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Collaborative Governance Schemes and Online Platforms for Successful RIS3 Strategies

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Abstract

Smart Specialisation Strategies (RIS3 or S3) set priorities at national and regional level to build competitive advantage by developing and matching research and innovation own strengths with business needs. One of the steps of RIS3 methodology, is the governance scheme. This paper examines in parallel the challenges of collaborative governance schemes and online platforms as innovative ways for the successful RIS3 strategies. The collaborative governance schemes, besides a strong proposition for the RIS3, are considered a very interesting trend for modifying the perspective of citizens in politics. This tendency arises different theoretical questions about governance, democracy, inclusive society, democracy and the active participation of the citizens in any decision-making process. Additionally, online tools that support governance and policy makers are examined, aiming to identify characteristics and critical success factors that could be integrated in a new proposed governance supporting online tool. The relations of these two concepts are strongly interactive, the more we go digital the better collaboration we achieve, and the more we strengthen the co-governance schemes the better digital statistics are gathered for shaping the future trends.

Keywords

Collaborative, Governance, Platforms, Regions, Smart Specialisation.

1. Introduction

Governance is considered as a sophisticated shared process management between actors all striving towards a common outcome. Governance refers to all processes of governing, whether undertaken by a government, market, or network, organization through laws or power. Bevir [1] gives a sort introduction on the evolution of the basic concepts and methodologies for the governance schemes in west countries. In the last



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decades, general trends such as administrative decentralization and supra national institutions have been identified in the governance of public policies in all European countries [2]:

These trends ought to lead societies to support development decisions in the middle of crisis of the traditional values, due to the globalization of the economy, and the worsening of the state of the environment in the various industrialized countries. Thus, the assessment of governance trends become of great importance, to prevent economic failures and societal crisis.

Various studies on governance recognises the role of different elements affecting governance modes, as for example: a) the importance of socio-economic and structural factors, b) the importance of governing (public-private) networks, c) the power relationships between actors; hierarchical and non-hierarchical modes of coordination; from co-ordination to collaboration, d) change mechanisms, affecting both the regional structural dimensions and actors, etc.

Proposed RIS3 (Research and Innovation Strategies for Smart Specialisation) strategies, by the European Commission, have introduced a greater emphasis on governance amongst different actors (from a quadruple helix perspective), and it is these relationships that could influence the EDP -[Entrepreneurial Process of Discovery] and could make a difference to an effective governance process [3,5].

It is interesting that, according to the picture created by aggregate national data, seems to be four main groups of European states with respect to Quality of Governance-QoG,: The top performers are mostly from the Scandinavian, Germanic and English speaking countries; a second group is largely formed by the Mediterranean countries, together with Estonia and Slovenia; the third group consists of most of the 'new' EU Member States plus, notably, Italy and Greece; and a fourth group includes the two newest Member States – Romania and Bulgaria.

To capture the most relevant sub-national variation in QoG possibly, we can focus on three public services that are often financed, administered or politically accounted for through sub-national authorities, either at regional, county or local level: education, healthcare and law enforcement.

Thus, a special attention should be given to a governance and exploitation model for the RIS3 in EU regions, with the target to reach participation and ownership to a highest possible degree. A study on the relation of the political governance scheme and the RIS3 governance scheme, for every region, should be of great interest for supporting a joint European competitive governance strategy.

2. RIS3 Governance Strategies

The RIS3 Platform was established in 2011 aiming to provide information, methodologies, expertise and advice to national and regional policy makers, as well as to promote mutual learning, trans-national co-operation and contribute to academic debates around the concept of smart specialisation. The Platform provides significant information on specific methodologies and tasks within the process of RIS3 strategy design and implementation; yet, it does not offer the tools themselves. [4]. The RIS3 methodology defines the steps (six steps) and type of tasks (18 tasks) each region should follow in order to perform a smart specialisation strategy. The RIS3 Guide [5], of May 2012 (final) addresses



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governance as a sophisticated form of shared process management between actors all striving towards a shared future outcome [6].

