



ISSN: 0965-4313 (Print) 1469-5944 (Online) Journal homepage: http://www.tandfonline.com/loi/ceps20

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To cite this article: Kevin Morgan (2016): Collective entrepreneurship: the Basque model of innovation, European Planning Studies, DOI: 10.1080/09654313.2016.1151483

To link to this article: http://dx.doi.org/10.1080/09654313.2016.1151483

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Published online: 23 Feb 2016.



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Collective entrepreneurship: the Basque model of innovation

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ABSTRACT

The Basque Country enjoys a distinctive status as an old industrial region that successfully met the economic challenges of the 1980s and 1990s, so much so that today it is lauded by the Organisation for Economic Cooperation and Development as a regional transformation success story. The article seeks to explain this experience and assess its implications in and beyond the Basque Country. Firstly, it defines the Basque model and traces its institutional evolution from the 1980s to the present day, highlighting the strengths and weaknesses of the model. Secondly, it examines how the Basque model is adjusting to and addressing the challenging agenda of smart specialization, the latest regional innovation programme in the European Union. Finally, it uses the Basque experience to illuminate four key issues in regional innovation policy studies, namely the balance between continuity and novelty, the policy complexity problem, the interplay between intra-regional and extra-regional learning and state-centric versus network-oriented approaches to place-based innovation.

ARTICLE HISTORY

Received 2 October 2015 Revised 1 February 2016 Accepted 1 February 2016

KEYWORDS

Basque Country; RIS3; entrepreneurship; innovation

1. Introduction

In regional development circles around the world, the Basque Country enjoys a distinctive status as an old industrial region that successfully negotiated the challenge of economic renewal to such an extent that it is now lauded by the Organisation for Economic Cooperation and Development (OECD) as a regional transformation success story. Economic renewal in the 1980s and 1990s was underwritten by a highly interventionist regional state and a dense ecosystem of supporting institutions that together helped to keep mature industries on an innovative footing. Although it is one of the smallest regions in Spain, accounting for less than 5% of the Spanish population, the Basque Country has become an international reference point in at least three respects. On the 'economic development' front, the famous Mondragon Cooperative Corporation is arguably the most iconic and successful example of cooperative enterprise anywhere in the world. In 'urban design' circles, the Guggenheim Museum is the centrepiece of an imaginative urban regeneration plan that stands comparison with anything in Europe. And, in the 'cultural sphere', the tenacious defence of the historic Basque language, Euskara, and the steadfast promotion of the Basque heritage have drawn worldwide attention to the resilience of a minority cultural identity (Ibarretxe, 2015).

Notwithstanding all these achievements, the big debate in the Basque Country today is about whether the model that met the challenges of the past is adaptive and dynamic enough to meet the challenges of the future. To explore this question, the article proceeds in the following way. Firstly, it outlines the Basque model of innovation – a model that can be characterized as 'collective entrepreneurship' in the sense that innovation is conceived by large swaths of public and private sector actors as a collaborative social endeavour rather than the product of 'heroic' entrepreneurial individuals. Secondly, it examines the Smart Specialization Strategy (S3) of the Basque Country and poses the question as to whether the traditional Basque model of innovation is sufficiently open and flexible to meet the 'implementation' challenge of smart specialization, a challenge which involves the twin tasks of building on the past and breaking with the past. Finally, the article explores the implications of the Basque experience for current debates in the field of regional innovation policy (RIP) studies, particularly with respect to (i) the balance between continuity and novelty in innovation policy, (ii) the policy complexity problem and its implications for policy evaluation, (iii) the interplay between intra-regional and extra-regional learning and (iv) state-centric versus network-oriented approaches to place-based innovation. The article concludes with a plea for the prosaic world of 'implementation' to be taken more seriously by theorists and policy-makers alike.

2. Past and present: the evolution of the Basque model of innovation

It is easy to forget what a bold and unfashionable strategy the Basques adopted in 1980, when the first democratic government of the post-Franco era assumed office. With the benefit of hindsight we can see that it was a sound strategy, but at the time it seemed somewhat old fashioned because it defied the conventional wisdom of the day. The ideological fashion in the early 1980s was coloured by the discourse of Reagan and Thatcher, who championed three mantras of neo-liberalism: (i) that manufacturing no longer mattered; (ii) that the new service economy would substitute for old industries and (iii) that the state sector was part of the problem and should be replaced, wherever possible, by the private sector through a combination of deregulation and privatization. The newly elected Basque Government - controlled then as now by the Partido Nacionalista Vasco (PNV), the moderate Basque Nationalist Party - designed an industrial development strategy that flew in the face of all three of these ideological fads. Faced with the decline of traditional industries like steel and shipbuilding, and concerned to redress burgeoning unemployment, the Basque Government determined to do two things - to modernize the manufacturing sector and to harness the power and resources of the newly founded regional state to underwrite the modernization programme for the sake of economic renewal and social solidarity (Cooke & Morgan, 1998; Valdaliso, 2015).

