Logics of integration and actors' strategies in European joint programs

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A B S T R A C T

This paper analyses how the interaction between social institutions on the one hand and actors' strategies and interests on the other hand is shaping European integration in research policy. We specifically focus on the implications of the existence of different conceptions of European integration (logics) on the emerging landscape of research funding programs jointly managed by the European Union (EU) and National States (*joint programs*). Our results display the central role of the introduction of a logic of coordination by the EU; it created a breeding ground for a new generation of programs and, at the same time, allowed to make the integration model more flexible and acceptable to National States (as funding became only virtually integrated). Most newly created programs were characterized by largely symbolic commitments and very small budgets, while stronger commitments had to be constructed through successive steps of integration. This process was highly selective and dependent on the presence of strong interests from the research community; additional funding from the EU was critical to ensure stability of national commitments. Further, National States by large delegated to independent funding agencies the management of national participations: delegation allowed to achieve greater homogeneity among national participants, but also to decouple decisions to participate (driven by compliance to institutional pressures) from the level of resources to be committed (driven by national interests). While in the year 2000, the European Research Area (ERA) strategy of coordinating national research policies was largely an empty concept, our case study shows how in the following decade, it was filled in with specific experiences and practices, led to the redefinition of actors' understanding of European integration and roles in European research policies and, ultimately, to the emergence of original models of integration.

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1. Introduction

Since the launch of the European Research Area (ERA) strategy in 2000, increasing the integration level of European research has become a central focus of European policy (Luukkonen and Nedeva, 2010), mirroring similar processes in other policy domains (Marks et al., 1996). This shift can be interpreted as an attempt to overcome the limitations of the policies developed in the 1980s and 1990s which focused on the establishment of European Framework Programs (FP; Banchoff, 2002; Trondal, 2002). It can also be interpreted as the recognition that a model of integration, where all competences (and the relative budgets) are transferred to the European level, was not endorsed by national actors and thus coordination of national research policies was required (Edler et al., 2003).

In the following years, instruments toward integration were introduced in different layers of the research policy system. In the policy layer, the adoption of the open method of coordination (Borrás and Jacobson, 2004) aimed at coordinating European and national research policies, while in the performers layer, European networks of excellence have been launched to structure research fields (Luukkonen et al., 2006) and initiatives have been undertaken to coordinate large-scale research infrastructures through the European strategy forum for research infrastructure.

This paper aims to investigate integration processes in the funding layer – concerning the establishment of what we call *joint programs*, i.e. research funding programs which are jointly managed by more than one country (possibly with the participation of the European Union). Historically, the first examples of these programs were created in the 1950s and 60s in order to achieve critical mass in domains where the resources of individual European countries were not sufficient to compete with the United States, like in nuclear energy (Euratom in 1957) and space (European Space Agency – ESA – in 1975); they were based on international treaties and managed by an international agency receiving resources from participating countries and funding directly national performers. From the 1970s, a second set of programs was created, with a

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broader scientific scope and a focus on networking (Gronbaek, 2003); the design and selection functions were delegated to a supranational agency, while funding was managed at the national level without trans-border flows of funding. The European Cooperation in Science and Technology program (COST; created in 1971), the European Science Foundation (ESF; 1974) and Eureka (1987) belong to this group (Guzzetti, 1995).

Beginning in 2000, the European Union (EU) introduced a number of schemes promoting cooperation between national funding policies. As part of the European framework program, the EU supported so-called ERA-NET initiatives, which were conceived as variable geometry instruments for coordinating national funding policies. Further, article 185 of the European Union Treaty allows the EU to participate and co-fund research funding initiatives, which are jointly undertaken by several member States (so-called Article 185 initiatives). More recently, Joint Technology Initiatives (JTI) have been launched as long-term public-private partnerships in order to support large-scale multinational research projects in areas of major interest to European industry and society (Brummer et al., 2008).

We specifically deal with two characteristics of integration in joint programs, their distributed and multi-actor setting on the one side, the presence of different *institutional logics* (Thornton et al., 2012) on how integration should take place on the other.

Studies of European policies have recognized the multi-level and multi-actor nature of European governance (Edler and Kuhlmann, 2011; Kuhlmann, 2001) and that actors have different interests and identities which interact during the policy process; hence both the existence of a 'change champion' and the ability to overcome resistance from key actors is required for the establishment of European instruments (Nedeva, 2012). In this respect, joint programs represent a highly decentralized setting where, under the variable geometry approach introduced by the European Commission, actors' networks can be flexibly constructed around specific programs and interests.

