

NEC 2025 BEM NATIONAL ENGINEERING CONVENTION

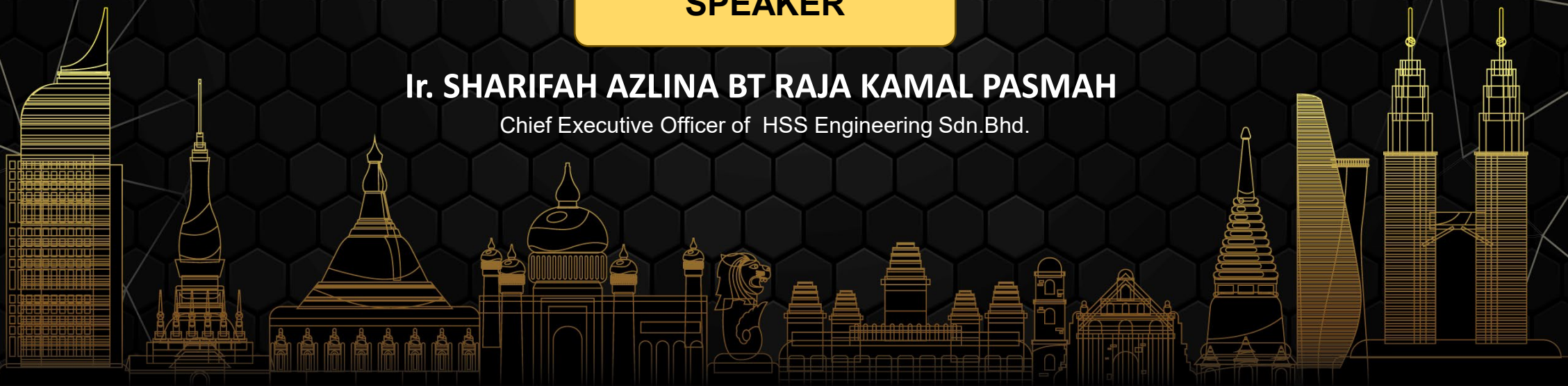
INTRODUCTION TO ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG)

22th AUGUST 2025

SPEAKER

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Chief Executive Officer of HSS Engineering Sdn.Bhd.



THE PRESENTER

Ir. Sharifah Azlina Raja Kamal Pasmah

B.Sc. In Civil Engineering (USA), MBA (UK)



EXECUTIVE DIRECTOR OF :

- *HSS Engineers Berhad (HEB)*

CHIEF EXECUTIVE OFFICER OF:

- *HSS Engineering Sdn. Bhd.*
- *HSS Integrated Sdn. Bhd.*
- *BIM Global Ventures Sdn. Bhd.*

DIRECTOR OF:

- *HSS International Sdn. Bhd.*
- *HSS Propick Technologies Sdn. Bhd.*

PROFESSIONAL REGISTRATION:

- Registered Professional Engineer with Practicing Certificate (PEPC), Board of Engineers Malaysia (BEM)
- International Professional Engineer, IntPE(MY)
- ASEAN Chartered Professional Engineer

PROFESSIONAL SOCIETIES / ASSOCIATIONS

- Board Member, Board of Engineers Malaysia (2022-2023);
- Fellow, The Institution of Engineers, Malaysia;
- Hon. Secretary and Council Member of Association of Consulting Engineers Malaysia (ACEM);
- Council Member of Malaysia Rail Industry Corporation (MARIC);
- Council Member, IEM (2023-2025);
- DBKL panel member for KL Structure Plan 2040;
- Industry Advisory Panelist for UTP, Monash University, TAR UMT & UUM;
- Adjunct Lecturer at Universiti Teknologi Petronas (UTP).

KEY TAKEAWAYS

1. Introduction to ESG

2. Why ESG?

3. ESG in Engineering Industry

4. ESG in the Engineering Consultancy Practice

5. Case Study: Implementation of ESG in HSS

6. Challenges In Implementing ESG

7. BEM's ESG Initiatives

INTRODUCTION OVERVIEW OF ESG



ENVIRONMENTAL (E)

- *Environmental criteria are impacts and management policies of a company with effects to environment. These includes direct and indirect greenhouse gas emissions, natural resource management, and the company's vulnerability to real climate threats (like climate change, resources depletion, waste, pollution).*

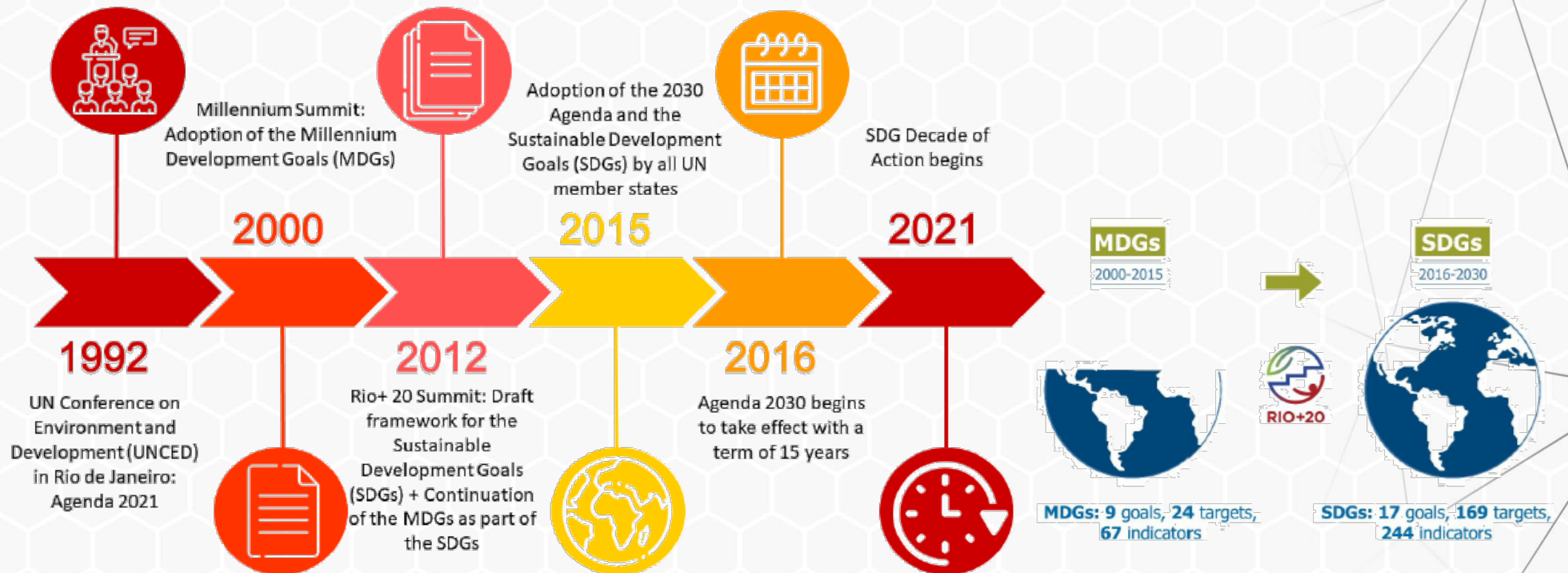
SOCIAL (S)

