IPERINDO
Indonesia Shipbuilding and Offshore Institutions

16th ASEF Forum
Yokohama, 12 November 2025

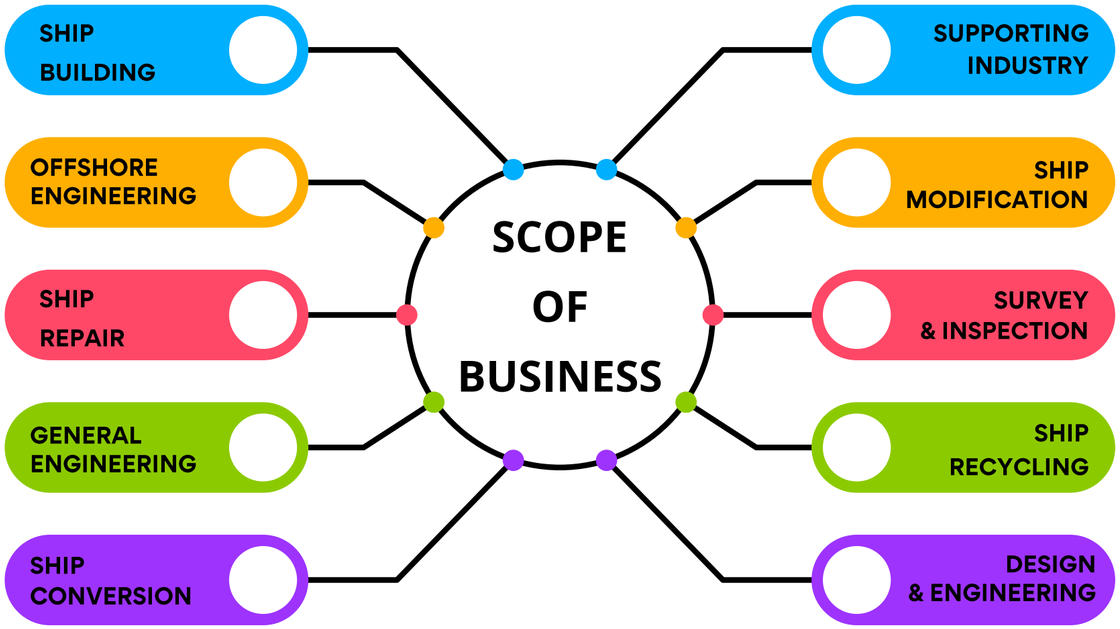
EMBRACING THE GROWTH OF A NEW ERA FOR INDONESIAN SHIPBUILDING

Presented by: Anita Puji Utami
CHAIRMAN IPERINDO

OUTLINE

INTRODUCTION

- Indonesia is the largest archipelagic country in the world.
- Indonesia is also a country with sea line of 95,181 km, the FOURTH longest in the world after Canada, America & Russia.
- The area of Indonesia is 5.45 million square kilometers, of which 2/3 is covered by water. High dependence on sea transportation.
- Indonesia is also rich in natural resources and the population is 280 million people.
- There is great maritime business potential in Indonesia.



MEMBER OF IPERINDO

1. 139 SHIPYARDS
2. 115 SUPPORT INDUSTRIES
3. 3 CLASSIFICATION BUREAUS
4. 7 CONSULTANTS

DISTRIBUTION OF IPERINDO MEMBER SHIPYARDS

IPERINDO

Sabang 1	Karimun 2	Pontianak 2	Banjarmasin 2	Samarinda 15	Balikpapan 4	Bitung 2	Makassar 3	Banggai 2	Ambon 3
Medan 2									
Batam 25									Papua 3
Babel 3									
Palembang 2									Flores 1
Lampung 2									Lombok 2
									Banyuwangi 2
Cilegon 3									Sidoarjo 3
Tangerang 6	Jakarta 6	Bekasi 1	Cirebon 2	Tegal 3	Semarang 2	Lamongan 3	Gresik 1	Surabaya 16	Madura 2

