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RESEARCH ARTICLE

Local enterprise partnerships: Socialisation practices enabling business collective action in regional knowledge networks

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This article identifies and theorises the interorganisational socialisation mechanisms that facilitate the knowledge dynamic capabilities of organisations brought together within the applied context of a U.K. Local Enterprise Partnership. Focusing on the Sheffield City Region's Creative and Digital Industries Sector Group, the data for this study were messages posted to the Creative and Digital Industries Sector Group's online consultation platform. Data analysis proceeded through inductive thematic analysis. It is revealed that collaborative workspaces, business networks resources, and pathways to internationalisation are perceived to play an important role in facilitating interorganisational learning. These knowledge socialisation mechanisms are essential to avoid regional competency traps. The article identifies and discusses knowledge socialisation mechanisms that are perceived to play a key role in transferring knowledge between members of the regional system of innovation. In identifying and discussing knowledge socialisation mechanisms, this paper offers knowledge management theorists and practitioners—more specifically, regional knowledge brokers and regional development managers—actionable insight into a range of strategies that reinforce social ties and increase the flow of knowledge with a view to improving innovation outcomes.

1 | INTRODUCTION

The importance of managing knowledge in the context of regional development is well recognised, with several streams of literature emphasising the role of knowledge stocks and flows among firms in regional clusters (Bocquet & Mothe, 2015; Jardon, 2015; Tallman, Jenkins, Henry, & Pinch, 2004; Uotila & Melkas, 2008), claiming that the competitive advantage of regions depends on networking processes and their ability to create and process knowledge (Asheim, Coenen, Moodysson, & Vang, 2007; Harmaakorpia & Melkasb, 2005; Kiely & Armistead, 2005), and affirming the importance of networked methods of regional foresight (Gertler & Wolfe, 2004; Huggins, 2010). Indeed regions that feature high levels of collective learning are considered to be competitive and innovative (Keeble, 2000). These regions are also aware that networks are a natural organisational response to the challenges of innovation, because they enable the integration of a broad set of specialised skills, the use of partners' complementary strengths, the possibility to learn from partners and the ability to gain access to new knowledge, resources, and potential markets (Calia, Guerrini, & Moura, 2007; Tidd, Bessant, & Pavitt, 2001).

However, to our knowledge, there is no research available on the interorganisational socialisation mechanisms that facilitate the knowledge absorptive, connective, and desorptive capacities (U. Lichtenthaler & E. Lichtenthaler, 2009) of organisations that are brought together within the applied context of local enterprise partnerships (LEP). LEPs are nonstatutory bodies that have assumed many of the responsibilities previously held by the U.K.'s Regional Development Agencies before their abolishment in 2012. LEPs are defined as "joint local authority-business bodies brought forward by groups of local authorities to support local economic development across functional economies" (Department for Business Innovation and Skills, 2010, p. 10). Their main roles include setting key priority investments, supporting project delivery, coordinating proposals sent to the Regional Growth Fund, and more recently designing the European Union (EU) investment strategies for the delivery of EU funding in England for 2014–2020. In terms of their composition, LEPs are voluntary partnerships. They must be chaired by a business and composed of a mix of entrepreneurs, "leaders of the local authorities in the LEP area and other representatives from the public sector and civic

society usually including local universities" (Meegan, Kennett, Jones, & Croft, 2014).

Acknowledging interorganisational learning as complex, socio-spatial process (Sayer, 1985), and focusing on the Sheffield City Region LEP as a case, this article explores the Creative and Digital Industries Sector Group's perceived informal knowledge socialisation needs, as expressed in an online discussion forum originally created to promote partners' discussion on the range of innovation challenges that directly affect the Sheffield City Region development agenda. Innovation is considered here in a broad sense, referring to a variety of processes and end results such as new product, service, and process development. It therefore corresponds to the definition advanced by Tidd et al. (2001), who see innovation as "a process of turning opportunities into new ideas and putting these new ideas into widely used practice".

