

# ERA POLICY BRIEF

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TOPIC: IBA-SWAFS-SUPPORT-2-2020

PROJECT: RESEARCH & INNOVATION FOR CITIES & CITIZENS – RI4C2



## SCOPE OF THE POLICY BRIEF

In this policy brief, the European Universities pilot alliances report on the progress made in the development of a Pan-European Knowledge Ecosystem (PEKE), composed of a network of local KE of the RI4C2 Alliance’s partners and provide a first set of recommendations to the European Commission for further policy development.

### Policy background

In order to strengthen strategic partnerships across the EU amongst higher education institutions, the European Commission targets the emergence of “European Universities” by 2024 by funding alliances from across Europe. The ambitious mandate aims to trigger systemic, structural and sustainable institutionalized cooperation between higher education institutions. As a complement to the Erasmus+ action geared towards supporting higher education cooperation models, Horizon 2020 support is dedicated to contributing to the research and innovation dimension of the alliances between European universities, in line with their shared, integrated, long-term joint strategy and in synergy with their education dimension.

This initiative is one of the flagships of the [European strategy for universities](#) that aims at supporting and enabling universities to adapt to changing conditions, to thrive and to take a leading role in the recovery of Europe, and in making our society greener, more inclusive and more digital. The adoption of this strategy was accompanied by a Commission [proposal for a Council recommendation on building bridges](#) for effective European higher education cooperation.

In parallel, the [European Research Area Policy Agenda](#) sets out 20 voluntary actions for the period 2022-2024, including several of which are relevant for universities. The feedback from the alliances will help co-shape the design and implementation of the ERA Policy Agenda 2022 – 2024, such as ERA actions 1 (sharing of data), 3 (reform of research management), 4 (strengthening careers), 5 (gender equality), 7 (knowledge valorisation), 8 (research infrastructures), 13 (empowering universities), 14 (engaging citizens), 15 (role in R&I ecosystem), 17 (research management capacity).

According to the European Research Area (ERA) Policy Agenda, “the R&I landscape has profoundly changed since the 2008 Commission Recommendation on the management of intellectual property in knowledge transfer activities. An update is needed that moves from the traditional concept of knowledge transfer to the valorization of knowledge assets, generated by different types of actors in a dynamic R&I ecosystem. New challenges must be addressed like the increasingly complex knowledge value-chains, new market opportunities created by emerging technologies, new forms of industry-academia collaborations and involvement of citizens, as well as reciprocity in the management of intellectual property in international R&I cooperation” (European Commission, 2021b, p. 10). The aim of the new ERA Agenda is to achieve an alignment of measures and policy instruments for improving knowledge sharing and valorization in Europe. In this respect, building up regional and national R&I ecosystems to improve regional/national excellence and competitiveness is seen as a key priority area.

1. Please describe the **challenges** your Alliance encountered regarding cooperation between universities in the field of R&I in relation to the institutional change areas (transformation modules) foreseen.

At the level of the RI4C2 Alliance's partners, we encounter challenges regarding the conceptual framework of knowledge ecosystem, stakeholders, citizen science, and civic engagement, due to different approaches to these concepts. The Knowledge Ecosystem is not static, there is always the possibility of integrating new categories of stakeholders to satisfy needs that have not been solved and/or identified so far.

As engines of research and innovation, universities must aggregate with other categories of stakeholders in order to design a common vision and agenda for modern society. Engagement with external stakeholders should become a strategic concern, as one of the highest priorities for universities. Although universities are open to new types of collaboration and cooperation with different local/regional stakeholders, they face difficulties in developing relationships among different actors. Many stakeholders claim that there are no defined instruments to initiate cooperation.

In theory, stakeholders are open to cooperation but face a number of challenges. The first one is a lack of employees who can be responsible for cooperation tasks such as communication plans, the concept development of the projects, or any activities which can be completed together with other stakeholders. It relates specifically to research laboratories because some fields can be complicated and unique. It demands creativity to popularise it with citizens or create joint projects with stakeholders with no particular expertise. In theory, that obstacle can be overcome by defining a clear communication plan with realistic goals and employing staff with specific expertise in the area.

The second obstacle that logically derives from the first is stable networking; some stakeholders are very active in building strong relations, but others are not. While there are collaboration in the local/regional networks, the level of connections among stakeholders varies depending on the topic and the research approach.

The other challenge regarding cooperation among stakeholders is the lack of economic support, the lack of time, and the lack of knowledge of the activities developed by the different actors. The stakeholders claim also that there are no defined instruments to initiate cooperation. All agreed that it is in the identification of needs and in the search for solutions that the contact points emerge. That is to say that it is in the Ecosystem itself that specialized Know How is sought to solve the problems that certain stakeholders have identified and/or intend to solve, in different domains of activity

2. Please describe how you tackled or intend to **tackle these challenges**. Based on your project's experience so far (and if applicable), briefly outline case(s) that you consider as **good practice** and of interest to other universities or to policy-makers.