The guiding philosophy of the young Basque Government was said to be 'zapatero a tus zapatos' ('cobbler to your shoes'), which in the vernacular means 'stick to what you know best' (Ibarretxe, 2015). As the first Basque Minister for Industry said: 'the first thing we did with the traditional industry was to not let it die. The key issue was to keep on doing what we already did, but making it well'. This political commitment to endogenous development was driven by a combination of regional cultural values and economic necessity. The Basque Government was deeply committed to its industrial heritage because many of its politicians and officials were directly recruited from the traditional industries of

the region. But this cultural disposition was further reinforced by economic necessity: the Basque Country had a poor record of attracting inward investment for a whole series of reasons, not least because foreign investors recoiled from the violent campaign of Euskadi Ta Askatasuna. Unable to attract inward investment from abroad, the Basque Government was forced to rely on its own indigenous efforts (Cooke & Morgan, 1998).

The Basque economy in the 1980s was further handicapped by a weak university sector, which was poorly equipped to contribute to the process of regional industrial renewal. To overcome this weakness in the regional knowledge infrastructure, the Basque Government embarked on two major RIP initiatives – in the 1980s it helped to fashion a new 'knowl-edge transfer system' and in the 1990s it took the lead in creating 'cluster associations' to encourage firms to collaborate for mutually beneficial ends.

The knowledge transfer system was the result of heavy public investment in a network of Technology Centres in sectors that mirrored the specialisms of the regional economy and these centres rapidly developed a technology transfer capacity that aimed to cater to the needs of regional firms in the throes of incremental innovation and industrial upgrading.¹

To complement the knowledge transfer network, the Basque Government also took the lead in fashioning a series of cluster associations to encourage firms in key sectors to learn to collaborate, particularly with respect to technological innovation, skill formation and internationalization. Although traditional sectors (such as machine tools, domestic appliances and automotive) were the first to create cluster associations, the latter have spread to a dozen key sectors and account for nearly a third of gross value added and more than a quarter of total employment in the Basque Country (Etxabe & Valdaliso, 2013).

If the regional policy initiatives of the 1980s were designed to help Basque firms to refine their existing knowledge base ('doing things better'), the systemic changes introduced in and beyond the nineties were designed to generate new science-based knowledge ('doing better things') (see Navarro, Valdaliso, Aranguren, & Magro, 2014). Although these systemic changes took a number of forms, they were all addressed to the same end - to enhance the region's collective capacity to design and deliver a more knowledge-intensive economy by creating new decision-making structures at the political level and fashioning new centres of excellence at the operational level, all of which were introduced in 2007. At the political level the Basque Science, Technology and Innovation Council (STIC) was created and this is the supreme body for providing coordination and strategic direction to the Basque Science, Technology and Innovation System as it is officially called. At the operational level, the following institutional changes were introduced: 'Cooperative Research Centres' were created by the Department of Industry with a mandate to develop new sectors, such as bioscience, nano-science and renewable energy; 'Basic Excellence Research Centres' were created by the Department of Education to develop a basic research capability in association with universities and these focused on bio-physics, materials physics and climate change; the 'Basque Foundation for Science' ('Ikerbasque') was created with a mandate to recruit and retain scientific talent from around the world to strengthen the region's research base; and a dedicated regional innovation agency, 'Innobasque', was also created as a public-private association to promote innovation throughout Basque society in association with the business community and civil society organizations. Although this institutional reform was designed to update the Basque model, to help it address knowledge creation as well as technology transfer, it inadvertently exacerbated the burgeoning problem of institutional complexity because it introduced new agencies and centres into a regional system that was already one of the 'thickest' in Europe (Morgan, 2013a; Valdaliso, Magro, Navarro, Aranguren, & Wilson, 2014).

Having outlined the institutional landscape of the Basque model of innovation, what can we say about its strengths and weaknesses prior to the twin challenges of austerity and smart specialization? Although international observers consider the Basque Country to be 'a regional transformation success story' (OECD, 2011, p. 42), the Basque model of innovation faces severe challenges, economically, institutionally and politically. On the economic front, the main concerns relate to the fact that the region has specialized in sectors that are mature and vulnerable to low cost competition, while export markets and foreign investment have been biased to the 'comfort zone' of Latin America in the past, though the European Union (EU) currently accounts for the lion's share of Basque exports (Orkestra, 2013). On the institutional and political fronts, the Basque model faces four sets of challenges in terms of affordability, connectivity, variety and rivalry, each of which merits some attention.

2.1. Affordability

As we have seen, the Basque model of innovation was predicated on a regional innovation system that was at the 'thickest' end of the spectrum of institutional thickness in Europe. However, a system conceived in an age of plenty, when the Basque Government had the fiscal resources to match its fiscal powers, was rendered highly vulnerable to the financial crisis of 2008 and the deep recession that ensued. With the advent of the age of austerity, the Basque Government has found it increasingly difficult to sustain its highly expensive regional innovation system and this is one of the main reasons why it is being streamlined to render it less complex and more affordable (Morgan, 2013a).

2.2. Connectivity

Connectivity problems were also becoming more and more evident within the regional innovation system – between firms and the technology centres as well as among firms themselves – underlining the limits of the stereotype of the Basque Country as a cornucopia of collaboration. According to a recent review of Basque economic performance, 'the biggest problem of the innovation system refers to the lack of interaction and cooperation between the different agents' (Orkestra, 2013, p. 86).

