

UNIVERSITIES IN INNOVATION POLICY-DESIGN:

A Review of the Participation of External Actors in the Policy Process for the Creation of Public Value

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INTRODUCTION

Universities are perhaps as distanced today from the notion of the ivory tower as they were believed to be from social reality in the past. In a time where higher education institutions are acclaimed as central actors in the development and innovation dynamics of their region, universities are progressively stepping out of their isolated pinnacles into foreign institutional realms. In the literature, this is theorised as the second academic revolution (Etzkowitz, 1990), which spurred the addition of a mission of regional engagement to the university's traditional functions of teaching and research. At their core, universities produce and disseminate a crucial ingredient of competitive economic and development dynamics – scientific and technological knowledge (Gunasekara, 2006a). By further creating and strengthening links of cooperation with a multitude of actors, they have the possibility of shaping economic development and even successfully influencing regional policies, becoming “primary institutional spheres in economic regulation, alongside industry and the state” (Gunasekara, 2006a, p. 6). The potential and relevance of university's activities to other spheres, heightened by this interactivity, can consequently benefit innovation processes (Edquist, 1997).

The triptych of university, industry and state has been consistently figured in the conceptualisation of regional development and, particularly, innovation systems. Originating from List's (2011) ‘National System of Political Economy’, first published in 1841, and developed by Lundvall (2010) and Cooke (1992) on a national and regional level respectively, the concept of innovation systems considered universities as endogenous to economic production dynamics and emphasised the territorial knowledge spillovers that originate from their activities. Famous works touching upon these networks of actors include the Triple Helix Model (THM) (Etzkowitz & Leydesdorff, 1997), and the Mode 3 conceptualisation (Carayannis & Campbell, 2009). However, while having illustrated the link between universities and the state, industrial partnerships have garnered more attention in these and other academic studies, with few comprehensive explorations of the progressively more important role of higher education institutions in the policy arena.

Public policy today is increasingly faced with a more complex and interconnected web of actors. This is especially evident in the realm of innovation policies, where growing expectations in regards to economic development and ‘grand challenges’ are paradoxically concomitant with an awareness of the growing complexities and multidimensions of policy-making (Uyarra, 2010). Science has made its way onto the policy arena through the use of statistical instruments, economic models and devised measures that ushered in a modernised era of more rational and efficient decision-making and planning (Arbo & Benneworth, 2007). Presently, more policies are based on academic concepts, with the paradigmatic example of the THM, and EU's cohesion policy with its more recent smart specialisation strategy (S³), theorised by the Swiss Dominique Foray and other researchers of the “Knowledge for Growth” expert group (Foray, David, & Hall, 2011, 2009).



Universities, within the framework of the third mission, have thus been able to reach out to other spheres, occupy spaces of governance and exert agency in regional planning. Some studies have identified this intensifying link with the government and the consequent shaping of policies (Gunasekara, 2006c; Rodrigues & Melo, 2013). That is why a closer look at the roots of this linkage in public participation and planning theory may be so interesting to analyse. A review of some current underpinnings of participation in public policy will form the first chapter, namely on the importance of the involvement of external stakeholders in the process. This is followed by a consideration of universities as institutions that bring a crucial advantage through their expert knowledge to policy-design, analysing their role in development and innovation initiatives and the support they may bring to the creation of more informed policies. Lastly, this will be exemplified through cases from the literature, namely Rodrigues and Melo's (2013) work on local policy experiences with the academic model of the triple helix, the unique characterisation of the S^3 and its application in the same region, and Gunasekara's (2006c) analyses on universities' role in promoting associative governance approaches. Conclusions point to the increased relevance of universities in the discourse and practice of policy-making bodies. More work, nonetheless, should be done in regards to the different forms and aspects of this participation, as few in the literature explore this dynamic in detail.