Research and innovation activities are generally considered channels of (new) benefits for the community and all are involved in these activities. Citizen participation in research and innovation activities has become a fundamental political priority, in particular through open science and citizen science policies.

Citizen integration throughout the scientific and innovation process ensures that the concerns and interests of civil society are consistently understood and considered, and society also has an active and informed role in public decision-making. It should always be considered that the active participation of citizens in these activities should be voluntary and that it can be encouraged but not coerced. Secondly, this participation requires some form of action on the part of citizens, i.e. they cannot simply be passive recipients of knowledge and/or innovation. Finally, these activities should be, as far as possible, strongly linked to the social mission, trying to find new solutions (products, services, models, etc.) that simultaneously meet society's demands and lead to the best use of existing goods and resources.

The performance of the local knowledge ecosystem consists of a better vision regarding the linking between universities, seen as promoters of value creation and innovation, with their local/regional stakeholders.

Engagement with external stakeholders should become a strategic concern, as one of the highest priorities for universities.

Universities should have better incentives for education in order to develop skills demanded in the job market; also incentives to produce high-quality research and become more oriented towards entrepreneurship. This will require changes in incentive systems, educational orientation, and university governance.

A sustainable long-term KE is kept alive through continuous dialogue and cooperation between policy and research areas and among all categories of stakeholders.

The lessons learned reinforce the true necessity to bring Science outside the University and make the scientific language more understandable. At the same time, it is necessary that Citizens challenge researchers, entrepreneurs, business owners, and policymakers to reinvent the way they communicate their ideas and projects. Accordingly, citizen science will develop as a mechanism for involving society and stimulating the population's interest in scientific outcomes, and most importantly contributing to their scientific literacy.

3. Please describe the **tangible progress** that individual partners as well as the Alliance as a whole have made in terms of introducing changes in their entities as a result of this project. Please elaborate on whether the inclusive and integrated cooperation approach of your alliance helps accelerate institutional change of all partners (e.g. through sharing of practices from institutions with strong expertise or infrastructure in specific areas to institutions without).

In order to identify and shape the characteristics of the Alliance local/regional Knowledge ecosystems, we developed an online questionnaire-based survey that was applied in the Alliance university communities of the RI4C2 project, targeting different categories of stakeholders: universities and research entities, innovative start-ups, local authorities, venture capital, sponsors, service organizations, incumbent firms, and citizen science entities. Moreover, to increase our understanding of the Alliance local/regional Knowledge ecosystems, we have organized focus-group/workshops/debates/discussions/interviews/meetings with the representatives of local and regional stakeholders that addressed stringent issues and the needs of contemporary societies.

Most of the respondents are active at the local/regional level, some of them at the national level, and a small amount of them at the international level. All the respondents mentioned that their organization develops research and innovation activities that are performed with other entities, mainly with public actors. Overall, most of the respondents characterized their relations with other entities as cooperation and collaboration, in terms of: 'excellent', 'very good', 'good', 'fine', and 'pretty poor'.

The results of the focus-group/workshops/debates/discussions/interviews/meetings with representatives of local and regional stakeholders show that maintaining strong relationships among stakeholders is essential, as only through them it becomes possible to think beyond science and research, understand the needs of society that would otherwise not be possible to identify.

## POLICY RECOMMENDATIONS (MAX 3P)

In this section, the European Universities pilot Alliances make recommendations in relation to the policy topics identified below. Given the unique strengths and focus of each European University Alliances, please focus only on those aspects of most relevance to your case. Please feel free as well to expand to other policy topics you may wish to share your learnings and recommendations (other recommendations).

### 1. Policy topic 1: RELATIONSHIPS AMONG LOCAL STAKEHOLDERS

Research and Innovation are important concerns for all involved local ecosystems. The local stakeholders are genuinely organized stressing the importance of the universities at the centre of their R&I strategies. The role

of Education has been redefined as an innovation and entrepreneurship engine for all the local stakeholders; however, it was necessary to clarify and redefine the responsibilities of everyone involved.

The universities should understand the needs of private companies and take them into consideration during the planning of the topics of research activities and projects. These R&I actions must be performed in partnership with the local authorities, employers' associations, and Chambers of Commerce, to reach the adequate societal relevance of the outputs.

It is necessary to understand the needs of the market and the socio-economic stakeholders to create the product or service and involve the partners which can support the researchers/companies in every step from the identification of the idea until the release of the product to the market.

