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## **Organisation as a Taboo? Chances and Risks of Explicitly Dealing With the Issue of Organization in Inter-Organizational Transformative Initiatives\*\***

### **Abstract**

Nowadays, innovation and transformation appear as leading ideas in nearly all societal fields. Against the background of rapid technological development, globalisation, ecological challenges, and social change, perspectives of desired futures have to be developed, and how these perspectives should be realised has to be negotiated. With the latter, questions of organisation arise. This paper contributes to the examination of organisational aspects of transformation in the field of education. The research on the development process of the inter-organisational initiative Educational Lab reveals that awareness of organisational aspects is not a matter of course. The lab's participants share a vague vision of innovative education and a commitment to the idea of intervening in the educational system. Apart from that, heterogeneity, conflicting institutional logics, and a lack of awareness of the "organisational self" are setting the scene. Organisational aspects seem to be taboo. The explorative qualitative case study research, conducted in a transdisciplinary research setting, leads to seven hypotheses on dynamics concerning organisational aspects of the establishment process. The theoretical conclusions drawn are twofold: First, avoiding the "organisation" issue increases uncertainty in complex constellations. It hinders an initiative, and at the same time, it is a kind of self-protection in a situation where roles and responsibilities and the consequences of organisational determinations are unclear. Secondly, in little-established inter-organisational transformation initiatives, new organisational designs that take tension areas into account and facilitate organisational agreements are needed. Thus, it seems promising to understand inter-organisational constellations as hybrid organisations and to further elaborate adequate concepts that are able to grasp real-world complexity and give orientation to organisational practice.

Keywords: innovation, cooperation, institutional logic, Educational Lab @ Lakeside Science & Technology Park  
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## **Introduction: Societal Transformation Requires an Inter-Organisational Agency**

In the past few years, the topic of societal transformation has attracted more and more attention due to the various imbalances which can be detected in the face of economic, ecological or social problems like questions of sustainable economic activity, public health care or future-proof education. The impulses for change in these areas come from politics, from the actors involved, from civil society and, last but not least, from science. For organisation research, the analysis of structures and processes in which problem processing and transformation take place and the associated social and organisational dynamics are relevant fields of research. Organisation can be seen as a basic principle of social coexistence and cooperation (Simon, 2009; Weick & Hauck, 1995). Descriptions of the current situation in Western industrialised countries emphasise the tendency towards acceleration, disruptive changes, the lack of stability of organisational structures and the erosion of conventional organisational structures (Rosa, 2016). Rather than long-term stable structures, there is an increasing number of hybrid organisational structures and higher volatility (Baecker, 2009), and in the face of increasingly complex societal challenges to manage. Today's major societal challenges are all characterised by a high level of complexity, such as climate change and, most recently, the Covid pandemic and the energy crisis. Less critical socio-political issues such as education, digitisation, or the development of the health system are highly complex issues. They are riddled with wicked problems (Rittel & Webber, 1973) that cannot be resolved with simple solutions and one-dimensional change strategies. The topics are embedded in multi-actor structures and anchored organizationally in different constellations. They are situated intersectorally, spatially stretched between regional and international levels, and pervaded by numerous, often diverging interests. The interaction of different groups of actors and, thus, the design of the associated inter-organisational relations (IORs) are central, particularly in the context of innovation and social transformation.

This paper contributes to the examination of organisational aspects of transformation in the field of education. The research is embedded in a transdisciplinary research project which is part of a publicly funded, project-based initiative, i.e. the establishment of an inter-organisational lab for innovative forms of education (Lakeside Science & Technology Park GmbH, 2022). The research process accompanies the first four years of developing and implementing the Educational Lab. The development is based on a few preliminary content-related decisions and the requirements of the funding program, and it is designed as an open, participatory process. Thus, these first years are a period that, in terms of the organisational shape and the process of institutionalisation, is characterised by an atmosphere of "building the plane while flying it" (McClelland-Cohen, 2020). At the same time, there is limited awareness of the ongoing "construction process" among the

participants, if not even a tendency to put under taboo questions of organisation and institutionalisation. The latter is analysed and conceptualised in this paper.

Based on the results of the transdisciplinary project, the paper aims to contribute to an advanced understanding of the social and organisational dynamics in the establishment phase of multi-actor initiatives with a particular focus on the ways of dealing with the issue of organisation. The explorative analysis leads to seven hypotheses that, on the one hand, provide fruitful categories for further empirical research on IORs. On the other hand, they provide initial points to discuss consequences for further theoretical conceptualisations of IORs' organisational forms.