LOGIC OF PARTICIPATION IN PUBLIC POLICY

Understanding how and in what measure scientific knowledge and research results contribute to public policy, it is necessary to assert how one defines this process. A field of study on its own, public policy still lacks an agreed and concrete definition, and two contrasting approaches may be identified in the present context of this paper. Easton (1953), the main precursor of systems' theory in political science, displayed a more institutionalist view of policy-making and policy formulation processes, defining public policy as the allocation of values to society through explicit, authoritative decisions by public officials. Others after him have tried to include in this definition the important variable of public interest and the intrinsic future-orientation of policies. This would translate in the values, opinions and actions that strongly influence the more general political process, steering it in certain directions. As an example, Anderson (1979) describes public policy as “a purposive course of action followed by government in dealing with some topic or matter of public concern”; Cochran and Malone (1995) as “political decisions for implementing programs to achieve societal goals”. Interestingly enough, public policy does not have to consist only of formal enactments and prescriptions of desired action. The impact of research results is seen differently in both approaches: in the first one it tends to be evaluated by its direct effect on decisions, while in the second the potential research has to shape political debate and action is taken into account when evaluating its ‘performance’ (Almeida & Báscolo, 2006). As Dye (1992) states, public policy can be “whatever governments choose to do or not to do”, as a clear omission of will or the lack of action on a matter indicates a choice in itself.

If there is one consensual definition on public policy, however, is that it is *public*, as it affects a greater number of people than private law (Birkland, 2010). In constitutional systems based in *classic liberalism*, the public is also the source of authority, granting legitimacy to the decisions made in the governmental, policy-making bodies through a social contract. Therefore, matters of governance and public policy should take into account public interest, and the good of society. Democratic systems foresee the importance of channelling these public interests in citizens' direct or indirect participation in the design and implementation of laws and policies through elected representatives. Consequently, public participation is one of the systems' fundamental principles in the relationship between the government and the governed (Jacobs, Cook, & Carpini, 2009; Roberts, 2004; Bryson, Quick, Slotterback, & Crosby, 2012).

Nevertheless, as Quick & Bryson (2016) highlight, current dynamics of participation are not limited to representative restrictions. In a governance framework, where all processes of management of collective interests and decision-making are encompassed, public participation is operationalised in a broader context than the above-mentioned relationship (Bevir, 2013; Kooiman, 2003; Quick & Bryson, 2016). Instead, it transpires in a wide range of ever-changing networks of public agencies, non-governmental organisations, businesses and other entities, such as universities (Agranoff, 2007;

Goldsmith & Eggers, 2005; Provan & Kenis, 2008). Its increasingly diffused character has made governance move beyond the traditional spaces of government, posing the need for a change in the scope of public participation itself (Bryson, Crosby, & Bloomberg, 2014; Morgan & Cook, 2014; Osborne, 2010).

Public participation in governance comprises the engagement of concerned stakeholders in the decision-making process. This involvement regards policies, plans or programs that may affect them, and can be either direct or indirect, through representatives, and punctual or continuous (Quick & Bryson, 2016). Here, stakeholders refer to individual or collective entities such as persons, groups or organisations, which may be implicated and/or exert their influence in the decisions being taken (Freeman, 2010). Through this form of public participation, links are established between several entities, with stakeholders interacting with not only government agencies and political leaders, but also between themselves, enabling the formation of a governance network with a diverse range of expertise.

The main purposes for public participation include: abiding to standards and legal requirements, expressing democratic ideals of inclusion and representation, advancing social justice causes, providing information to the public, better understand public concerns to generate better solutions, and producing higher quality policies and projects (Bryson et al., 2012). Even though public participation requires a lot of resources, time and training for its effective implementation, its potential benefits are well established (Feldman & Quick, 2009; Roberts, 2004). As mentioned, one of the major advantages is the possibility to gather new, hands-on information, as well as acquiring different perspectives and even a more personal motivation on the matter (Renn, Webler, Rakel, Diemel, & Johnson, 1993), mutually contributing to broader knowledge and understanding of the issue (Fung, 2007). Authors such as Abers (2000) and Simonsen & Robbins (2000) also state that a more equitable distribution can be generated through public participation, especially in regards to limited public resources. Feldman & Quick (2009) and Ansell (2011) emphasise the capacity of the process to enhance trust, legitimacy and interest, and its potential in addressing public issues by creating resources for problem-solving and implementation in the future.

