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how collective policy-making processes shape the direction of
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Papers in Evolutionary Economic Geography

23.20



Utrecht University

Human Geography and Planning

This is an original manuscript of an article published by Taylor & Francis in *Geografiska Annaler: Series B, Human Geography* on 13.09.2023, available at: <https://doi.org/10.1080/04353684.2023.2257421>

Please cite the published version.

**Unpacking smart specialization strategies:
how collective policy-making processes shape the direction of regional strategies**

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Abstract

Regional strategies, such as smart specialization strategies, can set the course for future diversification. Despite its importance, surprisingly little is known about how the underlying policy-making process affects the direction of regional strategies, i.e., the priority areas that regions aim to promote. This article proposes a framework that allows to unpack the policy-making process of regional strategy development and link it to the policy outcomes. It highlights that only by considering features of this process, distributed across various actors with heterogenous interests and capabilities, can we explain why regions favor the promotion of certain types of path development over others.

Keywords: *Smart specialization, regional policy, regional diversification, regional transformation, regional strategies*

¹ The author would like to thank the Regional Studies Association for supporting this research through an RSA Early Career Grant.

1 Introduction

Decarbonization, digitization, and increasing international competition are just some of the contemporary challenges that force regions to transform their economies accordingly. New industrial paths need to be developed in order to create new economic opportunities and to compensate for declining regional industries; and existing regional industrial structures have to be renewed in accordance with the challenges (e.g., greening and digitizing established industries). Therefore, regions throughout the world develop strategies in which they define areas of diversification that are to be promoted in order to guide this transformation process. Examples range from the EU's smart specialization strategy, which is also increasingly being applied beyond Europe, to transformation strategies in regions producing fossil fuels.

Recent research points to the influence that policies have on the direction of regional diversification processes (Balland et al., 2020; Mewes and Broekel, 2020). This suggests that the formulation of regional policy strategies constitutes a decisive moment for setting the course for future rounds of regional diversification. Of course, not all prioritized domains in regional strategies lead to successful path developments, yet these can be interpreted as determining the regional selection environment. Since the introduction of the smart specialization strategy, a growing body of research has assessed the priorities of these regional strategies (e.g., Iacobucci and Guzzini, 2016; Gianelle et al., 2020; Trippl et al., 2020; Deegan et al., 2021; Di Cataldo et al., 2021). While these provide valuable insights into which economic activities regions aim to develop and how they differ across different kinds of regions, the policy-making processes in which regions develop their priorities remain largely concealed. Consequently, it becomes impossible to fully understand why the promotion of one specific industrial path was favored over others in regional strategies.

This is a highly relevant issue, since developing a regional strategy is not usually a straightforward process. In recent decades, the development of regional strategies has undergone a shift from top-down to more collective bottom-up approaches. Smart specialization strategies (RIS3), regional transformation strategies of lignite mining regions or regional tourism strategies are developed in collective processes that bring together numerous actors ranging from policy-makers to the private sector, academia and society in order to identify and select promising domains for future diversification (Foray et al., 2012; Benner, 2020a). To understand the direction of regional strategies or in other words, why the promotion of one path is favored over another, we must regard it as the outcome of a complex social and political process that is characterized by the interaction of a multiplicity of actors with different interests (Sotarauta, 2018; Benner, 2020a).

This article therefore follows recent demands to examine these policy-making processes more closely in order to explain regional path development beyond firm-led branching (Uyarra and Flanagan, 2016; Uyarra et al., 2017). It sets out to propose a framework that allows to unpack the policy-making process of regional strategy development and link it to the policy outcome, i.e., the priority areas that regions aim to promote. To this end, in a first step I introduce the actor-centered institutionalism (ACI) framework from policy analysis (Mayntz and Scharpf, 1995) and enrich it with a regional dimension in order to reveal the region-specific collective and multi-actor nature of contemporary regional strategy development. In a second step, I elaborate how the configuration of the policy-making process influences the direction of regional strategies. Finally, this framework will provide an initial basis for examining how regional policy-making processes should be designed in order to enable forward-looking transformation strategies.