2.3. Variety

The regional bias to mature sectors was one of the reasons why the Basque Government set such a high premium on diversifying into new science-based sectors, such as bioscience and nano-science. This strategy marks a decisive break with the traditional philosophy of 'zapatero a tus zapatos' because these science-based sectors signalled a bold strategy of new path creation, a strategy that some (foreign) regional policy experts had counselled against because the Basques had little or no indigenous supply-side capacity in these science-based sectors (Navarro, Aranguren, & Magro, 2011). As we will see in the following section, this science-based diversification strategy – designed to inject some knowledge-driven variety into the regional economy and fashion new growth sectors – is one

of the biggest gambles that the Basque Government has made in the design of its S3, not least because universities normally assume a leading role in the basic research process in these sectors and the Basque Country cannot boast strong universities.

2.4. Rivalry

Political rivalry has been a hallmark of the Basque Country throughout the post-Franco era because of the territorial tensions between the Basque Government and the three Provincial Governments (Alava, Bizcay and Gipuzkoa), all of which enjoy a good deal of fiscal autonomy. Although the OECD suggested that this multilevel polity could in principle afford unparalleled opportunities for local experimentation, it also recognized that it could also result in costly duplication because the Provinces deployed their resources in a parochial manner. Such rivalry prompted the OECD to say, somewhat diplomatically, that 'this competition may not always serve the best interests of the region' (OECD, 2011, p. 214). Political rivalry has also increased within the Basque Government itself following the creation in 2007 of 'Innobasque', a dedicated innovation agency, which reports directly to the Lehendakari, the Basque President. This has created new turf fights with the Society for the Promotion of Industry (SPRI), the regional development agency sponsored by the Department of Industry, the ministry that has historically controlled the RIP agenda, an agenda defined in narrow industrial terms. In contrast, 'Innobasque' has a mandate to address innovation in more capacious terms, including social and ecological innovation, and this mandate entails working with a wider group of stakeholders in the business and civil society sectors than the 'usual suspects' associated with the traditional industries (Morgan, 2013a).²

The combination of two very different pressures – the age of austerity and the challenge of smart specialization – persuaded the Basque Government that it was time to reform the institutional architecture of the innovation model in a systemic way.

3. Continuity in change: the 'practice' of smart specialization in the Basque Country

The Basque Government might claim to have been practising smart specialization in all but name for nearly 30 years in the sense that it conceived innovation as a collective social endeavour in which the regional state worked in concert with local industries to identify key priorities for investment. Although there is much truth to this claim, the demands of the S3 process are much more exacting than what the Basques have been doing for the past 30 years. The Basque Government finally admitted as much when it decided to overhaul its existing innovation plan (Society for the Promotion of Industry) and replace it sooner than expected with a new Science, Technology and Innovation Plan (PCTI Euskadi 2020), which explicitly embraced the S3 policy approach. The latter was originally set out in a schematic fashion by a group of experts under the auspices of the European Commission, which defined smart specialization as an integrated, placebased economic transformation agenda that involves five tasks: (i) to focus policy support and investments on key national/regional priorities; (ii) to build on the strengths of each country/region; (iii) to support technological as well as practice-based innovation; (iv) to involve stakeholders and encourage innovation and experimentation and (v) to provide an evidence base by having a sound monitoring and evaluation system (European Commission, 2012, p. 8). At this point it is worth asking: why does the European Commission's S3 policy agenda resonate so much in the Basque Country?

Successive Basque Governments, whether nationalist or socialist, have always attached a high priority to being good European citizens, evidenced by their strong and wellresourced presence in Brussels and by their track record of engaging early and robustly with new EU initiatives, especially with respect to Cohesion Policy and the Framework Funds for research and innovation. Although this is partly a way to express its political aspirations as a nation within Europe rather than a region in Spain, it also reflects a resolute commitment to RIP, a field in which the Basques have been one of the pioneers in Europe. These political and policy commitments help to explain why the Basque Country has taken the S3 agenda so seriously from the outset.

3.1. The Basque smart specialization plan

The Basque S3 plan has three dimensions, namely (i) the reform of the STI governance system; (ii) the identification of three strategic thematic priorities along with new opportunity niches and (iii) the restructuring of the Basque Science, Technology and Innovation Network (STIN) to ensure a better alignment between design and delivery.

3.1.1. Reforming the STI governance system

The Basque STI strategy is governed by the STIC, a body that was originally created in 2007 to provide a more strategic direction to the regional innovation strategy as it evolved to embrace knowledge creation as well as technology transfer activities. Early in the S3 planning process in 2013, the decision was taken to reform and expand the Basque Council 'to make it more plural and enriching' according to the government (Gobierno Vasco, 2014, p. 13). With its new membership the Council now consists of the Basque Government, the Provincial Councils, the three universities of the Basque University System (Universidad del Pais Vasco/Euskal Herriko Unibertsitatea, Deusto and Mondragon), the two technological corporations Tecnalia and IK4, four research-intensive private companies, Ikerbasque, Innobasque, and Jakiunde, the Basque Academy of Sciences, Arts and Letters. Although this new membership base signals a laudable desire to be as inclusive as possible, it also creates more complexity and a more protracted decision-making process. A less noted aspect of the reform was that it confirmed the privileged role of Innobasque in supplying the technical secretariat to the STI Commissioner, a newly created post that was filled by the Secretary General of the Presidency, who runs the President's Office and who is expected to expedite the business of the Council and ensure that turf fights are kept to a minimum. Some political insiders thought these moves were designed to pluralize the S3 process by tempering the power of the Department of Industry, which was given the task of defining the S3 strategy when it first began in June 2013. The most tangible sign that the power of the Department of Industry has been tempered is the fact that the STI Commissioner has been put in charge of the S3 implementation process.³

