Culture and organisational change in academic organisations: A reflective case

Existe un significativo interés en el papel que las organizaciones académicas pueden tener como catalizadoras del cambio en los territorios en los que se localizan, incidiendo proactivamente en el desarrollo socioeconómico de dichos territorios. Sin embargo, las propias organizaciones académicas necesitan innovar para desempeñar este nuevo rol. Este artículo se fundamenta en los argumentos que la literatura de gestión de las organizaciones sugiere sobre la cultura organizativa como factor que facilita la capacidad de innovación de las empresas. El artículo explora un argumento paralelo para las organizaciones académicas a través de la autorreflexión sobre un caso de estudio, como es Orkestra-Instituto Vasco de Competitividad, creado en 2006 con la misión de desempeñar un papel proactivo en el desarrollo socioeconómico del País Vasco. Pero desempeñar ese rol requiere un aprendizaje organizacional y un cambio cultural que pueden aportar ejemplos para otras organizaciones que tengan misiones similares.

Interes bizi bat dago erakunde akademikoek, ezarrita dauden lurraldeetan garapen sozioekonomikoan proaktiboki eraginez, aldaketaren katalizatzaile gisa duten egitekoan. Hala ere, erakunde akademikoek eginkizun berri hori aurrera eramateko berritzeko beharra dute. Artikulu honek erakundeen kudeaketari buruzko literaturak iradokitzen dituen argudio batzuetan du oinarria. Argudio horiek antolakuntza-kultura enpresen berrikuntza gaitasunak errazteko faktore gisa aurkezten dute. Artikuluak erakunde akademikoentzako arrazoi paralelo bat aztertzen du, kasu azterketa baten inguruko gogoeta baten bidez. Aztertutako kasua, zehazki, Orkestra-Lehiakortasunerako Euskal Institutuaren ingurukoa da. Erakunde hori 2006an sortu zen Euskadiren garapen sozioekonomikoan proaktiboa izateko xedea izan zezan. Baina hori burutzeak antolakuntzaren inguruko ikaste prozesu bat eta kultura aldaketa bat eskatzen du. Horrek, antzeko xedea bete behar duten erakundeentzako ikasgaiak ematen ditu.

There is strong interest around the role that academic organizations can play as catalysts of change within the territories where they are located, proactively shaping socioeconomic development. However, academic organizations need to innovate themselves to play this role effectively. This paper builds on arguments in the management literature that suggest organizational culture as a factor facilitating the open innovation capacity of business organizations. It explores a parallel argument with respect to academic organizations through an auto-reflective case study of the Basque Institute of Competitiveness (Orkestra). Orkestra was established in 2006 with a mission to develop a proactive role in the Basque Country's socio-economic development. However fulfilling this has required organizational learning and cultural change, which may provide lessons for other institutions seeking to fulfil similar missions.

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1.   INTRODUCTION

There is strong debate around the roles that universities and their academics should play in the societies in which they are situated, both with respect to their teaching and to their research activities (Sugden *et al.*, 2013). In particular, academia is increasingly asked to play a strategic role, as change agents, in what are quite diverse and distinctive place-based processes of socio-economic development (Aranguren *et al.* 2016; Normann and Garmann Johnsen, 2013). This demands a more effective interaction between academics and other agents in society, so that university research and teaching becomes more relevant for responding to societal challenges.

In order to achieve this more strategic and territorially-relevant role academic organizations need to innovate themselves, so as to create the appropriate spaces and conditions for generating more effective interaction with other territorial agents. In

this regard, studies such as those by Benneworth *et al.* (2016), Boucher *et al.* (2003), Goddard (2009), Goddard and Puukka (2008), Goddard *et al.* (2013), OECD (1999, 2007) and Uyarra (2010) reflect the importance attached to understanding the drivers and constraints of universities engaging in the territories where they are based.

One important aspect of these constraints, that has only recently started to attract more attention, is universities' internal workings, and in particular those that condition the motivations and behaviours of their staff, who are ultimately those that engage (or not) with other territorial actors (Pinheiro *et al.*, 2012; Gronblom and Willner, 2013; Sacchetti, 2013; Benneworth *et al.*, 2016). This paper aims to take forward this research line, specifically in terms of understanding how internal cultural change can shape the attitudes of researchers in developing a territorially engaged role. What types of internal changes and transformations in culture are necessary to foster a more active role for academics –and therefore for their organizations– in the socioeconomic development processes where they are located?

The starting point of the paper is to look for inspiration in the management literature, where the challenges faced by business organizations in fostering the popular concept of «open innovation» (Chesbrough, 2003) has interesting parallels with the challenges universities face in being more territorially engaged. If business organizations wish to adopt an open innovation approach, then this too requires changes in internal culture. From this background discussion of open innovation theory and its links to cultural and organizational change in business organizations –which serves to highlight the cultural and organizational challenges similarly faced by academic organizations– the main contribution of the paper is an auto-reflective analysis of cultural and organization change in a specific case.