2 Regional policies and regional diversification

Considerable research in the field of economic geography and regional studies has addressed the question of how regions diversify over time. Much attention has been paid to the way that pre-existing industrial structures affect regional diversification. Here, studies in Evolutionary Economic Geography (EEG) have shown that new regional industrial paths tend to emerge from pre-existing economic structures (Neffke et al., 2011). Besides this stronger focus on firm-driven diversification processes, scholars have increasingly highlighted the crucial role played by other non-firm actors in the process of new regional path development (for a summary, see Hassink et al., 2019). Among other things, existing studies suggest the influential role of regional policies for enabling, but also for influencing the direction of diversification. For instance, Fornahl et al. (2012) show that in addition to favorable regional preconditions, the initiative of regional policy-makers has been a crucial factor for the development of the wind energy industry in northern German regions. In a case study on the development of a software industry in Upper Austria, Isaksen and Trippl (2017) point out the important role played by the support at regional policy level, among other factors. In a quantitative study on German labor market regions Mewes and Broekel (2020) analyze how R&D subsidies, as a central tool of current regional innovation policy, affected regional technological diversification. Their findings indicate that R&D subsidies have had a positive impact on technological diversification in German regions. Balland et al. (2020) obtain similar results for the influence of R&D subsidies on industrial and technological diversification in Swedish regions. In other words, the empirical evidence of both studies suggests that the direction of regional innovation policies, in the form of R&D subsidies, has affected the direction of regional diversification processes. Of course, not all policies or selected domains in regional policies result in successful path developments. Yet, these can be interpreted as helping to shape the selection environment for new regional paths to emerge or for existing paths to be extended.

Priority setting in regional diversification strategies

Since policies tend to exert an influence on regional diversification and its direction, the formulation of regional policy strategies (such as RIS3) can be interpreted as a decisive moment for setting the course of a region's structural change. Understanding why one specific domain has been selected rather than others in regional diversification strategies thus provides valuable insights into a region's diversification process or lack thereof.

In recent years, a growing number of studies have examined priorities of RIS3 across European regions. An early study by Iacobucci and Guzzini (2016) on Italian regions finds that in only a small number of cases does the priority setting of smart specialization strategies consider the connection to the existing regional structure as well as potential links with other European regions. A study on RIS3 priorities in Italian and Polish regions reveals that in several regions the number of selected priorities is too high, covering a broad range of economic areas, thereby contradicting the principle of selective intervention (Gianelle et al., 2020). Tripl et al. (2020) make similar observations for what they classify as least-developed European regions. In contrast to the breadth of priority setting in least-developed European regions, they find that advanced European regions tend to develop more targeted smart specialization strategies. Furthermore, their results show that least-developed regions tend to favor existing paths rather than developing new paths. In line with the previous observations, a Europe-wide analysis by Di Cataldo et al. (2021) reveals a proliferation of priorities in regions characterized by weaker institutional capacity. Moreover, they find evidence of regions tending to replicate the smart specialization priorities of neighboring regions which, as a consequence, can run the risk of the strategy not being sufficiently embedded in regional strengths. Another recent Europe-wide analysis by Deegan et al. (2021) finds that the degree of relatedness to existing regional structures as well as the complexity of priorities have shaped policy-makers' priority setting. However, the authors do not find any interaction between the variables of relatedness and

complexity, indicating that “[r]egions seem to aim for related diversification without considering the attractiveness of the economic domains into which they are diversifying” (Deegan et al., 2021: 513).

These studies have provided valuable insights into the structure of priority setting in RIS3 and identified some of the determinants, such as existing industrial structures, institutions or the complexity of economic domains. However, I agree entirely with Deegan et al. that, up to now, “[w]e [...] do not have insights into the processes by which regions developed their strategies” (2021: 514). As a consequence, it becomes impossible to fully understand the factors underlying some of the aforementioned observations, such as why some regions aim to develop too many economic domains in their regional strategies or how some regions are able to identify and prioritize promising new economic domains, while others favor existing paths.

It is important to take into consideration that selecting economic domains for a regional strategy is by no means a straightforward process. Developing regional strategies nowadays increasingly involves a broad range of actors instead of top-down policies. A core element of smart specialization is the Entrepreneurial Discovery Process (EDP), a participative process in which firm and non-firm actors explore promising domains. The central idea behind such a participative bottom-up process is that these entrepreneurial actors are in the best position to identify promising domains for promoting future diversification given their existing capabilities and knowledge of market opportunities (Foray et al., 2011). This feature of the policy design underlines an important aspect, that “[m]aking and implementing policy is rarely the preserve of a single actor or group of actors: instead it is distributed across a multiplicity of actors across different levels, all engaged in a collective process of negotiation and compromise” (Uyarra and Flanagan, 2016: 317). Mäenpää and Lundström therefore describe the formulation of regional development strategies, such as smart specialization, as “wicked games”:

“Although the aim of the game is to develop the region, the aims and interests of the various players sometimes clash. Actors may also have different ambitions or perceptions of the goals, so some try to be a negotiator and some pursue only their vested interest. It is clear that not all of the players are interested in acting for the benefit of the region. However, it is also possible that different actors have mutual goals, and that the cooperation may be very efficient as the collaborators all focus on developing the aspects that they know well or can influence.” (Mäenpää and Lundström, 2018: 79)

The policy outcome of smart specialization strategies is therefore not the product of a purely technical exercise, but a complex social and political process (Sotarauta, 2018; Benner, 2020a). Aspects such as which actors are involved and which are not, as well as how interactions between the heterogeneous actors take place are highly relevant for understanding the formation of regional strategies, since these can determine the policy outcomes – in other words, the preference for promoting one certain path rather than another. For instance, challenges like narrow vested interests or the blockade of ideas can cause suboptimal outcomes in collective policy-making processes (Benner, 2020a).

