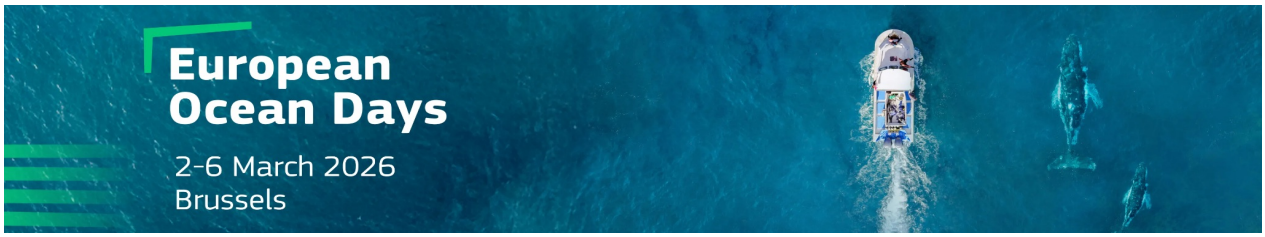

Blue Skills to Blue Careers

Policy Pathways for Workforce Development in a Sustainable Blue Economy | April 2026

Executive Summary

A closed workshop of seven EMFAF-funded "Blue Careers and Blue Skills" projects was held on 2 March 2026 in Brussels in the European Ocean Days 2026 context to converge on practical policy messages on adoption, credential recognition, and sustainability of digital and blended learning tools for the blue economy.

Participants reported a consistent pattern: tools can be effective and scalable when embedded inside institutions or employer pathways, but struggle when left as stand-alone project platforms competing for attention.

The central policy bottleneck is portability and trust of learning outcomes across borders, sectors, and target groups, including micro-credentials, ECTS recognition, and person certification schemes. This issue can be addressed by aligning blue-skills short courses, serious games, and work-based learning to the EU approach to micro-credentials and issuing them as verifiable European Digital Credentials for Learning compatible with Europass and the European Learning Model.

Five consolidated policy recommendations result from the evidence: adopt an EU-aligned "blue micro-credential blueprint"; embed blue-skills modules into school, VET, and employer routines using the EU4Ocean Network of European Blue Schools as an access point; formalise inclusive pipelines for justice-involved and otherwise vulnerable youth through modular credentials and employer partnerships; design sustainability models early by transferring ownership to actors with long-term incentives; and require interoperability to avoid parallel, non-reusable platforms.

Disclaimer

This policy paper reflects the outcomes of a structured workshop held on 2 March 2026 in Brussels, within the framework of the European Ocean Days 2026. It was organised as a joint activity of 7 projects funded under the EMFAF Call for Proposals: "Blue careers for a sustainable blue economy". The document captures the views, experiences, and interpretations of the participating projects and contributors. It does not represent the official position of the European Union, the European Commission, CINEA, or any other EU institution or funding body. The European Union cannot be held responsible for any use that may be made of the information contained herein.

The workshop was designed as a collaborative, participatory exchange among EU-funded projects to identify common challenges, practices, and policy-relevant insights related to blue skills and blue careers. As such, the conclusions presented should be interpreted as consensus-based practitioner input rather than formal policy positions.

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Scope

The workshop took place in the EMFAF "Blue careers for a sustainable blue economy" policy context, a call designed to develop next-generation blue skills through innovative cooperation between industry and education and training bodies. The agenda framed three primary policy themes: adoption and engagement; recognition and portability of digital credentials; and sustainability and scaling beyond project funding, with inclusion and social impact as a cross-cutting lens.

The projects represented at the workshop cover aquaculture, ports, fisheries, blue biotechnology, coastal tourism and inclusion pathways for vulnerable groups, all falling within the sustainable blue economy scope. Despite their different sectors and target groups, they reported a very similar pattern: strong interest in blue careers exists, but the systems needed to raise and convert awareness into recognised skills and link to concrete employment opportunities, which otherwise remain fragmented.

The discussion showed that the problem is not a lack of ideas, but the absence of clear adoption pathways. Projects can build games, micro-courses, MOOCs, mentoring schemes, job-matching tools and certification models. The harder task is getting schools, vocational education and training providers, universities, employers and public authorities to use them at scale. Project evidence shows that "what works" is not only course design but institutional positioning: educator-backed delivery, co-design that creates ownership and commitment, and credible credentialing that employers can trust and reuse. A cross-cutting issue was the need to connect bottom-up experimentation with top-down recognition. Projects can test what works. Public systems decide whether those results become part of mainstream education, labour market policy and sector practice.