The case analysed is that of Orkestra-Basque Institute of Competitiveness, a research institute linked to Deusto University and located in the Basque Country (Spain). Orkestra was established 10 years ago with an explicit mission of developing research that would play a proactive role in fostering Basque competitiveness. Through a detailed analysis of organizational and cultural change and learning over the last ten years as Orkestra has attempted to pursue this mission, the paper aims to contribute to wider understanding of the type of internal cultural change necessary for academic organizations to be more effectively engaged in their territorial socio-economic development processes.

The paper is structured as follows. Section 2 provides a background discussion on open innovation, organizational change and culture. While this discussion is inspired from the business organization literature, it has strong relevance for academic organizations. Section 3 introduces the case and sets out the auto-reflective methodology employed to analyze it. Section 4 contains a descriptive analysis of the case in three distinct phases, which leads to discussion and analysis of the main characteristics of these phases in Section 5. Conclusions are presented in Section 6.

2. OPEN INNOVATION, ORGANIZATIONAL CHANGE AND CULTURE

Organizational innovation strategy can rely on internal or external sources. Business organizations decide to rely on internal innovation ability when market transaction costs are high or when there are market imperfections related to information-based resources (Pisano, 1990). On the other hand, organizations turn to the market to purchase innovation solutions when internal organizational costs make it inefficient to rely on their own innovation capabilities.

However, collaboration has emerged as an alternative, intermediate strategy that allows access to relevant external sources of knowledge that cannot easily be produced inside the organization or purchased in the market, providing a boost to innovation performance (Miotti & Sachwald, 2003; Belderbos *et al.*, 2004; Becker & Dietz, 2004, Tsai & Wang, 2009). Indeed, when framed in terms of transaction cost economics, collaboration is widely conceived as an intermediate solution for the make-or-buy decision (Coase, 1937; Williamson, 1989; Gassmann, Enkel, & Chesbrough, 2010). In this sense collaboration practices are important sources of competitive advantage (Cohen & Levinthal, 1996; Nieto & Santamaría, 2010), allowing organizations to overcome internal barriers (Pisano, 1990), and emerging as an important mechanism to support organizational performance (Zott & Amit, 2007; Enkel *et al.*, 2009; Zott *et al.*, 2011).

Recent years have therefore seen growing interest in interactions and collaboration arrangements for innovation. Indeed, innovation is no longer the domain of R&D departments in isolated firms, and rather depends increasingly on collective action. In practice business organizations constantly cooperate with their users, suppliers, universities, and even competitors in pursuit of new knowledge, ideas, and solutions. This allows them to innovate faster and discover new commercialization routes (Chesbrough, 2010, 2012). Therefore, in competitive and uncertain environments, so-called «open innovation» is becoming a necessary feature to articulate organizational strategy, bring innovations to market, satisfy customer needs (Teece, 2010) and ensure organizational survival (Perlow *et al.*, 2002; George & Bock, 2010).

Chesbrough (2006, page 1) defined open innovation as the «use of purposive outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation». His model suggests that organizations can successfully innovate by gaining knowledge from a wider range of external sources. Thus the actual process of searching for and commercializing new ideas acquired from the external environment is a locus of innovation activity, and if an organization relies only on its internal capacities it will overlook a bulk of opportunities rooted in external knowledge. In the current era of open innovation in which knowledge is acknowledged as being widely distributed, organizations should therefore not rely entirely on their internal capacities and R&D, but should make efforts to thoroughly explore external sources for relevant knowledge and ideas.

Laursen and Salter (2006) introduced concepts of external breadth and depth to describe an organizational strategy for accessing knowledge from the external environment. External breadth refers to the number of external partners organizations rely upon in their innovative activities, while external depth describes the intensity of cooperation with these partners. Laursen and Salter (2006) find that lack of openness to the external environment may cause an organizational myopia or a situation in which managers may over-emphasize the importance of internal sources and under-emphasize external ones. These two concepts are widely used among scholars that analyze the impact of openness on the innovative performance of organizations to identify the most effective combination of partners for innovation (Chen *et al.*, 2011). Indeed, a variety of empirical studies have indicated that business organizations more open to external sources are more likely to have better innovation performance, because some essential knowledge can only be found outside the organization (Chesbrough, 2003; Laursen & Salter, 2006).

However, notwithstanding the opportunities of openness, organizations must also understand the risks. Collaborating can be expensive due to search costs etc., and there is the potential danger of leakage of strategic knowledge to competitors (Laursen & Salter, 2006). In this regard it has been shown empirically that increasing business collaboration practices improves organizational innovation performance up to an optimal number of partners, after which external relationships hinder such performance (Chesbrough, 2006; Chen, *et al.*, 2011; Laursen & Salter, 2006).

In summary, in today's knowledge economy, being an open, learning social system is a prerequisite for being competitive (Som *et al.*, 2012). Such a system is necessary to create appropriate contexts in which the organization can promote the exchange of ideas and experiences and be a source of creativity and knowledge creation with other agents, thus unfold its full potential. Yet there is a significant gap between recognizing the importance of an open approach to innovation and being able to develop a coherent and effective organizational strategy that adopts such an approach. Specifically, promoting an open innovation strategy requires transforming solid organizational boundaries into a more semi-permeable membrane to enable innovation to move more easily between the external environment and the internal innovation process (Gassmann and Enkel, 2004). Relatively little is known, however, about which internal factors can facilitate organizations overcoming the challenges in developing open innovation systems.

