



GISBIR

TURKISH SHIPBUILDERS' ASSOCIATION

**Challenging and
Innovative Projects of
Turkish Shipbuilding
Industry**

History of the Turkish Shipbuilding Industry

THE OLDEST SHIPYARD IN THE WORLD
STILL IN OPERATION

From a
**600 Years Old
Tradition**

1455



TURKISH SHIPBUILDERS' ASSOCIATION

Our History

ALMOST **100** MEMBERS

GEMİ İNŞA SANAYİCİLERİ BİRLİĞİ



One of the
oldest NGOs
in Turkey

1971



TURKISH SHIPBUILDERS' ASSOCIATION

WE HAVE
ALMOST

100

MEMBERS



TURKISH SHIPBUILDERS' ASSOCIATION

Our Mission and Activities



Improving Turkish Shipbuilding Industry and Creating Strategic Approach



Helping Turkish Shipyards Position Themselves in the Global Market



Establishing a Bridge between Shipyards and Relevant Authorities, Associations and Organizations

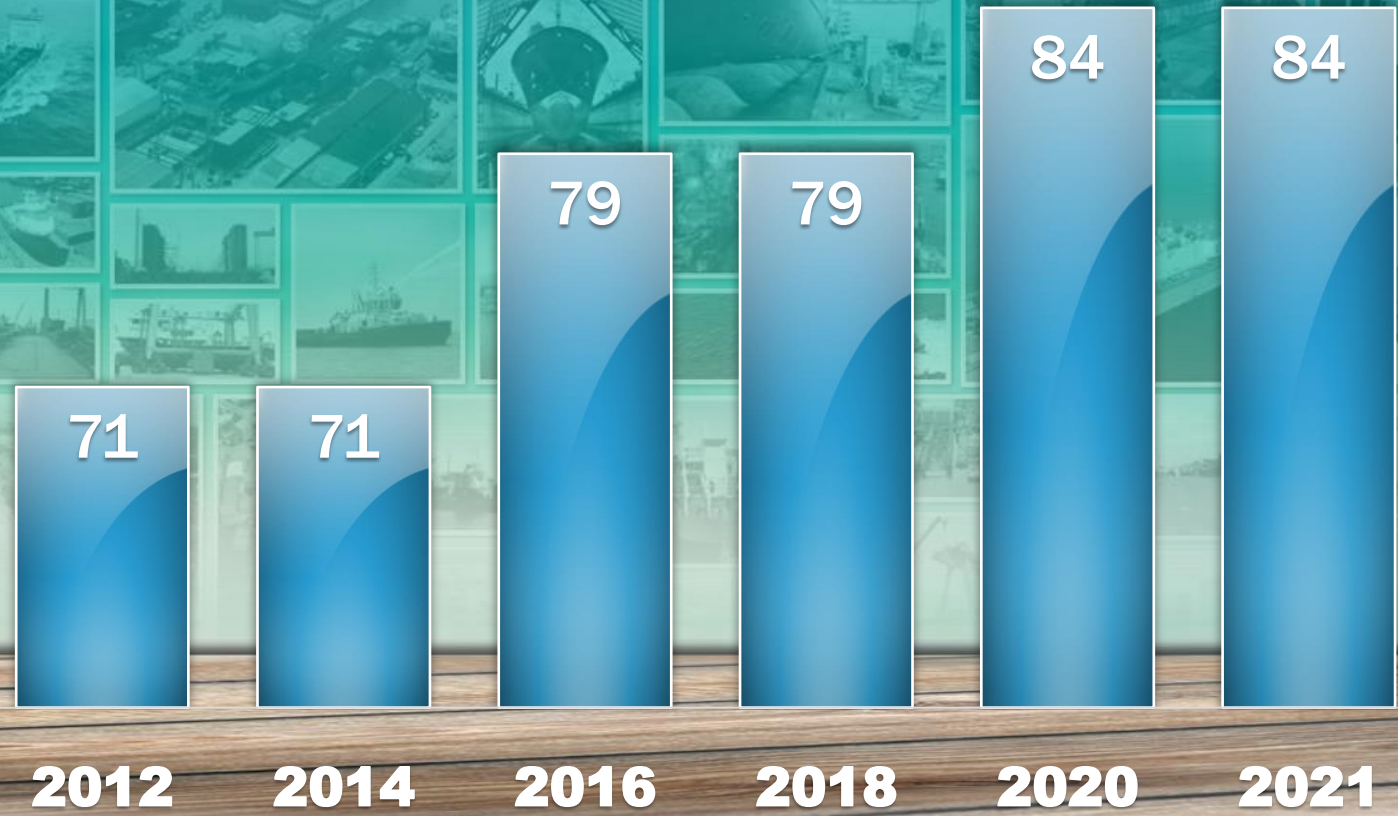


Representing a Vast Majority of the Industry in National and International Areas



Current Shipbuilding Industry

ACTIVE
SHIPYARDS



Our Members Regions



Turkish Shipbuilding Regions

Due to its centric location,
the Turkish Shipbuilding
Industry has
unique advantages
to serve European clients
as well as meet demands
from all over the world.



International Memberships



International Activities

EXHIBITIONS



SMM

Hamburg, Germany



Posidonia

Athens, Greece



NEVA

St. Petersburg, Russia



Europort

Rotterdam, Netherlands



Asia Pacific Maritime

Marina Bay Sands, Singapore

SPONSORSHIPS



ICS

Leadership Insight Series



MARE FORUM

• EST 1999 •

ACTIVITIES SUCH AS...



Horizon 2020

Funding Programme



Hellenic Maritime

International Conference



Nordic Maritime

International Conference



Special Bilateral

Negotiations



TURKISH SHIPBUILDERS' ASSOCIATION

EUROPEAN UNION PROJECTS



TURKISH SHIPBUILDERS' ASSOCIATION

IPA – SAFE SHIPYARDS WITH TECHNOLOGY BASED TRAININGS



H2020 - RESURGAM (Robotic Survey, Repair and Agile Manufacture)

Leverage Recent
Groundbreaking Developments in
Friction Stir Welding

AIM

**Research
Organizations
with Specialist
Expertise**

(TWI, Univ. of Limerick, Univ.
of Lancaster J4IC, TU Delft)

**Multi-
Disciplinary
Consortium**
(ACLUNAGA, Ned-
Project, AISTER,
GISBIR, EWF)

**Specialist Industrial
SMEs for Rapid
Development**

(Forth Engineering,
STIRWELD, ESI, E6)



TURKISH SHIPBUILDERS' ASSOCIATION



Why Turkish Shipyards?



