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# Varieties of extra-regional relations and local agency: A Framework for tailored regional development work

**Markus Grillitsch and Trond Nilsen**

## **Abstract**

Recent studies provide insights about local agency in regional development. While acknowledging non-local actors and drivers, these studies have not systematically discussed the link between extra-regional relations and local agency. This paper first discusses three key arguments in the literature on extra-regional relations covering context-specific dependencies, strategic coupling, and open innovation. It then proposes a theoretically informed typology linking extra-regional relations and local agency. The typology considers whether local actors can influence the extra-regional relation, and whether global actors are engaged locally. The discussion shows that the resulting four types relations enable or constrain local agency in different ways, which call for tailored regional development work to build local agency and widen regional opportunity spaces.

**Key words:** Local agency, regional development, extra-regional relations, multi-scalar perspectives

**JEL codes:** R10, R11, R58, F60,

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## 1. Introduction

Studies in economic geography pay growing attention to multi scalar relations (Isaksen & Trippel, 2016), and human agency for shaping regional development paths (Grillitsch & Sotarauta, 2020). The literature on local agency is concerned with when, to what extent, how, why, and under which conditions the engagement of local actors can make a difference in regions. The literature acknowledges the open nature of regional development processes resulting from the interplay between the actions of sets of local and non-local actors (e.g., Miörner & Trippel, 2017; Nilsen & Njøs, 2021). This line of research is furthermore underpinned by an increasing number of studies providing theoretical and empirical insights how agency and multi-scalar relations relate to regional path development (e.g., Binz, Truffer, & Coenen, 2016; Hassink, Isaksen, & Trippel, 2019; MacKinnon et al., 2019). Despite this growing literature, we consider that a more holistic and integrative perspective is still lacking *how different types of extra-regional relations influence the rationales and possibilities for local agency*.

This paper addresses this research question by developing a theory-based typology of extra-regional relations and linking this typology to the literature on local agency and regional development work. For developing the typology, we draw on key arguments developed three prominent streams of literature about extra-regional relations in economic geography and regional studies, namely literature on global value chains, global production networks, and global innovation networks. While there are overlaps between these streams of literature, there are also differences in terms of emphasizing certain arguments. The first argument mainly rooted in the literature on global value chains is that externally owned and controlled facilities, with few decision-making powers locally, are sources for *context-specific dependencies*. The dependencies relate to increasingly complex and globally dispersed value chains, their governing structures, and the local conditions (Gereffi, 2019; Gereffi & Korzeniewicz, 1994). The second argument developed mainly in the literature on global production networks suggests that global actors can be embedded locally through *strategic coupling*, thereby influencing regional development positively (MacKinnon, 2012). Strategic coupling and thus the local embeddedness of global actors is influenced by resources available to the host region and the global actors, the power balance, and institutional settings (Coe, Dicken, & Hess, 2008). Finally, the third argument develops the notion of *open innovation* in relation to global innovation networks where the innovativeness of firms depends on their networks with other firms, and where international knowledge linkages have been found to be particularly conducive for innovation (Chesbrough, 2003; Fitjar & Rodríguez-Pose, 2011). This argument suggests that local actors can complement their

capabilities through extra-regional relations, accessing knowledge bases, resources, or markets elsewhere (Chaminade & Plechero, 2015; Gorachinova & Wolfe, 2023).

By drawing on theoretical and empirical insights from all three streams of literature, we develop a novel perspective on the interplay between local and non-local actors in regional economic development. The paper suggests a typology that identifies four ideal types of extra-regional relations as combinations of two key dimensions: Local actors' autonomy and ability to influence extra-regional relations, and global actors' investment locally. The approach of the paper is to first discuss the nature of each of the four ideal types supported with concrete cases from the literature, and how this affects local agency. Building on a deeper understanding of the variegated nature of extra-regional relations, the paper elaborates on the implications for regional development work, this is to say how local actors may engage to mitigate potential negative consequences or harness the opportunities of the extra-regional relations they are embedded in.

The rest of the paper is organized in the following way: First, we discuss the three underlying arguments in the literature, context-specific dependencies, strategic coupling, and open innovation, which provide theoretical and empirical knowledge about the role of extra-regional relations for regional development. Second, we develop the typology of four different types of extra-regional relations and elaborate on their characteristics. Third, we discuss how the different types of extra-regional relations condition regional development work. The conclusion summarizes the findings, discusses the implication to the extant literature and briefly discusses policy and research implications.

## 2. Extra-regional relations and regional development – three key arguments

The relevant literature dealing with extra-regional linkages is broad and dispersed across different disciplines. We propose one way of synthesizing this literature for a more holistic and integrative understanding of the role of extra-regional relations for regional development by focusing on three key arguments, namely i) context-specific dependencies, ii) strategic coupling, and iii) open innovation. These arguments are also the theoretical foundation for the typology developed in section 2.4.

