



When institutional logics meet: Alignment and misalignment in collaboration between academia and practitioners

Mads Bruun Ingstrup^{a,*}, Leena Aarikka-Stenroos^b, Nillo Adlin^c

^a Department of Entrepreneurship and Relationship Management, University of Southern Denmark, Denmark

^b Faculty of Management and Business, Unit of Industrial Engineering and Management, Center for Innovation and Technology Research, Tampere University, Finland

^c Faculty of Engineering and Natural Sciences, Tampere University, Finland

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ABSTRACT

This paper explains the institutional logics of academia, and of practitioners within industry and government, as well as the alignment and misalignment that occurs when these actors collaborate. This is achieved by building on the theories on alignment and misalignment and institutional logics, whilst conducting an explorative case study of a circular economy cluster from the Tampere Region of Finland. This paper offers three main contributions: First, convergence and divergence of institutional logics by industry, government, and academic actors can lead to alignment and misalignment at three levels: actor-type, relationship, and system levels. Second, partial alignment and misalignment are found to be in-between modes of alignment, which challenges the idea that alignment and misalignment are dichotomous. Instead, alignment and misalignment should be seen as the two ends of a continuum. Third, alignment and misalignment are dynamic by nature, because institutional logics change and modify during collaboration. For practice, this paper gives advice on how collaboration between academia and practitioners can be advanced to achieve alignment and avoid misalignment.

1. Introduction

Academia and practitioners from industry and government often see and approach situations differently. This dissonance is considered natural because of the differences in goals and cognitions between these actors, and it has long been an area of study (Aarikka-Stenroos, Jaakkola, Harrison, & Mäkitalo-Keinonen, 2017; Jaakkola, Aarikka-Stenroos, & Ritala, 2019; Öberg & Shih, 2014). For example, researchers who examine resource interaction (see e.g., Baraldi, Ingemansson, & Launberg, 2014; Baraldi & Strömsten, 2009; Lundberg & Andresen, 2012) acknowledge that collaboration between academia and practitioners tends to encounter various problems due to diverse institutional logics and purposes of action (Lundberg & Andresen, 2012), as well as conflicting goals and missing control tools (Baraldi & Strömsten, 2009). These circumstances can lead to alignment and misalignment of goals, practices, and cognition among actors (Corsaro & Snehota, 2011). According to Corsaro, Cantù, and Tunisini (2012), diversity and heterogeneity between actors can lead to positive effects, but also to negative effects, and the implication is that it is crucial to understand this diversity and manage collaboration in order to achieve positive effects and alignment, instead of negative effects and misalignment.

Although the complexity of collaboration between academia and practitioners is discussed within business-to-business marketing research (see e.g., Baraldi et al., 2014; Baraldi & Strömsten, 2009; Lundberg & Andresen, 2012; Shih & Linné, 2016), alignment and misalignment caused by actors' varied institutional logics in collaborative settings have not been the explicit focus of analysis within this literature. Following from this, there exists at least three gaps in the knowledge. First, investigation has been biased towards the positive effects of actor diversity (Aarikka-Stenroos et al., 2017; Corsaro et al., 2012) and has greatly neglected how this diversity can cause misalignment. Second, as pointed out by Corsaro and Snehota (2011), most studies have dealt with alignment and misalignment from the perspective of one actor type, without considering the interaction between two or more actor types (see e.g., Pardo, Ivens, & Wilson, 2013; Skälén, Pace, & Cova, 2015). Studies indicate that alignment and misalignment can occur within one actor type, for instance in firms (Besharov & Smith, 2014) or in relationships (Corsaro & Snehota, 2011; Öberg & Shih, 2014; Skälén et al., 2015), but they have not focused on alignment and misalignment in extensive collaborations between many dissimilar actor types. Third, attention has been limited regarding how alignment and misalignment develop, and thereby on the dynamics of alignment and

* Corresponding author.

E-mail addresses: mbi@sam.sdu.dk (M.B. Ingstrup), leena.aarikka-stenroos@tuni.fi (L. Aarikka-Stenroos), nillo.adlin@tuni.fi (N. Adlin).

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misalignment.

Furthermore, this topic of collaboration between academia and practitioners has increasing practical relevance, as resources from these actors are needed in order to solve grand challenges within society. For example, solving environmental challenges often requires collaboration between diverse stakeholders representing industry, government, and academia. Collaboration for sustainable business, and a circular economy in particular, have been growing topics in business-to-business marketing research (see e.g. Lacoste, 2016; Ranta, Keränen, & Aarikka-Stenroos, 2019). Therefore, it is vital to know how to enable collaboration in order to reach grand goals, such as environmental sustainability, despite actors' different institutional logics (see e.g. Lozano, 2007; Matinheikki, Pesonen, Arto, & Peltokorpi, 2017). Indeed, understanding how institutional logics between academia and practitioners actualize, and how alignment and misalignment occur between them and shape their action, will help in managing and facilitating collaboration.

Motivated by the gaps in the knowledge and the practical relevance, this paper explains the institutional logics of academia, and of practitioners within industry and government, as well as the alignment and misalignment that occurs when these actors collaborate. This paper builds on a theoretical background of the literature on alignment and misalignment (Corsaro & Snehota, 2011; Cox, 2004; Skälén et al., 2015) and institutional logics (Öberg & Shih, 2014; Thornton & Ocasio, 2008). Regarding these two streams of literature, this paper subscribes to this definition by Thornton and Ocasio (1999, p. 804) on institutional logics: "...the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality". On alignment and misalignment, this paper departs from Cox's (2004, p. 419) understanding that: "...alignment is clearly possible in circumstances of conflict and manoeuvre, where both parties accept the current terms of any exchange, while constantly striving to achieve their 'ideal' value capture goals in the future". This understanding suggests that alignment and misalignment are the result of interaction.

The empirical context in which this theoretical background unfolds is a case of a circular economy cluster from the Tampere Region of Finland. The cluster involves more than 300 industry actors, more than 20 government actors, and 10 academic actors, and specializes in sustainability across dissimilar industries. From this case, three sub-cases that concern collaboration between academia and practitioners are examined. The case and sub-cases are chosen because they involve a rich set of actors from industry, government, and academia, representing various institutional logics.