Van de Vrande *et al.* (2009) argue that managerial and organizational barriers to open innovation are very diverse, but they suggest that (in the context of SMEs) the main barrier to open innovation is related to the organizational and cultural issues which arise through interaction and collaboration with external partners. For example, organizations may be locked into institutional or structural inertias, so that they are unable to freely choose new and superior technologies or business models that emerge through collaboration. This is especially likely when facing antecedents of so-

cial conflict whereby organizations suffer institutional barriers (by employees or management) which increase resistance to change. More specifically, these companies tend to operate according to a Tayloristic approach –based on mechanistic patterns of action, drastic labour division, planning and control– that is unlikely to be conducive to the organizational innovations needed for open innovation approaches.

In line with this, it can be posited that organizational culture can be a factor that supports (or not) strategic organizational changes which ultimately shape how interaction with external agents takes place and the types of outcomes that can be observed. Indeed, organizational culture is often associated with the success (or not) of organizational change. Specifically the successful implementation of organizational change might be largely dependent on the values and ideological underpinnings of an organization's culture.

Yet there is a lack of consensus even about what organizational culture is. The origins of the concept emerged in the 1970s (Hofstede, 1981; Ouchi & Price, 1993; Pettigrew, 1979; Schwartz & Davis, 1981) and it has evolved according to different perspectives; from the interpretation of rules and norms, to a system of values shared across the organization, or the organizational ability to build a common ideology (Schein, 2004). More specifically, research on organizational culture has been focused on developing frameworks to categorize important dimensions, understanding the implications of different organizational values, ideologies and beliefs on culture, and its potential impact on the effective implementation of organizational innovations (Zammuto *et al.*, 2000).

Finally, it is also necessary to highlight that the process of learning and transformation is ongoing. Organizational culture is not an end in itself, but a means to being successful in a continuously changing environment. Changes in factors such as competition, demand, policies, society, resources and technology call for organizational adaptations and adjustments, and certain organizational designs may also make it possible to be more adaptive to environmental dynamics than others (Burns and Stalker, 1961). Consequently, the primary goal of management is not to identify the best solution in an absolute manner, but to develop feasible and workable solutions that are fruitful under the current framework. These solutions must be constantly reconsidered, adjusted or even discarded over time (Som *et al.*, 2012).

If organizational culture is likely to play an important role in determining the capacity of business organizations to adopt the changes necessary to work as part of an open innovation system, as suggested above, a parallel argument could be made with regards academic organizations seeking to be more engaged in their territorial systems. With this in mind, the rest of the paper explores the dynamics of cultural and organizational change in the case of an academic organization that is explicitly seeking to play a transformative role in the region where it is located.

3. APPROACH AND CASE

The paper takes an auto-reflective case study approach. While auto-reflective or biographical approaches can be difficult to generalize, they offer the significant advantage of illuminating the detail of experience (Tight, 2012). Moreover, it is well acknowledged that single case studies are particularly useful when there is a need to capture the complexity of the object of study in depth, so as to generate concrete, practical knowledge that is by definition context dependent (Flyvbjerg, 2006; Stake, 1995).

The case is that of Orkestra, the Basque Institute of Competitiveness. This research institute was set up at the San Sebastian campus of the University of Deusto in 2006, as part of the University's Foundation for the transfer of knowledge to society (Deusto Foundation). It was established with a mixed funding model (with stakeholders from the triple helix of government, private sector and university), and with an explicit mission to conduct research that would play a proactive role in fostering Basque competitiveness. It thus began from a premise of interaction with other agents in the system, in which context it has been interpreted as a case of institutional entrepreneurship in academia (Sotarauta, 2011; Karlsen *et al.*, 2012).

Today Orkestra employs around 30 people and works on collaborative research projects related to competitiveness, innovation and public policy with a wide range of regional stakeholders (different levels of government and their agencies, firms and clusters, other universities) and international partners (European Commission, regional and national governments in Europe and Latin America, other universities). However, it has had to learn organizationally how to foster that interaction effectively in the context of the inertias characterizing university organizations and their academics.

The case analysis is the result of a collective auto-reflexive process among the authors, each of which has played a different role in Orkestra's development. One of the authors has been working at Orkestra since its creation and has been a researcher, coordinator of a research area and general director. Another of the authors has been involved in Orkestra almost since the beginning, and has been a researcher, coordinator of a research area and leader of a wide range of projects with regional and international stakeholders. The third author was contracted in 2009 as a researcher and has lived first-hand how the organizational changes presented in the case have affected her.

The reflection process has been based on two kinds of data. Firstly, papers and articles published by the researchers themselves and by other researchers during the ten years of activity of Orkestra [Karlsen et. al. (2012), Aranguren *et. al.* (2013, 2016a, 2016b), Costamagna (2014), Larrea (2017)]. Secondly, strategic planning documents, annual reports, minutes of meetings, newsletters, emails and other internal documents used during the ten years of Orkestra's activity. The reflections led to the identification of three distinct phases in terms of organizational development,

and the next Section provides a detailed descriptive analysis of these phases. The following section then combines this analysis with the arguments explored above around open innovation and organizational culture to draw out implications from what has been experienced across the three phases.

