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Place Leadership for Regional Innovation

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1   Introduction

Leadership research has continued to advance new theoretical perspectives and empirical evidence on leading urban and regional innovation. To build on these advances in leadership thinking, this paper will develop the notion of place-based leadership – a concept that is rooted in a conviction that it is crucial to better understand what kind of leadership may serve the many efforts to boost innovation in different urban conurbations and regions. In this context, place-based leadership is often generative by nature. Generative leadership focuses on those processes that are geared to constructing local conditions for knowledge creation, circulation and valorisation. In contrast to much of the mainstream literature on individual leadership, generative leadership calls for mobilisation of collective action and pooling existing and new knowledge, power and resources of many independent actors. This again calls for better understanding of how actors influence each other in the construction of shared strategic intentions across complex public-private-higher education constellations, where no one is in charge alone. Place-based leadership is therefore concerned with mobilizing, directing and facilitating inter-organizational development strategies and practices across many institutional boundaries. Leaders need to find ways to make people work for a region but simultaneously to strengthen their own position. Leaders often are the glue that keeps collaboration together, and they open new horizons in collective thinking.

In this working paper, I first discuss why leadership is important in the context of urban and regional innovation systems. I then continue by explaining the nature of urban and regional innovation systems. Next, we proceed to examine the notion of place-based leadership in a multi-actor context, and examine complex and varied leader-follower relationships. I conclude the chapter, by offering criticism and a summary of possible research questions for future place-leadership research.

2   Urban and regional innovation call for leadership

In the early 21st century, economic development is driven by knowledge-intensive activities and business services that tend to concentrate in the main urban regions both globally and nationally. It is the Londons, Shanghais and Silicon Valleys that dominate the world economy. Post-industrial cities and rural areas often struggle to find their place in the knowledge economy. Market-related entrepreneurial agency, geographical proximity of knowledge and expertise, venture capital and world-class universities are more often than not in the core of theories and models aiming to explain the spatial concentration of the knowledge-based economic development (Asheim et al, 2006). Research acknowledges this view but highlights the need to look more in detail how all sorts of regions and cities generate avenues for the future, why some cities and regions do well in a new situation while others do not, and what makes some places capable in working against all the odds while others are caught by a downward spiral. While there are many studies searching answers to these questions, few focus on leadership.

Studies focusing on economic development of cities and regions face an interesting double challenge. First, structurally oriented studies tend to downplay issues related to human agency, and thus neglect the roles many actors play in local and regional changes. According to Rodríguez-Pose (2013), a large share of regional development differences remains unexplained after taking account structural preconditions, the most obvious being industrial structure, the size of the region, capital and labour characteristics and the quality of infrastructure. In other words, some regions grow more than could be expected from their preconditions, and conversely, some other regions grow less than could be expected (Grillitsch & Sotarauta, 2018). Second, there is a need to see beyond standard public policy repertoires to identify what leaders actually do to influence economic development in their regions.

Nicholds et al. (2017) conclude that it indeed is possible to cultivate multilevel and shared place-based leadership aimed at finding third solutions among competing vested interests, relying on communication, negotiation and the co-ordination of myriad of relationships. Beer (2014) reminds that place-based leadership may even be a crucial ingredient of tailoring development strategies to serve specific needs of specific regions. Indeed, earlier studies show that place-based leadership as a specific form of leadership exists, and that it matters to the economic development of regions and cities (see for example,. Beer et al., 2018; Hu & Hassink, 2017; Karlsen & Larrea, 2012; Norman, 2013; Sotarauta & Beer, 2016; Sotarauta, 2016; Storper et al., 2015; Walshok & Shragge, 2013). Importantly, as Hu and Hassink (2017) maintain, place-based leadership is not a quick fix recipe producing instantaneous impacts on innovation dynamics but a long-term quest to improve regional conditions for innovation. In this kind of setting, the role of an individual leader may be limited, but leader*ship* has become more and more important (Grint, 2001).

3   Regional innovation systems and strategies

Beer and Clower (2014) argue place-based leadership is the missing piece in the regional development puzzle, and more specifically in regional innovation systems and related policy arenas. Hambleton (2014) describes place-based leadership as leaders exercising their decision-making power to improve the quality of life of communities living in a particular place. This contrasts with organizational leadership or "place-less" decision-making in which leaders are unconcerned about the impact their decisions have on particular communities. Place-based leadership aims to answer to some of the main challenges of any regional development effort: how to choose priorities in a multi-actor and multipurpose context, how to collaborate for a locality/region while simultaneously pursuing one's own goals – how to combine individual intentions to collective intentions and vice versa, and how to see beyond formal policies to identify the ways human interaction for innovation can be shepherded, and by whom.