This paper advances the knowledge on alignment and misalignment in three different ways. First, convergence and divergence of institutional logics by industry, government, and academic actors can lead to alignment and misalignment at three levels: actor-type, relationship, and system levels. Second, partial alignment and misalignment are found to be in-between modes of alignment, which challenges the idea that alignment and misalignment are dichotomous. Instead, alignment and misalignment should be seen as the two ends of a continuum. Moreover, in collaborations, partial misalignment can make actors' institutional logics more explicit, induce intentional adjustments, and produce positive effects. Third, alignment and misalignment are dynamic by nature, because institutional logics change and modify during collaboration.

To arrive at these findings, this paper is organized as follows. The next section describes the key theories and proposes a theoretical synthesis. In the third section, the applied research strategy and data-generating techniques are clarified, and in the succeeding section, a case study is presented with three sub-cases. The fifth section summarizes and discusses the case study findings in order to build theory on alignment and misalignment between academia and practitioners. The last section concludes, draws practical implications, and proposes

further research.

2. Theoretical background

To explain the institutional logics of academia, and of practitioners within industry and government as roots of alignment and misalignment, theory on alignment and misalignment are linked to theory on institutional logics. Finally, a theoretical synthesis encompassing these theories is put forward.

2.1. Alignment and misalignment

Alignment and misalignment have been discussed in the areas of strategy and business-to-business marketing. Within strategy, researchers see alignment as desirable and misalignment as undesirable (Avison, Jones, Powell, & Wilson, 2004), whereas within business-to-business marketing the focus is on the positive effects of alignment and the idea that misalignment can be desirable (Corsaro & Snehota, 2011; Skälén et al., 2015). Subscribing to business-to-business marketing, Bacharach, Bamberger and Sonnenstuhl (1996, p. 478) explain alignment in this way: "...in an exchange relationship, alignment occurs when Party A's means are perceived by Party B as not inconsistent with Party B's ends, and Party B's ends are perceived by Party A as not inconsistent with Party A's means".

In business-to-business marketing research, alignment was introduced by authors such as Cox (2004), Corsaro and Snehota (2011), and Skälén et al. (2015), and is considered an important driver of value creation between actors who are in a relationship, for example, between customers and suppliers, or between buyers and sellers. Corsaro and Snehota (2011) argued that relationships' effectiveness is largely determined by how individual buyers and sellers behave in their attempts to maximize their self-interest in a situation of incongruent goals. In relational contexts, actors' mutual cognitions are exposed and confronted (Corsaro & Snehota, 2011), and understanding the sources of dissonance between cognitions is important for relationship survival and further value creation.

In this vein of research, Corsaro and Snehota (2011) presented three distinct types of alignment: *alignment of goals* concerning the consistency and agreement of goals among actors, *alignment of practices* referring to the degree to which the processes and competences fit actors, and *cognitive alignment* on whether the views and perceptions of actors match. Thus, Corsaro and Snehota (2011) argued that cognitive alignment between actors is needed to facilitate communication and knowledge transfer, enable prediction of others' behaviour, and to build trust. In addition, Kragh and Andersen (2009) stressed that some cognitive alignment is preferable, so as to ease collaboration. Lastly, misalignment expresses a situation in which no alignment is achieved (Skälén et al., 2015).

Following this categorisation, studies show that high degrees of strategic similarity, consistency, and compatibility in goals lead to more effective inter-organisational change (Saxton, 1997) and relational behaviours, such as flexibility, solidarity, and information exchange (Stephen & Coote, 2007). However, business-to-business marketing research indicates that problems always arise in business relationships, because a perfect match never occurs between two exchange actors (Corsaro & Snehota, 2011). Thus, Cox (2004), who addressed alignment and misalignment in a supply chain setting, found that for a relationship to work effectively, it is essential for the buyer and the seller to be aligned appropriately. By aligned appropriately, Cox (2004) means that the specific circumstances, under which buyers and sellers work in order to achieve their ideal value capture outcome, influences what constitutes the possible or desired degree of alignment to be reached out for within a relationship.

2.2. Institutional logics

To explain alignment and misalignment between academia and practitioners when collaborating, the theory on institutional logics is essential, as it highlights individuals' distinctive goals, preferences, and characteristics, which determine their actions. As mentioned in the introduction, this paper subscribes to Thornton and Ocasio's (1999) definition of institutional logics, and it acknowledges Öberg and Shih (2014), who stress that interests (actors' intentions), priorities (actors' choice between alternatives), and interaction goals (actors' purpose and rationale for collaboration) build up institutional logics. That aspect has also been observed by researchers such as Dunn and Jones (2010) and Azadegan, Porobic, Ghazinoory, Samouei, and Kheirkhah (2011). They argue that interests, priorities, and interaction goals only partly capture actors' motivations, and that interaction goals follow from interests and priorities. Thus, institutional logics indicate reasons or motivations for individual and collaborative actions (Öberg & Shih, 2014).

In line with this understanding, researchers have empirically analysed how institutional logics can direct the attention of key decision-makers to a set of issues and solutions (Ocasio, 1997). Studies have shown how institutional logics can lead to logic-consistent decisions and that shifts from one logic to another can take place (Thornton, 2002). The latter stresses the dynamic nature of institutional logics, which has been investigated in many contexts. For instance, Scott (2000) examined institutional change and analysed logic shifts and change in U.S. health care, and Thornton and Ocasio (1999) analysed the transition from professional to market logics in U.S. higher education publishing. Altogether, this research displays that institutional logics develop over time and change through interactions with other actors (DiMaggio & Powell, 1983; Öberg & Shih, 2014).

When zooming in on the institutional logics of academia and practitioners, several studies provide knowledge. Benner and Sandström (2000) demonstrate that industry, government, and academic actors possess different institutional logics. They arrived at this finding by examining national government funding agencies that collaborate with industry and academia. Another example is Öberg and Shih's (2014) study on drug development. They inspected inter-organisational interaction between industry actors who were developers and manufacturers and government actors who were policymakers. The researchers found differences between the actors' institutional logics. Developers were interested in creating and bringing forward new ideas and were willing to interact with other actors to share developments. Manufacturers were more interested in interacting with the purpose of developing and selling commercial applications of scientific novelty, whereas policymakers were interested in promoting and strengthening particular industries of the economy and supporting innovation in these industries. These above studies indicate that academia and practitioners typically follow differing institutional logics.