Main Barriers

Barrier	What it looks like in practice	Who must act
Institutional uptake is weak	Schools and training providers are interested but often lack time, curriculum space, staff incentives or formal procedures to integrate external tools. Projects reported that uptake rises sharply when a teacher or institution adopts the tool as part of a structured programme.	Member States, schools, VET, universities
Recognition is slow and uneven	ECTS, micro-credentials, badges and certification schemes are handled very differently across countries and sectors. Projects faced long delays, high costs and uncertainty about who recognises what.	EC, Member States, accreditation bodies
Sustainability after project funding is fragile	Platforms, content, hosting, moderation, updates, mentoring and certification all require resources. Many projects struggle to continue once grant funding ends, especially when partners do not have a direct commercial or institutional interest.	EC, Member States, project consortia, employers
Employer linkage is insufficient	Training can raise awareness, but learners still face a gap before employment. This is most visible where jobs require additional certificates, trust from employers, or practical work experience.	Employers, sector bodies, projects, public authorities
Early orientation is too weak	Projects agreed that many young people encounter blue careers too late. By upper secondary or university level, interest in science, technology and sea-related professions has often been already manifested.	Member States, schools, EU4Ocean and Blue Schools network
Low interest for rescaling/upscaling of existing old-aged employees	The existing staff is responding to the needs of energy transition very slowly, due to old-fashioned training/education and limited available professional lifetime.	Member States, HEIs, Professional Associations, Technical & Economic Chambers

What worked in practice

Four lessons stood out:

- First, **adoption is strongest when institutions feel ownership**. Co-design with teachers, training providers, industry bodies and public authorities increases the chance that the tool survives after the project.
- Second, **practical relevance matters**. Learners respond best when training uses real company challenges, real business cases, visible rewards and a clear link to jobs or recognised progression.
- Third, **networks matter**. Platforms such as the Blue Schools network, EU4Ocean and sector associations can reduce duplication and help projects reach schools and employers faster.
- Fourth, **co-design of certification and training schemes**, engaging all beneficiaries and stakeholders and directly linked with identified skills gaps and market needs, can support long-lasting training programs beyond the contracted lifetime of a project.

Projects also showed that different delivery models can work when they are tied to a credible use case. MOOCs can scale visibility if developed through well-known delivery platforms, where learners can find blue economy-related content even if that is not their main reason for accessing the platform. Games can attract younger audiences. Cohort-based learning can improve completion. Certification can create trust. Mentoring can help vulnerable groups move from awareness to employment. The common condition is that each tool must be embedded in a pathway, not offered as a stand-alone product.

Policy recommendations

1. Build an EU-level reference framework for blue micro-credentials

The European Commission, with Member States and sector bodies, should define a light common reference for blue skills credentials. It should cover minimum learning-outcome description, assessment evidence, quality assurance, issuer governance, identity verification and alignment with the European Qualifications Framework, ESCO and Europass. BlueComp[1], the EU's flagship Competence framework for the Blue Economy, can be used as the competence reference layer to make outcomes comparable across subsectors, while keeping sector-specific additions flexible.

2. Create a fast adoption route for schools and VET providers

Member States should allow recognised external blue-skills modules to be integrated through flexible curriculum windows, continuing professional development credits for teachers, and simplified partnership templates. A practical target is for each participating Member State to identify at least 20 schools or VET providers that can pilot such integration in the next school year.

3. Link blue careers projects more directly with employers and sector bodies

Projects and public authorities should move from awareness-only models to pathway models that include work exposure, mentoring, internships, job matching and, where needed, bridge certificates. Sector associations, port authorities, clusters and employer networks should be involved from the design stage, because they have the strongest incentive to continue what works.

4. Fund project sustainability, not only pilot creation

Future calls should allow post-project maintenance of platforms, content updates, moderation, community management and certification operations for a defined transition period. A realistic benchmark is to reserve a small continuation window of 12 to 24 months for high-performing pilots that have a clear adoption plan.

[1] BlueComp is the EU's flagship competence framework for the Blue Economy.

5. Start earlier and use existing ocean-literacy channels

Blue careers orientation should begin before university. The EU and national authorities should connect blue skills actions with primary and secondary education through the Blue Schools network, EU4Ocean and national STEM initiatives. The goal should be simple: expose students to the blue economy early enough that later training demand is not limited to a small, self-selected group.

6. Strengthen Cross-Sector Reskilling and Upskilling Partnerships

Develop supporting mechanisms to enable sectoral skills forecasting, employer-backed lifelong learning and persons certification to enhance workforce resilience, productivity, mobility and inclusive participation in the digital and green transitions. Structured partnerships between policy and industry actors, training providers, employees' unions, and civil society aiming to co-design flexible reskilling and upskilling programmes for the existing and future workforce, aligned with technological change and environmental transition needs

Actions for projects and implementing organisations

Projects should align around a small number of shared building blocks instead of creating fully separate systems. A practical next step is a working group of Blue Careers coordinators focused on credential design, interoperability and reuse of content. That group should produce a short joint note, common terminology and a basic mapping of tools that other projects or institutions can adopt.

Training providers and project consortia should also plan sustainability from the outset. This means identifying which elements will stay open, which can be licensed, which need institutional hosting, and which require a paying user or sponsoring body. Free access is valuable for outreach, but some services, especially audited certification, will only remain credible if a long-term operating model exists.

Conclusion

The workshop confirmed that Europe needs a clearer route from experimentation to adoption as regards the blue economy career pathway. The projects have demonstrated useful methods, from games and MOOCs to cohort learning, mentoring and certification. The next step is to provide support to make these methods easier to recognise, easier to integrate and easier to sustain. If that happens, Blue Careers policy can move from awareness raising to workforce formation for a sustainable blue economy in accordance with the EU Green Deal and the European Ocean Pact.