

Self-Evaluation Report

Version 12-07-2024

Name of the programme

***Joint Bachelor's Degree in Sustainable Blue Economy,
SeaBlueE***

Name of the coordinating institution

University of Cadiz

*The Sea, the great unifier, is man's only hope. Now, as never before, the old
phrase has a literal meaning: We are all in the same boat*

Jacques-Yves Cousteau



**SEA-EU Consortium for the Joint Bachelor's Degree in
Sustainable Blue Economy
SeaBlueE**



Table of Contents

Glossary (see Annex 14)	5
List of Annexes	7
Introduction	8
Reinforcing European Higher Education. The “European Universities” initiative.	9
The University of the Seas. What is SEA-EU?	10
The SEA-EU academic & research goals.	15
The Seas of SEA-EU	17
A Joint Bachelor's Degree in Sustainable Blue Economy?	
Justification	18
Bachelor Programme Scope and Goal	19
Contribution of the Bachelor Programme to Sustainable Development Goals (SDG)	22
Main objectives and jointness/integration elements of the Joint Bachelor's Degree in Sustainable Blue Economy	24
Basic information	25
1. Eligibility	26
1.1. Status	26
1.2. Joint Design and Delivery.	27
1.2.1. Joint design of the SeaBlueE. Co-Creation Phase	28
1.2.2. Joint delivery of SeaBlueE. Implementation Phase	30
1.3 Cooperation Agreement	34
2. Learning Outcomes	35
2.1. Level	35
2.2. Disciplinary field	39
2.3. Achievement	40
2.4. Regulated Professions	44
3. Study Programme	48
3.1. Curriculum	48
3.2. Credits	64
3.3. Workload	65

4. Admission and Recognition	67
4.1. Admission and Selection Procedure.	67
4.2. Recognition of prior learning.	69
5. Teaching, Learning and Assessment	70
5.1. Teaching and Learning.	70
5.2. Assessment of students	75
6. Student Support	81
7. Resources	82
7.1. Teaching, Administration and Services Staff.	82
7.2 Facilities and material resources.	86
8. Transparency and Documentation	96
9. Quality Assurance	98
9.1. Scope	98
9.2. Objectives	98
9.2. The SEA-EU Internal Quality Assurance System Handbook	99
9.3. The Implementation Approach	99
9.4. Processes	101

Glossary (see Annex 14)

Consortium. The 9 partner universities of the SEA-EU Alliance:

SEA-EU: The European University of the Seas

1. **UCA:** University of Cádiz, Spain (Coordination)
2. **UBO:** University of Western Brittany, France
3. **CAU:** Christian-Albrechts University of Kiel, Germany
4. **UG:** University of Gdańsk, Poland
5. **UNIST:** University of Split, Croatia
6. **UM:** University of Malta, Malta
7. **UPN:** University of Naples Parthenope, Italy
8. **UAlg:** University of Algarve, Portugal
9. **NORD:** Nord University, Norway

Abbreviations:

EHEA: European Higher Education Area

EQAR: European Quality Assurance Register for Higher Education

ERA: European Research Area

HEIs: Higher Education Institutions

LOs: Learning Outcomes

PLOs: Programme Learning Outcomes

QA: Quality Assurance

QF-EHEA: Qualifications Framework for the European Higher Education Area

SeaBlueE: Joint Bachelor's Degree in Sustainable Blue Economy

SER: Self Evaluation Report

Tables & Figures

List of Tables:

Table 1. SEA-EU Figures and facts (academic year 2023-2024)

Table 2. SEA-EU Associated Partners

Table 3. Status of the external quality assurance systems, as well as national frameworks for joint programmes, in SEA-EU countries and Universities

Table 4. Distribution of roles among Partner universities, students, and associated partners

Table 5. List of the institutions delivering the programme

Table 6. Description of the workload per ECTS Credit

Table 7. Organisation of Co-Teaching Teams per course

Table 8. SEA-EU Common Grading System

Table 9. Student Support Services at every SEA-EU participating universities

Table 10. Faculties and departments involved in the joint bachelor's programme

Table 11. Mapping of ESG 2015 – Part 1 Standards to SEA-EU Joint Programmes IQAS Processes

List of Figures:

Figure 1. The SEA-EU Inter-Campus

Figure 2. The SEA-EU Marine and Maritime Perspective

Figure 3. SEA-EU Joint Programmes's academic & research goals

Figure 4. ISCED fields of study

Figure 5. General Roadmap for the co-design and implementation of the Joint Bachelor's Programme

Figure 6. CCCts' Chart

Figure 7. GOVERNANCE. Joint structure for academic governance, internal quality assurance, administration, and financial management

Figure 8. EQF level Definitions

Figure 9. The Blue Economy

Figure 10. Recommended Student Mobility Scheme

Figure 11. Timeline of the Application, Selection, and Admission Process

Figure 12. Architecture of SEA*EdUcation Digital Platform (Phase 1)

List of Annexes

Compulsory Annexes

- 1.Documents supporting the legal status of the partner institutions
- 2.Cooperation Agreement
- 3.Documents supporting each partner's legal basis for participating in a joint programme
- 4.List describing the intended learning outcomes, including:
 - a. Matrix of alignment with the Framework for Qualifications in the European Higher Education Area (FQ-EHEA)
- 5&6.Course syllabi of all partners & Structure of the curriculum / study plan
- 7.Application, Selection, and Admission Regulations
- 8.Procedure for Prior Qualifications Recognition
- 9.Student Assessment Regulations
- 10.Academic Staff CVs (all partners)
- 11.Joint Programmes Internal Quality Assurance System
- 12.Joint Diploma and Diploma Supplement (sample)

Additional Annexes

13. List of related bachelor's programmes offered by the SEA-EU partner universities
14. SeaBlueE Glossary
15. Letters of Support from SEA-EU Associated Partners
16. Facilities provided by every SEA-EU partner university
17. Handbook for Co-creation and Co-delivery of the Joint Bachelor's Degree SeaBlue
18. SeaBlueE Student's Handbook (outline)

Introduction

A European Strategy for Higher Education in Europe. Benefits and Challenges of Transnational Cooperation in Higher Education.

Higher education in Europe stands at a crossroads, marked by evolving trends, formidable challenges, and a quest for global competitiveness. The landscape of higher learning institutions across the continent reflects a dynamic interplay of factors shaping the future of education and its role in the global arena¹.

Numerous opportunities and challenges will influence the future development of HEIs in Europe. World demographic trends and globalisation will challenge Europe's position as a prominent hub of knowledge creation. Global warming and environmental degradation, the acceleration of technological change and the growing race for digital technologies already affect HEIs' strategies and positioning within Europe and in the global context. The availability of a large pool of talent with excellent education and training will become increasingly crucial for Europe to maintain and assert its position as a world leader in a context of heightened global competition².

The Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) called for the establishment of an 'agenda for higher education transformation, with a focus on inclusion, innovation, connectivity, digital and green readiness and international competitiveness, as well as fundamental academic values and high ethical principles, as well as employment and employability'.

*In this context, the Council conclusions on the New European Research Area identified **'institutional transformations, research careers, science education, training, international cooperation and knowledge circulation as possible fields of a more determined cooperation'** between the European Research Area, the European Higher Education Area and the higher education dimension of the European Education Area. The Council also took note of 'the Commission proposal to develop a roadmap of actions for creating*

¹ From "Higher Education in Europe: Trends, Challenges, and Global Competitiveness" <https://www.linkedin.com/pulse/higher-education-europe-trends-challenges-global-competitiveness-7ynef>

² Council conclusions on a European strategy empowering higher education institutions for the future of Europe (2022)

*synergies between higher education and research' and expressed support for the further development of the “**European University Alliances**” as a flagship example for modern and inclusive higher education institutions of the future in Europe’.*

Reinforcing European Higher Education³. The “European Universities” initiative.

In the current decade, HEIs are encouraged to find new forms of deeper cooperation by forming transnational alliances, pooling their knowledge and resources and creating more opportunities for student and staff mobility and participation, as well as for boosting research and innovation, including through the full implementation of the “European Universities” initiative.

Successful work has already been done to create a European Higher Education Area (EHEA), within the Bologna process. It is important to continue the work within the Bologna process. While developing further and stronger synergies with the European Research Area (ERA) and avoiding parallel or duplicated structures or instruments.

Embarking on a journey of educational transformation, the European Universities Initiative sets its sights on key aspects driving the evolution of higher education such as a) **Internationalisation of education**: European universities are becoming poles of attraction for students and faculty from diverse cultural backgrounds, thus cultivating a vibrant global learning ecosystem; b) **Innovation and research**: Higher education is undergoing a paradigm shift towards fostering centres of innovation and research excellence. This emphasis on innovation contributes significantly to advances in science, technology and academia.

At the same time, there is no shortage of challenges to be faced on this new journey, such as a) **Funding and accessibility**: The ongoing challenge of ensuring equitable access to higher education remains, due to funding constraints and inherent disparities in accessibility between different socio-economic groups; and b) **Technology integration**: Institutions need to effectively manage the complexities of adopting new teaching methods and digital learning environments.

³ Council Resolution on a Strategic Framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030)
<https://op.europa.eu/en/publication-detail/-/publication/b004d247-77d4-11eb-9ac9-01aa75ed71a1>

And finally, the need to boost **global competitiveness** by raising quality standards, promoting academic rigour and seeking international recognition for their efforts. A key driver of competitiveness is the ability to adapt and foster an environment conducive to innovation. This includes attracting the best talent and fostering intellectual growth through innovative practices. By addressing these facets comprehensively, the Alliance aims to strengthen the collective strength and impact of European higher education on the global stage.

The University of the Seas. What is SEA-EU⁴?

The European University of the Seas - SEA-EU⁵ is one of the 17 alliances selected in the European Universities programme in its first call for 2019. Initially configured by 6 founding Universities: University of Cadiz (UCA, Spain), University of Western Brittany (UBO, Brest, France), University of Kiel (CAU, Germany), University of Gdańsk (UG, Poland), University of Split (UNIST, Croatia) and University of Malta (UM, Malta), it will become a consortium of 9 European universities in January 2022 with the integration of 3 new universities: Parthenope University of Naples (UPN, Italy), the University of Algarve (UALg, Portugal) and Nord University (NORD, Norway).

SEA-EU, in its second phase (SEA-EU 2.0), is a geographically-balanced and enlarged university alliance with a coastal and marine-maritime character as its hallmark. The distributed inter-partner open governance will consolidate transformative structures and dynamics that reinforce complementarities, multiculturalism and multilingualism in its nine nodes. Through proven internal and external evolving dynamics, SEA-EU 2.0 channels its own development while unfolding into a decisive co-transformative EHEA and ERA actor, intensifying the effect of high quality European HE missions.

⁴ <https://sea-eu.org/>

⁵ <https://www.youtube.com/watch?v=3HWO NP138Ps>

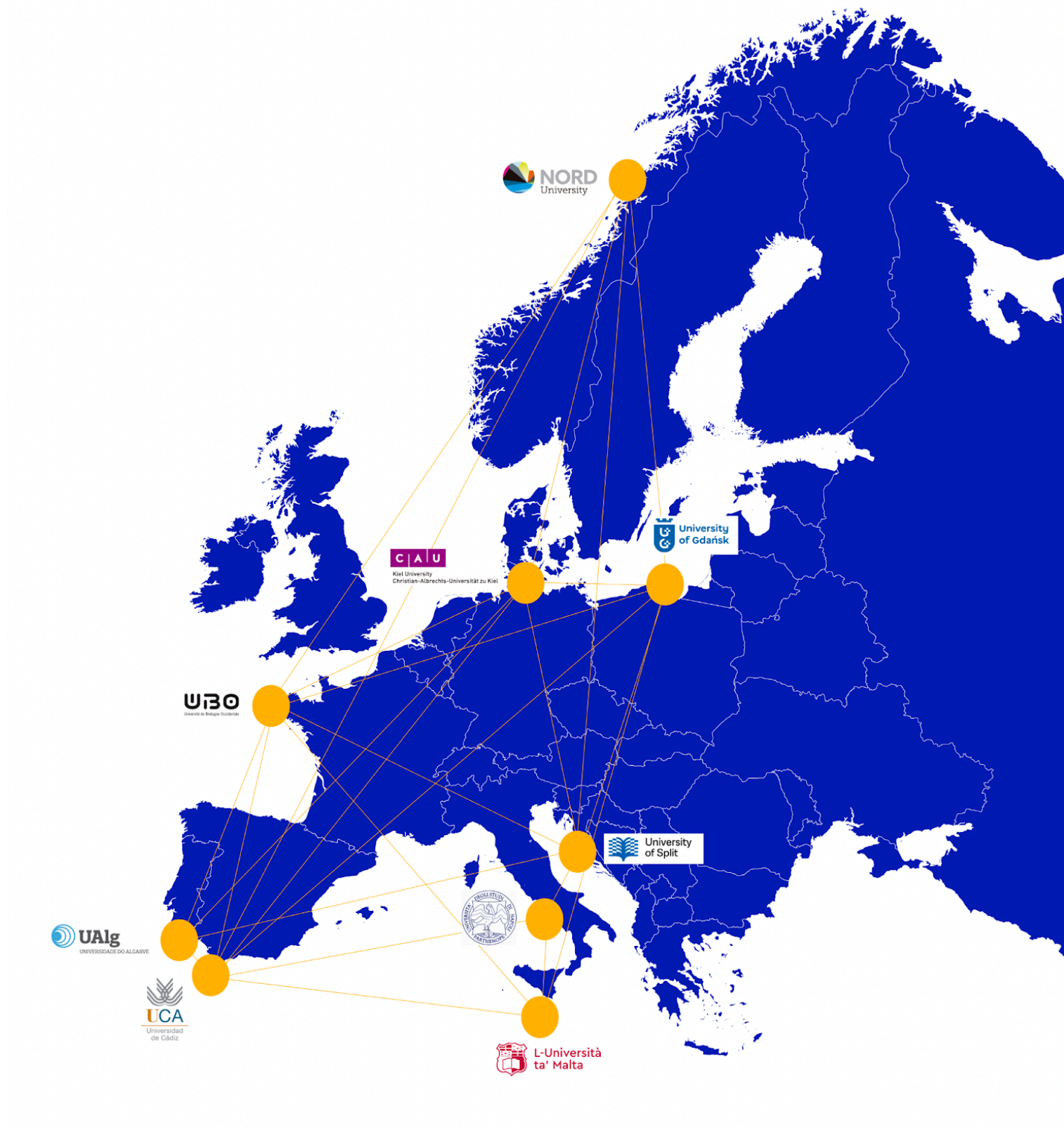


Figure 1. The SEA-EU Inter-Campus

Table 1. SEA-EU Figures and facts (academic year 2023-2024)

	UCA	UG	UNIST	UPN	UALG	NORD	UM
Founded	1979	1970	1974	1919	1979	2016	1592
Scope⁶	COMP	COMP	COMP	COMP	COMP	COMP	COMP
City Country	Cadiz Spain	Gdansk Poland	Split Croatia	Naples Italy	Faro Portugal	Bodø Norway	Malta Malta
City in HE Cities Mission	NO	NO	NO	NO	NO	N/A	Gozo
Language	Spanish	Polish	Croatian	Italian	Portuguese	Norwegian	English
Students	21,266	20,219	18,675	13,394	10,091	11,141	11,500
Technical and Administrative Staff	875	1,514	671	293	373	535	1,000+
Academic Staff faculty	2,137	1,801	1,257	379	465	939	2,000+
Faculties & Schools	17 Faculties 2 Affiliated centres	11 faculties	11 faculties 1 Academy of Arts 4 University Departments	8 Departs 2 Schools 1 Sp School	4 faculties, 4 polytechnic schools	5	14 Faculties 16 Institutes 3 Schools 1 Junior College
Research groups	197	126	N/A	N/A	N/6	41	13
Sci. & tech based companies & partnerships	4 EBTs 13 External Business Chairs 21 Spin-off	170 business and government partnerships	40 Horizon 13 COSTS 19 European Development 16 Interreg 5 Ministry of Science & Education 2 Ministry of Agriculture	26 Partnerships	218 StartUps 61 Partnership Agreements	0	4 spinout 264 collaboration agreements
Patents and trademarks	237	Patents 177 Trademarks 25		4 Patents 5 Spin Off	128 Patents, 111 Trademarks, 808 Companies	2	30 patents 14 designs
Research centres	9	6	3		9	13	13

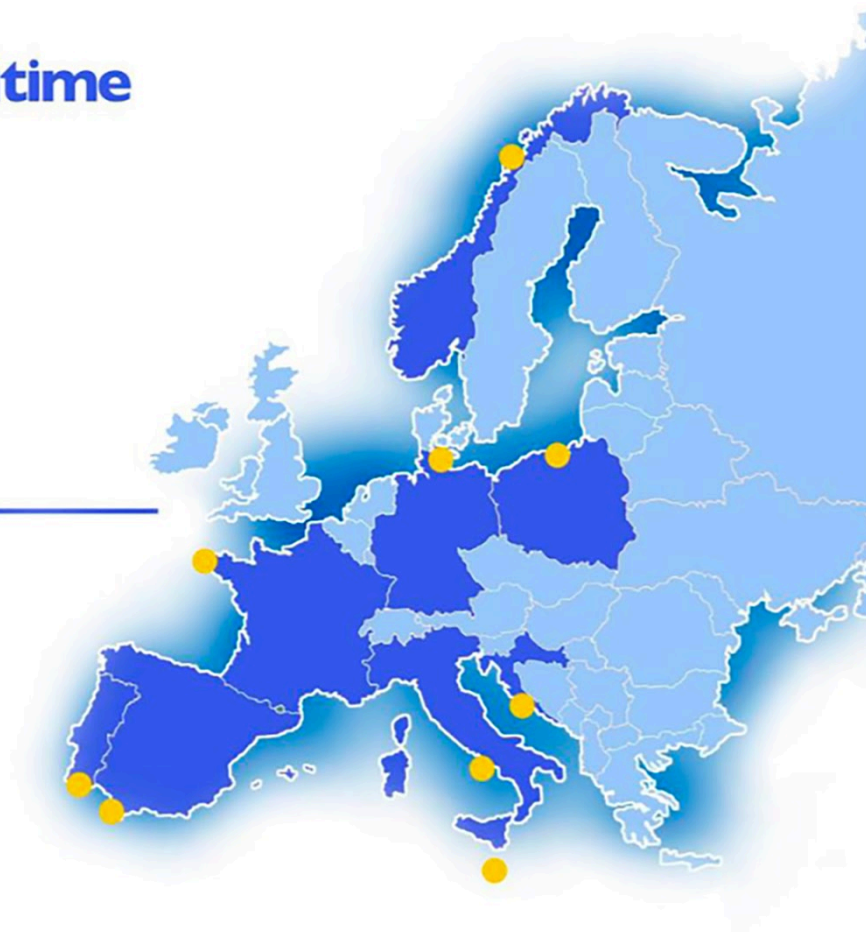
⁶ COMP (Comprehensive), TECH (Technical), UAS (University of Applied Sciences)

SEA-EU is one of the few thematic alliances of European Universities, the unifying element in this case being the link of our community to the **SEA**. Although the commitment is to link the Universities participating in SEA-EU from a global perspective taking into consideration their internal diversity, the fact is that we are all coastal Universities, with marine and maritime studies as a sign of identity both from a research and teaching perspective. The marine-maritime mission is a hallmark of the SEA-EU universities and has also been the main unifying element in many of the activities that we have initiated within the SEA-EU pilot period aiming to actively motivate all institutional partners to build SEA-EU, inspiring global thinking and transforming our daily actions, and our relations with the seas. This will be the way of answering societal challenges and achieving protection of life under and above water in the Global Ocean, with positive global impacts on our planet Earth.

Figure 2. The SEA-EU Marine and Maritime Perspective.

SEA-EU marine and maritime perspective

- **22 out of 27 EU** countries have a marine coastline
- European coastline is **7 times** as long as that of the US and **4 times** as long as Russia's
- EU has **the world's largest maritime territory** (including its outermost regions)
- **EU's maritime regions are home to almost half its population** and account for almost half of its gross domestic product



The nine universities involved in SEA-EU are engaged in the co-creation and implementation of 4 joint programmes to be launched as pilot projects: (1) a bachelor degree in “Sustainable Blue Economy”; (2) a master degree in “Sustainable Management of Organisations”; (3) a master degree in “Port Management and Logistics”; and, (4) a doctorate programme in “Marine and Maritime Sciences and Technologies”. This initiative has been developed jointly, and in conjunction with our associated partners, key public research agencies, local and regional administrations including Municipalities or Port Authorities, NGOs and companies dedicated to the study, knowledge and economic activity related to the sea that flanks our territories. The 9 partner universities have the support of their national and/or regional education authorities for their participation in the SEA-EU Alliance.