4. ORKESTRA: A CASE OF ORGANIZATIONAL AND CULTURAL CHANGE IN ACADEMIA

4.1. Phase One

Orkestra was created in April 2006 as a UDU (University Development Unit)[1] of the University of Deusto. From its beginning it had autonomy under a governing structure whose Board of Directors is made up of representatives of the public administrations and firms who provide funding, as well as other members named by the Governing Board of the University of Deusto. There is also an Advisory Board made up of internationally-renowned academics and policy experts.

Specifically, in the initial collaboration agreement signed with the Basque Business Development Agency (SPRI), the University of Deusto committed to setting the Institute in motion between 2006 and 2009[2]. The agreement set out the development of four knowledge areas (competitiveness and innovation, clusters and regional development, strategy, and entrepreneurship and knowledge society), and activities to be carried out included: the creation of a documentation centre, data bases, directories and indicators; the development of research and analysis projects; the development of training programmes and activities; participation in knowledge networks of excellence; international exchanges of researchers; knowledge dissemination via publications, networks and seminars; provision of advice on the formulation of policies and participation in their monitoring and evaluation; and organisation of encounters, forums and debates etc..

The Institute was created during this period with the mission of «supporting, through research, training, foresight, technical assistance and evaluation, the promotion of debates, and participation in networks of excellence, activities carried out by the public administration, socio-economic agents and the university itself in fields related to competitiveness; so that, from strengthening the competitive advantages of the Basque Country, higher levels of socio-economic growth and quality of life for its citizens are reached, rooted in the integral development of opportunity

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[1] According to article 11 of the General Statutes of the University of Deusto (17 June 2003), University Development Units are centres with an entrepreneurial character, created by the University or in alliance with other entities, to carry out training, research or development activities.

[2] SPRI is the operational arm of the Basque Government's Department of Competitiveness and Economic Development (previously Department of Industry), and the collaboration agreement was signed by SPRI and the University of Deusto on 15th February 2016.

equality and freedom of choice» (article 3 of the General Statutes of 10 March 2006). In this agreement it was specified that the organisation must have the following characteristics: i) develop rigorous, profound and objective knowledge of competitiveness and its determining factors; ii) participate in knowledge networks of excellence and in international research programmes; and iii) supply impartiality, continuity and sustainability to the strategies that are put into place in the countries being dealt with. Given its aspirations of openness and international excellence, there should be a progressive incorporation of high-level researchers from other Basque, national and international organizations.

During this first phase, Orkestra commenced its activity with an Academic Director, alongside another six researchers from the University of Deusto and three other staff employed to carry out administrative and managerial tasks. The initial scientific programme comprised a series of studies and reports based around the four knowledge areas mentioned above, alongside the teaching of a Microeconomics of Competitiveness (MOC) programme (previously taught by Deusto University) in collaboration with Michael Porter's Institute of Strategy and Competitiveness at Harvard Business School.

In May 2007 the first General Director was recruited –from outside of Deusto– and an inauguration was held during which Orkestra's mission was socialized and the results of its first *Basque Country Competitiveness Report* presented. This time also saw the first clear, public expression that Orkestra's work would involve more than the preparation of reports. In the words of the new General Director: «reports don't change territories». Following this philosophy the activities started to be organized according to «three 'i's»: investigation, interaction and instruction. However, while «investigation» and «instruction» were fairly universally understood as the traditional university roles of «research» and «teaching», at this time there was no shared vision among those involved with Orkestra around what should be understood by «interaction». It was typically taken in its most straightforward, but vague, sense to mean the dissemination of research.

Although the statutes and initial collaboration agreement established for four research areas, these were not all created during the first phase. In July 2007 the General Director named two Area Coordinators, for *Entrepreneurship and Knowledge Society* and for *Clusters, Innovation and Territory*.[3] The General Director himself, an expert in the field of business strategy, assumed coordination with regards to strategy themes. Small *Research Support* and *Services* areas were also established as transversal functions.

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[3] The latter was a merging of the two of the initially planned areas of «competitiveness and innovation» and «clusters and regional development».

While the research tasks on the whole continued to centre on the elaboration of reports, a different approach started to emerge from this time in the *Clusters, Innovation and Territory* area. In particular this approach was based on a combination of more participative interaction and greater external connections. For example, a strategic agreement was signed with Garapen –the umbrella association for Basque local development agencies– and participative research projects were launched with local development agencies and with clusters. Later on, in retrospect, these would be seen as having elements of 'action research' approaches.

During 2007 and 2008 Orkestra grew in volume of activities, and it was necessary to recruit additional researchers as well as to include new professional profiles oriented at the facilitation of processes, communication and accounting. During this process of expansion the team also became more multicultural, according to principles established in the initial statutes which explicitly set out the desirability of recruiting researchers with international profiles.