In what follows, we introduce the theoretical foundations of the study, which include research on networked innovation, knowledge capacities, and informal socialisation mechanisms. Subsequently, we introduce and describe the research setting and the methods employed to analyse the online discussion forum data. We then move on to reporting the range of informal socialisation needs that emerge as the result of our analysis. The article closes with a discussion of our findings and an examination of their theoretical and practical implications.

2 | THEORETICAL FRAMEWORK

In this study, knowledge management is considered from the perspective of dynamic processes and interorganisational activities, where proximity at various levels (Boschma, 2005)—geographic, organisational, institutional, social, and cognitive proximity—enable the transfer and integration of knowledge through the active "intention to interact, to learn, to share and absorb information" (Mattes, 2012). Geographic proximity refers to colocation. Organisational proximity refers to the "closeness of actors in organisational terms" (Boschma, 2005). Institutional proximity concerns the enabling or constraining influence of the institutional environment over the interaction between players (Boschma, 2005). Finally, cognitive proximity refers to the existence of shared interpretive scheme (Markusen, 1996).

Extending the relational, socio-spatial dimension of interorganisational learning, the theoretical background of the research is based on networked innovation, organisations' capabilities of managing knowledge processes, and knowledge socialisation mechanisms. All the three elements—networks, knowledge capacities, socialisation—have been suggested in previous studies to be linked to regional innovation and competitiveness.

2.1 | Networked innovation

The competitive environment of organisations helps shaping their preferred types of innovation, according to varying foci: process innovations, product and service innovations, organisational innovations, business model organisations, and so forth. This study takes a broad view of innovation and embraces the definition advanced by Tidd et al. (2001), who conceive innovation as "a process of turning opportunities into new ideas and putting these ideas into widely used practice".

Organisations increasingly engage in collaboration to enhance the ability to innovate, access, and employ creative work practices and boost productivity (Apostolou, Abecker, & Mentzas, 2007; Davenport & Harris, 2007; Tomlinson, 2011). Indeed, participating in networks facilitates learning, which in turn is a key process in organisational innovation, renewal, and competitiveness (Nonaka & Teece, 2001). In particular, moving away from the organisational realm towards business ecosystems where opportunities are experienced by all the members in the network (Moore, 1996) denotes an evolution from value chain thinking to value networks (Allee, 2003). This move essentially reflects the realisation that in order to produce innovations more effectively, organisations must operate in networks.

Learning networks are constituted specifically for the purposes of learning by groups of organisations (Knight, 2002), as their set up is argued to increase knowledge, that is, "[an] increased capacity to do something" (Bessant & Francis, 1999).

It is possible to classify networks into various types and designs, according to either an internal or external orientation, or to the strength of their strategic focus (Knight, 2002). Some networks display a solid and well-defined value system, whereas others are more loosely coupled.

In this study, the focus is on the Sheffield City Region Creative and Digital Industries Sector Group, an interorganisational network with a well-defined, goal-oriented cooperation: "to nurture the economic, cultural and social drivers of the creative and digital industries sector" and to deliver "increased competitiveness, widespread creativity and a community of home grown talent" (Sheffield City Region, 2017). The Creative and Digital Industries Sector Group is a strategic, purposeful network. Mapped against the business network classification proposed by Möller and Rajala (2007), it appears to be focused on the creation of new value activities. It is an emerging value system, combining old and new actors, and seeking transformational innovation for the sector and the region.

2.2 | Knowledge capacities

There is growing evidence in the literature of the effects of a firm's network of internal and external relations (and internal and external knowledge) on innovation (Ahuja, 2000; Carlile, 2004; Hargadon & Sutton, 1997). A recent research stream has focused in particular on the processes of going beyond traditional organisational boundaries and tap into external sources of knowledge (Cassiman & Veugelers, 2006; Escribano, Fosfuri, & Tribo, 2009; Grant & Baden-Fuller, 2004; Kostopoulos, Papalexandris, Papachroni, & Ioannou, 2011; Spithoven, Clarysse, & Knockaert, 2011).