3.1.2. The S3 strategic priorities

As with so many other regions, the Basque Country did not design its S3 plan from scratch, beginning with a tabula rasa. Rather it built on what it had been doing in the

recent past, but aligning it with the requirements of the S3 process, an iterative and pragmatic exercise that involved both continuity and novelty (Morgan, 2013a). A perfect example of this path-dependent process was the process through which the key priority sectors were selected. Strictly speaking the Research and Innovation for Smart Specialisation Strategies (RIS3) Guide suggested that regional priorities should be selected through an entrepreneurial discovery process in which all the key stakeholders collectively search for and agree on the strategic priorities for investment (Foray et al., 2012). However, in the Basque case, as in most other regions, the strategic priorities were to a large extent inherited from an earlier STI strategy, which identified advanced manufacturing, energy and biosciences/health as the key sectors or domains in which to focus the region's R&D resources. These strategic priorities were supplemented by four 'niches of opportunity' in the following areas: (i) sustainable agrifood products; (ii) regional planning and urban regeneration; (iii) leisure, entertainment and culture and (iv) ecosystem services (Gobierno Vasco, 2014).

The strategic priority sectors were selected on the basis of three criteria, namely the sector's combined capacity for research, innovation and productive potential, although these criteria vary a lot between the strategic priorities as we will see.

Advanced manufacturing is more a public policy platform than a discrete sector or a cluster because it aims to focus the region's R&D on a wide array of industries, including transport-related sectors (automotive, aerospace, rail and shipping), machine tools and metal manufacturing. The energy priority aims to focus R&D efforts throughout the various stages of the value chain – generation, transport, storage and distribution – with applications in all the energy sources in which the Basque Country has a strong presence, such as electricity, oil, gas and renewable energy. The biosciences and health priority is a bold and high risk choice because, in contrast to the other two priorities, which effectively selected themselves due to their weight in the regional economy, it is an emergent rather than an established sector. In the Basque Country the biosciences are concentrated in the health sector and to a lesser extent in the food, agrochemicals and natural ecosystems. The great novelty of the Basque bioscience priority is that it seeks to harness the strength of a strong public health service to catalyse the development of a private bioscience sector. However, the common denominator running through all the three strategic priorities is the extensive involvement of the public sector.

3.1.3. Restructuring the Basque STIN

The STIN is the most tangible manifestation of the collective entrepreneurship ethos of the Basque Country, the technology transfer infrastructure that helped the regional economy to meet the restructuring challenge of the 1980s and 1990s. Over the past 30 years however, the STIN has become an ever larger and ever more complex entity as we saw earlier, so much so that the number of agents in the network had increased to as many as 153 by 2013 (Valdaliso et al., 2014). The Basque Government recognized that the STIN needed to be radically reformed if it was to rise to the S3 challenge. The chapter on institutional innovation in 'Euskadi 2020' makes this abundantly clear at the very outset, saying: 'The transformation of the innovation model that this plan includes involves evolution towards a model based on the creation and exploitation of new knowl-edge' (Gobierno Vasco, 2014, p. 83). To this end, the reforms were designed to achieve the following:

• to place each agent in the best position to maximize the level of complementarity and coherence of the whole;

 to increase efficiency and add value to the productive and social fabric of the Basque Country;

• to address weaknesses resulting from the high density of agents;

• to give public visibility to all agents that make up the network, so that they are publicly known and recognized. (Gobierno Vasco, 2014, p. 83)

These changes signal one of the most radical restructurings of the Basque STIN ever undertaken. In addition to the above aims, the reforms were designed to create a new institutional map in which the number of agents would be reduced and all agents would be held to account by a more exacting series of performance indicators, the most important of which are the degree of R&D activity aligned with the strategic priorities and the level of collaboration with local *and* international actors.

Although regions were required to explore the potential of cross-border synergies when designing their S3 plans – as recommended by the RIS3 Guide – the truth of the matter is that the Basque Country took absolutely no account of the plans of other regions, even of neighbouring regions like Navarre, which was also trying to develop a bioscience cluster. As a result, it has been suggested that a 'macro-bioregion' may have to be fashioned in the future (involving the Basque Country, Navarre and Acquitaine, for example) because each region lacks the critical mass to go it alone (Orkestra, 2015). This raises the question of inter-regional learning and collaboration, a question addressed in the final section.

3.2. The first phase of implementation

The Basque Country had designed and approved the broad outline of its S3 plan by the end of 2014 and the institutional architecture for the first phase of implementation was scheduled to be in place by the end of the following year. Expediting the S3 process so swiftly reflects the strong political commitment of the Basque Government to smart specialization as well as its professional competence in the field of RIP design. However, one of the downsides of this expeditious process is that it suggests that 'insiders' were in the driving seat, while 'outsiders' had little or no chance to shape the strategic priorities, all of which were inherited from an earlier STI strategy as we have seen. But having said that, the three strategic priorities are capacious enough to accommodate insider/ incumbents and outsider/new entrants – affording opportunities for continuity and novelty – because at least half a dozen technology domains have been identified under each strategic priority (Gobierno Vasco, 2015).