Table 2. SEA-EU Associated Partners.

	SEA-EU Associated Partners	
Common to all thematic challenges	External partners	2
	Regional Governments	9
	City Halls	14
	NGOs & Citizen Associations	2
	Student Associations	6
	Foundations	5
	Research Centers/Scientific Institutes	18
	Clusters	8
Companies & public bodies specific to thematic challenges/Stakeholders	Business Confederations & Think tanks	21
	Ports	12

The SEA-EU academic & research goals.

Navigating towards a modern, co-transformative inter-campus life; people-driven, planet-friendly, knowledge-based progress for all.

The vision of the European University of the Seas (SEA-EU) is to establish a distinctly international, pluri-ethnic, multilingual and interdisciplinary European University. SEA-EU aims to strengthen the links between teaching, research, innovation and knowledge transfer. It will encourage excellence in research and teaching to gain more knowledge and a better understanding and management of the marine environment. It will assist in building the human resources and skills necessary to match the needs of the evolving marine and maritime sectors, now and in the foreseeable future. SEA-EU will provide and improve tools and techniques to measure and anticipate ocean-based and driven impacts, build frameworks for more effective ocean governance as well as empower societies and communities to achieve the Sustainable Development Goals for the oceans.

After the successful pilot experience of the SEA-EU 1.0 project, three specific objectives are key on the SEA-EU alliance in this second phase is:

Specific Objective #1: Develop and implement **an integrated long-term joint strategy** that is responsive to the digital and green transition and key socio-economic challenges, while remaining committed to excellence.

Specific Objective #2: Establish **a European higher education inter-university 'campus'**. This objective aims to create a collaborative educational and research environment between partner universities, with the objective of fostering student mobility, academic collaboration and networking across Europe.

Specific Objective #3: Build European knowledge-creating teams ("**challenge-based approach**"). This objective involves fostering the formation of multidisciplinary teams that address specific challenges through innovative and collaborative approaches, in order to promote the generation of knowledge and effective solutions to complex problems in Europe.

The SEA-EU project seeks to promote academic excellence and inter-university collaboration in Europe, with a focus on digitalisation, sustainability and solving socio-economic challenges through collaborative knowledge creation.

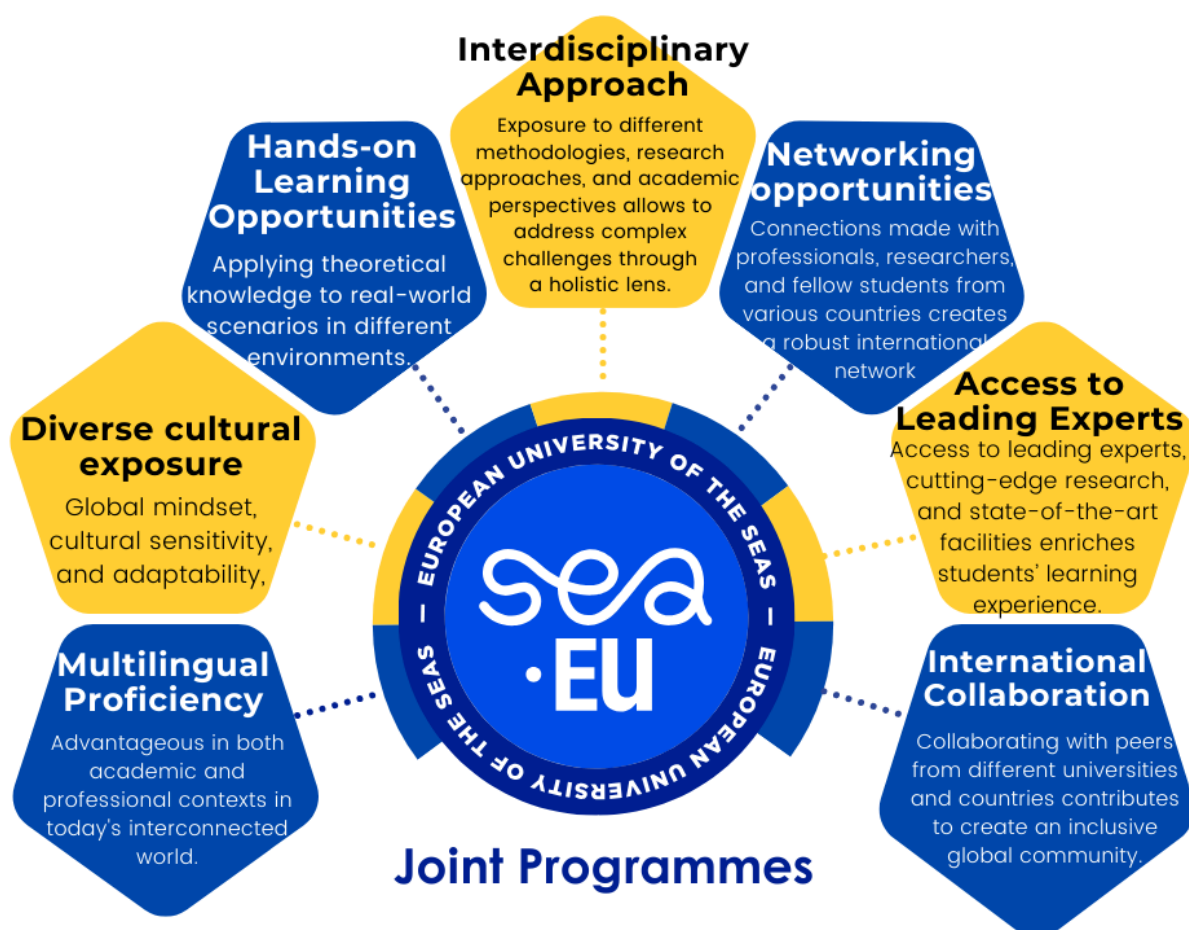


Figure 3. SEA-EU Joint Programmes's academic & research goals.

The figure highlights the numerous benefits of the joint programs offered by the European University of the Seas (SEA-EU). This visual diagram emphasises seven key aspects that make these programmes unique and valuable for students. SEA-EU's joint programmes provide an interdisciplinary approach, networking opportunities, access to leading experts, international collaboration, multilingual proficiency, diverse cultural exposure, and hands-on learning experiences. Each of these elements contributes to a comprehensive and global education, preparing students to tackle complex challenges in an increasingly interconnected world.

The Seas of SEA-EU

In the original SEA-EU 1.0 (2019-2022) the University of the Seas presented itself as a geographically balanced alliance, with two universities in Western Europe (CAU and UBO), two in the South (UCA and UM) and two in Central and Eastern Europe (UG and UNIST). The alliance was also balanced in terms of ocean basins, an important descriptor in our alliance given the coastal nature of our universities, with two universities in the Baltic (UG and CAU), two in the Atlantic (UBO and UCA) and two in the Mediterranean (UM and UNIST). As defined in the call, "the realisation of the voluntary expansion strategy should strive to ensure a balanced geographical coverage of regions in Europe". In the inclusion of 3 new universities joining the alliance in SEA-EU 2.0 (2023-2026), the geographical balance has again been considered as a relevant criterion.

SEA-EU now incorporates a Northern European University (Nord University, in Bodo, Norway), thus solving a gap we had in our first period where a partner from this geographical area was lacking. The other partners come from Central-East Europe (University of Gdansk [Poland] and Split Croatia]), 4 from the South (University of Cadiz [Spain], Malta, Algarve [Portugal], Naples [Italy]) and finally 2 from the West (University of Bretagne Occidentale [France] and Kiel [Germany]). From the point of view of ocean basins, the distribution is as follows: we have representation in the Baltic basin (University of Gdansk, University of Kiel), in the Arctic (Nord University), Atlantic basin (Nord University, University of Western Brittany, University of Algarve and University of Cadiz) and finally in the Mediterranean basin (University of Split, University of Malta, Parthenope University of Naples). This is a distribution that fits well with the size of the different basins.

Finally, we can establish a distribution in three sectors with three representatives each: (1) the Northern Seas (including the Baltic, North Atlantic and Arctic) in which there would be 3 representatives (NORD, CAU and UG), (2) the mid-latitude Atlantic (UBO, UAlg, UCA); and (3) the Mediterranean (UM, UPN, UNIST).

A Joint Bachelor's Degree in Sustainable Blue Economy? Justification

Human needs for food, energy, transport, recreation, and other services are growing rapidly on a global scale. The vast ocean harbours essential assets to meet this global challenge^{7 8 9}. The so-called blue economy holds enormous potential for boosting economic growth and employment¹⁰. Indeed, the ocean-based industries grew at an unprecedented pace over the past decade and there is still a vast untapped potential accessible through new technology and innovation¹¹. On the other hand, recent history has shown how overexploitation, pollution, habitat loss or climate change have already damaged the ocean biocapacity, in some cases irreversibly^{12 13}. The decline in the ocean's health and wealth has been especially acute over the past half-century, and the current rush for ocean resources is worryingly intensifying the risk of deterioration.

The European Union (EU) has called for the need to shift the focus from “blue growth” to a “sustainable blue economy”¹⁴. Sectoral exploitation driven by short-term profits or immediate needs must not compromise the prosperity and services that a healthy ocean can provide for present and future generations. Since the environmental, economic and social realms are inextricably

⁷ OECD, Organisation for Economic Co-operation and Development (2016). The Ocean Economy in 2030. Available at https://www.oecd.org/en/publications/the-ocean-economy-in-2030_9789264251724-en.html

⁸ World Bank and United Nations Department of Economic and Social Affairs (2017). The potential of the Blue Economy: Increasing long-term benefits of the sustainable use of marine resources for small island developing states and coastal least developed countries. World Bank, Washington DC. Available at <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=2446&menu=1515>

⁹ Costello, C. et al. (2020) The future of food from the sea. Nature 588: 95-100. doi.org/10.1038/s41586-020-2616-y

¹⁰ European Union (2021). The EU Blue Economy Report 2021. Publications Office of the European Union, Luxembourg, 178 pp. ISBN 978-92-76-37879-2 ISSN 2599-6584 doi:10.2771/8217. Available at https://oceans-and-fisheries.ec.europa.eu/system/files/2021-05/the-eu-blue-economy-report-2021_en.pdf

¹¹ Jouffray, J.B. et al. (2020). The blue acceleration: the trajectory of human expansion into the ocean. One Earth 2: 43-54.

¹² Gaines, S. et al. (2019). The Expected Impacts of Climate Change on the Ocean Economy. World Resources Institute, Washington, DC. Available at <https://oceanpanel.org/wp-content/uploads/2022/05/The-Expected-Impacts-of-Climate-Change-on-the-Ocean-Economy.pdf>

¹³ Pauly, D. et al. (1998). Fishing down marine food webs. Science 279: 860-863.

¹⁴ COM (2021) 240 final, May 2021. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions on a new approach for a sustainable blue economy in the EU: Transforming the EU's Blue Economy for a Sustainable Future. Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0240>

intertwined¹⁵ ¹⁶, we are obliged to abandon the outdated notion that environmental protection conflicts with the economy and give way to responsible and innovative economic approaches to work within natural cycles, in order to harness the ocean's full potential¹⁷.

The interest shown by the EU in the sustainable blue economy contrasts with the widespread recognition of a lack of adequate training and educational programming for students on this topic¹⁸ ¹⁹ ²⁰. In this framework, the European University of the Seas (SEA-EU) aims to contribute to filling this gap with the Joint Bachelor's Degree in **Sustainable Blue Economy (SeaBlueE)**. This innovative programme for undergraduate students will be jointly delivered by higher education institutions from seven European countries using the combination of marine sciences, economy, and social sciences as the cornerstone for training.

Bachelor Programme Scope and Goal

The Bachelor's degree in Sustainable Blue Economy will provide students with fundamental knowledge about the marine environment and its intrinsic links to economic and social activity. Holistic, interdisciplinary, and adaptive training will be used as a launching pad for sustainable growth and innovation.

The concept of European Universities represents a quantum leap for higher education, with the aim to introduce groundbreaking innovations in relation to traditional curricula²¹. Stakeholders are challenged to think out of the box in

¹⁵ Cline, T. et al. (2017). Fisheries portfolio diversification and turnover buffer Alaskan fishing communities from abrupt resource and market changes. *Nat. Commun.* 8: 14042, doi.org/10.1038/ncomms14042.

¹⁶ Cisneros-Montemayor, A.M. et al. (2021). Enabling conditions for an equitable and sustainable blue economy. *Nature* 591: 396-401, doi.org/10.1038/s41586-021-03327-3

¹⁷ European Union (2021). The EU Blue Economy Report 2021. Publications Office of the European Union. Luxembourg, 178 pp. ISBN 978-92-76-37879-2 ISSN 2599-6584 doi:10.2771/8217. Available at https://oceans-and-fisheries.ec.europa.eu/system/files/2021-05/the-eu-blue-economy-report-2021_en.pdf

¹⁸ Vincx, M., et al. (2018). Training the 21st Century Marine Professional: A new vision for marine graduate education and training programmes in Europe. Kellett, P., Larkin, K., Heymans, J. J., McDonough, N., Wouters, N., Chu, N-C. [Eds.] *Future Science Brief 2 of the European Marine Board*, Ostend, Belgium. 47pp. ISBN: 9879492043511. ISSN: 2593-5232. Available at https://www.marineboard.eu/sites/marineboard.eu/files/public/publication/EMB_FSB2_2018_Web_v1.pdf

¹⁹ European Marine Board (2019). Navigating the Future V: Marine Science for a Sustainable Future. Position Paper 24 of the European Marine Board, Ostend, Belgium. ISBN: 9789492043757. ISSN: 0167-9309. DOI: 10.5281/zenodo.2809392

²⁰ EU Official Website (europa.eu domain). European Commission: Oceans and fisheries: Sustainable oceans: Blue economy: Skills and career development. Available at https://oceans-and-fisheries.ec.europa.eu/ocean/blue-economy/skills-and-career-development_en

²¹ Becker, R. (2020). Joint Programmes from A to Z: A reference guide for practitioners. FaBoTo+ project, Dutch National Agency Erasmus+, The Hague, Netherlands, 89 pp.

order to devise programmes that drive truly advances in the European Higher Education Area (EHEA)²².

On the basis of the existing recommendations, SEA-EU's Bachelor Degree in Sustainable Blue Economy (SeaBlueE) is been built on **five main principles**²³:

1. International and intercultural framework.

The Degree will be jointly taught by Universities from Spain, Poland, Italy, Croatia, Portugal, Norway and Malta. Students must complete at least one year outside their home University, and English will be the language of instruction. Likewise, the Joint Degree will particularly encourage networking and international collaboration skillset²⁴. As a result, graduates are expected to be able to move nimbly in the international job market.

2. More applied orientation.

The new degree aims to increase the practical training of the students (i.e., involvement of economic actors, real-world issues). The SeaBlueE Degree is conceived as a hybrid between the traditional Bachelor Degree and the Master's Degree.

SeaBlueE will involve partnerships with industry leaders, government agencies, and non-profit organisations, providing students with valuable networking opportunities and real-world experiences through internships, fieldwork, and research projects. In the third year, the students will specialise in one of the six pathways offered by the full partner institutions.

3. Holistic vision and interdisciplinary.

EHEA shows an inherent bias towards study of and within single disciplines, even

²² Vincx, M., et al. (2018). Training the 21st Century Marine Professional: A new vision for marine graduate education and training programmes in Europe. Kellett, P., Larkin, K., Heymans, J. J., McDonough, N., Wouters, N., Chu, N-C. [Eds.] Future Science Brief 2 of the European Marine Board, Ostend, Belgium. 47pp. ISBN: 9879492043511. ISSN: 2593-5232. Available at https://www.marineboard.eu/sites/marineboard.eu/files/public/publication/EMB_FSB2_2018_Web_v1.pdf

²³ Hernández-Aguilera, J.N. et al. (2021). Supporting interdisciplinary careers for sustainability. *Nature Sustain.* 4: 374–375. Taylor, S. et al. (2017). Green jobs in the Blue Economy – A bottom-up approach. Final Report to DG Environment of the European Commission, Eunomia Research & Consulting Ltd, Bristol (UK). Available at https://mcc.jrc.ec.europa.eu/documents/Eunomia-Green_Jobs_in_Blue_Economy-FinalReport-Issued.pdf

²⁴ Cisneros-Montemayor, A.M. et al. (2021). Enabling conditions for an equitable and sustainable blue economy. *Nature* 591: 396-401, doi.org/10.1038/s41586-021-03327-3

in universities with interdisciplinary centres²⁵. The SeaBlueE Degree moves away from the mainstream approach that characterises most single-discipline Degrees to provide an overarching perspective closer to real-world challenges and opportunities. Bridging environmental, social and economic disciplines into one degree is a major educational challenge, but at the same time, a comprehensive understanding of the interplay between the blue economy and the ocean ecosystem is key for sustainability goals. Such interdisciplinary training is intended to foster the potential for innovation²⁶, encompassing social, environmental and economic goals.

4. Training in adaptive and transferable skills.

Graduates will be equipped with adaptability and flexibility to cope with the rapidly evolving and expanding blue job market. Emphasis will be placed on training on generic tools related to the gathering, processing and communication of information (i.e., remote sensing, new ocean technologies, machine learning and artificial intelligence, citizen engagement). A transversal and overarching perspective, comprising socio-economics and ecosystem functioning, requires robust skills in data mining and analytics, which in turn give the necessary support for knowledge-based decision making.

5. Career Opportunities.

There is great concern about issues such as climate change, overfishing, pollution and habitat destruction in the ocean, as well as a growing recognition of the relevance of sustainable practices in the blue economy. The SeaBlueE Degree will prepare professionals to address these global challenges while seizing opportunities for innovation and entrepreneurship in the ocean. Building on holistic vision, adaptability and environmental responsibility, SeaBlueE graduates will be in an optimal position to access the growing labour market of the blue economy, from entrepreneurship or through employability in government agencies, non-profit organisations, private sector and research institutions or the private sector.

²⁵ Hernández-Aguilera, J.N. et al. (2021). Supporting interdisciplinary careers for sustainability. *Nature Sustain.* 4: 374–375.

²⁶ Winther, J.G. et al. (2020). Integrated ocean management for a sustainable ocean economy. *Nat Ecol Evol* 4: 1451–1458, doi.org/10.1038/s41559-020-1259-6

In short, a Joint Bachelor's Degree in Sustainable Blue Economy offers a unique and timely educational pathway that equips students with the knowledge, skills and perspective needed to address the goal of sustainable use of the oceans and the marine resources. The co-creation of a SeaBlueE Degree meets the increasing demand for professionals in the blue economy sector, professionals in the blue economy sector, with a training in line with the **United Nations Sustainable Development Goals**²⁷.

Contribution of the Bachelor Programme to Sustainable Development Goals (SDG)



This goal focuses on conserving and sustainably using marine resources. A degree in Sustainable Blue Economy directly contributes to SDG 14 by equipping students with the knowledge and skills to promote marine conservation, manage fisheries sustainably, protect marine biodiversity, and reduce marine pollution.

The oceans play a crucial role in regulating the Earth's climate, and sustainable blue economy practices can help mitigate the impacts of climate change. For example, marine renewable energy technologies can contribute to reducing greenhouse gas emissions, while coastal ecosystem restoration projects can enhance climate resilience.



Offering a comprehensive curriculum that equips students with relevant knowledge and practical skills related to sustainability and blue economy practices. Fostering a mindset of continuous learning and adaptation to new challenges and developments in the field of sustainable blue economy. Ensuring inclusivity: Creating opportunities for diverse groups of students to access education and participate in addressing global challenges related to ocean sustainability.

Many coastal cities and settlements rely on the blue economy for livelihoods and resources. Through marine spatial planning, urban development can be managed in a way that minimises negative impacts on marine ecosystems while maximising socio-economic benefits. This degree can provide students with the understanding and tools to develop strategies for enhancing the resilience of



²⁷ <https://sdgs.un.org/goals>

coastal urban areas to these challenges.



The sustainable management of marine resources promoted by a degree in Sustainable Blue Economy aligns with SDG 12 by encouraging responsible consumption patterns, reducing waste and pollution, and promoting sustainable production practices in industries such as fisheries and aquaculture.

The health of marine ecosystems and coastal habitats directly affects terrestrial biodiversity and ecosystem services. A degree in Sustainable Blue Economy can contribute to SDG 15 by promoting the conservation and restoration of coastal ecosystems and by reducing land-based pollution that affects marine environments.



Achieving sustainable blue economy objectives requires collaboration and partnerships between governments, NGOs, businesses, research institutions, and local communities. A degree in Sustainable Blue Economy fosters interdisciplinary collaboration and prepares students to work effectively in multi-stakeholder settings to achieve shared sustainability goals.