The use of external knowledge to complement organisations' internal knowledge creation activities is a manifestation of a growing tendency to engage in interorganisational learning opportunities (Chen, Lin, & Chang, 2009; Escribano et al., 2009; Fosfuri & Tribo, 2008). This requires organisations' commitment to adequate knowledge management capacity, that is, the critical capability of "dynamically managing a firms' knowledge base" (U. Lichtenthaler & E. Lichtenthaler, 2009, p. 1316).

A focus on firms' internal knowledge base would essentially be concerned with invention and integration processes (Smith et al., 2005), with the retention and reactivation of knowledge over time (Garud and Nayyar, 1994; Pandza and Holt, 2007), and with the transmutation of existing knowledge into new products and services (Khilji, Mroczkowski, & Bernstein, 2006; Lane, Koka, & Pathak, 2006). On the other hand, a focus on firms' external knowledge base would be concerned with what U. Lichtenthaler and E. Lichtenthaler (2009) systematise as absorptive capacity, connective capacity, and desorptive capacity.

Absorptive capacity focuses on the recognition, assimilation, and application of external knowledge inside the firm (Cohen & Levinthal, 1990). On the basis of this original definition, Zahra and George (2002) further differentiate between potential and realised absorptive capacity, and Lane et al. (2006) proposes a distinction between absorptive capacity processes focused on exploring, transforming, and exploiting knowledge.

Focusing on the possibility to access the knowledge of multiple partners through alliances (Kale & Singh, 2007) and a portfolio of partnerships (Lorenzoni & Lipparini, 1999), U. Lichtenthaler and E. Lichtenthaler (2009, p. 1320) identify firms' connective capacity, that is, the "ability to retain knowledge outside its organisational boundaries".

Finally, desorptive capacity entails active outward knowledge transfer through the identification of external knowledge exploitation opportunities and the transfer of knowledge to a recipient (U. Lichtenthaler & E. Lichtenthaler, 2009).

2.3 | Socialisation

The development of interorganisational networks is increasingly an answer to the demands of innovation, because research and development is too costly to pursue independently and the complexity of product development in terms of knowledge and resources requirements is better handled collaboratively. This context is inviting organisations to transcend traditional organisational boundaries (Gulati, 1998) and to consider the engagement in collaborative relationships with external organisations a viable strategy (Deeds & Rothaermel, 2003; Hagedoorn and Duysters, 2002). In the context of regional industry clusters, the benefits of engaging in social networks include increased sharing of knowledge (Asheim, Cooke, & Martin, 2010; Larty, Jack, & Lockett, 2016), which in turn leads to positive impacts in regions' productivity, innovation, and competitive advantage (Boschma, 2004; Moodysson & Zukauskaite, 2014).

However, the benefits of interorganisational networks in terms of knowledge exchange are not automatically accrued because of the tacit and intangible nature of knowledge that derives from experience and interaction (Valdaliso, Elola, Aranguren, & Lopez, 2011). In addition to this challenge, successful exchange of knowledge requires processes that "facilitate the use and transfer of knowledge across functional and organizational boundaries" (Lawson, Petersen, Cousins, & Handfield, 2009).

In particular, socialisation mechanisms are increasingly recognised as a facilitator of knowledge flow among firms (Chung, Sing, & Lee, 2000; Moitra & Kumar, 2007; O'Donnell, 2000), giving organisations the opportunity to learn about the partner organisations' culture, and to collaboratively pursue successful outcomes. Socialisation is understood here as the interaction and communication occurring within and across organisations, which result in increased personal familiarity between actors and improved problem solving (Gupta & Govindarajan, 2000). Because of intensified communication, individuals are connected to form "a network of interdependent social exchanges and increasing the level of mutual trust and respect" (Lawson et al., 2009, p. 157).