Actors in the regional development community are unanimous that the innovative capacity of firms and other organizations as well as individuals in finding novel solutions to tackle with a variety of challenges and grasp opportunities, and thus also shaping regional futures, is crucial.

All this calls for conscious efforts to construct and improve regional innovation systems providing organizations with a fertile soil to operate on. Studies focusing on regional innovation systems have explained how sub-national economies can construct their own competitiveness by boosting the systems of knowledge creation and exploitation. They also show how regions may specialize and/or diversify their economies on technological and other types of innovations, and how these efforts enable them to compete in the global economy.

Many regions have, with varying success, attempted to formulate and implement strategies aimed at constructing high-level knowledge pools in selected areas of economic activity, and finding ways to strengthen mutually supporting internal networks as well as pipelines to knowledge sources elsewhere in the world (Bathelt et al, 2004). But, regions have different preconditions to compete, support innovation, and stimulate economic growth. Michael Storper simplifies the differences as follows:

> "Some regions are specialized in dynamically growing industries while others are specialized in mature industries, and there are also regions specializing in several industries being in different stages in their development. Highly knowledge-intensive and innovative industries tend to cluster in space while the less knowledge-intensive and standardized activities, e.g. low-skill manufacturing, are located to more peripheral regions. Some regions, typically peripheral regions, may not have developed a critical mass in any industry" (Storper et al. 2016).

Innovation systems comprise a number of factors that influence the creation and utilization of economic opportunities. The core is the *systemic interaction* between creative and innovative individuals, universities, research institutes, vocational education and training, finance (and particularly risk finance and targeted R&D funding), supporting organizations such as cluster organizations, incubators, technology transfer centers, for example (e.g. Cooke, Uranga, & Etxebarria 1997). The systemic view discussed and studied in the regional innovation system literature suggests the many resources crucial for innovation are both constructed and exploited by actors who are embedded in a web of regional and extra-regional networks as well as a socio-institutional context.

Regional innovation systems can be separated from the national innovation systems conceptually but also empirically; research and development intensities, technological developments, industrial structures, policy initiatives and practices, business services, and governance structures differ from each other. Most importantly, the nature and intensity of the interaction between key actors may deviate between regions (Oughton, Landabaso & Morgan, 2002). Innovation systems may also be inherently more sectoral than regional by nature, if the actors' knowledge sources and main innovation partners are fairly alike irrespective of location (Isaksen & Onsager 2010). In addition to the existing preconditions also the capacity of regional actors to create new resources and exploit the existing ones varies. It is now more or less established view among regional development scholars that to make a difference regional innovation strategies need to be customized to suit the needs of the country, region and/or

industry in question (see Tödtling & Trippl 2005). First, national innovation strategies have a regional impact that ought to be acknowledged whether it is intended or not. Second, regional dissimilarities in the quality and quantity of innovation activity are not limited to performance of a regional innovation system or activities embedded in it but also institutions framing and shaping innovation processes and interaction patterns may differ (Fritsch & Stephan, 2005, 1123-1124). Therefore, tailor-made strategies and policy instruments are required to serve the regional needs but also to achieve national-level objectives effectively.

Importantly, Crevoisier and Hugues (2009) maintain a regional innovation system or, more broadly speaking, a knowledge economy is not spatially bounded but a massive global playground for different actors to source knowledge and collaborate. Even though the emphasis is on regional innovation systems, innovation processes are often multi-locational in nature. Thus, regional systems need to be understood in wider contexts. For these reasons, Storper and Venables (2004) and Bathelt et al., (2004) highlight both local and global interaction, and hence place based leaders need also work to to establish extra-regional linkages to complement localized learning and networks.

In sum, the rationale behind regional innovation strategies is to enhance knowledge-based economic development, and more specifically, to boost collective learning for economic and social renewal through introduction of innovations. Place-based leaders work to improve a regional innovation system to support better regional organisations and individuals. They work to mobilise and co-ordinate resources and competencies of many actors to change institutions, interaction patters and mind-sets for innovation. In so doing, they aim to construct a shared vision to provide a heterogenous groups of actors with a direction.

