

POSITION PAPER:

DELIVERING MEANINGFUL ENGAGEMENT OF EARLY CAREER OCEAN PROFESSIONALS AND YOUTH IN INTERNATIONAL KNOWLEDGE/SCIENCE-POLICY-SOCIETY INTERFACES



ECOP
Early Career
Ocean Professionals



Contributors:

Sašo Gorjanc^{1,2}, Lucas Becquet^{2,3}, Evgeniia Kostianaia⁴, Raphaël Roman⁴, Sarah Viene⁴, Pierre Strosser^{1,2}, Cristina Canella⁵, Josie Antonucci di Carvalho^{6,7,8}, Sonia Batten⁹, Marie-Morgane Rouyer¹⁰, Sudha Kottillil¹⁰, Shruthi Kottillil¹⁰, Alexandra Hahn¹¹, Shenghui Li¹²



- 1 ACTeon
- 2 Towards IPOS
- 3 Ocean Sustainability Foundation
- 4 ECOP Programme
- 5 ICES SII ECS
- 6 HIFMB

- 7 Ekliipse
- 8 BioAgora
- 9 PICES
- 10 GBN
- 11 EMB
- 12 IMECa

Executive Summary

This position paper emphasises the critical need to meaningfully integrate Early Career Ocean Professionals (ECOPs) and Youth into international knowledge-policy-society interfaces. While various initiatives and networks have emerged to support ECOP and Youth inclusion, persistent structural, financial, and cultural barriers hinder their equitable participation and recognition. The paper outlines actionable strategies to address these challenges, including involving ECOPs and Youth in governance and strategy-setting from inception, securing institutional and financial support, and fostering capacity-building and intergenerational collaboration. By empowering ECOPs and Youth through inclusive practices, dedicated funding, and cross-regional partnerships, the international ocean community can leverage their energy, innovation, and unique perspectives to drive sustainable, future-focused ocean action and uphold intergenerational equity.

Introduction & Background

The United Nations Decade of Ocean Science for Sustainable Development aims at generating transformative changes and supporting the transfer of knowledge for ocean actions to achieve Ocean Sustainability. This process requires greater mobilisation of actors and diverse range of knowledge and rights holders to catalyse contextually relevant and scalable ocean actions across the globe. Such mobilisations are often done through knowledge brokers, boundary spanners, and various knowledge-policy-society interfaces that operationalise knowledge for decision-makers (Satterthwaite et al., 2024).

Early Career Ocean Professionals (ECOPs)¹ and Youth represent an essential cornerstone of the future of any sustainable ocean action. ECOPs and Youth bring unique knowledges, lived experiences, and fresh perspectives that can drive innovation and transformative change. When meaningfully included in decision-making processes at different scales, ECOPs and Youth can help bring sustainability to the centre of ocean policy debates and actions. Recognising and equitably integrating their expertise is essential to ensure the inclusion of the best available evidence, uphold intergenerational equity, and shape future-focused solutions (ECOP Programme, 2022 & 2024^{1,2}, Giron-Nava & Harden-Davies, 2021, Roman et al., 2024, Satterthwaite et al., 2022, Shellock et al., 2022, Van Stavel et al., 2021).

Numerous ECOP and Youth networks and initiatives exist to support the integration of ECOPs and Youth into decision-making processes. The [ECOP Programme](#) is an integral part of the [UN Decade of Ocean Science for Sustainable Development](#), in some instances key ocean institutions have also formed their own ECOP, Early Career Researcher (ECR), or Youth networks. Examples include Strategic Initiative on the Integration of Early Career Scientists ([SII ECS](#)) in the International Council for the Exploration of the Sea (ICES), North Pacific Marine Science Organisation (PICES) Advisory Panel on ECOPs ([AP-ECOP](#)), [Sustainable Ocean Alliance](#), Interdisciplinary Marine Early Career Network ([IMECa](#)), [OYSTER](#), the [Challenger Society for Marine Science ECR network](#), [SOLAS Early Career Scientists Committee](#), [BIOPOLE ECR Network](#), and the Western Indian Ocean Marine Science Association - Early Career Scientists Network ([WIO-ECSN](#)), among many others.

However, despite the importance of ECOP and Youth integration and positive developments in bringing their representatives on board of critical ocean debates, important structural barriers to their effective mobilisation and involvement remain and need to be addressed.