PRODUCT OF INDONESIAN SHIPYARDS ON NAVAL SHIPS

IPERINDO

Combat Boat 18 m

Fisheris Patrol Vessel 60 m

Offshore Patrol Vessel 85 m

Catamaran Rescue Vessell 59 m

Landing Ship Tank 2.300 DWT

Special Sealift Vessel 123 m

Fast Attack Missile Craft 60 m

Corvette 105 m

Submarine

PRODUCT OF INDONESIAN SHIPYARDS ON COMMERCIAL SHIPS

IPERINDO

Coaster Cargo & Passenger up to 2.000 GT

Ferry Ro-Ro up to 5.000 GT

Passenger Vessel up to Pax 500

Cargo Vessel up to 18.500 DWT

Bulk Carrier up to 50.000 DWT

Container Vessel up to 1.600 TEU's

Cement Carrier

Cattle Carrier

Dredger

PRODUCT OF INDONESIAN SHIPYARDS FOR SUPPORTING OIL & GAS

IPERINDO

Accomodation Work Barge

Mono Pod Platform

Living Quarter

Crew Boat

Oil Tanker s/d 30.000 DWT

Supply Vessel

AHTS

Research Vessel

Single Point Mooring

IPERINDO

EFFORTS TAKEN TO PREPARE INDONESIAN SHIPYARDS

Improving human resources knowledge and competency related to ship equipment and components with low carbon technology, electric systems, solar panels, etc., both related to maintenance, troubleshooting, assembly and installation, and design.

Improving Human Resources knowledge and competence is carried out through training involving makers/academician

Investment in tools/special equipment/supporting facilities for dismantling and installation

Prototyping and development of technology-based and low carbon innovations

Creation and Understanding of procedures/systems of equipment with high technology and low carbon

Improvement of HSE management system in shipyard

IPERINDO

ZERO EMISSION SHIP

A Zero Emission Ship is a ship that does not emit greenhouse gases or air pollutants during its operation.

One of the main challenges for zero-emission ships is the availability and affordability of alternative fuels to replace fossil fuels.

Alternative Fuels :

- Hydrogen
- Ammonia
- Biofuel
- Battery
- Wind Energy
- Solar Energy

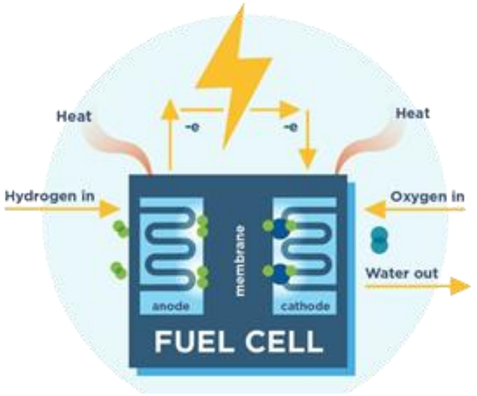
Another challenge is the absence of regulations that support and provide incentives for its development and distribution.

However, these steps are not enough to achieve the IMO target of reducing carbon emissions in shipping.

More ambitious and binding regulations are needed that can create a level playing field and a clear roadmap for zero-emission ships.

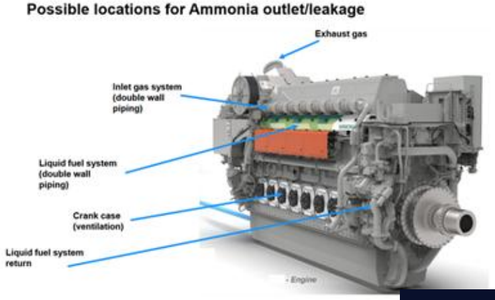
ALTERNATIVES FUELS

FUEL CELL

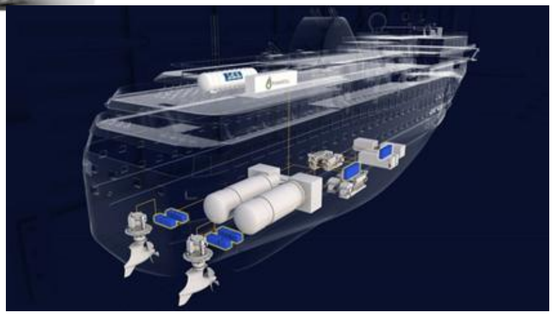


WIND PROPULSION

AMMONIA ENGINES



HYDROGEN PROPULSION



IPERINDO

INDONESIA GREEN SHIPYARD

A. MAIN ISSUES

1. Sustainability
   Shipyard Contribution in reducing CO2 Emissions on ships built or maintained and repaired.
   Products produced have a concept towards Zero Emissions
2. Energy
   How is Energy Efficiency carried out by shipyards during ship construction and shipyard operations.