4   Place-based leadership

By definition, a regional innovation system is a multi-actor context, where no actor or leader alone has the power or resources to change the system to better boost innovation processes. As OECD (2015) argues, place-based leadership is not the concern of public agencies or elected local/regional government alone. Indeed, the diversity of actors and multi-voice nature of any region may add significantly to the resources, innovation capacity and powers of regional and local economies. But, to secure these advantages, place-based leaders need to pool the distributed system of leadership and make it more coherent to make a difference. Consequently, as said already above, leadership is concerned with mobilizing, directing, co-ordinating and facilitating inter-organizational development strategies and practices across many institutional and organisational boundaries. This kind of leadership is fairly generally labelled as place-based leadership (or place/regional leadership), as leaders need to have a good sense of place and its social fabric to make a difference (Trickett & Lee 2010, 434). As Horlings (2012) observes, many place-based leaders are strongly motivated by their emotional attachment to the place and/or the issues they address.

Place-based leadership is not the same as local or regional government's usual service relayed tasks or administrative functions. Applying OECD report on local economic leadership, place-based leadership is about shaping and influencing activities over which leaders have limited formal authority, but which affect regional development broadly. Place-based leaders thus aim to attract private investments for innovation; establish innovation agendas influencing a wider set of organizations beyond short term political cycles; construct a vision and joint narrative for the future of a regional economy; negotiate and coordinate with higher tiers of government for investments; and stimulate demand and create markets and opportunities for a regional economy (OECD, 2015).

Place-based leaders work for a region's future with, by and through its inhabitants and organisations, and hence they, by definition, work to engage other actors in regional development efforts. Many actors indeed contribute to efforts to upgrade regional innovation systems, but usually they are not able to leave their own interests, incentives, operational logics and paymasters behind. Therefore, place leaders are facing a notoriously difficult task in shepherding all sorts of actor towards a common ground. Place-based leadership is therefore "a process of reconciling conflicting and competing interests aimed at generating collaborative advantage and an understanding of the challenges associated with transforming places as well as organisations and capabilities" (Trickett & Lee, 2010, 434).

Place-based leaders need to understand the opportunities and restrictions provided by the location as well as the many social networks shaping its character. They need to be aware of, and continuously observe the dominant networks internal and external to a region, and the nature of relationships between their core members. Place leaders thus need to identify leading private and/or public actors, their backgrounds and potential coalitions. At their best, place leaders are masters in identifying what motivates the core actors and in what ways they might be able to contribute to regional development efforts, and benefit from them. Most importantly, place leaders are supposed to be better aware of the desirable, imaginable and predictable futures of their region than anybody else.

As development of regional innovation systems is fundamentally concerned with long-term processes, place-based leadership is rather to be seen as a force in time than a leader–follower relationship in the here and now, and hence the relationship between leaders and followers is ambiguous (Sotarauta, 2016). In line with the contemporary leadership literature, place-based leadership is more useful when seen as an activity than as an individual in possession of a formal position. Consequently, the primary emphasis is to be moved from issues related to how leaders deliberately coordinate their followers in the pursuit of a consciously absorbed objectives (assigned leadership) (Couto, 2010) to the in-depth scrutiny of emergent processes of leadership. In doing so, the first step would be to see beyond assigned leadership to identify the many manifestations of place-based leadership.

In simplification, assigned leaders are granted the authority to exercise power - have a formal position - to boost regional innovation. Some assigned leaders aspire to reach beyond their

authorisation to influence beyond their normal sphere of influence. Assigned leaders may comprise mayors and the chief executives of local/regional economic development agencies, and other leaders of such organisations, whose mission it is to develop, one way or another, regional economy. Assigned leaders have an organisation, resources and/or a mandate to work for a regional innovation system or some elements of it, while non-assigned do not possess an institutional position that might allow them to influence directly, they need to exercise other forms of influence. Non-assigned leaders earn their leadership position in spite of not having a formal authority or assigned position but because of the ways other people respond to them. (see for more, Sotarauta, 2016).

