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New Report Highlights the Development of European Place-based Research and Innovation Ecosystems

The ERA_FABRIC project is proud to announce the release of a comprehensive new report, "Mapping Case Studies of Knowledge Ecosystems Across European Regions," which delves into the complex and varied landscape of research and innovation ecosystems within the European Union. This report, forming part of the Horizon Europe funded project ERA_FABRIC, offers critical insights and methodologies designed to enhance the understanding and governance of these ecosystems by policymakers and stakeholders alike.

Executive Summary

The report's primary aim is to deepen the general understanding of research and innovation ecosystems across European regions, aligning with the concept of ERA Hubs. Recognizing the challenges inherent in defining these ecosystems, the study analyzes a sample of diverse case studies to extract potential overarching conceptualizations. The selected ecosystems showcase a variety of critical elements, including objectives, partner types, governance processes, and the balance between public and private sector involvement.

Key findings emphasize the differentiation in ecosystem characteristics such as the type of activities undertaken, the legal forms adopted, and the roles of public administration. These insights are vital for policymakers to craft informed strategies that foster effective and sustainable research and innovation environments across Europe.

Methodology

The research methodology combined desk research, interviews, and questionnaire submissions to gather extensive data on 15 distinct ecosystems. A structured questionnaire was employed, collecting general information and detailed responses to 11 targeted questions aimed at understanding the operational mechanisms of these ecosystems.

For nine ecosystems, in-depth interviews with key stakeholders provided rich, qualitative data. In-person interviews were conducted with stakeholders in Spain and Italy, while online interviews facilitated data collection from other regions. For the remaining ecosystems, the questionnaire alone sufficed, supplemented by additional desk research when necessary.

The level of detail in the information collected varied, with some ecosystems providing comprehensive insights and others offering more limited data. This tiered approach ensured a robust understanding of each ecosystem's unique characteristics and challenges.



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In-depth Case Studies

The report provides detailed case studies on six representative ecosystems, including:

1. **Bio-economy Austria (Austria):** Bio-economy Austria aims to replace fossil resources with renewable raw materials across various sectors. The ecosystem involves multiple regional hubs, each focusing on specific areas like building materials, bio-based feedstocks, and engineered bio-components. This decentralized approach ensures that each region leverages its strengths while contributing to the national bioeconomy strategy. Key activities include technological analysis, knowledge transfer, project development, and educational initiatives. The project is funded primarily by the Austrian Forest Fund and regional resources, with significant public sector involvement in governance and strategic direction.
2. **CoLAB - ForestWISE (Portugal):** ForestWISE focuses on integrated forest and fire management, promoting co-research and knowledge transfer among industry, academia, and public administration. The ecosystem operates as a Collaborative Laboratory, a unique Portuguese model that facilitates collaboration across sectors. ForestWISE is engaged in multiple projects, including the development of sustainable forest management practices and circular bioeconomy initiatives. The funding structure is balanced between state funds, European project grants, and private sector contributions. The ecosystem's activities are aligned with a strategic agenda developed through extensive stakeholder engagement.
3. **ECOSISTER (Italy):** ECOSISTER is dedicated to fostering ecological transition and sustainable development through research and innovation. It integrates various stakeholders, including universities, research centers, and regional innovation consortia, to support the regional economic and social system. ECOSISTER operates under the framework of regional and European research policies, with a strong emphasis on smart specialization strategies. The ecosystem's governance involves continuous collaboration between research, enterprise, and territorial entities, ensuring alignment with broader sustainability goals. Funding is predominantly public, derived from national and regional sources.
4. **RENERGY (Norway):** RENERGY focuses on renewable energy technologies and sustainable practices. The ecosystem brings together companies, research centers, and public institutions to drive innovation in the energy sector. Key activities include technology transfer, development of innovative energy solutions, and support for entrepreneurial projects. RENERGY's governance structure promotes collaboration and integration of various stakeholders' development processes. The funding mix includes public funds, competitive project grants, and private sector contributions, reflecting a balanced approach to financial sustainability.
5. **IMAST (Italy):** IMAST specializes in the engineering of polymeric and composite materials, aiming to enhance technological innovation and industrial competitiveness. The ecosystem includes a diverse range of partners, from companies and innovation centers to universities and bank foundations. IMAST's activities cover technological scouting, research and development, and vocational training. The governance model is centralized, with a strong board direction ensuring cohesive strategic implementation. Funding sources include public competitive projects and fees from private partners, indicating a collaborative yet structured financial model.
6. **Packaging Cluster (Spain):** The Packaging Cluster enhances the competitiveness of the packaging sector through innovation and collaboration. The ecosystem comprises companies, research centers, and



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educational institutions, focusing on technology transfer, market development, and training. The cluster's strategic priorities are defined through regular stakeholder engagement and alignment with regional economic strategies. Funding comes from membership fees, competitive project grants, and service sales, providing a diversified financial base. The governance process emphasizes decentralized decision-making and stakeholder involvement to ensure responsiveness to industry needs.