### **The Case Study: The Educational Lab in the Lakeside Science and Technology Park**

The Lakeside Science & Technology Park (LSTP) is situated in Klagenfurt, Austria, and provides space for activities in the field of information and communication technologies. For some time now, the management of the LSTP has organised and established an innovative environment for companies. The Science & Technology Park is positioned next to the University of Klagenfurt. This proximity should foster cooperation between academia and companies in the form of joint projects, thus enabling mutual learning and the research-based development of business ideas. The intention behind the activities of the LSTP, which are also strongly supported by local and regional politics, is to promote the (economic) development of the entire region. Carinthia is a region in the South of Austria with some internationally active leading companies and many small and medium-sized companies. The region was traditionally focused on tourism, but recently, its driving ambition has been its positioning as a high-tech-oriented region. The LSTP is one of the projects funded to foster this development and currently comprises approximately 80 companies and organisations in 15 buildings (Lakeside Science & Technology Park GmbH, 2023).

From the beginning, the park management has been aware of the importance of education for sustainable (economic) development, and it has been engaged in fostering educational initiatives for all ages, particularly in the field of science and technology. The increasing importance of the technology sector and the current shortage of skilled personnel have made this commitment even more urgent. On the micro level, young and well-trained people, as well as skilled employees, are important factors of success for enterprises. On the macro level, a high standard of education is important for the (regional) economic development and societal development as a whole. The positioning of the park next to the university was one step towards this goal; another was the establishment of two kindergartens. The attempt to establish a public secondary-level school with a focus on science, technology, engineering and mathematics (STEM), which would have been another

major step, failed. The foundation of the Educational Lab as an extracurricular laboratory for new forms of education appeared as an attractive alternative.

The lab is a spatial and social assemblage of initiatives in the LSTP. It consists of individual modules, which are provided with space for their activities. Via contracts, the permission for free use of the assigned space is stipulated. The equipment and the running costs have to be borne by the modules. The modules work independently of one another under the umbrella brand Educational Lab but are contractually obliged to participate in networking activities and collaborations. Some of the modules are organizationally linked to public educational institutions (university, university of applied science, college of education), and others are private associations. Some examples: The Sustainability Lab and the Inspire Lab are affiliated with the university and deal with sustainable development and entrepreneurship education. The Smart Lab (University of Applied Science) focuses on 3D technology. NawiMix (College of Education) focuses on teacher education and further development in the field of natural sciences. The public secondary schools' cooperation BIKO use the natural science lab facilities with their pupils. The private non-profit Equality Lab addresses girls and young women in natural sciences and technology. PLIA (Product Life Lab) deals with sustainable entrepreneurship education and circular economy.

The modules are quite different regarding their forms of institutionalisation and financial possibilities. One thing they have in common is the obligatory non-profit engagement in the lab. There is a small management team composed of members of the Lakeside Science & Technology Park that cares about organisational questions and the communicative integration of the modules via networking meetings. The establishment and development of the lab are organised (and funded) as a five-year project, and long-term institutionalisation is one of the organisers' important goals.

The initiative follows the idea of fostering economic development and intervention in the education system: It sees itself as a unique and outstanding Lab for innovation in education, possibly with a transformative impact on the formal Austrian education system, which, apart from many fruitful initiatives of engaged people, can be considered as rather ponderous and change-resistant. The Educational Lab is an open research space where new formats of teaching and learning concerning new content can be developed, tested, and experienced. As to its subject matters, it focuses on science, technology, engineering and mathematics (the STEM fields), corresponding fields like research and development, entrepreneurship, internationality, and – recently – sustainability. The starting point for the initiative was a new building, the provision of room, and the vague idea that engaged people with promising initiatives should be invited to stay in the Lakeside Science and Technology Park and contribute to fostering innovation in education. The modules were and still are found via open calls. The applicants undergo an assessment process. A jury, which consists of representatives of educational institutions, the LSTP and

the regional funding agency, decides about the membership. Currently, long-term modules and short-time initiatives in the Educational Lab are addressing people from kindergarten age up to adulthood, offering out-of-school places of learning with a modern infrastructure where (young) people can work on expanding their knowledge of the subject matters under consideration. Besides that, both students in the teacher-training program as well as teachers can (further) develop their teaching practice.