B. OTHER ISSUES

1. Environmental Concern
2. Pollution Prevention
3. Corporate Social Responsibility
4. Comply with National and International Regulations, such as: SMK3 and ISO 45001

IPERINDO STRATEGY IN MASTERING LOW CARBON SEA TRANSPORTATION TECHNOLOGY

OBJECTIVE

Increasing the competitiveness of the national shipping industry based on Green Technology

TARGET

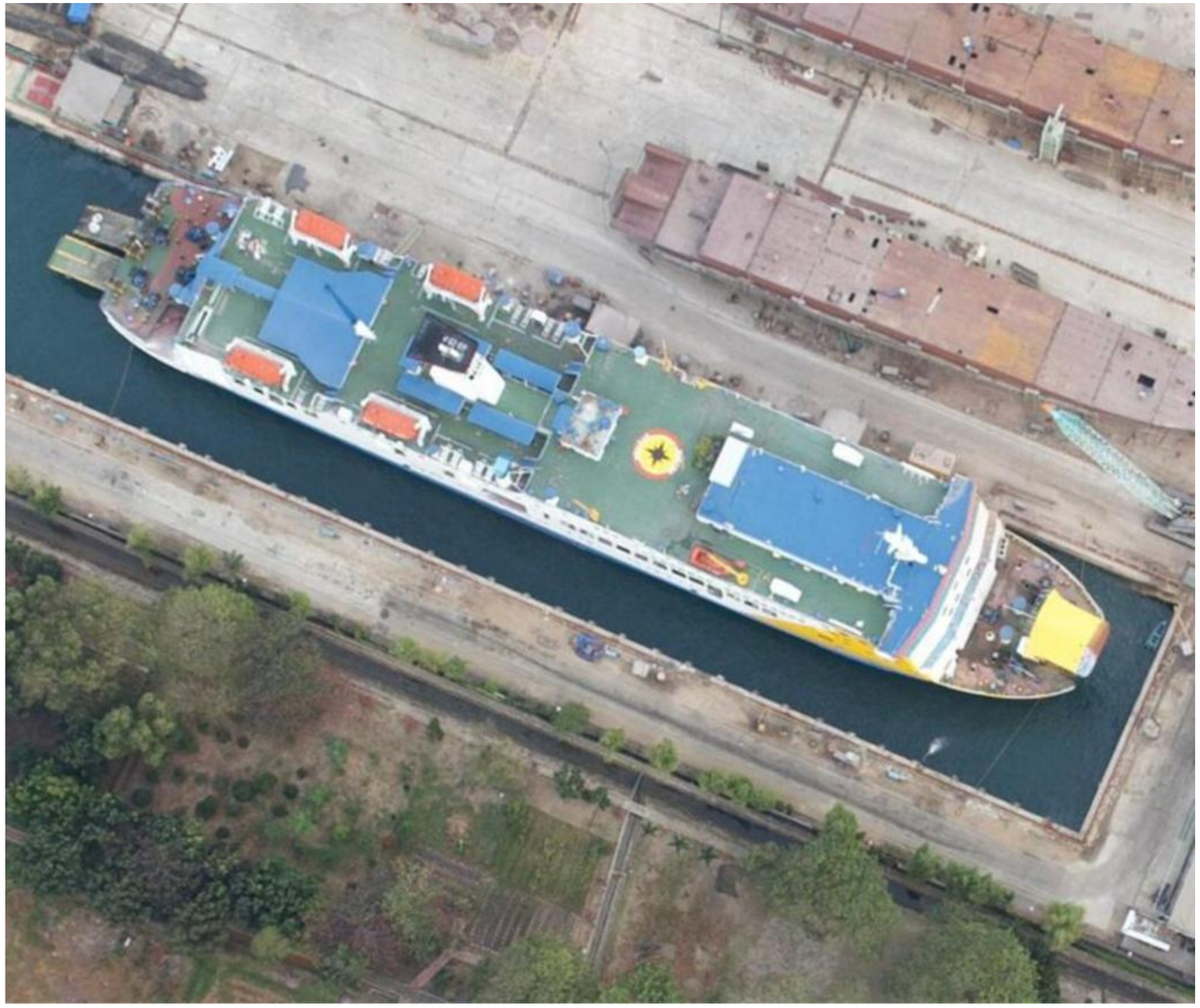
1. Supporting the development of a national maritime fleet based on Green Technology.
2. Supporting the empowerment of the national shipping support industry.
3. Supporting ship research based on environmentally friendly technology

STRATEGY

1. Mastering ship design based on Green Technology.
2. Cooperation with shipyards and foreign supporting industries/Green technology makers, such as Wartsila
3. Technology related to GHG Reduction is developed in shipyards of IPERINDO members with a pattern of cooperation between various parties.