- *Address social issues such as diversity and inclusion, labor practices, human rights, health & safety and community engagement (human rights, working condition, employee relations, child labour).*

GOVERNANCE (G)

- *Governance is concerned with how a business is managed and controlled. It also aims to assess how shareholder rights are seen, what kinds of internal controls are in place for compliance and to encourage leadership transparency and accountability (bribery, corruption, remuneration, finance).*

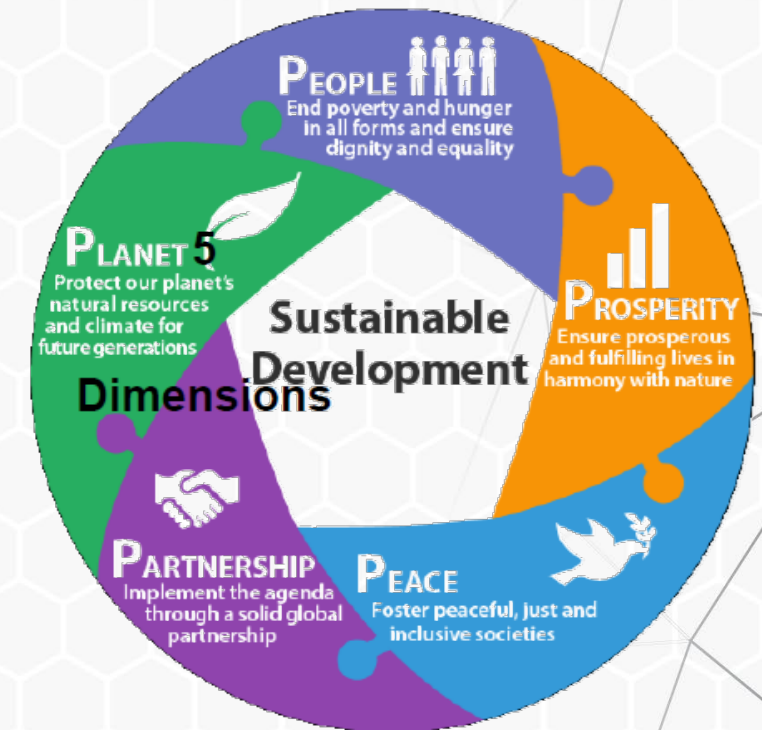
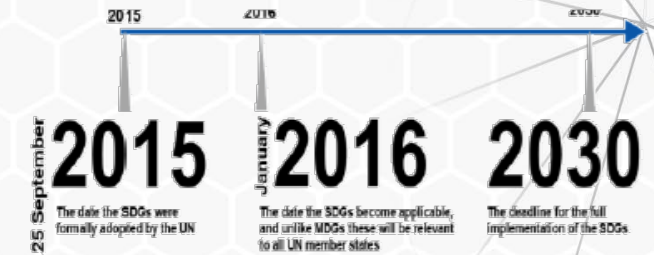
INTRODUCTION THE JOURNEY OF SUSTAINABLE DEVELOPMENT