Socialisation-oriented methods, tools, and knowledge management implementations tend to focus on knowledge flows, as opposed to content that can be created, stored, and reused in computerised organisational memories (Apostolou et al., 2007). Knowledge management is therefore conceived as a social communication process.

In their model of knowledge conversion modes, Nonaka and Takeuchi (1995) propose that the conversion of tacit knowledge into new tacit knowledge develops through socialisation processes, which entail the sharing of experiences and an integration of every day social and cultural processes with organisational activities (Martin-de-Castro, Lopez-Saez, & Navas-Lopez, 2008). Indeed, given the impossibility of disseminating tacit knowledge in an explicit form (Davenport & Prusak, 1998), socialisation facilitates knowledge exchange as interpersonal trust develops.

Socialisation implies the internal and external sharing of knowledge. Internally, it requires cooperative behaviour and a high level of personal identification between employee and organisation. Externally, it is greatly helped by the existence of networks that closely interrelate (Glisby & Holden, 2003).

Frequently, socialisation requires going beyond the organisational boundaries and interact with customers, suppliers, and other organisations in informal social meetings were common ground can be established, where mutual trust can be developed, and where the aligned of worldviews can be negotiated (Nonaka, Toyama, & Hirata, 2000). Examples of such mechanisms include social events, workshops, off-site meetings, communication guidelines, joint improvement projects, or even casual encounters (Lawson et al., 2009).

The benefits of socialisation include greater transparency in two-way information exchange (Lawson et al., 2009) and the sharing of costs as there is an increased compatibility of operating styles that allows partners to "communicate with each other, having a language that they all understand [and] behavioural styles that are compatible" (Lorange, 1988, p. 372).

Despite the acknowledged benefits, studies that examine empirically the impact of socialisation mechanisms on information and knowledge exchange are not numerous (e.g., Cousins & Menguc, 2006; Gupta & Govindarajan, 2000; Lawson et al., 2009). Notwithstanding, there is almost a consensual agreement in the organisational behaviour literature that a more personal approach to communication processes enhances interorganisational relationships (Daft & Lengel, 1986) through the constitution of stronger ties, the establishment of reciprocity norms, and the minimisation of self-serving behaviour (Granovetter, 1985).

3 | METHODS

The data for this study were messages posted to the Creative and Digital Industries Sector Group's online consultation platform, where

participants were invited to reflect on priorities for the sector. The online platform comprised 52 participants. From September 2013 to January 2014, participants' contributions resulted in 36 threads consisting of 131 messages. In terms of professional category, participants include executives at software companies, designers, and consultants in the digital sector. Their personal identification is protected with the use of code names.

Data analysis followed the inductive thematic data analysis procedure proposed by Braun and Clarke (2006), with its emphasis on the elucidation of participants' individual perspectives, articulation of experiences, responses to events, and disclosure of motivation and perceptions.

Initially, each researcher independently became acquainted with all verbatim posts. Then a second reading took place, with each researcher identifying codes. This stage entailed note taking and the summarisation of preliminary topics. Third, each researcher sorted the codes extracted the data into potential themes. Subsequently, the team met to discuss interpretations and conduct a cross-analysis with a view to resolve any interpretive differences through discussion. The two researchers identified the same patterns and came to agreement in the wording of the three themes identified.

Finally, the internal homogeneity of themes was evaluated using the following criteria: themes report on the experience, meanings, and reality as conceived by participants and the identification of themes occurred at the explicit meaning of data.

4 | FINDINGS

The analysis resulted in three key themes taken verbatim from data: collaborative workspaces, business network resources, and pathways to internationalisation. Each of the three patterns is presented below with supporting/illustrative quotations extracted from the online consultation platform.

