



Friday  
**9<sup>th</sup>**  
**JULY**  
09:30 – 12:30  
CEST

**EUSAIR INVESTMENT IN SKILLS AND EDUCATION:  
WHICH ROADMAP FOR A MORE SUSTAINABLE BLUE  
ECONOMY IN THE ADRIATIC-IONIAN REGION?**

## ROUNDTABLE

**“BLUE SKILLS FOCUSING ON  
SUSTAINABLE SHIP- AND  
BOAT-BUILDING IN THE AI REGION”**

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In cooperation with



## UNIVERSITY OF ZAGREB FACULTY OF MECHANICAL ENGINEERING AND NAVAL ARCHITECTURE



- The Faculty of Mechanical Engineering and Naval Architecture (FAMENA) has an almost century-old tradition – it is the successor to the Royal Technical College founded in 1919.
- Since then FAMENA has been one of the Croatian leading institutions in education, science and expertise in the fields of mechanical engineering and naval architecture, and for the last two decades in the field of aeronautical engineering too.

## CROATIAN MARITIME INDUSTRY COMPETITIVENESS CLUSTER



- Established on July 5th 2013, 42 members
- Main goal is to build relations between business, academy and public sector supporting innovations as main driver for the growth of the maritime sector



## OUTCOMES AND INSIGHTS TO PROMOTE SKILLING IN SHIPBUILDING AND BOATBUILDING

- The **engineering** industry has been considered as an outdated image of spanners and dirty overalls for years, if not decades
- Working as an **engineer** is generally considered as a low profile job
- Shortage of **engineers**, thousands of them, global problem – not connected just with ship-and-boat-building
- But at the other hand, **engineering** is all around us
- Hands on is taken form pupils
- Similar problem with vocational jobs
- => **MarC** – sponsor and organizer of the round table "Skills-Gap Analysis in the Croatian Shipbuilding Industry: Challenges and opportunities", Zagreb, 2018
- => Project application, **FAMENA** as a lead partner, Harmonization of the basics for the dual vocational training curricula in the shipbuilding and metal industry – INTERREG IPA CBC, 2019 => Conclusion in the project summary
  - ❑ Deindustrialization of the region, there is the ongoing process of reducing and losing industrial production infrastructure and the labor force. The strategy of all state entities of the region should be the return and revitalization of sustainable industrial development.
- **FAMENA** – project partner, NEORION project: Promotion of green technologies and new materials to enhance sustainable shipbuilding in Adriatic Ionian Region, <https://neorion.adrioninterreg.eu/>, ended in 2021
- ERASMUS MUNDUS JOINT MASTER DEGREE "SUSTAINABLE SHIP AND SHIPPING -SEAS 4.0", [www.master-seas40.unina.it/](http://www.master-seas40.unina.it/), coordinator UNINA, A Coruna, **FAMENA** and TUHH, in English, duration: one year-and-half (90 ECTS), tailored for the students who already have 240 ECTS in NAME



## OUTCOMES AND INSIGHTS TO PROMOTE SKILLING IN SHIPBUILDING AND BOATBUILDING

SEFI (Engineering Society for Engineering Education)  
position paper, April 2016, still valid statements:

- **Engineering** is about creating products, processes and systems in response to obstacles and demands, or in pursuit of new ideas and opportunities.
- **Engineering** is not something that takes place behind „closed curtains” since the work of **engineer** is visible in almost every aspect of society and industry.
- The needs and priorities for **engineering** graduates:
- - Ability to adapt to **changes** => support of engineering curricula; - education must **broaden** the engineer; - HEEI should embrace **diversity**; - graduate **mobility** and engineering programme comparability; - how our academic staff are equally **evolving** and supported as educators; - learning is for **life** => L3; - **relationship and exchange of know-how between industry and academia**





Components of shipbuilding	
➤ Large shipyards	➤ Medium and small shipyards
➤ Repair shipyard	➤ Marinas - maintenance and overhaul
➤ Manufacture of main propulsion machinery	➤ Manufacturers of marine equipment and machinery
➤ Classification societies	➤ Scientific institutes
➤ Faculties of naval architecture	➤ Design companies
➤ Information technologies in shipbuilding	
The most important activities on the Adriatic	
❖ Ports and port activities	❖ Shipbuilding and ship maintenance
❖ Shipping	❖ Fisheries and mariculture
❖ Tourism	❖ Surveillance and safety at sea
❖ Maritime and port administration	
Promising products of modern shipbuilding	
Ships for the goods transportation	Passenger ships
Fishing boats - including all mariculture activities	Work boats - dredgers, FPSO, tugs, supply
Warships - including submarines and the Coast Guard	Small ships - pilot, rescue, surveillance, patrol, nautical tourism
River boats - various functions	Offshore structures - platforms for drilling, exploitation and transportation
Autonomous vessels - underwater and surface, unmanned	Intangible products - software tools, projects, patents, education,
Elements of development	
⇒ The Adriatic Sea as a significant resource	⇒ Protection and valorization of maritime domain
⇒ Sustainable tourism	⇒ Short Sea Shipping System
⇒ Advanced passenger transport	⇒ Mariculture
⇒ Coast Guard and safety at sea	⇒ Sustainable ships and shipping

<= Maritime complex

Conclusion => Maintaining industry as the sole **driver** of all activities in a country and only the **existence of industry** can preserve the core of **knowledge** and potential for new technological **advances** and enable **active market activity** <=





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**Thank You!**

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