### *2.1 Context-specific dependencies*

The first argument concerns the dependencies of local firms and communities in global value chains, and how global value chains are governed by lead firms embedded in multi-scalar institutional architectures. This relates to globalization processes where local actors have become increasingly dependent on global actors and is rooted in the study of the dynamic interplay between economic

activities at the transnational, national and regional scales, focusing on the flows, relations and connections between different geographical contexts (Gereffi & Korzeniewicz, M, 1994; Coe et al., 2008). To understand context-specific dependencies linking local with global actors the literature pays attention to the governance of global value chains by powerful lead firms, which 'undertake the functional integration and co-ordination of internationally dispersed activities' (Gereffi & Korzeniewicz, 1994). Governance structures are defined as 'authority and power relationships that determine how financial, material, and human resources are allocated and flow within a chain' (Gereffi and Korzeniewicz, 1994: 97). Context-specific dependencies contain insights into the governance dimension of global value chains, and how characteristics of supply chain management and regional conditions affect the degree of dependency. This literature shows that if non-local actors own and control economic activities within the region, the role of local agency can be severely affected by power structures and constrained autonomy, thus posing a challenging task for actors in the 'host regions'.

Governance patterns in global value chains can be described in different ways. In their seminal contribution, Gereffi, Humphrey and Sturgeon (2005) unfold different types of global value chain governance, which vary in the levels of control and power asymmetry. The dependency of local actors is pronounced in so-called captive or hierarchical modes of governance. A captive governance form refers to relations between local and global actors where typically relatively small suppliers are transactionally dependent on few large buyers. It describes situations where suppliers face significant costs and barriers in switching to another market or repositioning (upgrading) in value chains, and hence, such relations are captive. Global value chains with such a governance form are typically characterized by a high degree of monitoring and control by lead firms. Second, hierarchy refers to a governance form, which is characterized by vertical integration, this is to say when global actors own and thus control local firms. The governance is thus about 'managing control, flowing from managers to subordinates, or from headquarters to subsidiaries and affiliates' (2005:84). This is typically discussed in relation to outsourcing and changes in the industrial organization of manufacturing, often in relation to commodified products (Humphrey and Schmitz, 2002, Gibbon, 2008)

There is often a high reliance on external labor markets outside the region, where long-distance commuting reduces embedding in local labor markets and labor agency (Atienza, Arias-Loyola, & Lufin, 2020). In terms of linkages between local firms and extra-regional firms, different options are possible, but often there is limited integration due to the integration of the dependent local firms in global corporate structures, and intra-firm linkages for MNC's often substitutes for local firm ties. Furthermore, externally owned and controlled investments and plants with limited decision-making

powers locally create a vulnerable situation for local actors as they could easily be confronted by closure or re-localization. Not having local control or the ability to influence the economic activities in the region, creates dependencies in a variety of ways, hindering the ability of local actors to influence regional development (MacKinnon, 2012). High volume production of low to medium technology products and standardized process technologies, few local linkages, and a narrow industrial base grant limited potential for development, growth, and local control. Moreover, the possibility for technology transfer may be limited since the local actors have rather peripheral network positions and hence, they face high barriers to upgrade in existing global value chains or extend their networks. Given the importance of such context-specific dependencies in a globalized world, it is necessary to pay attention to how global value chains in different geographical settings are embedded in an economic, social, and institutional context, and how these relate to the possibilities and limitations of local agency to influence regional development and participate more successfully in global value chains.

## *2.2 Strategic coupling*

The underlying idea of strategic coupling in the literature highlights that despite of external ownership and control, it is possible to enhance strategic and operating autonomy within a flatter hierarchical structure. Strategic coupling discusses how networks of knowledge, capital and people are bundled together in different places (Henderson et al., 2002; Coe et al., 2008). Strategic coupling reflects the idea that the encounter between firms locally and globally is geographically and historically contingent and dependent on the actions of regional institutions that promote coupling, and how and to what extent actors are embedded in institutional and regulatory frameworks (Pike et al., 2017). Particularly attention is paid to the way relationships between local and global firms and non-firm actors are anchored in territories, emphasized by the increasing importance of networks in the economy due to major organizational innovations in global operations (Yeung & Coe, 2015). This has led to the raise of global production networks defined as ‘the globally organized nexus of interconnected functions and operations by firms and non-firm institutions through which goods and services are produced and distributed’ (Coe et al., 2008, p. 471).

A central idea for this literature is that more value can be created or captured locally if regions integrate in global production networks (Coe & Yeung, 2019). Upgrading occurs when local firms climb the hierarchies in such networks, taking in higher positions, and thereby increase the value captured locally (Lund & Steen, 2020). Such upgrading is facilitated by strategic coupling, which refers to the engagement of local actors to coordinate and facilitate strategic interests between local and non-local actors within global production networks. In terms of local agency, the role is to ensure that such strategic coupling occurs by influencing regional capabilities to fit with the necessities of lead firms in

global networks. A differentiation is made between value creation, enhancement, and capture (Coe and Yeung, 2019). Accordingly, value creation would be promoted by, for instance, training, education, and promotions of firm start-ups. Enhancement of value refers to upgrading of competences, technological transfer, delivery of better infrastructure, and enhancement of specialized skills. Lastly, value capture involves among others the anchoring of key firms and high-level functions of such firms in a particular territory.