4.1 | Collaborative workspaces

Participants expressed widespread agreement concerning the region's need for a collaborative space that could feed the creative and digital ecosystem's need for collaboration. The space would support the community's desire to network and learn, providing a variety of functionalities such as work space, offices, and fabrication/ presentation areas. It would deliver a culture of innovation and celebrate experimentation and creativity, which are features that participants consider to be the very ethos of the creative and digital industries sector.

This would be the place to encounter fellow entrepreneurs and to embrace the opportunity to connect with potential customers and investors in a playful manner, thus fostering social proximity and familiarity between actors (Mattes, 2012). The openness in communication that participants associate to effective interactive learning was compared by some participants to the experiences and practices of model organisations, as instantiated by Tom's reference to the Google Garage concept, which he suggests incorporating into the region:

> *Have you heard of Google Garage? It's a place where Googlers go to be creative together from across the company. Is there anything like this in Sheffield City Region, where Sheffielders, from different creative/ business etc. backgrounds, can do some creative problem solving together? If there were a space like this, collectively, we could solve some pretty big problems, and have the skills to action the solutions within the network. (…) This kind of collaboration between different orgs within the region could bring more prosperity (Message 15).*

Similar concerns with infrastructure for interorganisational learning are advanced by other participants, who argue that the creation, evaluation, and dissemination of knowledge is a common enterprise that should occur in a shared physical location. A concrete proposal describing the shape that this space could ideally take is advanced by John, who makes the case for a game space, a "place for games testing, a coworking space for indie developers and generally a place to hang out and share ideas" (Message 21). Indeed, the social dimension is a common feature among the ideations put forward, reinforcing the value ascribed by the region to collaborative places that stimulate multidisciplinary, negotiation, and generative work.

4.2 | Business network resources

Across postings frequent references were made to the insufficient opportunities to build a network to gain new insights and forge new business relationships. Participants welcomed the opportunity to make new business connections that could lead to profitable alliances and increase their organisation's visibility. They globally identify the need to create and convene powerful partnerships that could leverage the talents and resources in the region, which are fundamental to develop an ecosystem where businesses in the sector would prosper.

This concern with how the region needs to address the processes of knowledge discovery and exchange is well captured by George's plea for the creation of a structured web platform for sustained collaboration:

> *"The idea is concerned with how people, within the region and outside it, search for and discover things, and how they access resources and how they coordinate with Sheffield firms and organisations". (Message 105)*

George's post encapsulates frequent references made to the need to develop gateways for practitioners and policymakers, for easy access and search of relevant knowledge resources on different aspects of the creative and digital sector.

Similar perceptions are captured in the calls made for the constitution of hubs where business owners could share best practices and address business challenges with peers. This perception is well illustrated by the comment posted by Ed:

> *I think this theme of a hub may also tie in to the topic about building a better-connected sector. Strong external connections need to be supported by strong internal connections. (Message 103).*

In addition to these features, hubs should serve as a catalyst to connect, develop, and empower professionals in the region. They

should promote civic engagement opportunities to ensure a strong talent pipeline in the region, as expressed in the posting made by Jane:

> *I like the collaborative optimiser concept! I'm currently working on a project commissioned by the two universities to scope and develop a hub which will connect leaders and thinkers in the city region across all sectors to innovate and work on shared challenges. (Message 51).*

The several instances of participants' concerns with business network resources are a manifestation of their commitment to increased institutional proximity, that they wish to operationalise through a normative framework (Mattes, 2012) governing interaction.