4.2. **Phase Two**

In June 2008 the first General Director left Orkestra and the Chairman of the Orkestra's Board of Directors assumed interim day-to-day management with the support of the area coordinators. During this phase an ambitious EU-funded project was won as part of an international consortium, within which Orkestra's role was to develop a regional competitiveness framework that could be used to order the analysis of regional competitiveness indicators at the European level.[4]

In April 2009 a new General Director –again, externally recruited– joined. This marked the start of a period of restructuring of the team, whereby some researchers who didn't appear to be fitting within Orkestra's model of research returned to the University of Deusto, and other researchers joined the organisation with more clearly-defined expectations around participation in projects with stakeholders. Two important challenges at this time were the renewal of funding agreements with the Institute's main partners and the strengthening and broadening of research activities through the formal establishment of two new areas, *Strategy* and *Energy*. During this phase the number of people working in Orkestra increased to around 40, due mainly to the incorporation of researchers in these two new areas. It is also important to note that in this period the General Director delegated the complete coordination of each area's activities to their coordinators. Consequently the way of working on projects and the way of managing people depended significantly on the leadership style of each coordinator.

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[4] The project was to develop the second phase of the European Cluster Observatory between 2009 and 2012, and was funded by the Europe Innova programme of DG Enterprise and Industry.

In May of the same year regional elections in the Basque Country resulted in a change of government, from Basque Nationalist Party (PNV) to a coalition led by the Socialist Party (PSOE). To ensure the continuity of the Basque Government as one of Orkestra's key partners it was perceived as essential to generate the confidence of the in-coming government, and to do so by working closely alongside them so as to build trust that at first was seen to be lacking. At the time the Basque Government initiated the elaboration of a new Competitiveness Plan (2009-2013) and requested that Orkestra support this with a comprehensive project to carry out analysis that would underscore this plan. At the request of the General Director, the coordination of this project was carried out by the *Clusters, Innovation and Territory* area, a decision that was significant because it led to the project being developed according to an interactive approach that built from previous learnings in the previously-cited projects with local development agencies and clusters. Thus as well as carrying out the actual competitiveness analysis, one of the key characteristics of this project was the construction of a mutual trust-based relationship built on intense interaction, which later evolved into an evaluation and monitoring process around the Competitiveness Plan. Moreover, this type of interactive approach started to become seen more explicitly as a key characteristic of projects being developed with a wider range of stakeholders by a growing group of researchers working in the *Clusters, Innovation and Territory* area.

4.3. **Phase Three**

The autumn of 2012 saw another change in the General Direction of Orkestra. When the existing General Director left, a transitional co-direction was initially established. This combined academic management (the until-then coordinator of the *Clusters, Innovation and Territory* area) with organisational management (the until-then coordinator of the *Services* area and financial/operations director). It was later formalised with the former as General Director and the latter as Deputy Director.

At the start of this period a strategic reflection process for the elaboration of the 2013-2015 strategic plan brought to light various concerns around Orkestra's functioning, notably the cultural differences between the areas, the need to carry out cross-cutting projects between them, and the need to generate a more open organisation to address Orkestra's mission more effectively. A reduction of funding from some key stakeholders in the context of across-the-board austerity measures made these challenges even more urgent and necessary.

It was decided that there should be significant changes to the organisation; making it flatter, eliminating areas, and opting instead for an organisation based on projects. Moreover the General Director explicity proposed trust-based management as a guiding principle to this new organisational structure. This approach was inspired in part by an interview to Román (2007, p.1): «Trust is the pasture of projects; it is the germ of creativity; fertilizer so that talent can spread its wings; seeds for bringing

out the best in each other; an incalculable factor that drives creation. When there is trust, all talent seems better than it is; it expands; it opens up and reaches unexpected heights. Trust acts as a leverage factor». Indeed, it was explained at the first general meeting with the whole organisation in November 2012 that the Institute would be based more on trust than control, while acknowledging the need for both components to be present.

To guide the development of this new organisational model the following principles were set out. The model should:

- Respond to the singularity (unique value proposition) of the Institute: Capacity to carry out transformative research.
- Be dynamic, agile and flexible to adapt to rapid changes in surroundings.
- Facilitate that each person, with their pro-active attitude and capacities (talent), add value in line with the Institute's mission.
- Be open, given that the singularity of Orkestra requires work to be carried out in collaboration with other agents of competitiveness.
- Facilitate conversations and experimentation for continual learning and change.

Organisational re-design according to the above principles have made the organisation more flexible and given researchers more freedom to develop their pro-activity and sense of initiative. The number of projects has multiplied in this latest phase, as has the array of actors who work with Orkestra. Likewise, the relationships with many of the stakeholders have become more focused on the medium-long term and built around strengthening mutual relationships of trust. In this regard Orkestra has developed stable, long-term cooperation projects with, for example: SPRI - Basque Government on the design and implementation of smart specialisation strategies; the Provincial Council of Gipuzkoa on organisational transformation processes which are initiated in small firms; the Provincial Council of Bizkaia on policy governance for territorial equilibrium and cohesion; a development agency in Bizkaia on topics of circular economy; and Bilbao City Council on strategies for re-industrialisation. Furthermore, the development of international projects has intensified in this latest period, both in Europe and in Latin America.