MacKinnon (2012, p. 240) identifies eight conditions that influence strategic coupling: the mode of entry of lead firms in global production networks; the status of MNCs' affiliations within the parent company; regional assets; whether couplings are organic, strategic, or structural; the degree of coupling; historical layering of the couplings; whether power relations are symmetrical or asymmetrical; and the region's exposure to disinvestment and decoupling. Other have also demonstrated that power relations are important in the interplay between MNCs and local subsidiaries (Fuller and Phelps, 2018). Moreover, MacKinnon et al. (2019) show that strategic coupling and the renewal of regional economies essentially requires the engagement of actors in change processes, including different types of change agency (Grillitsch & Sotarauta, 2020). In this vein, strategic coupling refers to processes of re-coupling and de-coupling depending on the variations in criteria such as mode of entry and type of region (Mackinnon, 2012). However, even if the region offers these qualities, it does not necessarily imply strategic coupling since regional actors also need to engage in network dynamics at the global scale, which implies competitive logics of seeking cost efficiency, market access and risk minimization (Coe et al., 2008).

Strategic coupling proposes a more dynamic perspective on the linkages between local and global actors, which provides possibilities for local actors to influence the extra-regional relations to a certain degree depending on different conditions for coupling at the nexus between global networks and regions. This may lead to a strong local embedding of non-local actors, which opens opportunities for local agency in terms of shaping the local context of the extra-regional relations. Even though the literature has drawn attention to the role of power and agency, until recently, studies on strategic coupling mostly emphasized structural preconditions that promote or hinder coupling and upgrading such as the skills in the labor force, the role of industrial specialization, and the degree of diversity. Even though recent work by for instance Mackinnon et al. (2019) has increased our understanding of actors' role in strategic coupling, the role of agency remains to be further developed.

### *2.3 Open innovation*

A different stream of literature on open innovation, international business, and the geography of innovation postulates that the innovativeness of local firms depends on the combination of firm-internal knowledge and knowledge accessed from external partners, with international or global innovation networks being particularly important (Chesbrough, 2003; Fitjar and Rodríguez-Pose, 2011; Gorachinova & Wolfe, 2023). Here local firms are not passive but need to actively engage in building and maintaining such extra-regional relations, thereby connecting regions to the outside and through interregional knowledge exchange also enrich the local knowledge base (Asheim & Isaksen, 2002). This is done by local actors who mobilize extra-regional relations to achieve certain goals, typically to enhance innovativeness and competitiveness. The literature on this type of extra-regional relations has a different approach compared to the literature on strategic coupling. Whereas strategic coupling concerns the embedding of functions in global production networks, driven to a large extent by the search for markets and lower cost production sites, global innovation networks are driven by the search for knowledge and technology (Cooke, 2012). Global innovation networks are defined as ‘a globally organized web of complex interactions between firms and non-firm organizations engaged in knowledge production related to and resulting in innovation’ (Barnard & Chaminade, 2011, p. 3). This literature has focused on a variety of aspects that influence the search for, the process of linking up with, and the transfer of technology and knowledge of relevance to innovation (Cano-Kollmann, Hannigan, & Mudambi, 2018). It involves complementary processes of and capabilities for innovation collaboration, sourcing, and search/monitoring.

Different studies demonstrate that a variety of actors from both high and middle-income economies have driven the emergence of global innovation networks (Chaminade, 2011). This literature provides insights how the complexity of knowledge production and flows across and within national boundaries relate to innovation outcomes at the firm and regional level. Direct collaborative ties between firms make it possible to transfer also tacit and disembodied, thereby promoting innovation and regional development (Ebersberger & Herstad, 2011). However, the respective studies have been firm-focused, and the interplay between the region and the internationalization process has been granted limited attention, except from few studies on the spillovers of MNCs at the regional level (Cantwell & Piscitello, 2002).

Studies associated with the geography of innovation, however, show that different geographical contexts are associated with different capabilities, which reflect differences in the composition of the regional industrial structure and the organizational and institutional thickness of the region leading to different patterns of global innovation networks (Chaminade & Plechero, 2015). Accordingly, location in regions with a specialised industrial profile and thus a narrow range of knowledge and resources



available at the local level produces a region-specific ‘push’ towards internationalization. By contrast, the diversity of local partners and breadth of local markets may reduce the outward ‘push’ but produce a ‘pull’ of extra-regional actors wanting to build networks with local actors. In the interplay between push and pull forces, strong enablers of internationalization may combine with strong local embeddedness and influence the configuration of local-global networks, such as is often the case with city-regions (Ebersberger & Herstad, 2012). The organizational and institutional thickness of the region may, therefore, explain why certain firms in specific regions are more engaged in extra-regional knowledge and innovation networks compared to others, suggesting that contextual factors affect the general ability of firms to link up to global networks, shaping the technological capabilities of regions or countries (Trippel, Grillitsch, & Isaksen, 2018).

This literature studies mainly the structural pre-conditions that influence the composition of and local actors’ ability to engage and participate in innovation networks. This literature, however, largely ignores micro-level processes where local actors and agency may alter existing patterns and mobilize existing resources inside and outside the region by identifying and grasping local and non-local opportunities. Hence, we know less about the processes how local actors build and maintain extra-regional knowledge and innovation networks or develop the enabling conditions for firms to engage in these, nor what effects these processes (or lack of such) may have in the long run, on firms and regions.

