organization helps talent thrive, creating a psychological safe space and culture for HSE excellence.



CULTURE

Rakan HSE Program Train the Trainer, a leadership program designed for frontline supervisors towards strengthening and sustaining HSE performance

- internal photos from Change & Communication, Group HSE

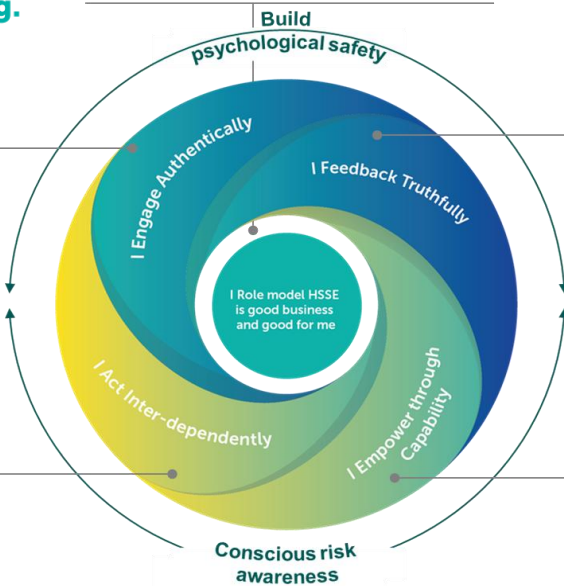
Generative HSE Culture Leadership Program, aimed to touch personnels of all levels from Leaders to Frontliners

GC Generative HSE Culture
It is doing right things right, even when no one is watching.

I engage authentically
"I CARE, my actions speak louder than my words"

I act interdependently
"We're one team: when incidents happen, it impacts/hurts me; your success is my success/your failure is my failure"

I Role model HSE is good business
"HSE is good business and good for me"



I give and seek feedback truthfully
"I speak up, listen and act because I want to make things safer"

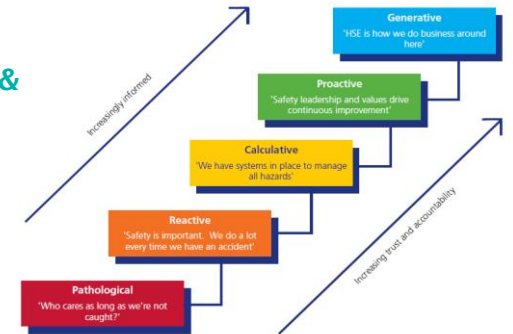
I empower through capability
"I actively seek more knowledge to manage risks because applying knowledge is power"

The 5 Generative Culture Behaviors, serves as the foundation towards our Generative HSE culture journey, rallied across groupwide PETRONAS and stakeholders

- figure from PETRONAS Generative HSE Culture Journey communication material

PETRONAS adopts the Energy Institute's Hearts & Minds model to drive our Generative HSE Culture journey

- figure from PETRONAS Generative HSE Culture Journey communication material



Cultivating HSE GC across the organization, role modeling HSE in everything we do.



- internal photos from Change & Communication, Group HSE

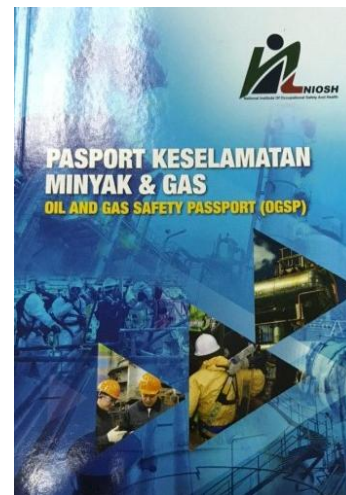
Cultivating Generative HSE Culture as an Industry, achieving ZERO together where everyone goes home safely



- internal photos from Capability Development & Management, Group HSE



Photos shows one of the workshop led by NIOSH to enhance OGSP module alongside other OGSP subscribers.

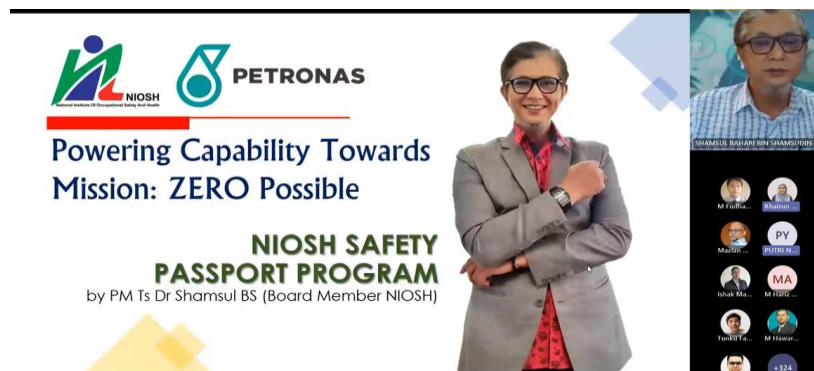


- image from linkedin overview on oil & gas safety passport course

Oil and Gas Safety Passport (OGSP) module

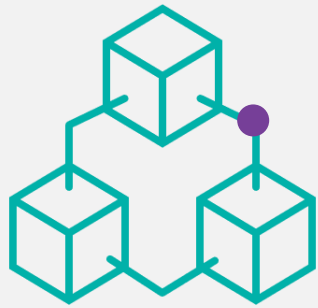
Dr Shamsul BS participated as a speaker during PETRONAS's Techtalk event.

