EUROPEAN
POLICYBRIEF

SECOND PATTERN POLICY BRIEF

Policy Brief summarising the PATTERN project outcomes after its first learning cycle and informing policymakers on the further analysis of the ways to better align the EU and institutional policies featuring training on Open and Responsible Research and Innovation themes for researchers and students

28 April 2025

INTRODUCTION

The EU-funded PATTERN project promotes new approaches to address competence gaps in Open and Responsible Research and Innovation (Open RRI) within the students' and researchers' communities. It supports institutional capacity building and provides trainings on transferable skills to stimulate diverse careers within and beyond academia, as well as participatory and inclusive processes in research, contributing to addressing complex societal challenges. Wider skills development is achieved in PATTERN through a variety of means, primarily by co-designing and piloting high-quality trainings around Open RRI principles and practices, but also by encouraging the valorisation of such knowledge through systematic institutionalisation, with appropriate administrative and policy mechanisms.

The Second PATTERN Policy Brief relies on the results of the first PATTERN learning cycle, the testing phase for newly developed training opportunities in 14 pilot institutions. It also draws on co-creation implemented through the Open Studio methodology, involving PATTERN consortium partners, both from and beyond the project teams, sister projects representatives, students who followed PATTERN trainings, and policymakers.

This Policy Brief focuses on the needs for institutional support towards the sustainable adoption of Open RRI training through a better alignment of relevant European Union (EU) and institutional policies.

EVIDENCE AND ANALYSIS

The recommendations presented below stem from the outcomes of the co-creation exercises implemented through the Open Studio approach. The applied methodology guided participants through different phases:

from open discussion and brainstorming (divergence) to the subsequent concretisation, validation and fine-tuning of ideas (convergence). The Open Studio workshops aimed at translating the results of the first learning cycle (April 2024 – March 2025) into actionable strategies and policy responses feeding back to the next learning cycle (April 2025 – March 2026).

The three workshops organised allowed for interconnectedness to create a comprehensive approach to advancing Open RRI training. The workshops emphasised various aspects of training, policy, and sustainability, bringing together stakeholders - including researchers, institutional managers, research support staff, and policymakers - to develop action points, strategies and recommendations.

The first workshop (held online on 14 March 2025) focused on evaluating the initial piloting process, identifying key lessons, and setting the stage for future improvements by exploring adaptability of the training to different institutional contexts and inter-thematic synergies. The policy-related outcomes of this first workshop were then carried forward into the third workshop (held online on 26 March 2025), which delved into policy development, emphasizing the need for scalable and inclusive training adoption strategies that align with institutional and EU policies. A valuable opportunity to exchange directly with the European Commission (EC) representatives during this workshop fostered further understanding of the EU trends, regulations and expectations in terms of institutional support for the training. Finally, the second workshop (held face to face on 18 – 19 March 2025 in Braga, Portugal) focused on the evaluation of the first learning cycle and addressed sustainability, certification, and quality assurance of the PATTERN trainings and outputs.

The three workshops were supported by case studies developed by PATTERN consortium partners and by preliminary piloting evaluation results, providing practical examples that illustrate best practices, challenges, and successful implementation strategies. Such case studies and evaluation results served as a guidance for informed discussions and collaborative brainstorming, ensuring that participants could translate insights into practical applications to support the long-term integration, success and impact of Open RRI training initiatives.

Noteworthy observations are:

- A more holistic approach to Open RRI is progressively emerging at the institutional level. However, effective ways to build more synergies among different Open RRI themes and to integrate them in the learning pathways based on modularity of the trainings developed in PATTERN remain underdeveloped.

- Institutional capacity for trainings' scalability is often limited by bureaucracy and lengthy internal procedures. This is particularly relevant with regards to the administrative recognition of Open RRI training, its long-term integration into curricula, and the senior researchers' reluctance to adopt new approaches.

- The internal capacity and available expertise to deliver the training remain limited. This is mainly due to:

  o initially different levels of awareness regarding Open RRI themes across institutions;
  o limited access to train-the-trainer programmes;
  o Inconsistent pedagogical skills among potential trainers;
  o fragmented support materials for trainers;
  o possibility to provide newly developed training materials to other institutions in their respective countries, without the corresponding availability of trainers to deliver them;
  o internal administrative procedures that have yet to fully integrate Open RRI principles into assessment and promotion systems;

- limited consideration and recognition of administrative staff members - such as librarians and other non-research personnel in academia - as a target for Open RRI training programmes.