Reliability



**Production
Quality and
On-Time Delivery**



**Authorized
Equipment
Suppliers &
Classification
Societies in Turkey**



**Good
Communication
Between Clients
and Shipyards**

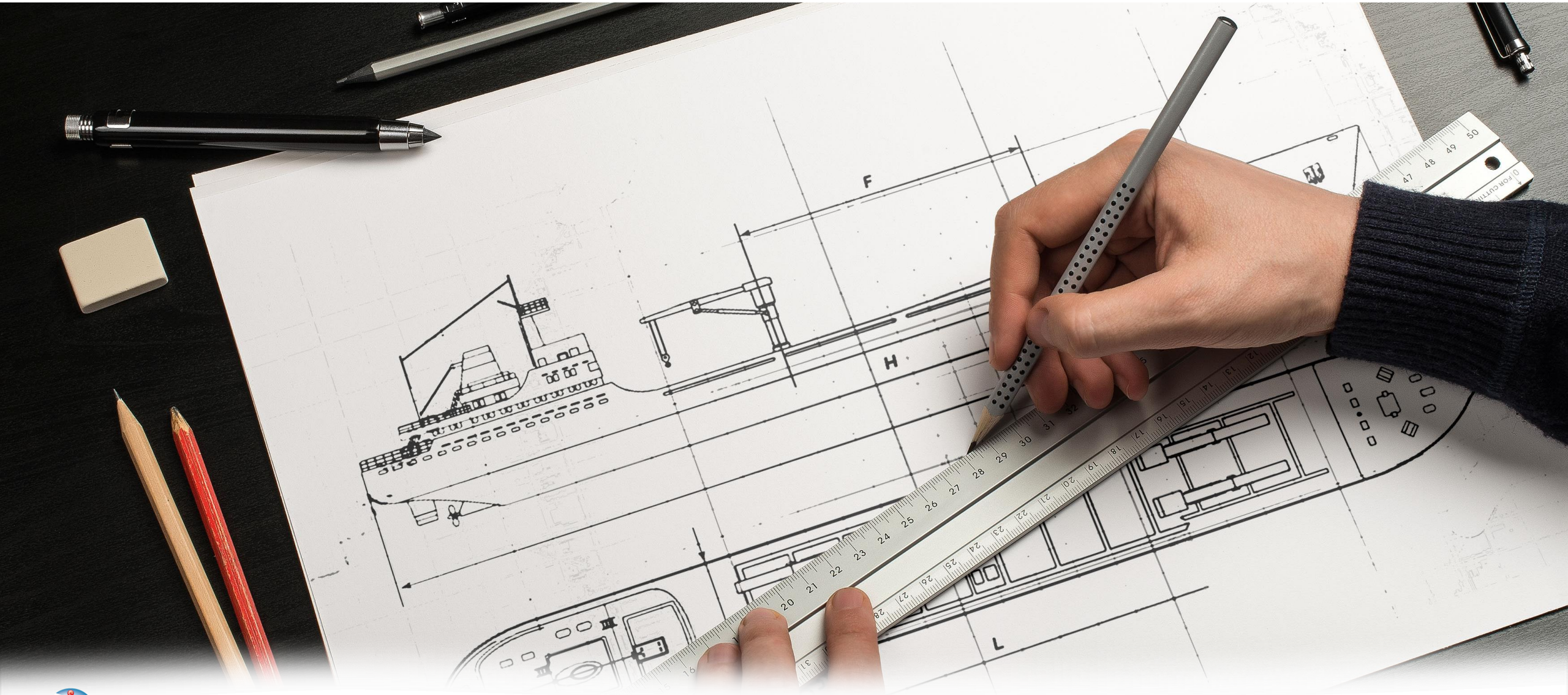


**High Quality
Supply Chain**



TURKISH SHIPBUILDERS' ASSOCIATION

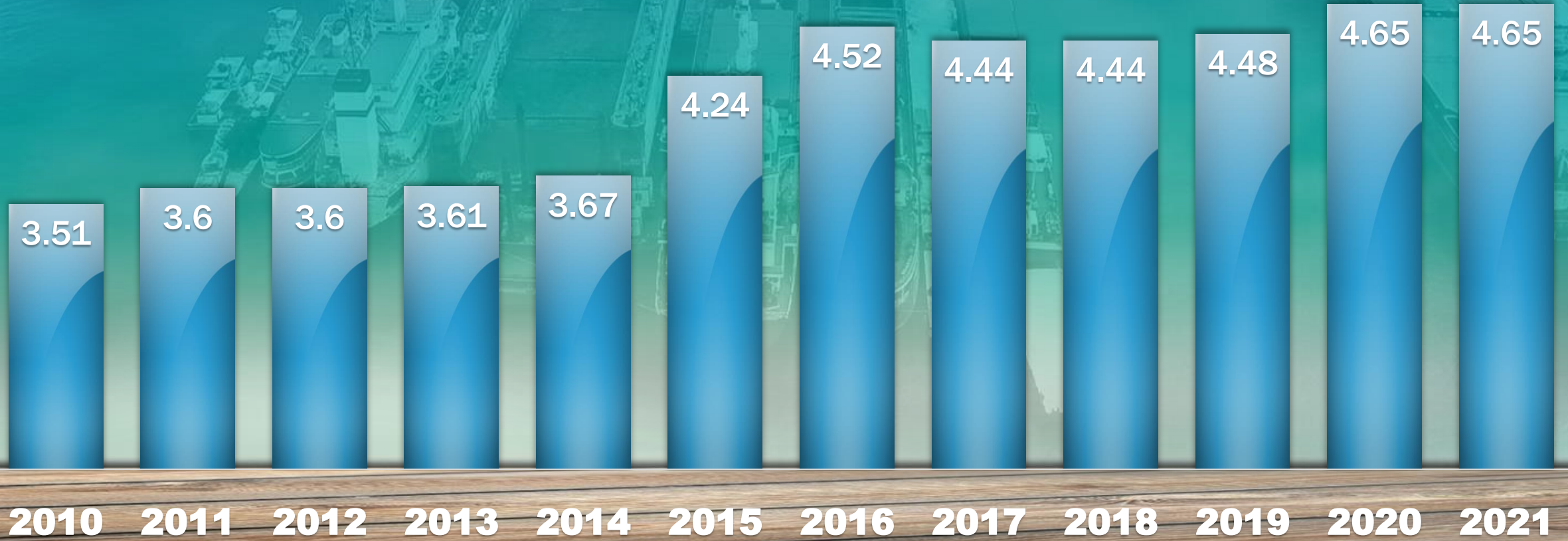
Shipbuilding Capabilities