The Universities Joint Labs (research laboratories in synergy with private companies) work very well in most of the involved local ecosystems. These entities identify perfectly the requirement of the market in a specific field. It helps the technological transfer offices to create new products and services which can be commercialized. It also helps to detect interesting innovative projects and create start-ups.

Universities are considered important hubs and platforms for the development of innovative educational activities which address the companies' demands due to the complexity of their services. The Universities and Research Institutes from all local ecosystems will accompany the projects through all their stages: intellectual property protection, incubation, transfer, development and commercialization, and fundraising.

The relationships between the various stakeholders may be established informally through occasional collaboration or, on the other hand, they may be formally defined through collaboration protocols, contracts, service provision, mentoring, and training, among others.

The evaluation of the local ecosystems revealed also a high potential for collaboration between Innovative start-ups and Service Organizations. The positive feedback from Universities and Research Entities proves the win-win collaboration between those two stakeholders.

The analysis performed for all the ecosystems noticed again cooperation on Research and Innovation between local stakeholders through coordination from universities and research entities. The relationships between Service organizations and Incumbent firms are strongly marked by a perfect synergy with local authorities and to a similar extent with Universities and Research Entities with a special emphasis on the genuine synergy between both stakeholders.

Citizen science entities would need an increased representation in relation to other stakeholders. A good initiative of joint activities has been noticed between service organizations and citizen science entities.

This type of relationship is focused on cooperation and collaboration between different stakeholders and this is a characteristic behaviour for all local KEs. The support, expertise providers, and involvement are also typologies of connections between the stakeholders.

There is still a shortage in the citizen implication in the societal policy and this should urgently be addressed by increasing the involvement of specific instruments and actions identified with the support of joint projects.

## **2. Policy topic 2: COOPERATION INSTRUMENTS**

Universities are major contributors to local innovation ecosystems and economic growth through their activities of education, research, and innovation. Although universities are open to new types of collaboration and cooperation with different local/regional stakeholders, they face difficulties in developing relationships among different actors. While there are collaboration in the local/regional networks, the level of connections among stakeholders varies depending on the topic and the research approach. Many stakeholders claim that there are no defined instruments to initiate cooperation.

In theory, stakeholders are open to cooperation but face a number of challenges. The first one is a lack of employees who can be responsible for cooperation tasks precisely the communication plan, the concept development of the projects, or any activities which can be realised together with other stakeholders. The second obstacle that logically follows from the first one is stable networking, some stakeholders are very active in building strong relations, but others lack this competence. It is essential to structure the networks, mobilize the territorial strategy, as well as meet regularly with the key actors. Also, it is necessary to set up a clear, visible, and coherent strategy with other research entities' strategies.

In order to perform and enhance the process of communication between different categories of stakeholders we propose some steps to follow for an interconnected knowledge space:

- Using a shared information platform;
- Writing bilateral agreements;
- Applying to regional, national, and European funds;
- Strengthening networking with stakeholders;
- Organizing meetings with the stakeholders on local priorities, as for example: health, digital transition, ecological transition, innovative materials/future transport and education & technology.

This will facilitate collaboration and exchange of best practices, also based on the presence of incentives (generally funding or structures that support R&I collaboration) to maximise the value of knowledge production, circulation, and use. Each stakeholder benefits from the establishment of partnerships/collaborations because these relations contribute to the discussion and development of new solutions to respond to social challenges. There is a fundamental need for strategic plans of local agents in order to mitigate the challenges emerging in the region.

Maintaining these relations is essential, as only through them it becomes possible to think beyond science and research, understanding the needs of society that would otherwise not be possible to identify.

### **3. Policy topic 3: GOOD PRACTICES AND LESSONS LEARNED**

It is essential to bring science outside the University and make scientific language more understandable for all categories of stakeholders. At the same time, it is necessary that citizens challenge researchers, entrepreneurs, business owners, and policy-makers to reinvent the way they communicate their ideas and projects.

There are many actors in the R&I ecosystems in the Alliance but until recently they were not well interconnected, and a lack of communication was generating duplicated functions which created redundancy. Thus, the necessity for better communication. Also, organising meetings with key actors at different levels: in some ecosystems, there are special committees that gather different entities of the local Knowledge ecosystem, while in other ecosystems this represents a real need. In strong ecosystems, as a good practice, these special committees have as main role to detect innovative technologies. The first committee provides opinions about the market needs and the perspectives of the detected technology. The second one is responsible for the patents. The third one is responsible for the start-up's acceleration.

Generally accepted, universities have many different partners and the relations between most of them were not formalised. Nowadays, it is mandatory to formalise every new relationship with a stakeholder through a written bilateral agreement between the actors. Engagement with external stakeholders should become a strategic concern, as one of the highest priorities for universities.