- Open RRI training provided in PATTERN could be identified as a part of semi-formal or non-formal continuous learning as it takes place in a middle ground within and outside of formal programmes. The perception that Open RRI training is mostly optional reduces its perceived value, making it harder to get buy-in from learners and institutions.

- There is a growing understanding that a closer collaboration between academia and the non-academic sector is essential to create pathways for researchers to transition smoothly into non-academic roles. However, there are currently not enough opportunities for researchers' professional development that can prepare them for diverse careers, mainly due to:

    - the variety of national contexts and the complexity of relevant ecosystems;
    - an academic culture that values and prioritises traditional activities and hard research skills over transferable skills, such as those promoted by PATTERN;
    - the lack of predictable career frameworks in research, often resulting in researchers' unrealistic expectations about academic careers and in resistance to inter-sectoral mobility.

- Sustainability is a significant priority for Open RRI training initiatives, particularly regarding their ability to continue beyond initial funding phases. In addition to formally declaring Open RRI principles as institutional policy priorities and ensuring complementarity among existing policies, the certification remains a key aspect and sustainability enabler.

POLICY IMPLICATIONS AND RECOMMENDATIONS

The recommendations to reinforce the institutional support for Open RRI training adoption in line with the EU policies are presented below in four interlinked clusters.

1. Institutional integration and accreditation of Open RRI training

Open RRI should be embedded into academic curricula and formal education pathways through structural reforms and credentialing. It is particularly relevant for courses and training materials developed by EU-funded projects, which are often high-quality and go through several steps of quality assurance but then lack a proper accreditation or certification mechanisms. It reduces such courses' potential impact, making them less appealing for researchers compared to "commercial" alternatives. Therefore, there is a need for policies that:

- Support embedding Open RRI training into formal academic curricula, especially in doctoral and post-doctoral programs.
- Introduce and recognise micro-credentials and badges across the EU as well as link them to Europass and Bologna Process to validate learning outcomes and align institutional frameworks.
- Establish accreditation pathways with European Credit Transfer and Accumulation System (ECTS) recognition as well as support partnerships with agencies like the European Quality Assurance Register for Higher Education (EQAR).
- Support appointment of Open RRI curriculum coordinators within institutions to lead integration and liaise with funders.

2. **Pedagogical design, learner experience and inclusivity**

Engagement and accessibility of Open RRI training need to be improved through modular, flexible, and inclusive training design. Thus, the policies should:

- Allow for learners to employ persona-based learning paths and self-assessment tools aligned with career stages, disciplines, and learner's goals.
- Ensure the training adheres to inclusive design through multilingual, culturally responsive materials and universal accessibility standards.
- Prioritise active learning methods such as flipped classrooms, challenge- and project-based learning, as well as creation of local case studies to enhance learner engagement, practical skills development and institutional capacity building.
- Encourage incorporation of inter-thematic training courses for more comprehensive approach towards embedment of Open RRI into institutional curricula and frameworks.

3. **Sustainability, discoverability and strategic reuse**

Long-term access, visibility, and reuse of training materials should be ensured through EU-supported infrastructure and policies. In this respect, the policy responses should:

- Encourage a strategic reuse of Open RRI training materials via inter-projects collaboration, alumni networks and career centres to ensure long term impacts of the training developed.
- Support digital training platforms and tools as a part of twin transition and a way to adapt to societal trends, e.g. remote learning.
- Foster strategic partnerships with research funders to co-maintain and update materials through introducing an indication in the calls, e.g. cascade funding ones, that the applicants should build on publicly available Open RRI training materials as a reference to develop their proposals.

4. **Policy alignment, recognition and ecosystem coordination**

Open RRI training should be aligned with the EU strategic priorities and foster inter-institutional coordination for broader impact. Linkages between the EU and institutional policy levels can be strengthened with actions that:

- Support embedding the ResearchComp[1] into policy frameworks as a reference for curriculum design, institutional training strategies and common understanding of researchers' transferable skills, with a lifelong learning perspective.
- Enhance EU-Level certification systems with standardized quality assurance mechanisms and digital badges for semi-formal learning.
- Emphasise the coordination of academic and non-academic ecosystems through Communities of Practice (CoPs) or other established cooperation formats for joint advocacy, dissemination, ensuring relevance to emerging labour markets, digital transformation and evolving hybrid professional roles.

