THE ROLE OF THE SHIP REPAIRING INDUSTRY FOR GREEN GROWTH IN OCEAN ACTIVITIES

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Environmental challenges are opportunities for the ship repair industry.
International trade is depending on ships for the economical transport of goods around the world;

Ship repair yards provide repair, maintenance and upgrade services to shipowners;

Ship repair has the obligation to help minimizing the environmental impact.
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Lifetime & Resources

Lifetime extension of ships by restoring the existing steel structures and modernizing systems to give them a new life in their existing trade.
Upgrading cruiseships to meet the changing demands from the market;
Converting older tankers to floating production, storage and offloading vessels for the oil industry;
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Pollution by Ships

Air

Sea

Land
**Air Emissions:**
Green House Gases such as CO₂ and Methane and other Substances such as NOₓ and SOₓ.

**Sea Emissions:**
Oily water, sewage, solids, antifouling compounds and invasive species.

**Land:**
Disposal of residues, solid waste and scrapping.
Setting of national and international standards to control pollution:

Governmental Authorities at national level.

International Maritime Organization (IMO) at international level.
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International Convention for the Safety of Life at Sea (SOLAS)

International Convention for the Prevention of Pollution from Ships (MARPOL)

International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW)
The inclusion of regulations for the Prevention of Air Pollution from Ships in MARPOL in 1997

International Convention on the Control of Harmful Anti-Fouling Substances on Ships, 2001 (AFS 2001)


Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (Hong Kong Convention)

Actions of these Conventions
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Conventions and shiprepair

- Shipowners decide how, when and where. We facilitate.
- Installation of equipment.
- Modification of structures and systems.
- Substantial amount of work done by ship repair yards worldwide.
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BALLAST WATER MANAGEMENT
Existing ships

The International Convention for the Control and Management of Ship’s Ballast Water and Sediments (BWM).


D1: A plan, ballast water record book and a management procedure.

D2: No later than 2024 Ballast water treatment, generally on board.

Design, procurement and installation of equipment, plus modification of systems on board the ship.

Engineering companies, equipment manufacturers and ship repair yards are involved.

Some shipowners start early and some will postpone to the deadline due to lack of funds.
Many projects have been performed by ship repair yards on existing ships to reduce the environmental impact.

Either driven by the regulations or initiated by the shipowners.
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Examples:

- Sewage plants, incinerators, oily water separators
- Segregated ballast modifications
- Double hull conversions
- Diesel engine modernisations and upgrades
- Monitoring systems
- Low sulphur diesel
- Scrubber systems
- Propulsion system
- Hull form
- Paint systems
- Ballast water treatment systems
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At the same time we looked at our own facilities to improve our environmental impact:

- Introduction of solar panels
- LED lighting
- Industrial heat recovery
- Electrical power consumption management
- Variable drive electric motors
- Low energy consumption
- New equipment
We consider our business an important link in the marine transportation chain and our activities essential to green growth in ocean activities.
Thank you very much for your attention!