In place-based leadership, however, the boundary between assigned and non-assigned leadership is not at all clear. An assigned leader may become non-assigned when they aim to reach actors beyond those institutional arrangements from which the assignment is derived from. Conversely, a non-assigned leader may gain authority if they can earn the respect of other actors, and/or if the institutional conditions change, thus enabling the leader to become an assigned leader. All in all, in the world of regional development and innovation, the tendency is to conflate leadership with authority and formal positions, and by doing so, overshadow some important aspects of it. It is fairly common to raise only influential individuals with authority and formal positions to the limelight. In addition to assigned leaders, it is also common to analyse structures and processes of a city or regional government instead of processes of influence. The assigned leaders and related structures are visible, while non-assigned leaders and emergent forms of leadership are much more difficult to identify.

In sum, a place-based leader is assumed to be more capable than other actors in understanding overall requirements of a regional innovation system; key actor's interests; motives and resources as well as anticipating their responses to various initiatives; the ways they might be induced to contribute to the collaborative efforts; and estimating power bases of crucial actors and capacity to influence their behaviour.

5   Place leaders, knowledge producers and decision makers

In order to better differentiate between place-based leadership and other forms of agency two generic categories are added to that of place-based leadership. They are knowledge producers and decision makers. As hopefully has become clear, a place-based leader is an actor who works to influence other actors for regional innovation. A resource holder refers broadly to an individual or group of individuals or an organisation having some kinds of resources and/or powers that are, or might be, important from regional development and innovation perspective, but who are not assigned to work for regional development – it is not their mission to shape a selected a regional innovation system or some aspects of it. Similarly, a decision maker is here simplified to refer all those actors having power to make decisions to influence regional development without having a mission of doing so.

Decision makers and resource holders may include (a) *influential individuals* (wealthy philanthropists; entrepreneurs; business owners); (b) *representatives of industry* (leaders from interest organisations; cluster project organisations; larger firms with regional anchorage; local small and medium sized companies); (c) *representatives of public administration* (leading bureaucrats both at national and regional/city level; publicly owned firms); (d) *representatives of financial world* (leaders from both private and public funding bodies; banks); and (e) *elected representatives* (politicians; national level representatives, etc.). (Norman 2013; Sotarauta and Beer, 2017).

On their part, knowledge producers are such actors whose primary work is to produce new knowledge and its applications as well as interpretations of current events and future trends. They are not working to develop a region or make significant decisions but they may influence either directly or indirectly the thinking of others. The most obvious of knowledge producers are different types of investigators and media workers. Knowledge producers may include (f) *representatives* of *R&D institutions* (universities; renowned professors; research institutions; knowledge parks; technology transfer institutions; consultancies; larger R&D projects); (g) *representatives of media* (local, regional and national media organisations as well social media); and (h) *community groups* (civil society activists) (Norman 2013; Sotarauta and Beer, 2017).

Of course, above categorisation is a crude simplification, and the borders between various groups are fine indeed; an actor may take many roles and the roles may change in time. At all events, almost endless arrays of actors may either directly or indirectly have an effect on regional development. Some of the actors listed above may be assigned place leaders and consciously work to boost regional development or target their action at a selected local/regional aspect. It is important to keep in mind that actors aiming to influence are not some external third parties, which aim to bear influence course of events from above and outside, but the effect of different actors on each other and on themselves (Kickert, 1993: 195).

As indicated above, to improve a regional innovation system and perhaps also the roles actors are playing in it, place leaders aim to influence other actors' choices, decisions and actions by moulding, if possible, institutional arrangements, collective perceptions, interaction patterns and assemblies of actors working. Place leaders aim to pool and direct all sorts of activities and actors to change institutions (regulation, normative expectations, collective mind-sets) so that core actors would act differently as they otherwise would do. Ideally, place leaders are not aiming to break the resistance of other actors (Paloheimo & Wiberg, 2005); they are not in a position to make them to do something against their will, but to induce them to willingly do things they would not otherwise do (Sotarauta, 2016).
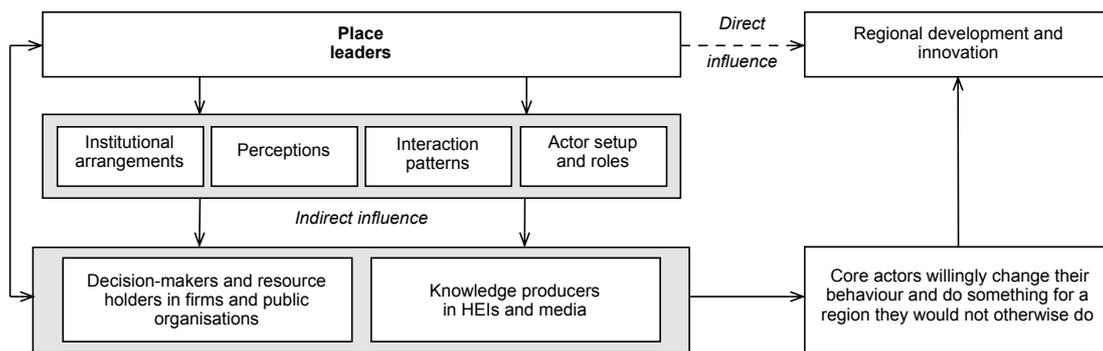
Figure 1. The relationship between place leaders, other actors and regional development and innovation

