PACT FOR SKILLS
UPSKILLING SHIPBUILDING AND MARITIME TECHNOLOGY WORKERS IN EUROPE

Background: The Shipbuilding and Maritime Technology Sector:

The European Shipbuilding and Maritime Technology sector is composed by 300 shipyards and 22.000 equipment suppliers and service companies providing 576.000 direct jobs and additional 500.000 indirect ones. The industry has an annual production value of 125bn € and is global leader in designing, building, repairing and retrofitting the most advanced ships and technologies in the market both for civilian and military purposes. The industry is strategic to meet the goals of the EU Green Deal and the Smart and Sustainable Mobility Strategy but also to ensure Europe's maritime and coastal safety and security and the sustainable development of the Blue Economy.

In order to tackle the green and digital transition companies are undergoing intensive upskilling and reskilling plans. However, the skills agenda is very complex and large for individual companies to cope with it on their own. In this regard is where industry and social partners see a big potential on building a Pact for Skills together.

The Challenge:

The sectoral social partners SEA Europe and IndustriAll Europe, together with main industry leaders, and in close cooperation with education providers, national and regional sectoral stakeholders and regional authorities represented by the Conference of Peripheral Maritime Regions are **fully committed to collectively address the main challenges currently faced by the sector:**

- The Covid-19 crisis, which has strongly impacted the sector leading to a decrease of 80% in new orders for European companies in 2020. Forecasts predict that niche markets, among others the demand for passenger ships, are not expected to recover until 2023-2024. Without targeted support measures the industry is at risk of losing key capabilities, talent and knowhow in the next 5 years.
- The need of adapting skills to the *Shipyard and Industry 4.0* and to the progressive digitalisation of the industry.
- The EU Green Deal and specially the industry's goal and responsibility to deliver the first zero emission ships and technologies by 2030.
- An ageing workforce. 40% of the current workers will be retiring in the next 10 years.
- The high intra-EU mobility of workers and the need of having a highly skilled workforce across the entire EU-wide supply chain.
- The scarcity of sectoral training offer and the difficulty to adapt it to the fast-changing needs of the industry.
- The difficulty to attract talent to the sector and to find people with sectoral skills. Women account only 20% of the workforce and there is a need to also attract more women and to promote career opportunities in the sector.
- The high added costs for companies to overcome the shortage of training and skills by creating their own schools and delivering training.

Maintaining talent in the sector at this crisis moment is key to preserve Europe's competitiveness and leadership in innovative maritime technology markets and to achieve the goals of the EU Industry Strategy and the Smart and Sustainable Mobility Strategy by 2030. In order to tackle the challenges while the market is at so low levels **it is necessary to take collective and urgent hands-on actions** with the involvement of industry, workers, education providers and public authorities.

The Maritime Technology Industry's Vision towards 2030:

As stated in the New Industrial Strategy for Europe, shipbuilding is one of the industries with *"the responsibility and the potential to drive the twin transitions, support Europe's industrial competitiveness and improve connectivity."* The sector is indeed key to achieve the goals of the European Green Deal and the Smart and Sustainable Mobility Strategy which aim at decarbonising maritime transport.

The Vision of the industry towards 2030 can be found in the Vision of the Waterborne Technology Platform:

- By 2030 the maritime technology industry will deliver the **first zero-emission short sea ships** and inland vessels and decrease emissions during navigation by 50% for other ship types. By 2050 all ship types operating deep-sea trades will be targeted.
- By 2030, new technologies and methodologies will radically **improve safety and security** of ships and of their operations and will contribute to zero fatalities.
- Digitisation will connect **smart vessels** with ports and infrastructure enhancing data flows. It will also lead to a higher degree of automation and autonomy of ship operations and remote control from shore by 2030.
- **Keep safe, competitive and eco-friendly shipyards and production sites in Europe**. By 2030, digitalisation and automation will lead to the full use of advanced design and production technologies, which will deliver cost-effective ships and offshore structures with an increased productivity of 50%.
- Europe is expected to **maintain the world leadership** in design, engineering, construction and maintenance of vessels, maritime equipment and infrastructures.

To achieve this Vision, the industry is immersed in a **digital and green transformation which requires the adaptation of all workers to the new design and production processes before 2030**. It is therefore of utmost importance to support upskilling and reskilling activities across the entire supply chain to maximise the potential and use of new technologies such as robotics, advanced manufacturing, 3D and 4D Printing, embedded sensors and connectivity (IoT), Big Data, cyber technologies, AR/VR, advanced energy generation, storage and distribution technologies, etc.

A survey carried out by the social partners' EU project "Upskilling Shipbuilding Workforce in Europe" identified some of the sectoral occupations that are in high demand today and will be in the next 5 to 10 years. The results were clear: **by 2030 the industry will still need professionals with specific sectoral skills**, **blue-collar workers** such as welders and solderers, shipyard mechanics, naval painters, electricians, assembly-supervisors, shipwrights, pipe fitters, mechanic turners, integrators and 3D designers, or electronics technicians. However, these profiles will need to be revised to include 4.0, digital, green and specific soft skills. On the other hand, the demand increases in the coming years for **professionals in new technologies,** such as data scientists, 3D printing technicians, system architects, or cybersecurity experts. Industrial, mechanical, electrical **engineers and naval architects** are also highly requested professionals in the sector.