In the Knowledge ecosystems, local authorities, public entities, and socio-economic stakeholders can join forces by creating a network/consortium on a specific theme. In most ecosystems, the funds come from regional or national levels. Once the theme is identified, the consortium can apply for specific calls to create a network. The consortium has some amount of time to organise and build the network. After that, if the network is successful, they can start the consolidation phase and apply for funds for specific projects.



Another important issue is to have a vision and to get the opinion of the socio-economic partners about the market needs before the development of the product concept. Market research can be a good example of Citizen Science.

“Knowledge for all” should be the University's scientific language for civil society, citizens, and end-users. At the same time, citizens should challenge researchers to reinvent the way they communicate their ideas and projects, making them better communicators. The symbiotic effect of these collaborations is thus revealed, as everyone who participates in them benefits in some way, whether with greater scientific knowledge or with an easier way to communicate with the public. In this sense, we list some relevant examples of good practice in cooperation between stakeholders, promoted by universities in the Alliance: “European Researchers' Night”; “Science Celebration Day(s)”, “Corporate Corner”; “Kindergarten of Managers”; other activities such as festivals, forums, film forums, scientific breakfasts, international conferences, exhibitions. During all these initiatives, citizens have the opportunity to explore several scientific themes, through simple and fun activities. These are projects that mirror good cooperation practices between stakeholders, bringing citizens closer to science and innovation, and promoting scientific literacy.

All these initiatives do not have to limit only to universities and one or two other categories of stakeholders that usually are involved in common actions in the Knowledge ecosystem, but to comprise all the potential beneficiaries at the local/regional level.

#### **4. Policy topic 4: MEASUREMENT INSTRUMENTS OF CIVIC ENGAGEMENT**

The interest and the perceived need to engage citizens, civil society actors, and end-users in general in the R&I activities is increasing, although the degree of involvement differs from one ecosystem to another.

First, it is recommended to raise awareness among researchers about Citizen Science and add value to the citizens' engagement that they can bring to research projects from ideas to results phases. Innovation must serve society and be coherent with human values and current needs. The citizens and society (including students and researchers) should be at the centre of the innovation therefore, they should be involved in the process of R&I.

Regarding citizens' engagement in R&I activities: it should always be considered that the active participation of citizens in these activities should be voluntary and that it can be encouraged but not coerced. Secondly, this participation requires some form of action on the part of citizens, i.e., they cannot simply be passive recipients of knowledge and/or innovation. Finally, these activities should be, as far as possible, strongly linked to the social mission, trying to find new solutions (products, services, models, etc.) that simultaneously meet society's demands and lead to the best use of existing goods and resources. Citizen integration throughout the scientific and innovation process ensures that the concerns and interests of civil society are consistently understood and considered, and society also has an active and informed role in public decision-making.

Citizen engagement in scientific activities is getting more important as the valorisation of research activities for the benefit of communities has a societal impact, and the democratization of science enhances the public's influence over science. In this context of increasing civic engagement, the evaluative efforts/ instruments remain still limited, especially the qualitative ones. Without adequate evaluation instruments, it is difficult to ensure engagement principles and practices, assess the outcomes of engagement, learn from current practices, and demonstrate the benefits of civic engagement in the R&I area.

Based on the framework of the local Knowledge ecosystem developed by each EC2U partner by identifying actors and capacities involved in promoting and implementing R&I activities, we designed a new instrument(s) to measure civic engagement in a research project. In order to evaluate public engagement in research and innovation activities, we proposed a toolkit of measuring instruments of civic engagement, comprising four evaluation tools as follows:

- **Instrument no 1:** Measure or assess the current stage of civic engagement (Developed by RI4C2 team).
- **Instrument no 2:** Quantitatively assess volunteers' profiles according to their engagement in a project.
- **Instrument no 3:** Qualitatively assess the motivations in civic engagement according to RIC4 expertise and strategy (Newly developed by the RI4C2 team).

- **Instrument no 4:** Quantitative and Qualitative measure based on the Engagement principles from the “Community-engaged research” concept.

Each instrument can be used independently for a certain stage of the project (for example, in the design phase and also for the measurement of the current stage of civic engagement), or the instruments can be combined.

## 5. Other recommendations

Knowledge ecosystem is meant to boost exchanges of knowledge, join forces to build strong bridges across institutional and disciplinary boundaries, look for new collaborative formats and spaces in order to address shared challenges, and shape their own changing roles in the process. A sustainable long-term Knowledge ecosystem is kept alive through continuous dialogue and cooperation between policy-makers and research area and among all categories of stakeholders. Universities, as promoters of research and innovation, must coagulate around other categories of stakeholders in order to design a common vision and agenda for modern society. Thus, creating new levers for the development of strong partnerships. There is a stringent demand for a close connection and collaboration among all the categories of stakeholders in the local/regional Knowledge ecosystem in order to create synergies that will impact future societies.



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