5. DISCUSSION

The aim of this section is to extract implications from the case study for the types of internal cultural change that may help academic organizations to become more effectively engaged in their territorial socio-economic development processes. The discussion first explores the characteristics of the three phases through the lens of innovation openness presented earlier as typically applied to business organizations. It then identifies a series of principles that emerge from the auto-reflective analysis of this case.

5.1. **Characteristics of the phases**

When looking at Orkestra's case over the three phases described above it is possible to observe how organizational and cultural evolution –seen in the mission, structure, leadership style, team, motivation and research objectives– have shaped the organization's ability to interact with its environment. Moreover, in each of the phases it is possible to draw parallels with different modalities of business organization innovation strategies, from more closed to more open (see Figure 1).

Figure 1. **EVOLUTION OF ORKESTRA'S CULTURE OVER TIME**
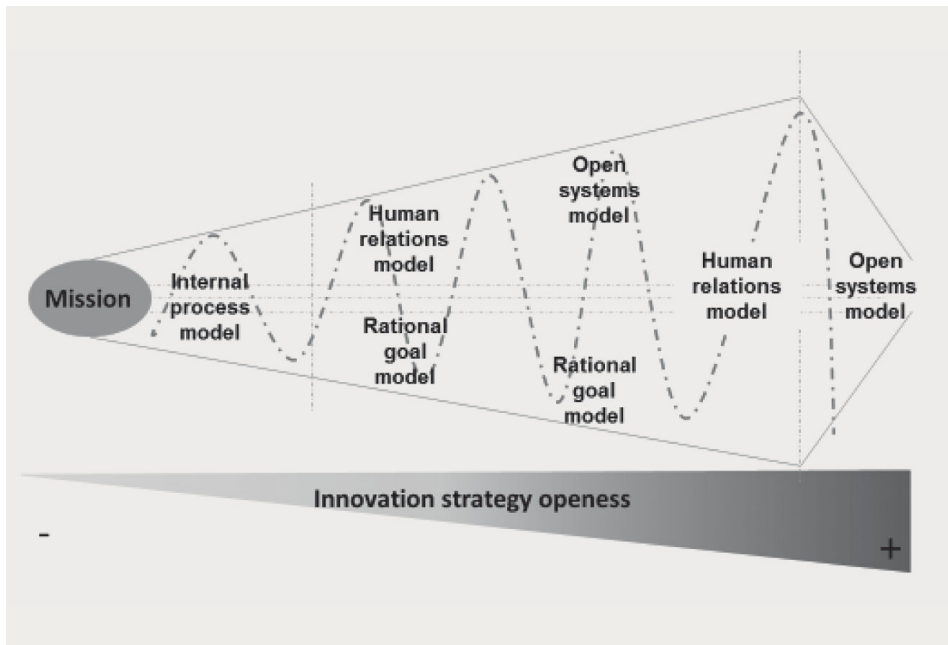
Source: Own elaboration, inspired by Linnenluecke and Griffiths (2010).

During the first stage the organizational culture was shaped by an organic structure, control-oriented leadership, traditional university-style academic practices inherited from the university, and the pull of environmental orientation «from a distance» courtesy of the stakeholder influence inbuilt in Orkestra's governance model. This type of culture can be defined as an «internal process model» (Linnenluecke and Griffiths, 2010) which is primarily focused on stability and control. Yet these features made it difficult for the organization to connect effectively with the external environment and to truly understand stakeholder motivations. It thus limited the capacity to spread the knowledge being generated across the territory. The scope and depth of organizational interactions with external agents were limited by few and superficial connections, most of them previously deliberated and planned. In this sense it could be

argued that the organization began with something akin to a «closed innovation strategy». As posited by Van de Vrande *et al.* (2009) the main barrier to open innovation in organizations is related to organizational and cultural issues. A culture based on stability and control leads to a Tayloristic approach that is unlikely to be conducive to the organizational innovations needed for open innovation approaches.

At the end of the first stage different factors started to work together in promoting the emergence of two different subcultures; specifically, the creation of a divisional structure with different leadership styles, and their empowerment through the General Director's management style of delegation. One area supported researchers' motivations to develop participative research with a leadership style characterized by trust, and started to develop openness through interactions with the environment (in a push approach). This could be seen as moving towards a «human relations model» (Linnenluecke and Griffiths, 2010) focused on building cohesion, moral, participative decision-making, and training and development. However, the other areas adopted more of a «rational goal model» (Linnenluecke and Griffiths, 2010), focused on efficiency and productivity, and characterized by control, centralized decision-making, and a pull approach with respect to the external environment. In general, therefore, as the second phase began the organization continued to follow a relatively «closed innovation strategy», but the origins of an «early-open innovation strategy» can be observed in one area of the organization (clusters, innovation and territory). Specifically, and following Enkel *et al.* (2009), the ability to absorb external knowledge, to transfer capacities to external agents thus generating capacities in the territory, and to connect with a larger sample of potential collaborators, were beginning to emerge in this area.

The second stage was characterized above all by changes in the team. It was explicitly recognized that the consolidation of Orkestra's mission necessitated changes in people. Those individuals who did not «fit» with Orkestra's goals returned to the university and other people entered the organization. However, the divisionalization of the structure was reinforced by the creation of two additional areas and once again the new General Director's approach to empowerment of each area coordinator supported the strengthening of subcultures. The way of doing research and managing people depended on each area coordinator's leadership style, and each area worked as a relatively isolated and independent unit, with few connections across them.