In order to understand why certain policy outcomes were created, we need to unpack this very nature of the smart specialization process and address questions like: Which actors are involved in the formulation of priorities? How do heterogeneous actors interact in order to develop ideas and set priorities? And how does this shape the policy outcomes? In the next section I therefore propose a framework that helps to understand the formulation of regional strategies by considering the broad array of heterogeneous actors involved in the policy-making process, their interactions, as well as the structures in which they are embedded.

3 Unpacking regional policy-making processes and how they shape the direction of regional strategies

The challenge for developing a regional diversification strategy and the policy outcomes are known. Challenges or starting points for the development of regional strategies are, for instance, the need to “enhance Europe's capacity to deliver smart, sustainable and inclusive growth” (Foray et al., 2012: 7) in the case of RIS3, or the removal of an existing dominant regional path, such as in the case of German lignite mining regions. The outcomes of the regional policy-making process can be taken from the published strategy documents. The selected priority domains in these regional strategies can be categorized into different types of regional industrial path development that are to be promoted. The different types can range from extending or upgrading existing paths, through related or unrelated diversification into new industries, to the creation or importation of new industries (Grillitsch and Asheim, 2018). Categorizing the priorities of economic domains in regional strategies along different types of industrial paths developments in this way allows conclusions to be drawn about the transformative scope of the envisioned structural change. While priorities of path extension would counteract transformative hopes, the other types contribute to varying degrees to transforming a region's economic structure.

What remains largely unknown to date is the process between the starting point and the policy outcomes – that is the policy-making process of regional strategies. I argue that the configuration of this process can influence the policy outcomes and help to explain why one certain path is favored over another.

3.1 Actor-centered institutionalism

The actor-centered institutionalism (ACI) framework was developed by Mayntz and Scharpf (1995) to understand how policies are formulated. It “conceptualizes policy processes driven by the interaction of individual and corporate actors endowed with certain capabilities and specific cognitive and normative orientations, within a given institutional setting and within a given external situation” (Scharpf, 1997: 37). Policies are seen as the outcome of the intentional action of actors who are trying to realize their interests, operating within the institutions surrounding them. Thus, the ACI with an explicit focus on actors, interactions, and institutions provides a helpful perspective to grasp the multiplicity of heterogeneous actors in collective policy-making processes (for applications in other regional governance arrangements see, for instance, Benz and Fuerst, 2002; Lintz, 2016) that increasingly characterized regional development policies in recent decades, most prominently smart specialization (Foray et al., 2012). The approach thus overcomes the challenge “to consider government, business, research or civil society as ‘one’ when analysing their involvement in territorial strategy” (Aranguren et al., 2016: 168).

The ACI framework consists of four components: actors, actor constellations, modes of interaction, and institutions. **Actors** that are participating in policy-making processes are marked by specific action orientations and capabilities. Action orientation refers to actors’ perceptions and preferences, or in other words, what policy outcomes are perceived as desirable or undesirable. Capabilities are understood as action resources encompassing, for instance, human capital, physical capital, social capital, access to information or technological capabilities. The availability of capabilities enables actors to participate in policy-making processes and determines their ability to influence the outcomes (Scharpf, 1997). Lintz (2016) adds the categories of knowledge and power. He describes actors as carriers of knowledge that serves as crucial input to solve the targeted challenges of the policy-making process. The

relevance of actors' knowledge reflects the central argument for the participative bottom-up process in smart specialization's EDP. Based on varying endowments of the aforementioned action resources, actors in a policy-making process will be characterized by different power positions. Power defines "actors' ability to accomplish their interests and assert their priorities against the (potential) will of others" (Lintz, 2016: 960).

This underlines the fact that actions by actors are not independent, but also depend on interactions with other actors participating in the policy-making process. The component **actor constellations** takes into account the plurality of frequently heterogenous actors in terms of the capabilities and action orientation that are involved in policy-making processes (Scharpf, 1997). Features of the actor constellation (e.g., size, degree of heterogeneity) influence how **interactions** between the various actors in the process take place. For instance, conflicting interests can result in the prevalence of bargaining and blockade, thereby hampering the problem-solving process (Scharpf, 1997). It acknowledges that policy-making, such as identifying and prioritizing economic domains for smart specialization strategies, is not a straightforward process, but is characterized by different modes of interaction. Actors can deploy different strategies in order to pursue their envisioned policy targets in this multi-actor arena. According to Klijn and Koppenjan (2016: 273) these can include "go-alone, coalition-building, conflictual, avoidance, cooperative or collaborative, and facilitating" strategies.