Shared his insights on OSH from a capability perspective, while rallying the call for us to uphold our responsibility towards OSH.



- image from Powering Capability Towards MZP techtalk recording session

Leverage on **technology** as a key driver to enable an accelerated modernization of HSE Learning



TECHNOLOGY

myLearning >>



- image from Learning Marketplace Digest communication pack

Learning platform that offers personalization learning options to empower talent to self-drive their own learning

Also, set a target of 52 learning hours to promote learning culture



- internal photos from Capability Development & Management, Group HSE

Ventured into HSE Virtual Reality training to provide a more immersive and 'hands-on' learning experience by our talent

“85% organizations implemented new technology for business transformation”

- World Economic Forum Report 2023

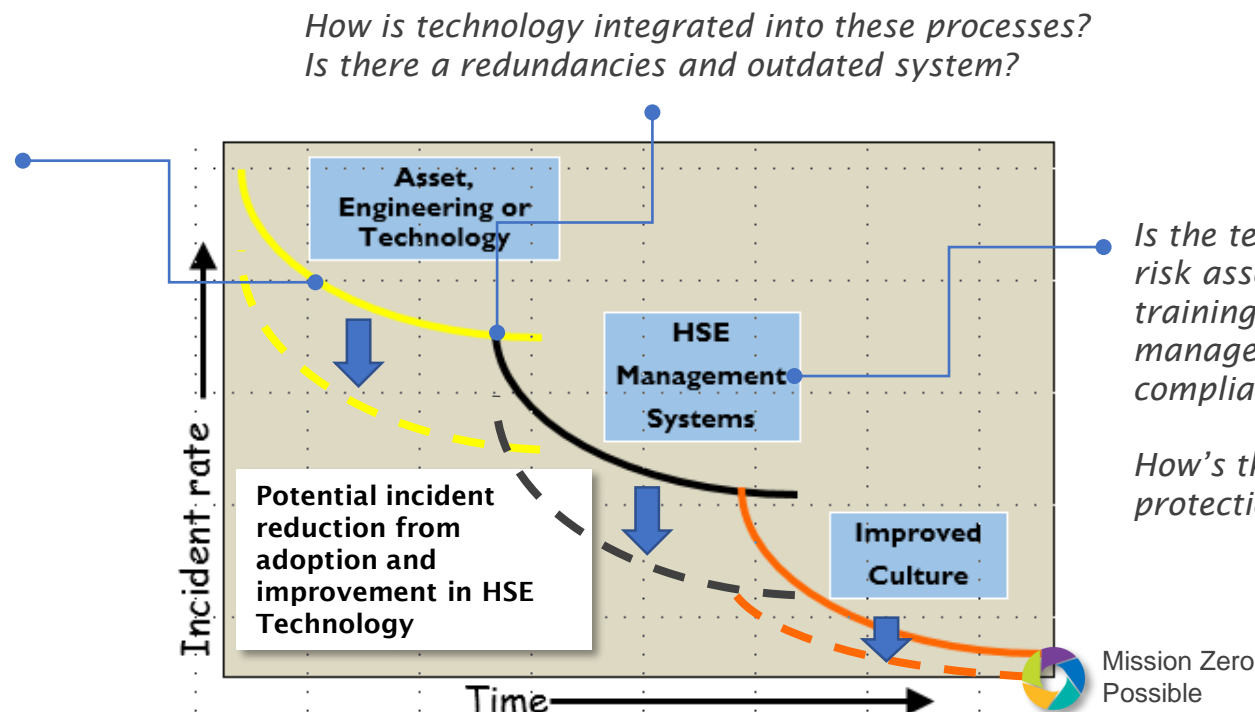
*You know your way home,
but WAZE knows the fastest
way*



Digital and technological advancement could play a significant role in revolutionizing OSH practices

Assessing the current HSE technology landscape involves evaluating existing systems, tools, processes, and practices to identify gaps, inefficiencies, and opportunities for improvement.

What are these HSE technology?
Are they the best in industry?



Our goal -- back to basics with the cutting-edge technologies!