In the first phase of the implementation process, the key challenges revolve around two 'governance' questions – the governance of the S3 process at a 'political' level and the governance of the strategic priorities at an 'operational' level.

At the political level, the main question concerns the efficacy of the STI governance system. Formally speaking, the STIC is the supreme authority, but it faces two immediate problems: (i) it is far removed from the operational realities of the S3 process on the ground and therefore it needs to devolve more authority to the agents (like firms cluster associations) that have the expertise to combine technical and commercial knowl-edge in the 'entrepreneurial discovery process' that lies at the heart of the S3 approach to place-based innovation; and (ii) it is still not clear how and to what extent the new

institutional arrangements have addressed the turf conflicts within the Council, especially as between departments within the Basque Government and between the latter and the Provincial Councils.

The Basque Government hopes the first problem will be resolved by creating a 'living' S3 process in which the strategic priorities will be refined into more granular projects through a participatory process in which the agents of the quadruple helix – companies, researchers, governments and civil society organizations - will collaborate in what the Basque Government calls 'Entrepreneurial Discovery Spaces' (Gobierno Vasco, 2014, p. 53). As regards the second problem, the Basque Government believes that turf fights within its ranks will be resolved in and through the new Inter-Departmental Committee that has been created to coordinate the contributions of each department, a Committee that will report to and be supervised by the newly created post of Commissioner for Science, Technology and Innovation. To ensure that the Commissioner has sufficient political weight, the new post has been initially allocated to the Secretary General of the Presidency, Mr Jesus Pena, one of the most powerful and influential figures in the Basque Country, and he will be supported by Innobasque, which will supply the technical expertise to monitor the implementation process. Time alone will tell if the Commissioner has the capacity to be the S3 'tsar' of the Basque Country, which is what the post effectively implies.

Alongside the political challenge, there is the operational challenge of creating wholly new fora to facilitate the entrepreneurial discovery process, the Entrepreneurial Discovery Spaces (EDSs), which are designed to be operational conduits of the 'living' S3 process. The regional partners have agreed that each strategic priority will have its own EDS and the operational agenda will be the same for each priority, namely:

- to refine existing strategies and establish the main working themes that are appropriate to the nuances of advanced manufacturing, energy and biosciences applied to health;
- to identify and map the main projects for each working theme in as granular a manner as possible;
- establish the strategies for the opportunity niches and
- identify and catalyse new collaborative pilot projects.

In the first phase of implementation, the focus will be exclusively on the three strategic priorities, leaving the opportunity niches for the second phase. Each strategic priority will be managed by a central working group that will be in post for the whole 2015–2020 programming period, consisting of the quadruple helix partners and chaired by the most relevant department of the Basque Government. In advanced manufacturing, for example, the EDS will be chaired by the Industry Department, assisted by SPRI, and the membership will include several leading companies, three cluster associations and Innobasque. While cluster associations will contribute to these new spaces of collaboration, through the core working groups, the new spaces are not based on the clusters, signalling a major change in the institutional framework for inter-organizational leaning and innovation.

Each EDS will have to be unique because the three strategic priority sectors are so different, the two extremes being advanced manufacturing and biosciences/health. While advanced manufacturing has a long-established lineage in the regional economy,

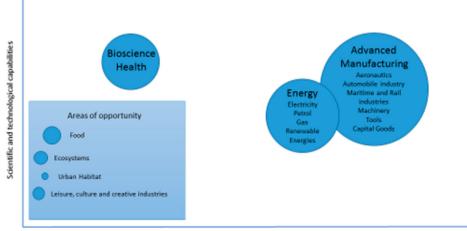
with a well-balanced business and technological capacity, the biosciences/health priority is relatively weak with respect to its business and technological capacity, though it has an emergent scientific capacity. The relative positions of the three S3 priorities with respect to commercial and science-technological capacity are illustrated in Figure 1.

For all their differences, the strategic priority sectors face some common problems according to Orkestra, the Basque Institute of Competitiveness, which has identified three generic problems. Firstly, these local experts argue that 'the biggest problem of the innovation system refers to the lack of interaction and cooperation between the different agents' (Orkestra, 2013, p. 86). Although this assessment clearly predates the Basque S3 plan, the problem is unlikely to have been solved so quickly, though the restructuring of the STI network was designed to address the lack of interaction as a matter of urgency.

Secondly, Orkestra argues that 'it is necessary to work on building new governance and innovation models in the public administration' (Orkestra, 2015, p. 15). While this problem may seem far removed from the operational world of implementation, nothing could be further from the truth because one of the symptoms of this problem is a tendency to neglect the 'demand side' in the policy design process, which is due in part to the tenacity of the 'linear model' of innovation policy. Orkestra argues that

huge amounts of resources are often poured into the design of a strategy without stopping to consider the policies and programmes (from the government) and actions (from the perspective of stakeholders) that will enable it to be put into practice. (Orkestra, 2015, p. 138)

The third generic problem is 'to move from a government strategy to a shared strategy for the Basque Country' (Orkestra, 2015, p. 137). What the researchers are referring to here is the need to effect a transition from a 'plan-based' policy paradigm, where plans are designed and delivered in a linear fashion and tightly controlled from above by the



Entrepreneurial capabilities

Figure 1. The commercial and technological status of the Basque priorities. Source: Gobierno Vasco (2014).