Actors operate in an **institutional setting** consisting of formal and informal systems of rule. These influence actors' action orientation and actions, as well as shaping modes of interaction. The institutional design of policy-making processes, for instance, can affect actors' capabilities, thereby determining their inclusion as well as their scope of action to assert their interests (Scharpf, 1997).

Lastly, the ACI framework emphasizes the fact that different configurations of the policy-making process will result in different policy outcomes (Scharpf, 1997). This is an important point that I will address in more detail in section 3.3 in the context of the direction of regional strategies.

3.2 The regional dimension of ACI

Since ACI is to be used to investigate how regional strategies are formulated, it is important to consider that the region-specific context also shapes the various components (actors, interactions, institutions) of the policy-making process, thereby affecting its outcomes. This is already partly incorporated in the ACI framework since it regards actors' interactions as embedded in the institutional context. However, in addition to this, other region-specific features shape the configuration of the collective regional policy-making process, as recent studies on smart specialization strategies suggest (Aranguren et al., 2016; Aranguren et al., 2019; Tripl et al., 2020).

I concentrate on three aspects that underline the regional dimension of ACI: First, the region-specific economic structure influences the scope of actors that could potentially be mobilized for developing a regional strategy. Insights from Evolutionary Economic Geography studies highlight that historically grown, pre-existing regional economic structures shape opportunities for future rounds of diversification, since new activities tend to draw on or recombine existing capabilities (e.g., Neffke et al., 2011). Transferred to the topic of developing regional strategies, this also means that region-specific industrial structures shape the potential regional stakeholders' action resources (e.g., knowledge, technological capabilities, etc.) that they could deploy in the regional policy-making process. It suggests that “[o]rganizational thin regions may be confronted with the challenge to mobilize a critical mass of capable actors to engage in

S3, whilst organizationally thick regions may face difficulties to make tough choices as regards whom to include in S3 practices” (Tripl et al., 2020: 1330). Differences in industrial structures may, thus, shape the number, quality, and heterogeneity of actor constellations in regional policy-making processes.

Second, regions are characterized by varying institutional capacities for managing regional strategy development. In this context, past experiences condition the capacities for governing regional policy-making processes today (Aranguren et al., 2016). In regard to the implementation of RIS3 processes, quite different capacities and prior experiences exist across European regions. Kroll concludes that “diversity in implementation [of RIS3] is strongly determined by differences in general institutions and, more importantly, regionally specific modes of governance” (2015: 2095). A study by Tripl et al. (2020), for instance, reveals differences in the capacity for stakeholder involvement in RIS3 development processes across different types of regions. While least-developed regions face challenges, the group of advanced regions is characterized by pronounced policy capabilities. In the former case, it has partly led to failures to include important stakeholders or more government-dominated policy-making processes. These insights suggest that varying experiences and capacities of institutions across regions can influence the actor constellation in regional policy-making processes.

Third, interactions between actors in the policy-making process are embedded in and shaped by structures of pre-existing social relations. Following Granovetter’s embeddedness approach, “actors do not behave or decide as atoms outside a social context” (1985: 487), their actions are embedded in existing structures of social relations. While trust among actors, as a result of experience-based continuous interactions in the past, facilitates the exchange of knowledge and allows interactive learning, overly strong ties can also result in strong cohesive alliances between regional actors protecting the status quo or disregarding the need for changes due to groupthink (Grabher, 1993; Boschma, 2005). These kinds of considerations are also relevant

for interactions in regional policy-making processes, since some actors do not work together for the first time, but share a prior history through common affiliations to regional networks. This can create facilitative conditions for information exchange, as well as for coalition-building in policy-making processes as a strategy to influence the policy outcomes.

Based on the elaborations in 3.1 and 3.2, regional transformation strategies are conceptualized as the product of a multi-actor process, in which actors are characterized by different interests and capabilities. This process is region-specific, since the regional context shapes various components of the policy-making process (see Fig. 1).