In sum, place leaders often influence indirectly, they:

- aim at creating novel context for collective action instead of directly trying to change the course of actions and events

- induce, or rather 'seduce', other actors to do something differently

- do not aim to challenge preferences of the other actors but aim to combine individual aims to collective regional objectives

- aim to multiply the opportunities and alternatives for other actors

5.1 Case highlight: Leadership Relay in Peripheral Finland

This case study is based on Sotarauta & Kosonen (2004) and Sotarauta (2016)

South Ostrobothnia is a small region in Western Finland. It is an example of how a small rural region may pursue a regional innovation strategy.

In the 1990's, Finland was recovering from an economic recession by strategies focusing on research, development and innovation. South Ostrobothnia was facing a huge challenge; the entire region and its centre Seinäjoki seemed to be unsuitable for the rapidly evolving innovation oriented Finnish knowledge economy. Collective anxiety was palpable.

The assigned leaders from the Regional Council of South Ostrobothnia (representing the region), the Centre for Employment and Economic Development (representing the state), and the Town of Seinäjoki (the local government) in collaboration mobilized networks to discuss the future options and strategies. The Finnish multilevel regional development system both enabled and required local and regional authorities to formulate regional development strategies. However, the regional development system was not a sufficient condition for a truly collective action to emerge. At all events, the first mobilisation phase exposed the fragility of the local innovation capacity and the introverted nature of it.

Step by step, through sometimes heated debates the key actors started to acknowledge that their own basic assumptions and deeply held convictions were based more on the past than the future needs. Gradually, towards the end of the 1990's, social filters were penetrated and a collective strategic awareness started to unfold. At first, it revolved around the generic

realization that development strategies should not anymore focus on such traditional strengths of the region as agriculture, village activity, machinery and the metal industry – the new strategies ought to focus on strengthening the innovation capacity of the region. This was a dramatic change in a region that had traditionally seen research as a sign of hesitation and hence failure, and university education spoiling a good worker.

Interestingly, the leadership in South Ostrobothnia was like a relay race, it shifted from assigned leaders to non-assigned leaders and back to assigned leaders but different from the initial ones. At first, leaders from local/regional development agencies mobilised the networks to be engaged in collective thinking but also tapped into external sources of knowledge to learn new theories and practices of local/regional development and related innovation systems. In the formal planning process, it was agreed to strengthen the institutional capacity for innovation by establishing 'a network university' in a region, where there were no universities, only few smallish university filials. But, the assigned leaders were not able to concretize the idea of a network university, and thus they were not able to induce universities or other actors in implanting the idea. Moreover, they lacked a view on how the process ought to be organised and lead beyond the formal planning process, and thus they struggled in constructing such a concrete development concept for a generic idea that would have allowed collaboration across many boundaries.

In this kind situation, a handful of young scholars from local university filial units took the lead in framing the thinking and constructing alternative visions for network university on how to proceed in getting all the main players involved. Consequently, professors and their research groups tapped into sources of information that were previously unreachable to local actors. They transferred fresh ideas and knowledge into the region and translated it to fit into the regional situation. What followed was a collective agreement on what to focus on and how to do it. Especially important was the realisation how a network university might be realised in a rural region with scarce resources.

Ultimately, a university network comprising six leading Finnish universities was established with more than 20 professors with their research groups, and all the relevant regional organizations (firms, municipalities, etc.) with some national bodies have been engaged in funding the network for past 19 years. The final mobilization of complicated set of actors – formal contracts and relationships of trust between them – were, and is, coordinated by the University Association of South Ostrobothnia and the University Consortium of Seinäjoki. They were assigned by the other actors to take the lead at this stage. The local and regional development agencies, who launched the process, support the activities from the background.