Basque Government, to a 'process-driven' policy paradigm, in which leadership can be assumed by different regional partners at different stages of the S3 process rather than being forever concentrated in one agent, in this case the Basque Government. Given all the imponderables involved in the S3 implementation process, a state-centric and planbased approach is the least likely to be successful. The precise form of S3 leadership will always depend on the specific context – of the region and the stage of the S3 cycle – and on finding 'the right *leadership mix* for that context' (Aranguren, Navarro, & Wilson, 2014, p. 20).

The Basque Government might reasonably respond to some of these criticisms by pointing to the new incentives and sanctions in its S3 plan which are designed to encourage greater inter-organizational collaboration at both intra-regional and extra-regional levels. At the intra-regional level, the restructuring of the Basque STIN has introduced a system of performance indicators, the likes of which have never been seen before, along with a monitoring and evaluation system that has been absent in the past.

At the extra-regional level, the Basque Government can legitimately claim to have been one of the most proactive regional governments in Europe in the Vanguard Initiative. Launched in 2014 the Vanguard Initiative is an alliance of regions that is politically and operationally committed to the creation of smart specialization platforms through which their members can collaborate and launch innovations at scale. The Basque Country is already playing a leading role in the Advanced Manufacturing pilot project, which involves a dozen of the most advanced regions in Europe in this field. Collaborating in such transregional fora enables the Basque Country to benchmark its firms and STI agents in a wider and more cosmopolitan context than has ever occurred in the past. In short, the S3 process has catalysed the Basque Government into doing better things rather than just doing things better; that is to say, it is seeking to explore new ways of working rather than refining old ways. But these are early days in the implementation phase of S3 and, therefore, it is wholly premature to draw firm conclusions about the balance between continuity and novelty in the evolution of the Basque model of innovation.

4. Conclusions and implications (for RIP studies)

From a RIP perspective, the Basque Country presents a highly instructive case study of an old industrial region that has successfully reinvented itself in the recent past and is seeking to do so again in the new world of smart specialization. The institutional and political dynamics of this particular S3 process resonate beyond the region and in this final section, I want to suggest that the Basque experience can shed some light on four key issues in the RIP debate, namely (i) the balance between continuity and novelty in innovation policy, (ii) the policy complexity problem, (iii) the interplay between intra-regional and extra-regional learning and (iv) state-centric versus network-oriented approaches to place-based innovation.

4.1. Continuity/novelty

Although the path dependence literature tends to focus on technologies, firms and old industrial regions, the concept of path dependence is equally applicable to political institutions and public policy (Morgan, 2013b). In the public policy arena, there is a

presumption that path dependence is a largely negative phenomenon because most studies tend to emphasize what has been called its 'dark side', that is to say, the negative dimensions which may include policy inertia or policy capture, etc. But this unwarranted bias has been challenged by researchers at Lund University who have sought to establish a more judicious conception of policy path dependence, arguing that 'a balance of policy change and policy stability is required for nurturing and maintaining new industrial growth paths' (Moodysson, Trippl, & Zukauskaite 2015, p. 16). Here it is fair to say that the Basque Country has made great efforts to strike a balance between stability/continuity and change/novelty over the course of the past 30 years. The most important source of stability/continuity has been the sustained 'political' commitment to a RIP that enjoyed the support of nationalists and socialists alike, a policy consensus that was reinforced by the fact that the nationalist PNV has been in office for most of the time since 1980. But another source of stability/continuity can be discerned at the 'operational' level, where the Basque STIN furnished a stable and predictable institutional landscape that helped to keep firms abreast of commercial and technological change. However, there comes a point when stability and continuity have an ossifying effect, which is why the network had to be restructured to meet the challenges of the S3 era.

As regards change/novelty, the Basque Government can fairly claim to have played a major role in introducing new initiatives – with respect to new sectors like biotech and nano-tech; new innovation and talent-related agencies like Innobasque and Ikerbasque; new research centres like Basque Excellence Research Centres and Cooperative Research Centres; and new deliberative spaces for inter-firm collaboration like Cluster Associations and EDSs. Indeed, the criticism levelled at the Basque Government is not that it failed to introduce change/novelty, but that its policy initiatives have been compromised by a disjuncture between supply and demand in the policy design process because demand-side measures have received much less prominence than supply-side measures (Morgan, in press).