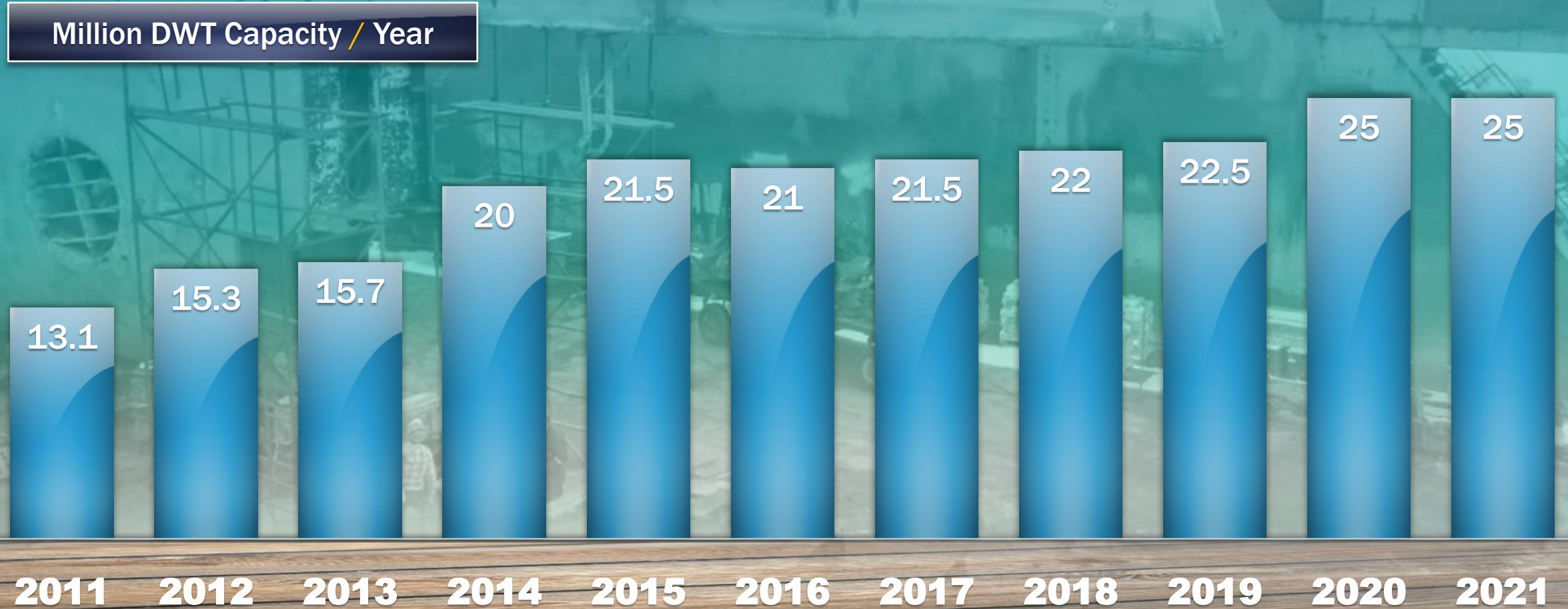
TURKISH SHIPBUILDERS' ASSOCIATION

New Building Capacity

Million DWT Capacity / Year

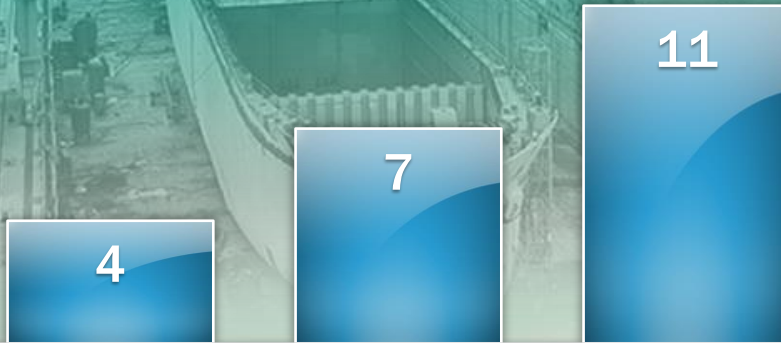


Repair and Maintenance Capacity



Dock Capacity

DRY DOCK



2002

2008

2021

FLOATING DOCK



2003

2011

2021



Big Floating Docks

Up to 350m x 85m

ERKAL SHIPYARD (TK TUZLA)

