

THE SHIPBUILDING PACT FOR SKILLS: UPSKILLING SHIPBUILDING AND MARITIME TECHNOLOGY WORKERS IN EUROPE

Summary of the EU Social Partners' Proposal (March 2021)



Contents

Background: The Shipbuilding and Maritime Technology Sector:	1
The Challenge:	1
Vision 2030-2050:	2
The Ambition:	3
Summary of the proposed actions:	4
Current <i>members</i> of the partnership:	5

THE SHIPBUILDING 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 more than 22.000 equipment suppliers and service companies providing 576.000 direct jobs and additional 500.000 indirect ones across Europe. With an annual production value of 125bn € Europe 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 sector 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.

35% of the current technical workforce has a high education or engineering background, 60% come from VET and other technical education background and a small percentage are workers with non-formal learning. This workforce needs to cope with the challenges of the twin green and digital transition and to that end companies are undergoing intensive upskilling and reskilling plans. However, the digital and green agenda is too 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 the 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 has strongly impacted the sector leading to a decrease of 80% of new orders for European companies in 2020. Forecasts predict that niche markets, among others the demand for passenger ships and offshore vessels, are not expected to recover until 2023-2024. Without targeted support measures the industry is at risk of losing its 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 therefore, there is a need also to attract more women and to promote career opportunities in the sector.
- The required high added costs from 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 Green Deal, the Smart and Sustainable Mobility Strategy and the green and digital transition by 2030. **To tackle the challenges while orders are 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.

Vision 2030-2050:

As stated in the "New Industrial Strategy for Europe", which will "*provide special focus on sustainable and smart mobility industries*", **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 to decarbonise maritime transport**. For this reason, a dedicated co-Programmed Partnership on "Zero-Emission Waterborne Transport" is under creation within the framework of Horizon Europe.

The general Vision of the industry towards 2030 and 2050 can be found in Vision of the Waterborne Technology Platform for Ships and Shipping:

- **Deliver green and clean waterborne transport:**
 - By 2030 the industry will deliver new-build short sea ships and inland waterways vessels and decrease emissions during navigation by 50% for other ship types
 - By 2050 it will decarbonise all ship types operating deep-sea trades
- **Deliver safer and more secure waterborne transport:** The industry will strengthen Europe's lead in waterborne safety and security.
 - By 2030, new technologies and methodologies will radically improve safety of ships and of their operations and will contribute to zero fatalities.
 - By 2050, Europe will build its fleet with a radically improved safety culture – applied onboard as well as on-shore – and characterized by zero accidents, zero loss-of-life and zero pollution, while ensuring secure data exchange and cybersecurity.
- **Deliver connected and automated waterborne transport:** 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 the shore by 2030.

Future ships and vessels will be designed to be continuously updated with digital technologies throughout their lifecycle.

- **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%. New technologies will support Europe to maintain the world leadership in design, engineering, construction and maintenance of vessels, equipment and infrastructures.

In order to achieve this Vision, the industry is immersed in a digital and green transformation which requires the adaptation of all workers to the new technologies and design and production processes. It is therefore of utmost importance to **support the upskilling and reskilling of workers across the entire supply chain to use these new technologies: 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.**

In a recent survey carried out by the sectoral social partners' joint EU-funded project "Upskilling Shipbuilding Workforce in Europe", companies and workers representatives identified some of the sectoral occupations that are currently in high demand and which 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 technologies**, such as data scientists, 3D printing technicians, system architects, or cybersecurity experts. Industrial, mechanical, electrical **engineers and naval architects** are also very appreciated and requested professionals in the sector.

Within the USWE project, the social partners together with education providers and their members reviewed 25 professional profiles and updated them with the required technical, green, soft and digital skills. These profiles and new ones should be further developed and used to **design and deliver innovative training courses for current and new workers.**

Despite the industry sees great business opportunities arising from the green and digital transition of the economy and the decarbonisation of shipping and maritime operations by 2030, **it cannot be neglected that Covid-19 crisis has the potential to jeopardise the efforts and Vision of the sector for 2030.** The pandemic has hit very hard Europe's maritime technology sector, especially in the passenger market (cruise and ferry building) which provides a very large part of employment throughout the entire European supply chain. This comes at a moment when shipbuilding and maritime equipment groups were looking to hire thousands of people 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.** To do so, it is critical that sector-specific measures are taken at EU level to protect an innovative and strategic sector during this crisis-period, so that companies, capabilities, jobs, and knowhow can be kept in Europe.

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.

Summary of the proposed actions:

The partnership 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: 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: 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.

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:

EU Sectoral Social Partners:	
SEA Europe and its members (16 National Industry Associations)	
IndustriAll Europe and national members of its Shipbuilding Committee	
Industry:	
Astican – Astander	
Chantier Naval de Marseille	
Damen	
Fincantieri	
Lisnave Estaleiros Navales	
Myklebust Shipyard	
Meyer Turku	
Navantia	
Naval Group	
Thyssen Krupp Marine Systems	 ThyssenKrupp Marine Systems
Research Centres:	
Cetena	
Regional Administration and Regional Clusters:	
Conference of Peripheral Maritime Regions	

Aclunaga	
Basque Maritime Forum	
Mafoss	
Mare Forum	
Education Providers:	
Campus des Métiers et des Qualifications D'Excellence	
Ferrolterra CIFP	
SIMAC, Svenborg International Maritime Academy	
STC Group	
Turku University of Applied Sciences	
University of Galaty	
University of Genova	
Supported by:	
CEEMET, European Tech and Industry Employers	
USWE Project, Upskilling Shipbuilding Workforce in Europe	