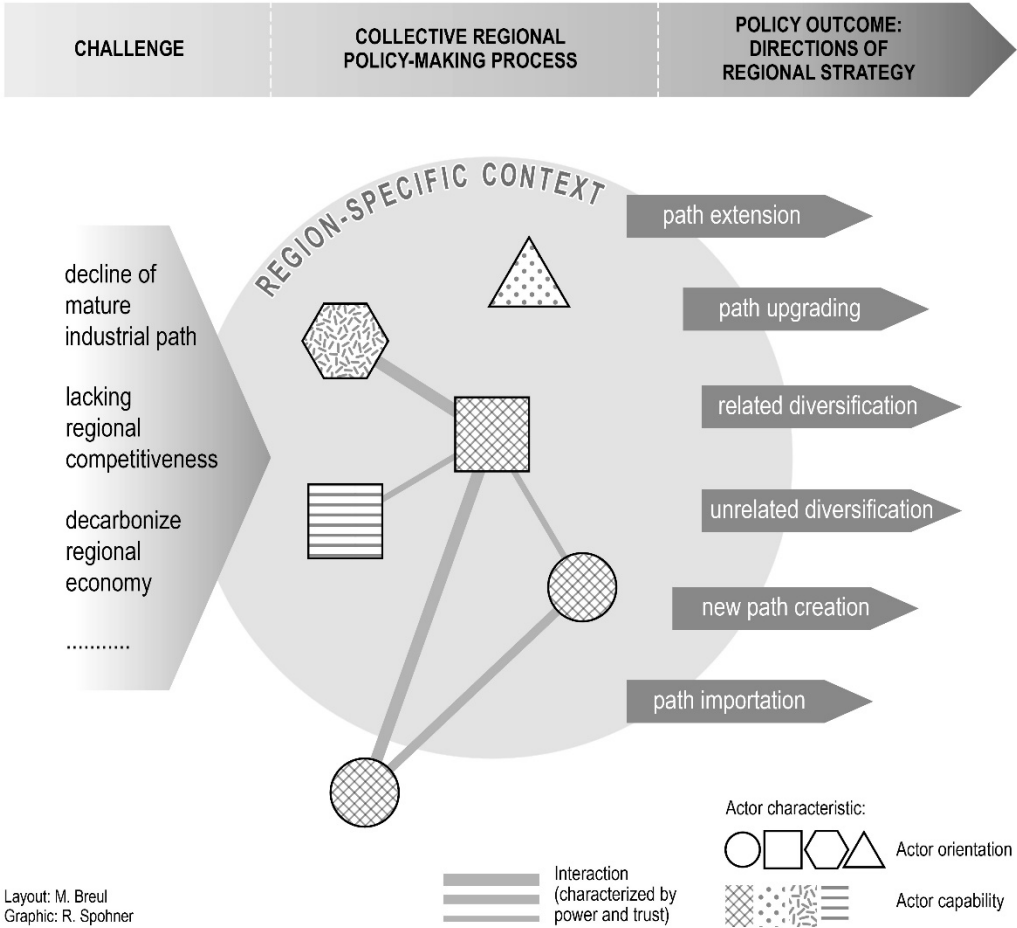


Figure 1: A framework for studying how collective policy-making processes shape the direction of regional strategies (Source: Breul, 2022)

3.3 The influence of the configurations along the policy-making process on the direction of regional strategies

The previous sections introduced a framework that makes it possible to unpack the region-specific collective and multi-actor nature of contemporary regional strategy development. In a final step, this section links the configuration of these collective policy-making processes to the policy outcomes, i.e., the promotion of certain types of regional path development defined in regional strategies (see Fig. 1). This endeavor is organized along two arguments.

First, who participates and who does not has implications for the potential scope of policy outcomes. Developing regional strategies in collective regional policy-making processes, such as RIS3, is based on the idea of self-discovery. Identifying promising domains therefore depends to a great extent on the mobilization of actors who introduce existing capabilities and knowledge about market opportunities into the search process (Foray et al., 2012). The “opportunity space” of identifying promising domains, among other factors, is actor-specific. That means perceived opportunities are shaped by actors’ capabilities (see also section 3.1), experiences, and encounters. These are, in turn, influenced by regional preconditions, such as industrial structures, and institutional configurations (Grillitsch and Sotarauta, 2020). This implies that the constellation of actors involved in designing regional strategies also shapes the direction of the strategy, since the perception of opportunities differs across actors.

It would be unrealistic to assume that all relevant actors within a region could be mobilized and integrated into collective regional policy-making processes to create an all-encompassing regional vision. Thus, it is important to consider the fact that the use of policy networks is inherently connected with discrimination between those actors that are involved and those that are excluded from it, but also the consequences of this (Hadjimichalis and Hudson, 2006). For instance, failing to select actors that represent a specific part of the regional economy could

entail a risk of overlooking opportunities for restructuring the region. Moreover, an unbalanced mobilization of actors could have the effect of overstating the potentials of the favored parts of the region included in the policy-making process, thereby risking a misallocation of future public resources as a result of the strategy (Sotarauta, 2018).

In order to highlight the implications of the nature of actor constellations for the direction of regional strategies it is helpful to think about the different roles of actor types in regard to their transformative potential. In the following, three broad and stylized actor types are discussed, without claiming to provide an exhaustive elaboration of all kinds of actors, but in order to highlight this argument.