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SUSTAINABILITY AND LEGACY

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PATTERN develops:

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[1] https://research-and-innovation.ec.europa.eu/system/files/2023-04/ec_rtd_research-competence-presentation.pdf

- Individual, tailored training plans in 14 pilot institutions.
- Training modules strengthening researchers' transferable skills around eight Open RRI themes:
  - Open Access;
  - FAIR Research Data Management;
  - Gender, Non-Discrimination and Inclusion in Research;
  - Research Integrity;
  - Citizen Science;
  - Dissemination and Exploitation of Research Results;
  - Leadership and Mental Health;
  - Science Communication.

  These training modules are tested, refined and evaluated in two learning cycles.
- A digital ecosystem adapted to project based as well as independent learning methodologies and accompanied by the modules' catalogue, thus strengthening their sustainability plan.
- Set of co-created recommendations for various stakeholders, including policymakers, research funding organisations, research performing organisations, research support staff and students at universities and research institutions.
- Dissemination and advocacy actions to promote the uptake of the recommendations and modules, and the improvement of policies at all levels.
- A community of universities and research institutions willing to create and deliver comprehensive trainings on Open RRI themes to their researchers and students. The community involves PATTERN partners but aims to progressively expand to the wider community during and beyond the project lifetime, facilitating the exchange of knowledge and re-usability of the training materials developed.

All PATTERN trainings should be modular *by design* and allow for a persona-based learning approach instead of a simple theme-based one, to increase uptake, course completion and user satisfaction.

The project outputs related to the Policy brief can be consulted on the PATTERN Zenodo community :
D1.1 Report on the analysis of existing training activities and quality assessment
D3.1 First version of PATTERN training plans in pilot organisations
D4.1 State-of-the-art Analysis: Mapping of the policy landscape for learning opportunities for researchers on Open and Responsible Research and Innovation
D4.2 First PATTERN Policy Brief

This specific Policy Brief is available at: **10.5281/zenodo.15296911**.

PROJECT OBJECTIVES AND METHODOLOGIES

PATTERN (Open and Responsible Activities and Trainings Towards the Enhancement of Researchers Networks) project aims to promote the practice of Open RRI by developing and piloting training activities aimed at researchers at all stages of their careers.

The training strengthens researchers' transferable skills to support their career development, improve research capacities and outcomes, and stimulate innovation. These training activities are co-designed with and implemented by 14 pilot research performing organisations (RPOs) to improve the excellence of the science conducted, tackle pressing societal challenges and strengthen collaboration that benefits both science and society.

The training is developed around eight main transferable skills in the context of Open RRI mentioned above. PATTERN quality assurance is based on double testing cycle in different countries and (flagship) universities around Europe.

The consistent methodology applied in PATTERN is based on four subsequent Running Phases:

1. Consolidation of knowledge on existing trainings and policies featuring the need for training on Open RRI themes to identify the potential for new training activities for researchers at all stages of their careers and linking it to the policy component;
2. Developing PATTERN training activities and platform that enable learners to easily access and make use of those materials in the long-term;
3. Testing and evaluating PATTERN training modules to further refine them;
4. Finding evidence for policy development.

In addition, there is a horizontal Holding Phase which is a co-creation and co-design of methodological approach across all activities. Dissemination, communication and engagement activities also assure widespread outreach of the projects' results and outcomes to reach its impacts.

PROJECT IDENTITY

PROJECT NAME

Open and Responsible Activities and Trainings Towards the Enhancement of Researchers Networks (PATTERN)

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Learning Planet Institute – LPI – Paris, France

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University of Helsinki – UHelsinki – Helsinki, Finland

Trinity College Dublin - TCD – Dublin, Ireland

Izmir Institute of Technology – IZTECH - Izmir, Türkiye

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FURTHER READING	D1.1 Report on the analysis of existing training activities and quality assessment D3.1 First version of PATTERN training plans in pilot organisations D4.1 State-of-the-art Analysis: Mapping of the policy landscape for learning opportunities for researchers on Open and Responsible Research and Innovation D4.2 First PATTERN Policy Brief Upcoming public deliverables (due 30 April 2025): D2.1 First version of PATTERN new curriculum D2.3 First version of the training platform and modules sustainability plan D3.3 Evaluation of outcomes and refinement strategy All project outputs are available on the PATTERN Zenodo community