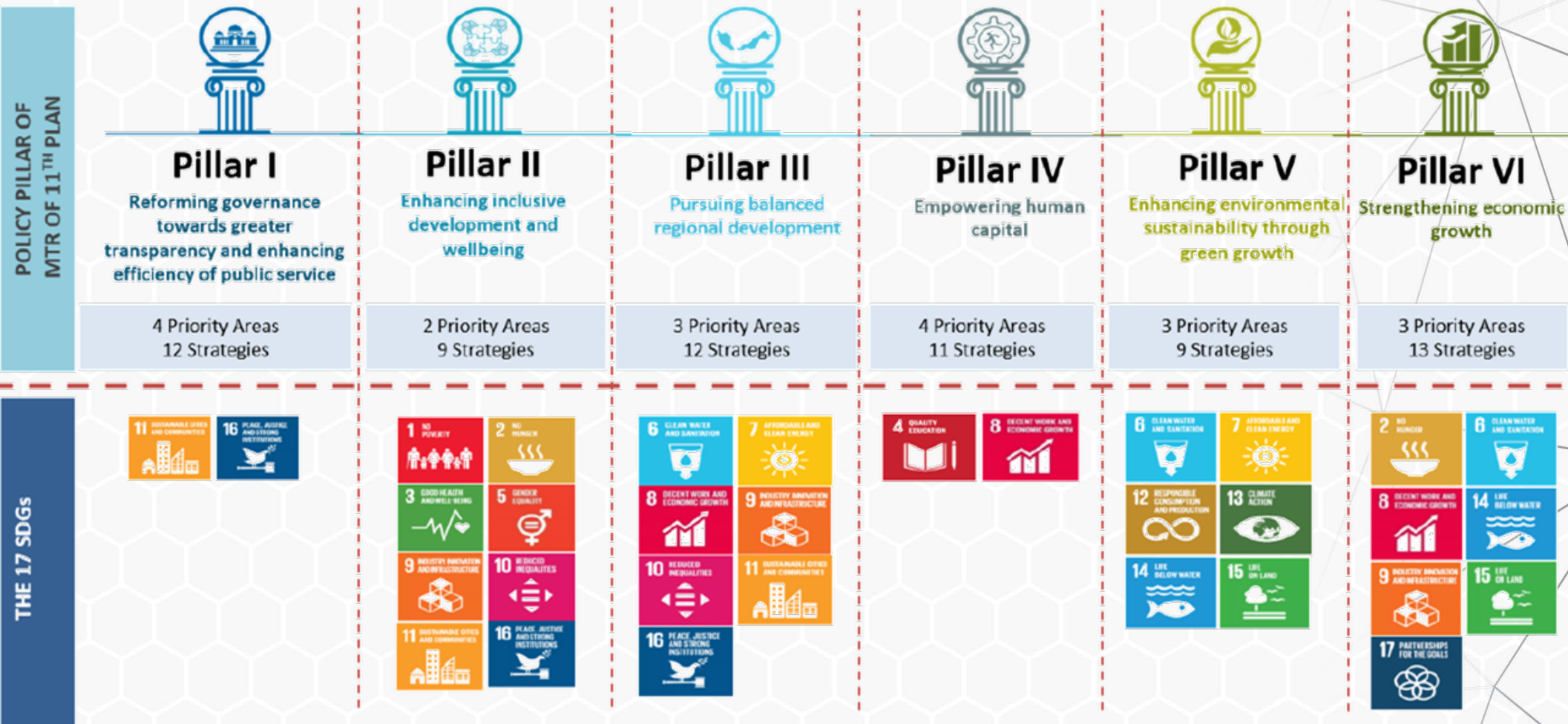
INTRODUCTION SUSTAINABLE DEVELOPMENT GOALS



These goals and indicators will stimulate action in areas crucial to both humanity and the Earth in the coming years.