Incumbents: Empirical evidence of regional industrial dynamics reveals a tendency among incumbent actors to reinforce existing regional industrial structures (e.g., path extension, path upgrading, or related diversification) (Neffke et al., 2018). There are at least two explanations as to why incumbents' opportunity space is associated with less transformative directions. First, incumbents are often strongly embedded in regional structures, as the development of the firms and the regional production environment have often mutually shaped one another (Baumgartinger-Seiringer, 2021). Thus, they tend to rely on and reflect existing regional capabilities, which makes them less likely to introduce greater structural change (Neffke et al., 2018). Second, as an actor type that tends to benefit from the status quo, promoting change is less likely since it conflicts with vested interests (for an overview see Baumgartinger-Seiringer, 2021). While in line with the principle of the smart specialization strategy to develop strategies based on regional capabilities, a strong involvement of incumbents would also imply that the discovery process could lead to domains that are characterized by less transformative potential. For instance, in the smart specialization process of the Polish region Małopolska “dominant incumbent businesses focused on protecting their position and area of influence” (Gancarczyk et al., 2021: 26), suggesting priorities that promote path extension or path upgrading. Existing

literature on EDPs therefore underlines the importance of ensuring a broad mobilization of actors beyond major incumbents in order to discover new potentials (Kyriakou, 2016; Sörvik et al., 2019). This brings us to the second type of actor.

Newcomers or potential future actors: For developing a regional strategy that promotes change which diverges from the established regional development path, scholars highlight the importance of mobilizing what they call newcomers, outsiders, emerging actors, potential future actors, etc. (Kyriakou, 2016; Benner, 2020b). Benner underlines the importance of openness in EDPs “to include outsiders such as new businesses, students, or immigrant and minority entrepreneurs to better assess parts of the regional knowledge base more distant from policymakers’ perceptions, and to seize hidden opportunities for diversification” (2020b: 1679). This group of actors can complement the opportunity space of incumbent actors in EDPs via new ideas, as well as reducing the risk of lock-ins. The crucial role of newcomers or potential future actors for change processes becomes apparent in the conceptualization of transitions from the multilevel perspective. Here, novelty that could trigger changes and destabilize the existing regime (i.e., incumbents) is developed by niche actors (Geels and Schot, 2007).

Extra-regional actors: Extra-regional actors or the connectivity to extra-regional resources (e.g., via collaboration or integration into global value chains) can widen the opportunity space of regional actors in the EDP, since they allow resources that are dissimilar from the regional asset base to be incorporated into the process (e.g., Binz et al., 2016; Breul et al., 2021). One central reason for this potential is that extra-regional actors are shaped by a distinct regional context with different industrial structures, institutions, and social networks (see actor outside the region-specific context in Fig. 1). Tapping into new knowledge pools imported from other regions can provide the basis for path importation and increases the potential for unrelated diversification (for empirical evidence, see Neffke et al. 2018). While not focusing on policy-making processes, these findings highlight the transformative potential of extra-regional actors

and resources for regions. They suggest that taking these in EDPs into consideration widens the opportunity space towards domains associated with path importation and unrelated diversification. Especially for peripheral regions that lack entrepreneurial capabilities it has been suggested to mobilize extra-regional resources in order to develop smart specialization strategies (Foray and Rainoldi, 2013). Of course, there is a danger that the involvement of extra-regional firms may overshadow visions for regional development strategies to the detriment of smaller regional actors, as observed in the RIS3 of some European regions (Aranguren et al., 2019).

In sum, these three stylized actor types highlight that the directions of the regional strategy are affected by who participates in the policy-making process, since opportunity spaces diverge.

Second, the nature of the interactions between actors impacts on the outcome of the regional strategy development process. Mobilized actors are not to be understood as isolated elements in the development process of the regional strategy, but it is the collective nature of the various stakeholders in participatory arenas that characterizes the identification and prioritization of promising economic domains in the EDP (Foray et al., 2012; Grillitsch, 2016).

It is not only the constellation of the mobilized actors that is decisive for the search process, the process also relies on their “willing[ness] to open up their thinking to other entrepreneurial actors who are potentially their competitors” (Sotarauta, 2018: 196), because different types of knowledge are dispersed across actors and have to be combined in order to discover potential new domains for regional industrial path development. The willingness to exchange knowledge and enable a process of collective learning is facilitated by trust (for an overview of this argument, see Boschma, 2005). This also applies to policy networks (Benz and Fuerst, 2002; Klijn et al., 2010). A lack of trust between the actors would hamper knowledge exchange and

the possibility to combine different knowledge types. Especially domains that can be associated with the path development types of related or unrelated diversification as well as path upgrading rely on new combinations of knowledge (Benner, 2020c). A rather fragmented regional policy-making process with obstructed knowledge exchange and collaboration would make these directions in regional development strategies less likely (Grillitsch, 2016; Benner, 2020c).