OSH Future Way of Working: A Vision



Prescribed Planning Activity

- *Digital Planning & Simulation*
- *Safety & Training*
- *Compliance and Documentation*
- *Communication and Collaboration*
- *Inspection and Survey Tools*
- *Wearables and IoT Devices*



Predictive & Prescriptive Intervention

- *Advanced Sensor and IoT*
- *Wearables*
- *Automation and Robotics*
- *Virtual Reality and Augmented Reality*
- *Digital Twin*
- *Cyber Security*



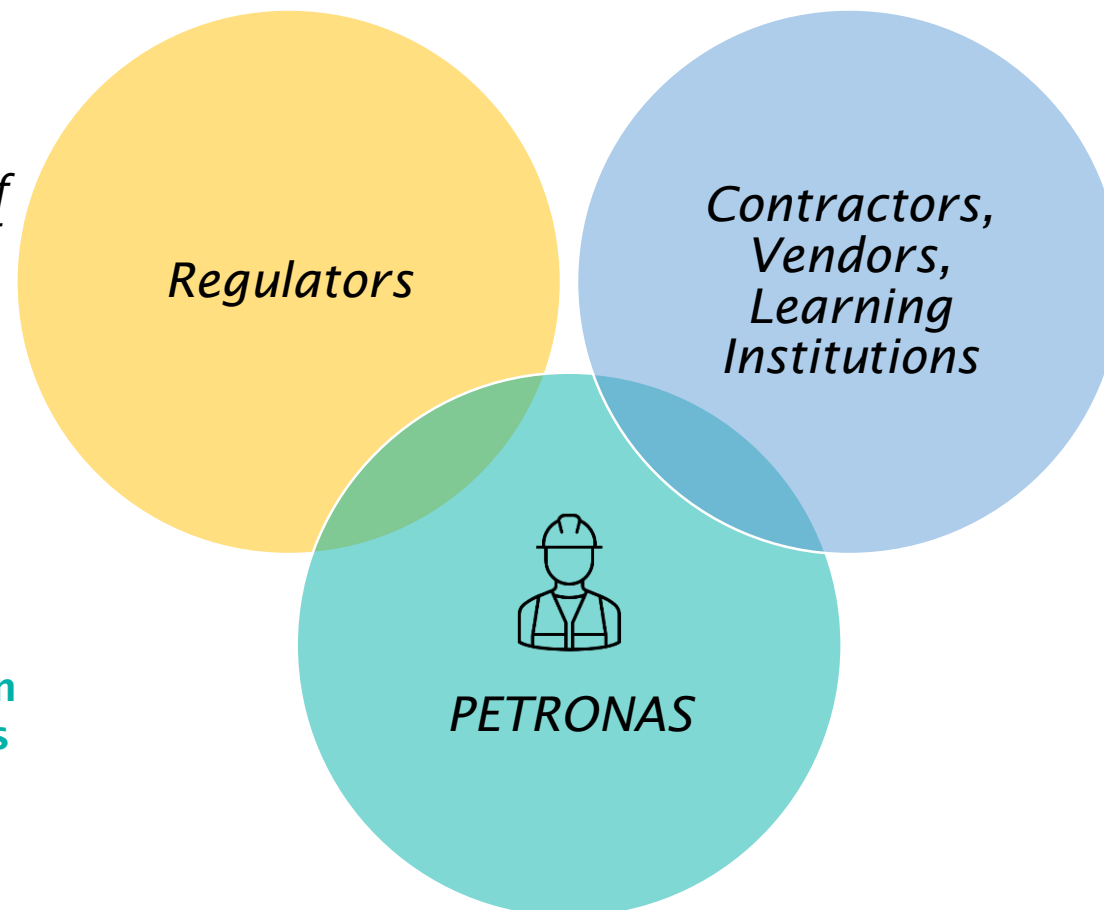
Learning Prescription

- *Immediate Learning & Management System Iteration*

Significantly improved safety outcomes, regulatory compliance

Improving new way of working via technology advancement require *support and collaboration* by various stakeholders

- **Developing clear guidelines and frameworks** for the use of digital technologies in HSE management.
- **Encouraging innovation through incentives** for companies that adopt advanced HSE technologies.
- **Facilitating knowledge sharing and collaboration between industry players** to promote best practices in digital OSH solutions.



- **Work closely with PETRONAS to align technology standards and protocols**, minimizing integration challenges and fostering a culture of innovation.
- **Actively participating in pilot projects** to test new technologies, providing valuable feedback and driving continuous improvement.

Key Takeaways

- Mission *ZERO is Possible* with the right talent, culture and technology **Mission: ZERO-Possible**
- figure from PETRONAS Generative HSE Culture Journey communication material
- As HSE professionals, the best way to predict the future is to create a safer workplace where *everyone goes home safely*
- Digital and technological advancement could play a significant role in *revolutionizing OSH practices*
- Vision for the future where PETRONAS, regulators, and contractors *work together seamlessly*, leveraging digital and technological solutions towards realizing OSH aspirations.



PETRONAS

50
YEARS