Main objectives and jointness/integration elements of the Joint Bachelor's Degree in Sustainable Blue Economy

SeaBlueE offers a fully integrated programme with the following seven elements of jointness:

><(((°> Joint design and joint delivery, including awarding of a joint degree, with a joint diploma and a joint diploma supplement (see Annex 12), offering a broad spectrum of personalised skilled-based curricula and a development oriented education environment to strengthen European students' creativity and engagement.

><(((°> Joint academic governance structure and joint administration and financial management, permitting an increase in the level of integration between the universities of the alliance sharing analyses, policies, procedures, services, databases, infrastructures and governance (see Annex 17).

><(((°> Joint policy for admission, selection, recognition, teaching and training, supervision, monitoring, assessment, mobility, traineeships, and bachelor project procedures, offering a full range of integrated mobility within SEA-EU, for both students and staff, and foster multilingualism/ multiculturalism, providing them with the widest scope of opportunities for developing their potential (see Annexes 5 & 6, 7, 8, 9 and 17).

><(((°> Joint student support (in addition to the specific supporting services at every partner university), promoting inclusion and situating its educational and research activities within the broader social context (see Annex 18).

><(((°> Joint resources, fostering open educational resources, open science and open data to our communities and the world at large (annex 16).

><(((°> Joint transparency and documentation procedures. With the support of the SEA-EU Communication Expert G, SeaBlueE will be jointly promoted, ensuring the visibility of the joint programme, and providing information to students and other stakeholders such as future employers.

><(((°> Joint internal quality assurance system. With the above objectives and elements, we seek to position SeaBlueE in the international arena as a flagship for the field of blue economy based on the quality of its contents (see Annex 11), on the skills acquired by the students and the research and labour opportunities found and developed within it.

Basic information

Name of the programme: **Joint Bachelor's Degree in Sustainable Blue Economy**

EQF level: **6**

QF-EHEA level: **1st cycle**

Degree awarded: **Joint Bachelor's Degree in Sustainable Blue Economy**

Number of ECTS points: **180**

Interdisciplinary (9999)

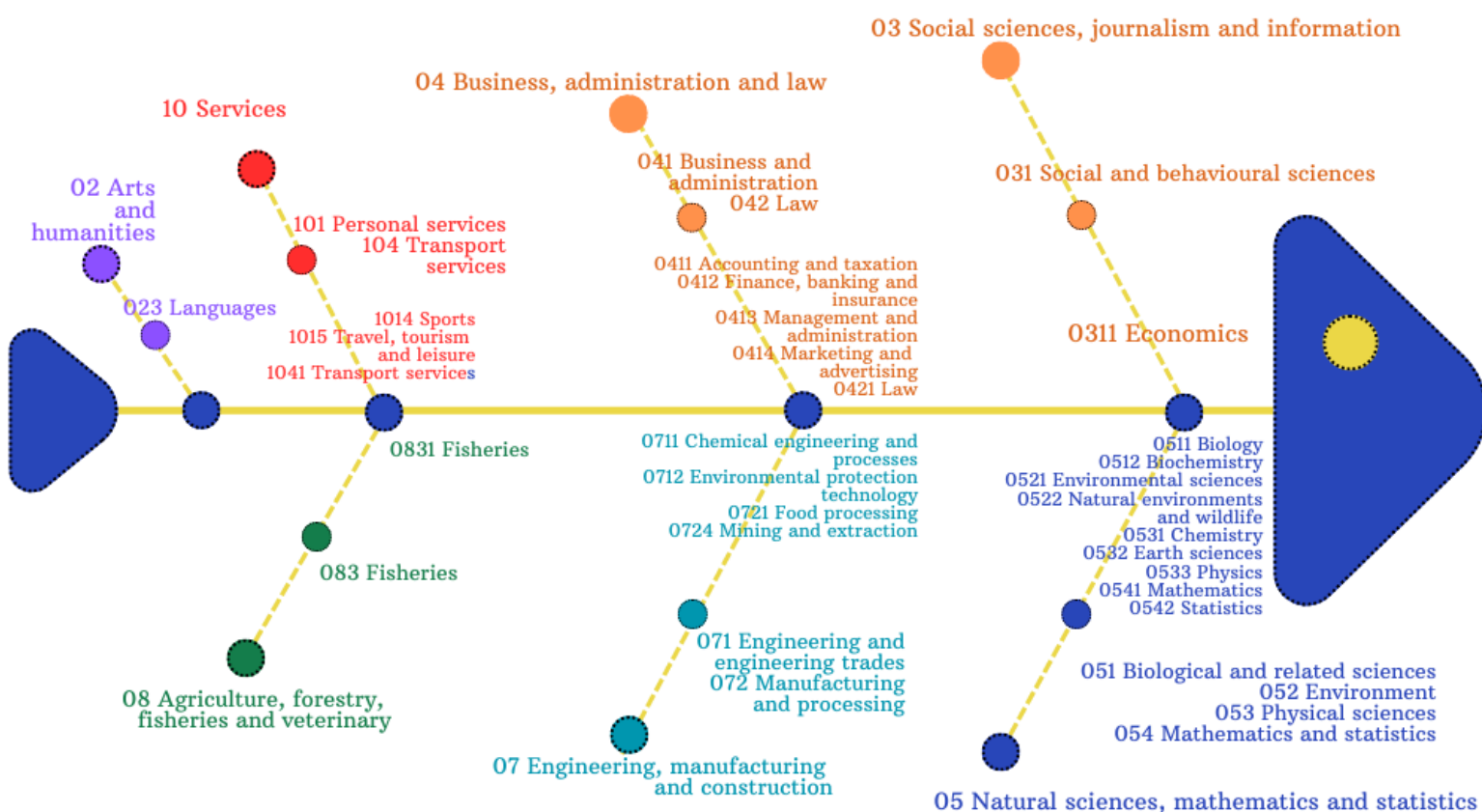


Figure 4. ISCED fields of study²⁸

²⁸ <https://uis.unesco.org/sites/default/files/documents/isced-fields-of-education-and-training-2013-en.pdf>

1. Eligibility

1.1. Status

The seven consortium partners are all members of the SEA-EU European University Alliance and are recognised higher education institutions in their respective countries (see Annex 1). Each of them operates within a national legal framework that allows them to participate in joint programmes (see Annex 3). Spain, Portugal, Poland, Croatia and Norway are able to apply the European Approach to Quality Assurance in Joint Programmes. Meanwhile, Italy is under review for EQAR²⁹ registration and Malta is a self-accrediting institution.

The accreditation process for this joint bachelor's degree has involved several key steps to ensure that the programme will meet quality standards recognized by educational authorities in several European countries.

Table 3. Status of the external quality assurance systems, as well as national frameworks for joint programmes, in SEA-EU countries and Universities:

University/Country	Evaluation Agency registered in EQAR		European Approach for accreditation of joint programmes allowed (Yes/No)	Awarding Joint Degree
University of Cádiz/Spain	ACCUA ³⁰	Yes	Yes	Yes
University of Gdańsk/Poland	Self-accrediting ³¹	Yes	Yes	No
University of Split/Croatia	AZVO ³²	Yes	Yes	No
University of Naples Parthenope/Italy	ANVUR ³³		Expected Autumn 2024	No
University of Algarve/Portugal	A3ES ³⁴	Yes	Yes	No
NORD University/Norway	Self-accrediting ³⁵	Yes	Yes	No
University of Malta/Malta (associated partner)	MFHEA (self-accrediting)		No	No

²⁹ <https://www.eqar.eu/register/agencies/>

³⁰ ACCUA: Agencia para la Calidad Científica y Universitaria de Andalucía

³¹ Self-accrediting institution. PKA: Polska Komisja Akredytacyjna (<https://pka.edu.pl/>)

³² AZVO - Agencija za znanost i visoko obrazovanje (<https://www.azvo.hr/>)

³³ Agenzia Nazionale di Valutazione del Sistema Universitario e della Ricerca (<https://www.anvur.it/>)

³⁴ Agência de Avaliação e Acreditação do Ensino Superior (<https://www.a3es.pt/>)

³⁵ Norwegian Agency for Quality Assurance in Education (<https://www.nokut.no/>)

1.2. Joint Design and Delivery.

In the SeaBlueE, which involves seven of the nine European universities that make up the SEA-EU Alliance, each partner plays a crucial role in the co-creation, design and delivery process. The implementation of the programme is guaranteed by the cooperation agreement, which has been developed taking into account the specific role of each of the participating universities in the implementation of the joint programme (see Annex 17 for more detailed information on the process).

Table 4. Distribution of roles among Partner universities, students, and associated partners

Partners Universities	Roles	
	Co-Creation Phase	Implementation Phase
UCA (Coordinating Institution)	Programme Design Governance Admission, Selection, Enrolment Recognition Teaching & Training Mobility Assessment Internships Bachelor Project supervision Internal Quality Assurance	General Coordination Administration & Financial Management Accreditation (EA - ACCUA) Awarding the joint degree and joint DS
UCA, UG, UPN, UALG, NORD, UNIST (Full Partners)		Admission, Selection, Enrolment Recognition Teaching & Training Mobility Assessment Internships Bachelor Project supervision Student's support Resources Promotion & Dissemination Internal Quality Assurance
UM (Associated Partner)		Promotion & Dissemination Selection Process Teaching & Training Bachelor Project supervision
Students	Advising/Consultation	Programme Design Student Support/Buddy System Governance Internal Quality Assurance
Stakeholders	Advising/Consultation	Internships/Bachelor Project supervision Internal Quality Assurance (when appropriate)

1.2.1. Joint design of the SeaBlueE. Co-Creation Phase

The development of the Joint Bachelor's Degree in Sustainable Blue Economy is not merely a merging of existing curricula; it is a co-creation journey aimed at addressing the unique challenges and opportunities of the blue economy and industry sector. This collaborative process involves all participating universities working together to design, develop, and implement a cohesive and dynamic educational framework tailored to the needs of the blue economy, in line with stakeholder recommendations. This process transcends traditional academic boundaries, fostering interdisciplinary dialogue, cultural exchange, and mutual learning. SeaBlue has unfolded in several interrelated stages (see roadmap figure below). It has been jointly designed by the seven SEA-EU partner universities, with advice and consultation from stakeholders and students, under the coordination of the University of Cadiz. A general roadmap has been established that demonstrates the process from the co-creation of the programme to its finalisation with the submission of the self-evaluation report to the accreditation agency and the implementation of the Bachelor programme, consisting of the following steps:

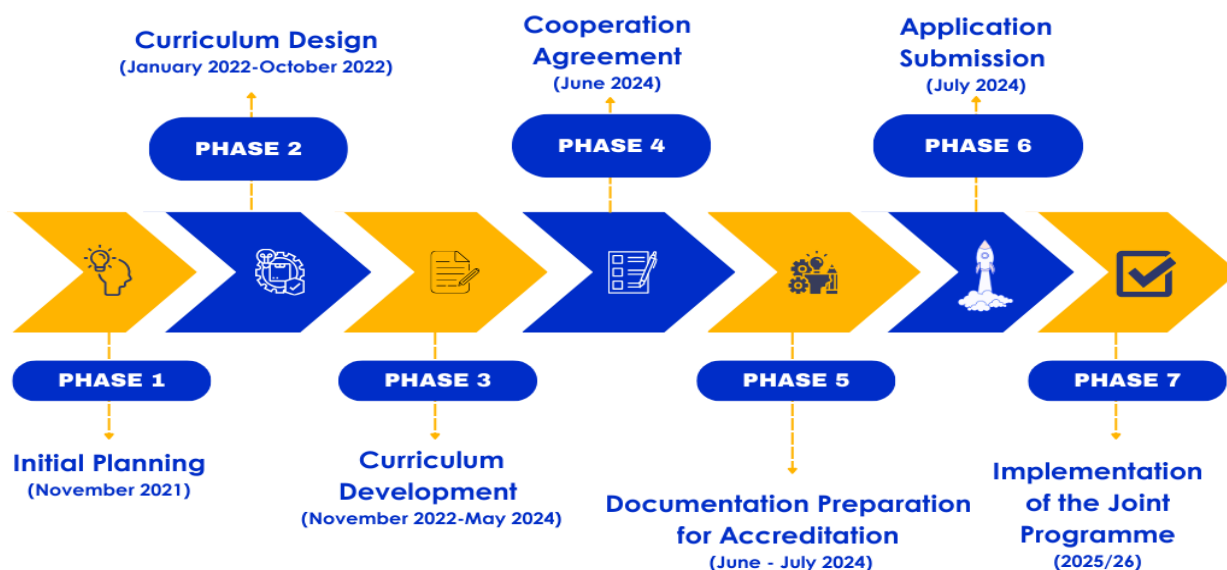


Figure 5. General Roadmap for the co-design and implementation of the Joint Bachelor's Programme

Course Content Co-Creation Teams (CCCTs)

To support content design by the Course Content Co-Creation Teams (CCCTs), a handbook of guidelines was developed (see annex 17). These guidelines detail how SEA-EU curriculum development teams and programme coordinators gather and identify existing curriculum content, human resources, and thematic research areas where all partner universities have significant expertise. This data enables CCCTs to propose new thematic areas for curriculum development within SEA-EU. The guidelines provided academics with a set of prompts and considerations for planning course content development. Specifically, CCCTs focused on:

- a) an overview of the programme, including the purpose of the Joint Bachelor's Degree in Sustainable Blue Economy;
- b) questions to gather feedback and refine the programme's concept and vision, pedagogical principles, and potential learning outcomes;
- c) information on the relationship between businesses and academia.

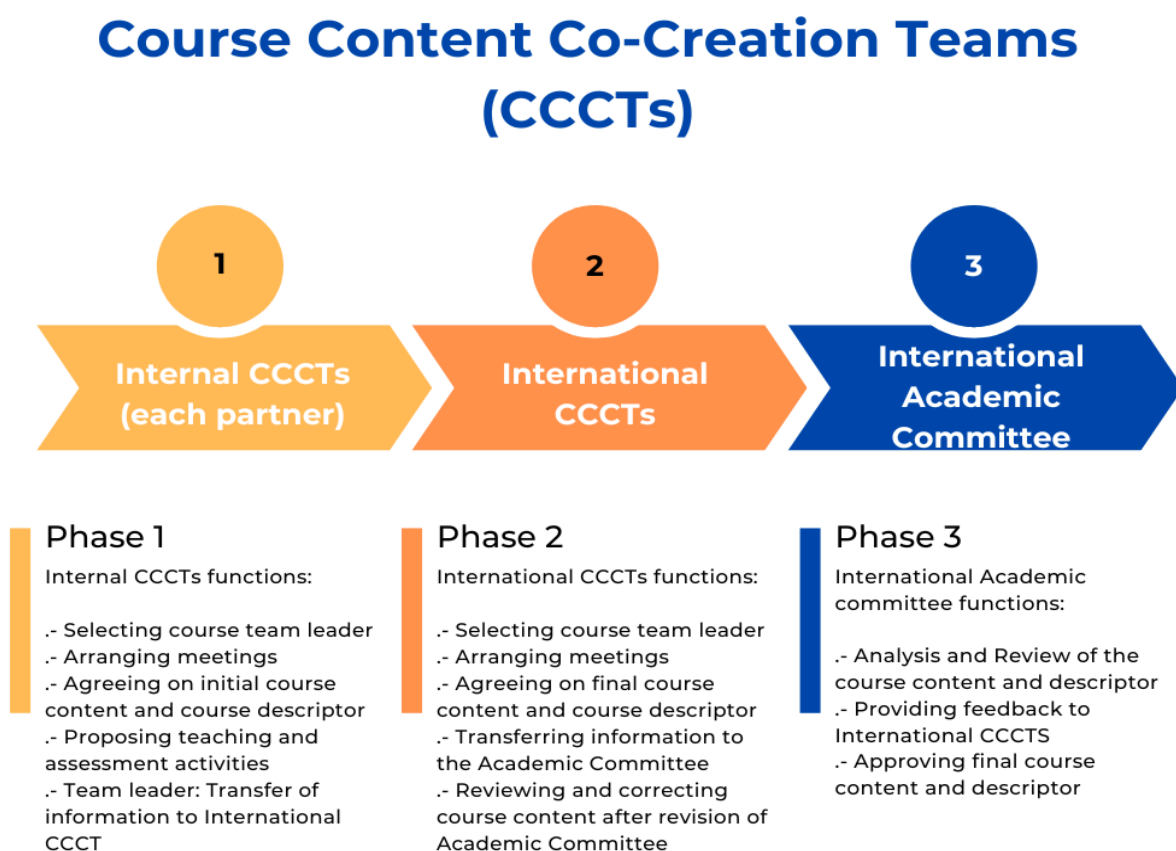


Figure 6. CCCTs' Chart

1.2.2. Joint delivery of SeaBlueE. Implementation Phase

The joint governance structure created for the proper management of the Joint Bachelor Degree in Sustainable Blue Economy within the European SEA-EU alliance refers to the organisational framework established to oversee and coordinate the implementation and operation of the joint degree programme. This structure is designed to ensure that all universities involved in the Consortium, students and other relevant stakeholders, can participate effectively and that the set objectives and quality standards are met.

Table 5. List of the institutions delivering the programme.

Name of the institution	Higher Education institution (Yes/No)	Degree awarding institution (Yes/No)	Role in the consortium (i.e. coordinator, etc.)
University of Cadiz	Yes	Yes	Coordinator
University of Gdańsk ³⁶	Yes	No	Partner
University of Split	Yes	No	Partner
University of Naples Parthenope	Yes	No	Partner
University of Algarve	Yes	No	Partner
NORD University ³⁷	Yes	No	Partner
University of Malta	Yes	No	Associated partner

Several key reasons underline its importance such as a) **strategic alignment**, ensuring that the joint bachelor programme aligns with the overarching goals, values, and priorities of the participating universities and the alliance as a whole; b) **coordination and collaboration**, with seven universities involved, effective coordination and collaboration are essential for the smooth

³⁶ **The University of Gdansk** generally requires the student to spend a minimum of one semester (30 ECTS) at their campus to be in the position to issue a diploma signed by the Rector. However, considering the high level of jointness of the Joint Bachelor's Degree in Sustainable Blue Economy, both in terms of co-design and co-teaching, the University of Gdansk will make an exception and sign the joint degree issued by the University of Cadiz.

³⁷ For **Nord University** to be able to co-sign diplomas for students who have not taken at least 30 credits at Nord University as part of their degree, the local regulations must be revised and changed. Authority to change the regulations has been given to the University Board.

functioning of the programme. The governance team will facilitate communication and collaboration among partner institutions, ensuring that academic and administrative activities are synchronised and cohesive across different locations and departments; c) **quality assurance**, maintaining high academic standards and ensuring the quality of the educational experience is a priority for this governance team. Mechanisms for quality assurance, monitoring the implementation of the programme, and conducting regular evaluations to assess its effectiveness and identify areas for improvement have been established as described in the standard 9; d) **student mobility and support**: Facilitating student mobility is a key feature of joint programmes in European alliances. A procedure for student mobility, ensuring the budget and providing support services to help students navigate the challenges of studying in different cultural and linguistic environments, is a task of utmost importance for the JPWG; e) Effective **resource management** is also a key task of this governance team which oversees budgeting, fundraising and resource allocation, ensuring that financial resources are used efficiently and equitably to support programme activities and objectives; f) Engaging with **stakeholders**, fostering strong relationships with stakeholders, soliciting feedback, and addressing concerns to ensure that their perspectives are taken into account in decision-making processes.

The relevance of the governance team for running a joint international bachelor programme in the SEA-EU Alliance cannot be overstated. This team serves as the backbone of the programme, responsible for overseeing its strategic direction, coordination, and effective implementation.

The governance structure for SeaBlueE is organised into three levels. At the top level, the Governing Board and the Executive Committee of the SEA-EU alliance are present. The Governing Board is responsible for making high-level decisions, setting strategic goals, and ensuring the overall direction of the alliance aligns with its mission. The Executive Committee provides guidance and support to the Governing Board, ensuring that the strategic initiatives are feasible and aligned with the academic and operational capabilities of the institutions involved. These two entities work closely to ensure coherent and

unified leadership. Additionally, the top level includes the Joint Programmes Coordination Office. This office is responsible for overseeing the implementation of Joint Programmes. Acting as a central forum, it addresses common issues faced by joint degree programmes, allowing members to share experiences, identify challenges, and propose collaborative solutions.