The advantages listed are essentially a result of a collaborative process of problem-solving that stems from bringing together a number of diverse stakeholders. Through meaningful and communicative exchanges, these actors have a possibility of creating so-called *public value*. Kelly et al., (2002, p. 4) define this notion as “the value created by government through services, laws regulation and other actions”. However, within the framework of a new approach to public management¹, scholars have argued that public value emerges from a largely inclusive and deliberative dialogue, not

¹ Relative to the New Public Management approach (Bryson et al., 2014; Moore, 2012).

just the sole province of the government (Bryson et al., 2014; Jørgensen & Bozeman, 2007). Jørgensen and Bozeman (2007) state that, while the government should act as a patron and guide in the provision of public values, it does not hold the monopoly, with other institutions similarly invited and capable of generating contributions to society. This concept provides relevant arguments for the comprehension of networked and collaborative governance, and had as its precursors authors such as Vincent and Elinor Ostrom (Ostrom & Ostrom, 1971), McGinnis (McGinnis & Ostrom, 2012) and Thomson & Perry (2006). Boyte's (2011, p. 632-33) concept of *public work* may also be encompassed in this approach. It is defined as a "self-organised, sustained efforts by a mix of people who solve common problems and create things, material or symbolic, of lasting civic value", with the potential to contribute to the enhancement of civic learning and capacity, to exert interests and participation (Bryson et al., 2014). Diverse sectors and citizens thus provided an integrative role in the active engagement in problem solving, co-creation and governance (ibid.).

It is possible to verify in the above-mentioned frameworks the growing importance and inclusion of other participants in governance settings. Diversity is particularly emphasised, be it in referral to socio-economic aspects, as in regards to sectors or institutional affiliation. Therefore, it is possible to infer that current policy-making processes consider some kind of participation in their design. Birkland (2010) points out that interest by external actors in engaging is not a constant, meaning that variations in participation numbers may occur from process to process. Nevertheless, the existence of the possibility to occupy a space traditionally closed-off is relevant, as it provides the information, legitimacy and accountability needed for a more effective decision-making process.

UNIVERSITIES IN POLICY-DESIGN

THIRD MISSION

Current theorisations on the institutional nature of universities have acknowledged the occurrence of a revolution. The second academic revolution, more precisely, was postulated by Etzkowitz (1990) in the recognition universities had moved beyond their traditional borders of teaching and research, and began engaging in the economic, productive and political dynamics of their regions. This was conceptualised as the 'third academic mission' (Etzkowitz & Leydesdorff, 2000; Gunasekara, 2006a), and it consisted in the involvement of the university with multiple institutional spheres in the region, to acquire new sources of funding, promote the application of scientific knowledge, and fundamentally, to fulfill its civic mission (Etzkowitz, 1990; Rodrigues, 2001; Shapin, 2012). In return, other institutions, and society in general, would have a more direct access to the university's knowledge and resources, an instrumental advantage to promote endogenous regional development and growth.

The evolution of the university's institutional stance is denoted in Gibbons et al. (1994) mode 2 concept, which differentiates traditional and modern knowledge production. A traditional one would be considered as mode 1, focused on theory and on 'knowledge for its own sake', with no manifested purpose in research for its application and economic exploitation. The modern mode 2, however, implies the initial conception of research as applicable, with a designated purpose of utilisation and eventual commercialisation. Mode 2 thus inherently suggests a perception of socio-economic reality and the creation of links with external actors. More recently, the conceptualisation of a mode 3 was introduced, in which groups and networks of mutually complementing actors interacted and enabled the reinforcement of regional innovative dynamics (Carayannis & Campbell, 2009). This social and entrepreneurial interactive dynamic between the university and a multiplicity of fields and actors, e.g. industry and the state, enables it to assert itself in economic regulation and provide its expertise in a variety of policy areas as the ultimate analyst (Arbo & Benneworth, 2007; Gunasekara, 2006a). In the end, the creative networks intensify innovation processes (Edquist, 1997).