The RIS3 governance model is based on quadruple helix. In this context, the strong stakeholders in the Region are the Universities and Research Institutions, Chairs of Public authorities, the productive sector on primary sector (agriculture and veterinary) and tertiary (tourism) with many professional chambers and institutions, Strong citizens' groups, which are supported by the Regions governance law, (Committee for public consultation).

Since many different actors are involved in the design and monitoring of a successful RIS3 strategy, a collaborative leadership scheme should be adopted, with hierarchies in decision-making flexible enough to let each actor to have a leading role in specific phases of RIS3 design. In order to tackle this potentially sophisticated scheme a **Steering Team, a Management Team and numerous Thematic Groups** are suggested in each Region.

The Steering Team, selected out of the leading organisations of each Helix group, initiates and monitors the process for updating the Scope of the RIS3, which should be in alignment with the Vision of the Region. The Local Management Team - LMT insists in a broad innovation strategy, putting effort on the innovation of services in the public and private sector and not only on technology and business activities. The LMT supports the regional on-line platform, monitors the Pilot Projects and is responsible for implementing the RIS project under the general guidance of the Steering Team. Each stakeholder participates to this team, while the technology leaders undertake the digital platform. The **thematic groups** generally reflect the specific priorities of the Region RIS3, and are compatible with the cluster networks existing in the region.

3. Case Studies

Four regions named Kentriki Makedonia - South Europe, Scotland - North Europe, Cyprus – Region Country, Basque –Successful Region have been selected for a detailed study of their RIS progress. The defined selection criteria were: the measured progress of the RIS implementation, the similarity of demographic and structural data and a geographic grouping of EU regions (North - South Europe, Region country, Successful or Not). In Tables 1 a comparative overview of the regions, in terms of economic is provided [7].

It seems that the populations have not been modified significantly during the examined years. The GDP variance for all the regions is increasing after 2000's except Kentriki Macedonia, which is entering into depression. Concerning Cyprus, which joined recently RIS, the GDP Annual Growth Rate averaged 2.09 percent from 1996 until 2016, reaching an all time high of 6.30 percent in the second quarter of 2000 and a record low of -6.60 percent in the second quarter of 2013 [8].

Table 1 Regional Demographic data, population, GDP, Unemployment 1990-2016

	Population		GDP		Unemployment	
	Early 1990 millions	2016 millions	Early 1990	2016	Early 1990	2016
Basque Country	2.1	2.2	10,000 USD	63615/2013	18,7%	13,9%
Scotland	5.08	5.35	129548/2000	196,617	10%	6%



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Kentriki Macedonia	1.7	1.95	14,400	24571/2013	10.9%	19,5%
Cyprus	0.671	0.862	15,105.21	16,503.7 (2013)	4,7%	7.7%

It is worth noticing that unemployment has decreased in most European countries through the RIS initiatives, but not in Greece and Cyprus. Unemployment in Greece is now a structural phenomenon of considerable dimensions and with a particular dynamic that tends to keep it going. According to Eurostat data, the unemployment rate in the EU-15 increased from 8.2% in 1991 to 10.9% in 1996 [9] [10].

Concerning the scientific infrastructure, the Basque country has more than one hundred thirty (130) relevant Institutes and Organisations, Scotland has more than twenty-three (23). Kentriki Macedonia more than fifteen (15) while Cyprus has more than twenty-five (25) academic and non-academic research organisations.

According to Innovation Scoreboard: a) the Basque Country shows relative strengths compared to the EU28 are in Tertiary education attainment, Innovative SMEs collaborating with others, and Employment in knowledge-intensive industries, b) Scotland shows relative strengths compared to the EU28 are in Tertiary education attainment, Sales of new product innovations, and Innovative SMEs collaborating with others, c) Kentriki Macedonia shows relative strengths compared to the EU28 are in Non-R&D innovation expenditures, SMEs with marketing or organisational innovations, and Innovative SMEs collaborating with others, and d) Cyprus Performance has improved in some dimensions; in particular in Open and excellent research systems (7.7%) and Human resources (7.6%). The indicator with the strongest growth is New doctorate graduates (23%) while Performance has worsened most in Economic effects and Firm investments.