The second level of the governance structure comprises bodies specifically related to the implementation and operational management of the SeaBlueE Joint Degree. This includes the Academic Steering Committee, coordinated by the Academic Coordinator. The committee ensures the academic integrity and coherence of the programme. The Technical Officer oversees the logistical and technical aspects, while the internal quality committee ensures the programme meets high standards of excellence. Additionally, the Project Assessment Board ensures fairness and transparency in assessments and evaluations of the Bachelor's project.

Finally, at the bottom level, the local bodies of the universities participating in the joint degree programme are found. These include the Local Academic Coordinators, who ensure that the programme's academic standards and requirements are met at each institution. The Local Administration Offices manage the day-to-day administrative tasks, ensuring smooth operations. Student Representatives provide a voice for the student body, ensuring their needs and concerns are addressed. Lastly, the Stakeholders, which can include industry partners, employers, and community representatives, offer valuable insights and feedback to ensure the programme remains relevant and aligned with external expectations and opportunities.

The success and effectiveness of the programme will be ensured through the definition of the individual roles of each partner as outlined here:

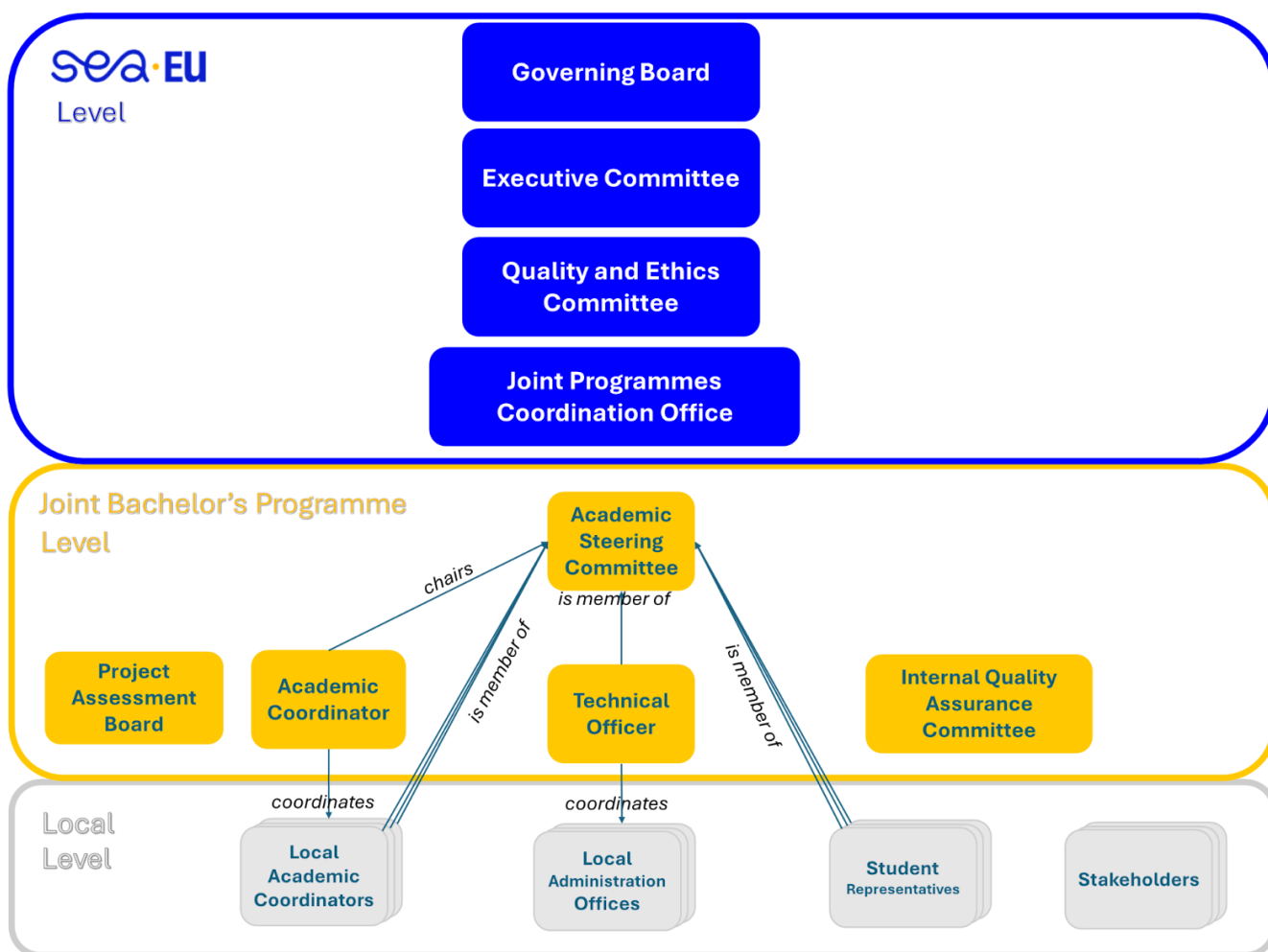


Figure 7. GOVERNANCE. Joint structure for academic governance, internal quality assurance, administration, and financial management

1.3 Cooperation Agreement

The cooperation agreement between the seven universities of the SEA-EU Alliance for the delivery of the joint Bachelor's degree is set out in Annex 2. There is an explicit commitment that the agreement will be signed by the rectors of each participating university prior to the final decision of the accreditation process. In the meantime, the letters of commitment and responsibility to participate and implement the joint degree under the conditions in which it has been designed are also attached in Annex 2.

The financial plan will be also attached to this cooperation agreement.

In addition to the implementation of the programme, the seven universities are connected through the Erasmus + programme so that student, academic and staff mobility is assured and the relevant agreements are being established for its implementation.

2. Learning Outcomes

2.1. Level

The European Higher Education Area (EHEA) is characterised by its adherence to the overarching principles of quality assurance, transparency, and compatibility across national higher education systems. At the heart of this framework lies the alignment of qualifications through the Qualifications Framework for the European Higher Education Area (QF-EHEA)³⁸ and the European Qualifications Framework (EQF).

The first cycle of the Qualifications Framework for the European Higher Education Area (QF-EHEA) corresponds to a bachelor's degree level, aligning with level 6 of the European Qualifications Framework (EQF). This cycle represents qualifications awarded upon the successful completion of undergraduate higher education studies. Typically, it encompasses 180-240 ECTS credits, equipping graduates with the knowledge, skills, and competencies in a specific field of study while fostering critical thinking, problem-solving abilities, and the capacity for independent learning, necessary for employment or further academic pursuits.

First cycle qualification. Bachelor Level

The LOs corresponding to the Qualifications Framework for the European Higher Education Area (QF-EHEA) of the first cycle are:

- **QF-EHEA-1:** have demonstrated **knowledge** and understanding in a **field of study** that builds upon their general secondary education, and is typically at a level that, whilst **supported by advanced textbooks**, includes some aspects that will be informed by knowledge of the forefront of their field of study;
- **QF-EHEA-2:** can **apply their knowledge** and understanding in a manner that indicates a **professional approach to their work or vocation**, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study;

³⁸

https://www.ehea.info/media.ehea.info/file/WG_Frameworks_qualification/85/2/Framework_qualificationsforEHEA-May2005_587852.pdf

- **QF-EHEA-3:** have the **ability to gather and interpret relevant data** (usually within their field of study) **to inform judgments** that include reflection on relevant social, scientific or ethical issues;
- **QF-EHEA-4:** can **communicate information**, ideas, problems and solutions to both specialist and non-specialist audiences;
- **QF-EHEA-5:** have developed those learning skills that are necessary for them to continue to **undertake further study with a high degree of autonomy**.

Programme Learning Outcomes (PLOs) for the Joint Bachelor's Degree in Sustainable Blue Economy (SeaBlueE)

Learning outcomes (LO) means statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and, learner's responsibility and autonomy³⁹.

Knowledge: *Understanding of theories, facts, principles, procedures in subject areas and/or occupations.*

Skills: *Ability to utilise knowledge to solve problems or tasks (cognitive, practical, creative and communication skills).*

Autonomy and Responsibility: *Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups.*

³⁹ <https://europass.europa.eu/en/description-eight-efl-levels>

[https://www.nokut.no/en/norwegian-education/the-norwegian-qualifications-framework-for-lifelong-learning/beskrivelser-av-laringsutbytte-for-nivaene-i-nkr/#:~:text=The%20categories%20describing%20learning%20outcomes,%2C%20creative%20and%20communication%20skills\).](https://www.nokut.no/en/norwegian-education/the-norwegian-qualifications-framework-for-lifelong-learning/beskrivelser-av-laringsutbytte-for-nivaene-i-nkr/#:~:text=The%20categories%20describing%20learning%20outcomes,%2C%20creative%20and%20communication%20skills).)



Figure 8. EQF level Definitions

The determination of learning outcomes is a task undertaken jointly by all partners when designing the final programme and covering all programme courses. However, upon completion of this programme, students should be able to:

PLO1. Have a general knowledge of the fundamental principles of marine sciences and the fundamental principles of sustainable blue economy.

PLO2. Identify and understand the interdependency of marine ecosystems, ocean industries, and societies that depend on them, with a wide socio-ecological perspective.

PLO3. Identify and interpret challenges that come with the increase in the economic value of the oceans and the increasing threats on the oceans.

PLO4. Describe alternative economic approaches in addition to traditional economic analysis.

PLO5. Identify the different economic actors and stakeholder groups in blue industries.

PLO6. To use marine environmental and socio-economic analysis tools, including data analysis.

PLO7. Manage multidisciplinary data with cutting- edge capabilities in the blue industries.

PLO8. Provide a knowledge framework to reconcile conflicting uses of the ocean and its resources and enable long- term sustainable growth.

PLO9. Analyse policies and mechanisms that facilitate sustainable use of the ocean and maximise benefits and value creation for current and future generations.

PLO10. Develop awareness of environmental and socio-economic problems related to the blue economy based on ethical commitment and sustainability.

PLO11. To understand the impact of socio-economic activities linked to the marine environment with a focus on sustainability.

The alignment of the SeaBlueE PLOs with the QF-EHEA learning outcomes is included in Annex 4. A matrix showing the alignment of QF-EHEA, PLOs and CLOs (Course Learning Outcomes) is also included.

2.2. Disciplinary field

The disciplinary field of the SeaBlueE is characterised by a rigorous multidisciplinary study of the interactions between human activities and the marine environment, with a focus on promoting sustainability. Rooted in scientific inquiry, it integrates a wide range of disciplines including marine biology, oceanography, environmental sciences, maritime law and policy, economics and sustainable development.

Central to the field is the study of sustainable management practices for marine resources and ecosystems, encompassing issues such as the conservation of marine biodiversity, responsible fisheries management, coastal zone management, and marine pollution mitigation strategies, among others. Recognising the complexity of global processes such as climate change, students will explore the socio-economic dynamics of blue economy initiatives, taking into account the need for international cooperation and governance frameworks.

In essence, the disciplinary framework of this joint bachelor's degree embodies a scientific endeavour aimed at equipping students with a holistic understanding of marine systems, enabling them to make a substantial contribution to the conservation and equitable use of marine resources for present and future generations.

2.3. Achievement

Graduates will acquire a broad knowledge of the fundamental principles of marine sciences and the sustainable blue economy, including the interdependency of marine ecosystems, ocean industries, and societies. They will be able to identify and interpret challenges associated with the economic value of the oceans, describe alternative economic approaches, use marine environmental and socio-economic analysis tools, manage multidisciplinary data, provide frameworks for reconciling conflicting uses of ocean resources, analyse policies for sustainable ocean use, and develop awareness of environmental and socio-economic problems related to the blue economy with a focus on sustainability and ethical commitment.

The philosophy of the programme revolves around integrating a comprehensive understanding of marine sciences with sustainable economic practices to promote the long-term health and viability of ocean ecosystems and the communities that depend on them

To ensure the achievement of the intended learning outcomes for a joint degree in Sustainable Blue Economy, several key aspects have been taken into account at each stage of the co-creation process:

Purpose of the programme. The process of creating a Joint Bachelor's Degree in Sustainable Blue Economy involves an extensive research and analysis of the challenges and opportunities in the field, as well as the identification of needs and demands from industry and society. This in-depth analysis was followed by consultations with various stakeholders, including academics, industry professionals and the community, to obtain feedback.

PLOs & Curriculum Design. On this basis, clear objectives and specific learning outcomes have been established, and a balanced curriculum has been developed that integrates multiple areas of study and interdisciplinary approaches including marine conservation, oceanography, maritime law, sustainable fisheries management, aquaculture, coastal zone management, and blue technology. Integration of interdisciplinary courses that combine concepts from marine science, economics, policy, and management to provide students with a holistic understanding of the blue economy. In each

of the courses that make up the programme, emphasis has been placed on ethics and sustainability as a cross-cutting research methodology. The PLOs have been aligned with the QF-EHEA; first cycle (see Annex 4) to ensure that each course in the programme clearly articulates learning objectives that are consistent with the overall objectives of the joint degree programme. They will be regularly reviewed and refined to reflect evolving industry needs and academic standards.

The **Assessment Methods** based on the **Challenge-Based Learning (CBL)** programme demonstrated a varied approach to assessing students' understanding, skills and abilities. Some types of assessment methods have included: *project presentations* in which students demonstrate their solutions to real-world challenges; *written reports* detailing research and proposed solutions, and case studies analysing sustainability issues; *peer reviews* and *simulations* encourage collaboration and practical application, while *portfolios* provide a holistic view of student progress; *fieldwork reports* and direct engagement with stakeholders provide hands-on experience, complemented by *presentations* and *discussions* to hone communication and critical thinking skills.

SeaBlueE consist of 180 ECTS divided into three years (Annexes 5 & 6):

- **Y1. Core Module. 60 ECTS**

In the Core Courses of the first year (Y1) of the Joint Bachelor's Degree in Sustainable Blue Economy, students typically take foundation courses designed to give them a broad understanding of the key concepts, principles and practices in the blue economy field.

- **Y2: Toolbox Module. 60 ECTS**

Designed to provide students with the practical skills, tools and methodologies needed to address specific challenges and opportunities in the sustainable blue economy, they draw on a variety of disciplines to equip students with a diverse set of skills. Through hands-on activities, case studies and practical projects, students will gain practical experience and problem-solving skills essential for tackling real-world challenges in marine and coastal sustainability.

- **Y3: Expertise Module. Pathways. 60 ECTS** (Student selection among 6 different pathways). Total of ECTS offered by the six pathways = 360 ECTS

In the third year (Y3) students typically participate in the "Expertise Module" designed to deepen their knowledge and skills in specialised areas of research. Six distinct pathways have been meticulously crafted to offer students the chance to specialise within the sustainable blue economy, aligning closely with their individual interests and career aspirations.

The selection process will be carried out on academic performance, relevant experience and motivation of students to choose specific pathways during the first academic year, and may include interviews to ensure a match between students' objectives and the content of the pathways. Once students have chosen their pathways, they will participate in advanced courses, research projects and experiential learning activities tailored to their chosen pathways, enabling them to enhance their knowledge and prepare for future career opportunities in the sustainable blue economy.

- The **bachelor project** serves as a capstone experience, enabling students to integrate and apply multidisciplinary knowledge from fields such as marine biology, environmental science, economics, and policy studies. It enhances critical thinking, problem-solving, research skills, and the practical application of theoretical concepts to real-world scenarios. The project fosters innovation and sustainability, effective communication, interdisciplinary collaboration, and professional and ethical responsibility. Students also develop technological proficiency and demonstrate lifelong learning and adaptability. Overall, the project is essential in achieving the programme's intended learning outcomes, preparing students for professional roles in the sustainable blue economy sector.
- **Internships** also develop students' professional and effective communication skills through daily interactions and collaborations with industry professionals. They foster interdisciplinary collaboration and cultural exchange, essential in a globalised sector. By working within the

blue economy, students gain a deeper understanding of sustainability practices and industry operations, aligning with the programme's emphasis on innovation and sustainable development. Additionally, internships offer invaluable professional networking opportunities, often leading to potential employment after graduation. They also help students cultivate a sense of professional and ethical responsibility, adhering to industry standards and ethical guidelines.

In summary, the programme ensures a coherent synchronisation of learning outcomes, curriculum, teaching and learning activities and assessment practices. The course catalogue will provide reliable, up-to-date and quality-assured information on the programme, available on the website and in information brochures. All relevant details regarding the curriculum, student support and enrolment procedures for the Joint Bachelor Programme will be accessible in the 'Student Handbook' (see Annex 18).

2.4. Regulated Professions

The European Union Directive 2005/36/EC establishes rules for recognition of regulated professions among EU Member States⁴⁰. The Joint Bachelor's Degree in Sustainable Blue Economy does not align with any regulated profession, though the graduate profile is strongly related to the wide and inter transdisciplinary fields of Economy and Marine Sciences.

Although the Joint Bachelor's Degree in Sustainable Blue Economy does not necessarily lead to a regulated profession, it significantly enhances students' prospects in a variety of career paths. By equipping students with sector-specific knowledge, fostering innovation and entrepreneurship, promoting intercultural communication and facilitating academic career progression, such a degree prepares individuals for a variety of roles in the marine sector.

There is a wide spectrum of blue jobs, which is likely to expand as exploration of the ocean progresses. Figure 9 shows an overview of the blue employment sectors, accounting for ocean-based (e.g. fishing, cruise tourism) and marine-related (e.g. seafood processing, ocean technology) activities, and both established and emerging sectors. The main blue industries have been inventoried and clustered in two sectors, "Engineering & Transport", and "Living resources and Recreational Uses". Industries providing highest employment and gross-value-added figures are highlighted with blue and yellow icons, respectively. Emerging industries with the highest potential for expansion are marked with red icons. Note that "Infrastructures and maritime works" comprise activities such as submarine cables, coastal protection from the risk of erosion and flooding or dredging.

⁴⁰ <https://eur-lex.europa.eu/eli/dir/2005/36/oj>

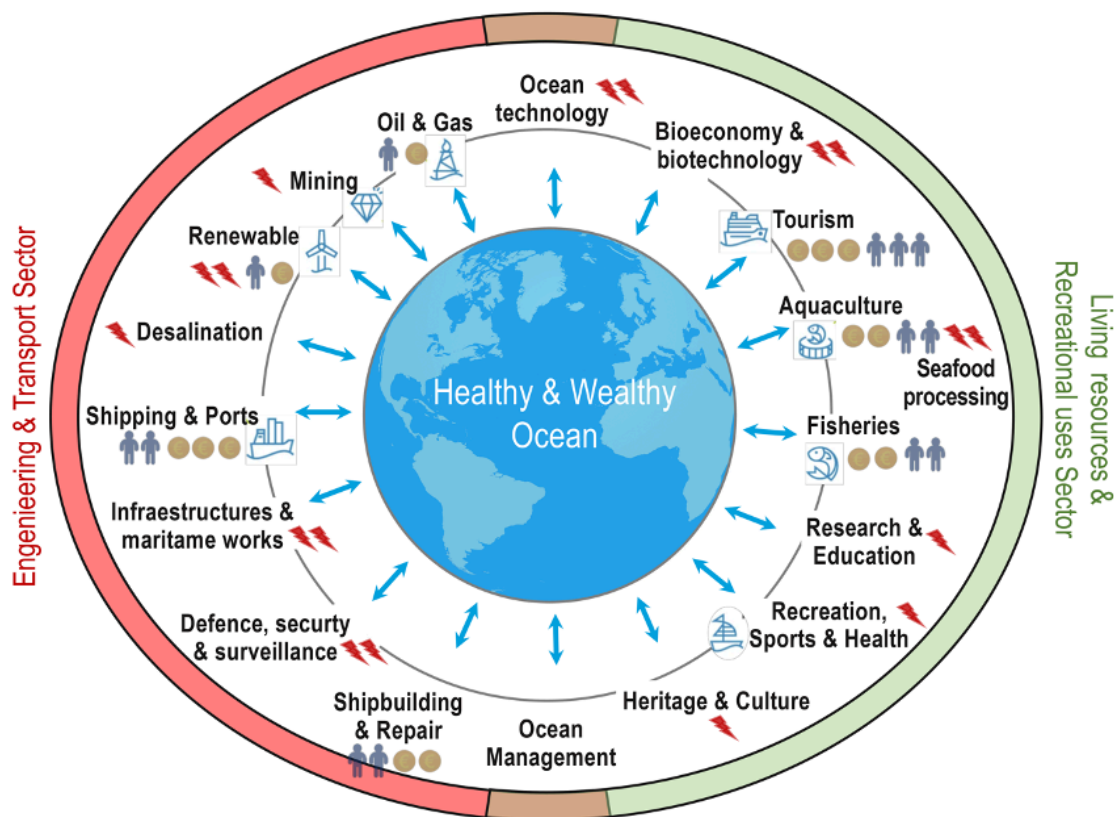


Figure 9. The Blue Economy.