These diverse institutional logics of industry, government, and academic actors can be further described. According to Dasgupta and David (1994), the institutional logic of academia is basically that of increasing the amount of public knowledge. It builds on four norms that represent the ethos of science (Merton, 1968): *universalism* highlights the general character of the knowledge produced, *communalism* stresses that knowledge should be shared and discussed with research colleagues, *disinterestedness* explains that researchers should be emotionally and economically detached from their knowledge production, and *scepticism* means that the researcher should be critical and analyse all facts. Among government actors, several institutional logics exist, depending on the area of public service. Nevertheless, they all seek to improve the well-being of citizens. For example, Dunn and Jones (2010) outline that in healthcare there is a science logic based on the knowledge of diseases and a care logic based on clinical skills. Industry actors subscribe to a commercial institutional logic, which focuses on maximizing profit by offering products and services valued by the market. This is illustrated in a study by Jaakkola et al. (2019), demonstrating how the development

of electronic prescriptions in Finland required the acknowledgement of institutional logics by both firms and public healthcare actors.

The effects of such institutional logic diversity has been greatly discussed, and studies so far suggest that variety of logics can lead to both positive and negative effects. Some studies associate multiple institutional logics with conflict, and others say that it increases innovativeness (Battilana & Dorado, 2010; Besharov & Smith, 2014). Thus, conflicts between institutional logics occur as rivalry takes place, until one logic dominates or a hybrid of two or more logics is formed (DiMaggio, 1983; Glynn & Lounsbury, 2005). Moreover, inconsistencies between institutional logics were pointed out in Friedland and Alford's (1991) early conceptualizations, and Thornton and Ocasio (2008) argue that the institutional logics perspective uncovers the contradictions that emerge in beliefs and practices. Indeed, Besharov and Smith (2014) claim that by analysing the compatibility and consistency of dissimilar institutional logics it is possible to trace back actors' different goals, values, and beliefs.

Overall, these studies suggest that the perspective of institutional logics offers a valuable understanding of intra-organisational processes affecting organisational practices, change, and success. The studies also highlight the efforts needed to comprehend institutional complexities due to conflicting or inconsistent logics that can turn into barriers to collaboration. As Öberg and Shih (2014) show, to succeed in collaboration, actors need to have similar priorities, as well as similar or complementary interests and interaction goals.

2.3. Theoretical synthesis

The underlying rationale of this paper is that differing institutional logics are considered to be roots of alignment and misalignment when academia and practitioners from industry and government collaborate. This follows the understanding that institutional logics shape the cognition and behaviour of actors (Thornton & Ocasio, 1999), and thereby influence to what extent it is possible to achieve alignment among actors. In particular, three types of alignment are highlighted as being significant: alignment of goals, alignment of practices, and cognitive alignment (Corsaro & Snehota, 2011).

So far, business-to-business marketing research has discussed the issue of alignment and misalignment at the actor-type level (collaboration between actors of one type) and at the relationship level (collaboration between two types of actors) by stressing that actors' different institutional logics affect collaboration (Baraldi & Strömsten, 2009; Lundberg & Andresen, 2012; Öberg & Shih, 2014). However, research has greatly overlooked how alignment and misalignment play out at the system level, such as within clusters, where at least three actor types collaborate at the same time. The system level captures inter-organisational interaction between actors in line with Öberg and Shih (2014), but this paper goes beyond their highlighting of diverse institutional logics in order to explain how these logics can lead to alignment and misalignment. This is an attempt to understand both the positive and negative effects of institutional logic diversity, as well as the development of alignment and misalignment at an aggregated level of analysis.

3. Research method

This paper applies an explorative case study research strategy to explain the institutional logics of academia, and of practitioners within industry and government, as well as the alignment and misalignment that occurs when these actors collaborate. A case study is appropriate because it allows the investigation of a social phenomenon, which is not easily separable from its context (Easton, 1995; Halinen & Törnroos, 2005), and because it is the preferred method of analysing cluster-based phenomena (Acs & Varga, 2002). The particular case is a circular economy cluster from the Tampere Region of Finland, chosen for its rich set of actors representing various institutional logics.

The nature of the case study is an embedded single case study with three sub-cases (Yin, 2003). Three sub-cases were selected as this number of cases enable both in-depth, within-case analysis and cross-case analysis to identify similarities and differences across cases. The sub-cases address the following topics: developing an eco-industrial park (led by industry actors), co-creating circular economy solutions for society (led by government actors), and developing circular economy competencies (led by academic actors). The maximum variation principle was followed when the three sub-cases were chosen, as each of them feature different collaborations between industry, government, and academic actors, as well as dissimilar situations where diverse actor types take the lead in the collaborations, as identified above. Indeed, the choice of having one lead actor type per sub-case was made to see whether the institutional logic of this particular actor type would dominate collaborations and the alignment and misalignment created.

The case study is based on primary and secondary data. The data generation took place between November 2016 and November 2018, and the data were gathered both in real time and retrospectively, which is typical for qualitative research on inter-organisational matters (Halinen, Medlin, & Törnroos, 2012). Most of the data were generated as part of several research projects, such as the European Union funded projects SCREEN, Kyvykäs, and CIRCVOL, as well as the projects CICAT2025 and UPCE, funded by the Academy of Finland. Because of the overlapping characteristics of the three sub-cases, it is unfeasible to denote sub-case-specific data. The data-generating techniques and data sources are outlined in Table 1.

A total of 84 interviews were conducted in order to understand the cluster and examine the implicitly and explicitly expressed goals, practices, cognitions, rules, values, beliefs, and assumptions of the cluster's actors, and to uncover their institutional logics and possible causes of alignment and misalignment. The interviews were thematic and semi-structured, comprised of themes such as actor interests and interaction goals. Furthermore, the interviews followed an interview guide with open-ended questions, which allowed flexibility in the interview situation; they took place face-to-face and lasted about one hour each. Around 100 observations and ethnographic follow-ups (Hoholm & Araujo, 2011) were conducted with the aim of studying the cluster actors' behaviour and informal discourses in real life. They were documented through notes, minutes, and reports. Finally, collectively provided background information was gathered about the cluster and its actors.