4.2. Policy complexity

One of the inadvertent side effects of introducing change/novelty into the Basque STIN is that it exacerbated the density and complexity of the system. The addition or layering of new actors and new roles creates an ever-growing demand for stronger 'coordination mechanisms' or 'better governance systems' because it is always easier to add new agents than to eliminate ones that have become institutionally embedded. This has led innovation policy scholars to a sobering observation:

The absurd – but logical – outcome of seeking to manage complexity with new coordination mechanisms is that additional coordination mechanisms will periodically have to be introduced to coordinate the older ones and so on and so forth in a potentially infinite regress. (Flanagan, Uyarra, & Laranja, 2011, p. 710)

The complexity of the Basque S3 plan raises questions about the effectiveness of the proposed coordination mechanisms within the Basque Government, where a newly created Inter-Departmental Committee is expected to resolve all the tensions and turf fights between departments and their sponsored agencies, a tall order at the best of times. Policy complexity also compounds the task of evaluating the efficacy of regional policy - the perennial problem of ascertaining what works where and why. Although this has been a major problem in the Basque Country, which has traditionally underinvested in monitoring and evaluation systems, it is also a burgeoning problem throughout the EU, where the multilevel polity makes it difficult, if not impossible, to attribute success or failure to a particular level of the European polity. This is a key challenge for EU Cohesion Policy in general because, after 25 years of implementing regional policy, 'the evidence for its effectiveness is so inconclusive' (Bachtler, Begg, Charles, & Polverari, 2015).

4.3. Regional learning and collaboration

Although the official ethos of the Basque model is 'collective entrepreneurship' - where public and private sectors work in concert to achieve mutually beneficial ends and where firms are encouraged to explore joint solutions to common problems - the reality needs to be distinguished from the stereotype. Few regions have invested more effort, or indeed more resources, in crafting a regionally based innovation ecosystem to nurture collaborative learning than the Basque Country, a model predicated on the presumed economic benefits of physical proximity and regional collaboration. While this resonates with traditional thinking about RIP, the latter needs to shed some of its unwarranted assumptions, one of which is 'the assumed associational and collaborative attributes of the region, ignoring the complex and long-term dynamics of institutional building and the influence of power-dependence relations' (Uyarra, 2008, p. 256). The RIP literature also needs to transcend the binaries that have blighted previous efforts to understand the socio-spatial dynamics of collaborative learning – binaries such as physical versus relational proximity, tacit versus codified knowledge, local buzz versus global pipelines and specialization versus diversification. It has been convincingly argued that what is needed now is a more heterogeneous lexicon to better understand different types of knowing in action as situated social practice. If the spatialities of collaborative learning are more variegated than we once imagined, then it is time to recognize that:

the question that needs to be asked is not whether relational space substitutes territorial space, but whether the quality, intensity and duration of nodal practices promises potential for repetition, accumulation, and local spillover. This requires attending to the interplay between network space, territorial space and corporate space in a given location and explanation of why the interplay produces outcomes of varying local returns. (Amin & Roberts, 2008, p. 366)

This heterodox conception carries important implications for the design of regional innovation policies, particularly for designs that privilege *intra*-regional learning to the detriment of extra-regional learning. For much of the time the Basque Government could be fairly charged with what we might call 'policy parochialism' in the sense that it was too regionally bounded in its conception of how firms learn and with whom they collaborate to do so.⁴ Research on knowledge networks has demonstrated that both sources of collaborative learning are important, though their relative importance will depend on the regional context, the position in global value chains and the knowledge base of the actors involved; indeed, some researchers have suggested that local learning is associated with incremental innovation, while non-local learning is correlated with path-breaking innovation (Amin & Cohendet, 1999). Research on related variety suggests that the long-term development of a regional economy depends on its ability to diversify into new activities and sectors whilst building on its existing knowledge base, a process that in turn depends on the strength of knowledge spillovers between different sectors within the region. To be effective, however, knowledge exchange presupposes that the 'cognitive' proximity of the actors is neither too large nor too small: if it is too large (because of regional diversity), there will be no basis for engagement; but if it is too small (because of regional specialization), there will be no scope for learning because of the lack of diversity (Boschma, 2005, 2008).

From a regional policy perspective, perhaps the key point to emerge from recent research on knowledge networks and related variety is that effective knowledge exchange requires firms to be 'connected' rather than simply co-located, and this assumes that they can access both intra-regional and extra-regional sources of learning and that they also have the absorptive capacity to valorize such knowledge.

4.4. RIP repertoires

The subnational 'political' context remains a much-neglected theme in RIP studies, which is a surprising lacuna when one considers that the politics of the region and the policy repertoires of the regional state can frustrate the best laid plans. RIP repertoires come in many shapes and sizes, ranging from the state-centric at one end of the spectrum to network oriented at the other. A RIP repertoire has been defined as

an assemblage of cognitive processes, policies and practices that is routinely used to frame and foster a particular model of regional development and it is shaped by an inherited 'artifactual structure', which consists of the accumulated beliefs, institutions, instruments and technologies that condition the choices of agents. (Morgan, in press)

As they are more deeply embedded in the institutional culture of the region, policy repertoires tend to be much more durable than a mere 'policy mix', which can be influenced by passing fads and fashions. In recent years, national and supranational policy-makers in the EU have been forced to engage with problematical regional policy repertoires because of the opportunity costs of poor public administration, the source of a whole series of problems ranging from ineffective project management to outright corruption. For these reasons a growing emphasis is being placed on regional institutional reform, so much so that measures to reduce rent-seeking and combat corruption are now treated as 'de facto innovation policies' for EU regions, especially in the European periphery (Rodriguez-Pose & Di Cataldo, 2015). Seasoned policy-makers are also calling for a step change in public sector innovation to fashion a more dynamic and more entrepreneurial state (Landabaso, 2014; Mulgan, 2014).