IPERINDO SUPPORT TO ZERO EMISSION PROGRAM

- IPERINDO has collaborated with academics and institutions related to low-carbon maritime transportation, including ITS, PPNS, BRIN, in the form of prototypes, and others.
- Several IPERINDO member shipyards have begun shipbuilding towards low-carbon maritime transportation.
- Exploring Cooperation with Foreign Shipbuilding Industry Associations.



ECO GREEN INITIATIVE

It’s our promise to contribute to Achieving Zero Emissions in Business.

IPERINDO

ORELA shipyard

DIESEL DUAL FUEL

DDF is a program that uses a dual- fuel diesel engine, enables vessels to operate on both gas (LNG) and diesel fuel simultaneously.

MULTICAT HYBRID

Optimizing various vessel functions into a single vessel with multiple functions

DIESEL DUAL FUEL (1 VESSEL)

FUEL REDUCTION/MONTH 60%

MULTICAT HYBRID (1 VESSEL)

FUEL REDUCTION/YEAR 44%

IMPACT BY NUMBER

EMISSION REDUCTION/ MONTH 59,77%

EMISSION REDUCTION/ MONTH 39,01%

COST REDUCTION/ MONTH 35,07%

COST REDUCTION/ YEAR 69,70%

Innovation Zero Emmissions

Eco Green Initiative it's our promise to contribute to achieving zero emissions business

IPERINDO

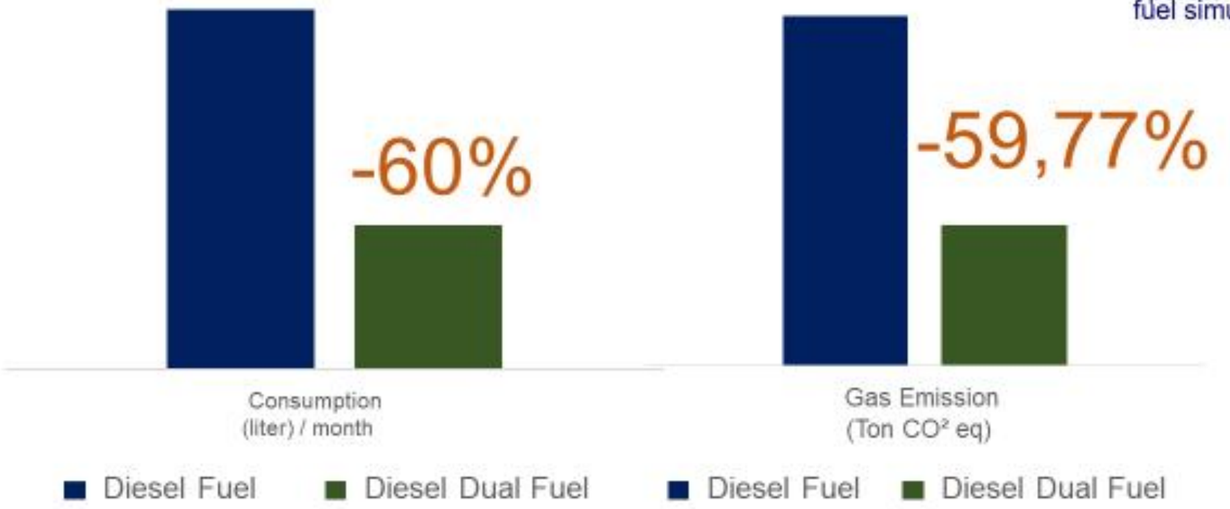
- **Diesel Duel Fuel (DDF) is a program that uses a dual-fuel diesel engine, enables vessels to operate on both gas (LNG) and diesel fuel simultaneously.**
- **The conversion of vessels to Dual Fuel results in energy savings ranging from 80% to 86%.**
- **The Diesel Dual Fuel is also capable of reducing operating costs.**

DIESEL DUAL FUEL

DDF is a program that uses a dual-fuel diesel engine, enables vessels to operate on both gas (LNG) and diesel fuel simultaneously.