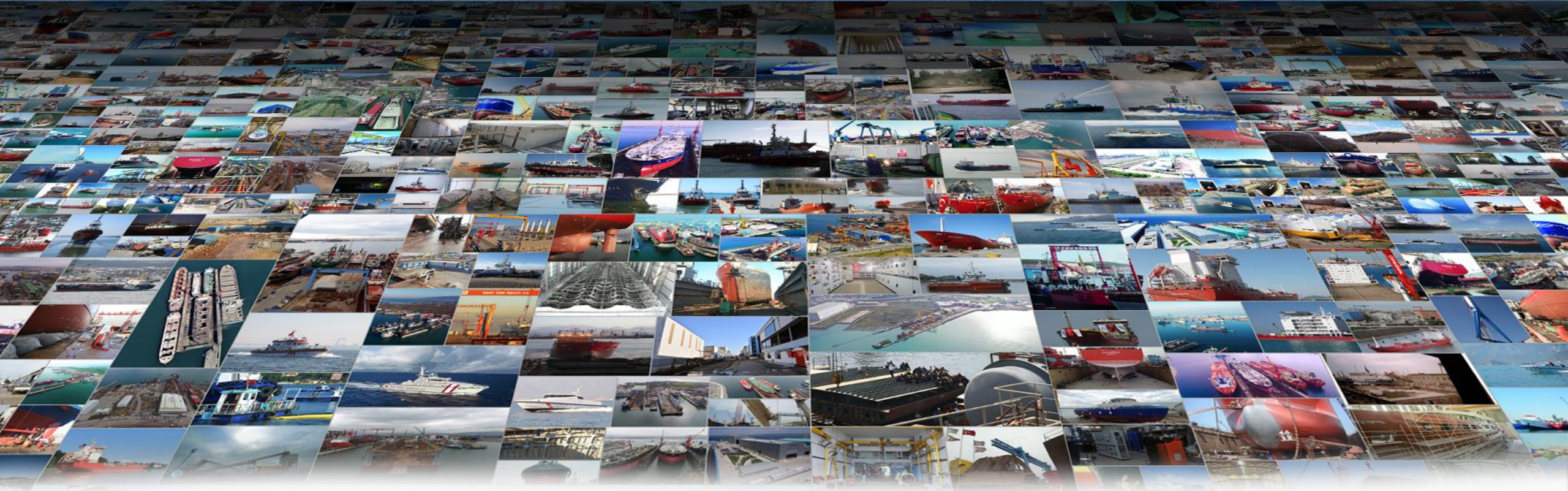
TK Tuzla Shipyard, a GISBIR member, has one of the biggest floating docks in the world.

109.000 TONS
LIFTING CAPACITY



TURKISH SHIPBUILDERS' ASSOCIATION

WHAT CAN WE BUILD?



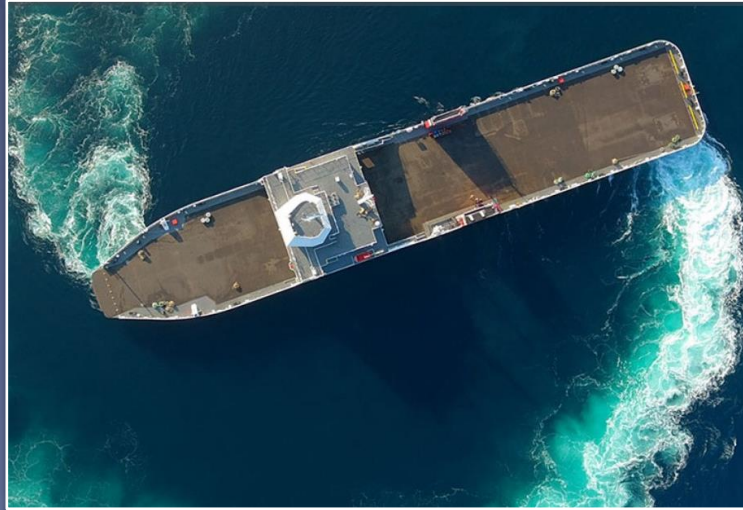
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FERRIES – PASSENGER VESSELS



SEFINE SHIPYARD

200 PCU Diesel-Electric RO-RO Car & Passenger Ferry



SEDEF SHIPYARD

LNG – Hybrid RO-RO Vessel



TERSAN SHIPYARD

Hybrid Powered, Double-Ended Car and Passenger Ferry



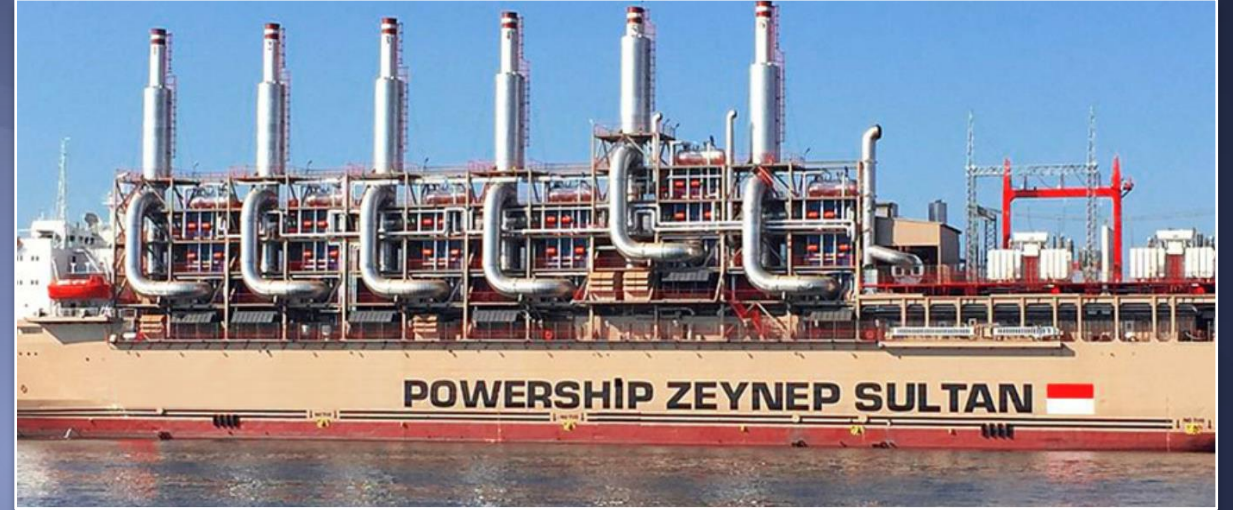
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ENERGY SHIPS



SEDEF SHIPYARD

Onur Sultan
Powership



SEDEF SHIPYARD

Zeynep Sultan
Powership



SEDEF SHIPYARD

Orhan Bey
Powership



TURKISH SHIPBUILDERS' ASSOCIATION

TUGBOATS



GİSAŞ

The World's 1st Battery-Powered Full Electric Harbour Tugboat



SANMAR SHIPYARD

The World's 1st Remotely Operated Commercial Vessel and LNG Fuelled Escort Tug



SANMAR SHIPYARD

AVD Hybrid Tug



PRODUCT TANKERS



BESIKTAS SHIPYARD
Shovket Alekperova



ISTANBUL SHIPYARD
Sude S



ISTANBUL SHIPYARD
Ozden S



CHEMICAL TANKERS

1st in the World in Small Tonnage Chemical Tankers (2002 – 2012)