The role of drivers in regional innovation dynamics was attributed to universities, taking into consideration the various benefits their three main functions elicit, especially intensified by proximity factors given the tendency of urban poles and industry to situate in close agglomeration. A certain nurturing process of development ensues with the implantation of a university in a region, with one of the first effects being the increased visibility and attractiveness of the area. Universities thus have the possibility to bridge development gaps, as they foment an entire socio-economic and political fabric. The consideration of the local/regional in these debates is especially just, as it is the most meaningful and manageable scale for policy experimentation and application of tailored and easily adjustable measures (Barca, McCann, & Rodríguez-Pose, 2012; Florida, 1998; Gunasekara, 2006b). When taking all of this into consideration, it is possible to conclude the enormous contribution of universities to their region. With the integration of their mission of engagement they have the possibility to exert influence in regional policies, enriching them.

INNOVATION SYSTEMS AND EVOLVING NETWORKS

The third mission of engagement of the university is translated onto the region as one of the driving axis of a system of innovation, or in a very simplified Schumpeterian definition, of systems of applied knowledge and creative methods. Interactive and dynamic networks of actors, working in collaboration in a given territory to generate economic, political, social or simply put, *public* value, is one of the possible definitions of an innovation system (Cooke, 1992; Lundvall, 2010). Its borders can be conceptually and organisationally delineated around the institutional relationships that have formed, and which intensify knowledge spillovers and learning processes. The constellations of actors and their modes of harmonisation can thus be defined as key variables to determine the systemic quality of a regional innovation system (RIS). Its effectiveness is also greatly influenced by the degree

of embeddedness and the institutional environment the networks are inserted in. Such links are not linear, but act more as a flow, ever-changing, varying in intensity and nature, and mutually reinforcing. Theorisations of the innovation system model seek to detach from a compartmentalised view of social and economic dynamics, instead emphasising the systemic nature of social reality and the value of both formal and informal exchanges in the process. The accent on a regional scale considers what Florida (1998) states in her book chapter “Calibrating the Learning Regions”, that given increasingly global concerns, local and regional actions should be taken, as they are the most suitable scales to adjust policies and control outcomes.

Models based on this idea of RIS have considered the main institutional spheres at work within one. A triptych is usually evoked, consisting of university, industry and state. The Triple Helix Model (THM) is one of the most paradigmatic examples. Based on the shape of a DNA helix, the THM designed by Etzkowitz & Leydesdorff (1997) assumes not only the flowing interaction between the three strands, but also their hybridisation. Increasingly more complex and overlapping institutional capabilities, missions and functions, it is possible to ascertain the adoption of certain aspects of another contrasting sphere. This implies the possibility of the industry taking on activities considered to belong to the academic domain, or the university embracing roles in public governance. Examples of this can include the creation and operationalisation of private, company research laboratories (Altice Labs), the existence of incubators and firms in a university campus (science parks, spin-offs), the state’s organisation of economic activities and enterprise management, and universities endeavours in policy-design, as discussed.

While the THM focuses mainly on the three institutional spheres discussed, its objective was a simplification of a very complex reality with multiple interplays. Various actors can be involved in this network and contribute to innovation dynamics. Ultimately, THM was expanded upon to include other relevant domains. Namely, the public participation in the process of innovation of civil society (Leydesdorff & Etzkowitz, 2003) and a “media-based and culture-based public” (Carayannis & Campbell, 2009), representing the quadruple helix; and a quintuple helix encompassing the natural environment and the relationship of each institutional sphere with it in a focus of sustainability (Carayannis & Campbell, 2010). N-tuple helices, nonetheless, may be assumed, as the context of each innovation system will inevitably incur some variability in the actors at play (Leydesdorff, 2012).