The evolving landscape of the blue economy necessitates the creation of new professional profiles for bachelor students. The emerging professional profiles below reflect the diverse and interdisciplinary nature of the Blue Economy and highlight the need for skilled graduates who can address its complex challenges and opportunities.

<p>Marine Conservationist: Working with non-profit organisations, government agencies, or research institutions to protect and conserve marine ecosystems, endangered species, and biodiversity.</p>	<p>Fisheries Manager: Managing fisheries resources sustainably, overseeing fishing quotas, enforcing regulations, and implementing conservation measures to ensure the long-term viability of fish stocks.</p>	<p>Aquaculture Manager: Overseeing sustainable aquaculture operations, including fish farming, shellfish cultivation, and seaweed farming, to meet growing demand for seafood while minimising environmental impacts.</p>
<p>Environmental Policy Analyst: Analysing environmental policies and regulations related to marine and coastal management, advocating for sustainable practices, and advising policymakers on effective strategies for conservation and resource management.</p>	<p>Environmental Consultant: Providing consulting services to businesses, governments, and NGOs on environmental issues related to the marine environment, such as pollution prevention, habitat restoration, and environmental impact assessments.</p>	<p>Sustainable Business Consultant: Working with companies in the marine industry to develop and implement sustainable business practices, such as reducing waste, improving energy efficiency, and adopting eco-friendly technologies.</p>
<p>Coastal Planner: Collaborating with government agencies, urban planners, and communities to develop sustainable coastal development plans that balance economic development with environmental conservation and social equity.</p>	<p>Oceanographer: Studying physical, chemical, and biological processes in the ocean, conducting research on climate change, ocean circulation, and marine biodiversity, and contributing to our understanding of marine ecosystems and their resilience to environmental stressors.</p>	<p>Marine Resource Economist: Conducting economic analyses of marine resource utilisation, evaluating the costs and benefits of different management strategies, and informing decision-makers about the economic value of marine ecosystems.</p>
<p>Marine Ecotourism Manager: Managing marine ecotourism operations, including wildlife tours, diving excursions, and eco-friendly accommodations, while minimising the environmental impact and promoting conservation awareness.</p>	<p>Blue Innovation Entrepreneur: Launching startups or innovative projects that address challenges in the sustainable blue economy, such as developing new technologies for marine conservation, aquaculture, ocean monitoring, or waste management.</p>	<p>Renewable Energy Specialist: Researching and developing renewable energy technologies such as offshore wind, tidal energy, and wave energy, to harness the power of the ocean while minimising environmental impacts.</p>

Graduate Tracking

The implementation of graduate tracking within the SEA-EU Joint Programmes will be developed as it offers numerous benefits that can enhance the overall effectiveness and success of these programmes. This process will involve collecting and analysing data on various aspects of students after graduation, such as their career progress, further education, geographical location, professional achievements and contributions to their field or community.

The system will allow measuring programme outcomes, identifying areas for improvement and showcasing the success of graduates to strengthen partnerships with stakeholders. By building strong graduate networks, the joint programme will provide valuable networking, mentoring and job placement opportunities for current students. In addition, tracking graduates will identify potential donors and support resource development, contributing to financial sustainability.

Highlighting graduates' achievements enhances the reputation of the joint programme, attracting future students and increasing enrolments. Personalised professional services and ongoing engagement with graduates ensures continued support, while detailed tracking data helps to meet accreditation requirements and demonstrate the impact of the programme. Overall, graduate follow-up is essential for continuous improvement, community development, reputation enhancement and long-term sustainability.

3. Study Programme

3.1. Curriculum

The philosophy of the Joint Bachelor's Degree in Sustainable Blue Economy is centred on providing a comprehensive, interdisciplinary, and practical education that prepares students to address the multifaceted challenges of the blue economy. Through a focus on sustainability, innovation, global perspective, and ethical responsibility, the programme aims to cultivate knowledgeable and skilled professionals capable of leading and advancing sustainable practices within the blue economy sector.

Y1. Core Module (60 ECTS). *Learning the Ropes*

The first year (Y1) curriculum has been meticulously crafted to provide students with a comprehensive education essential for tackling the environmental, economic, and social challenges inherent in the blue economy. These foundational modules integrate theoretical insights with practical skills and interdisciplinary perspectives, aiming to cultivate graduates who are prepared to lead and innovate in the promotion of sustainable development within marine and coastal environments.

Code	Course name	ECTS
SBE101	Marine Ecosystems & Biodiversity	5 (Compulsory)
SBE102	Ocean Functioning	5 (Compulsory)
SBE103	Applied Mathematics	5 (Compulsory)
SBE104	Foundations of Economics	5 (Compulsory)
SBE105	Introduction to Sustainable Blue Development	5 (Compulsory)
SBE106	Soft & Academic Skills	5 (Compulsory)
SBE107	Marine Natural Capital & Ecosystem Services	5 (Compulsory)
SBE108	Impact of Human Activities on the Ocean	5 (Compulsory)
SBE109	Blue Business Management	5 (Compulsory)
SBE110	Marine & Maritime Governance, Laws & Regulations	5 (Compulsory)
SBE111	Ecological Economics	5 (Compulsory)
SBE112	Statistics	5 (Compulsory)

Y2. Toolbox Module. *Running a Tight Ship*

In the second year (Y2) Toolbox module, students delve deeper into specialised aspects of the Sustainable Blue Economy, building upon the foundational knowledge gained in Y1. By the end of Y2, students emerge with a well-rounded skill set and a nuanced understanding of sustainable practices, poised to make meaningful contributions to the future of marine and coastal environments.

Code	Course name	ECTS
SBE201	Geographic Information Systems	5 (Compulsory)
SBE202	Digital Data Compilation, Analysis & Visualisation	5 (Compulsory)
SBE203	Sustainable Blue Entrepreneurship & Innovation	5 (Compulsory)
SBE204	Climate Change	5 (Compulsory)
SBE205	Circular Blue Economy	5 (Compulsory)
SBE206	Models for Environmental & Economic Systems	5 (Compulsory)
SBE207	Remote Sensing Data & Techniques	5 (Compulsory)
SBE208	Marine Spatial Planning (MSP) & Integrated Coastal Zone Management (ICZM)	5 (Compulsory)
SBE209	Introduction to Blue Industries	5 (Compulsory)
SBE210	Environmental Accounting	5 (Compulsory)
SBE211	Foundations of Finance	5 (Compulsory)
SBE212	Sustainability Reporting	5 (Compulsory)

Y3. Expertise Module. *Charting the Course*

The Y3 Expertise Module represents a pivotal stage where students consolidate and expand upon their acquired knowledge and skills from previous years. This module is strategically designed to empower students to take leadership roles and shape the future of sustainable marine and coastal management. Building on the foundational and specialised learning of Y1 and Y2, Y3 offers an advanced exploration into specific domains within the blue economy.

Students engage in rigorous academic exploration, focusing on advanced topics through the selection of a chosen pathway tailored to individual interests and career aspirations. Guest lectures, seminars, and workshops

facilitated by industry experts and academic leaders enrich the learning experience, providing invaluable insights and fostering innovative problem-solving skills.

Pathway 1. Blue Sustainability Accounting, Management and Planning (UPN/UG)

Code	Course name	ECTS
SBE311-P1	Landscape Planning & Management	5 (Compulsory)
SBE312-P1	Life Cycle Assessment	5 (Compulsory)
SBE313-P1	Environmental Monitoring	5 (Compulsory)
SBE314-P1	Ocean Ecology & Accounting	5 (Compulsory)
SBE315-P1	Aquaculture & Food Security	5 (Compulsory)
SBE316-P1	Sustainable & Climate Finance	5 (Compulsory)
SBE317-P1	Environmental & Urban Planning	5 (Compulsory)
SBE318-P1	Maritime Sustainable Supply Chains	5 (Compulsory)
SBE319-P1	Operation Planning & Management	5 (Compulsory)
SBE401-P1	Option 1 Code (elective). Research oriented Research bachelor project.	15 (Compulsory)
SBE402-P1	Option 2 Code (elective). Professionally oriented. Internship	10 (Compulsory)
	+ Bachelor project	5 (Compulsory)

Pathway 2. Conservation and Sustainable Use of Marine Resources (UG)

Code	Course name	ECTS
SBE321-P2	Protection of the Marine Environment	5 (Compulsory)
SBE322-P2	Ecological Assessment of Aquatic Environments	5 (Compulsory)
SBE323-P2	Sustainable Fisheries Management	5 (Compulsory)
SBE324-P2	Introduction to Marine Biotechnology	5 (Compulsory)
SBE325-P2	Leadership & Communication	5 (Compulsory)

SBE326-P2	Fish Biology	5 (Compulsory)
SBE327-P2	Integrated Aquaculture	5 (Compulsory)
SBE328-P2	Specialised Workshop at Sea & in the Coastal Zone	5 (Compulsory)
SBE329-P2	Mining & Renewable Energy	5 (Compulsory)
SBE401-P2	Option 1 Code (elective). Research oriented Research bachelor project.	15 (Compulsory)
SBE402-P2	Option 2 Code (elective). Professionally oriented. Internship	10 (Compulsory)
	+ Bachelor project	5 (Compulsory)

Pathway 3. Human Impact in the Arctic (NORD)

Code	Course name	ECTS
SBE331-P3	Human Health & Physical Activity related to the Sea; Blue sports	5 (Compulsory)
SBE332-P3	Sustainable Coastal Tourism	5 (Compulsory)
SBE333-P3	Introduction to Marine Biotechnology	5 (Compulsory)
SBE334-P3	Sustainable Fisheries Management	5 (Compulsory)
SBE335-P3	Integrated Aquaculture	5 (Compulsory)
SBE336-P3	Marine Ecosystem Restoration	5 (Compulsory)
SBE337-P3	Geopolitics in the Arctic	5 (Compulsory)
SBE338-P3	Arctic leadership	5 (Compulsory)
SBE339-P3	Human Impact in the Arctic	5 (Compulsory)
SBE401-P3	Option 1 Code (elective). Research oriented Research bachelor project.	15 (Compulsory)
SBE402-P3	Option 2 Code (elective). Professionally oriented. Internship	10 (Compulsory)
	+ Bachelor project	5 (Compulsory)

Pathway 4. Sustainable Port-Tourism Cities (UNIST)

Code	Course name	ECTS
SBE341-P4	Sustainable Shipping & Ports	5 (Compulsory)
SBE342-P4	Sustainable Coastal Tourism	5 (Compulsory)
SBE343-P4	Urban Economics	5 (Compulsory)
SBE344-P4	Migrations & Coastal Populations	5 (Compulsory)
SBE345-P4	Introduction to Marine Biotechnology	5 (Compulsory)
SBE346-P4	Human Health & Physical Activity related to the Sea; Blue Sports	5 (Compulsory)
SBE347-P4	Socio-economic & Environmental Monitoring	5 (Compulsory)
SBE348-P4	Environmental Marketing & Social Awareness	5 (Compulsory)
SBE349-P4	Coastal Resource Strategic Management	5 (Compulsory)
SBE401-P4	Option 1 Code (elective). Research oriented Research bachelor project.	15 (Compulsory)
SBE402-P4	Option 2 Code (elective). Professionally oriented. Internship	10 (Compulsory)
	+ Bachelor project	5 (Compulsory)

Pathway 5. Blue Management: Accounting, Conservation and Restoration (UCA)

Code	Course name	ECTS
SBE351-P5	Policy, Legal & Regulatory Framework for Blue Management	5 (Compulsory)
SBE352-P5	Data Sources & Processing Tools for Blue Management	5 (Compulsory)
SBE353-P5	Socio-ecological Monitoring	5 (Compulsory)
SBE354-P5	Marine Ecosystem Accounting	5 (Compulsory)
SBE355-P5	Marine Ecosystem Conservation	5 (Compulsory)
SBE356-P5	Marine Ecosystem Restoration	5 (Compulsory)

SBE357-P5	Social Dimension in the Blue Management	5 (Compulsory)
SBE358-P5	Project Management	5 (Compulsory)
SBE359-P5	Innovation & Strategic Development in Blue Management	5 (Compulsory)

SBE401-P5	Option 1 Code (elective). Research oriented Research bachelor project.	15 (Compulsory)
SBE402-P5	Option 2 Code (elective). Professionally oriented. Internship	10 (Compulsory)
	+ Bachelor project	5 (Compulsory)

Pathway 6. Blue Industries: Tourism and Seafood (UAlg/UCA)

Code	Course name	ECTS
SBE361-P6	Sustainable Blue Industries: Tourism & Seafood	5 (Compulsory)
SBE362-P6	Social Dimension of Blue Industries	5 (Compulsory)
SBE363-P6	Policy & Regulatory Framework in Blue Industries	5 (Compulsory)
SBE364-P6	Strategy Management	5 (Compulsory)
SBE365-P6	Life Cycle in Blue Industries	5 (Compulsory)
SBE366-P6	Integrated Aquaculture & Sustainable Fisheries	5 (Compulsory)
SBE367-P6	Marketing & Product Development in Blue Tourism	5 (Compulsory)
SBE368-P6	Seafood Processing & Product Development	5 (Compulsory)
SBE369-P6	Blue Industries Project Management	5 (Compulsory)
SBE401-P6	Option 1 Code (elective). Research oriented Research bachelor project.	15 (Compulsory)
SBE402-P6	Option 2 Code (elective). Professionally oriented. Internship	10 (Compulsory)
	+ Bachelor project	5 (Compulsory)

The Expertise pathways in the third year offer two different options for the final project:

Option 1: Research oriented (Research bachelor project= 15 ECTS); and,

Option 2: Professionally oriented (Internship= 10 ECTS + Bachelor project= 5 ECTS)

Option 1: Research-Oriented Bachelor Project

Compulsory Co-Supervision:

At least two supervisors from different universities, with one supervisor being a professor from the student's chosen pathway university.

Project Requirements: The project must be an original piece of work (minimum 5,000 words) undertaken by the student. Accepted project types include: Literature Review/Conceptual Project and Critical Assessment of the Existing Literature on a Given Topic. The compulsory sections are:

1. Abstract (200 words)
2. Keywords (5)
3. Body (with specific diagram for scientific projects):

In the case of experimental works, the body will be structured as follows:

- a. *Introduction*, with an overview of the research topic, importance and relevance of the research and a brief statement of the research question or hypothesis.
- b. *Literature Review/Background Theory*, with a summary of the existing research and theories related to the topic, identification of gaps in the current knowledge and theoretical framework guiding the research.
- c. *Objectives*, with a clear and concise statement of the research objectives, the specific aims and goals of the study, and the hypotheses or research questions being addressed.
- d. *Methodology*, with a detailed description of the research design and approach, the methods and procedures used for data collection and analysis, the justification for the chosen methods, and a description of the experimental setup, if applicable.

- e. *Results and Discussion*, with a presentation of the research findings using tables, graphs and diagrams, the interpretation of the results in relation to the research objectives, the discussion of the implications and significance of the findings, the comparison with previous studies and the consideration of limitations and potential sources of error.
 - f. *Conclusion*, with the summary of the findings and their relevance, the implications for the field of study, the recommendations for future research and the concluding remarks on the overall contribution of the study
4. Reference List, with a comprehensive list of all sources cited in the project formatted according to the relevant citation style (e.g., APA, MLA, Chicago, etc.)

Alternative formats, even different from a written document, may be permitted if approved by both the supervisors and the Academic Steering Committee.

Oral defence: F2F and hybrid mode, located at the pathway university where the student is studying Y3. The Academic Steering Committee will determine the duration of the oral defence: presentation and questions & answers session.

Supervision Process: Prior to the beginning of the development of the bachelor project, supervisors must sign a commitment to supervise the specific project and student.

Once students have completed their bachelor project and received approval from their supervisor, they must submit their project and apply for the oral defence.

Project Assessment Board: Comprising three academics from at least two universities.

Option 2: Professionally-Oriented Internship + Bachelor Project

Internship Details:

Students may undertake internships in public/private sectors, NGOs, or universities. A pool of potential providers, showing their interest via a commitment letter, is established for each institution. Internship selection by students is based on academic record and requires approval from the pathway coordinator.

Supervision: No co-supervision is required. The project will be supervised by an academic from the pathway university, preferably the same academic who supervised the internship. An external mentor from the industry may optionally act as a co-supervisor.

Project Requirements: The project must be an original piece of work (minimum: 2,000 words and maximum: 5,000 words) undertaken by the student. It should be focused yet practical, addressing a specific aspect of an industry challenge or task. It should apply theoretical knowledge in a relevant context, demonstrating interdisciplinary understanding and problem-solving skills. The project should have a clear, achievable scope that aligns with industry needs, emphasising collaboration with supervisors and effective communication. While smaller in scale than the research-oriented bachelor project, it should adhere to professional standards, deliver measurable outcomes, and include reflection on learning experiences. Finally, the project should culminate in a concise report and presentation, showcasing its impact and the student's readiness for future professional endeavours. The compulsory sections are:

1. Abstract (200 words)
2. Keywords (5)
3. Body, with the following suggested structure:
 - a) Introduction, with an overview of the industry context and the significance of the project to the industry.

- b) Literature Review/Background Theory, with an overview of the existing technologies or a description of previous industrial practices.
- c) Objectives, with a clear statement of the project goals or a description of the specific industrial problem addressed.
- d) Methodology, with a description of the industrial process or technology used, the implementation steps, procedures and tools.
- e) Industrial Application, with a description of the application of methods in an industrial setting, the practical challenges encountered, and solutions implemented.
- f) Results and Discussion, with an analysis of the project outcomes, comparison with existing industrial practices and implications for the industry.
- g) Conclusion, with a summary of the findings, recommendations for industry practitioners and potential future work and development.

4. Reference List, with a comprehensive list of all sources cited in the project formatted according to the relevant citation style (e.g., APA, MLA, Chicago, etc.)

Alternative formats, even different from a written document, may be permitted if approved by both the supervisors and the Academic Steering Committee.

Oral defence: F2F and hybrid mode, located at the pathway university where the student is studying Y3. The Academic Steering Committee will determine the duration of the oral defence: presentation and questions & answers session.

Supervision Process:

Prior to the beginning of the development of the bachelor project, supervisors must sign a commitment to supervise the specific project and student. Once

students have completed their bachelor project and received approval from their supervisor, they must submit their project and apply for the oral defence.

Project Assessment Board: Comprising three academics from at least two universities.

Clarifications. Bachelor project delivery and oral defence must be completed before the end of July. An extension may be granted upon approval by the Project Assessment Board.

Student Mobility.

SeaBlueE includes a mandatory 12-month mobility period, usually spanning two semesters in the third year as the recommended standard option. Alternative mobility options are also feasible, but students must submit an application for their proposal, subject to approval by the Academic Steering Committee. In the case that a student opts for the combination of UCA (first year) and UAlg (second year) under the mobility programme financed by Erasmus+, the mobility between these two universities can be considered sufficient to meet the programme's compulsory mobility requirement upon request and approval by the Academic Steering Committee.

This integrated mobility provides substantial benefits to each cohort of students. By engaging with diverse academic environments and cultures at two or three universities within the consortium, students enhance their academic perspectives, language abilities and cultural awareness.

Students should rank the pathways in order of preference by the end of the first year (see figure 10). The assignment of the final pathway and university for the third year will occur at the conclusion of the first year, based on students' academic performance and their chosen preferences, and will depend on the number of places available. Timely notification of their assignment will be provided to students.

The student's mobility will be financed by Erasmus+ funding. The International Offices of each university will maintain close contact with the SeaBlueE Technical Officer and the Academic Coordinator to organise mobilities well in advance, ensuring ample time for thorough planning. Support will be provided throughout the mobility period, including guidance, language training and administrative assistance.