The generated data were analysed using the logic of abduction, because it is suitable for theory elaboration and development (Andersen & Kragh, 2010; Dubois & Gadde, 2002). In practice, the abductive process followed four overlapping steps: First, the interviewed and observed actors were presented and the relationships between them were mapped. Second, the institutional logics per actor were identified and interpreted in light of the theory. Third, different actions and events

that were identified to reflect alignment and misalignment were interpreted, and especially the convergence and divergence of institutional logics, adjustment of institutional logics, and sources of dissonance of institutional logics were mapped and analysed in-depth. Fourth, this increased understanding was confronted with the generated data to discover supplementary understandings and thereby test its validity. The rationale behind this iterative process was to avoid anecdotal empirical statements and to enable reflexivity. To improve the quality of the analysis, dissimilar types of triangulation were purposely applied (Denzin, 1970). Data triangulation was increased by gathering diverse types of data from different actors, and researcher triangulation was used as all three authors were involved in the data analysis.

4. Case study: Context and sub-cases

To explain the institutional logics of academia, and of practitioners within industry and government, as well as the alignment and misalignment that occurs when these actors collaborate, the case study context is outlined in the following. After this insight, the three sub-cases are presented, each reflecting a dissimilar collaboration situation that exposes actors' institutional logics, which lead to diverse alignment and misalignment settings.

4.1. Context

The circular economy cluster under investigation is located in Finland's Tampere Region. The cluster focuses on sustainability across unlike industries based on several prioritizations, for example: reducing personal ownership of products by sharing, renting, and leasing; prolonging product use by maintaining, repairing, and upgrading; reusing products by reselling, refurbishing, and remanufacturing; material recycling and chemical recovery through closed- and open-loop recycling and biochemical feedstock recovery; and using waste as an energy source or making renewable fuels such as biogas from municipal waste.

The origin of the cluster can be traced back to the industrial blossoming of the Tampere Region in the 1800s, which led to the establishment of textile, metal, and forest industries. Later, the number of industries broadened to include machinery and higher technology production, and more recently, health and information technology. The current regional focus on circular economy covers these industries and is driven forward for three main reasons. First, energy efficiency and eco-efficiency have been key in industry and academia for several decades. Today, there is a strong representation of cleantech firms in the region. Second, since 1996, the region has hosted multidisciplinary research and education offerings in environmentally sustainable development, which enables a multifaceted environmental regional knowledge base. Third, the rising acknowledgement of planetary boundaries since the 1970s has led to increasing government goals and regulative actions focusing particularly on recycling and reducing waste.

Currently, the cluster is best characterized as policy-driven, and it organizes more than 300 industry actors, more than 20 government actors, and 10 academic actors. Key government actors are regional and municipal authorities, as well as economic development agencies, whereas the core academic actors are a local technical university and a national research organization. A broad set of actors from industry participate. A baseline analysis shows that the circular economy cluster is most active in industrial-scale material recycling, nutrient recovery from water, and production of bio-based fuels (Halonen, Alakerttula, Lanz, & Seppänen, 2017).

4.2. Sub-case 1: Developing an eco-industrial park

This sub-case concerns the process of developing an industry-led eco-industrial park named ECO3 in the city of Nokia. Such a park constitutes a district where firms can engage in industrial symbiosis, pursuing environmental sustainability alongside economic goals. In this

Table 1
Overview of the data-generating techniques and data sources.

Data-generating technique	Data source
Interview	14 interviews with industry actors
	20 interviews with government actors
	50 interviews with academic actors
Observation and ethnographic follow-up	12 workshops
	7 board and steering group meetings
	17 networking events
	3 visits to the living lab
Document review	Over 200 seminar presentations
	Over 30 articles in media
	Over 130 websites
	Over 20 internal documents
	Over 90 memos from meetings and events
	Over 10 research papers
Over 25 reports	

particular situation, the aim of the eco-industrial park is to improve societal resource efficiency and sustainable material use, by introducing circular economy activities at a high-volume industrial scale. From the perspective of industry actors, ECO3 offers new business opportunities by using recycled waste and secondary materials from other firms. At the same time, government actors see the eco-industrial park as a way to attract new firms and jobs, as well as supporting sustainable city development, and academic actors recognise that they can use the park to develop new technology and knowledge.

The idea to start ECO3 came when a firm from the Tampere Region planned to invest in a new wastewater treatment facility. This firm identified a synergy with another regional firm working on biowaste treatment. They found that their wastewater and biowaste material streams could be combined to produce biogas for transportation purposes. Soon after, a government actor, the municipal business development agency, saw an opportunity to develop the location where the two firms were planning their new collaborative facility into an eco-industrial park. Early in this process, it was acknowledged that developing such a park would require new technology and new knowledge of how inter-organisational collaboration can be achieved. Therefore, the municipal business development agency began to collaborate with researchers from the local technical university so that they could support the conception and strategic development of the eco-industrial park, as well as provide new technology and knowledge.

The above collaboration revealed alignment at the actor-type, relationship, and system levels. At the actor-type level, there was goal alignment among the industry actors who all stressed that their goal and reason to engage were to discover new business opportunities. At the relationship level, government actors aligned their practices and cognition towards the industry actors over time. This happened since the idea of locating in the park was based on the firms' desire to connect their material streams, and that required the government actors to change their practices and cognition on how to organize local waste management. Finally, alignment of goals occurred at the system level since industry, government, and academic actors jointly recognised the purpose of, and rationale for, ECO3. The industry actors highlighted business opportunities, the government actors focussed on attracting new firms and jobs, and the academic actors recognised that they could use this setting to develop new technologies and knowledge.

In addition, misalignment arose at the actor-type and relationship levels. Between several government actors, there was misalignment of practices and cognition as the development of ECO3 followed an entrepreneurial process instead of a conventional planning process. Among industry actors, partial misalignment of practices was found, as many firms were not used to openly discussing their business ideas with other firms. This created collaboration difficulties and a lack of momentum. At the relationship level, partial misalignment of practices was identified between industry and academic actors. Whilst some academic actors developed and transformed their contributions to the firms' goals and cognition, some struggled to demonstrate the economic benefits of their research. Furthermore, the industry actors were seemingly passionate about research and development in general, but in reality, their higher interest in daily operations resulted in a lower priority for research and development.

Throughout the development of ECO3, the alignments and misalignments of actors were dynamic. For example, government and academic actors increasingly aligned their practices towards the industry actors in the initial development phase of the park. During the conception phase of the eco-industrial park there was still uncertainty concerning how to collaborate, but as the key industry actors became more familiar, their goals, practices, and cognition were shared with the other actors, which lowered the uncertainty. Interestingly, misalignment of practices and cognition at the actor-type level among government actors seemed to result in positive effects. Those actors that subscribed to an entrepreneurial process towards eco-industrial park development took care of the interactions with industry and academic

actors, whereas those supporting a planning process provided support through traditional marketing, surveys, and funding. This illustrates that misalignment can lead to positive effects in collaboration.