In terms of employment, the pandemic outbreak came at a moment when shipbuilding and maritime equipment companies were looking to hire thousands of new workers to cope with the pre-COVID-19 demand expectations. In addition, **by 2030, 40% of the current workforce will retire and the sector urgently needs to attract new people** and ensure a proper transfer of knowledge between generations. Hence, the prospects for employment in the maritime technology sector after Covid-19 are promising if the industry succeeds to stay afloat during the crisis.

The Ambition:

The aim of the partners undertaking this Pact for Skills is to **jointly attract, train and retain a critical mass of highly skilled workers** to reinforce the competitiveness and innovation in the European shipbuilding and maritime technology industry and ensure that it can achieve the goals to deliver smart, zero-emission ships and technologies by 2030. To do so, the industry will up- and **reskill 7% of their employees each year, for the next 5 years, totalling 201.600 people, and attract 234.000 new talents by 2030. To meet this ambition public-private investments of 1bn € will be necessary.**

The partnership will support the upskilling and reskilling of people in key companies and across their supply chains, focusing not only on digital and 4.0 skills but also on very necessary green, transversal and technical skills.

Proposed Actions:

The Shipbuilding and Maritime Technology Pact proposes to develop and implement concrete solutions based on 4 pillars, giving priority to pillar 2 and 3 as the central elements of the urgent and concrete actions needed at this moment:

Pillar 1: Skills Analytics: Based on available data at EU, national and company level, the partners will gather intelligence on current sectoral demographics, skills, employment, and training and will forecast future needs. This exercise will be done based on the methodology developed by USWE Project, developed by the EU-Social Partners.

Pillar 2 (Priority 1): Upskill and Reskill over 200.000 Workers in the next 5 years. To do so, the partnership aims to urgently develop the following actions:

- **Develop and pilot common training** for up and re-skilling activities within the companies (specialisation courses, micro-credentials). These courses will focus on a variety of skills and occupations, from introducing the use of digital and 4.0 technologies in existing and new sectoral profiles to green, technical, and soft skills.
- Develop European **MOOCs (Massive Online Open Courses)** open to workers in several companies and countries. To do so a common online platform will be required. These short specialisation courses shall include digital and green skills, OHS, soft skills (such as those related to leadership, management of change...) and others identified as priorities by the partners.
- Promote and facilitate **company and intercompany training.** Financing schemes should be identified to support industry and workers in developing and implementing in-house training for upskilling and reskilling their workers and to join forces with other companies and organisations to develop joint training.
- Identify ways for promoting and facilitating **training from big Companies to SMEs** and suppliers. Financing schemes and best practices should be identified to support the transfer of knowledge to SMEs across the supply chain.

Pillar 3 (Priority 2): Attract 230.000 new workers to the industry in the next 10 years: Partners will work together on effective ways for attracting and retaining talent to the industry to cope with generational change and ageing of workforce (via campaigns, promotion of career opportunities, international student contests, traineeships, etc).

- The partnership also aims to promote and facilitate **Apprenticeships** in the Industry (Including SMEs) in order to attract talent to the sector and to promote career opportunities. The European Alliance of Apprenticeships will be looked at and the partners will investigate effective ways to increase the number of apprenticeships in the sector.

Pillar 4: Improve sectoral education and training offer, through the following actions:

- Develop a sectoral **EU Qualifications Framework**
- Develop a **European network of sectoral VET** centres.
- Develop **Master and specialisation programmes** and modules.

Commitments and KPIs:

Specific KPIs have been allocated to each of the actions mentioned above, constituting the *"Sectoral Skills Agenda"* of this Pact for Skills. Among them, the number or share of people enrolled in a specific training, the number and quality of training programmes, technologies and skills targeted, geographic coverage of the initiatives, number of recruitments after participating in specific programmes and apprenticeships.

SEA Europe and industriAll Europe are committed to continue providing a trust-worthy forum for their members and the members of the partnership to cooperate in the frame of this Pact for Skills, to support the activities, facilitate information and orientate the partnership across EU programmes and policies of relevance for the sector. In this regard, the **European Social Dialogue Committee for Shipbuilding will also provide a joint forum to support and host the Partnership when needed and will act as advisory group and monitor its development.**

Current members of the partnership:

SEA Europe Shipyards' & Maritime Equipment Association
industriAll EUROPEAN TRADE UNION
FINCANTIERI
NAVAL GROUP
ThyssenKrupp Marine Systems
DAMEN
Navantia
LISNAVE ESTALEIROS NAVAIS, S.A.
ASTICAN
MYKLEBUST
CHANTIER NAVAL DE MARSEILLE
Danish Maritime
GICAN
PYMAR
Meriteollisuus Finnish Marine Industries
NETHERLANDS MARITIME TECHNOLOGY
ANCONAV The Romanian Shipbuilders Association
FORO MARITIMO VASCO EUSKAL HERRIKO ITSAS FOROA THE BASQUE MARITIME FORUM
ACLUNAGA ASOCIACIÓN CLUSTER DEL NAVAL GALLEGO
CPMR CRPM Conference of Peripheral Maritime Regions
TURKU AMK TURKU UNIVERSITY OF APPLIED SCIENCES
SIMAC
STC GROUP LEADING IN LEARNING
UNIVERSITAS GALATIENSIS
MAFOSS