At the same time, overly strong ties between actors and organizations in regional policy networks “may simply support the conservative behaviour of actors bound to traditions and routines” (Benz and Fuerst, 2002: 23). In his seminal study on the Ruhr area, Grabher (1993) shows that groupthink among regional actors created a common world view that hindered a reorientation in the early phase of the declining coal, iron and steel path and instead led to an extension of this declining path. Also, Benner (2020a: 168) warns against “an inability to develop a forward-looking vision. Agents may settle on a backward-looking vision that draws on dreams about a glorious past and lacks transformative ambition.” This last part highlights the danger of a common world view, which can lead to the denial or non-perception of problems and the glorification of existing structures. Such a situation could prevent domains with a greater transformative scope being identified and favor the extension of existing paths. Moreover, Boschma (2005) points to the danger of very close social networks denying the entry of new actors with new ideas. If this attitude is prevalent in the regional policy-making process, it will reduce the possibility of finding domains that are more closely associated with new path creation or path importation, since both types tend to depend on new actors (see also Benner, 2020c).

Of course, the inclusion of various actors in the regional policy-making process not only brings different knowledge into the discovery process, it also implies the co-existence of heterogeneous interests and perceptions about what policy outcomes are desirable or undesirable (Scharpf, 1997; Mäenpää and Lundström, 2018). Setting priorities in order to focus public resources on

only a limited number of promising economic domains, as required by the smart specialization strategy, therefore means that some involved actors will benefit from the regional strategy while others lose out (Grillitsch, 2016). Regarding the development of regional strategies “as an arena for discussions, battles and quarrels” (Sotarauta, 2018: 197) highlights the relevance of bargaining processes and their role in the final policy outcomes.

The way that the bargaining process influences the policy outcomes depends on its features and the actors that dominate the process (Normann, 2017). First, whether there is a reason for bargaining in the priority setting depends on the relationship between the actor orientations. These can be similar or complementary, neutral, or conflicting. While similar or complementary interests would suggest cooperative or collaborative strategies to jointly attain the desired policy outcome, conflicting interests would be more likely to cause go-alone, coalition-building, conflictual or avoidance strategies (Klijn and Koppenjan, 2016). Second, actors’ capabilities will affect which strategies actors can pursue in order to influence the process in their own interest (Scharpf, 1997; Klijn and Koppenjan, 2016).

Lastly, both aspects affect whether the bargaining process is dominated by certain actors aiming to safeguard their interests in the priority setting. In the case of actors having conflicting interests, the distribution of power among the actors, which derives from their capabilities (Lintz, 2016), is decisive for shaping the policy outcomes. Grillitsch (2016) distinguishes between two scenarios: balance of power and domination. Balance of power between actors with conflicting interests in the priority setting of regional strategies can either lead to compromises or blockade (Grillitsch, 2016). In the latter case, conflicting actor orientations could paralyze the development of a forward-looking regional strategy. If certain actors dominate the bargaining process, “the most likely outcome will be that the stakeholders of this group safeguard their interests and seek rents while the dominated groups lose out” (Grillitsch, 2016: 30). Usually, incumbent actors tend to be the more powerful group. Strong ties with other

firm and non-firm actors in the regional economy as well as support structures and institutions that are well aligned to their needs endow incumbents with favorable capabilities in order to assert their interests (Baumgartinger-Seiringer, 2021). In general, due their historically grown beneficial position in the regional economy, incumbents are associated with the vested interest of preserving the status quo. This makes two policy outcomes more likely: On the one hand, incumbents may block suggested domains aimed at developing new paths (e.g. new path creation, path importation) if these endanger the status quo (Benner, 2020a). This fear of being on the losing side is arguably larger when suggested domains are believed to compete for similar markets or require similar scarce assets (Breul et al., 2021). On the other hand, if incumbents dominate the prioritization of domains, the extension of existing paths is also more likely to be part of the regional strategy, thereby counteracting more transformative goals. Benz and Fürst (2002: 24) state that there is a risk that “they tend to react to impulses for change with adjustments minimizing cost and conflicts (for instance by ignoring the real demand for change; by symbolic instead of effective adaptation, by deferring necessary changes in time-consuming consultation and by shifting the problem to committees)”. It highlights that, despite the need to reorient the regional economy, such a policy-making configuration would tend to create policy outcomes that focus on path extension characterized by small, rather symbolic changes, instead of path upgrading. Thus, dominant (coalitions of) incumbents could impede the development of a forward-looking regional strategy. If successfully asserted, it would favor path extension rather than more transformative types of path development. Dominant incumbent interests could underlie Trippel et al.’s (2020) finding that some regions have favored path extension rather than developing new paths in their smart specialization strategies.