Carayannis & Campbell's (2009) reconceptualisation of knowledge production in a mode 3, furthered the earlier systems of mode 1, of knowledge for its own sake, and mode 2 of applicability of knowledge. It consists of the reinforcement of knowledge and learning processes through the exchanges enabled in clusters and the innovation networks explained above. This architecture provides a systemic view of reality, with the recognition of diverse influencing factors and a multilateral, collaborative dynamic to innovation creation. The resulting formation of ‘modalities’ in knowledge clusters and networks of innovation represent, in both space and theme, an ‘optimal

resource agglomeration', with reduced risks and heightened learning mechanisms for a more efficient process of co-creation (ibid.). The traditional process of innovation is accelerated, through this intersectoral, interdisciplinary, public and private, top-down and bottom-up interaction between stakeholders (ibid.).

The provision of insights on innovation systems and networks is useful to understand the mutually reinforcing dynamics of cooperative creation. In the context of governance and public policies, and in an already complex reality, this multinodal and constantly changing web of actors permeating into the process require a continuous adaptation of the scope and need for public participation (Goldsmith & Eggers, 2005; Morgan & Cook, 2014). However, there is a need to understand what type of information can and should be used, as saturation of channels could cause lower effectiveness.

INFORMED POLICIES

Central governments gained additional responsibilities with the advent of industrialisation. Matters of social protection and territorial planning were increasingly under focus, specifically by organisations such as the EU, who sought through a 'comprehensive modernisation policy' to bring industrialisation and development to its member-states in order to reduce developmental disparities (Arbo & Benneworth, 2007). Industrial and innovation policy are thus two attempts at bridging an economic gap created by capitalism and industrialisation itself, under a logic of constant competition. The element of regional disparities introduced in this discourse represents what Kilper (2004, cited in Arbo & Benneworth, 2007) describes as a breach from an 'imaginary equal reference', requiring the application of distributive measures through governmental intervention. Bridging this gap, and attaining an equal footing in economic competitiveness, demands a comprehensive understanding of the specificities of each region, enabled by an informed policy process. Universities would be privileged in this knowledge input, as expert, certified and specialised knowledge, trumps over experiential and lay knowledge in policy-making (Fischer, 2000; Ozawa & Susskind, 1985; Quick & Bryson, 2016; Scott, 1998; Yanow, 2004).

The need to link scientific knowledge and policy has led to the creation of such terms as 'informed choice', 'rational decision-making', 'evidence-based policy', 'strategic research', 'essential national research' and 'knowledge-transfer', expressing the increasing interest by both academia and policy-makers alike in the 'research-to-policy' issue (Almeida & Báscolo, 2006). All of these terms highlight the importance of awareness of social reality for the effectiveness of this process, as for knowledge to be relevant to policy-makers it has to inevitably be imbued in contextual needs. These concepts therefore represent the devising of a series of activities that may generate knowledge from the world, disseminate it, build capacity for policy-makers to incorporate it in the decision process, and analyse its implementation. Even though the overall tendency of knowledge production,

specifically in universities, has been to enhance its applicable character, as discussed in a previous section, creating a link between scientific knowledge and policy issues is not easily achieved. Almeida and Báscolo (2006) refer to a lingering frustration in the attempts to make a connection between research results and policy, stemming from misguided expectations as to the meaning of ‘application’ and the varying perceptions on the process of decision-making itself. Regarding the former, the concept of application, or use, broadened in the late 80s to incorporate three meanings: an instrumental, as a simple input in the decision-making process; conceptual, enabling the furthering of understanding on particular issues; and strategic, to persuade or attain certain goals (Almeida & Báscolo, 2006). As for the latter, depending on the analytical perspective utilised, research may have different points of contact with the policy process, and within it, interacting variables may also change (ibid.).