Description of the problem

Progress so far has led to the creation of various processes aimed at giving ECOPs and Youth a seat at different ocean conversation tables with varying success. Indeed, such inclusion is often demanded by event organisers, though it is largely treated as a matter of ticking the checkboxes. These events also tend to attract largely the ECR communities, with participation of ECOPs from professional backgrounds being more difficult to ensure (ECOP Programme, 2022 and 2024²). Moreover, even if ECOPs and Youth are integrated into various fora, their voices are not necessarily equitably heard and their views are not systematically integrated into proposed recommendations or actions. Furthermore, their participation can be tokenistic, particularly in the absence of meaningful follow up (ECOP Programme, 2022, Satterthwaite et al., 2022 & 2024, Van Stavel et al., 2021). Additionally, while a significant focus is on ECOP and Youth participation in events, it remains a challenge to bring ECOPs and Youth on board of existing ocean governance institutions at different scales. This situation is further complicated due to various socio-cultural barriers, taboos, norms, and practices in different parts of the world, which require special procedures for ECOPs and Youth to follow (Satterthwaite et al., 2022 & 2024, Shellock et al., 2022 & 2023, Van Stavel et al., 2021).

¹ An ECOP is considered as a person that self-identifies as being early in their career, within 10 years or less of professional experience in any field related to the ocean. This definition includes post-secondary students and any volunteer roles, so not only employed/paid positions. The term "professional" is used in order to be inclusive of professionals from many different sectors of society.

Furthermore, there are additional challenges and barriers that complicate meaningful engagement and knowledge transfer that are not exclusively ECOP-related, but still disproportionately affect ECOPs and Youth (Shellock et al., 2023). For example, financial support, visas, and accreditations, which are often needed to engage in both scientific and high-level political forums and UN Conferences, can be more difficult to obtain at early career stages (ECOP Programme, 2022 & 2024², Giron-Nava & Harden-Davies, 2021). These form a barrier to effective participation and engagement in decision-making spaces, particularly since early career grants tend not to include funding for this kind of engagement.

The ocean knowledge and policy landscape is fragmented, operating between a wide variety of institutions, initiatives, and programmes, with little overarching coordination, making it challenging to keep abreast of all the developments, calls for experts, reviewers, data, or evidence gathering (Giron-Nava & Harden-Davies, 2021, Roman et al., 2024, Satterthwaite et al., 2022 & 2024). While most international knowledge-policy-society interfaces operate on the basis of voluntary contributions from mobilised experts, this is a major barrier for ECOPs and Youth whose primary goal is to get established in the fields and find inspiring paid jobs, while often being locked into fixed-term/short-term contracts at the beginning of their careers. This makes it considerably harder to commit the time and resources needed to engage on a voluntary basis as compared to established experts with stable jobs and greater power to negotiate (Giron-Nava & Harden-Davies, 2021, Satterthwaite et al., 2022, Shellock et al., 2022 & 2023, ECOP Programme, 2024^{1,2}). Yet at the same time, this also makes ECOPs more reactive, driven, dynamic, and flexible, compared to more senior experts with considerable commitments, therefore presenting a great driver towards actionable solutions, if given an equal seat at the table.

Strategies for the integration of ECOPs

Several protocols and guidelines for engaging ECOPs and Youth in high-level decision-making processes are already in place in the international panorama of knowledge-policy-society interfaces, that can be a source of inspiration for strengthening ECOPs and Youth engagement. These initiatives include, *inter alia*, the inclusion of ECOPs and Youth in the governance and strategy-setting of interfaces (e.g., including ECOPs in the Knowledge Committee Development Team proposed by the Towards IPOS initiative); the formalisation of ECOP officers, liaisons or focal points linked to regional frameworks and governance initiatives (e.g., the global, regional, national, and sub-national coordinators within the ECOP Programme, Roman et al., 2024); the appointment of ECOPs as co-chairs of Working Groups or Steering Committees (with appropriate mentoring and guidance by other co-chairs, as practiced by PICES and ICES). Another example are the ICES-PICES Early Career Scientist conferences, which are designed and run by ECRs, providing also important networks of peers that can persist through subsequent careers.

Additionally, given that there are well-established ECOP and Youth initiatives, there is considerable scope for building collaborations, joint initiatives, and co-designing communication, outreach campaigns, and capacity-building initiatives with them. The solutions should thus follow three main areas for improving ECOP and Youth engagement in international knowledge-policy-society interfaces: 1) Governance/strategy, 2) Engagement in practice, and 3) Collaborations.

Recommendations

1. Governance/Strategy

- 1.1 In the context of establishing new knowledge-policy-society interfaces and redefining existing ones, ECOPs and Youth should be actively involved from the very beginning, in the interfaces' definition of value proposition (vision and mission), its design, its work (governance and hosting), and services. This needs to be done through active and adaptive involvement, valorisation, and involvement of ECOPs and Youth in every activity to shift the narratives together (Satterthwaite et al., 2022, ECOP Programme, 2022). This effort should ensure a more transdisciplinary engagement of ECOPs and Youth, extending beyond the ECRs to include professional communities (e.g., International Maritime Organisation), indigenous and local community representatives, and strengthen connections with vocational schools and education programmes.