BESIKTAS SHIPYARD

Damia Desganges - 2



CEKSAN SHIPYARD

IVYA



CEKSAN SHIPYARD

Rhone



TURKISH SHIPBUILDERS' ASSOCIATION

PLATFORM SUPPLY VESSELS



CEMRE SHIPYARD

Service Operation Vessel



CEMRE SHIPYARD

The World's 1st DP2 SWATH Type
Service Operation Vessel



TERSAN SHIPYARD

Anchor Handler Tug Supply Vessel



OFFSHORE SUPPLY VESSEL (METHANOL POWERED and MDO/HVO)



TERSAN SHIPYARD

DP2 Construction Service Operating Vessels
powered with Methanol and MDO/HVO



TURKISH SHIPBUILDERS' ASSOCIATION

FISHING VESSELS



CEKSAN SHIPYARD

Færøysund



CEMRE SHIPYARD

The World's Largest Live Fish Carrier



TERSAN SHIPYARD

The World's Largest Longliner and
Danish Seiner Fishing Vessel



MEGA YACHTS & YACHTS

3rd in the World for Yacht Building

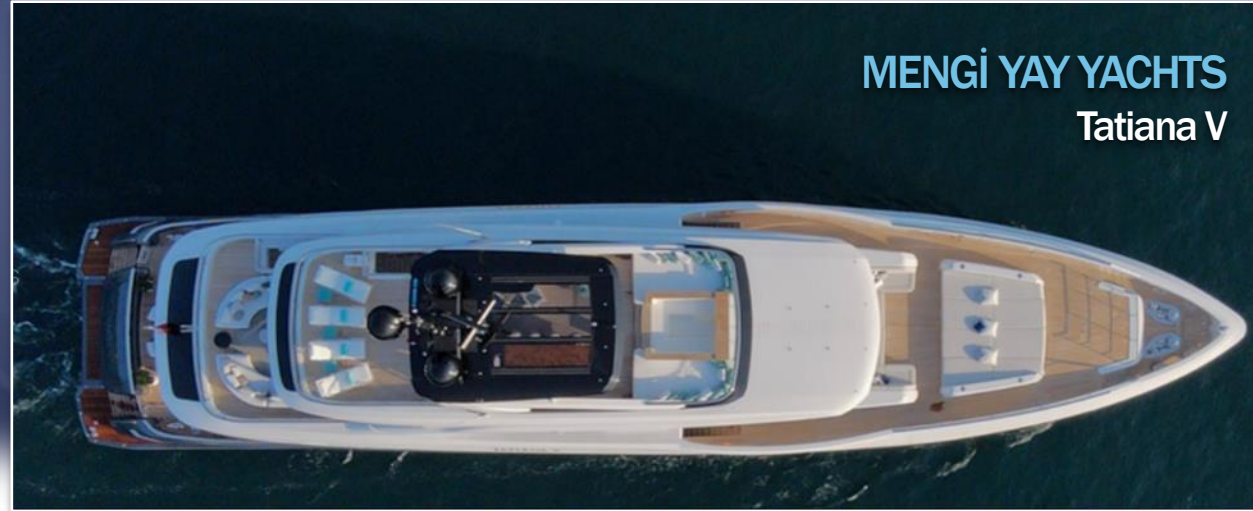


YILDIZ SHIPYARD

Maltese Falcon



URSA SHIPYARD
Red Square



MENGİ YAY YACHTS
Tatiana V



TURKISH SHIPBUILDERS' ASSOCIATION

BULK CARRIERS & CONTAINERS



SEDEF SHIPYARD

Mustafa Dayı

TORGEM SHIPYARD
Kaptan Arif Bayraktar



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AUTONOMOUS VESSELS



ARES SHIPYARD – ULAQ SERIES

The World's 1st Laser Guided Missile System
Integrated Armed Unmanned Surface Vehicle

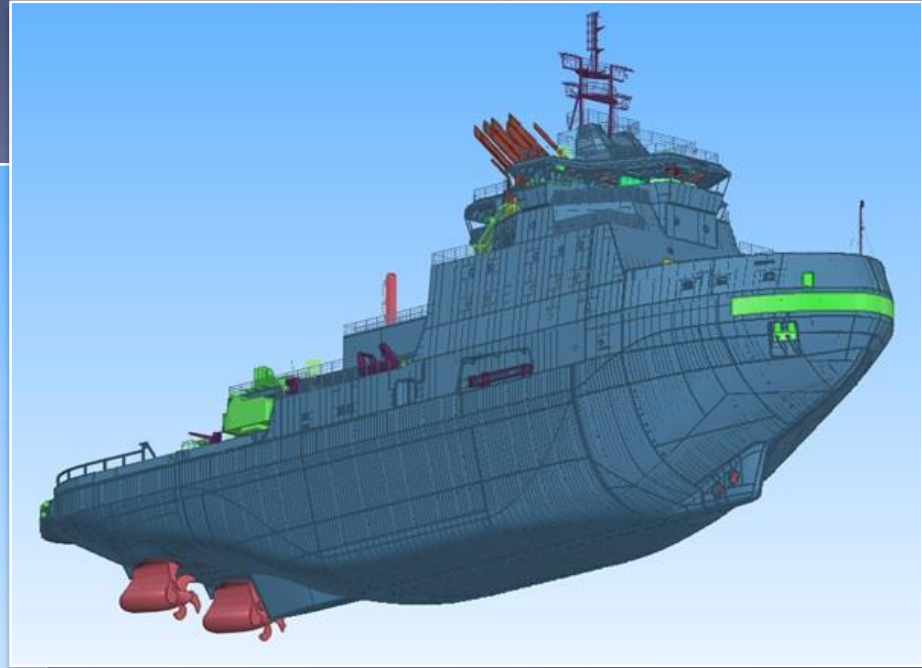
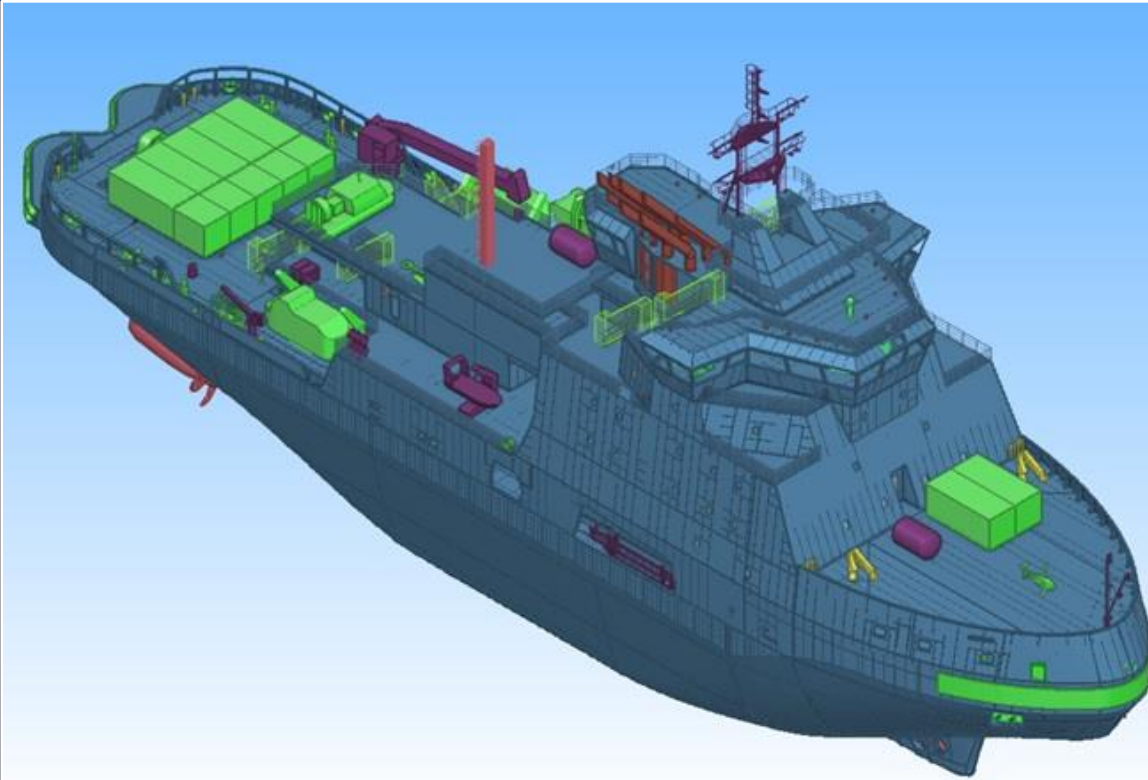