The selected regions have indicated quite different RIS3 priorities based on their strengths. In Kentriki Macedonia, four champion sectors have been selected as pillars for the RIS3 strategy: the agro-food sector, the construction materials, the textile & clothing and the tourism sector [11].

The regional priorities of Scotland are given in [12] with an adequate historical overview and the main sectors included in RIS3 are: Food & Drink, Sustainable Tourism; Financial & Business Services, Creative; Industries, Energy; and Life Sciences

In Cyprus, the following sectors have been identified as the main priorities [13] Tourism; Energy; Agriculture –Food Industry; Construction industry; Transportation; and Health

The strategic priorities chosen by Basque as the three main areas of importance are: Biosciences – Health; Energy; and the Advanced Manufacturing.

The governance concept for Scotland [14] is based on a clear hierarchical activities chain among the political organization and the involved parties. The Scottish Government is working closely with scientific and entrepreneurship advisory boards, as well as with any group of beneficiaries, for supporting the innovation activities in the country. A well-defined organization, the Scottish Executive (SE) is monitoring the Innovation process. The SE has a dual role in the SIS - Scottish Innovation Strategy, taking a leading role in



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policy formulation and development, and administering a number of schemes designed to enhance innovation in Scottish businesses. The Executive thus has a role in policy making and policy formulation and implementation, but also directly in support for innovation and R&D.

Basque country [15] has a long history defining economic development strategies over the past 35 years. The Basque Country has been at the forefront of the design and implementation of cluster policy since the early 1990s, when it embarked on a strategy to transform its economy in response to deep economic crisis and high levels of unemployment. In line with the underlying RIS3 philosophy of quadruple helix involvement in the identification of strategic priorities, the Basque Government decided to delegate the initial responsibility for RIS3 coordination to the Department of Competitiveness and Economic Development (DCED) because it was closest to companies. A major decision has been the transition of Leadership to the Department of the President.

Kentriki Macedonia [16] has a long history in bottom-up and collaborative innovation policy planning with stakeholders' involvement, starting in 1994 with the Regional Technology Plan (RTP). Despite this long-term experience and acquaintance of stakeholders with participatory programming, in the current programming period regional innovation planning is centralised, designed and managed by the General Secretariat for Research and Technology - GSRT in Athens. A 15-member Joint Steering Committee of the RIS+/RIS!+ programmes in Kentriki Macedonia was chaired by the Regional Administration and included 5 representatives from the national government, 2 from of the regional industrial associations, 2 from the regional chambers, 1 from the trade unions, 1 from the regional development agencies and 2 from the academic community. Its composition had a positive influence on the consensus building process and the applicability and wide dissemination of the programme and its objectives.

Cyprus was a late starter in launching a RIS3 process as it was only in February 2013, at a first national workshop, that the Commission (DG REGIO) presented to public the smart specialisation philosophy and external experts profiled the R&D and innovation situation and provided a review of potential sectors and activities. The RIS3 process was the responsibility of the Planning Bureau: the national authority for the implementation of EU Cohesion Policy and the managing authority for the operational programmes co-funded by the European Structural and Investment Funds (ESIF). It was implemented with the participation of four bodies/groups. The Governing Board (GB) is composed by representatives of stakeholders and constitutes the final decision forum and formation of a mutually accepted strategy and vision. The Monitoring Committee (MC) is a small flexible body that monitors the implementation of the study and takes "interim" decisions with regards to its evolution.

4. The Proposed Online S3 platform and its Governance module

A digital platform is defined as "a (technological) basis for delivering or aggregating services/content from service/content providers to end-users" [17]. Digital platforms are important to policy makers: The development of the platform economy puts pressure on the effectiveness of existing government policy for stimulating innovation and economic development and for safeguarding public interests. For these reasons, digital platforms currently are of particular interest to policy makers. They intend to understand the positive



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and negative impact these platforms may have on public interests in order to be able to determine if, how and when to intervene.

