

RESEARCH PROJECT

Quadruple-helix-based knowledge valorization best practices to transition to an Open Science innovation management model

1. Introduction

The Kaleidos project brings together research and innovation managers and advisors from across Europe for competence exchange and development, cross-learning, and skill sharing alongside network building on knowledge valorization best practices (KVBP) and associated theoretical contexts. They will share together those KVBP and enhance them by integrating actions with the quadruple-helix stakeholders of their local ecosystems. This process will develop a comprehensive set of social innovation and open science approaches and practices (the Knowledge Valorisation Best Practices Tool Kit or KVBP Tool Kit) that will be piloted and assessed within the universities and with their ecosystems using a new set of impact measurement indicators. The project approach will also allow other universities and research centers to access and incorporate the outcomes and learnings through the generation of implementation action plans, guidelines, and a peer-sharing professional network. Policy recommendations will be developed for policymakers at both national and European levels to use the project outputs. Ultimately, KALEIDOS aims to develop a methodology and associated tools and guidelines to help universities and research centers in their transition towards an open science and social innovation management approach at all stages of research.

The Kaleidos research project aims to support universities with the transition from a more traditional and fragmented research and innovation organization based on a linear process of transfer to a consolidated and coordinated support system for knowledge valorization in a context of multidisciplinary research and open science. To achieve these objectives, the project will first define the skill set and know-how required for both innovation managers and researchers to transition and deepen their ability to move to an open science innovation management approach. Second, it will develop and implement a knowledge valorization training program for all career-stage researchers that includes concepts related to innovation and beyond. Third, it will transfer knowledge valorization best practices through the development and production of guidelines and policy recommendations.

2. Intended contributions: focus on guidelines and policymaking

One of the main objectives of the Kaleidos research program is to develop guidelines and policy recommendations based on the knowledge valorization best practices resulting from the project. In particular, the aim is first to generate a series of guiding principles that support the implementation of the knowledge valorization best practices and the action plan development for a transition to an Opens Science innovation management model.

Second, the project will define general policy guidelines relevant at the European level by revising ongoing policy dialogues and exchange of best practices between Member States through a literature review. To achieve this objective, it will be relevant to interact with policymakers and local authorities from the project ecosystems to share experiences and assess/validate the proposed policy recommendations at the European level.

Third, at the local level, it will be necessary to formulate, develop, and apply policy recommendations adjusted to context. It will be necessary to assess the relevance of the territorial dimension in knowledge valorization and open science processes by exploring the linkage of the best practices within the regional innovation ecosystems and their cohesion policies.

Finally, the project aims to provide each university involved the space to generate an action plan for transitioning to an Open Science innovation management, which will include policy recommendations for cultural change and which should be embedded in the university strategy for future sustainability. Universities are complex organizations characterized by different sub-organizations, such as departments, faculties, research institutes, centers of expertise, one or more campuses, and centralized physical and digital infrastructures. As departments are usually the places where knowledge is created, they should be the first target at which regulations and policy recommendations are addressed. Departments can work within their boundaries to create conditions to maximize the likelihood of regulation's efficacy. Moreover, departments and central divisions should work together to craft tailored strategies to put in place in addition to university-level regulations. As such, it is relevant to introduce standard regulation at the department level and formal process and support schemes focusing on the importance of knowledge transfer and valorization.

4. Learning opportunities and plan of activities for the post-doctoral fellow

The project requires developing different research competencies. I will briefly sketch them, together with the associated intended formal or on-the-job training plan:

- 1) Literature review. A systematic literature review focused on open science policies, such strategies, actions, and guidelines aimed at promoting open science approaches.
- 2) Development of one/two case studies focusing on the several universities part of the consortium. Developing theory from cases is very useful when researching new topical areas because resultant insights may be validated by more rigorous techniques as research progresses (Eisenhardt, 1989). However, theories resulting from case studies may be overly complex due to the amount of data gathered. As such, if necessary, the selected candidate will be in a specialized Summer/ Winter School with a focus on the development of case studies techniques.
- 3) Interaction with the research community. It would be necessary to interact with all the institutional, political, and organizational players affecting the open science process. The selected candidate will have the opportunity to directly interact with all these players in the data collection phase, discussion, and presentation of the result.

In the next table are the main phases of the project, the organization of the activities, and the timesheet.

Activities	Phase	2	4	6	8	10	12	14	16	18	20	22	24
Literature Review	1	■	■										
Data Collection	1	■	■	■	■	■							
Article 1: Systematic Literature Review	2					■	■	■	■	■	■		
Article 2: Theoretical Paper	2							■	■	■	■		
Technical Report	3										■	■	■
Dissemination	3										■	■	■

Phase 1 (duration: 10 months)

The main outputs of this first phase are:

- A literature review concerning open science and university best practices
- Data collection for the development of the case study

Phase 2 (duration: 8 months)

The main outputs of this phase are:

- Article 1: Systematic Literature Review concerning open science and university best practices
- Article 2: Theoretical paper on open science policy process.

Phase 3 (duration: 6 months)

The main outputs of this phase are:

- Technical Report: the aim is to produce some policy indications in order to support the open science process.
- Dissemination through conferences and policy seminars.

5. Post-doc profile and scientific output required

The following is the (preferential) characterization of the post-doc researcher profile:

- have conducted research activities in the field of entrepreneurship, with particular attention to institutional and context aspects;
- have developed skills in the design and implementation of tools- such as questionnaires or interviews- for primary data collection;
- have already activated international contacts following periods of training and/or work at academic institutions of international prestige.

Scientific Output

At the end of the 24 months of the project, the researcher should provide the following:

- Two papers presented in primary international conferences (i.e., AOM, Druid, Egos, SMS, EURAM);
- 2 “*Revise and Resubmit*” in primary academic journals;
- a report that illustrates the results of the project and provides policy implications.