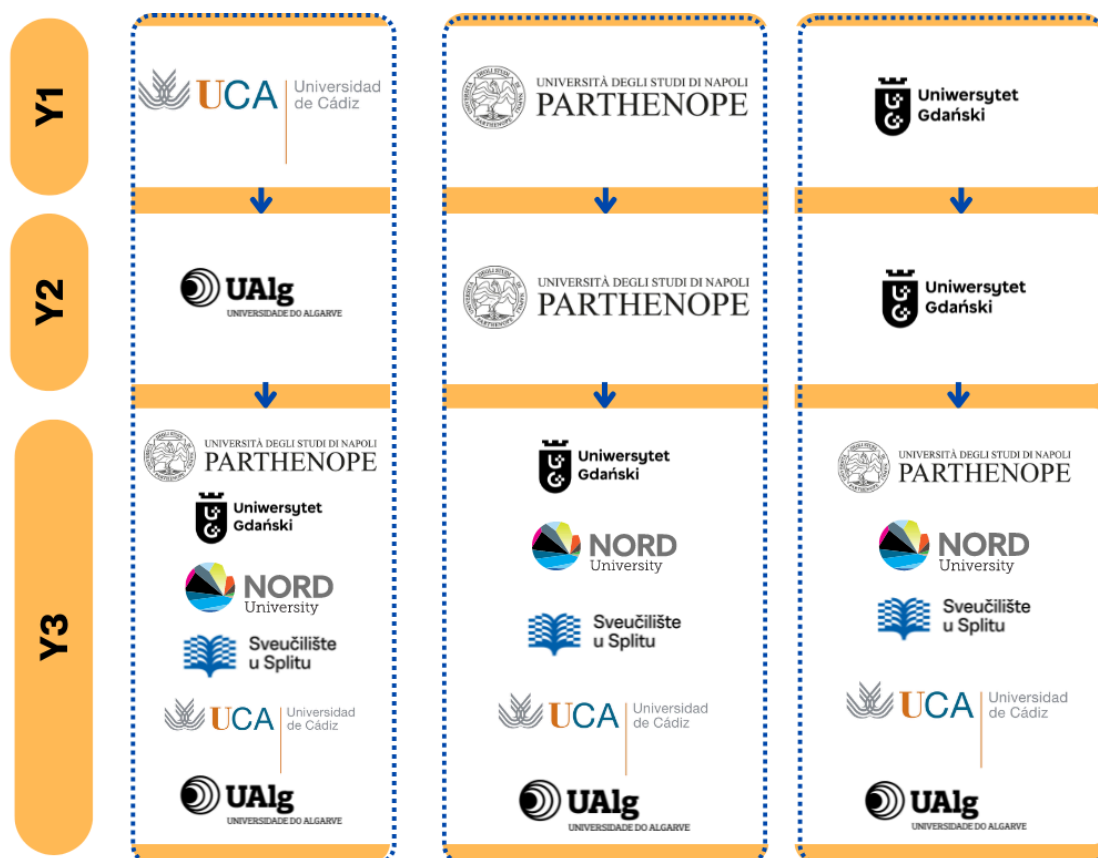


Figure 10. Recommended Student Mobility Scheme.

Academic mobility.

The Council conclusions on enhancing teachers' and trainers' mobility⁴¹ urge Member States to incentivize education and training institutions to incorporate mobility into their learning, development, and internationalisation strategies. By embedding mobility into these strategic plans, institutions can promote professional growth, cross-cultural understanding, and collaborative innovation among teachers and trainers. This approach enriches the educational experience, broadens global perspectives, and strengthens the overall quality and competitiveness of education systems. Its recommendations include:

21. Facilitate, where appropriate, the formal recognition of outcomes of mobility periods, particularly of teaching and training periods abroad, in initial teacher and trainer education, for professional development or for career progression.

Handling academic staff mobility in a joint programme under Erasmus+ involves a number of key steps to ensure smooth coordination and effective exchange of expertise between SEA-EU partner institutions. This will involve the establishment of formal agreements between the SEA-EU institutions, following the identification of programme needs and the selection of staff who will jointly deliver the courses.

Support will be provided throughout the mobility period, including guidance, language training and administrative assistance. Monitoring and evaluation mechanisms ensure consistency with programme objectives and recognition of mobility activities by sending and hosting institutions.

In addition, blended mobility will be encouraged, for example by using a Collaborative Online International Learning (COIL) methodology that connects students and professors in different countries for collaborative projects and discussions as part of their coursework or Blended Intensive Programmes (BIP), a combination of a physical mobility and a virtual component.

⁴¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022XG0421%2801%29>

Administrative staff mobility.

Non-academic staff mobility is also a key priority within the SEA-EU Alliance. To support this, work is underway to design a specific exchange programme, funded by Erasmus+. This programme will facilitate the mobility of staff responsible for the administration offices involved in the management of joint programmes.

The main objective is to improve the efficiency and cohesion of the administrative team overseeing SEA-EU Joint Programmes. By promoting peer learning, the exchange of good practices and the sharing of innovative ideas, the programme aims to increase the impact and transformative capacity of SEA-EU activities and initiatives. This exchange will not only strengthen administrative processes, but also contribute to the overall progress and success of the SEA-EU Alliance.

It is intended to establish concrete tasks for each of the partners within the management of the joint programmes, similar to those carried out internally within the SEA-EU project, in order to improve the coordination of the joint programmes.

Green travel and sustainable principles

Green mobility is an integral part of our identity, as our peripheral and coastal geography puts us in a unique position to embrace Europe from its shores, shaping our distinct identity and future trajectory. However, this advantage comes at a significant environmental cost. Our dependence on air and coastal transport poses a clear threat to the environment, affecting ecosystems and contributing to pollution. Despite these challenges, we are committed to finding sustainable solutions that preserve our coastal heritage while minimising our ecological footprint.

To implement green mobility in SEA-EU joint programmes involving various European universities, several key aspects have been considered:

Promoting Active Transportation. Encourage students and academic and administrative staff to use environmentally friendly means of transport (walking and cycling as primary modes of transportation). This will be detailed in the student handbook, which will include information on public transport (timetable, discounts, connections) or vehicle sharing facilities.

Initial information sessions are planned to raise students' awareness of the importance of sustainability in transport and integrated mobility in the joint programme. The aim is to improve mobility planning by addressing sustainability principles such as environmental responsibility, social equity, economic viability, health and well-being, resilience and adaptation.

Integrated Mobility Planning among countries/intercampus mobility. An integrated approach to student and staff mobility, covering all phases of the mobility process, will be developed as recommended to ensure the coherence and effectiveness of the joint programme. *Supporting Alternative Mobility Solutions* guidelines will be defined prior to implementation.

Reducing Carbon Footprint. Continuous assessment and improvement. SEA-EU recognises the importance of mitigating our impact on the environment, especially with regard to carbon emissions. As part of our commitment to transparency and accountability, there is a commitment to publish the carbon footprint of each Government Week, including all associated travel. The development of the same tool to assess the mobility impact of SEA-EU Joint Programmes will be considered for further analysis and improvement.

3.2. Credits

The SeaBlueE programme lasts three years and is structured according to the European Credit Transfer and Accumulation System (ECTS), with a total workload of 180 ECTS credits. This workload includes a comprehensive combination of theoretical courses, practical training, field work, research projects and internships.

This joint bachelor's degree uses ECTS, which awards credits based on defined learning outcomes and associated workload. The programme has a workload of 180 ECTS (60 ECTS per year), where one credit is equivalent to 25 hours of study, in line with Bologna practice across the EHEA based on the ECTS Users' Guide.

The use of ECTS by all partners in Europe and most outside Europe makes it possible to document learning pathways, allowing greater flexibility and comparability. The distribution of workload has been jointly agreed and distributed effectively and equitably for students according to ECTS, regardless of their mobility paths in different modules according to the curriculum.

Here is a breakdown of the workload over the three years:

Academic Year		ECTS
Y1	Core Module	60
Y2	Toolbox Module	60
Y3	Expertise Module. Selection among 6 Pathways	60

In year three, each pathway offers a total of 60 ECTS credits. With six pathways available, a total of 54 courses have been created, resulting in a cumulative total of 360 ECTS.

3.3. Workload

SeaBlueE requires a total workload of 180 ECTS credits, which equates to approximately 4,500 hours of study over three academic years. This is based on the standard that one ECTS credit corresponds to roughly 25 hours of student effort. The programme has been designed to be completed over three academic years, with each year comprising 60 ECTS credits, translating to around 1,500 hours of study per year. This workload includes a combination of lectures, seminars, field trips, independent study, research projects, internships, and assessments, ensuring a comprehensive educational experience.

The workload has been designed to provide students with a well-rounded education in the sustainable blue economy, preparing them for careers in environmental management, policy-making, research, and consultancy within the marine sector. The academic committee decided to establish the following distribution of hours per 5 ECTS:

Table 6. Description of the workload per ECTS Credit

Total workload per ECTS Credit (25 hours)	<i>1 ECTS is distributed as follows: Teaching contact hours (8h) + self-study time (17h).</i>
Total ECTS per course = 5 ECTS	Workload in hours
Total teaching contact hours:	40h
Self - study time	85h
Total Learning hours	125h

A detailed description of the workload in credits and percentage of the total can be found in the individual course contents in Annexes 5 & 6.

One of the main functions of the Internal Quality Assurance Committee will be to gather regular feedback from students through surveys and course evaluations to gauge their perceptions of workload and to identify any discrepancies.

Academic Coordinators will monitor students' progress and advise them on how to manage their study commitments effectively. Courses are also regularly reviewed to ensure that the actual workload is in line with the planned workload and adjustments are made where necessary. Comprehensive

evaluations are carried out at the end of each course to review workload distribution, analysing student performance and feedback to identify areas for rebalancing. An annual review of the entire programme will incorporate accumulated performance data and student feedback, allowing adjustments to be made to the curriculum, teaching methods and workload distribution to optimise the student learning experience.

The Bachelor's programme is designed to be completed in three academic years, with regular monitoring of student progress, identification of delays and analysis of completion rates to ensure that students complete their ECTS requirements on time.

4. Admission and Recognition

4.1. Admission and Selection Procedure.

The admission process for SeaBlueE aims to identify and admit students who demonstrate academic potential, a strong interest in the subject and a commitment to pursuing careers in fields related to sustainability and the blue economy. A full description of the procedure is described in Annex 7.

One of the strengths of the cohesion between SEA-EU universities will be reflected in the creation of a common platform for all joint programmes of the SEA-EU Alliance. This will involve the development of a centralised digital system that will initially integrate the admission processes of all joint programmes and provide access to all participating members for both admission and selection.

In a first phase, designed by the experts of the Joint Programmes Working Group (JPWG), this platform will streamline the application and selection processes and provide a single point of admission for prospective students.

The platform will ensure consistency and transparency by unifying criteria and procedures, improving coordination and communication between institutions. It will improve accessibility through a user-friendly interface, reduce administrative burden through automation and centralise data for better management and analysis. It will also support mobility management by aligning with the internationalisation objectives of the partnership and optimise the use of resources, making joint programmes more attractive and efficient. The application, selection and admission platform will be hosted on the main SEA-EU Alliance website⁴².

⁴² <https://sea-eu.org/>

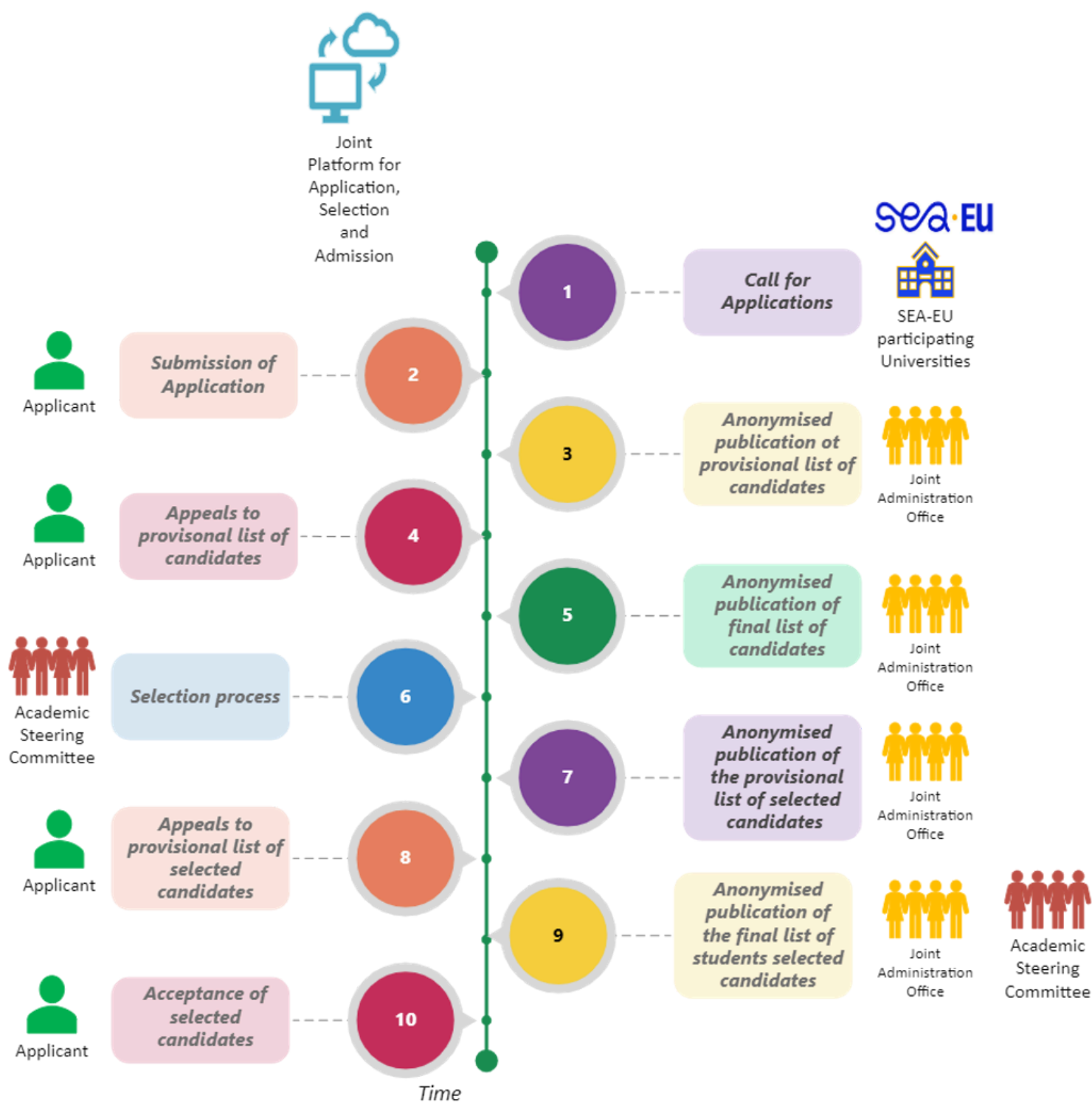


Figure 11 illustrates the timeline of the application process, highlighting the roles involved and emphasising the primary resource for the process: the Joint Platform for Application, Selection, and Admission.

4.2. Recognition of prior learning.

All SEA-EU partner universities have internal regulations and procedures for the recognition of qualifications and periods of study, including prior learning.

SEA-EU recognises qualifications, prior learning, and professional experience for both SEA-EU accredited joint programmes and non-accredited coursework based on the principles established at the *Lisbon Recognition Convention*⁴³ and its subsidiary texts.

Recognition of Studies Among Partner Universities Awarding the Degree

The mutual recognition of achievements obtained at partner universities is guaranteed, as this is a joint bachelor's degree with an integrated curriculum. Both the academic and administrative management of students' results within the consortium universities will be conducted automatically.

Recognition of Prior Studies

A key challenge addressed in the SEA-EU 1.0 project, which is being further developed in SEA-EU 2.0, is identifying and removing academic barriers to credit recognition, along with creating a protocol for joint SEA-EU programmes across all education levels. An expert group, consisting of representatives from all SEA-EU universities, has been formed to focus on degree recognition. This group produced the document "Conceptual Analysis of Automatic Recognition of Foreign HE Qualifications and Learning Period Report" (Annex 8b), which outlines recognition policies, practices, and strategic planning in EU and SEA-EU partner countries. The report includes essential concepts related to automatic recognition, such as "User Guidelines for Automatic Recognition". A model application form has also been included in Annex 8.

⁴³ <https://rm.coe.int/168007f2c7>

5. Teaching, Learning and Assessment

5.1. Teaching and Learning.

Co-Teaching Model.

A new and collaborative educational framework has been agreed by the Academic Steering Committee, where a minimum of two teachers from different universities from the seven participating institutions of SEA-EU Alliance will jointly deliver and assess each course. This model of Co-Teaching Teams (CTTs) seeks to utilise varied expertise, cross-disciplinary viewpoints, and global experiences to offer students a thorough comprehension of the Sustainable Blue Economy (see Annex 17).

In this approach, diversity of teaching is a key component. Co-teaching involves the active participation of teachers in the classroom, each contributing their ideas and methodologies. This collaborative approach ensures that students benefit from a rich mix of perspectives.

Each course must have a designated local coordinator, who is compulsory for overseeing the course at each host university. Exceptionally, this coordination role may be assigned to a lecturer from another partner university. Additionally, every course should be co-taught by at least two teachers from different partner universities to ensure jointness. To maintain high quality, it is important not to have too many teachers per course. Typically, each course involves 40 hours of co-delivery with a maximum of three professors.

Table 7. Organisation of Co-Teaching Teams per course

Compulsory	Coordinator of the course	Local	Onsite
	Visiting teacher	From partner university	Onsite or online
Optional	Local teacher/ Visiting teacher	Local/from partner university	Onsite or online

As years 1 and 2 take place in three different universities (year 1 in UCA, UPN and UG; year 2, in UAlg, UPN and UG) the definitive teaching teams will be determined each year before the start of the academic year.

The goals of this structure are to maximise the quality of the courses through good coordination and an optimal number of lecturers, and to ensure courses are not taught solely by one university. This setup aims to share human resources efficiently and promote co-delivery via shared teaching through streaming between different campuses, particularly in the first and second years.

By implementing this co-teaching strategy, we aim to enhance the student experience by exposing them to teachers from various universities, thereby harmonising their learning journey as they pursue the same degree. This approach also ensures the effective use of human teaching resources, enriching the educational environment for all students involved.

Additionally, co-teaching will help teachers in their professional development. Ongoing training opportunities will be provided for teachers to improve their co-teaching strategies and intercultural communication skills, ensuring that they are well equipped to deliver high quality education. In addition, a community of practice will be fostered between teacher members, encouraging the exchange of experiences, challenges and best practices. This peer support network not only strengthens individual teaching skills, but also builds a collaborative and innovative educational environment that benefits both teachers and students. Finally, to accommodate geographical diversity a mix of face-to-face, online and hybrid teaching formats will be employed, offering flexibility and accessibility.

Each semester consists of 6 courses of 5 ECTS each (40 contact teaching hours), with each course lasting 2 weeks. After every two courses, there is a week dedicated to assessments and/or exams. At the end of each semester, an additional week is allocated for resits.

Institutional support is crucial for the effective implementation of the co-teaching model. Seamless administrative coordination between the participating universities is ensured, covering scheduling, resource allocation and comprehensive student services. In addition, a robust technological infrastructure is provided, equipping both teachers and students with the necessary tools and platforms to facilitate collaborative teaching and learning across multiple locations. This support structure ensures effective management of logistical challenges, allowing educators and students to focus on the academic and collaborative aspects of the programme. Faculty development initiatives aim to provide professional growth opportunities for teachers, focusing on improving their knowledge of sustainable blue economy issues, refining pedagogical approaches and mastering assessment strategies. By fostering this collaboration, professors and researchers can infuse multidisciplinary perspectives into the curriculum, enriching the students' learning journeys. This approach not only ensures that teachers and researchers keep abreast of developments in the field, but also promotes innovative teaching methods adapted to the complexities of sustainable blue economy education.

The implementation strategy will start in the academic year 2025/26 with the first edition of the pilot programme, in which the co-teaching model will be evaluated by the Internal Quality Committee to gather initial feedback and refine the approach. This pilot edition will be closely monitored and evaluated to identify strengths and areas for improvement. Based on the success and feedback from the pilot edition of the programme, the co-teaching model will be extended to subsequent cohorts in the large-scale roll-out. This phase involves continuous evaluation and improvement of co-teaching practices, ensuring that high educational standards are maintained and further improved throughout the programme.

Active Learning.

The curriculum emphasises active learning strategies, integrating case studies, problem-based learning, field trips, simulations and group projects to immerse students in the practical application of sustainable blue economy principles (see Annexes 5 & 6 for a full description of the courses). In addition, students are encouraged to participate in internships, research projects and experiential learning activities with industry partners to gain valuable hands-on experience in the field. *Challenge-based learning* (CBL) is the educational approach in which the course content co-creation teams (CCCTs) focus on students tackling real-world problems or tasks, called challenges, to promote learning and skill development. These challenges often relate academic content to real-world issues of sustainability in the blue economy, making learning more relevant and meaningful for students. have relied on where students tackle real-world problems or tasks, called challenges, to promote learning and skill development.

Some relevant aspects of this approach include:

a. *Active and Engaged Learning:*

- i. It engages students with real-world challenges in marine conservation, sustainable fisheries, and maritime policy, facilitating the practical application of theoretical knowledge. CBL enhances critical thinking, problem-solving, and decision-making skills, essential for addressing dynamic and unpredictable challenges within the blue economy.
- ii. It increases student engagement and motivation through intriguing scenarios and fosters teamwork and communication through collaborative learning.
- iii. Furthermore, CBL cultivates ethical and social awareness by exploring the impact of marine policies on communities and the ethical implications of resource extraction.

b. *Development of Key Skills:* It prepares students to make informed decisions under uncertainty, reflecting real-world conditions.