MULTICAT HYBRID

Optimizing various vessel functions into a single vessel with multiple functions



The reduction in Greenhouse Gasses (GHG) emissions for one vessel is **91.02TonsCO2 eq/ month** ELPI has 15 simillar vessels, so the potential for reducing total GHG emissions is **1,365.23 Tons CO2eq/ month**.

Reseach and Development in Green Energy on Shipbuilding Industry
Multi Purpose Navigation Floating Storage

IPERINDO

Benefit :

For the Publics :
- Electrical resources
- Fresh water solution
- Electrical energy for the vessel

For Navigation shipping lanes : provide signs or navigation of activities in and out of ships to the shipyard

Collaboration with
universities, development of ship production based on green technology

Capacity :
Solar PV 3.150 kW
Offshore WInd 0.9 kW

Function :
Multipurpose floating module based on Renewable Energy
Floating Solar PV and Offshore Wind
Supporting for Electrical Energy at Navigation
Floating Net Cages
Desalination Plant
Water Floating Storage for - fresh water supply

SUSTAINABLE DEVELOPMENT GOALS

PT. ADILUHUNG SARANASEGARA INDONESIA

kedaireka

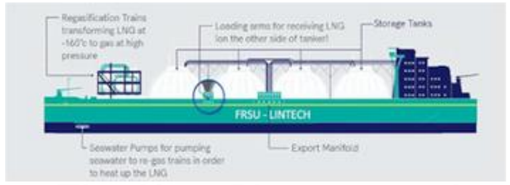
NATIONAL SHIPYARD INDUSTRY PRODUCTS AND ENVIRONMENTALLY FRIENDLY MARITIME TECHNOLOGY RESEARCH

IPERINDO

LINTECH

LNG Iso Tank

LPG Transport Tank

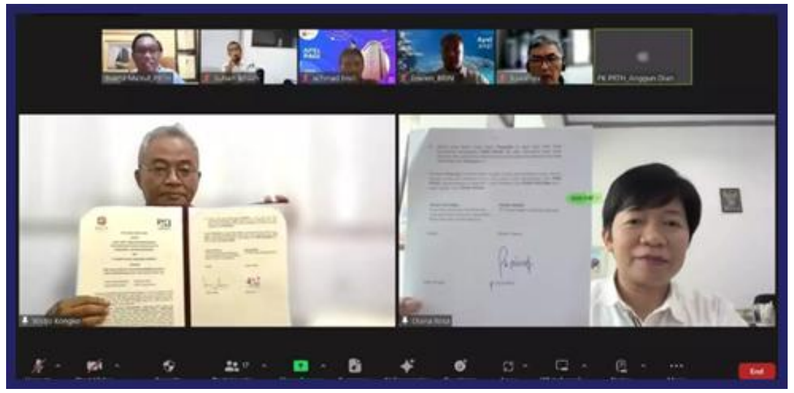


Floating Storage and Regasification Unit (FSRU)

IPERINDO

IPERINDO and BRIN Sign Cooperation on Research Strategy for the Development of Mini LNG Transport Ships

BRIN
BADAN RISET DAN INOVASI NASIONAL



BRIN Establishes Cooperation in Production Technology Research with PT Industri Kapal Indonesia (Persero) regarding Build Strategy Research and Quality Control System For LNG Mini Ship Construction

BRIN Partners with Lintech for LNG Research As a Fuel to Replace Fossil Energy

IPERINDO

CONCLUSION

The commitment to advancing technology in the shipbuilding industry is being strengthened through IPERINDO collaboration and the downstreaming of research products.

With strong government support through tax and banking policy harmonization, as well as research and technology development collaboration, Indonesia is taking concrete steps to accelerate the sustainable growth of its national shipbuilding industry.

THANK YOU

CONTACT US

+62 21 6404253

www.iperindo.co.id

dppiperindo@gmail.com

Griya Agung Street 77, North Jakarta, Indonesian

IPERINDO