

Transfer of State-of-the-Art Knowledge Technology Requirements for Green Transition Training Seminar

6th of April 2025, Alexandria Shipyard (ASY), Egypt

The transition towards carbon neutrality in maritime transport requires short-term and medium-term solutions. Short-term solutions include using available energy efficiency technologies and transition fuels (such as LNG, LPG and electricity) through green retrofitting. In contrast, the medium-term solution is based on alternative fuels (such as Bio-LNG, methanol, ammonia, hydrogen) that still need to be fully available. Dealing with such complexity is not easy for the operators of smaller ships, such as fishing vessels and local ferries, of small ports and marinas due to lower investment capacity and lack of technical and managerial skills. To help address this issue, the POWER4MED EU project (2023-2025) aims to provide know-how and support to small operators in the Mediterranean basin towards their short-term and medium-term transition to carbon-neutral maritime transport. This will be achieved by developing, testing, and launching the POWER4MED Supporting Structure and "Supporting Team" of multidisciplinary experts, as well as setting up toolkits to support the path to carbon neutrality in the three sectors of maritime transport addressed by the project: fishing boats, commercial vessels (ferries), and marinas.

Target Audience

- Fishing vessel owners and operators.
- Crew members (captains, engineers, and deckhands).
- Fisheries managers and policymakers.
- technical shipbuilding support staff (maintenance and repair teams).
- Industry stakeholders (fuel suppliers, equipment manufacturers).
- Shipyards engineers and technical staff

Location

Alexandria Shipyard (ASY) is at 36 Customs Gate, Alexandria, Alexandria Governorate, Egypt. It was established in 1962 within the free zone of Alexandria port. ASY is a pioneering company in shipbuilding, ship repair, and the marine industries in Egypt and the Middle East. The company holds a distinctive position in the Arab region, having constructed most commercial vessels belonging to the Egyptian fleet. It has also attained success in other domains, such as building the largest ship ever constructed in Egypt, with a capacity of 38,500 tons, and the completion of the only oil rig built to date in Egypt.

The Training Seminar will offer a brief overview of the following:

- 1- Vessel's power demands standards through an energy audit applicable to every type of fishing vessel.
- 2- Energy efficiency strategies and related tools for reducing fishing boats' operational costs, minimizing their environmental impact and complying with regulations.
- 3- Feasibility of Alternative fuels for a sustainable fishing industry: case studies and success stories.
- 4- Short and medium-term national green regulations and/or strategies of the fisheries sector.
- 5- Financial incentives for the energy transition of the fishing sector, including green retrofitting

Session 1 - Opening and Policies & Regulations

- Registration: 8:30 – 9:30
- Opening: 9:30 - 10:00
- Policies and Regulations: 10:00 – 11:00

Session 2: Course on Design, building and retrofitting energy efficient boats 11:00 – 13:30

Networking Lunch: 13:30 – 15:00

Session 3: Course on Green Fishing Ports and eco-friendly fishing operations: 15:00 – 17:00

Panel discussion, conclusion, and Recommendations: 17:00 – 18:00

Detailed Program 6th April 2025; from 9:30 – 18:00

Registration:(8.30-9.00)

Opening: (9:00-9:45)

Prof. Suzan Kholeif, Local Organizer

Adm. Hosam, ASY President of Alexandria Ship Yard (ASY)

V1 On. **Marco Campomenosi**, Deputy Secretary General, Patriots for Europe, EU Parliament (video)

V2 On. **Virginie Joron**, Member of the EU Parliament (video)

Dr. **Giuseppe Papalia**, Consul, Head of Economic Affairs, Embassy of Italy

Session 1 (9.45-10.30): Policy and Regulation (*Moderated by Dr. Mario Dogliani*)

- **V3 + PPT1.1** POWER4MED's Aim and Objectives (*Dr. Mario Dogliani POWER4MED Coordinator*)
- **PPT 1.2** Overview of Egypt's fisheries vessels and current techniques (*Eng. Atef Megahed, General Director of Lakes and Fish Resources Protection and development agency*)
- **V4 + V5** LIFE4MECA and the ECA4MED Knowledge Centre (*Dr. Manuela Scarsi, AdSP MTS*)

CAPACITY BUILDING COURSES

Session 2 (10.30- 13.00): Short term Toolkit (*Tutors: Suzan Kholeif, Mario Dogliani*)

This session will focus on energy efficiency, green retrofitting and newbuilding for fishing boats as well as ferries to empower operators, crew, designers, builders and stakeholders to deal with transition thanks to co-defined tools and best practices on how to reduce fuel consumption, lower emissions, and improve operational efficiency. Below is a detailed outline for such a session:

- **V7 + PPT 2.1** Practical knowledge on short term regulatory framework - M. Dogliani SDG4MED
- **PPT 2.2 + V6 + V7** Model testing UNILIEGE, Benzohra
- **PPT 2.3** Green retrofitting: efficient power generation (engines and ancillaries) LABRUNA
- **PPT 2.4** Voluntary Certification of Green Retrofitting UDICER/NAUTITEST
- **PPT2.5** Mediterranean Shipyards Adaptation Plan (2025-2030) NALVALEGT, G. Coletta
- **PPT 2.6** How to finance Mediterranean transition SDG4MED, M. Dogliani

Networking Lunch: 13:30 – 15:00

Session 3 (15.00- 17.00): Green Fishing Ports and Eco-friendly Fishing Industry (Suzan Kholeif and Eng. Atef Megah,)

- **PPT.3.1** Overview of Egypt's fisheries vessels and current techniques (Eng. Atef Megahed, General Director of Lakes and Fish Resources Protection and Development Agency)
- **PPT. 3.2** Innovative technique "Onboard Carbon Capture in maritime decarbonisation (Eng. Mohamb Mohamed _Carbon less, Group)
- **PPT 3.3** Strategies to reduce fuel consumption in the fisheries sector in Egypt, Alaa El Far, NIOF
- Fishing gear efficiency and impact, and Alternative-friendly measures (Dr. Alaa El Far, NIOF)
- **PPT.3.4.** Overview of energy consumption in fishing operations (propulsion, gear handling, refrigeration, etc.), Tools for tracking and analyzing energy use, operational energy efficiency indicators and Energy audit (Dr. Alaa El-Far).
- **PPT. 3.5 & 3.6** Hydrogen Marine Engine, last year, students from the Marine Department at Alexandria University

question and Answers and Conclusions 17:00-18:00

Panel discussion on the intersection of all speakers, Fisheries participants, policy, and the national fishing industry.

- Q&A Session (*Audience to all speakers*)
- Conclusion and recommendations (*All speakers*)