The Towards IPOS' Knowledge Committee Development Team includes 43% ECOP representation, with 4 of them coming from academia and 3 from non-academic backgrounds (NGOs, local communities), with representation from Africa (3), Asia (2), Northern America (1), and Latin America (1). The Knowledge Committee Development Team is defining IPOS' added value, expert networks, and services it will eventually provide.

- 1.2 Knowledge-policy-society interfaces should advocate with their partner institutions to provide institutional and contractual possibilities for ECOPs and Youth to engage in the interfaces' processes and services, through either issuing consents for engagement (e.g., Eclipse practice) or through adapting ECOP contracts (e.g., potential commitments of IPOS' Scientific Organisations or PICES arrangements, Shellock et al., 2023)

- 1.3 Institutions and organisations are encouraged to establish dedicated units or focal points within their organisational structures to support the integration of ECOPs and Youth into their activities. Doing so will enable them to benefit from the fresh perspectives and energy that ECOPs and Youth bring, engage with a broader and more diverse audience, and enhance their networking capacity. It also contributes to narrowing the generational gap remains prevalent in many sectors of our society (e.g., SIECS at ICES includes appointed co-chairs as well as members who are empowered to propose and lead new initiatives with the mentor and financial support of the ICES Secretariat).

2. Engagement in practice

- 2.1 ECOPs and Youth should be actively sought, included into relevant working groups and given responsibilities, while ensuring that processes are in place to allow for their effective participation and equitable contributions (ECOP Programme, 2022 & 2024², Satterthwaite et al., 2022). Such processes can include, appointing ECOPs as co-chairs of working groups (e.g., PICES practice, European Marine Board Ambassadors, ICES) and establishing clear processes through ethical and inclusion guidelines (e.g., IMECaN). Such inclusion also requires providing clear credit and recognition (e.g., authorship) for the work done, contributing to career trajectories. While this is relevant for all knowledge holders, it carries particular importance for ECOPs (Giron-Nava & Harden-Davies, 2021, Shellock et al., 2022 & 2023). Particular focus should be on inclusion of ocean professionals, which might be easier for ECOPs to do. While there has already been some movement (e.g., PICES incorporates more social scientists in their activities), there is still more to do. Cases like Towards IPOS supporting a delegation of small-scale artisanal fishers from Costa Rica to join the international community at UN Ocean Conference should be expanded.
- 2.2 International knowledge-policy-society interfaces should dedicate special funds for ECOP and Youth involvement, as it remains challenging for them to secure funding to attend relevant events, due to their junior status (ECOP Programme, 2022 & 2024^{1,2}, Roman et al., 2024). This can be done through specific travel funds being put aside or by providing honorarium payments for the work done in working groups (as planned within Towards IPOS initiative and ICES). Additionally, efforts should be made before events to bring consolidated ECOP and Youth views and knowledge to the events, through effective communication channels (ECOP Programme, 2022 & 2024^{1,2}).
- 2.3 Capacity Building initiatives such as mentorships, internships, or work shadowing programmes should be co-designed between ECOPs, Youth, and international knowledge-policy-society interfaces to develop the capacity and provide ECOPs and Youth with needed insights and experience of the policy processes, to be able to more effectively contribute to the knowledge transfer processes (ECOP Programme, 2024², Giron-Nava & Harden-Davies, 2021, Satterthwaite et al., 2022, Shellock et al., 2022 & 2023, Van Stavel et al., 2021). Such activities could be one of the initiatives to strengthen the governance and policy literacy of ECOPs and Youth, alongside identification of other opportunities for involvement and engagement to foster the delivery of fit-for-purpose knowledge and contributions.
- 2.4 Specific ECOP and Youth officers or liaisons should be engaged in the functioning of international knowledge-policy-society interfaces, at central or regional nodes to act as catalysts between different ECOP and Youth networks and knowledge brokering activities, in order to ensure sustained ECOP and Youth engagement and provide them with a voice within the interfaces' governance. This also provides opportunities for different interfaces to understand the most effective and meaningful way to work with ECOPs and Youth.