In the 2010's, South Ostrobothnia is one of the rare regions that has been capable in upgrading its innovation system to a new level.

5.2 Case study – Leading innovation in Liverpool City-Region[1]

This case study is based on the article by Dane Anderton (2016). Science in the city region: establishing Liverpool's life science ecology. Regional Studies, Regional Science, 3(1), 437-444.

In 2010s, there were 53 firms in the life science sector alongside several R&D organisations in Liverpool city-region (LCR). On its part, the video games industry consisted of 30 firms with fewer public organisations supporting its development. It had not been a target of local policy measures (as the life sciences were) before 2008. Liverpool city-region, however, has been seen as a good place for video game firms, and reputable firms have established themselves in city-region further drawing major cultural events and skilled individuals to work in LCR.
The problem

Local policymakers had endeavoured to diversify the entire life science concentration to become more knowledge-intensive with stronger high value-added activities. In spite of these efforts, LCR has not enjoyed a reputation as a place to do high-level life science, and consequently, life science firms have had difficulties in attracting new investment and talent with the specialist knowledge to relocate to the city.

Recent developments have seen changes in public leadership and close scrutiny of the two industries. The most noticeable of the changes was the closure of the North West Regional Development Agency (NWDA), which directly influenced the actors receiving funding form the agency. With the closure of NWDA the region lost the leading brokerage player. Changes in the local/regional institutional arrangements meant that new lead organizations did not have well-networked individuals and social relationships and mechanisms, which previously acted as 'brokers' for firms to access investment and knowledge flows from outside the city-region, notably the EU. As one researcher observed: "*personal contacts were lost and the new governance structure brought about new ways of engaging with indu*stry."

Importantly, the life sciences and video games sectors were affected differently. In life sciences the changes in public leadership lead to low levels of connectivity between firms on a product or project basis. This was because government support became more centralised as public funds were cut. Life sciences previously had benefited from extensive investments from the public sector. In contrast, the video games industry did not suffer from the changes in public leadership as life sciences did. The industry had previously enjoyed limited public leadership and material support from the public sector, and it had also witnessed post-2010 closures of multinational studios. To complement the local knowledge ecosystem, leaders from two firms took the lead to develop new 'tailor-made' soft infrastructure platforms. The video games industry was less dependent on the public leadership than life sciences and was able to self-organize through business leadership. It was able too to strengthen well-established local networks and trust among the core organizations and also improve the earlier limited institutional arrangements supporting video game business.

In sum, place-based leadership is less about one individual leader leading a development process than a *collective process* emerging over a long period of time. Whereas the video game

industry demonstrates how non-assigned business leaders can work collectively to improve local conditions for innovation, the life sciences, on its part, illustrates how the overdeveloped reliance on assigned leadership may lead to underdeveloped networks among local actors, and thus weak non-assigned leadership. Thus, it is crucial that leaders working to develop and improve local conditions for knowledge production and its utilisation purposefully create and institutionalise soft infrastructures alongside the hard ones.

6   Generative leadership - a missing link in transformative efforts

Especially in the context of regional innovation systems and strategies, the definitions of place-based leadership are often rooted, at least implicitly, in an assumption that it works for transformative changes. Simultaneously, place-based leadership literature acknowledges the complexity of making difference in a multi-actor and multi-force context, and does not assume that place-based leaders might somehow be able to lead transformational process in a similar vein as leaders do in individual organisations. The well-known categories of transactional and transformational leadership introduced by Burns (1978), and further developed by Bass (1999), are useful in the efforts to understand the gap between the idealised version of place-based leadership and every-day practices of it (see Chapter 7). It also helps us to locate generative nature of place-based leadership in wider debates on leadership.

Transactional leadership refers to actors taking the initiative in making contact with others for the purpose of an exchange of valued things. It does not connect leaders and followers in a mutual and continuing pursuit of a higher purpose (Burns, 1978). It may not be exaggeration to argue that, in most countries and regions, regional innovation strategies and related leadership fairly often follow transactional mode: a close agreement between what actors are expected to accomplish is made and it is clearly agreed on how beneficiaries ought to contribute to a regional innovation strategy (contingent reward). All too often action is taken and new strategies formulated only when the need for change is visible, and all too easily development efforts turn into transactive management of public funds instead of truly transformative leadership for the future. Ideally, also in regionally embedded transformational leadership, several actors would engage with each other to raise one another to higher levels of motivation and purpose (Burns 1978).