In the literature, Weiss (1979) has been one of the pioneering authors in the definition of seven models to illustrate the utilisation of research in policy formulation and its role in guiding the decision-making process. These models were later simplified into three major approaches by Trostle et al. (1999). The first one was designated as the rational approach, including Weiss’s ‘knowledge-driven’ model, where useful knowledge is identified and tested for implementation, and the ‘problem-solving model’, in which researchers and policy-makers agree on the nature of a problem and the desired goals, based on existent or commissioned research. The rationality of these models is understood by the active utilisation or search for scientific knowledge in the decision-making process. Secondly, the strategic approach connects directly to executive action, and encompasses the ‘political’ model, where research does not have a direct influence but is used politically to support a particular stance; and the ‘tactical’ model, in which support and development of research is not done for particular results, but as a strategy for policy-makers to avoid taking actions or the blame for certain policy outcomes. Finally, the third approach of diffusion relates to knowledge-production in a specific research field, promoting the accumulation of knowledge that could progressively shape public action. This approach comprises the three remaining models, of ‘interactive’, ‘enlightenment’ and ‘intellectual enterprise’. The former consists of mutual consultations between policy-makers, researchers and other actors in a gradual process. The second conceptualises the seeping of ideas and theories into the policy sphere through a range of indirect routes, such as interest groups or journalism, shaping how problems are framed and potentially leading to paradigm shifts. The latter considers research as a result of a mutual, ongoing influence in which a social concern spurs policy interest and the development of studies on it, in return shaping wider thinking on the issue. (Nutley, Walter, & Davies, 2007; Trostle et al., 1999; Weiss, 1979).

The different theorisations of the ways in which science can imbue itself into policy denotes the diverse considerations of the importance of knowledge in the public policy process. Although possible of being manipulated in the political sphere, science has the capability of shaping values,

discourse and practice paradigmatically. It has, inevitably, made itself known in policy-making through diverse means. Statistics, economic models and other measures, are simply examples of how scientific knowledge steered more rational and efficient decision-making and planning processes. The use of research and highly qualified scientific knowledge enabled universities, in a third mission framework of regional engagement, to be considered as suitable and desired institutions to support the development pursuits of governmental bodies. Political consultancy was the most emphasised form of universities' participation in the policy process, accompanied by an increasing recognition of their role in fomenting innovation systems (Arbo & Benneworth, 2007). The focus of research in the issues of interest to public matters was also ensured through a 'call for proposals' approach, with grants sponsored by entities such as the state, supranational or international organisations, and even industry, which diverged from the more researcher-oriented approach of the past (Almeida & Báscolo, 2006; Greenberg & Choi, 1983).

While research is being increasingly highlighted as a useful tool to enable more informed public policies, the participation of universities in the policy process itself may not be as easily translated. Innovation and industrial policies characteristically enroll these institutions in their design, as they have been theorized as bringing a crucial advantage for their efficient implementation. However, the same may not apply to other policy issues. It is also important to underline that participation is variable, as previously mentioned. While 'universities' may enter the policy process, only representatives from certain departments may be found valuable in their expertise, pointing to the fragmented participation that is inevitably elicited by the colossal structure of these loosely coupled institutions. Collaboration may also be either formal or informal, presenting difficulties in the assessment of effective forms of participation.

Another relevant issue to address is the point in which participation indeed occurs. Is it limited to the policy formulation phase? Or is it still noticeable in the implementation and evaluation phases of the policy process? Universities may bring forth useful knowledge and tools in all these phases, but it is necessary to address whether they are exerting their planning potential fully, and if not, whether this is due to the university or the government's prerogative. In the following section, we will present some views from the literature on the university's participative potential in innovation policy-design, in order to analyse the main debates surrounding this topic.

ILLUSTRATING THE ARGUMENT

LOCAL POLICY EXERCISE IN THE REGION OF AVEIRO

Rodrigues and Melo's (2013) paper entitled “The Triple Helix Model as Inspiration for Local Development Policies: An Experience-Based Perspective”, analysed the utilisation by a small municipality in Portugal of an academic concept as inspiration for its regional development strategies; but also, more directly, the participation of the authors and other docents and researchers of the local University of Aveiro in this process of policy-design.