#### *2.4 Towards a typology of extra-regional relations*

Relations between local and global actors are complex, multi-dimensional and context dependent. With the aim to deal with this complexity, we apply typological theorizing (cf. Weber, 1949; Bailey, 1994; Allen, Wood, & Demirbag, 2022) and thereby explain variations in agentic tendencies, which can be related to the properties of each type of extra-regional relation. Each type offers different opportunities and challenges for regional development, which allows to develop implications for local agency specific to each type of extra-regional relation. Even though typologies cannot (and are not supposed to) cover the many complications of local economies, typological theorizing is a common approach in social sciences to organize and analyze theoretical ideas and develop general tendencies that can be associated with the different types, which in turn allows for empirical testing, comparative analysis, as well as policy guidance.

When developing the typology of extra-regional relations, we are in essence concerned about the relation between global actors and local actors, and the extent to which these actors have an interest and influence to shape these relations. Indeed, classic stakeholder analysis distinguishes between

interest (stake) and influence (power) (Freeman 2010). While stake is a multi-dimensional concept, it usually includes dimensions of equity investments and economic interests. Global actors consequently have a higher stake if they are invested locally through e.g. subsidiaries, joint ventures or other controlled relationships than if they are not invested locally. Influence or power in stakeholder analysis refers to aspects such as formal decision power (for instance, a headquarters has formal decision power over subsidiaries), economic power (for instance, considering global actors tend to have strong financial resources), or political power (for instance, the provision of local jobs gives negotiation power with public authorities). Regarding relations between local and global actors, the question is then to what extent the power of global actors is matched by the degree to which local actors have autonomy, can leverage and influence relationships with global actors, resulting in more balanced and possibly collaborative relationships. Yeung (2005) captures this with the idea of complementary power relation between local and global actors (cf. Görmar et al. 2022).

Considering, on the one hand, local actors' autonomy and ability to influence extra-regional relations, and, on the other, the investment of global actors locally sorts the three arguments identified in the literature (sections 2.1-2.3) in a rather intuitive manner. In the case of open innovation local actors are engaged in building, maintaining, and utilizing the knowledge and resources of global actors, thus local actors maintain a level of autonomy, influence and leverage extra-regional relations in the pursuit of their interests. Likewise, the argument of strategic coupling implies that local actors have the possibility to shape extra-regional relationships through building and linking regional knowledge and resources to global production networks and embedding global actors locally. This creates complementary power relations and more collaborative relationships. In contrast, as the argument on context-specific dependencies foregrounds, the possibility to influence extra-regional relationship can be severely limited due to hierarchical or captive governance forms where control, power and ownership is mainly held by the global actors. Second, there are differences as regards the involvement of external actors locally. In the situations discussed through the argument of context-specific dependencies and strategic coupling, global actors have operations and facilities locally. In contrast, the argument of open innovation suggests that local actors engage in extra-regional relations to global actors without the global actors operating or owning facilities locally.

Consequently, we propose the typology depicted in Table 1 based on two dimensions: i) local actors' autonomy and ability to influence the extra-regional relation, and ii) whether global actors are invested locally. This leads to four ideal types of extra-regional relations. The argument on context-specific dependencies is most prevalent in relation to Type 2 where global actors control local activities. The argument on open innovation is related to Type 3 where local actors draw on and mobilize knowledge

from global actors. Type 4 speaks to the argument of strategic coupling where global actors are embedded locally. Type 1 in the matrix has not been discussed in the reviewed literature on extra-regional linkages. This refers to situations where global actors are not engaged in the region and where local actors have no possibility to influence the extra-regional relationship. This is the case when local actors are confronted with external shocks due to their global embeddedness, for instance changes in market demand, commodity prices, financial crises, etc. Yet, this does not necessarily mean that local actors have no agency. To elaborate on this type in the following section, we will draw among others on the literature on regional resilience (Bristow & Healy, 2014; Christopherson, Michie, & Tyler, 2010).

Table 1: Types of extra-regional relations

		Local autonomy and ability to influence extra-regional relation	
		Low	High
Global actors invested locally	No	Type 1: Local actors are confronted with external shocks	Type 3: Local actors draw on and mobilize knowledge and resources of global actors
	Yes	Type 2: Global actors control local activities	Type 4: Global actors are embedded locally

### 3 Extra-regional relations and local agency

The four types of extra-regional relations have a direct implication on local agency, as Type 3 and 4 stand for relations that local actors are actively involved in shaping whereas local actors' ability to influence the extra-regional relations are limited for Type 1 and 2. In this section, the aim is to further deepen the implications of these types of extra-regional relations on local agency. With the call and need to better understand structural change processes, a substantial number of recent studies have increasingly paid attention to agency in regional development. Human agency can essentially be understood as the "capability of the individual to 'make a difference', that is, to exercise some sort of power" (Giddens, 1984, p. 14). In the context of regional development, agency is exercised by a changing set of actors and relates "to intentional, purposive and meaningful actions, and the intended and unintended consequences of such actions" (Grillitsch & Sotarauta, 2020, p. 707).