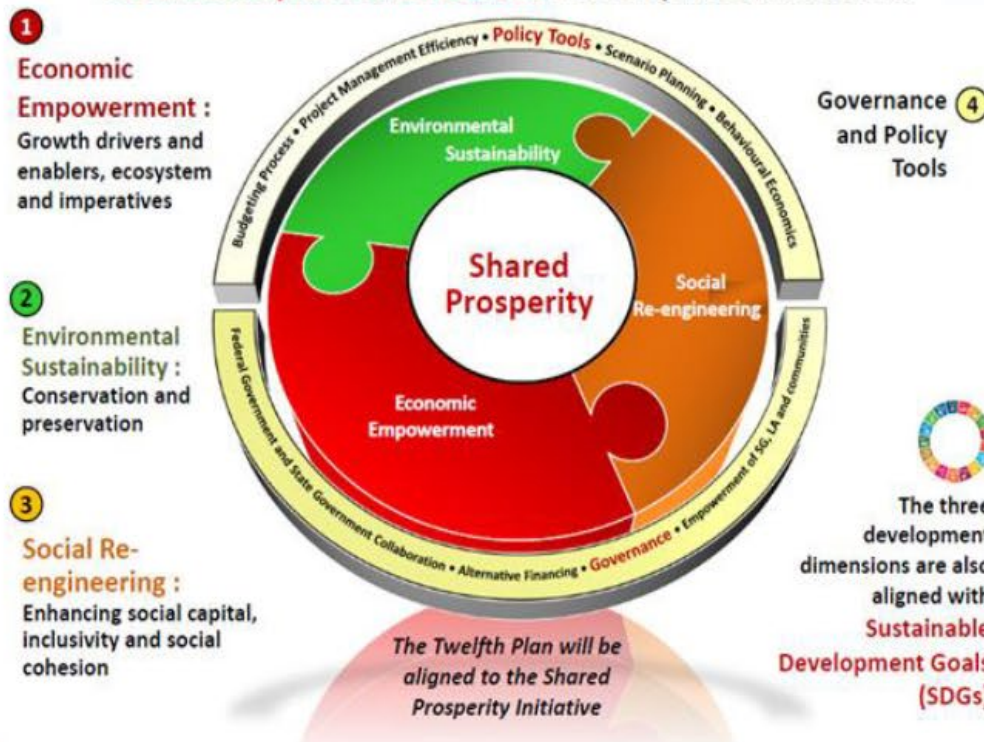
INTRODUCTION 11TH MALAYSIA PLAN



INTRODUCTION 12TH MALAYSIA PLAN

Twelfth Malaysia Plan, 2021-2025 : Development Dimensions

12MP



Operationalising the Twelfth Malaysia Plan, 2021-2025

12MP

Environmental Sustainability

Conservation and preservation

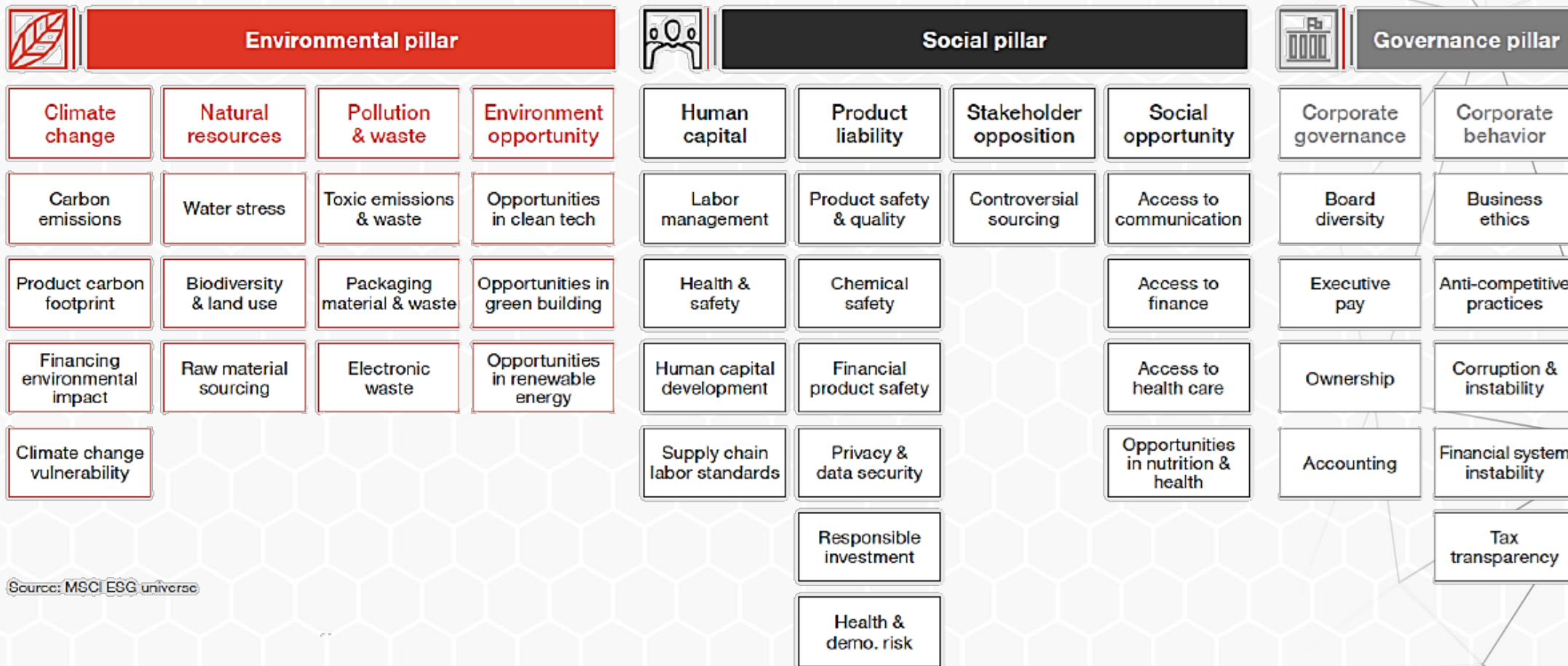
- Climate change mitigation and adaptation
- Disaster risk management
- Disaster risk insurance scheme



- Green technology
- Management of green and blue economy
- Biodiversity conservation
- Sustainable forest management
- Sustainable Consumption & Production
- Energy efficiency
- Renewable energy
- Integrated water resource management
- Marine litter
- Waste as commodity
- Circular economy – reducing waste and creating value from waste
- Valuing ecosystem services
- Carbon Tax

12th Malaysia Plan

INTRODUCTION ESG LANDSCAPE



WHY ESG (SUSTAINABILITY)?

Without an internal culture of Sustainability and Ethics, **can you be an employer of choice?**

Without actual and visible care for the planet, society, and people, **can you be a supplier or partner of choice?**

Can you afford not to develop and integrate **ethical values and sustainability into your business strategy?**



Without good Sustainability ratings and a true ethical culture, **can you be an investment of choice?**

If you do not develop and live up to your ethical values including sustainability, **what will be the financial and reputational costs?**

Without credible progress and accountability on decarbonisation, noise, water, waste, **will you maintain your license to operate?**

THE IMPORTANCE OF ESG

WHY IS ESG IMPORTANT ?

The benefits of ESG practices extend to both internal and external stakeholder

Internal Stakeholder (Employees, Investor, etc)

- Purpose driven investors are given liberty to invest in companies that are equally socially and environmentally conscious
- Employees are eager to work for highly regarded firms that share their personal values and provide opportunities to perform meaningful work
- Owners and higher management are better able to orient their firms toward long-term viability

External Stakeholder (Communities, Clients, etc)

- Engineering consultancies can better manage risks and safeguard long-term viability by integrating ESG into their operations
- Engineering consultancies that adopt ESG can offer expertise in sustainable design, renewable energy, climate resilient assessments to attract and retain clients
- Commitment to ESG enhances company reputation and brand value which can lead to brand loyalty, positive media coverage and increased market share

