ST-OPEN(ing) to students of SEA-EU universities – an opportunity for the Alliance

Leandra Vranješ Markić
University of Split, Faculty of Science, Split, Croatia

Correspondence to:
Leandra Vranješ Markić
University of Split, Faculty of Science, R. Boškovića 33, 21000 Split, Croatia
leandra@pmfst.hr

ST-OPEN, the overlay+ journal of the University of Split [1], has been open to the work of international students and researchers since its first issue published in 2020. As the University of Split is part of the European University of the Seas (SEA-EU) Alliance, opening and promoting ST-OPEN to all students from SEA-EU is a logical step, fully in line with the commitment to share educational and research resources among the Alliance partners [2]. In this editorial, I will discuss the significant benefits this could bring to our students, researchers and society, from the perspective of the current state and plans of the SEA-EU Alliance.

SEA-EU Alliance

Almost four years ago, six coastal universities set out to transform their universities as part of a newly created university alliance, the European University of the Seas (SEA-EU): the University of Cadiz (Spain), the University of Western Brittany (France), Kiel University (Germany), the University of Gdansk (Poland), the University of Split (Croatia) and the University of Malta (Malta) [2]. SEA-EU was one of the first 17 pioneering alliances established in response to the vision of European Union leaders to strengthen strategic partnerships of higher education institutions across EU to enhance their quality and competitiveness, while promoting European values and the European identity [3]. Despite the challenges posed by the COVID-19 pandemic, SEA-EU achieved important steps in creating common structures, connecting students, staff and stakeholders across regions while creating opportunities to further their training, solving challenges together, engaging in research collaborations and promoting the culture of member universities and the European identity, always with a special focus to marine and maritime sectors [4].
In May 2021, the Council of the European Union adopted the conclusions on the European Universities initiative, highlighting its strategic importance for higher education in Europe [5]. Consequently, the European Universities initiative [6] expanded to include 44 alliances with 340 diverse higher education institutions (HEIs) at the beginning of 2023 and is expected to grow to 60 alliances with around 500 HEIs [7]. The initiative is also one of the four flagships in the European strategy for universities to strengthen the European dimension in higher education and research [8].

The SEA-EU Alliance has also grown to include three new partners, the University of Algarve (Portugal), Nord University (Norway) and the University of Naples Parthenope (Italy) [9] (Figure 1), but also 77 associated partners, including the World Maritime University (Sweden), research institutes, municipalities, ports, companies and other non-governmental organizations (NGOs) [9]. After a successful evaluation, the SEA-EU Alliance will be supported by the EU through the “SEA-EU FOR ALL” project for another four years, to strengthen the cooperation and connect universities.

![Figure 1. European Universities of the Seas Alliance comprising 9 full partner universities in the second phase: University of Cadiz (UCA), University of Algarve (UALG), University of Western Brittany (UBO), Kiel University (CAU), Nord University (NU), University of Gdansk (UG), University of Split (UNIST), University of Naples Parthenope (UPN) and University of Malta (UM). Source: SEA-EU 2.0: SEA-EU for all. Available from: https://sea-eu.org/wp-content/uploads/2022/07/executive-dossier.pdf. Used with permission from Irene de Andrés, licensed under CC-BY-NC 4.0.]

**Open science in SEA-EU**

Open science improves the quality, efficiency, and responsiveness of research and increases trust in science. Its benefits and policy recommendations are well described in the UNESCO declaration on Open Science [10] and are discussed in the previous Editorial [11] from the perspective of scholarly publishing. Fostering open education and open science is therefore an important element of the transformation the SEA-EU Alliance is bringing to our universities and societies.
Sharing student theses – basis for connecting with ST-OPEN

Making connections between open science efforts and an overlay journal [12] such as ST-OPEN can be mutually beneficial for SEA-EU and ST-OPEN. As a precondition, all SEA-EU universities have adequate institutional repositories that enable academics and researchers to upload, preserve and disseminate their research results. They are also available to students, particularly for their final theses. Recent research indicates that the accessibility of master’s theses in the Alliance can still be improved [13], in line with the SEA-EU mission [2]. Even already uploaded bachelor’s, master’s, and doctoral theses form an excellent basis for extending the reach of ST-OPEN, making the research results of partner universities more visible across the Alliance and internationally, thus stimulating new collaborations and more efficient knowledge valorisation. At the end of 2022, the Council of the EU adopted a Recommendation that defines knowledge valorisation as “the process of creating social and economic value from knowledge by linking different areas and sectors and by transforming data, know-how, and research results into sustainable products, services, solutions and knowledge-based policies that benefit society” [14]. This resonates with the feedback we received from SEA-EU Alliance students during focus groups: they have stressed the importance of doing ‘useful science’ and connecting it with interdisciplinary approaches and open science, particularly by sharing research data [15].

