



BLUE PORTS

Blue Careers in Net Zero Energy Ports



Photo credits: bluecinema, adapted by ReSEL@TUC

THE CHALLENGE

Ports are vital to supply chain management and the economy, providing access to resources and services while ensuring safety and security. Europe accommodates more than 1,200 ports supporting 2.5 million jobs. However, maritime transport faces environmental challenges, contributing 3-4% of the EU's CO₂ emissions, with 6-7% generated at berth. Additionally, there is a lack of necessary knowledge and skills in the blue economy workforce to drive the ports' green transition.

BLUE PORTS IN A NUTSHELL

BLUE PORTS is dedicated to enhancing the skills and capacity of human capital within the port ecosystem, focusing on small and medium ports, with a view to support and foster their green transition. By delivering a mutually acknowledged training and certification scheme at the European level, in accordance with ISO 17024, BLUE PORTS offers a competitive advantage to the blue economy's workforce. The consortium engages key market actors across the quadruple innovation helix and from four different countries: Greece, Italy, Spain and Georgia, in a robust network comprising the marine and maritime educational institutions, the blue economy industry, civil society-environmental organizations, and governance at local, regional, national, and transnational levels.

POLICY IMPACT

The BLUE PORTS project adheres to the European Green Deal, in alignment with the Sustainable Blue Economy Strategy, the EU Offshore Renewable Energy Strategy, the Circular Economy Action Plan, and the European Skills Agenda, by promoting blue careers and addressing critical skills gaps in the port sector. The BLUE PORTS ISO 17024-certified training scheme for small and medium-sized ports' staff advances the green and digital skills essential for net-zero port emissions by 2030 and 2050. The project fosters sustainable, low-carbon maritime operations and supports EU climate neutrality goals through specialized training that incorporates GreenComp and DigComp frameworks.

BLUE PORTS AT A GLANCE

PROGRAMME

European Maritime, Fisheries and Aquaculture Fund (EMFAF)

CALL

EMFAF-2023-BlueCareers

TOTAL BUDGET

€ 1,171,661 (funding rate 80%)

DURATION

November 2023 – October 2025

COORDINATOR

Renewable and Sustainable Energy Lab
Technical University of Crete

 www.blue-ports.eu

 info@blue-ports.eu

FOLLOW US:



IMPACT FOR CITIZENS AND COMMUNITIES

Through a tailored qualification scheme designed to professionalize port personnel in areas that align with blue economy and the promotion of sustainable ports, BLUE PORTS aspires to deliver indirect medium- and long-term benefits to EU citizens. These efforts improve daily lives of citizens by supporting the sustainable development of the port ecosystem which is closely linked to the economic and environmental wellbeing of coastal communities.

By delivering a mutually acknowledged training and certification scheme at the European level, it offers reskilling opportunities and a competitive advantage to the blue economy's workforce, with the aim to accelerate career advancement, job mobility and talent retention. A critical mass of 200 certified professionals, including ports' and port operators' personnel and management will acquire specialized skills to drive the green transition in ports across Greece, Italy, Spain, and Georgia. By transferring and mainstreaming the BLUE PORTS certification scheme across Europe, the Mediterranean and the Black Sea, this number is estimated to reach 1,650+ by 2030 and 16,500+ by 2050. Targeted actions will offer specialised knowledge and skills to graduate students and young talents to build their career contributing to ports green transition.



Focusing on eco-friendly practices, the project addresses key environmental challenges in coastal cities, such as air and water pollution, noise, and waste management, which directly benefit citizens and local communities while fostering resilience against environmental challenges and the climate crisis. BLUE PORTS promotes renewable energy adoption, decarbonization of energy systems, and sustainable mobility. A significant impact is expected as a result of BLUE PORTS activities, within and beyond the project's lifetime, due to the employment of reskilled and qualified human capital. Based on projections, it is estimated to achieve annual energy savings and renewable energy generation of 165,000 MWh, primary energy savings of 383,000 MWh, and a reduction of 163,000 metric tons of CO₂e in greenhouse gas emissions as a result of a more sustainable port operation.

BLUE PORTS creates job opportunities by forming a skilled workforce to meet the needs of the rapidly expanding blue economy sectors. This includes current port employees, young talents, and professionals seeking requalification, empowering diverse groups to contribute to sustainable port operations. Moreover, BLUE PORTS is establishing consistent quality standards for blue economy training across the EU, laying a strong foundation for future sustainable development within the sector.

BARRIERS AND FUTURE NEEDS

Challenges for BLUE PORTS include aligning with national frameworks and ensuring stakeholder readiness for the new ISO-certified standards, while meeting the needs of a highly diverse port sector, in terms of professional profiles.

The primary recommendation is to develop a horizontal upskilling training and certification scheme, modularly tailored to the needs of both management and operational staff. Future projects may focus on specific high-demand professions for green transition. From a policy perspective, incentives and tailored EU support for upskilling in sustainable port management, and penetration of green skills within National Qualifications Frameworks will positively affect this, and future projects' success.

INNOVATIVE ELEMENTS

An important and innovative element of the BLUE PORTS project is the establishment and operation of the National Technical Committees (NTCs) in all participating countries (Greece, Italy, Spain, Georgia), bringing together representatives from all groups of the quadruple innovation helix framework (industry, academia, authorities and civil society), and across the entire value chain (employers, employees, certification/training providers, end users, competent authorities and social partners).

The NTCs are an integral part of the BLUE PORTS training and certification scheme, providing valuable insights into its development and facilitating its widespread adoption. Their active involvement ensures that the BLUE PORTS scheme reflects the collective insights and expertise of all stakeholders, thereby enhancing its relevance, effectiveness and acceptance within the industry.

Fostering a deeper understanding of the sector's skills gaps and needs, they ensure that the BLUE PORTS scheme aligns with both the evolving regulatory landscape and the strategic priorities of the industry, contributing in this way to achieving the objectives of the project and supporting future policy developments at both EU and national levels.