Studies on agency are in essence relational, where the embedding of actors in temporal and spatial relations enable or restrain certain actions, but also where human actors have the capability to affect

these very relations (Sotarauta & Grillitsch, 2023). In this section, we will discuss this by elaborating on how the structural characteristics of each type of relation influence local agency and how local actors consequently may engage to overcome the challenges or develop the opportunities arising from these structural characteristics and refer to such engagement as regional development work. In order to systematically capture regional development work, we build on the Trinity of Change Agency theory developed by Grillitsch and Sotarauta (2020). Accordingly, three theoretically distinct forms of agency play together in regional change processes. First, innovative entrepreneurship captures an uncertain process of introducing novel products, services, processes, organizations, or markets resulting from novel combinations of knowledge and resources (Grillitsch, 2018; Schumpeter, 1911). Second, Institutional entrepreneurship is about changing existing institutions and introducing new ones (Battilana, Leca, & Boxenbaum, 2009; Garud, Hardy, & Maguire, 2007; Sotarauta & Mustikkamäki, 2014). Institutions are understood as system of rules that constrain or enable actions or interactions of individuals, groups of individuals, and organizations. Third, place-based leadership refers to actions that establish common interests, coordinate actors, or mobilize and pool resources for collective use (Gibney, Copeland, & Murie, 2009; Sotarauta & Beer, 2017). We discuss how local actors can mobilize these three forms of change agency to promote regional development when faced with the different types of extra-regional relations.

This implies that the unit of analysis is the type of extra-regional relation. The relative importance of the different types of extra-regional relations will vary between regions and in time. Some regions may be dominated by one type. For instance, in highly specialized branch-plant regions, Type 2 may be dominant. Other regions may have plenty of extra-regional relations covering all types. Regardless this context-specific complexity, we consider it relevant to discuss the implications of each type of extra-regional relations on local agency. This would then allow researchers to empirically study specific extra-regional relations, and practitioners to adapt their strategies to the specific nature of the targeted extra-regional relation.

### *3.1 Type 1 of extra-regional relations: External shocks affect local actors*

The first type of extra-regional relations is not in the sphere of influence of local actors. This refers to shocks or events that “happen” to regions and affect regional development without local actors being able to influence the nature of the shocks as discussed intensively in the literature on resilience (Christopherson, Michie, & Tyler, 2010). External shocks come in different forms such as international or national regulations, technologies, or global commodity markets. Financial recessions leading to a declining market is another example. Also, COVID-19 influenced air transport businesses and tourism resorts in a negative way, affecting employment and local development (Piccioni, Stolfi, & Musso,

2022). In addition, declining raw-material prices can force firms to scale down production and lay off workers. Recent shocks in global financial- or energy markets can alter a region's capacity to serve its inhabitants' and workers' needs. Such shocks always come with some surprise even though regions have varying capabilities of forecasting and anticipating changes.

When an external shock happens, local actors will first need to evaluate its implications for the region, or individual actors located in the region. Local agency is then mostly reactive trying to respond to the crisis and the immediate threats such as firm closure and raising unemployment. The unpredictable flow of changes related to external shocks, which 'happen' to regions, play a role in the actor's social engagement, and may trigger an agentic response (Bristow & Healy, 2014). In response to the crisis and major downsizing of economic activities in the south-eastern Swedish region, Olofström-Karlshamn actors engaged in various initiatives to gain back the lost jobs, develop their local cluster, and promote diversification (Rekers & Stihl, 2021). However, the ability to respond to external shocks vary significantly and depend among others on the economic structure (Martin et al., 2016), the diversity of local industry mixes and knowledge networks (Bishop, 2019; Boschma, 2015), institutional preconditions (Dawley, Pike, & Tomaney, 2010), and the agentic response regions are able to develop (Kurikka & Grillitsch, 2021).

The evaluative and often short-term agentic orientation focused on alleviating the immediate issues invoked by the external shocks has its function but is also problematic if it retracts attention from long-term oriented actions to deal with structural challenges. For instance, the energy crunch resulting from the Ukraine war might lead to actions compromising long-term goals to cut greenhouse gas emissions, if short-term investments flow into accessing new or alternative oil and gas resources. Hence, as a study of the region Sunnmøre in Norway demonstrate, recognizing the agentic tendency invoked by external changes to focus on the immediate pressures, regional development work needs to pay attention to long-term strategic goals and orient actions accordingly (Grillitsch, Asheim, & Nielsen, 2022). Place-based leadership plays a role in maintaining a strategic focus on required structural changes, for instance, to decarbonize and enhance technological capabilities. Place-based leadership may also be directed at pooling resources for developing foresight about changes in the time-specific opportunity space. In the event of an external shock, place-based leadership needs to ensure that the resources to deal with the shock are mobilized to have both the short- and long-term needs in minds. This may be achieved through enhanced collaboration and attention to the particularity of place and locally embedded economic activities (Bristow, 2010). When it comes to institutional entrepreneurship, regional development work can be oriented towards creating awareness about constantly changing temporal and spatial relations, and thus the need to build the capabilities for

developing and grasping emerging opportunities and remain adaptive to changing context conditions (Pike, Dawley, & Tomaney, 2010). This is challenging due to the vulnerability that is caused by the structural-agency properties where the external shock cannot be influenced by local agency. Despite this structural bias, innovative entrepreneurship can be geared towards promoting exploration/experimentation in new market niches.