Making research data available and visible

The SEA-EU Alliance is dedicated to building interoperable open data repositories for pooling and sharing different types of research output. Our universities have already begun to systematically train, support and advise academics and researchers on the principles of open access and open data. SEA-EU Alliance Ambassadors are also training students on how to provide findable, accessible, interoperable and reusable (FAIR) data [16]. Although there is a lot of work ahead to achieve our goals, we expect the amount of research data in our repositories to increase significantly. We can look forward to the future in which master’s and doctoral theses are accompanied by research data, computer codes, research protocols and other types of research outputs. A peer-reviewed paper in English attached to such valuable resources would provide additional quality assurance to users and contribute to their wider use, benefiting society, the economy and the environment.

Connecting research to training

A close link between research and education, a Humboldtian ideal [17], has taken shape in recent decades as a research-based model of education, leading to students not only being recipients of knowledge but also active participants in its creation [18, 19]. The literature describes various ways in which students can be introduced to research. These include learning about current research in a specific discipline, developing research skills and techniques, engaging in research discussions and undertaking research and inquiry [20, 21]. Making this approach accessible to all students, starting with undergraduate ones, is challenging, but rewarding, and is increasingly becoming part of higher education policies. This is also visible in the European Universities Initiative that emphasises the for-
mation of transdisciplinary and transnational teams of students, academics and external stakeholders to investigate key challenges facing Europe, such as climate change, migration, health, among others [6].

**Linking research and education in SEA-EU**

Within the SEA-EU, we have piloted activities to link research with training in an international and interdisciplinary context, providing opportunities for students of all levels and disciplines. In a series of focus groups with academics and students, we uncovered barriers to interdisciplinary research and the involvement of students in such activities [15]. In response, we developed an online training module Research Excellence to better prepare our students for research. The topics covered included research planning in the context of existing knowledge, data collection, interpretation and presentation, responsible research, technology transfer, writing a research article and publishing a research article. This was followed by pilot international research summer internships. We gained valuable experience from these activities that the SEA-EU Alliance will use in its 2.0 phase, where more opportunities for research-based education will be provided, including joint international student mentorships, interdisciplinary and research-based student cooperation, and the promotion of service learning approaches.

**ST-OPEN as the next step in linking research and education**

The plans outlined here, supported by the funding secured for the Alliance, indicate that SEA-EU master and doctoral students will produce valuable outputs that we will want to reach both scientific and non-scientific audiences as soon as possible, so that they can produce tangible impacts and stimulate more students to follow. In accordance with our policies, the results will be shared in the repositories. If publication in another peer-reviewed journal is not sought, ST-OPEN could be an excellent way to reach a wide audience and guide students into the process of scientific publishing [22]. The experience of preparing and publishing a peer reviewed paper is crucial for fully appreciating science. It would also enable students to put into practice and extend the knowledge that they gain through courses in research methodology, such as Research Excellence, benefiting their future careers.

**Promoting the European identity**

Overlay journals can especially contribute to areas where scholarly practise has traditionally been mainly national [12]. Social sciences and humanities are often underrepresented in English-speaking journals, making it difficult to disseminate and valorise their latest findings internationally [23, 24]. Moreover, a lot of socially and culturally relevant research findings are only available in local languages. While it is certainly desirable to preserve and promote multilingualism in the scientific publishing of social sciences and humanities, there is also a need to promote the culture and identity of different regions of Europe across the Alliance and to connect our students and researchers. One of the goals of the European Universities initiative is “to enable a new generation of Europeans to co-
operate across languages, borders and disciplines, developing a strong European identity” [7]. This is also part of the SEA-EU Alliance’s mission. Making student research more accessible to an international audience can thus contribute to this goal and lead to increased cooperation between students and researchers and the development of their European identity.

**Conclusion**

The SEA-EU Alliance just enthusiastically entered a new phase, aiming at a higher degree of integration that should culminate with the establishment of joint legal entity [9]. It will offer its researchers and over 150,000 students numerous opportunities to conduct research in an international environment and to co-create with stakeholders. Part of the Alliance’s ambition is to become a role model for other universities, especially through its challenge-based approach. As discussed previously, ST-OPEN can help with achieving SEA-EU goals by disseminating its achievements, connecting researchers and students and increasing the impact of their results on society. The first ‘SEA-EU’ paper to appear exemplifies this and showcases the challenges and efforts in connecting the university structures and processes in the field of research ethics and research integrity [25].

Particularly valuable is the potential of ST-OPEN to train the next generation of researchers by assisting students in preparing their manuscript for publication and including them in the internal review process [1, 22, 26]. The multidisciplinary nature of ST-OPEN makes it accessible to all Alliance students, which is an opportunity that should be communicated to all those engaging in research. In the long term, assuming broad student interest, ST-OPEN could be instrumental in making the SEA-EU Alliance a role model for training young researchers.

**Provenance:** Commissioned.

**Peer review:** Internally reviewed.

**Received:** 31 January 2023 / **Published online:** 31 March 2023.

**Funding:** This research received no specific grant from any funding agency in public, commercial or not-for-profit sectors.

**Authorship declaration:** LVM is the sole author of the study.

**Competing interests:** The author completed the ICMJE Unified Competing Interest form (available upon request from the corresponding author) and declares no conflicts of interest.

**ORCID**

Leandra Vranješ Markić @ https://orcid.org/0000-0002-4912-3840
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