

November 17, 2020 Breakout Session

Graduate Training

Context



The next generation of Canada's entrepreneurs, researchers and innovators require a broad set of skills to succeed in and contribute to the Canadian and global economy and effective ocean policy. To meet this need, universities must equip students through career-boosting learning experiences such as studentships, internships, and a suite of value-added opportunities.

The Ocean Graduate Excellence Network (OGEN) gives exceptional graduate students a full spectrum experience beyond academia in an extraordinary environment. Students will gain valuable hands-on practical experience with industry or government (through research lab visits, internships and other collaborations). They will also complete professional development training, participate in workshops, conferences, sea training and summer schools (local, national, international) relevant to their interests and goals, and take part in Indigenous cultural awareness training. Along with their degree, OGEN students will graduate with micro credentials verifying a suite of soft skills and experiences that will broaden their career opportunities.

Some International Training Programming under European Union funded Programmes

Research and Innovation Projects funded by the European Union Framework Programme for Research & Innovation, Horizon 2020, for example under the 'Blue Growth calls'. All funded research & innovation projects need to demonstrate that they also contribute to training and professional development opportunities of the 'blue workforce'. For more information see for example recently funded project dedicated to international cross-Atlantic cooperation:

<http://www.missionatlantic.eu>

www.AtlantECO.eu

www.triatlas.w.uib.no

www.aquavitaeproject.eu

A similar focus will continue with its successor programme Horizon Europe.

The **Erasmus Programme** can contribute to the development of new curricula, short courses, and teacher training programmes across all sectors of education. It also supports sport, youth participation, youth work and dialogue with policymakers. Particularly relevant is the **European Universities Initiative** (funded through Erasmus+ and Horizon 2020), which has a strong sustainable development component, in particular the SEA-EU European Universities of the Sea initiative: <http://sea-eu.eu>

The **Marie Skłodowska-Curie Actions** (currently funded under Horizon 2020 and in future under Horizon

Europe), which can fund bottom-up frontier and applied research projects in the form of postdoc fellowships, doctoral programmes and collaborative staff exchanges.

The **European Institute of Innovation and Technology (EIT)** and, in particular, the EIT Knowledge and Innovation Communities: eit.europa.eu

The **EU4Ocean coalition**, an EU ocean literacy hub.

Discussion Questions

1. What current OFI activities in this area align with the UN Decade of Ocean Science for Sustainable Development?
2. With whom (groups, organizations, initiatives) would an alignment support a strong presence under the UN Decade – nationally and internationally?
3. Looking forward, what further actions might OFI take, and/or lead, in this area?
4. Identify who would be appropriate to work with OFI to take these actions forward.

A vision for marine graduate training programmes in Europe

There is a mismatch between the needs of policy and industry in a changing world, and the typically more traditional approach to educating graduates within the University system.

There is strong emphasis on Blue Growth in Europe. However traditional marine-based graduate programmes at Masters and Doctorate level do not equip our future marine professionals with the ability to realize the potential of a sustainable blue economy. We need graduates who:

- understand the needs and requirements of blue industries, and have had exposure to both academic and non-academic careers;
- have and can apply multi-disciplinary knowledge to complex marine systems;
- have a good range of transferrable skills and experience; and
- can ensure innovation and bring new ideas to address new challenges.

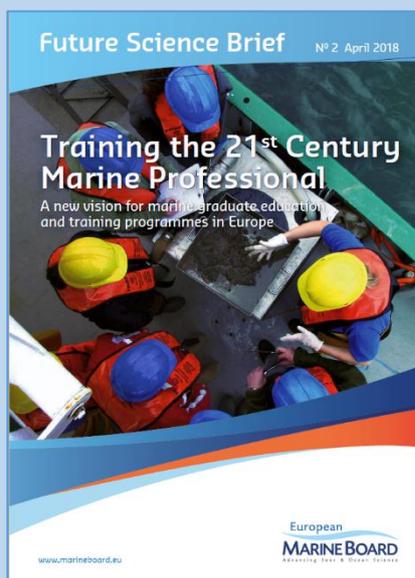


Credit: IMarEST

Recommendations

Achieving a modern vision of marine graduate training needs to:

- Deliver relevant policy support initiatives to address the gap between marine graduate training and Blue Growth;
- Develop training content across academia, government (policy & funding) and industry;
- Maximize recruitment of students and professionals to take an interest in marine graduate training and blue careers;
- Advance the European Higher Education Area for marine science and technology;
- Modernize training programmes;
- Establish long-term, flexible funding instruments at national and EU level to support innovative marine training.



More information in the EMB Future Science Brief 2 “Training the 21st Century Marine Professional”, free to download at:

<http://www.marineboard.eu/science-strategy-publications>

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