THE MANAGEMENT AND GOVERNANCE OF SUSTAINABILITY

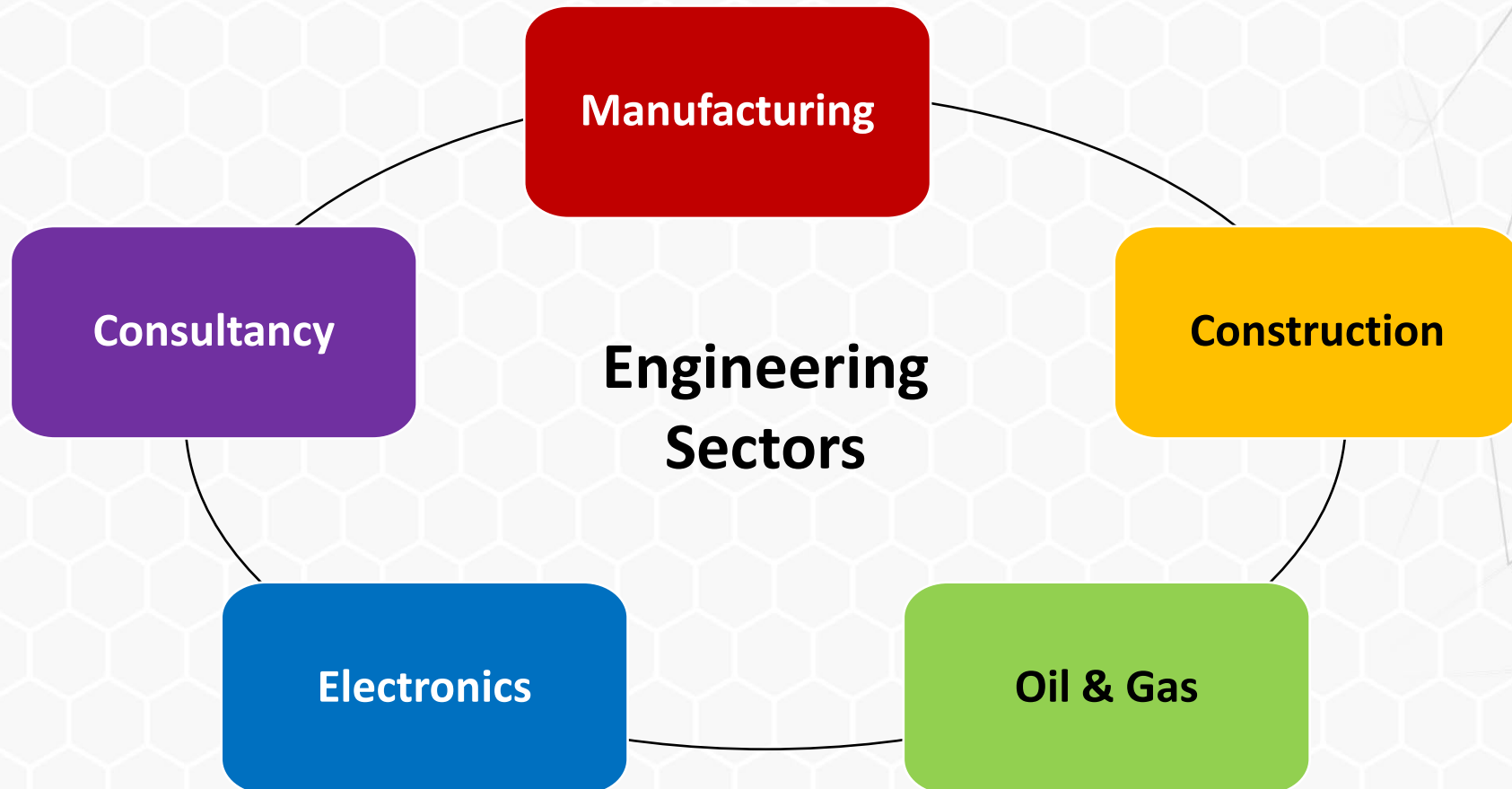
“SUSTAINABILITY IS ABOUT OPPORTUNITY & PROFITABILITY”

1. Improved financial performance due to ESG becomes more marked over longer time horizons.
2. ESG integration, broadly speaking as an investment strategy, seems to perform better than negative screening approaches. A recently released Rockefeller Asset Management study finds that ESG integration will increasingly be demarcated between “Leaders” and Improvers” with the latter showing uncorrelated alpha-enhancing potential over the long-term (Clark & Lalit, 2020)
3. ESG investing appears to provide downside protection, especially during a social or economic crisis.
4. Sustainability initiatives at corporations appear to drive better financial performance due to mediating factors such as improved risk management and more innovation.
5. Studies indicate that managing for a low carbon future improves financial performance
6. ESG disclosure on its own does not drive financial performance



ESG IN VARIOUS SECTORS IN THE ENGINEERING INDUSTRY

Each sector within the engineering industry is unique and faces different obligations and challenges regarding ESG sustainability practices



ESG IN VARIOUS SECTORS IN THE ENGINEERING INDUSTRY

ESG IN CONSTRUCTION INDUSTRY

CONSTRUCTION INDUSTRY

ENVIRONMENTAL



Construction projects have significant environmental impacts, including resource depletion, habitat destruction, and pollution. Construction companies are obligated to minimize these impacts by implementing sustainable building practices, using eco-friendly materials, reducing energy consumption, and minimizing construction waste.

SOCIAL



Construction companies must prioritize the safety and well-being of workers, as well as consider the impact of their projects on local communities. This includes providing safe working conditions, fair wages, and community engagement initiatives to address social concerns.

GOVERNANCE



Construction firms need to uphold good governance practices by complying with regulations, managing project risks effectively, and ensuring transparency and accountability in project management and decision-making processes.



ESG IN THE ENGINEERING CONSULTANCY PRACTICE OVERVIEW

Sustainability reporting in engineering consultancy practice involves the systematic disclosure of environmental, social, and governance (ESG) performance metrics, initiatives, and impacts to stakeholders.

Sustainability Reporting in Engineering Consultancy Firms



- Engineering consultancy firms begin by identifying the key ESG issues that are material to their operations and stakeholders
- This involves conducting a **materiality assessment** to prioritize sustainability topics based on their significance to the firm's business activities, reputation, and stakeholder interests