4.3. Sub-case 2: Co-creating circular economy solutions for society

This sub-case focuses on developing innovative sustainable technologies and solutions for recycling nutrients in urban areas. The key government actor is the Municipality of Tampere, whose interests are in creating a novel sustainable city district, Hiedanranta, where sustainability and circular economy principles are acknowledged in all aspects. However, this ambition must go hand-in-hand with functionality, economic value, and liveability. To achieve this, the municipality sets out to collaborate with industry actors and academic actors with the same aspirations. One of the main tasks was to find more sustainable sanitary solutions, and therefore, the municipality was keen on providing support and living lab space for nutrient recycling and urban dry toilet experiments that could, potentially, be applied in Hiedanranta. Academic actors were researchers from Tampere University of Technology, whose research interests were in understanding and developing nutrient recycling. As nutrient recycling is a global issue and its relevance has increased due to environmental concerns and a growing need for solutions that enable capturing nutrient in urbanized areas, there is a growing market for commercialised solutions for nutrient recycling. This prompted several industry actors to join the collaboration, and some firms with complementary technologies and business interests were invited and encouraged to take part.

The collaboration between the three different actor types took place in the Hiedanranta nutrient recycling living lab, at the Kuivaamo venue, which enables creating, experimenting, and testing solutions for how to recycle nutrients in cities in a convenient and sustainable way. The Kuivaamo venue has a dry toilet system with about 20 toilets and urinals. The lab offers a collaborative platform for developing solutions for sanitation, which includes universities developing novel technologies, firms developing and testing solutions in real-life situations, and government actors implementing and testing solutions relevant for future urban development.

When zooming in on the institutional logics per actor type and related alignments, it was found that the government actors carried out their logic of developing and running a sustainable and environmental-friendly city district. Due to this logic, many of their actions were well-aligned with the other actor types, as they were keen on supporting the development of innovative technological environmental solutions and implementing them into society, thereby supporting commercialization of novel technologies as well. This opportunity enabled the university and its researchers to follow their institutional logic of conducting high-quality research in contributive settings. The living lab particularly enabled the study of the cultivation of microalgae from the urine collected from the dry toilet system, and enabled contributive research within their area of study. The firms with nutrient recycling technologies and business ideas could realize their institutional logic of creating business from technology. The collaboration in the living lab enabled the firms to develop, test, and pilot not only their novel technologies but also business concepts and applications in real-life contexts, strengthening their logic of creating business. Alignment within goals was then clear, as all actors shared the same goal of finding sustainable solutions for nutrient recycling in urban areas. Alignment with regard to practices was also obvious, as all actors were engaged in the living lab and considered it to be contributive.

Misalignment between the actor types was also identified. For example, the technological readiness level of nutrient recycling was low and far from easy to convert into commercial solutions. This caused goal misalignment, as the low technological readiness level turned out to be a challenge for the firms, because it hindered the process of doing business rapidly, which is implied by the industry institutional logic. Moreover, misalignment in goals and practices occurred among the industry actors

when the involved firms had differing interests in nutrient recycling and the scale of the collaboration with the municipality.

In the wake of the above, it became clear how alignments and misalignments happen at different levels. Actor-type level misalignment was found among the industry actors with regard to practices (small scale experiments versus large scale business for nutrient recycling), relationship level misalignment between industry actors and government actors (rapid commercialisation of sustainability technology solutions by the firms versus long-term regional sustainability development through the exploration of novel technologies by the municipality), relationship level alignment among government actors and academic actors (both were interested in state-of-the-art developments of nutrient recycling without pressure to turn these developments rapidly into profitable business), and system-level goal alignment (joint aspirations for nutrient recycling development). In addition, there was relationship level partial misalignment in practices between academia and practitioners with regard to using the living lab approach, as researchers considered the living lab inconvenient and costly; it was outside the university lab and therefore took more time and effort. For both the firms and the municipality, the living lab provided the only method for experimenting with technology for their purposes.

4.4. Sub-case 3: Developing circular economy competences

The centre of attention in this sub-case is the development of new, urgently needed competencies in the area of circular economy. Academic actors contribute to this agenda by developing new knowledge and educating future experts, whilst industry and government actors need these experts to fulfil their sustainability ambitions. Based on these convergent interests, industry, government, and academic actors began to collaborate. The collaboration was initiated by the CEO of a firm that develops technology for waste management. He asked several researchers from the Tampere University of Technology to integrate circular economy into their education activities. The researchers were professors and university teachers who all agreed to this request; firstly, because it was considered relevant due to the ongoing sustainability transition in many European countries, and secondly, because competence development is part of the academic institutional logic. However, the researchers claimed that they could not take a strong lead without external funding, as the requested initiative would involve participation by several professors and university teachers for a lengthy period of time.

To address this matter of external funding, the CEO suggested contacting a national government funding agency that would soon launch a programme for universities and other research and educational organizations to develop circular economy courses. A condition for applying was the involvement of industry actors to ensure that education and competency development would fit with industry and societal needs. This requirement aligned well with the researchers, as they were affiliated with a technical university that was accustomed to collaborating with industry actors, and they were also willing to increase their societal impact, as societal impact of universities has become increasingly important in many academic assessments. The involved researchers came from diverse disciplines ranging from civil and mechanical engineering to industrial management. They agreed that courses would strengthen each complementary discipline and the university's expertise, meaning that the goals and cognition among the researchers were aligned.

The researchers took the lead, applied for funding, and compiled several circular economy-related courses as well as developing several new courses, following the conventional institutional logic of academia. The courses were developed in close collaboration with industry actors, as requested. For instance, industry actors were asked to sit on a board for multidisciplinary circular economy studies, and they were invited to give lectures and provide real-life cases for students to solve. The industry actors were keen to be involved, as the collaboration and

engagement in education development enabled them to learn from researchers' recent knowledge and meet their own institutional logic of creating business from these resources. This was stressed by a manager in technology consulting who highlighted that collaboration with the researchers contributed to their conventional practices and vice versa. This illustrates relationship level alignment in goals and cognition between industry actors and academic actors.

Besides these many alignments, a number of multiple, mostly partial misalignments were identified. For example, misalignment in practices occurred during the collaboration. The government actor who provided the funding requested very fast action when it came to course development. This turned into a misalignment in practices as the thorough administrative processes at the university conflicted with the faster pace of the government actor. The funding organization requested that the change in education activities should happen in the next month, whilst according to the academic institutional logic the change would happen in the next or the following term.