In turn, studies in the neo-institutionalist tradition consider social institutions to be central to policy processes; they frame and shape actors' behavior (March and Olsen, 1984; Bulmer, 1994), while also driving resistance to change and path-dependency (Pierson, 2004). These studies underline the lasting heritage of institutional structures, revealing that EU research policy was locked into a specific model and actors' constellation around the FP programs (Banchoff, 2002).

Bridging these traditions toward a more systematic understanding of the interaction between institutions and actors in shaping European policies is clearly relevant (Aspinwall and Schneider, 2000 and Caporaso and Sweet, 2001).

We focus on the implications of *institutional pluralism*, i.e. the presence of fundamentally different conceptions (*logics*) concerning what European integration should be at both a general level (Schmitter, 1996) and in research and innovation policy (Kuhlmann, 2001). These suggest different models concerning the competences to be transferred at the European level, details on how joint activities should organized, and the role of national actors (Edler, 2009; Barré et al., 2012).

Accordingly, joint programs represent an ideal setting where competition between institutional logics and their interaction with actors' strategies can be observed. Unlike the creation of a funding agency, entry costs are relatively low and programs can be light settings which do not necessarily require high level of investment and long-term commitments. However, selection and retention are expected to depend on the level of endorsement by relevant actors – specifically those who control a significant share of the research funding budget – generating a situation where growth in terms of budget is highly selective.

We address the following questions: first, do we observe the emergence of patterns in joint programs, which can be related to underlying models of European integration? More interestingly, to which extent do actors' interests lead to hybrid programs combining different models? Second, can we understand the program's selection and retention process as an outcome of the interaction between the characteristics of the institutional model and actors' interests? Can we identify some characteristics that lead individual programs to grow to a sizeable budget? Finally, can we anticipate implications for the development of joint programs and for the integration of national research policies?

Our investigation is based on a dataset covering roughly 90 programs in 11 European countries, including information on their organization, budget, national participation for the year 2009, as well as data on budgets since 2000.

The paper is organized as follows. Section 2 develops our theoretical framework around the institutional logics approach and introduces our hypotheses and research questions. Section 3 describes the dataset and the methodology, while Section 4 presents the results concerning characteristics of joint programs, patterns of actors' participation, and the evolution of budgets. Section 5 discusses the results in the context of European research policy.

2. Integrating institutions and actors in the European context

While early sociological institutionalism argued that actors' behavior is driven by compliance to codes of appropriate conduct provided by social institutions rather than by their interests – more recent work has attempted to provide a more balanced account of agency (Greenwood et al., 2008). The central role of institutions in framing and enabling behavior is recognized – actors have at their disposal a limited set of culturally conceivable and legitimate choices, while their interests are themselves socially constructed. However, especially when there is ambiguity and pluralism in the institutional context, compliance is likely but not automatic, and actors' responses are driven by their characteristics and interests as well (Thornton et al., 2012).

We conceive the relationships between institutions and actors as a recursive one, where institutions frame and embed current actors' behavior, while actors engage actively in the institutional design shaping and reproducing those institutions which will frame their future behavior (Scott, 2008; Mahoney and Thelen, 2010). We are interested in explaining how – from social norms and rules concerning European integration – specific models for joint programs have been constructed, as a part of the broader process of institutionalization of the European space (Sweet et al., 2001).

2.1. Institutional logics in European integration

Sociological institutionalism comes up with a thick conception of institutions, which not only include rules constraining behavior, but also cultural and cognitive models shaping the way actors represent the reality and defining legitimate practices (Meyer and Rowan, 1977). Early institutional theory emphasized the internal coherency of institutional systems and their stability across time, driving to isomorphism (DiMaggio and Powell, 1983).

More recently, it has been recognized that most organizational fields are characterized by the coexistence of different *institutional logics*, stipulating alternative ways of organizing social life (Friedland and Alford, 1991). Institutional pluralism has key implications for agency, practices, and institutional change (Scott, 2008). On the one hand, the co-existence of different logics creates ambiguity concerning behavior, leading to hybridization and to the continued emergence of new practices (Lounsbury, 2007; Kraatz