Some of the benefits of digital platforms are lower transactions costs and that enable users to express themselves and share information. On the other hand, there are also concerns raised in public debates about how platforms or users of digital platforms can and should comply with (existing) regulatory principles and frameworks.

A new digital, web based, environment is created in the ONLINE S3 project for the RIS3 strategies. The ONLINE S3 Platform aims to provide added value by offering online and freely available tools and services for each one of the proposed steps and tasks of the RIS3 methodology. The proposed web based environment is enriched with libraries, templates, score tables, and interactive tools for handling the huge amount of data needed during the establishment and monitoring RIS3, as well as for covering the communication, consultation and collaborative leading activities for a successful strategy. Circles of social networks will be developed for supporting the participation to open forums, consultation forums, archives of documents. Specific rights will be delivered to participants. The digital platform needs, though, its own governance and assessment, based on well-defined criteria for digital tools. Integrated to this web based environment will be an online tool that will support the governance dimension of the RIS3.

Science and technology interact with society in a complex way and their “effects” are often neither immediate nor direct, but of second or third order and occur after a substantial time delay [18]. Policy-makers cannot afford to wait until situations are clarified and until the effects are evident before they take decisions. Though tomorrow’s developments are uncertain they originate in conditions established today. Hence, there is an important need for policymakers to scope the impacts of science and technology and how they may develop [19]. Moreover, the growing knowledge-intensity, the pace of technological and societal change and the increasingly distributed and networked character of the economy and of governance processes cannot be explored using only technology-oriented future studies [20]; a more comprehensive approach is required.

Social media and online collaboration platforms today offer a number of advantages for fostering collective action over its “off-line” variants, including the fact that it is much easier to: discover and attract members with shared interests; exchange information; make group decisions at a larger scale; integrate individual contributions; supervise a group with less need for hierarchy; and manage group logistics due to elimination of time and space constraints. According to Dennis Linders, [21] these advantages can have an impact the government-citizen relationship in different ways. The advantages are in the relationships of Citizens to Government (C2G); Governments to Citizens (G2C) and Citizen to Citizen (C2C). The effects of these platforms can be identified in the execution of governments tasks and delivery of services consists of three groupings: the design of the initiatives, services and actions; the day to day execution and finally the monitoring and evaluation of the results.

Governments can use platforms in the relationship of C2G to adopt new models and service types used by innovative groups of citizens and entrepreneurs to address their main functions. In the second relation type G2C the use of web platforms can be used to service design so that governments inform & nudge their citizens to support their personal decisions. Tim O’ Reilly argues [22] that the Internet enables government to become “a stronger part of the social ecosystem”.



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The critical success factors of web platforms the support governmental functions can be inherited by government's roles and responsibilities. Governments need to perform the following roles: as framer; sponsor; mobilizer; monitor and provider of last resort. The web platforms need to support in innovative ways the execution of the above roles.

For digital platforms, important sources of market power are the direct and indirect network effects. Other characteristics that influence market power are economies of scale and the level of horizontal and vertical integration. An important characteristic in the analysis of digital platforms is the way the platform exploits network effects. Due to network effects, a platform becomes more attractive to consumers and to other users of the platform (such as advertisers or developers) if the total number of consumers grows.

The relation between the platform characteristics and public interests Relationship between platform characteristics and "competition and innovation". The first public interest in the framework is 'competition and innovation'.

Competition refers to interaction among market players that is driven by rivalry in which every actor tries to maximise its long-run profits.

Based on the Figure 1 [17] we can describe the RIS3 digital platform as a a) distributor and social network, b) with direct and indirect effects and horizontal integration, c) for competition and innovation and d) enforcing an existing network with new instruments.