SANMAR SHIPYARD

The World's 1st Remotely
Operated Commercial
Vessel



ICEBREAKER



KUZEYSTAR SHIPYARD
Icebreaker – 7 Category



RESEARCH VESSEL



ISTANBUL SHIPYARD
The First Seismic Research
Vessel in Turkey



NAVY & COAST GUARD PROJECTS



TURKISH SHIPBUILDERS' ASSOCIATION

Repair Works

Repaired Vessel due to a
Grounding Damage on the Bow

Approximately 150 tons of
steel were used for the
renewal, together with outer
and internal coating.

The ship was repaired
within 25 days.



UN & IMO & EU Green Deal Approach



United Nations
Climate Change

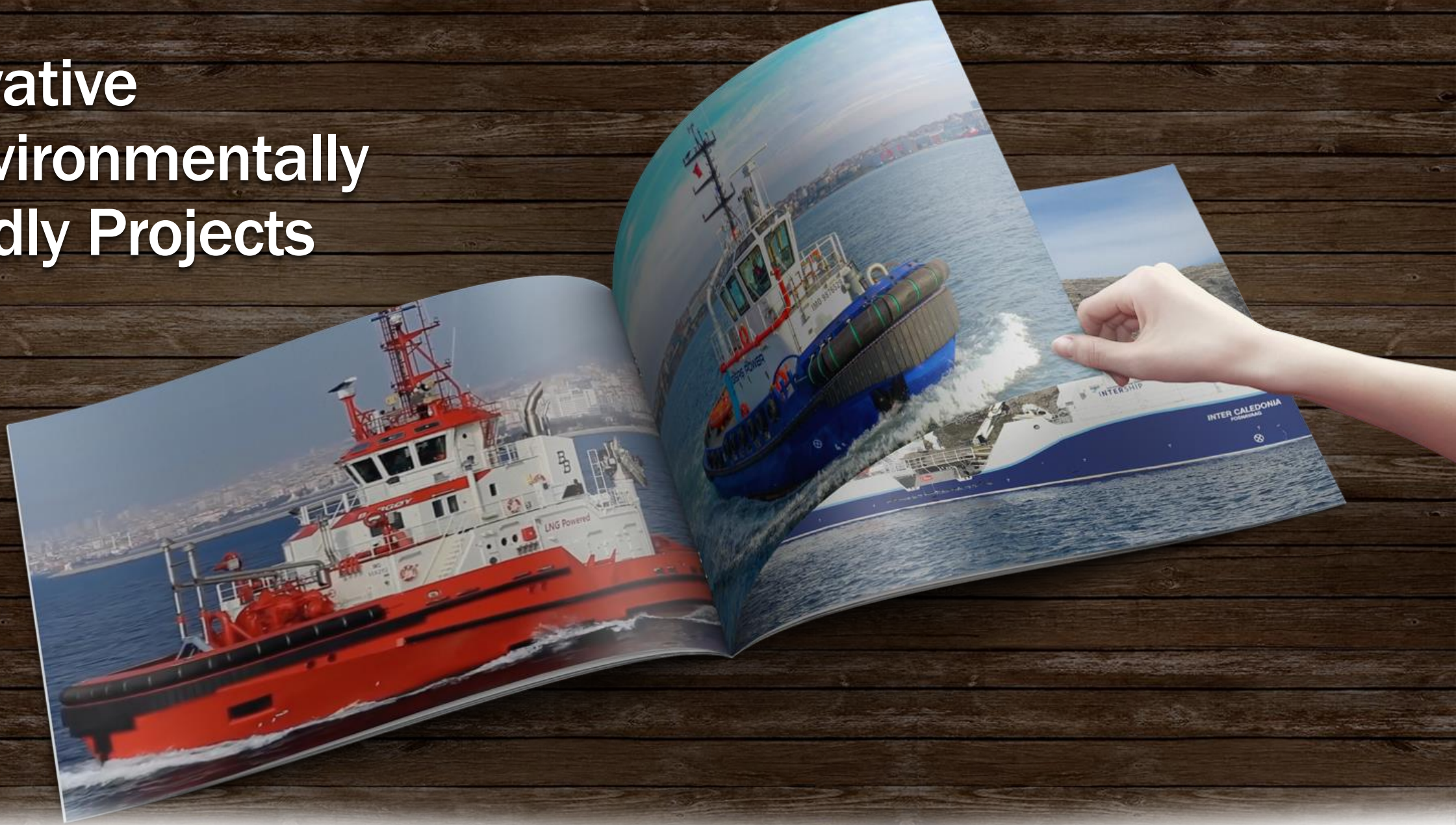


Turkish shipbuilding industry has the opportunity to closely follow up, **UN, IMO and EU Green Deal** goals and the ability to support the needs of the maritime industry.