During this second phase the *Clusters, Innovation and Territory* area focused on growth and resource acquisition (projects, and people) by promoting a culture that moved towards what could be characterized as an "open systems model" (Linnenluecke and Griffiths, 2010). This involved higher flexibility in decision-making and prioritizing adaptability according to changes in the external environment. Through this approach they succeeded in increasing: (i) the number of projects; (ii) funding; and (iii) connections with external agents in terms of breadth (number of projects) and depth (strategic projects with key stakeholders). These concepts of breadth and

depth are widely used among scholars that analyze the impact of openness on the innovative performance of organizations (Chesbrough, 2003; Laursen & Salter, 2006), and this evolution can be seen as an indication of the embedding of an open innovation approach in the *Clusters, Innovation and Territory* area. The other areas, however, continued –to different extents– to follow more of a «rational goal model» (Linnenluecke and Griffiths, 2010). Their activities were shaped by goal-setting and planning, communication inside the team was mainly instructional, desk research was preferable to interaction with external agents, and interactions and decision-making were centralized on the figure of the area coordinator. Thus, it can be argued that in this period the organizational culture overall still supported more of a «closed innovation strategy», but the emergence of a more open innovation strategy was becoming a reality.

In the last stage, these internal contradictions and the associated tensions inherent in Orkestra's organization came to the fore when the General Director left and austerity cuts created new financial pressures. The organization was pushed to change. The development of a «management of transition» process led by the previous coordinator of the *Clusters, Innovation and Territory* area identified lack of cohesion among different departments and lack of a common organizational vision and culture as key sticking points. In this sense it was a combination of financial pressures, organizational dysfunctions and a particular leadership style that pushed Orkestra towards a more unified culture based around a "human relations model" (Linnenluecke and Griffiths, 2010) and focused on the generation of cohesion and common values across the organization.

This movement was made by implementing a flat organization (based on projects rather than departments), reinforcing flexibility and participative decision-making, encouraging trust-based and distributed leadership, and promoting the importance of developing sustainable interactions with the external environment. All of this could be seen as supporting the definition and deliberate management of an «open innovation strategy»; one that is focused on increasing the number of interactions with external agents, and is sustained through strategic projects that generate continual reflection processes that transform reality. While this process was initially top-down, implemented by the General Director and her management team without consensus-building on the type of approach, the nature of the approach itself meant that its sustainability relied on a fast transfer to bottom-up changes in culture. Indeed, this is in line with literature that suggests that the successful implementation of an open innovation strategy might be largely dependent on the values and ideological underpinnings of an organization's culture (Gassmann *et al.*, 2010).

5.2. **Five principles**

There are well-acknowledged tensions inherent in academic organisations playing more embedded roles in their territories. See, for example, Benneworth *et al.*

(2012) and, explicitly on the case of Orkestra, Aranguren *et al* (2012, 2016b). These include trade-offs between short-term and long-term time horizons in research, the need for space for researchers to detach themselves from processes of intense inter-action so as to be on the right side of the often difficult line between policy-related academic research and policy consultancy, and the balancing of local connections with global networks (Aranguren *et al.*, 2012, 2016). The effective navigating of such tensions requires changes in academic behaviour and culture, and above all the em-bedding of reflective practice among academics. This paper's reflection on the values and ideological underpinnings that have evolved through the three stages of Orkestra's organizational development leads to the identification of five principles that have been shaped by the tensions inherent in regional engagement, and that could provide useful guidance for academic organizations seeking more effective en-gagement in their territorial socio-economic development processes. Some of these principles were present from the beginning of Orkestra's life –shaped for example by the statutes and mission– while others have emerged with organizational and cultur-al change. The combination of these principles reflects the culture that has evolved to support the open innovation model that has emerged over time.

The principle of commitment to change

Those who work at Orkestra do not only work to analyse and understand Basque Country competitiveness, and make proposals for change, but to form part of this change process together with other agents of competitiveness. For this it is necessary that one of the central motivations behind the work carried out at Orkestra is the desire to generate change. Therefore, among the capacities that Orkestra strives to develop in those who form part of the Institute is the combina-tion of technical knowledge on competitiveness topics («what») with capacity to fa-cilitate processes of change («how»). In these change processes, learning takes place among both competitiveness agents and researchers, such that researchers generate change while being subject to change. This principle was present in the mission of Orkestra from its creation.

The principle of global vision, anticipation and international projection

The necessary knowledge to respond to the competitiveness challenges of the Basque Country is not only local, but also global, which is why the Institute works in collaboration with people and reference research centres on topics that are critical for the Basque Country's competitiveness. That is to say that the researchers at Orkestra learn from the outside about the latest trends on critical issues related to competitiveness, with the aim of anticipating and creating awareness in the Basque Country on the changes to come so as to act strategically before them. But at the same time, in their work for improving the Basque Country's competitiveness, Orkestra learns and generates knowledge that is also critical internationally. So the

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Institute learns in the global context and contributes with its knowledge on competitiveness in the international field, projecting internationally not only knowledge on competitiveness but also the case of the Basque Country. This principle was present in the mission of Orkestra from its creation.