The above examples represent situations in which the institutional logics of the three actor types differed yet complemented each other. Academic actors' institutional logic is to develop knowledge from research and educate new experts with that knowledge; industry actors' institutional logic is to create business from technology-based products and services, and for that they need new experts with contemporary competences; government actors' institutional logic is to develop a society that is able to tackle the current and future environmental and climate challenges, and for that, they need innovative firms and experts. Developing new competencies via education activities was considered a good vehicle for reaching the shared goals, and this created system-level alignment in goals, practices, and cognition. The major identified misalignment originates from institutional logics related to time-setting due to misalignment in practices.

5. Discussion

The three sub-cases are summarized and compared in order to explain the institutional logics of academia, and of practitioners within industry and government, as well as the alignment and misalignment that occurs when these actors collaborate. Table 2 summarizes and compares the key findings identified across the sub-cases on institutional logic convergence and divergence, levels of alignment and misalignment in collaboration, and the dynamic nature of alignment and misalignment.

In this paper, the core institutional logics of industry, government, and academic actors are displayed. Industry actors aim to maximize profit by offering products and services valued by the market, government actors seek to improve the well-being of citizens, and academic actors focus on increasing the amount of public knowledge. These observations, including how the varied institutional logics are manifested, are in line with standing research and confirm that industry, government, and academic actors possess dissimilar institutional logics (Benner & Sandström, 2000). Despite this divergence in institutional logics, logic convergence between actors was also identified. In all three sub-cases, it is illustrated that practitioners from industry and government were willing to develop knowledge such as academia, and in sub-cases 2 and 3, it is shown that academic actors buy into the institutional logic of industry actors. This convergence enlarges the current understanding of institutional logics, since it indicates that logics have similarities and shared features, despite the conventional view that industry, government, and academic actors' institutional logics differ and sometimes even conflict.

On alignment and misalignment, this paper exposes the source of alignment and misalignment between diverse actors. It is highlighted that alignment and misalignment in collaborative, multi-actor contexts can happen at actor-type, relationship, and system levels. For example, in sub-case 3, there was alignment at the system level, making collaboration between academia and practitioners productive. This finding

Table 2
Key findings from the sub-cases.

	Sub-case 1: Developing an eco-industrial park	Sub-case 2: Co-creating circular economy solutions for society	Sub-case 3: Developing circular economy competences	Insights and comparison across the sub-cases
Divergence of institutional logics	<p><i>Industry logic:</i> Develop existing business operations and identify new business opportunities in a circular economy context.</p> <p><i>Government logic:</i> Develop an eco-industrial park to foster more business and increase the number of jobs.</p> <p><i>Academic logic:</i> Develop advanced knowledge and identify funding and partners for research.</p>	<p><i>Industry logic:</i> Develop and commercialise innovative technologies.</p> <p><i>Government logic:</i> Develop the region to become more sustainably conscious.</p> <p><i>Academic logic:</i> Develop new technologies and create advanced knowledge.</p>	<p><i>Industry logic:</i> First mover in business and develop contemporary sustainability competencies.</p> <p><i>Government logic:</i> Develop new competencies and understand sustainability issues for long-term regional progress.</p> <p><i>Academic logic:</i> Develop new competencies and expertise for research and society in general.</p>	<p><i>Industry logic:</i> Biased towards identifying and capturing current and future business opportunities.</p> <p><i>Government logic:</i> Biased towards long-term regional development and improving regional attractiveness.</p> <p><i>Academic logic:</i> Biased towards long-term development of technology, knowledge, and competences.</p>
Convergence of institutional logics	<p><i>Convergence between industry and government:</i> Firms and municipal business developers identified profitable solutions to improve resource efficiency. The eco-industrial park helped their institutional logics to converge.</p>	<p><i>Convergence between government and academia:</i> Government actors were interested in developing new sustainable solutions. Their interest in technology made their institutional logic converge with the institutional logic of academic actors.</p>	<p><i>Convergence between industry and academia:</i> Researchers were concerned about compensation for the costs and efforts in relation to education development. This concern made their institutional logic close to the institutional logic of industry actors.</p>	<p><i>Convergence:</i> Emerged when actor types' different institutional logics harmonised or even overlapped with each other.</p>
Alignment in collaboration	<p><i>Actor-type level alignment:</i> Firms jointly developed new business models and technological processes (alignment in goals).</p> <p><i>Relationship level alignment:</i> Firms and municipal business developers looked for a business model for an eco-industrial park (alignment in goals and cognition).</p> <p><i>System level alignment:</i> Industry, government, and academic actors agreed on developing new business models and knowledge (alignment in goals).</p>	<p><i>Actor-type level alignment:</i> Different research groups conducted collaborative studies (alignment in goals and practices).</p> <p><i>Relationship level alignment:</i> Firms and researchers developed technologies aimed at sustainability development (alignment in goals and cognition).</p> <p><i>System level alignment:</i> Industry, government, and academic actors developed technologies and solutions to be implemented in urban areas. Moreover, all the actors were committed to developing the region to become a sustainability forerunner (alignment in goals and practices).</p>	<p><i>Actor-type level alignment:</i> Researchers intended to provide world class, industry and society-relevant education (alignment in goals and cognition).</p> <p><i>Relationship level alignment:</i> Firms and researchers shared the intention of providing education that will benefit the needs of industry and society (alignment in goals and cognition).</p> <p><i>System level alignment:</i> Industry, government, and academic actors agreed on knowledge sharing in order to succeed in developing knowledge that is pragmatic and could become a new circular economy curriculum (alignment in goals).</p>	<p><i>Actor-type level alignment:</i> Emerged when actors belonging to the same actor-type shared goals, practices, and cognition.</p> <p><i>Relationship level alignment:</i> Emerged when two different actor types' goals, practices, and cognition united.</p> <p><i>System level alignment:</i> Emerged when all three actor-types shared goals, practices, and cognition.</p>
Misalignment in collaboration	<p><i>Actor-type level misalignment:</i> Firms were not keen on openly presenting their business information or strategies (misalignment in goals and cognition).</p> <p><i>Relationship level misalignment:</i> Firms and researchers tried to jointly develop business models and technology, but they had different preferences regarding what information was relevant and how to operate (misalignment in goals, practices, and cognition).</p> <p><i>System level misalignment:</i> The interest in an eco-industrial park extended the amount and diversity of actors and opinions on relevant directions and actions (misalignment in practices).</p>	<p><i>Actor-type level misalignment:</i> Firms had different interests in small-scale technology development (misalignment in goals and practices).</p> <p><i>Relationship level misalignment:</i> Researchers sought advanced knowledge whereas firms sought fast commercialisation and implementation of developed technologies (partial misalignment in goals and cognition).</p> <p><i>System level misalignment:</i> Industry, government, and academic actors had different perceptions as to what extent rapid commercial applications were needed (misalignment in goals and cognition).</p>	<p><i>Actor-type level misalignment:</i> Researchers developing circular economy courses came from different disciplines and research traditions (misalignment in practices and cognition).</p> <p><i>Relationship level misalignment:</i> Development of new university curriculum would take time, which conflicted with the time schedule of a government funding agency (misalignment in practices).</p> <p><i>System level misalignment:</i> Not identified.</p>	<p><i>Actor-type level misalignment:</i> Emerged when actors belonging to the same actor-type did not share goals, practices, and cognition.</p> <p><i>Relationship level misalignment:</i> Emerged when two different actor-types' goals, practices, and cognition did not unite.</p> <p><i>System level misalignment:</i> Emerged when all three actor types' goals, practices and cognition were in conflict.</p>
Dynamics of alignment and misalignment in collaboration	<p>Despite differing institutional logics when developing an eco-industrial park, industry actors and government actors began to modify their practices and cognition in order to reach consensus and increase alignment. When collaboration was continued and extended, relationship level alignment changed into system level alignment. Misalignment among government actors due to</p>	<p>Alignment in goals and practices were achieved rather quickly when developing nutrient recycling in a living lab. However, alignment later changed to partial and full misalignment, as conflicts and frustration arose due to slowly emerging effects.</p>	<p>As all actors were engaged in developing new education activities, system-level alignment in goals was achieved from the start. However, it was only after agreement about resources that system-level alignment in practices was achieved. In this case, relationship level alignment between industry actors and academic actors also increased alignments at actor-type level, since</p>	<p><i>Dynamics of alignment and misalignment emerged from two mechanisms:</i></p> <ol style="list-style-type: none"> 1) From the interaction between the different levels of alignment. For example, relationship level alignment can contribute to reaching system level alignment and vice versa. 2) From the evolving modes of