4.3 | Pathways to internationalisation

A final emergent theme revolved around the challenges of promoting the strengths of the indigenous regional potential at a global level, balancing that effort with existing deficiencies, and linking the region more widely to its international context. These internationalisation challenges are captured by the pointers for collective reflection shared by Tim:

> *How is the sector currently marketed and sold, and how are approaches made? What kind of firms are most attractive to the region? And how can the creative and digital industries community enhance the effort to attract them? (Message 98)*

There was agreement across posts that this would require more proactiveness and a greater focus on knowledge interaction, so that the region could more aptly release knowledge towards external recipients, who would in turn give it a commercial output. This is illustrated by Briony's comment:

> *[We] must be far more proactive than the resources we already have and given budget to deliberately target companies/hubs and clusters in the other countries […]. (Message 111)*

However, the dominant view is that the sector is dominated by ad hoc strategy. Networking strategies are sporadic and unplanned, and there are no significant steps taken to formulate an internationalisation business strategy. Notwithstanding, a shared concern with this theme denotes cognitive proximity (Huber, 2012), expressed in a high "similarity in the way people perceive, interpret and understand, and evaluate the world" (Wuyts, Colombo, Dutta, & Nooteboom, 2005), in this case, the convergence of participants' perceptions around role of internationalisation.

5 | DISCUSSION

Recent models of innovation are based on networking and collaboration between organisations (Tidd et al., 2001; Coombs, Harvey, & Tether, 2003; Douglas & Ryman, 2003; Nobelius, 2004; Camison & Fores, 2011). Networks learn through intranetwork interaction, which relies on the availability of easy communication (Hansen, 2015) and on the use of an ensemble of shared practices and processes (Knight & Pye, 2004). In this study, the main focus is on the content of network learning, with an emphasis on interpretation of new value activities creation, and structures that may enable transformational innovation.

Heikkilä, Heikkilä, and Lehmonen (2004) have described learning in networks as a "multi-organisational iterative process consisting of simultaneous learning cycles". This is consistent with some of the learning methods identified for networks such as workshops, brainstorming sessions, and frequent discussion events. More importantly, this is consistent with some of the aspirational socialisation practices identified within the Creative and Digital Industries Sector Group, namely, collaborative workspaces, business network resources, and pathways to internationalisation.

These knowledge socialisation practices and processes emerge out of the need to mobilise and access new knowledge when and where it is needed. In this sense, they are representative of dynamic capabilities (Helfat et al., 2007; Teece, 2009), because they instantiate organisations' effort to cope with changing developments in their surrounding environment, to be prepared to deploy new knowledge, and to "reconfigure internal and external organisational skills, resources and competences" (Grimaldi, Quinto, & Rippa, 2013).

Van Reijsen, Helms, Batenburg, and Foothuis (2015) refer to dynamic capabilities as the "Holy Grail in strategic management" and emphasise how the realisation of sustainable competitive advantage is a heavily knowledge-dependent process that "requires organisations to continuously sense market changes and adapt their resources and routines" (van Reijsen et al., 2015).

"Collaborative workspaces," "business network resources," and "pathways to internationalisation" are mechanisms that promote finding, assimilating, and recognising the importance of knowledge through interaction with other local organisations. More specifically, "collaborative workspaces" stimulate absorptive capacity through promoting an organisational set up to exploit the interrelatedness of diverse knowledge bases that converge in shared collaborative spaces. "Business network resources" reflect a strategic concern with firms' connective capacity, in particular, the perceived need to seek knowledge alliance structures to extract benefits from partnerships (e.g., product knowledge and market knowledge). "Pathways to internationalisation" denote a strategic concern with desorptive capacity, more notably through articulating the region's concern with opportunities for outward knowledge transfer.

The identification of these knowledge socialisation mechanisms is particularly important in the context of intradistrict collaboration—such as LEPs—in which the strength of social links (Malmberg & Maskell, 2002), a sense of cognitive community (Lorenzen & Foss, 2003), and flexible social structures promote the pooling of shared competences (Camison & Fores, 2011) and the exchange of quality knowledge.