TURKISH SHIPBUILDERS' ASSOCIATION

Innovative & Environmentally Friendly Projects



TURKISH SHIPBUILDERS' ASSOCIATION

The World's First LNG Powered Escort Tug

SANMAR SHIPYARD



The first tugs to be fuelled by the much more environmentally friendly liquefied natural gas (LNG) to eliminate sulphur emissions, bring particulate matter emissions down close to zero and reduce the discharge of CO2 and NOx by 26% and 80-90% respectively.



TURKISH SHIPBUILDERS' ASSOCIATION

The World's First Battery-Powered Electric Harbour Tugboat

GiSAŞ



Zero Emission Electric Tugboat

ZEETUG represents the new generation green and high technology by being rechargeable and all electric with zero emission and no noise.

This innovative design allows the vessels to operate powerful with higher efficiency in line with not harming the environment.

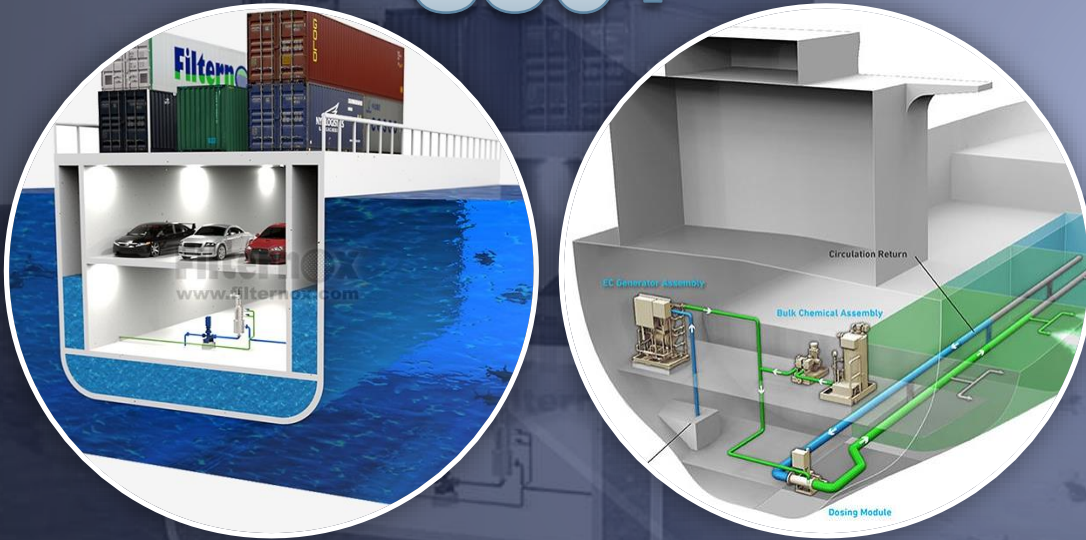


TURKISH SHIPBUILDERS' ASSOCIATION

Retrofit Installations of Ballast Water Treatment Systems and Scrubbers for Environmentally Friendly Ships

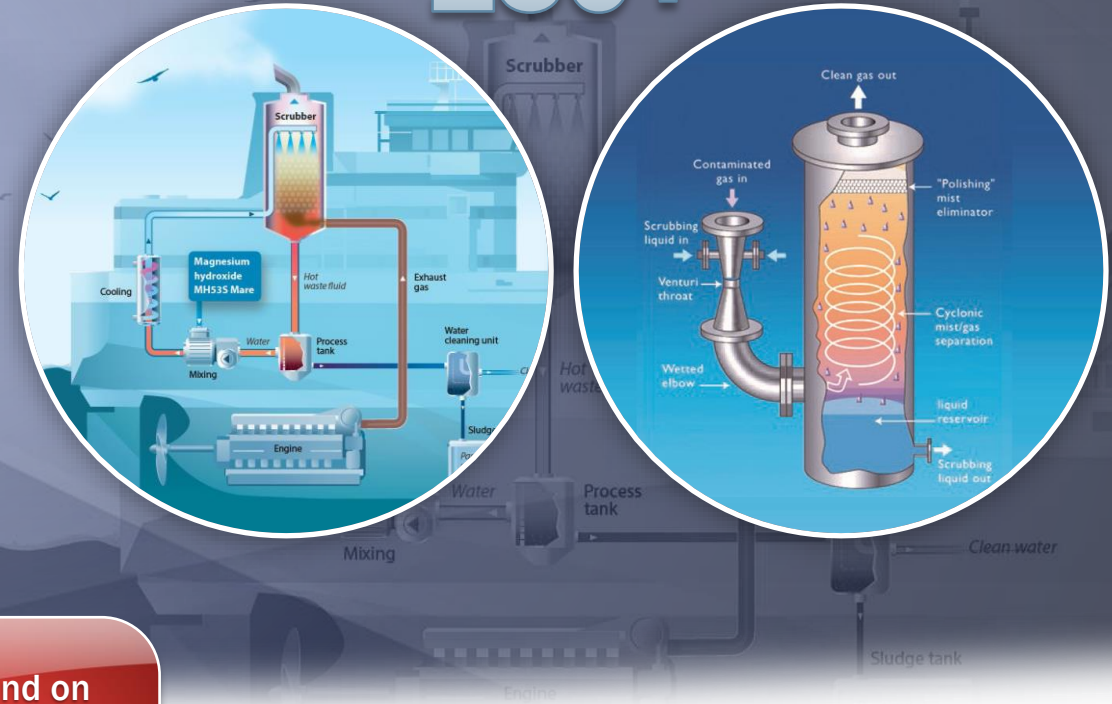
BALLAST WATER TREATMENT

350+



SCRUBBER

150+



Huge Retrofit Demand on
Tens of Thousands of Ships

2021 TUG of the YEAR AWARD WINNER – ZEETUG (GİSAŞ POWER)



TUG OF THE YEAR-2021 !!!!