Interestingly, in regional innovation system and/or policy literature, regional innovation strategies and transformational leadership are not usually connected conceptually, even though transformational leadership could easily be seen as an ideal for both assigned and non-assigned place-based leaders to boost change. Indeed, the features of transformational leadership identified by Bass (1999) might prove useful in regional contexts. Bass relates transformational leadership to (a) leaders' charisma (idealized influence); (b) the ways leaders use symbols and images to direct the efforts (inspirational motivation); (c) the ways leaders direct others to see and think old problems in new ways (intellectual stimulation); and (d) the ways leaders coach others to find their way to contribute to higher purposes (individualized consideration). Indeed,

the need for this kind of transformational leadership has become even more urgent. The European Union's dominant regional innovation strategy approach of the 2010's – smart specialization – emphasizes identification of the unique characteristics and assets of each region underlining competitive advantages, and, importantly, it also stresses the importance of 'mobilizing regional stakeholders and resources around an excellence-driven vision of their future' (Heimeriks & Balland, 2016, 562; McCann & Ortega-Argilés, 2013). A European wide effort to reach beyond standard domains of the public sector has been launched. Smart specialization seems to be calling for a well-established place-based leadership that is expected to produce major changes in structures, interaction patters and mindsets framing innovation processes in regions.

But, public leadership for innovation seldom is transformational. In spite of the many aspirations to take steps towards more transformational regional innovation strategies by smart specialization, it may well be it does not readily provide entrepreneurs and regional development practitioners with renewed transformational capacity (Sotarauta, 2018). Place-based leadership should not be transactive either, and thus, based on earlier work on leadership in European knowledge cities (Sotarauta, 2016), it is suggested that, instead of being directly transformational, place-based leadership is more often than not generative by nature. Often, place-based leadership simply is not powerful enough to bring about transformative changes. Therefore, in practice, place-based leaders *generate* such processes that presumably in the course of time lead to transformational outcomes. Generative leadership, in addition to well-developed place-literacy, calls for sophisticated process-literacy.

´According to Webster Comprehensive Dictionary (1996) 'to generate' refers to a process of bringing into existence, originating by a process, or defining or originating by the application of one or more rules or operations. So, generative leadership is about setting things to move for giving birth to some something new in a region. In this context, generation is geared to constructing context for creativity and innovation but not to product or service related innovations in itself. Generative leadership thus refers to such processes that guide other actors to construction of new development paths and transformation of a regional innovation system. The core idea is that to achieve truly transformational regional innovations strategies, we need to investigate how generative leadership may lead to transformative action and bridge transactional and transformational leadership to form a coherent whole in the context of regional innovation systems.

7   Criticism and exemplary research for place-based leadership

Place-based leadership is a specific form of agency referring to actions or interventions to influence wide spectrum of actors to produce a particular effect. Therefore, place-based leadership is best studied in its full complexity by situating it in the flow of time. As such it is approached as a temporally embedded process of social engagement that is informed by the past but always oriented toward open futures (applying Emirbayer & Mische 1998). The main

purpose is to identify: (a) what structural conditions affect transformation processes for regional innovation; (b) what are the main transformational strategies adopted by place leaders, independently or in collaboration with other actors, in their efforts to boost regional innovation and; (c) what place-based leaders do to generate such processes that attract core actors to contribute to the collective effort.

However, we need to be careful not to stress too much the importance of place-based leadership and aim for causalities between leadership and regional economic development; we might wind up searching for causality between easily identified variables, such as formally assigned leadership and GDP growth. This might reinforce the tendency to do reminiscent single-case studies introducing more or less imaginary causal links between improved regional innovation performance and skilful place-based leadership practices. This again might lead to one-eyed 'happy family stories' embedded in an assumption that local leadership practices alone might produce better regional economic development (Benneworth, 2004; Benneworth et al. 2017). Indeed, the need to avoid mystification of place-based leadership and the need to broaden the methodological tool-kit beyond single-case studies are recognized (Beer et al 2018). Moreover, it is crucial to keep in mind that scale and national governance system matters in the place-based leadership, and the capabilities and local/regional resources required to lead across organizational divides differ greatly (Ayres, 2014; Bentley et al. 2017). Ayres (2014) also reminds place leadership scholars not becoming self-serving, as several scholars in other disciplines (e.g. policy network theory) has carried our research on similar topics informing an understanding of place-based leadership too.