ESG IN THE ENGINEERING CONSULTANCY PRACTICE METHODOLOGY

Setting Goals and Targets

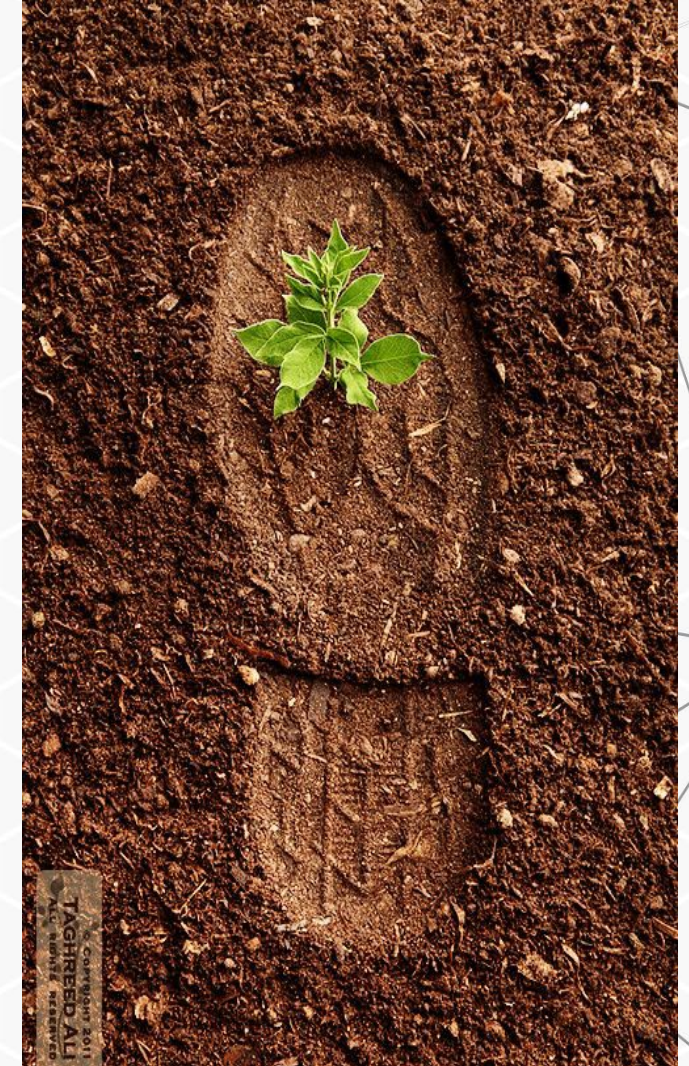
- Once material issues are identified, consultancy firms set specific goals and targets to address these issues and improve their ESG performance
- These goals may relate to reducing environmental impacts, enhancing social responsibility, improving governance practices, or achieving sustainability certifications and standards

Data Collection and Measurement

- Consultancy firms collect relevant data and metrics to track their progress towards sustainability goals and targets
- This includes gathering information on energy consumption, greenhouse gas emissions, waste generation, diversity and inclusion metrics, health and safety performance, and other key performance indicators (KPIs) related to ESG sustainability

Reporting Frameworks

- Engineering consultancy firms often use established sustainability reporting frameworks and standards to structure their sustainability disclosures
- Common frameworks include the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-related Financial Disclosures (TCFD)
- These frameworks provide guidance on reporting ESG performance in a standardized and transparent manner



ESG IN THE ENGINEERING CONSULTANCY PRACTICE METHODOLOGY

Preparing Sustainability Reports

- Consultancy firms compile the collected data and information into comprehensive sustainability reports that communicate their ESG performance to stakeholders
- Sustainability reports typically include an overview of the firm's sustainability strategy, highlights of key achievements and initiatives, performance data and metrics, and insights into future sustainability priorities and plans

Stakeholder Engagement

- Sustainability reporting involves engaging with stakeholders to understand their information needs and interests, as well as soliciting feedback on the firm's sustainability performance and reporting practices
- Consultancy firms may conduct stakeholder consultations, surveys, or focus groups to gather input for their sustainability reports and ensure they are relevant and meaningful to stakeholders

External Assurance

- Some engineering consultancy firms choose to undergo external assurance or verification of their sustainability reports to enhance credibility and transparency
- External assurance involves independent review or audit of the firm's sustainability data, processes, and reporting practices by a third-party assurance provider



COMPLIANCE OBLIGATIONS

The organization should **determine, understand and comply** with the relevant ESG-related laws and regulations applicable to them & adapt a suitable **reporting framework**.

Sustainability Reporting & Frameworks
• National Sustainability Reporting Framework (NSRF) ➤ 2025: Large Main Market – Listed issuers (≥ RM 2 bil market cap) ➤ 2026: Other Main Market – listed issuers ➤ 2027: ACE Market – listed companies (> RM 2 bil revenue) • Bursa Malaysia Sustainability Reporting Framework (2020) • Global Reporting Initiative (GRI) • ISSB Standards (IFRS S1 & S2, 2023)

ASPECTS	RELEVANT ACTS AND REGULATIONS
Environmental	▪ Environmental Quality Act 1974 ▪ Solid Waste and Public Cleansing Management Act (Act 672) ▪ Water Services Industry Act (Act 655) ▪ Energy Commission Act (Act 610) ▪ Wildlife Conservation Act 2010 ▪ Energy Efficiency Conservation Bill 2023
Social	▪ Employment Act (Act 265) ▪ Anti-Sexual Harassment Act (Asha 2022) ▪ Anti-Trafficking in Persons & Smuggling of Migrants Act (Act 670) ▪ Immigration Act 1959/63 (Act 246) ▪ Occupational Health and Safety Act (Act 514) ▪ Employees’ Minimum Standards of Housing, Accommodations and Amenities Act (Act 446) ▪ Minimum Wages Order 2024
Governance	▪ Company Act (Act 777) ▪ Income Tax Act (Act 53) ▪ Malaysia Anti-corruption Commission Act (Act 694) ▪ Whistleblower Protection Act ▪ Personal Data Protection (Act 709) ▪ Cyber Security Act 2024 ▪ Communications and Multimedia Act 1998 [Act 588]

CASE STUDY: IMPLEMENTATION OF ESG HSS GROUP

ENVIRONMENTAL



- HSS actively minimizes the environmental impact of operations and has developed a comprehensive environmental management system comprising procedures, programs, tools and plans
- A precautionary principle is applied to all aspects of environmental management in order to reduce general risk
- Minimize resource use and waste generation during project design and execution
- Address climate change by exploring new renewable energy projects and opportunities
- HSS is certified through ISO 140001 which sets out the requirements for an environmental management system