- c. *Industry Connection*: Students have the opportunity to interact with industry professionals, allowing them to build networks and gain a deeper understanding of the sector.
- d. *Preparation for the Workforce*: it leads to better long-term knowledge retention, preparing students for their professional careers. Implementing CBL through case study discussions, capstone projects, interdisciplinary workshops, industry partnerships, and field studies can effectively prepare students to contribute to the sustainable management and use of marine resources.

5.2. Assessment of students

Assessment plays a crucial role in education, going beyond technical evaluation. It influences how students and teachers perceive the core aspects of the curriculum. The outcomes of assessment should be constructive, meeting the expectations of students, educators, and the curriculum itself. The assessment approaches that the CCCTs have developed in the co-creation process of each of the courses in the curriculum have been carefully designed to embrace the multidimensional nature of the field of study and to align with the learning outcomes of SeaBlueE (see Annex 17). A range of assessment methods was provided to the CCCTs at the co-creation phase (included in Annex 9).

Integrated assessment in this co-teaching model offers significant benefits for both students and teachers. By developing common grading criteria (see Annex 9), the model ensures consistent assessment standards across teachers and institutions, providing a fair and transparent assessment process. Feedback from teachers, based on their different perspectives, provides students with a comprehensive view of their performance.

In accordance with aligned teaching principles, SeaBlueE co-teaching teams will utilise assessment strategies tailored to the designated learning outcomes. These methods are intentionally crafted to evaluate the essential competencies necessary for respective roles within relevant contexts, whether functional or subject-specific.

Students will be taught to, and evaluated on the intended learning outcomes of each of the courses which lead towards the PLOs (see Annex 4).

There are two main advantages to this:

1. It is only by doing this that the trade-offs associated with each possible solution to a particular problem can be looked into.
2. This should also help students scaffold each other's learning and help to create a collaborative learning environment between students from different backgrounds and with different stories to tell.

SEA-EU Grading System

Within the SEA-EU Alliance institutions, each university traditionally uses its own grading system. To address this, the Joint Programmes Working Group (JPWG) has developed a standardised grading system for all SEA-EU universities (see Annex 9). Five universities have a numerical grading scale, while the University of Malta presents letter grades, where A+ means excellent and F means insufficient. In the case of the University of Cadiz, the scale includes up to 10 points, where '0' to '4.9' is insufficient, with '10' being excellent. At UBO, the scores range from 0 to 20, with up to 10 points being 'fail/insufficient' and 20 being excellent. Grades are similar at UAlg. In the case of CAU, scores range from 1 to 5, with the highest grade (very good) being '1' and insufficient/insufficient above '4'. In the UG, numerical ratings range from 2 to 5, where 5 is the highest and 2 means 'fail'. At UNIST, numerical grades range from 1 to 5, with '1' being insufficient and '5' outstanding.

Given the diversity of education systems within the SEA-EU, where each university represents a rich tapestry of education systems while fostering academic innovation, it also presents challenges in assessing and comparing student performance.

The creation and adoption of a unified qualifications system is an important step towards fostering a more interconnected and equitable European education landscape. By addressing existing challenges and building on its benefits, this initiative paves the way for a future where academic achievement is consistently recognised and valued across Europe.

This standardised grading system, developed by the JPWG, provides a common language for academic achievement and facilitates the exchange of knowledge and skills (see Annex 9 for a full description of the SEA-EU Common Grading System).

Tabla 8. SEA-EU Common Grading System.

	FAIL	SUFFICIENT	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	EXCEPTIONAL
ECTS	FX - F	E	D	C	B	A	A+
SEA-EU Joint Programmes	0 – 49%	50 – 59%	60 – 69%	70 – 79%	80 – 89%	90 – 99%	100%
CROATIA	1	2		3	4	5	/
FRANCE	0 – 9.9 (<10 Insufficient; <7 Very insufficient)	10 – 10.9 (10 Average)	11 – 11.9	12 – 13.9 (12 Satisfactory)	14 – 15.9	16 – 17.9 (>16 Very good, excellent)	18 – 20
GERMANY	4,1 – 5,0	3,6 – 4,0	3,1 – 3,5	2,1 – 3,0	1,6 – 2,0	1,0 – 1,5	-
ITALY	0 – 17.9	18 - 22	23 - 25	26 - 27	28 - 29	30	30L
MALTA	F 0–44%	PG*: 45 - 49	D+ UG**: 50–54 D UG: 45–49 PG 50 - 54	C+ UG:69–60 C UG - 55–59 PG – 55 - 69	B+ UG - 75–79 B UG - 70–74 PG -70-79	UG - 80–89 PG 80-100	90 - 100
NORWAY	F	E	D	C	B	A	A
POLAND	2 (Fail 50% and less)	3.0 (Pass – 51%–60%)	3.5 (Satisfactory – 61%–70%)	4.0 (Good – 71%–80%)	4.5 (Very good – 81%–90%)	5 (Excellent – 91% and more)	
		satisfactory (3.0) (average of grades up to 3.20)	satisfactory plus (3.5) (average of grades 3.21 – 3.70)	good (4.0) (average of grades 3.71– 4.20)	good plus (4.5) (average of grades 4.21 – 4.50)	very good (5) (average of grades 4.51 – 5.00)	
PORTUGAL	0 - 9	Passing 10 - 11	Satisfactory 12 -13-	Good 14-15	16 - 17	18 - 20	
SPAIN	0 – 4,9 (Suspendo – failed)	5 – 5,9 (Aprobado – passed)	6 – 6,9 (Aprobado – passed)	7 – 7,9 (Notable – credit)	8 – 8,9 (Notable – credit)	9 – 10 (Sobresaliente – outstanding)	9-10 MH (Distinction – limited to 5% of students)

Tackling the diversity of students

Accessible Course Materials: Ensure that course materials, including textbooks, presentations, and online resources, are accessible to students with disabilities. This may involve providing alternative formats, such as braille, large print, or accessible digital formats, as well as captioning videos and providing audio descriptions.

Flexible Learning Options: Offer flexible learning options, such as online courses, asynchronous lectures, and alternative assessment methods, to accommodate the diverse learning needs and preferences of students with special needs.

Peer Support Networks: Facilitate peer support networks and mentorship programs where students with special needs can connect with peers, share experiences, and provide mutual support. Peer mentors can also serve as advocates and allies for students with special needs within the academic community.

Regular Communication and Feedback: Maintain open lines of communication with students with special needs to ensure their needs are being met and to solicit feedback on their experiences. Regular check-ins and opportunities for feedback help identify areas for improvement and ensure ongoing support and advocacy.

The SEA-EU virtual environment for learning, teaching, and assessment

SeaBlueE will be utilising a virtual campus based on Moodle to enhance the students' educational experience. Moodle is a robust learning management system (LMS) that facilitates online learning and provides a comprehensive platform for managing and delivering educational content. The primary aim of using a virtual campus is to create an accessible and flexible learning environment that supports both students and instructors. It allows for the seamless integration of various educational tools and resources, fostering a collaborative and interactive learning community.

As open-source software, Moodle allows institutions like SEA-EU to customise and tailor the platform to suit their specific educational needs. The benefits of using Moodle are manifold. Firstly, it offers a centralised location for course materials, assignments, and assessments, making it easier for students to stay organised and up-to-date with their coursework. The platform also supports diverse learning activities, including forums, quizzes, and multimedia content, which cater to different learning styles and enhance student engagement. Moodle also facilitates communication and collaboration among students and educators through features such as messaging, discussion forums, and collaborative tools. Additionally, Moodle's tracking and reporting features enable instructors to monitor student progress and provide timely feedback, thus improving the overall learning experience. By leveraging the capabilities of Moodle, we aim to create a dynamic and inclusive educational environment that meets the needs of all learners.

Improving teacher's competences

In order to ensure that teachers are equipped with the necessary skills, knowledge and attitudes to teach effectively in an international and collaborative context, a number of strategies and recommendations have been envisaged to enhance teachers' competences in such joint programmes.

Improving teachers' competences for this joint European programme involves a multi-faceted approach including professional development, training in intercultural competences and improving language skills. It also involves facilitating teacher and researcher's exchanges, collaborative curriculum planning and the integration of European themes. The use of digital tools and technologies is crucial, along with continuous assessment and quality assurance to meet European standards. Support systems such as mentoring, administrative assistance and research opportunities are essential, along with cultural immersion through study visits and cultural activities. Institutional commitment and policy alignment play a key role in fostering a supportive framework for these initiatives, exemplified by programmes such as Erasmus+,

which offer mobility projects and strategic partnerships for comprehensive professional development.

Participation in a range of practical activities and events will enhance their pedagogical skills, knowledge and practice. These include interactive workshops on modern teaching methods and technology integration, specialised professional development courses and collaborative projects with other teachers and researchers. Teacher exchange programmes and study visits offer new perspectives across a variety of educational settings. Participation in educational conferences and symposia keeps teachers and researchers abreast of the latest trends and research, and action research projects allow them to evaluate new teaching methods in their own classrooms. Networking opportunities through professional learning communities and online forums encourage the exchange of strategies and experiences. Cultural workshops and language courses enhance cultural competence, and simulation and drama activities help refine classroom management and teaching strategies.

6. Student Support

Strong student support services are essential to enrich the student experience, promote academic success and foster a sense of belonging and inclusion in each of the joint programmes offered by the SEA-EU Alliance. But, student support is not limited to the classroom, but must take into account their holistic well-being.

Particular attention has been paid to the development of the Student Handbook (see Annex 18), which provides students with up-to-date documentation on what is available at each of our SEA-EU campuses. The information ranges from psychological support to sports facilities on each campus, from diversity and inclusion policies to accommodation and visa support, from a jointly developed buddy system to a common exam resit policy, etc. The Student Handbook has been developed and designed to be a one-stop-shop for students, all with the help of the SEA-EU Student Council. The election of student representatives to sit on various councils, where issues can also be raised more formally as part of the quality assurance system, has also been established.

In addition, a Joint Programmes Coordination Office has been established, as well as local administrative and pedagogical contacts on each campus, so that students have a point of contact both locally and centrally.

Table 9. Links to student support services at SEA-EU participating universities.

UCA	https://oficinadelestudiante.uca.es/?lang=en
UALG	https://www.ualg.pt/en/International
UG	https://en.ug.edu.pl/study
UPN	https://uniparthenope.esse3.cineca.it
UNIST	https://www.unist.hr/studies/16100
NORD	https://www.nord.no/en/student/student-life
UM	https://www.um.edu.mt/services/

7. Resources

7.1. Teaching, Administration and Services Staff.

Teaching

This programme leverages the collective academic and administrative resources of seven participating institutions of the SEA-EU Alliance, providing students with a diverse and enriching educational experience:

.- The expertise of academic staff and researchers from participating universities within the SEA-EU Alliance. These esteemed professionals are drawn from various departments and research centres renowned for their excellence in interdisciplinary fields relevant to the curriculum of the programme. With a strong focus on research and innovation, they bring a wealth of knowledge and experience to cultivate the transversal skills needed to address the complex challenges of a sustainable blue economy.

.- The SEA-EU Associated Partners, representing a diverse array of stakeholders including public administrations (e.g., town halls), public companies, technology centres, and civic associations, play a crucial role in bridging the gap between academic study and real-world practice. They actively engage with students through teaching and assessment activities, with a particular emphasis on internships and bachelor projects. By providing firsthand insights and practical experiences, these partners enrich the educational journey, empowering students to apply theoretical knowledge to real-world scenarios and fostering valuable connections within their respective industries.

.- Invited experts, drawn from academia, research institutions, as well as public and private sectors, enrich the teaching teams with their invaluable research and innovation expertise, alongside their extensive experience in the labour market. These seasoned professionals bring a fresh perspective to the classroom, offering insights garnered from practical application and industry engagement. Their contributions not only enhance the depth and breadth of the curriculum but also provide students with invaluable connections to the broader professional landscape, preparing them for the challenges and opportunities of the evolving job market.

In the Cooperation Agreement (annex 2), the partners commit to appointing suitably qualified academic staff to effectively deliver the diverse range of courses offered in the programme. The core teaching staff of SeaBlueE consists of the Faculty/University component, comprising academics from the seven partners. These experts represent a spectrum of disciplines relevant to the fields of ecology, spatial planning, physics, mathematics, economics, entrepreneurship and others. Their active participation in the research is essential, not only to maintain the highest standards, but also to serve as a reference point for the promotion of high-level research and training within the Joint Programme.

Table 10. Faculties and departments involved in the joint bachelor's programme-

Partner Institution		Departments
UCA	Faculty of Marine and Environmental Sciences	Dept. of Biology Dept. of Applied Physics Dept. of Chemistry-Physics Dept. of Earth Sciences Dept. of Biomedicine, Biotechnology and Public Health Dept. of Maths Dept. of Chemical Engineering and Food Technology Dept. of Environmental Technology Dept. of Statistics and Operations Research
	Faculty of Economics and Business Studies	Dept. of General Economics Dept. of Business Organisation Dept. of Financial Economics and Accounting
	From other faculties	Dept. of History (Geographical and Regional Analysis) Dept. of French and English Philology. Modern Languages Dept. of Public International Law and International Relations Dept. of Labour Law and Social Security Dept. of Computer Engineering Dept. of Automation, Electronics, Architecture and Computer Network Engineering Dept. of Mechanical Engineering and Industrial Design Dept. of Marketing and Communication

UPN	Scuola Interdipartimentale delle Scienze, dell'Ingegneria e della Salute	Dept. of Business and Quantitative Studies Dept. of Sciences and Technologies Dept. of Law Dept. of Business and Economic Studies Dept. of Business and Quantitative Studies Dept. of Engineering Dept. of Sciences and Technologies Dept. of Sport and Well-being Sciences Dept. of Economic and Juridical Studies Dept. of Economics, Law, Cybersecurity, and Sports Sciences
	Scuola Interdipartimentale di Economia e Giurisprudenza	
UG	Faculty of Management	Dept. of Finance and Banking Dept. of Accountancy Dept. of Organization and Management Dept. of Marketing Dept. of Strategic Development Dept. of Statistics Dept. of Econometrics
	Faculty of Economics	Dept. of Microeconomics Dept. of Transport Economics Dept. of Maritime Transport and Seaborne Trade
	<i>Other faculties involved:</i> Faculty of Oceanography and Geography Faculty of Social Sciences Faculty of Biology	Psychology Institute Dept. of Maritime Law Centre of Foreign Languages Dept. of Marine Biology and Biotechnology Dept. of Marine Ecosystem Functioning Dept. of Marine Ecology Dept. of Chemical Oceanography and Marine Geology Dept. of Physical Oceanography and Climate Research
UALG	Faculty of Sciences and Technology	Dept. of Earth, Marine, and Environmental Sciences Dept. of Biological Sciences and Biotechnology Dept. of Mathematics
	Institute of Engineering	Dept. of Food Sciences
	Faculty of Economics	Scientific Areas: Economics

		Management
NORD	Nord Business School	Research divisions. Innovation and entrepreneurship Marketing, organisations and management Economic analysis and accounting High North Knowledge
	Faculty of Biosciences and Aquaculture	Research divisions: Aquaculture Ecology Animal science , production and welfare
	Faculty of Social Sciences	Research divisions: Aging, care and welfare Response Knowledge, organisation and society Knowledge, management, and organisations in a Nordic context Nordom - research group for circumpolar history Social and sociological theory and analysis Urban research in small and medium sized urbanities (URBinN) International relations and politics
	Faculty of Education and Arts	Research divisions: Sport and human movement science Physical education , activity and health Learning and development of performance in sports Psychological and physiological aspects of sport and exercise
UNIST	University Department of Professional Studies	Dept. of Trade and Tourism Management
UM	Faculty of Science	Dept. of Geosciences Dept. of Statistics and Operations Research
	Research Centres	Edward de Bono Institute for Creative Thinking and Innovation Institute of Earth Systems
	Faculty of Economics, Management and Accountancy	Department of Banking and Finance, Department of Economics,

Administration and Services Staff

A technical coordination office for the management of the SEA-EU joint programmes will be established under the leadership of the University of Cadiz. The governance and management structure of Bachelor's programme and its coordination with SEA-EU and the local management and internal control bodies are fully described in Annex 17.

7.2 Facilities and material resources.

The Consortium undertakes to make available to the students of the SEA-EU joint programmes all available facilities and resources, both those jointly created within the framework of the SEA-EU European University and those of the individual partner universities.

In addition to the traditional classroom, the programme goes beyond conventional boundaries by offering dynamic and immersive on-site learning experiences that provide students with hands-on opportunities to develop skills and apply knowledge in the real world.

SEA EU Common Services

Shared infrastructure and research facilities <https://research.sea-eu.ug.edu.pl/resources>

SEA-EU Research Data Management Toolkit <https://guides.sea-eu.org/subjects/guide.php?subject=SEAEUtoolkit#tab-0>

UCA

***Faculty of Marine and
Environmental Sciences
(Puerto Real/Cadiz - Spain)***



UCA

***Faculty of Marine and Environmental
Sciences
Library
(Puerto Real/Cadiz - Spain)***

UCA

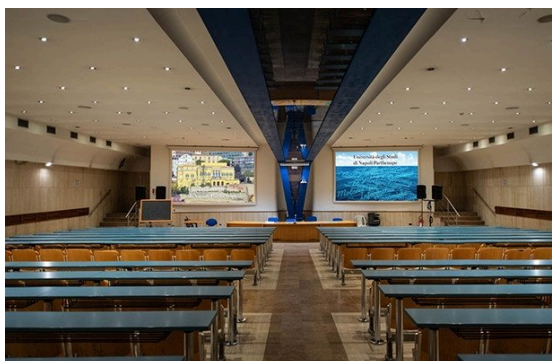
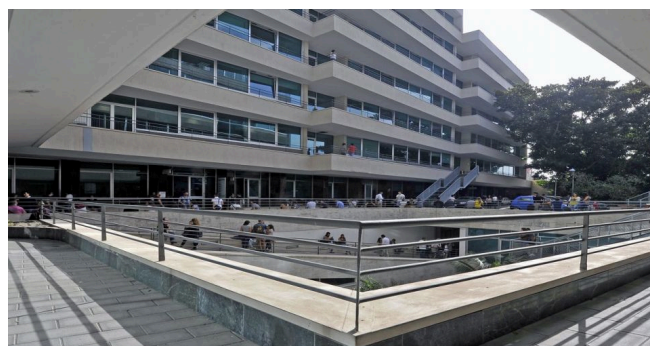
***Faculty of Economics and
Business Studies
(Cadiz - Spain)***



UPN

Campus Facilities

(Naples - Italy)



UPN

Facilities

(Naples - Italy)

UG

Oceanograf Research Vessel (Gdansk - Poland)

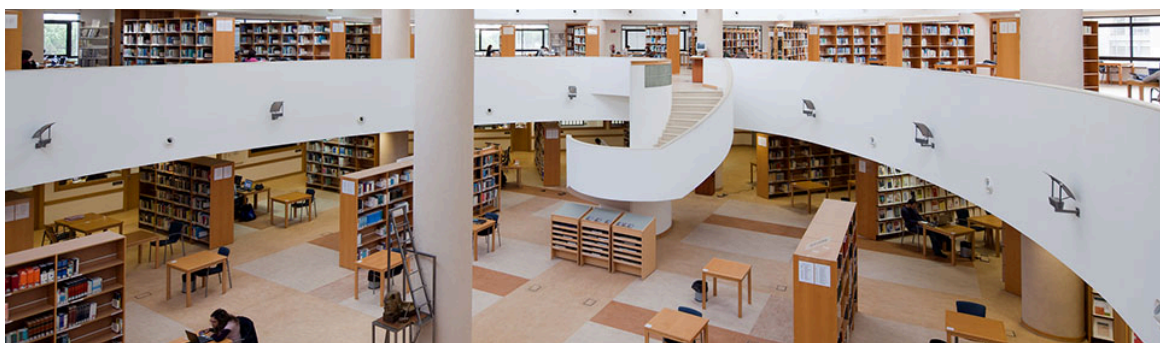


UG

Faculty of Management (Sopot Campus)

UALG

Campus de Gambelas
(Faro - Portugal)



UALG

Library
(Faro - Portugal)



NORD

Bodø Campus
(Bodø - Norway)

UNIST

Campus Facilities

(Split - Croatia)



UNIST

Northern Tower -

Campus Library

(Split - Croatia)



UM

Msida Campus

(Malta)



The SEA*EdUcation Joint Digital Platform (under development)

The SEA*EdUcation Joint Digital Platform streamlines and integrates all stages of the student lifecycle, from application to diploma issuance, ensuring secure and reliable data exchange, comprehensive quality assurance, and informed decision-making across the participating universities. The platform constitutes a key resource for the implementation of the joint programme as it provides the **IT support** for the secure and reliable storage, exchange, and management of the data generated in academic and teaching administration. Implementing this unified system presents significant challenges due to the diversity of existing processes and IT tools each participating university employs. Harmonising these varied procedures, technologies and information systems of each partner university constitutes a genuine challenge. Differences in data formats, security protocols, administrative processes, and supporting tools can significantly complicate direct integration efforts. Therefore, we will adopt a two-phased integration approach.