* 1 of 5 shortlisted tugs was designed & built,

* 3 of 5 were built by Turkish shipbuilders

([International Tug & Salvage magazine](#))

Shortlist:

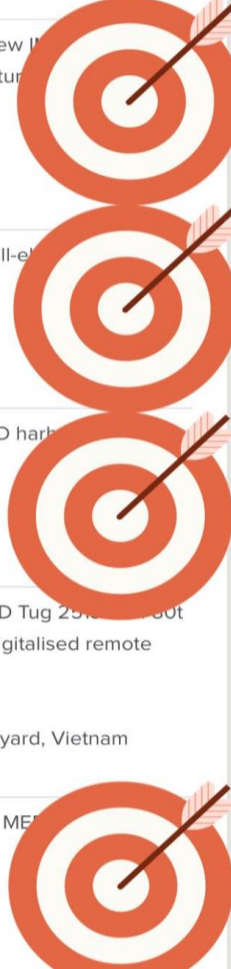
Bamse - Buksér og Berging's new TRAKtor 3000-Z design tug featuring machinery spaces
Owner: Buksér og Berging
Builder: Sanmar Shipyard
Designer: Robert Allan Ltd

Gisas Power - the world's first all-electric emission powered tug
Owner: Gisas
Builder: Tuzla Shipyard
Designer: Navtek

Hermes - a RAMParts 3000 ASD harbor tug with mechanical hybrid propulsion
Owner: Port of Aarhus
Builder: Uzmar
Designer: Robert Allan Ltd

Senglea - a next generation RSD Tug 2500 with bollard pull, twin fin skeg and digitalised remote monitoring system
Owner: Tug Malta
Builder: Damen Song Cam Shipyard, Vietnam
Designer: Damen

Svitzer Embla - Tundra 3000 / ME class tugboat
Owner: Svitzer
Builder: Med Marine
Designer: Robert Allan Ltd



TURKISH SHIPBUILDERS' ASSOCIATION

The World's Largest All Electric Ferry – NB42

SEFINE SHIPYARD



With its capacity of 200 cars and 600 passengers, Basto Electric will start its operation in early 2021, in Norway's busiest route of Mass-Horten. After Basto Electric starts operating, environmental footprint of the route will be markedly reduced, thanks to its 4000 kWh battery system and charging power up to 9000 kW.



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Coastal Passenger Vessel (LNG/HYBRID)

TERSAN SHIPYARD

One of The Biggest Passenger
Vessel Built in TURKEY

Coastal Passenger Vessel will be powered by a hybrid LNG and battery system, complying with low-emission regulations. The battery packs will allow the ship to sail noise and emission-free for up to four hours.



TURKISH SHIPBUILDERS' ASSOCIATION

Innovative System for Lengthening and Conversion of Ships

Partly Funded as R&D – GEMAK Group of Companies



TURKISH SHIPBUILDERS' ASSOCIATION

Innovative & environmentally friendly implementations



CLEAN MANUFACTURING TECHNOLOGIES – FOR BETTER FUTURE



TURKISH SHIPBUILDERS' ASSOCIATION

Innovative & environmentally friendly implementations



GISAS operates «The Worlds' First ZERO Emission Tug» «ZEETUG» in Tuzla Bay Shipyard Region and plan to change all fleet to ZEETUGs in order to Decarbonize tug operations



TURKISH SHIPBUILDERS' ASSOCIATION

Innovative & environmentally friendly implementations

**PHASE
04**

Decarbonization of the Port Facility



Renewable energy sources: Wind and photovoltaic panels

Fully electric port facilities: E-Trucks; E-Cranes; E-Handlers; ZEETUGs



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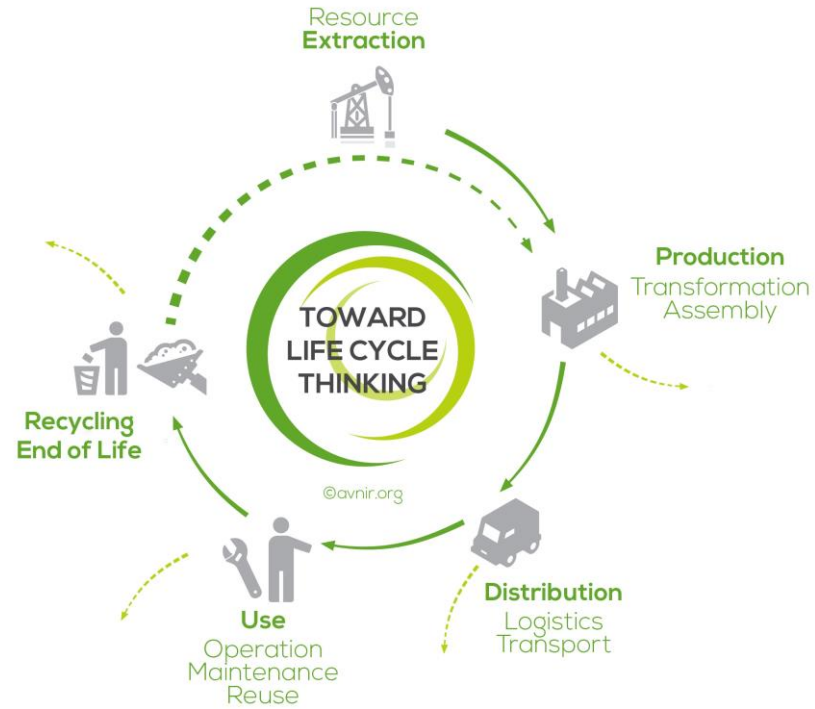
Innovative & environmentally friendly implementations



13 partners from EU including GISBIR are researching to apply Friction Stir Welding (FSW) to steel for panel assemblies and underwater robotic welding. FSW has low energy consumption and there is no need to use consumable materials.



Innovative & environmentally friendly implementations



GISBIR conducted LCA Inventory Studies for various types of ships including new building and repair&maintenance.





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