SOCIAL



- HSS considers the social impact of decisions made when managing projects throughout their life cycles
- HSS commits to protect the safety and health as well as prioritizing social well-being of its employees
- HSS contributes to society by providing opportunities and employment through Professional Training and Education for Growing Entrepreneurs (Protégé). Protégé equips graduates with the necessary skills and experience to thrive in the corporate world.
- Adopt a strict policy to end all discrimination against women, empowering women and providing equal rights at work to all employees regardless of gender
- Provide a fair treatment to employees without discrimination during hiring, on the job and upon leaving
- HSS has established consultation officers and grievance mechanisms to address violations and grievances
- Introduce a Whistle-Blower Policy in order to maintain the highest level of corporate ethics

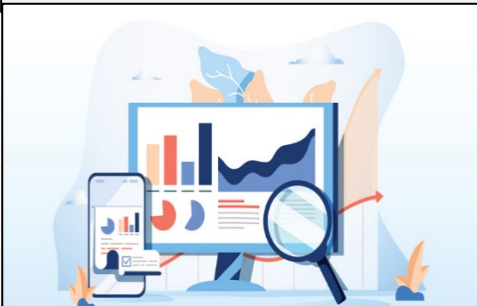
CASE STUDY: IMPLEMENTATION OF ESG HSS GROUP

GOVERNANCE



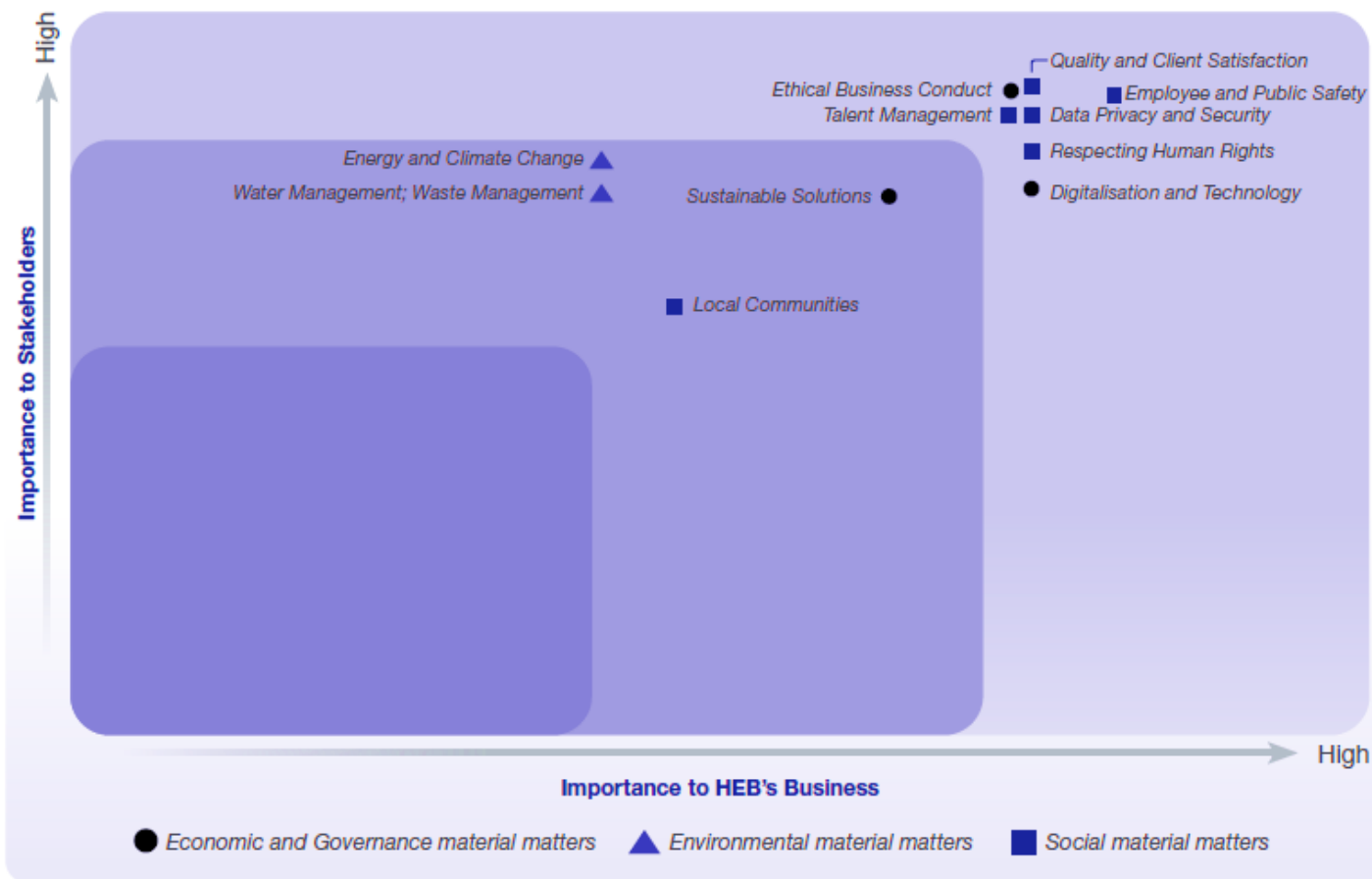
- To foster a culture of transparency, accountability and ethical conduct through robust corporate governance practices.
- Through regular assessments, audits and compliance reviews; continuously evaluate and strengthen its governance practices
- Ensure that business is conducted in compliance with the law, core ethical values and adherence towards Malaysia Anti-Corruption Act 2009
- Conducts HSS Group Integrity Day and Anti-Bribery campaigns, bringing together stakeholders to underscore commitment to integrity and regulatory compliance
- HSS has ISO 37001 Anti-Bribery Management System that sets forth internationally recognized guidelines and best practices for preventing, detecting and addressing bribery & corruption within organizations, empowering us to maintain the highest standards of ethical conduct and integrity