(continued on next page)

Table 2 (continued)

Sub-case 1: Developing an eco-industrial park	Sub-case 2: Co-creating circular economy solutions for society	Sub-case 3: Developing circular economy competences	Insights and comparison across the sub-cases
different practices resulted in diverse contributions with positive effects and increased alignment.		firms and researchers became engaged in education development, and at system level as all actors contributed to reaching the shared goal by providing their resources.	alignment and misalignment that can develop from alignment over partial alignment and misalignment to misalignment and vice versa.

extends the existing discussion of alignment and misalignment from actor-type level (Pardo et al., 2013) and relationship level (Corsaro & Snehota, 2011; Skålén et al., 2015) to also encompassing the system level.

Furthermore, evidence was found for introducing partial alignment and misalignment as an in-between mode. This insight is driven by data from all three sub-cases, and it challenges the present comprehension of how to frame alignment and misalignment. The theoretical effect is that it becomes problematic to consider alignment and misalignment as a dichotomy. Instead, they should be seen as the two ends of a continuum, since alignment and misalignment can originate from several sources (goals, practices, and cognition) and occur at different levels (actor-type, relationship, and system levels). An example of partial alignment and misalignment is found in sub-case 2, in which industry actors and academic actors aligned their interests in research and development while accepting that their end-goals differ.

This paper also uncovered the dynamic nature of alignment and misalignment by stressing that institutional logics change and modify during collaboration. For example, evidence was found that alignment does not necessarily result in positive effects and misalignment in

negative effects. In sub-case 3, there was misalignment in practices due to the missing financial resources required to realize education development, as well as different customs regarding speed of action. The effect of these two misalignments was the mutual adaption of goals and practices by the actors. A similar situation was found in sub-case 1 as partial misalignment in practices, due to a clash between an entrepreneurial process and a conventional planning process towards developing an eco-industrial park, resulted in a variety of actions when planning the park. These findings support the idea that institutional logics develop and modify during collaboration (DiMaggio & Powell, 1983; Jaakkola et al., 2019; Öberg & Shih, 2014), but here, such dynamics also explain how alignment and misalignment emerge through increasing or decreasing shared interests, goals, priorities, and practices.

Following from these findings, an analytical framework (Fig. 1) has been developed, which is useful for explaining the institutional logics of academia, and of practitioners within industry and government, as well as the alignment and misalignment that occurs when these actors collaborate. The framework comprises three phases: convergence and divergence of institutional logics, levels of alignment, and modes of alignment.