As previously explained, the THM in its original formulation describes the new non-linear interactive arrangements of innovation occurring between several institutional spheres in a region, with the most prominent being universities, state and industry. Being based on paradigmatic cases such as that of MIT, the popularity of this framework was inevitable, as policy-makers on a national and regional level used it as a reference for developing their own innovation and development policies and programs. In the municipality of Águeda, the one under the scope of this paper, the elections of 2005 brought with them an ‘innovative’ thinking mayor, which strengthened the autarchies connections with and between industry and the university. Taking up the mantle of the THM, the municipality saw it as an opportunity to build local development and innovative capacity, which the university wholeheartedly supported in a reinforcement of its third academic mission.

The THM framework was best translated into the region through the establishment of a cooperative network called *Rede para a Inovação e Competitividade* (RIC), a pioneering endeavour in Portugal which generated a rich dialogue among researchers, entrepreneurs and politicians. While in terms of entrepreneurial output the outcomes were considered poor by the authors (ibid.), one of the major benefits highlighted was the possibility of legitimising local authorities to solicit academic and university resources and knowledge in development programmes. Another advantage stated was the financial opportunities for other ventures opened up with the establishment of the project, with an example being RunUp (Role of Universities in Urban Poles), a European Union-funded initiative under URBACT. This aimed to foster the use of universities’ knowledge, competencies and resources by urban poles.

Furthering these collaboration initiatives, the local action plan was also pointed out by the authors as a key instrument for promoting associative governance, meant to be designed by support groups that include government representatives, the university, and other training, labour and entrepreneurial associations. The highlighted link, however, was between the city overall and the university, with the latter believed to provide a more analytical view on otherwise descriptive and general guidelines and programs. Conclusively, the university provided a direction to the policy goals, in the words of the authors, taking on the role of “regional innovation organiser” (Rodrigues & Melo,

2013, p. 1682). Nonetheless, it was assumed that the leading role of motivators fell upon the municipality and, specifically, the Mayor of Águeda.

An interesting aspect of this case is that the utilisation of scientific knowledge was not limited to the application of an academic concept, such as the THM. Its symbolism as a political tool was overcome when, in practice, the governmental bodies started enlisting the university in the design of innovation and development policies and programmes. Even though entrepreneurial outcomes were considered weak, in institutional and governance terms, the region was far richer from this experimental collaboration. This follows what, in the planning theory of Healey, Madanipour, and de Magalhães (1999), is called ‘institutional capacity building’, in which institutional spheres synchronize and combine knowledge in order to mobilize. It is possible to conclude that, regardless of limited operational capacities and few material outputs, the collaboration between the university and local and regional policy-making bodies was strengthened, which enabled the creation of the basis for future projects and joint initiatives.

SMART SPECIALISATION STRATEGY

Furthering the above case on the contribution of academic concepts to regional development policies and strategies, and adding to this the dimension of participation in their formulation, it would be essential to refer the concept of smart specialisation and the strategy that has from it ensued through EU prerogative.

Within the S³ framework, universities are considered as drivers of its implementation, central to the analysis and identification of regional priorities and to the translation of guidelines into comprehensible action (Foray et al., 2012, 2011, 2009; Foray & Goenaga, 2013). Furthermore, contrasting with top-down industrial policy frameworks of the past, S³ would be operationalised in each region through a participatory process – the entrepreneurial process of discovery. In it is envisioned the participation of external actors to the policy process, such as entrepreneurs, firms, independent researchers and higher education institutions (Foray et al., 2009; Foray & Goenaga, 2013), who would identify trends and opportunities in innovation, for their potential to be assessed and empowered by the government (Foray & Goenaga, 2013; Rodrik, 2004). While participation is nothing new to the policy process, being one of the fundamental pillars of democratic society, the consideration of institutions as participants and importance to the definition of a development trajectory is noteworthy.