The Basque Country scores well on most quality of government indicators (Charron, Dijkstra, & Lapuente, 2014), a testament to the calibre and probity of its public officials and a reflection of a regional culture that has a low threshold for corruption by Spanish standards. Although it sits at the apex of a strong and pervasive regional state system, the Basque Government is very far removed from the most problematical category of RIP repertoires that score high on state-centricity and low on state competence. One of the notable features of the Basque RIP repertoire is that the regional state has been pervasive but not invasive. That is to say, it has respected the principle of 'subsidiarity', allowing firms, cluster associations and other STI agents to play a major role in its regional initiatives even when public funding has underwritten the activity. To this extent, we can say that the Basque RIP repertoire is more closely aligned with the network-oriented approach than the statecentric approach, where the state plays a domineering role in the proceedings.

However, the binary characterization of policy repertoires in terms of state-centric versus network oriented is far too static to do justice to the nuances and complexities of an evolutionary policy process that involves both continuity and novelty. A more nuanced interpretation of the Basque innovation policy repertoire would seem to suggest that the Basque Government is politically disposed to retain tight control of 'new' regional innovation initiatives and inclined to cede control when such initiatives have gained some traction in the situated social practices of the regional agents. In short, the policy repertoire cleaves to the state-centric end of the spectrum in the context of novelty and becomes more network-centric when the initiative becomes more firmly embedded in the ecosystem. This interpretation is consistent with the findings of researchers at Orkestra, who argue that the Basque Government has been extremely reluctant to cede control of the S3 planning process in the early stages even though the Basque Country has the potential for a much more collaborative and distributed form of leadership in the form of clusters and cluster associations (Aranguren et al., 2014).

For all its achievements, the Basque Country faces a dual challenge: it needs to reform its model of innovation (to render it more genuinely collaborative in intra-regional and extra-regional terms) and it needs to reinvent its system of governance (to render it less state-centric in the face of novelty and more network oriented). The S3 process offers a unique opportunity of addressing both challenges at the same time because, through its emphasis on monitoring, evaluation and feedback, it can catalyse the regional ecosystem into being more responsive to the 'demand side' of the economy. It can also help to fashion a state that is less fearful of ceding control of a strategy that ought to be collectively owned by regional stakeholders – not the jealously guarded property of the Basque Government.

On a broader front, the evidence from the early days of S3 implementation elsewhere in Europe suggests that public sector innovations in governance are beginning to emerge in certain regions and such changes may be the harbingers of more inclusive policy-making processes (Kroll, 2015). On the other hand, the implementation process leaves a great deal of scope for vested interests and old habits to reassert themselves, which was one of the fears of the European Commission once a region's S3 plans had been formally approved.

What this means is that policy-makers and theorists need to pay far more attention to the prosaic and contested world of 'implementation', a world that has been downplayed and devalued in innovation policy studies as well as in critical policy analysis (Barrett, 2004; Flanagan et al., 2011). Just as policy-makers tend to privilege policy design over policy delivery, the academy seems to reciprocate the habit by being curiously coy about engaging with the protean world of implementation – and this despite the wellknown disjuncture between policy intentions and policy outcomes that can scupper the best laid plans. But this unwarranted bias against practice may be about to change for two very different reasons. Firstly, innovation policy is evolving into a more real-time process, where the distinction between design and delivery will be less pronounced because of the need for continuous feedback and regular pivoting, relegating the linear model of innovation policy (based on the silo worlds of design-delivery-evaluation) to the sidelines where it belongs. Secondly, the age of austerity has triggered systemic pressures to ensure that the public purse generates more public value, which means that the prosaic world of implementation will no longer be the poor relation of innovation policy studies.

Acknowledgements

I would like to thank the following for comments on an earlier version of the article and/or for discussions about the history of regional innovation policy in the Basque Country: Marijo Aranguren, Gorka Espiau, Juan Jose Ibarretxe, Mikel Landabaso, Edurne Magro, Mikel Navarro, Cristina Oyon, Carlos Pena and James Wilson. I would also like to thank Elvira Uyarra for hosting the 'RSA Conference on Regional Innovation Policy Dynamics' at Manchester University (23–24 September 2013) where some of the arguments of the article were first presented. None of the aforementioned is responsible for the views expressed in this article.

Disclosure statement

No potential conflict of interest was reported by the author.

Notes

- 1. Until the financial crisis hit in 2007–2008, successive Basque Governments were able to draw on a highly devolved and extremely favourable fiscal settlement in which they even raised their own taxes. This fiscal settlement enabled Basque Governments to invest in a publicly funded regional innovation ecosystem, at the heart of which was the network of Technological Centres (see OECD, 2011).
- 2. The Department of Industry has traditionally been the most powerful department within the Basque Government. Under the current government, its name has been changed to the Department of Economic Development and Competitiveness. For the sake of consistency and clarity, I use its original name throughout this article.
- 3. Although the Commissioner has nominal control of the Basque S3 strategy, his power is compromised in practice by the fact that it is a part-time responsibility as his other duties include running the presidential office.
- 4. This is not to deny that the Basque Government has sought to benefit from international experience at many points in its history. For example, its regional development agency, SPRI, was inspired by the Scottish and Welsh Development Agencies; the Technological Centres were inspired by the Fraunhofer model in Germany and the Cluster Policy was inspired by and designed in association with Michael Porter. I am grateful to an anonymous referee for some of these examples.

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