In order to reduce the risk of the policy agenda being dominated by a small number of actors, existing literature suggests increasing the variety of actors and actor orientations (Grillitsch, 2016). Moreover, dominant incumbent coalitions can be broken up by crisis situations as well

as external influences and open up regional policy-making processes to new directions. “We often observe that high pressure problems break up existing coalitions. The decline of industries, for example, regularly destroys traditional patterns of perception and delegitimizes the power of those linked to old industries while new actors gain political support” (Benz and Fuerst, 2002: 27).

So, in general the literature argues that conflicting interests can result in bargaining and blockade, thereby impeding the problem-solving process (e.g., Scharpf, 1997; Benz and Fuerst, 2002; Lintz, 2016). At the same time, one has to bear in mind that a lack of negotiations and conflict avoidance can also be problematic, since they could lead to non-selective strategies characterized by a broad number of priorities in which all actors feel that they are taken into account (see also Benner, 2020a). This could be a possible explanation for the proliferation of priorities in the smart specialization strategies especially of regions characterized by weaker institutional capacity (e.g., Di Cataldo et al., 2021). Moreover, an uncritical attitude or a lack of negotiations can also increase the risk of actors being “carried away by their own enthusiasm and an overestimation of what they can actually control, leading to costly over-optimism” (Benner, 2020a: 167). Such a policy-making configuration could increase the risk of policy outcomes aiming to support the development of unrealistic path creations, e.g., the selection of complex and fashionable domains regardless of pre-existing capabilities as suggested by recent observations (Deegan et al., 2021).

Summing up, the elaborations surrounding the two arguments reveal how policy outcomes (i.e., the promotion of certain types of regional industrial path developments) are linked to configurations along the policy-making process aimed at developing a regional strategy.

4 A look ahead

Regional strategies can set the course for future rounds of diversification or the lack thereof. Despite its importance, surprisingly little is known to date about how the underlying regional policy-making process affects the direction of the regional strategy; or in other words, what type of regional industrial path development regions aim to promote. Therefore, this article proposes a framework that helps to unpack the collective policy-making process of regional strategy development and link it to the policy outcome. Analyzing the development of a regional strategy through the ACI framework can help to reveal the configuration of this policy-making process and understand the direction of the regional strategy as the product of a multi-actor process, which is shaped by the participation and interaction of actors with different interests and capabilities as well as the closely interlinked regional context. The elaborations in section 3.3 have illustrated how different configurations in collective regional policy-making processes as regards the actors involved and the nature of interactions may affect what type of industrial path development regions aim to promote in their regional strategies.

The article thereby contributes to the growing body of research that analyzes the priorities of smart specialization strategies (e.g., Iacobucci and Guzzini, 2016; Gianelle et al., 2020; Trippel et al., 2020; Deegan et al., 2021; Di Cataldo et al., 2021) by taking an important step towards studying the causes of the observed challenges in regional strategy formulations, such as why some regions come up with non-selective regional strategies, or why some regions have difficulties designing transformative strategies and favor mature industrial structures instead.

Furthermore, by linking the policy-making process of regional strategy development to the type of path development that regions aim to promote, the article is a step forward in the efforts to acknowledge the role of policy-making processes in research on regional path development (Uyarra and Flanagan, 2016; Uyarra et al., 2017). This can add a helpful complementary

perspective to the well-established perspective of EEG studies on regional diversification, which provide valuable insights into the determinants once a path has developed successfully (e.g., Neffke et al., 2011). Because the focus on policy-making processes will help to shed light on the pre-formation stage of regional path development – a phase in which one path is favored over another. It could therefore explain why other potential paths, which remain concealed by a retrospective view based on regional industrial statistics, have not successfully emerged.

The conceptual ideas expressed in this article come at a time when the development of existing smart specialization strategies from the first EU programming period are not yet fully understood and an update of the smart specialization strategies is now due for the new programming period. This makes it a timely moment to call for empirical case studies that unpack the policy-making processes of regional strategy development and systematically advance our understanding of how these influence the transformative potential of regional strategies. To do so, regional strategies defined in the past could be analyzed by means of process tracing. Here, the trajectory of events, including actor participation and relationships between actors, is traced back in order to explain a particular policy outcome (see, for instance, Normann, 2017). Data could be drawn from policy document analyses and interviews with different types of actors in order to gather information about their agency in these events. In addition, social network analysis techniques would make it possible to reveal the centrality of individual actors as well as the network structures of these policy-making processes (e.g., existence of and interaction between coalitions) (Klijn and Koppenjan, 2016). Regional strategy development initiatives that are currently taking place would make it possible to supplement the insights from interviews and policy documents with information gathered from participant observation through participation in events. Comparative approaches that compare regions with very distinctive RIS3 strategies despite similar preconditions would permit an exploration of the mechanisms behind these differences.

Finally, this kind of empirical case study will provide the insights required for designing policy-making processes in a way that avoids suboptimal strategies dominated by vested interests and enables forward-looking transformation strategies.

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