

Title

Added value of transnational research programming: learning from
longstanding programme collaborations in Europe

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Motivations

The European institutional context, where responsibilities for research and innovation are shared between the European Institutions and the Member States, requires that policies shaping research and innovation in the European Union (EU) are based on collaboration and voluntary engagement with the Member States and its actors. Consequently, the EU has built a range of instruments in transnational collaboration with regard to research programming (European Commission, 2011). As about 88% of public R&D resources in Europe are spent at national level (Acheson¹ et al, 2012), one of the main aims of those collaborative instruments relates to pooling national R&D resources in order to build critical mass and excellence and avoid duplication. This becomes even more important in the current policy context of Europe 2020 (European Commission, 2010). If we would measure the success of these collaborations in terms of budgets that are actually pooled (around 300 million Euros a year (Niehoff, 2012)) in comparison to total public national R&D budgets, results seem to be very limited to date. Measuring the success of programme collaborations only by the pooled resources may ignore other important impacts that these partnering initiatives may have, be it intended or unintended impacts. This paper explores potential impacts of transnational research programme collaboration in Europe that go beyond budget pooling. It explores how collaboration networks can contribute to a wide set of objectives related to research and innovation and how they can support policy alignment, which is also seen as a measure of EU research integration (Luukonen & Nedeva, 2010). The analysis is based on case studies of longstanding programme collaborations in the EU. Based on the results, policy implications are formulated taking into account the current policy context, in particular the communication from the European Commission (2011) on 'Partnering' in Research and Innovation, which has recently proposed new ways to organise transnational R&I collaboration in line with the objectives of Europe 2020. In addition, the results serve as a basis to develop indicators to measure how cooperation activities can be evaluated in a more comprehensive way.

Approach

Looking at the programme collaboration in the past decade or so², many examples of longstanding collaborations in research programming can be identified, as well as a wide variety of combinations of instruments to organise this collaboration. Figure 1 shows the continuation of European research collaboration networks under FP6 and FP7 (including those that have not started yet but are foreseen for in the 2013 Work Programme of DG Research and Innovation of the European Commission). It reveals a high degree of continuation among different research collaboration initiatives in Europe over the past decade. This high degree of continuation suggests that many collaboration networks were perceived as being successful in one way or another. For the context of this paper, some collaboration networks are selected that have been ongoing for a long time and that combine different instruments (ERA-NETs, Article 185s, Self-sustaining networks etc) over time. An in-depth analysis of those case studies is used to reveal different types of outcomes of those networks. As a basis for the analysis a mix of methods is used: interviews with key players in the network, analysis of documents

¹ Acheson et al. refer for this figure to the draft results of the JOREP study on Joint and Open Research Programmes, Commission, 2012.

² The ERA-NET scheme started under FP6 which commenced in 2002.

produced by the networks (including the description of work, the final report and the strategic research agenda) and analysis of data available in the NETWATCH platform (NETWATCH, 2013).