The principle of collaboration, openness and flexibility

The Institute's mission requires work to be carried out in collaboration with other agents of competitiveness, so as to have a real impact on the transformation of critical elements. This demands an open organisation in which interaction is made with other agents while being flexible enough to adapt to any new challenges being faced, forming the most appropriate team to respond to each challenge. This principle emerged during the latest phase of Orkestra's development.

The principle of the generation of a systemic vision

The different critical factors that have an impact on the Basque Country's competitiveness are interrelated. Moreover, the role of each agent of competitiveness (firms, public administrations, knowledge centres, etc.) must be different in order to have an impact. The process of analysis, academic reflection and continued practice, applied to the Basque Country as a live laboratory has generated within the Institute knowledge and capacities for the study and improvement of competitiveness and has allowed the generation of a holistic and systemic vision, not only of the different critical factors of competitiveness, but also of the complementary role carried out by each of the different actors. These critical factors are dynamic and evolve according to the identification of new factors of competitiveness. Its dynamism is the natural result of the continual interaction of Orkestra's researchers with the different actors of competitiveness and with professionals and international reference centres in the field of competitiveness. This principle emerged during the latest phase of Orkestra's development.

The principle of independence and constructive critical vision

The four previous principles generate in Orkestra its own, critical vision of the changes that should be worked on for the improvement of competitiveness and socioeconomic progress. An example of this is the Manifiesto developed as part of the Orkestra's 10th Anniversary. This unique own vision, constructed in collaboration with competitiveness actors in the Basque Country, is the impetus driving the Institute forwards. Those who make up Orkestra approach collaboration with different actors from their own critical vision, and in doing so project in a constructive manner the fundamental independence of the Institute. This principle was present in the mission of Orkestra from its creation, but has been strengthened during the process of organizational and cultural change feeding from the emergence of the other principles.

6. **CONCLUSIONS**

This paper has sought to increase understanding around how internal cultural changes in academic organizations might foster a more active role for academics – and therefore for their organizations– in the socioeconomic development processes of the regions where they are located. The management literature suggests a role for organizational culture in facilitating open innovation strategies in business organizations. This provided inspiration for exploring a parallel argument with regards to academic organizations seeking to be more engaged in their territorial systems.

There is much talk of new 'missions' for academic organizations to play more strategic roles as a change agent in their territories. However such missions on their own are static statements. Their execution requires the development of different strategic actions to ensure the development of more effective interaction between academics and other agents in society. Management literature around the concept of open innovation suggests that changing organizational culture is likely to be a key such strategic action. Among business organizations an adaptive culture is seen as a means to being successful in a continuously changing environment. This paper has argued that academic organizations too need to innovate internally in order to foster appropriate changes in their organizational culture that enable them to engage better with their territories and respond better to societal challenges.

These arguments are borne out by the auto-reflective analysis of the case of Orkestra. Orkestra was created ten years ago with a stated mission to be a change agent, working with other regional actors to foster competitiveness in the Basque Country. Yet the case shows clearly how the formal creation of a new structural unit with this explicit mission was not sufficient. It has been necessary to work on changing the values and approaches to interaction of researchers through the transformation of the culture within Orkestra, a process that has developed in different parts of the organization in three distinct phases.

In this sense culture must be understood as a dynamic capability for organizational change. Without it, academic organizations might be locked into institutional or structural inertia that renders them unable to adapt effectively to new external contexts. Yet there is no universally optimal culture; it depends on organizational specificities and the current context. Like in business organizations, the primary goal of management therefore is not to identify the best solution in an absolute manner, but to develop feasible and workable solutions that are fruitful under the current framework, and that should be constantly reconsidered over time (Som *et al.*, 2012). Each phase in the case analysed here required a different type of culture, highlighting the need to take an evolutionary perspective and to understand culture as a dynamic capability. Moreover, the case demonstrates how the values and principles imbricated in Orkestra's mission have evolved over time, pushing the transformation of organizational culture. Specifi-

cally, five principles specific to the Orkestra case have been identified. While the principles of commitment to change and of having a global vision and international projection were present in the mission of Orkestra from its creation, other principles of collaboration, openness and flexibility and of the generation of a systemic vision only emerged as the culture began to change. Moreover, as these emerged they fed back to strengthen the principles that were established in the initial mission statement, enabling them to become more of a reality.

While single and auto-reflective case studies have limitations in terms of direct generalization, the detailed analysis of experience in a specific context that they offer opens up significant scope for learning and reflect on relevant for other places. In this respect the analysis of the Orkestra case provides insight on what types of internal changes and transformations in culture are necessary to foster a more active role for academics in territorial socioeconomic development processes in one specific context, which could be adopted as a stimulus for reflection in other organizational and territorial contexts. Indeed, there is an interesting agenda for future research in terms of exploring whether the principles that have underscored this specific case of a small, specific research institute are relevant also in cases of larger academic organizations and/or organizations working in different subject areas or regional contexts.

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