### 3.2 Type 2 of extra-regional relations: *Global actors control local activities*

The second type of extra-regional relations shares with the first type that local actors lack power to influence the relationship. It differs from the first type, however, in that extra-regional actors are engaged locally through subsidiaries or exercising power as main buyer or seller. The focus is on inter-firm networks. In this case, the subsidiaries are led by non-local actors with the headquarter (HQ) located somewhere else as demonstrated by Dolan & Humphrey (2000) in their study of the relationship between dominating retailers in UK and the farmers in Africa producing vegetables. The same argument is central in Gibbon, (2001) study of commodity chains. Typically, multi-national companies have located manufacturing plants in specialist regions, or regions with close geographical proximity to natural resources, while keeping key functions like R&D in their 'home region' (Gereffi, Humphrey and Sturgeon, 2005). In such cases, like the eastern part of Iceland in the region of Reyðarfjörður, the industrial plant close to the natural resource offers relatively low-skilled jobs, and economic effects vanish after the construction period has ended (Nilsen & Jóhannesson, 2016). This type of extra-regional relations are common in natural resource economies and produce distinct development phases, containing a short-term construction phase and a more long-term operational phase. Such relations create a vulnerability to boom-and-bust cycles linked to global markets and continued availability and relevance of the local resource.

The relationship between local actors and global firms with non-local ownership tends to be uneven with limited potential for learning and development (Blažek, 2016). Also, it may lead to an involuntary shift towards the production of simpler goods induced by a decision by a higher tier buyer (Kaplinsky & Farooki, 2010), or because local firms find themselves unable to withstand competitive pressure and are thus forced to focus on lower market segments (Plank & Staritz, 2015). Moreover, upgrading within the global value chains often coexist with downgrading including higher risks and limited rewards for local firms, especially within traditional export markets (Ponte & Ewert, 2009). Learning mechanisms vary widely within the various forms of governance of global value chains, linked to the pressure to achieve international standards and the role of absorptive capacity (Pietrobelli & Rabellotti, 2011). However, a study of garment manufactures in Myanmar shows that suppliers within global value chains are embedded simultaneously in the value chains of their lead firms and in the countries in

which they conduct their production activities (Bae, Lund-Thomsen, & Lindgreen, 2021). In sum, this type of relationship tends to invoke local agency that responds or adapts to the demands of the leading, externally owned firm. As local actors typically are disconnected from the decision-making process, local agency tends to be reactive and rather short-term oriented.

This reactive and short-term oriented agentic tendency is problematic as it contributes to deepen the dependency relationship. Hence, regional development work would need to actively intervene against this tendency and be more proactive and long-term. In essence, the goal would need be to reduce Type 2 relations and move more towards Type 3 and Type 4 relations. Type 3 relations concern the building of networks with non-local actors to access and anchor knowledge and resources not available locally, and Type 4 relations aim at embedding global actors better locally (see section 3.3 and 3.4). When regions are locked-in a context-specific dependency to non-local actors, this process needs to start with a shift in mindset (institutional entrepreneurship), looking beyond the existing dependency and imagining the possibility of a broader opportunity space for regional development outside the controlled relationship. Reshaped imaginaries of potential future regional development paths would then help mobilizing other actors and pool resources (place-based leadership) to build the capacity within the region to pursue development objectives in the long-term, and thereby develop a more unique competitive position in global value chains, or move into new areas (Grillitsch, Asheim & Nilsen, 2022). A change in mindset and enhanced capabilities could then make it possible for local actors to explore, innovate, and experiment for alternative development paths with the aim to break free from dependent extra-regional relations, or to climb in the hierarchies of existing value chains (i.e. shift the power relations).

### *3.3 Type 3 of extra-regional relations: Local actors mobilize globally*

The third type refers to extra-regional relations, which local actors build and entertain with non-local actors to achieve their goals, to create local agency and balance skewness in regional preconditions (Fitjar & Rodríguez-Pose, 2011; Trippel et al., 2018). In a study of a small, traditional mining town in northern Sweden, the author shows that extra-regional networks are a source for new ideas and knowledge, thereby broadening the regional opportunity space, stimulating innovation, and potentially industrial diversification (Stihl, 2022). Such extra-regional relations are important for firm innovation in urban contexts (Fitjar and Rodríguez-Pose 2011). Moreover, a quantitative study from Sweden argues that the same goes for firms in peripheral and specialized regions that lack depth and diversity of knowledge close by (Grillitsch & Nilsson, 2015). Furthermore, extra-regional relations with non-local actors hold the potential to mobilize investments, develop markets, and build legitimacy (Binz & Truffer, 2016). To foster regional development, knowledge and resources from non-local actors

need to be anchored locally, which includes enhanced local circulation and enhancement of knowledge from non-local sources (Binz & Gong, 2021; Crevoisier & Jeannerat, 2009).

Generating and maintaining such extra-regional networks require absorptive capacity of local actors, which refers to the ability to identify and appropriate non-local knowledge (Cohen & Levinthal, 1990). Absorptive capacity depends on what organizations have learned in the past, and is promoted by the presence of social, institutional, cognitive, or organizational proximities through which geographic distance to extra-regional actors can be overcome (Boschma, 2005). Geographic distance can also be overcome with temporary proximity, which could be achieved through project meetings, and the participation in trade fairs and other international events (Maskell, Bathelt, & Malmberg, 2006). In such processes, joint action of local actors contributes to accessing and anchoring extra-regional knowledge and resources creating favorable conditions locally. As demonstrated in the region of Finnmark in Northern Norway, this often involves visiting, and meeting regional industry actors, and national governments and industry associations outside the region, thereby raising awareness and putting political pressure on lead firms and national governments (Nilsen, 2008).