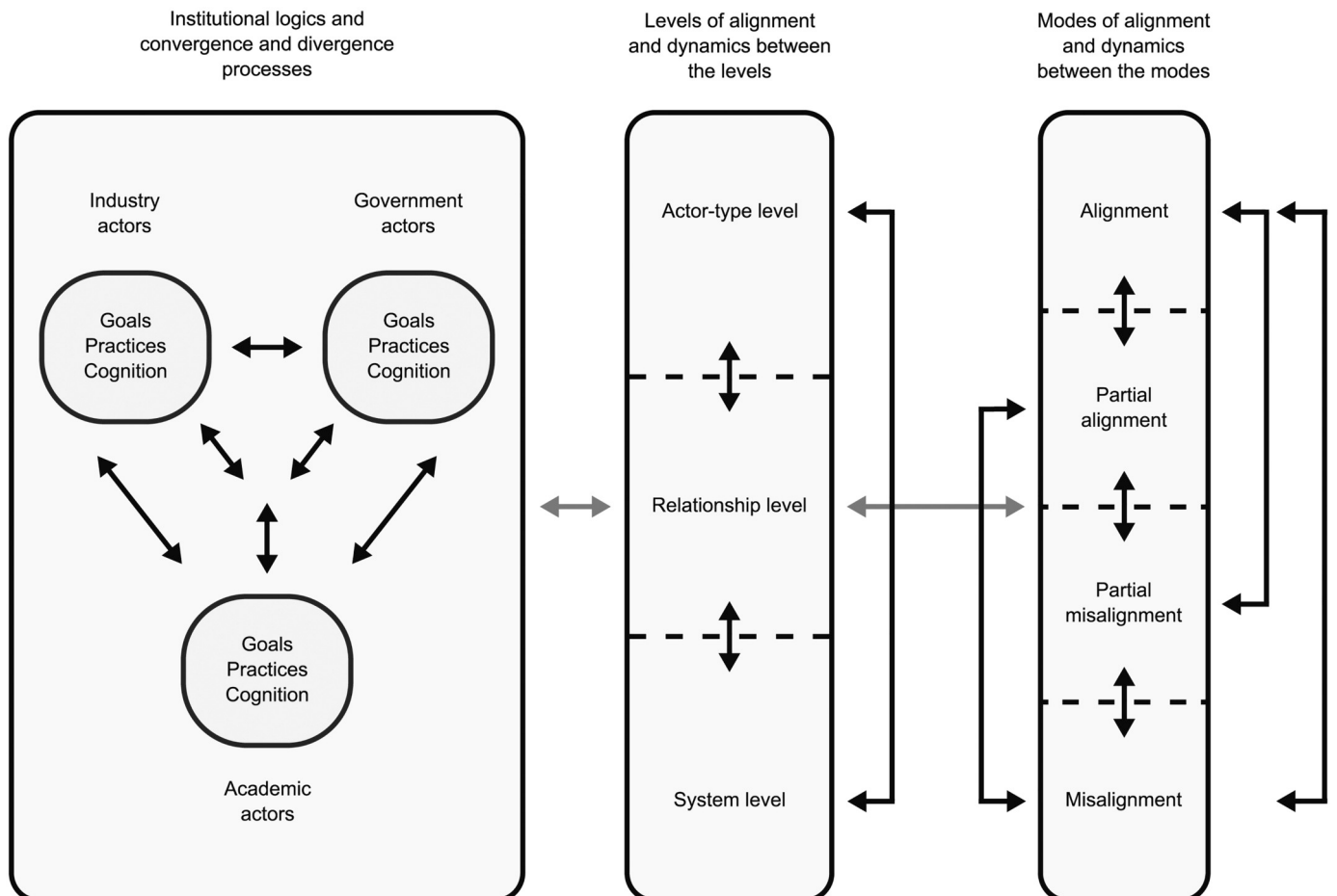


Fig. 1. Analytical framework.

industry, government, and academic actors and how they converge and diverge. This convergence and divergence of logics influence the level of alignment, which depends on how many of the actor-types' institutional logics align and misalign. In the final phase, the mode of alignment is manifested through a continuum ranging from alignment over partial alignment and misalignment to misalignment. Key to the phases levels of alignment and modes of alignment are the embedded dynamics indicated by the arrows. The arrows show the interaction between the different levels of alignment, as well as the evolving modes of alignment.

6. Conclusion

This paper explained the institutional logics of academia, and of practitioners within industry and government, as well as the alignment and misalignment that occurs when these actors collaborate. This was revealed in a case study of a circular economy cluster from the Tampere Region of Finland.

6.1. Theoretical contributions

This paper offers three contributions to business-to-business marketing research on alignment and misalignment. First, convergence and divergence of institutional logics by industry, government, and academic actors lead to alignment and misalignment at not only actor-type and relationship levels, but also at the system level. That means that alignment and misalignment can occur between industry, government, and academic actors at the same time. Particularly, the system-level finding extends the current discussion of alignment and misalignment at actor-type (Pardo et al., 2013) and relationship levels (Corsaro & Snehota, 2011; Skåлёn et al., 2015).

Second, institutional logics can cause alignment and misalignment, as well as partial alignment and misalignment. The latter is identified as an in-between mode, which challenges the idea that alignment and misalignment exist as a dichotomy. Instead, alignment and misalignment should be seen as the two ends of a continuum. Moreover, it is found that partial misalignment in collaborations can make actors' institutional logics more explicit, induce intentional adjustments, and produce positive effects. This insight adds to the present knowledge on alignment and misalignment; see for instance Corsaro and Snehota (2011) and Skåлёn et al. (2015).

Third, alignment and misalignment are dynamic by nature, since institutional logics change and modify during collaboration. DiMaggio and Powell (1983), Öberg and Shih (2014), and Jaakkola et al. (2019) arrive at similar observations in their research. However, in this paper, such dynamics are also found to explain how alignment and misalignment emerge through increasing or decreasing shared interests, goals, priorities, and practices among collaborating actors.

Overall, these three contributions strengthen business-to-business marketing research as they advance and structure knowledge on alignment and misalignment (see e.g. Baraldi et al., 2014; Corsaro et al., 2012; Lundberg & Andresen, 2012; Öberg & Shih, 2014) by highlighting the positive and negative aspects of diverse institutional logics regarding alignment and misalignment, and demonstrate that alignment and misalignment can originate from several sources and occur at different levels. This also adds knowledge on how to manage and facilitate collaboration despite actor diversity, for example when it comes to tackling grand challenges in society such as circular economy and environmental sustainability.

6.2. Practical implications

This paper provides at least two practical implications. First, actors participating in collaboration should be aware of their institutional logics and how they can contribute to alignment and partial alignment at actor-type, relationship, and system levels by converging their institutional logics towards others'. Second, with the aim of creating alignment

and partial alignment in collaborative settings, it is important that system-level goals are put forward that have a business potential, societal potential, and research potential. This can be done through projects as illustrated in the sub-cases.

6.3. Limitations and further research

Three limitations apply to this paper and serve as inspiration for further research. First, the generalization of the findings is limited by the research context. It is expected that institutional logics and alignment and misalignment will manifest themselves differently in other clusters and locations. Qualitative and quantitative research should challenge this limitation, and the varieties of capitalism approach (Hall & Soskice, 2001) can work as inspiration for identifying locational contexts that differ from that in Nordic countries. Second, the findings are limited by the lack of analysis of the actors' relationships outside the cluster, as they might influence the actors' ability and willingness to adjust their institutional logics and seek alignment. Following from this, other studies should examine how external relationships impact how institutional logics play out and affect alignment and misalignment settings. Third, because actors that engage in clusters are typically interested in collaboration, further research should investigate whether such actors are more willing than those outside to adjust their institutional logics to seek alignment. If that is the situation, it has implications for understanding the dynamic nature of institutional logics in collaborative settings.

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