In the imminent *first phase (Phase 1)*, we will follow a decentralised, API-less integration approach. This approach offers several advantages, notably the ability for each partner university to maintain its existing systems without the need for costly and time-consuming overhauls. It reduces the initial financial investment and allows for quicker implementation, as universities do not need to develop complex API integrations. It also provides flexibility, enabling each institution to manage and update its systems independently while adhering to agreed-upon data exchange standards. In this stage, we will delineate the data exchange standards essential for seamless collaboration across partner universities. This entails establishing protocols to ensure compatibility while prioritising data security. To achieve this, we will implement secure file exchange mechanisms, leveraging tools like secure FTP/SFTP servers and a private cloud infrastructure. This approach ensures adherence to GDPR regulations, safeguarding sensitive information throughout the exchange process. However, this approach is conceived as a temporary solution, as it impacts the long-term efficacy and scalability of the joint programmes of the SEA-EU alliance.

In a *subsequent phase (Phase 2)*, we will aim to integrate the systems using standards such as the European Learning Model and the issuance of digital

diplomas. By adopting the European Learning Model, we will ensure that all educational data is formatted and communicated consistently, facilitating the seamless exchange of academic records, achievements, and credentials across all participating universities. This integration will likely be supported by the Europass platform, which provides a standardised framework for documenting and sharing educational and professional qualifications throughout Europe. The implementation of digital diplomas will modernise the certification process, enhancing security and reducing the risk of fraud, as these digital credentials can be verified quickly and easily by employers and other educational institutions.

Moreover, this advanced integration will streamline administrative processes, reducing manual work and the potential for errors, and significantly enhancing interoperability, allowing for more efficient coordination and collaboration among partner universities. It will also better support student mobility. Ultimately, the full development of an integrated information system will be achieved once each university has adapted to these European standards, leading to a cohesive, efficient, and future-proof system that benefits students, faculty, and administrators alike. By leveraging these advanced standards and platforms, we will create a more interconnected and resilient educational environment that supports the long-term goals of the joint programmes of the SEA-EU alliance.

Figure 12 illustrates the architectural components of the SEA*EdUcation Joint Digital Platform as conceived in Phase 1. This architecture encompasses several modules designed to streamline the student lifecycle experience. Key stakeholders interacting with the different components of the architecture are:

- **Students**, who are enrolled in the joint programme.
- **Lecturers** from the different participating universities, responsible for implementing the teaching, learning and assessment processes.
- **Administrative staff** from the various local administration offices, tasked with coordinating and managing the programme logistics and support services.
- **SEA-EU Joint Programme Coordinating Institution**, represented by UCA in the SeaBlueE programme, which coordinates the programme and issues diplomas and transcripts.

- **SEA-EU Joint Programme Governing Bodies**, which encompass bodies from the joint programme and local governing levels, such as the Academic Steering Committee, Academic Coordinator, Local Academic Coordinators, Technical Officer, Project Assessment Board, Student Representatives, Industry stakeholders and Internal Quality Assurance Committee.

In the figure, each stakeholder is represented by a distinct colour, which also highlights the arrows indicating their interactions with the various components of the platform. The main components of the platform architecture are labelled with letters, which are referenced below to describe each element in detail.

- A. **SEA-EU website**. The SEA-EU website serves as a key information hub for all stakeholders. It provides updated information about the joint programme and access to essential applications involved in the educational process, such as the Application app and the Enrolment System. A notable feature is the "LEARN" page, which acts as the entry point for information on the educational programmes of the alliance. This can be accessed at <https://sea-eu.org/education/>.
- B. **SEA-EU Application app**. This web application, currently in development, provides a common platform for students to apply for any of the joint programmes offered by the SEA-EU alliance. It facilitates the application, selection, and admission processes as defined in Annex 7. Students use this app to submit their applications and receive notifications about the outcome. Administrative staff manage application deadlines, while lecturers evaluate applications and compile the final list of admitted students. The app securely stores data in the SEA-EU Private Cloud.
- C. **Enrolment System**. This system simplifies the enrolment process for admitted students. Acting as a front-end to UCA's enrolment system, it ensures that all student records are updated and maintained within the coordinating institution's student management system, ensuring the issuance of diplomas and transcripts. Data collected by the enrolment system is securely stored in the SEA-EU Private Cloud.
- D. **SEA-EU Private Cloud**. This private cloud, located at UCA facilities in Spain, ensures secure and reliable data storage and exchange across the participating universities. It complies with the Data Protection and

Sharing Regulations of the SEA-EU Joint Programmes (see Annex 2) and supports informed decision-making by the governing bodies of the SeaBlueE programme.

- E. **Student Management System.** This component encompasses various information systems used by each participating university, including:
- a. Enrolment Systems. Local systems at each university for maintaining student records, synchronised with the SEA-EU Private Cloud.
 - b. Learning Management System. Virtual campuses at each university, primarily using Moodle, for course management, communication, and collaboration.
 - c. Academic Management System. Systems for securely storing student academic performance records, which are updated in the SEA-EU Private Cloud once finalised.
 - d. Mobility Management System. Systems for managing student mobility and associated financial support.
 - e. Internship Management System. Systems for managing student internships, with performance results uploaded to the academic management system and shared via the SEA-EU Private Cloud.
 - f. Scholarship Management System. Systems for managing student scholarships.
 - g. Services Management System. Systems for managing various student services, such as libraries, labs, sports facilities, and communication services.

A comprehensive list of the individual facilities, including IT facilities provided by the SEA-EU partner institutions involved in the SeaBlueE Programme, can be found in Annex 16.

- F. **Quality Management System.** Systems at each university for monitoring and collecting data to calculate indicators for the internal quality processes defined in the Internal Quality Assurance System Handbook for the SEA-EU Joint Programmes (see Annex 11). Locally collected indicator values are shared through the SEA-EU Private Cloud to calculate aggregated values as described in the handbook.

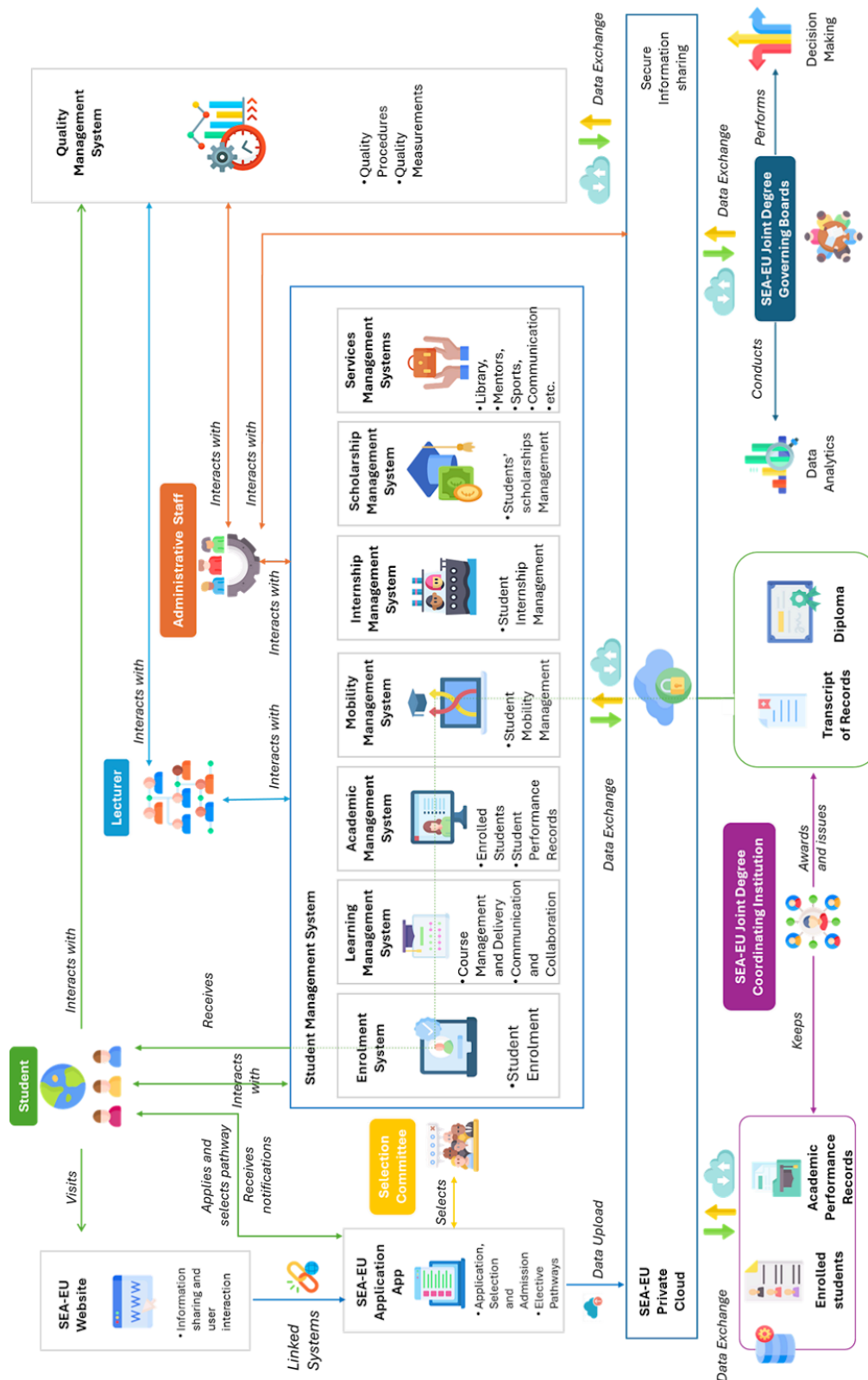


Figure 12. Architecture of SEA*EdUcation Digital Platform (Phase 1)

8. Transparency and Documentation

If nobody talks about it, it didn't happen!

The consortium has collaboratively crafted clear and equitable guidelines for the application process, student selection, progress monitoring, and assessment criteria, alongside co-developing the curriculum. These regulations will be readily accessible to all stakeholders through the programme website and the student handbook (see Annex 18). Furthermore, they will be disseminated through the consortium universities' social media channels and relevant platforms representing SEA-EU at the Alliance level.

In addition, the consortium is committed to proactively engaging with stakeholders, students, and alumni to ensure ongoing communication regarding the Bachelor's programme. Efforts to keep these groups informed have already begun and will continue in earnest.

Transparency ensures that stakeholders, including students, faculty, administrators and external partners, have access to relevant information and can understand the functioning and outcomes of the programme.

To this end, the SEA-EU Joint Programmes will be supported by the SEA-EU Communication Office and the communication departments of the partner universities. These departments will contribute to the implementation of a joint dissemination strategy, which will include the following actions:

1. **SEA-EU website.** Publication of all information related to the SeaBlueE Bachelor's Programme.
 - i) Application, selection and admission calendar, including admission criteria, language of instruction, appeal procedure for candidates not- admitted; number of places available, anonymised list of selected and non-selected participants, including the ranking resulting from the application selection process (see Annex 7), etc.
 - ii) Enrolment fees
 - iii) Full description of the joint bachelor's programme (course catalogue, examination and assessment; integrated mobility plan; procedure of

issuing the Joint Diploma and Supplement Diploma, internal quality assurance system, etc).

2. Inclusion of SeaBlueE in the academic catalogue of the SEA-EU partner universities. A summary of all admission requirements, the course catalogue, the courses and the awarding of the joint degree and diploma will be displayed. The selection process will be duly publicised, together with the course structure and information on the application process, in accordance with the above-mentioned communication programme.

3. Social media: The social media channels of SEA-EU will be used to actively promote the application period as well as key milestones during the academic year. All partners will agree on an annual social media campaign. Furthermore, they will be disseminated through the consortium universities' social media channels and relevant platforms representing SEA-EU at the Alliance level.

4. Student Handbook and sustainably printed leaflets. The Student Handbook will include both detailed general and specific information and will be updated periodically according to the edition, following the SEA-EU brand. It will be available in both online and printable versions.

5. Info sessions. Live info-sessions (online and in-person) at partner universities, including a welcome week at the beginning of the academic year and open-door days. A minimum of one info-session per year must be organised at each partner university. Introductory sessions will be organised by the teaching teams at the beginning of every course, etc. In addition, the consortium is committed to proactively engaging with stakeholders, students, and alumni to ensure ongoing communication regarding the bachelor's programme. Efforts to keep these groups informed have already begun and will continue in earnest.

9. Quality Assurance

Rooted in the SEA-EU's mission statement, Quality Assurance is integral to the governance and processes of the Alliance. A key component of the SEA-EU ecosystem is the Quality and Ethics Committee (QEC), which oversees the overall quality operations of the Alliance. Within the QEC, three working groups exist, with two being particularly relevant for the SEA-EU joint programmes:

- The Working Group on Quality of Learning Programmes: This group focuses on establishing common standards to ensure the highest quality in joint programmes and learning activities.
- The Working Group on Personal Data Protection: This group addresses data protection and General Data Protection Regulation (GDPR) compliance issues.

9.1. Scope

The SEA-EU Internal Quality Assurance System (IQAS) guarantees that the joint programmes within the Alliance meet the highest standards. It aims to strengthen the recognition of qualifications and learning periods abroad while minimising administrative burdens. The IQAS is in line with the European Approach for Quality Assurance of Joint Programmes, and the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). It ensures the relevance of programmes, promotes core academic values, and supports inclusive higher education and sustainable academic careers. The IQAS covers bachelor's, master's, and doctoral degrees, as well as micro-credential programmes.

9.2. Objectives

The general objectives of the Internal Quality Assurance System (IQAS, hereafter) of the SEA-EU Alliance Joint Programmes are the following:

- Ensure satisfaction of societal needs and expectations.
- Enhance transparency and compliance within the EHEA framework.

- Foster continuous improvement across all university functions.
- Promote quality assurance in teaching and accreditation processes.
- Support sustainable development and growth through strategic partnerships and research enhancement to an optimal work environment for organisational member development.

9.2. The SEA-EU Internal Quality Assurance System Handbook

The SEA-EU Internal Quality Assurance Handbook outlines the Internal Quality Assurance Approach of the SEA-EU Alliance, detailing its objectives, scope, the Internal Quality Assurance Committee (IQAC), and the structure of the Internal Quality Assurance System (IQAS). It also covers the planned management of IQAS documentation, the involved stakeholders, and the implementation approach across the participating universities. The handbook also provides an in-depth description of the various processes that constitute the SEA-EU IQAS. For each process, the aims, description, indicators, data collection tools and formats, records of evidence, and standardised templates for data analysis. The SEA-EU Internal Quality Assurance System Handbook is included as Annex 11.

9.3. The Implementation Approach

The implementation of the SEA-EU Internal Quality Assurance System (IQAS) aims to establish a cohesive framework across participating universities while respecting their existing quality assurance systems. This approach serves as a general guideline, detailing processes, indicators, data collection tools, data exchange formats, and repositories for evidence.

The implementation approach for the IQAS is based on the following principles:

Framework Integration: Each joint programme's Internal Quality Assurance Committee, supported by the Academic Coordinator and Technical Officer, as well as the Local Academic Coordinators and the Local Administration Offices, will align local quality processes with the IQAS framework outlined in the SEA-EU Internal Quality Assurance System Handbook. This alignment

facilitates the mapping of existing university-specific processes to the model proposed in the handbook.

Collaborative Effort: Given that each participating university has its own established quality assurance practices, integration efforts will involve mapping these practices within each participating institution. Utilising the handbook as a guide, universities will identify relevant indicators, share them across the alliance, conduct joint analysis, and leverage insights for continuous programme improvement.

Data Exchange Standards: Once each university has collected values for the indicators outlined in the internal quality assurance system (IQAS), it is crucial to establish a standardised approach for integrating and jointly analysing this data. This standardisation ensures consistency and comparability across all participating universities within the SEA-EU alliance. By adopting a uniform framework for data integration, universities can aggregate diverse datasets effectively, facilitating comprehensive analysis and meaningful insights.

Shared Document Management: By utilising a unified document management system, participating universities can streamline communication, enhance transparency, and ensure that all stakeholders have timely access to relevant documentation. The SEA-EU Private Cloud will serve as the shared data repository.

Decision-Making and Continuous Improvement: The shared data and joint analysis facilitated by the IQAS will enable informed decision-making for enhancing the quality of SEA-EU Joint Programmes. Universities will utilise these insights to iteratively refine their programmes, ensuring alignment with evolving educational standards and regulatory requirements.

9.4. Processes

To achieve the outlined objectives and effectively perform the Internal Quality Assurance functions, the following comprehensive processes will be implemented:

P01. Design and Approval of Joint Programmes. This process ensures that joint programmes are systematically designed, evaluated, and approved in alignment with academic standards and stakeholder needs.

P02. Monitoring and Improvement of Joint Programmes. This process involves continuous monitoring, evaluation, and enhancement of joint programmes to maintain their quality and relevance.

P03. Student Lifecycle Management. This process encompasses the management of all student-related activities, from admission through graduation, ensuring a smooth and supportive academic journey.

P04. Teaching, Learning and Assessment. This process focuses on the development, implementation, and evaluation of effective teaching, learning, and assessment strategies within joint programmes.

P05. Academic Staff Development. This process aims to support the continuous professional growth and development of academic staff to enhance teaching quality and academic excellence.

P06. Learning Resources and Student Support. This process ensures that students have access to adequate learning resources and support services to facilitate their academic success and well-being.

P07. Information Management. This process manages the collection, analysis, and dissemination of relevant data to support informed decision-making and continuous improvement.

P08. Public Information Management. This process ensures that accurate and up-to-date information about joint programmes is publicly available to stakeholders through various communication channels.

P09. External Quality and Internal Quality Assurance System Improvement. This process involves conducting internal audits and external evaluations to enhance the quality assurance systems and ensure compliance with accreditation standards.

Table 10 provides a detailed mapping of each process within the SEA-EU Joint Programmes Internal Quality Assurance System (IQAS) against the European Standards and Guidelines for Quality Assurance in Higher Education (Part 1). This alignment ensures that our joint programmes adhere to the highest standards of quality assurance, promoting excellence in educational outcomes, student support, and institutional management across the participating universities. The table serves as a comprehensive reference for understanding how each specific process corresponds to and fulfils the established European quality assurance criteria.

Table 11. Mapping of ESG 2015 – Part 1 Standards to SEA-EU Joint Programmes IQAS Processes

ESG 2015 – Part 1 Standard	SEA-EU Joint Programmes IQAS Process
1.1. Policy for Quality Assurance	<p>Quality is a cornerstone of the SEA-EU Alliance, as outlined in its mission statement. The Alliance is supported by the highly specialised Quality and Ethics Committee, which leads the policies and processes of a cohesive transnational quality assurance system. Each joint programme has an Internal Quality Assurance Committee (IQAC) responsible for implementing and maintaining the internal quality assurance system. This committee works in coordination with the Academic Coordinator and Technical Officer of each joint degree programme, who, in turn, collaborate with local academic coordinators and local administration offices to ensure consistent quality efforts.</p> <p>The Alliance counts also with a Code of Honour and specific Assessment Regulations to ensure academic integrity and freedom, transparency in the assessment processes, respect for diversity, and active prevention of academic fraud.</p> <p>In addition, a procedure for the internal review of the IQAS ensuring ongoing enhancements is included in P09. External Quality and Internal Assurance Quality System improvement</p>
1.2. Design and Approval of Programmes	P01. Design and Approval of Joint Programmes
1.3. Student-centred Learning, Teaching and Assessment	P04. Teaching, Learning and Assessment
1.4. Student Admission, Progression, Recognition and Certification	P03. Student Lifecycle Management
1.5. Teaching Staff	P05. Academic Staff Development
1.6. Learning Resources and Student Support	P06. Learning Resources and Student Support
1.7. Information Management	P07. Information Management
1.8. Public Information	P08. Public Information Management
1.9. On-going Monitoring and Periodic Reviews of Programmes	P02. Monitoring and Improvement of Joint Programmes
1.10. Cyclical External Quality Assurance	P09. External Quality and Internal Quality Assurance System improvement