This type of extra-regional relations widens the regional opportunity space for innovation, job creation, and value capture as these relations provide access to complementary knowledge and resources. In contrast to the first two types discussed above, which created a tendency for local actors to be reactive and short-term oriented, this type of extra-regional relations builds on pro-active engagement of local actors pursuing their goals. Furthermore, being future oriented, this type of extra-regional relations is less constrained by (but not independent from) existing regional or contextual conditions. Regional development work should therefore nourish such extra-regional relations. Place-based leadership could be directed at building the absorptive capacity of local actors and promote global networks through concerted action and positioning the region globally. Furthermore, due to the importance of anchoring, place-based leadership could foster knowledge networks between local firms. Evidence from manufacturing firms in UK demonstrates how institutional entrepreneurship could promote openness for exploring, combining, and anchoring global sources of knowledge, and thereby also promote innovative entrepreneurship in existing firms (Laursen & Salter, 2006), and also identified in new ventures (Enkel, Gassmann, & Chesbrough, 2009).

#### *4.4 Type 4 of extra-regional relations: Global actors embedded locally*

The fourth type captures relations where global actors are structurally embedded and engaged locally so that local actors have the possibility to influence this relationship. This type of extra-regional relations also refers to situations where local actors have a strong position globally, even as global



market leader and at the top of global production networks. In such cases, local firms have a high innovation capacity, create high value jobs, and tend to stay in the region because of their local roots. In the Humber region in UK and the case of offshore wind, strong and dense networks between firms with local and non-local ownership tend to be combined with networks to non-local actors in the global production network (Dawley et al., 2019). Moreover, external actors are often locally embedded and become part of local agency. This can be reinforced through recruitment when external firms hire people from the local labor market and people locally start working in foreign firms. The labor flow facilitates informal information sharing, raises awareness about different cultures and routines, and makes it easier to identify and grasp opportunities. This tends to strengthen the embeddedness of actors within the region.

Recent research on east Asia has provided rich insights into such extra-regional relations, often related to the notion of strategic coupling (Yeung 2009). Local institutional actors play an important role in attracting and locally anchoring foreign investment. Strategic coupling often requires political and institutional mediation at different levels (local, regional, national) to complement the various and bi-directional relations between regions and firms, as demonstrated in a comparative case study of Berlin and Pittsburgh (MacKinnon et al., 2019). In addition, investments in the built environment and infrastructure can connect and bind global actors to particular places potentially in the long-term. A study of the port in Rotterdam, Holland, shows that large investments such as harbors or energy infrastructure create a 'dependency' of global firms on that particular infrastructure and thus tie the investor to the location (Jacobs & Lagendijk, 2014). In regions where such critical infrastructure or knowledge bases are lacking, it was found that territorial intermediaries may fill the gap and promote strategic coupling between local actors and global production networks, as the authors demonstrated from a Thai-Chinese Industrial zone (Zheng, Liu, & Song 2022).

The agentic tendency in this type of extra-regional relations differs from Type 1 and Type 2 in that it is more long-term oriented, proactive, and strategic. Yet, due to the structural embeddedness and thus interdependency between actors, it also has a reactive component to it, which Type 3 (extra-regional relations with actors located elsewhere) does not have in the same way. Over time, there may be a risk that dependency relations increase, and reactive and short-term action become more prevalent, which implies a threat to fall back from a Type 4 relation to a Type 2 relation. Acknowledging this threat, regional development work needs to keep a long-term, proactive, and strategic orientation. Considering the mentioned threat, local actors would need to have two directions in mind: i) deepening the structural embeddedness and integration of global actors locally, thus making the place more important in global production networks, and ii) widening the regional opportunity space to

allow for diversification and reducing the risk of lock-in. To create local agency within this type of extra-regional relations, efforts to coordinate and facilitate strategic interests between regional actors and their counterparts in the global economy, is considered important (MacKinnon et al., 2019). However, place-based leadership should also maintain a strategic perspective on local capabilities and infrastructure to widening the regional opportunity space in the long-term. Institutional entrepreneurship could contribute to regional development by creating awareness about lock-in dynamics, and hence, working towards widening the opportunity space. Innovative entrepreneurship then is about identifying, developing, and grasping opportunities to enhance value within global production networks, and to diversify from existing capabilities.

#### *4. Conclusion*

Most regions are embedded in a variety of extra-regional relations, and the challenges and opportunities such relations provide are important for regional development. At the same time, a burgeoning literature on local change agency has deepened the understanding of regional development processes. Even though the literature on local change agency is attentive to extra-regional relations, it has so far not investigated them in depth. At the same time, the insights about why and how extra-regional relations may affect the scope for local agency is scattered in different streams of literature. Conceptually, the paper contributes by combining different streams of literature on extra-regional relations with the recent literature on local agency in regional development. On the one hand, this improves the understanding of extra-regional relations for studies on agency in regional development, and, on the other hand, it expands the agentic dimension in the existing literature on extra-regional relations.