In the region of Aveiro, the intermunicipal association (CIRA) enlisted the participation of the university in the design of its S³-inspired strategic plan, with several academics giving their input in the formulation of guidelines and the identification of priorities of specialisation. The relevance of

the university's collaboration for the process has been highlighted by the association². While a strong presence and interest was manifested by both parties in the formulation of the strategy, this was less noticeable in further stages of implementation and evaluation, suggesting the lack of a formal structure of participation in these phases.

UNIVERSITIES IN ASSOCIATIVE REGIONAL GOVERNANCE IN AUSTRALIA

Gunasekara (2006c) pursued a comparative study between three universities in non-core metropolitan regions in Australia in an attempt to analyse their role in fomenting associative governance practices. In his work, associative governance is intended to refer to a decentralization of decision-making through incentivising a networked and collaborative approach based on mutual trust. This relates to the THM, in so that it theorises a range of actors – i.e. firms, governmental agencies, universities, industry bodies and community organisations – involved in regional governance networks. The article is inserted in the new regionalism literature, which considers universities have a more or less active role in driving these regional networks and implemented knowledge-based strategies.

The author points to four main advantages that universities bring to this process: (1) managing and supporting the development of social networks; (2) provision of knowledge inputs in a presumably knowledge-imbalanced network of actors in regional governance; (3) facilitating infrastructure, facilities and other resources that enable a more efficient implementation of regional strategies; (4) being 'honest brokers' in their monitoring and evaluation of associative operations and progress of programmes (adapted from Gunasekara, 2006c). While the paper focuses on a conceptual distinction between generative and developmental roles of these universities, in considering the different activities they engage in, the most relevant aspect for the present analysis is the conclusion that all three universities participate to a greater or lesser extent in regional governance.

Evidence showed that more associational approaches were emerging through university's staff participation in decision-making and representation in advisory bodies. The range of activities that universities performed in regional governance was also amplified, exemplified by the provision of knowledge and analysis to support decision-making, the creation of joint research projects, and participation of university representatives in governance mechanisms.

The conclusions reached suggested that universities play a crucial role in the development of associative governance, institutional and regional innovation capacity. It was also found that a less hierarchical and competitive 'milieu' was more facilitating for university participation in governance,

² These documents and the overall strategy of the university can be consulted on http://www.regiaoedeaveiro.pt/PageGen.aspx?WMCM_PaginaId=35609.



as networks open to knowledge input and exchange would foster associational structures (ibid.). This paper thus highlights the continued importance of universities in varying regional contexts to strengthen institutional capacity and informed and effective governmental operationalisation.

CONCLUDING REMARKS

As Rodrigues and Melo (2013) highlighted, informed development policies can be considered in a way ‘common sense’, as they enable more thoughtful and efficient policy outcomes. As scientific knowledge seeps into the policy process, even though through different gateways and varying means, one might still assume that the ‘truth’ provided by it, or at least the closest we have to objective reasoning, is a vital aspect to support purposeful and *public* decision-making and value. While there is some literature that has delved upon the research-to-policy relation, questions still remain on the broader role of universities in policy-making and planning, and the opportunities they seek and attain within the policy cycle overall to exert their influence and, above all, provide advice and support.

In this paper, a review was done on the forms of participation and the unique contribution universities may bring for a more informed policy process. It was concluded that the participation of these institutions was valued in what particularly regards innovation and development policies. They are considered to be a crucial axis in regional innovation networks and associative governance, believed to be essential to the success of regional development strategies and crucial for the creation of institutional capacity. Cases from the literature exemplified universities’ potential in achieving this. While limited, they provide an interesting outlook on this unexplored topic, suggesting that through formal or informal, symbolic or material collaborations, with varying degrees of success, the interaction between these two spheres of university and government still provides the basis for a more participative, interactive and supportive regional development agenda. Further work needs to be realised on the materialisation and operationalisation of the forms of participation taken on by universities in the policy process, adding an important insight to the literature on the effective impacts such an institution could have in the creation of a more open and informed policy process for the effective creation of *public value*.

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