Quite naturally most of the actors comply with existing systems but the proposition here is that there are actors who lead generative processes with an ambition to transform the regional innovation systems. The proposition emerging from earlier studies on place-based leadership show it is not a heroic act of top down influence but a multi-scalar and multi-actor process in time. It often is a collective and at best shared mode of leadership but it may also include highly personal and intuitive, and as such unplanned, forms of agency (Sotarauta & Mustikkamäki, 2015), which is more a patchwork of single measures leading to a same direction than an implementation of a pre-designed vision. At all events, the earlier observations call for systemic approach to study leadership that is relational, contextual and processual by nature. It should allow locating leadership in the actions and relationships linking actors in transformation processes, and, as said, not in the formal positions and attributes of individuals only.

As proposed above, generally speaking, the place-based leadership may take three forms: transformational, generative and transactional. These three forms of leadership may take specific forms in specific situations and range from futures oriented strategic efforts to reactive adaptation. It is proposed here that there is heaps of variety in the strategies and related actions that both assigned and non-assigned leaders may embrace in their efforts to combine and re-combine as well as deploy and re-deploy different competences, resources and sources of power for regional innovation. The propositions guiding place-based leadership studies allow

exploratory testing of them, as heuristic hypotheses in an emerging research area do not allow straightforward statistical testing or predictions based of them. The very basic questions following all this are, for example:

- What are the main phases and critical junctures of a regional innovation process under scrutiny? How does the change process unfold in time, i.e. how the identified critical junctures are linked to each other in time?

- How do institutions facilitate and/or hamper development efforts, what institutions in particular are influencing efforts to boost innovation in a specific region? Do they enable, constrain and/or prevent actors aiming to do something new?

- Who are the key actors influencing the course of events? What roles do they possess? With whom they work, why? How do their social positions, educational backgrounds, and/or work experiences influence the ways they adopt their roles, operate, and learn what to do?

- What kind of leadership do actors exercise in wider networks of power and influence? How do they aim to influence other actors and who are their followers? How do they interact with other key actors to influence regional development?

8   Conclusion

Regional innovation systems are based on a conviction that dispersed and disparate knowledge across all sorts of actors need to be connected and pooled. The many leadership efforts to achieve this vary not only between governance systems but also to some degree also within them (Beer et al., 2018). Place-based leaders are expected to generate such process that may pool dispersed powers, capabilities and knowledge to achieve transformational changes. The belief is that by mobilising distributed assets to serve both individual and joint ambitions, it is possible to advance in a collaborative development effort – in something that is more than an individual actor can demonstrate alone.

As place-based leaders are expected to lead heterogenous groups of actors and find ways to make them work for a region and not only for themselves, the concept of place-based leadership can be seen as an ideal; in practice it may be a scarce resource in many regions. One of the main paradoxes is that even though a critical need for place-based leadership is evident, neither individual nor organizational actors like to be led by actors outside their own organisations (Sydow et al. 2011). Additionally, due to its hidden nature place-based leadership is not easy to study. Indeed, empirical studies indicate place-based leadership is often hardly visible, being shadowed by governance structures, formal development strategies and policies, legislations, etc - it is a hidden form of leadership (Sotarauta, 2016). The very nature of place-based leadership makes it difficult to identify leader-follower relationships, and thus it is crucial to approach it as contextually embedded agency, which are capable in identifying, communicating, translating and influencing place-specific challenges and opportunities (Bailey et al., 2010).

To sum up, place-based leadership is the generative force that causes goals to be met and identified, and missions to be accomplished in a place rather than a direct influence embedded

in a formally constructed institutional position. Therefore, we need to understand leadership in such a way that acknowledges tensions and contradictions surrounding it in complex social entities. Indeed, the emerging body of place-based leadership research stresses its long-term as well as relational and as such interactive and collective nature. It might thus also serve in the efforts to unravel the secrets of place-specific social relations related to regional innovation. This might prove important not only in supporting mobilisation or the construction of a shared vision but also in identifying the covert forms of power and influence as well as skewed mobilisation patterns and subsequent development assemblies.

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