REPORTING & TRANSPARENCY



- HSS develops and publishes an annual Sustainability Report following Bursa Malaysia's requirement which provides relevant disclosures on sustainable activities and its impact on stakeholders
- The Sustainability Report uses a combination of institutional theory and resource-based theory to analyze data in order to create a comparable and meaningful report
- HSS also engages with stakeholder, including clients, investors, employees and the public on ESG matters

CASE STUDY: IMPLEMENTATION OF ESG HSS GROUP: MATERIALITY MATRIX FY2024



CASE STUDY: IMPLEMENTATION OF ESG

HSS GROUP: KEY HIGHLIGHTS AND PERFORMANCE

HEB's Key Material Matters	Area	2022 Performance	HEB's Key Material Matters	Area	2022 Performance
Nation Building through our Market Presence	• Market Presence	 The deployment of BIM-empowered software to manage project effectiveness and incorporating environmentally friendly features for a few selected and applicable projects	Energy Management and Climate Change	• Energy Management	 5.5% increase in electricity consumption (due to business back in operation after pandemic)
Employee and Public Safety	• Health and Safety	 Zero major incidents, Zero fatalities	Environmental Awareness through Environmental Strategies	• Economic Presence	 Incorporated environmentally friendly features for a few selected and applicable projects
Regulatory Compliance	• Compliance	 Zero non-compliance fines	Job Creation	• Engagement	 Recruited 39 Protégé (Interns)
Quality & Client Satisfaction	• Customer satisfaction	 80% score client satisfaction	Diversity, equal opportunity, and non-discrimination	• Diversity	 25% females on board
Corporate Governance	• Anti-Bribery • Whistle-Blowing	 Zero incidents of Anti-Bribery and Anti-Corruption (ABAC) Zero incidents of whistle-blowing	Career Development	• Training and development	 9.66 hours of training per trained employee
Industry Advancement	• Market Presence	 - One staff appointed as committee member to execute BIM development work for LLM - Kick-started development of new Construction Management Integrated System (CMIS)	Employee Engagement	• Engagement	 8 activities per annum
Local Communities	• Community / Society	 Focused efforts on employee engagement and welfare	Waste Management	• Waste Management	 Disclosure of scheduled waste usage
Water Management	• Water Management	 16.2% increase in water consumption due to business back in operation after pandemic	Carbon Emission	• Emissions Management	 Scope 1 emissions in kilogram of CO ₂ e for one subsidiary and Scope 2 emissions in tonnes of CO ₂ e of the Group

CHALLENGES IN IMPLEMENTING ESG

Challenges in implementing ESG in the organization

LACK OF AWARENESS AND UNDERSTANDING

- Not everyone may fully grasp the importance and benefits of ESG initiatives

SKILLS & CAPACITY GAPS

- ESG requires ESG-trained expertise in sustainability, multidisciplinary collaboration & financial investments

DATA AVAILABILITY AND QUALITY

- Ensuring the availability and accuracy of relevant data can be a challenge, especially if current systems are not designed to capture ESG-related information

REGULATORY & COMPLIANCE COMPLEXITY

- Frequent updates to standards and that the requirements in Malaysia are still evolving, creates difficulty in compliance

SETTING MEASURABLE GOALS AND METRICS

- Defining clear, measurable goals and metrics for ESG initiatives can be complex

CULTURAL SHIFT

- Embracing ESG requires a cultural shift within the organization. It involves instilling sustainability and responsibility into company culture which may take time and requires changes in mindset and behavior

THE ESG WORKING GROUP

THE WORKING GROUP

- Formed in January 2024 and reports to the Professional Practice Committee under BEM

THE COMMITTEE

- Ir Sharifah Azlina (Chairman of the WG ESG)
- Ir K Sundraraj
- YBhg Dato' Ir Fong Tian Yong
- Ir Vun Wey Tyng
- Ir Sivaananthan a/I Chelladurai

SECRETARIAT

- Pn. Mishana binti Sapar (Senior Manager, PPC Unit)
- Pn. Norzila binti Yusoff
- Pn. Irma Zainul

PURPOSE

- To study the impact of ESG implementation on ECP
- To create awareness on ESG to ECP
- To establish a framework for guidelines of ESG for ECP

OUR ACTION PLAN

EXPLORE ECP'S AWARENESS & READINESS

- A survey conducted over 3-week from 19 June 2024 among BEM's member
- 349 respondents participated & results are :-
 - *Respondent recognize infrastructure of ESG*
 - *Respondent lack awareness on reporting & framework*
 - *Financial constraint is a huge challenge to implement ESG at workplace*
 - *Majority respondent are keen to attend ESG trainings organized by BEM*

FUTURE ACTION PLAN

- Have more engagement on ESG/Sustainability matter (talk/webinar/survey)
- Conduct ESG related workshops/training
- Introduce other contractor bodies/engineering bodies to share & create standardized guideline & best practice in ESG
- Prepare framework for the ESG guidelines for ECP



COLLABORATION WITH SIRIM

- Explore collaboration in creating awareness on ESG through seminar / webinar.
- Educate ECP on SIRIM accreditation in ESG.
- Incorporate accreditation strategy as an option in guidelines/frameworks by collaboration with SIRIM as committee in preparation of the framework.



COLLABORATION WITH ESG MALAYSIA

- To understand ESG Malaysia and its Mission & Vision.
- Explore the sectors addressed by ESG Malaysia.
- Learn from ESG Malaysia the initiative to champion the national ESG ecosystem.
- Discuss the various drives that can be mutually taken in the sustainability agenda.
- Explore collaboration in creating awareness on ESG through seminar /webinar.
- Explore potential opportunity for mutual collaboration in establishing ESG guidelines /frameworks for ECP.





ENGINEERS

HSS ENGINEERS BERHAD

“The Engineering DNA of Malaysia”

**FULLY INTEGRATED PROFESSIONAL SERVICES &
PROJECT MANAGEMENT COMPANY**



THANK YOU