Key Insights and Recommendations

The study highlights several critical areas and recommendations:

- **Governance and Sustainability:** Effective governance structures are crucial for the success of R&I ecosystems. The report identifies a variety of governance models, from decentralized approaches seen in Bio-economy Austria to centralized models like IMAST. These models illustrate that there is no one-size-fits-all approach; rather, the governance structure must be tailored to the specific needs and contexts of each ecosystem. For instance, decentralized governance can empower regional hubs to leverage their unique strengths, while centralized models can streamline decision-making and ensure cohesive strategy implementation across diverse partners. Policymakers are encouraged to assess the specific governance needs of their ecosystems and adopt structures that promote agility, inclusiveness, and strategic alignment.
- **Funding and Financial Sources:** Ecosystems rely on a mix of public and private funding, with significant variation in funding structures. The average distribution includes direct public funds (48%), competitive project funding (26%), partner fees (21.5%), and service sales (4.5%). This diversity in funding sources helps mitigate risks associated with dependency on a single funding stream and enhances financial sustainability. It is recommended that ecosystems diversify their funding portfolios by tapping into various sources, including regional, national, and European funds, as well as private sector investments and income-generating activities. Additionally, fostering partnerships with industry and aligning ecosystem activities with market needs can attract private investment and ensure long-term viability.
- **Stakeholder Mobilization:** Successful ecosystems implement robust mechanisms for stakeholder engagement, utilizing forums, workshops, newsletters, and social media to align public and private sector goals. Stakeholder mobilization is not a one-time effort but an ongoing process that requires consistent communication and collaboration. The report underscores the importance of creating inclusive platforms for dialogue, where diverse stakeholders can contribute to shaping the ecosystem's strategic direction. Engaging stakeholders early and often ensures that their needs and perspectives are integrated into decision-making processes, enhancing the ecosystem's relevance and impact. Policymakers should prioritize stakeholder engagement strategies that foster transparency, trust, and mutual benefit.
- **Strategic Priority Setting:** Regular, periodic involvement of key actors ensures that strategic priorities are aligned with evolving societal needs and technological advancements. The dynamic nature of research and innovation demands that ecosystems remain responsive to emerging trends and



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challenges. The report highlights the benefits of adopting flexible strategic planning processes that allow for periodic reassessment and adjustment of priorities. This can be achieved through structured feedback mechanisms, scenario planning, and continuous monitoring of external developments. By maintaining a forward-looking approach, ecosystems can stay ahead of the curve and drive innovation that addresses both current and future needs.

- **Evaluation and Impact Assessment:** The report emphasizes the need for robust evaluation frameworks to assess the outcomes and impact of ecosystem activities. Regular monitoring and evaluation help identify areas of success and opportunities for improvement, ensuring that resources are used effectively and objectives are met. Key performance indicators (KPIs) and impact metrics should be clearly defined and aligned with the ecosystem's strategic goals. Evaluation processes should be participatory, involving feedback from all stakeholders to ensure comprehensive assessment. Policymakers are encouraged to develop standardized evaluation protocols that facilitate comparison across ecosystems and support evidence-based decision-making.

Future Directions

The findings of this report are expected to enrich the toolbox available to policymakers, enabling them to better comprehend and govern research and innovation ecosystems within European policies. The recommendations provided are aimed at fostering an environment where innovation can thrive, supporting the EU's overarching goals of sustainability, competitiveness, and societal well-being.

About ERA FABRIC

ERA_FABRIC is a Horizon Europe funded project focused on enhancing the European Research Area (ERA) through the development of robust, place-based research and innovation ecosystems. The project brings together leading institutions and stakeholders to drive forward the EU's vision of a cohesive and innovative research landscape.

For more information and to access the full report, please visit <https://erafabric.eu>

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