

Cluster 2: Achieving alignment of national and transnational research and innovation programmes

Understanding alignment of national and transnational research and innovation programmes

Taking the overall definition of the High Level Group on the Joint Programming Process (GPC) on alignment into account¹, alignment of national and transnational research and innovation programmes can be understood as the strategic approach undertaken by Member States and international bodies to modify and adapt their national research programmes in a manner so that jointly agreed research priorities can be implemented across different Member States in the European research area, making use of different national funding sources/programmes.

For allowing for an alignment of national and transnational research programmes not only strategic policy priorities need to be set in a coherent manner around a specific theme, but also operational factors such as synchronised calls for proposals, eligibility of target groups, as well as funding and selection criteria have to be set. An alignment of national research and innovation programmes may contribute to increase synergies amongst (existing) national and European research programmes, achieve critical mass in research financing while avoiding duplication of efforts, and help to enhance the level of scientific performance.

At European level, the first initiatives for increasing coordination of national and regional research funding were the ERA networks (ERANETs), set up in 2002, in which national and regional research funding organisations exchanged information and good practices and developed strategic activities, including complementarities between national programmes or the identification of administrative and legal barriers that hinder transnational cooperation (cf. *Current Approaches to Alignment, Case Study No. 4, HERA ERANET and Case Study 3 INFRAVATION ERANET PLUS*). Since then, the European Commission affirmed that aligning national research programmes is a cornerstone for advancing the European Research Area, and new instruments at European level such as the Art. 185 initiatives (cf. *Current Approaches to Alignment, Case Study No. 2, European Metrology Research Programme and Novel Approaches to Alignment, Case Study No. 5 Alignment of AAL Programmes*) and the industry driven Joint Technology Initiatives were launched. Efforts to further enhance coordination/integration of national research programmes culminated in the Joint Programming Processes starting in 2008, which facilitated among others the creation of strategic research and innovation agendas and launching trans-national calls by participating Member States. Nevertheless, existing evidence such as the most recent results of the evaluation of Joint Programming process in 2016 and reports of the GPC make clear that efforts in increasing alignment of national research programmes are still top of the agenda. This concerns in particular increasing the interoperability of national research programmes in terms of terminology, rules and procedures as well as the fundamental design of research programmes around topics of the JPIs strategic research and innovation agenda.

Against this background, ERA-LEARN 2020 performed a number of case studies dealing in particular with good practices of aligning national and transnational research and innovation programmes. The following summary contains the findings of the respective case studies and reflects the overall strengths, challenges and success factors of alignment approaches of research programmes.

The case studies considered in this summary are: (1) HERA ERANET, (2) The Article 185 European Metrology Research Programme, (3) Alignment of national AAL Programmes – Practical Implementation from the Austrian Perspective, (4) INFRAVATION ERANET PLUS.

Overall Strengths

- Transnational programmes contribute to build critical mass. This comprises both critical mass in terms of research being performed as well as achieving increased awareness at a European level for a certain topic. From the case study examples, we have seen that in the case of the Active Assisted Living (AAL) topic, the overall relevance of the AAL theme increased and the positioning of the AAL theme in strategically highly relevant documents increased the overall importance of the AAL theme. The European Metrology Research Programme has facilitated the creation of a broad, structured and strong core of the European Research Area in the metrology field.

¹ ERAC-GPC 1305/1/14, REV1, 30 October 2014

- Achieving European visibility through coordination of national efforts also facilitates to collaborate more easily on a global level, as opposed to individual European countries/institutes.
- Transnational programmes allow for better complementarity of national and trans-national research priorities and the development of joint strategic research agendas. Participating countries may adapt their own national programmes under (joint) priorities and synergies and leverage effects between national and international programmes and projects can be better achieved.
- Transnational programmes allow for better knowledge exchange among the European R&I community and communities of practices. National stakeholders can better connect to the European community or promote their project findings on European level.

Overall Challenges

- Openness to new actors and involvement of less experienced actors is a key challenge for transnational programme alignment. There seems to be a trade-off between the progressive coordinated development of transnational programmes and support by as many countries as possible.
- Addressing grand societal challenges in research and innovation requires a co-ordinated approach in which various ministries, economic and societal stakeholders need to be involved at national and transnational level. Addressing the right stakeholders and facilitating co-ordination beyond core actors of ministries responsible for promotion of research and innovation is a key challenge.
- Also the adoption of transdisciplinary approaches turns out to be difficult in cases, in which a strong track record of following a clearly delineated research agenda with a limited number of actors.
- Securing the human and financial resources for a longer time period and agreeing upon a longer term strategy in terms of launching calls seems to be a key challenge across the case studies mentioned. Only in cases where a) research funders also represented the demand side of the research results (Infravation), b) large amounts of institutional (in-house) funding were committed and c) higher shares of EU top-up funding existed, it was possible to secure funding for a longer period of time.

Key factors of success

1) At strategic level:

- Developing a common vision, having clearly defined joint targets for the development and orientation of a research programme is a pre-requisite for facilitation of joint programming on a longer term basis. This implies that strategic research priorities are defined in consultation with all relevant national representatives and with stakeholders and end-users to ensure relevance in addressing societal issues.
- The pre-existence of a well networked R&I community, which is structured around comparatively narrow fields of interest makes it easier to develop a common vision and a joint roadmap for implementation. The downside of this is that inclusion of new actors and tapping into new fields of action (e.g. innovation activities) is in turn more difficult to achieve.
- Strong, centralised, clearly defined and legally binding governance models with clear voting procedures and allocation of responsibilities, and a good balance between EC and national contributions (i.e., permanent staff and national representatives) allows for joint discussion and effective agreement on and implementation of joint decisions.

2) At financial level:

- Long-term financing for joint programming/transnational R&I activities, by earmarking a specific national budget for transnational coordination, including at strategic/policy levels is key. Only if a topic is truly of interest at national policy level and respective funding exists, the preparation of trans-national programming may be initiated.
- Flexibility of national budgets, i.e. an easy shift between the budgets dedicated to national and transnational programmes, allows countries to follow national as well as transnational priorities.
- While virtual common pots for funding research are the most common practice among P2Ps, as countries fear losing significant committed resources if the proposal selection does not lead to their participation in joint research projects, real common pot procedures show clear benefits (cf. ERA-NETplus Infravation). Contrary to virtual common pots, there is no need to negotiate committed budgets at national level and

also consortium building is not biased by funding considerations, which can have detrimental effects to the quality of consortia and projects. Commitment to longer periods of funding enabled the use of a real common pot.

- For applicants, legal issues arising due to virtual and real common pot regimes (e.g. different requirements, funding ratios etc.) need to be considered and communicated at the very beginning of the application procedure as compliance with national and e.g. European requirements may pose severe challenges for project teams.

3) At operational level:

- Establish a central programme management structure, supported by an integrated system for grant application and reporting activities. Case studies operating with central programme management structures provide greater simplicity and transparency for project co-ordinators and applicants. Also common funding procedures can be achieved more easily.
- Dedicated dissemination instruments for effective impact on end-users need to be developed. Enhanced interaction with stakeholders and end-user communities facilitates effective dissemination. Particularly if programmes focus on research close to the market, it needs to be timely anticipated how innovative solutions resulting from the projects can be implemented and up-scaled afterwards.