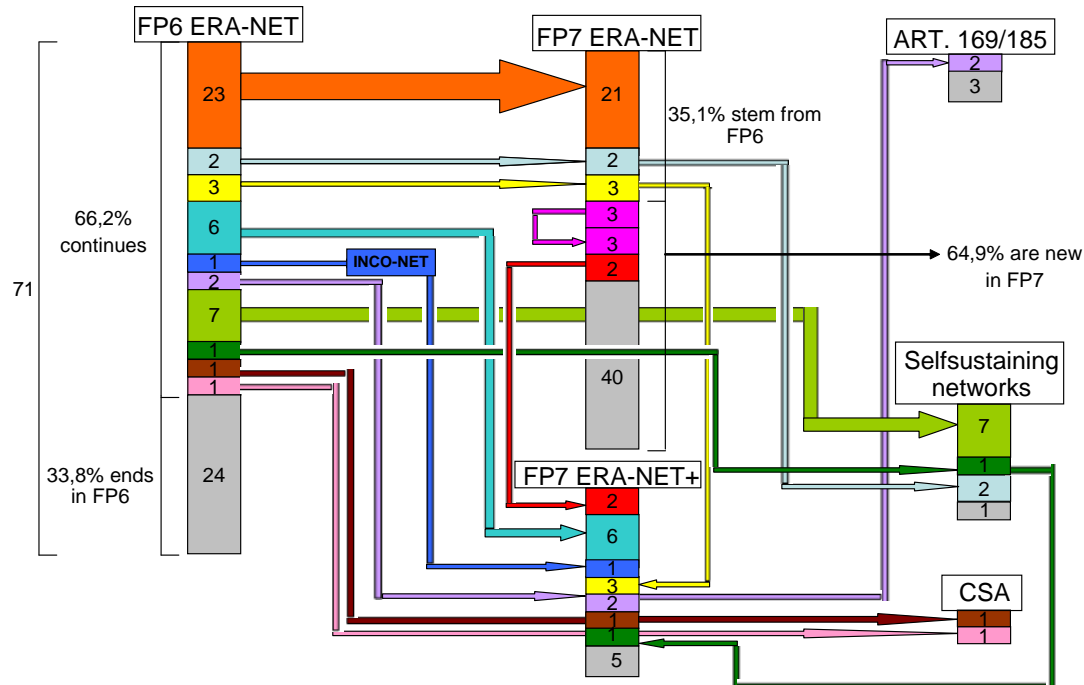


Figure 1: Continuation of European research collaboration networks under FP6 and FP7 (including those foreseen for 2013). Source: IPTS calculations based on NETWATCH data and 2013 Work Programme of DG Research and Innovation.

The framework for analysing different networks builds on three types of analysis, varying from network aims that are at the core of the programme collaboration to secondary and tertiary network aims that need not be directly linked to the objectives of the scheme.

Firstly, in the Partnering Communication of the European Commission (2012) collaboration in R&I is seen as aiming to build critical mass, facilitate joint vision development and strategic agenda setting, contribute to the evolution to a programming approach in European R&I, and to provide for flexible structures that facilitate the size and scope of a partnership, depending on its nature and goals. Also at the core of transnational programme collaborations are a set of co-ordination challenges, inherent to the complexity of societal challenges they want to address. Könnölä & Haegeman (2012) identify four dimensions of co-ordination along which alignment is required, and to which collaborations contribute:

- Alignment of structural and systemic differences in national research and innovation systems (Systemic dimension)
- Horizontal co-ordination between research, innovation and other policy areas (such as competition, regional, financial, employment and education policies) (Horizontal dimension)
- Vertical co-ordination between local, regional, national and transnational policy levels (Vertical dimension)

- Temporal co-ordination ensuring that policies continue to be effective over time and that short term decisions do not contradict longer-term commitments ('dynamic efficiency' or temporal dimension)

Each dimension is related to a set of barriers to collaboration. In order to address them, effective research and innovation systems and policies require alignment along these dimensions. Transnational research programming can play a key role as tool to support and encourage alignment. The paper uses case studies to analyse how programme collaboration supports those different alignment dimensions and contributes to removing barriers related to each of them.

Secondly, 'well-coordinated research programmes and priorities' is one out of the 6 ERA dimensions, as defined in the Green Paper on ERA in 2007 (European Commission, 2007). Transnational programme collaboration may however also contribute to other ERA dimensions, as well as to the newly set ERA priorities (European Commission, 2012). When measuring progress, the ERA dimensions are usually looked at in a separate way. Policies targeting one dimension may however have an impact on the others. The paper uses case studies to analyse how transnational programme collaboration can also contribute to the other ERA dimensions and ERA priorities.

Thirdly, Europe 2020 has added policy actions related to ERA in other areas than the 6 ERA dimensions or the ERA priorities, as identified in Haegeman et al (2012). Those policy actions are dispersed among the different Flagship Initiatives. Examples are support to SME's, review of RDI state aid, regulatory frameworks, or standardisation. The paper uses case studies to analyse how transnational programme collaboration can also contribute to each of those additional activity areas.

The three types of analysis allow for the development of a more complete picture of the potential impacts of programme cooperation policies on the completion of the ERA.

Results

Work conducted so far suggests that the impacts of transnational research programme collaborations are much wider than the core objectives of the instruments. The analysis indicates that there may be important intangible impacts (such as establishing confidence and trust between national partners of different countries, improving skills). The work also shows an important role of public sector oriented instruments in supporting public-private collaboration, substantial contributions to other ERA dimensions, to demonstration and innovation, as well to addressing different framework conditions in research and innovation, such as support to the shaping of international standards. Further research is required to obtain a more complete and detailed picture of the wider impacts of the whole programme collaboration landscape.

Policy implications

The analysis suggests that transnational research programme collaboration should be seen in a wider perspective when looking at their role and impact. This will be particularly important at the end of FP7, a moment when partnering initiatives will be assessed against the initial objectives. Secondly, there is a need to look at the progress towards ERA in a more integrated way (ERA dimensions are interlinked, but are also

linked with the Innovation Union and with other Flagship Initiatives, etc). When monitoring the progress in ERA and in Europe 2020, this implies also a need to integrate these linkages in the monitoring activities. Thirdly, for pooling research budgets, one of the main objectives of most collaboration instruments, there is probably a need for reviewing the current set of instruments, as proposed in the partnering communication (European Commission, 2012), however taking into account the important contribution of current instruments to more secondary and tertiary objectives. Based on these results indicators can be developed to measure the impacts of cooperation activities in a more comprehensive way.

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