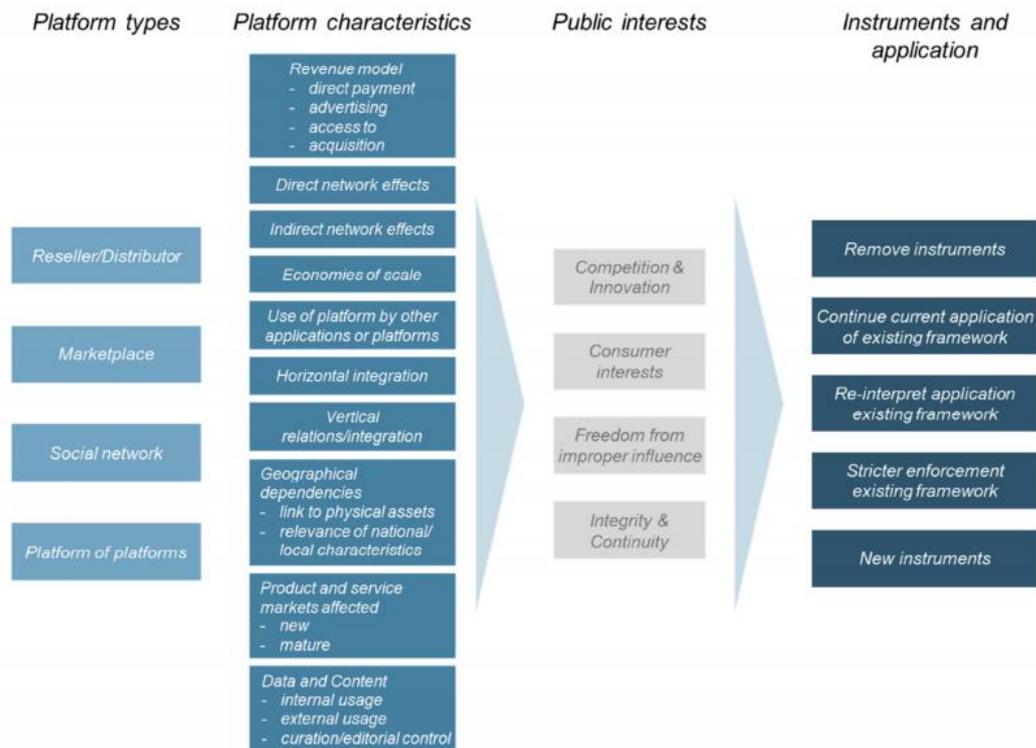


Figure 1 The analytical framework for digital platforms

The ONLINE S3 Platform for Smart Specialisation Policy Advice is an open environment where all the other systems and applications can cooperate. It has typical frontend



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features such as user authentication, administration management, and all data management features. It offers online services, tools and applications which support the design and implementation of RIS3. These online services complement the existing S3 Platform of the Joint Research Centre of the European Commission.

5. Conclusions and Further Research

Based on the examined cases, governance is considered as a critical factor for a successful implementation of the RIS3. Given emphasis to the innovation evolution of the selected areas a firm conclusion on the importance of the governance framework for a successful RIS strategy could be derived. Various reports have underlined that the major problem is not the lack of an appropriate policy-mix but the implementation and coordination of research and innovation policies.

The Basque country decided, at a very early stage, that a distributed but well-controlled governance scheme (through the President Department) will lead to measured and concrete results, and that was proved to be a successful decision. In other regions, especially with low scores on Innovation, a looser governance scheme, has been adopted that proved to be not able to support a definite development progress. (Kentriki Makedonia).

In addition, a peer review country report for Slovenia produced by ERAC, 2010 [23] is stated that “the future governance structure will be a key element in delivering an efficient national innovation system with a clear political direction and with stronger connections between the “innovation actors” working towards common and not competing aims”.

Thus, a RIS3 European centralised governance scheme, will enhance common concepts for all regions and support the weak regions to reach faster their goals. Further, the proposed ONLINE S3 set of tools and applications, that will be hosted under the ONLINE S3 Platform for Smart Specialisation Policy Advice can help the flexibility, applicability and transparency of all the procedures.

Further research is proposed to identify the adoption of the new platform not only by the regional authorities, but also by the society, since RIS3 is a bottom up participatory strategy.

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