This paper combines the existing literature on extra-regional relations by extracting three key arguments framed as context-specific dependencies, strategic coupling, and open innovation. Based on this, a theoretically informed typology was proposed that allows to specify the implications of extra-regional relations on local agency related to two dimensions: i) local actors' autonomy and ability to influence the extra-regional relation, and ii) global actors' investment locally. Table 2 summarizes the structural tendencies and policy implications for each type of extra-regional relation. The first type refers to extra-regional changes, which are outside the control of local actors but to which local actors must respond. Literature on regional resilience and agency is highly relevant for this type (Bristow & Healy, 2014; Kurikka & Grillitsch, 2021). Type 2 refers to extra-regional relations where global actors

control local activities creating strong dependencies in captive and hierarchical governance models of global, complex, and dispersed value chains (Gereffi, 2019; Gereffi & Korzeniewicz, 1994). Type 3 and 4 are essential for building local agency. Type 3 captures relations where local actors draw on extra-regional networks to gain access to knowledge and other resources (Cano-Kollmann et al., 2018; Chaminade & Plechero, 2015; Gorachinova & Wolfe, 2023). Type 4 is about extra-regional actors being embedded in the local environment and becoming part of local agency (Henderson et al., 2002; Coe et al, 2008; MacKinnon, 2012). Besides the agentic tendencies resulting from each type of extra-regional relations, Table 2 also summarises the policy implications for regional development work. With regional development work, we capture potential strategies and interventions for local actors and policy makers to compensate or address the challenges, or to develop opportunities associated with each type of extra-regional relation.

Table 2. Types of extra-regional relations and regional development work

	<i>Type 1 External shocks affect local actors</i>	<i>Type 2 Global actors control local actors</i>	<i>Type 3 Local actors mobilize globally</i>	<i>Type 4 Global actors embedded locally</i>
Possibility to influence external relationship	No	No	Yes	Yes
Extra-regional actors engaged locally	No	Yes	No	Yes
Agentic tendency	Short-term and reactive focused on developing adequate responses to external shocks	Short-term and reactive focused on satisfying the demands of global actors	Long-term and proactive focused on expanding / developing opportunities beyond the local endowments	Long-term and combination of proactive and reactive, aimed at strategic coupling of local actors in global production networks
<b>Policy implications: Regional Development Work</b>				
Place-based leadership	Maintain strategic focus combining short-term response with long-term goals; Develop foresight, and crisis response capabilities	Develop regional capabilities and opportunities for upgrading and diversification; develop alternative extra-regional relations	Develop absorptive capacities and networks, promote anchoring of global knowledge and resources locally	Keep long-term, proactive and strategic orientation; Deepen capabilities and structural embeddedness; Broaden capabilities developing opportunities for diversification
Institutional entrepreneurship	Create awareness about constantly changing temporal and spatial relations	Create mindset for developing opportunities outside the controlled relationship	Create openness for combining and anchoring global sources of knowledge with local ones	Create awareness about the potential lock-in dynamics and work for widening the regional opportunity space
Innovative entrepreneurship	Explore new market niches	Explore alternative paths or innovate to climb value chains (e.g. process innovation)	Pursue open innovation in existing firms, and spin-offs	Innovate to enhance value in global production networks; Innovate to diversify from existing competences

It is important to note that we systematize types of extra-regional relations (as opposed to types of regions). This means that different types of extra-regional relations may and often will co-exist in concrete regions. Based on this, propositions could be developed about the prevalence of certain types of extra-regional relations in certain types of regions, or the interplay between different types of extra-regional relations in specific regions. For instance, in a region dominated by Type 2 relations, which

would be the case if a foreign-owned company controls the main economic activities locally through e.g. a subsidiary or as sole client, few local actors will have the autonomy and capability to develop Type 3 relations, which imply that local actors succeeded in their search and in accessing complementary knowledge sources to enhance their innovativeness. Such relations could break the dependence from a Type 2 relation and therefore would be relevant to consider for effective regional development work.

Through this paper, we provide insights and guidance about how to engage with the different types of extra-regional relations, thereby enhance the capability of local actors to affect regional development, and respond to challenges and opportunities inherent in each type of extra-regional relation. By disentangling the different types of extra-regional relations, we hope to contribute to a deeper understanding of the interplay between extra-regional relations, structural tendencies affecting local agency, and targeted regional development work. The contribution to policy would be to provide a basis for developing adequate local intervention mixes depending on the combinations of extra-regional relations existing in any specific region.

The proposed typology would invite to study if and how local actors engage with their varied extra-regional relations. The proposition would be that the agentic tendencies identified for each type of extra-regional relation would prevail (dominate). Yet, some actors may consciously make efforts to overcome certain tendencies (e.g. work towards long-term goals despite an external shock requiring a response to immediate challenges) or engage in enabling others (e.g. to strengthen capabilities and networks to enhance local actors' ability to link up to and mobilize resources through extra-regional relations). Such empirical work would help to validate or correct the propositions made, or provide a deeper understanding about the mechanisms, as well as why, how, and to what consequences local actors engage with extra-regional relations.

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