Camison and Fores (2011, p. 71) provide examples of the tacit knowledge leveraged through intradistrict collaboration:

> *business-to-business webs, (…) tacit knowledge about R&D projects developed by intra-district firms in cooperation with technological institutes or universities; human capital turnover among intra-district firms; experience in technologies and processes by consultants, subcontractors or equipment manufacturers; and collective learning process driven by sector leaders or business networks.*

The diffusion of this tacit knowledge on products, processes, technologies, and markets (Lorenzen & Maskell, 2004) is favoured by cooperation relationships, personal contacts and socialisation activities (Dahl & Pedersen, 2004).

However, as emerged in this study, socialisation activities require some form of operational design (e.g., collaborative workspaces), the development of shared operational systems and tools (e.g., business network resources), and the development of some sort of motivational structures (e.g., pathways to internationalisation). The combination of these may give firms the opportunity to enrich the "depth and breadth of their own technical and industrial experiences" (Wang, Wang, & Horng, 2010) through active acquisition of different sources of knowledge for future use, because in this study as in previous research (e.g., Bathelt, Malmberg, & Maskell, 2004; Easterby-Smith & Lyles, 2008; Jung-Erceg, Pandza, Armbruster, & Dreher, 2007), there is participants' support for acquiring and assimilating knowledge through cooperation with industrial partners and organisations that embody diversity in expertise, experience, and culture.

6 | CONCLUSION

This study has important implications for managers who are responsible for managing critical knowledge processes within regions. Building on prior organisational theory on networked innovation, knowledge capabilities, and socialisation mechanisms, these concepts are linked and then applied to the context of a LEP.

LEPs are representative of the kind of localised institutions that previous studies acknowledge as critical in enabling innovation through their actions as promoters of collaborative learning (Cooke, 2001). They are important subnational development actors, integrating different sectoral interests. The results of this study's empirical analysis suggest that informal socialisation mechanisms are perceived by the Creative and Digital Industries Sector Group in the Sheffield City Region to play a key role in transferring knowledge between members of the regional system of innovation. This is particularly relevant for regional development policy, because it has been recognised that despite being at the forefront of competitiveness, entrepreneurship, and innovation (European Commission, 2016), the cultural and creative industries need ample support to "properly represent their interests and raise their concerns, as well as to create cross-border networks and platforms to help structure and strengthen the sector" (European Commission, 2016).

The informal socialisation needs identified by and for the Creative and Digital Industries Sector Group affirm the role of interorganisational learning, and various competencies needed for innovation, namely, collaborative workspaces, business network resources, and pathways to internationalisation. These informal socialisation needs that are perceived to shape regional competitiveness are related to specific forms of proximity as a catalyst of knowledge renewal and integration: "collaborative workspaces" emphasises social proximity through establishing a sense of familiarity and contributing to create increasing mutuality among regional actors (Mattes, 2012); "business network resources" reflects the aspiration for greater institutional proximity, achievable through the formalisation of a normative framework to govern productive interactions; and "pathways to internationalisation" indicates cognitive proximity, in the sense that it summarises regional actors' understanding and evaluation of internationalisation as being core to the region's development strategy.

Collaborative workspaces, business network resources, and pathways to internationalisation operate as knowledge socialisation mechanisms and are essential to avoid regional competence traps. Moreover, the establishment of a "collective mind", composed of shared world views and mental models (Weick & Roberts, 1993), requires intensive interaction and continuous flows of communication.

In addressing the socialisation needs of a U.K. LEP as critical knowledge processes, this paper contributes to the substantive area of learning in the context of innovation networks with multiple participating organisations, beyond the extensively studied domain of dyadic cooperation (Faems, Janssens, & van Looy, 2007; Halinen, Salmi, & Havila, 1999) and strategic alliances (e.g., Inkpen & Crossan, 1995; Meier, 2011).

Future research should focus on the identification of learning outcomes, operationalised as an intensive mapping of changed practices and structures. However, this endeavour is not without challenges, related notably to the complexities of coordinating interacting agents' knowledge heterogeneity, and the emergence of process contingencies and interdependencies (Hallikas, Kärkkäinen, & Lampela, 2009; Weck, 2006).

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