3. Collaborations

- 3.1 Partnerships and cooperation between existing ECOP and Youth networks and initiatives, on one side, and the international knowledge-policy-society interfaces on the other should be established. These should include, but are not be limited to co-organisation of initiatives and events (e.g., ICES-PICES Early Career Scientists conferences), cross-network collaborations (e.g., partnership between IMECaN and ECOP national nodes), and contributing to ECOP activities as part of core communication, consultation, and dissemination activities (e.g., ECOP Programme or European Marine Board webinars, Roman et al., 2024). This contributes both as an information source for engagement of ECOPs and Youth, as well as raises awareness and profile of knowledge-policy-society interfaces, which may not be well known.
- 3.2 Collaborations within ECOP and Youth networks should be fostered at both intra-regional and international levels. Intra-regional collaboration can strengthen the role of ECOPs and Youth in regional decision-making processes by promoting locally informed and context-specific contributions (e.g., ECOPs involvement in All-Atlantic Ocean Research and Innovation Alliance (AAORIA)). International collaboration, on the other hand, should aim to build strong partnerships among ECOPs and Youth with diverse backgrounds and challenges, fostering intercultural cooperation and mutual learning. Particular attention should be given to promoting equitable exchanges between ECOPs and Youth from Global North and South, enabling the sharing of experiences and the co-creation of inclusive solutions.

References

ECOP Programme (2022). ECOPs Impact Report. UN Ocean Conference 2022. 21 pp.

ECOP Programme (2024¹). One Ocean, One Voice: A global early career perspective on the priorities for the UN Ocean Decade. *ECOP Programme Global survey report*. 23 pp.

ECOP Programme (2024²). Ocean Decade Conference 2024: Impact Report. 47 pp.

Giron-Nava, A., Harden-Davies, H. (2021). A generational shift in ocean stewardship. *Oceanography*, 35 (1), 76-80.

Roman, R., Kostianaia, E., Bowes, A., Satterthwaite, E., Savage, C., Elias Ilosvay, X. E., Fox, N., Boujmil, I., Nocito, E., Santamaria, S. M., Maggioni, T., Ndah, A., Onwubiko, C., Higa, K., Juma, G. A., Mwangi, P. N., Of-
fei-Darko, L., Khatib, L., Elegbede, I., Oguguah, N., Elkhoully, H. A., Nwajiaku, L. (2024). Building Bridges for Ocean Sustainability: The evolution and impact of the Early Career Ocean Professional (ECOP) Programme. *Marine Technology Society Journal*, 58 (1/2), 8-14.

Satterthwaite, E. V., Komyakova, V., Erazo, N. G., Gammage, L., Juma, G. A., Kelly, R., Kleinman, D., Lobelle, D., Sapery James, R., Mohd Zanuri, N. B. (2022). Five actionable pillars to engage the next generation of leaders in the co-design of transformative ocean solutions. *PLOS Biology*, 20 (10), e3001832.

Satterthwaite, E. V., McQuain, L., Almada, A. A., Rudnick, J. M., Eberhardt, A. L., Doerr, A. N., O'Connor, R. J., Wright, N., Briggs, R. A., Robbins, M. J., Bastidas, C., Sparks, E. L., Goodrich, K. A., Costello, W. J. (2024). Centering knowledge co-production in sustainability science. *Oceanography*, 37 (1), 26-37.

Shellock, R. J., Cvitanovic, C., Badullovich, N., Catto, D., DelBene, J. A., Duggan, J., Karcher, D. B., Ostwald, A., Tuohy, P. (2023). Crossing disciplinary boundaries: motivations, challenges, and enablers for early career marine researchers moving from natural to social sciences. *ICES Journal of Marine Science*, 80, 40-55.

Shellock, R. J., Cvitanovic, C., Mackay, M., McKinnon, M. C., Blythe, J., Kelly, R., van Putten, I. E., Tuohy, P., Bailey, M., Begossi, A., Crona, B., Fakoya, K. A., Ferreira, B. P., Ferrer, A. J. G., Frangoudes, K., Gobin, J., Goh, H. C., Haapasaari, P., Hardesty, B. D., Haussermann, V., Hoareau, K., Hornidge, A. -K., Issacs, M., Kraan, M., Li, Y., Liu, M., Lopes, P. F. M., Mlakar, M., Morrison, T. H., Oxenford, H. A., Pecl, G. T., Penca, J., Robinson, C., Selim, S., Skern-Mauritzen, M., Soejima, K., Sorto, D., Spalding, A. K., Vardot, A., Vaidaianu, N., Webber, M., Wisz, M. S. (2022). Breaking down barriers: The identification of actions to promote gender equality in interdisciplinary marine research institutions. *OneEarth*, 5, 687-708.

Van Stavel, J., Hörstmann, C., Satterthwaite, E., Elsler, L., Muller-Karger, F., Bushnell, M., Pearlman, J., Ortuno Crespo, G., Johannesen, E., Ojwala, R., Fleming, A. (2021). Towards an increase in Diversity, Equity and Inclusion in international ocean observing practices and initiatives. *OCEANS 2021: San Diego-Porto*. IEEE, 1-6.