### **Theoretical Points of Reference: A Dialectic Inter-Organisational Relations Perspective**

The establishment process of the Educational Lab is carried out in the context of a research and development project. Given the intention of long-term institutionalisation and the participatory development, the organisational form of the lab is a matter of decision. Thus, the explorative research approach requires theoretical points of reference that cover a broader range of social dynamics and that allow refraining from early determinations from the researchers' side. The concept of inter-organisational relations (IORs) appears as an adequate theoretical (and discursive) embedding.

The concept of IORs focuses on the organisational constellations and on the relationships among the actor groups which form such a setting. It is concerned "with understanding the character and pattern, origin, rationale and consequences of such relationships" (Cropper et al., 2008). The concept comprises various stakeholder constellations and organisational forms. In the context of economic activities, inter-firm alliances, buyer-supplier relationships, research and development consortia and other networks of enterprises are focused on (Loebbecke et al., 2016; Oliveira & Lumineau, 2019; Rond & Bouchiki, 2004; Williams, 2005). In the field of politics and public administration, collaboration between public institutions on regional, national and international levels and collaboration networks are addressed (Cristofoli et al., 2017; Koliba et al., 2017; Koops & Biermann, 2017; Oomsels & Bouckaert, 2014; van Popering-Verkerk & van Buuren, 2016). Furthermore, in socio-ecological systems, cross-sectional or mixed-form fields, socio-ecological topics and innovation-oriented action at the interface between profit- and non-profit enterprises are focused on. In such contexts, complex environments and multi-actor constellations are analysed (Crosby & Bryson, 2005; Nicholls & Huybrechts, 2016; Ostrom, 2011; Shiroyama, 2011; Smith Ring & van Ven, 1994).

Regarding the social entities participating in the interaction (individual actors, actor groups, corporate actors), the concept of IORs comprises constellations in which the various forms of interaction occur explicitly and intentionally, and the IOR is perceived as such among the concerned actors and from the relevant environment, too. Common bonds, common or complementary goals or arranged relations sustained over time are the basis of interaction (Williams, 2005). Apart from that, the

embeddedness of organisational entities in action arenas and action situations as "social spaces" (Ostrom, 2011) or institutional fields (Krücken, 2020; Powell & Oberg, 2017) is focused on.

The terms to indicate IORs in the scientific literature, but also in practice, partly address the structure of specific constellations (multi-level, multi-actor, inter-agency, inter-organisational, networked) and partly reveal characteristics of the relationship between two or more entities (collaboration, cooperation, coordination, governance, partnership, community). An overview reveals that not only are there many different expressions to indicate IORs, which might be a consequence of the existence of various disciplinary approaches but that there is also empirical evidence of multiple forms of IORs in the various societal fields and that, as a consequence, the specific characteristic of each constellation has to be considered (Bonazzi & Tacke, 2008). Neither the development of IORs in different sectors of practice nor the study of IORs can rely on blueprints (Huxham et al., 2000; Schnegg, 2018).

Biermann and Koops (Biermann & Koops, 2017) argue that fragmentation and eclecticism characterise the theoretical discourse and that, therefore, theoretical and methodological challenges would go along with the study of IORs. In fact, the body of literature reflects the potential diversity and multi-dimensionality of inter-organisational relations. Precisely because the conceptualisations and insights are manifold, an IOR approach is an adequate theoretical background for analysing the Educational Lab. The various perspectives on real-world constellations provided by the IOR concept meet the lab's characteristics as a social and organisational construct still in the making.

Empirically based insights into the social dynamics in inter-organisational constellations reveal that IORs are far from being simple terrain. They appear as heterogeneous phenomena which are challenged by multiple and contradictory forces and unintended consequences of an action. Since different actors can legitimately have diverse views on an IOR, the expectations of the performance of inter-organisational structures can be perceived as a social construction (Rond & Bouchiki, 2004). Differing value patterns and conflicting logics set the scene (Cristofoli et al., 2017; Nicholls & Huybrechts, 2016; Perkmann & Spicer, 2014). Thus, actors have to face various threats and challenges (Huxham et al., 2000; Nikolic, 2018; Ostrom, 2011; Zaheer et al., 2010), among other questions of identity (Heath & Isbell, 2017; Kodeih & Greenwood, 2014), social dynamics like trust, power relations, and conflict that foster or hinder interaction (Conteh, 2013; Heath & Isbell, 2017; Kok et al., 2019; Lundin, 2007; Nicholls & Huybrechts, 2016; Oomsels & Bouckaert, 2014; Smith Ring & van Ven, 1994; Zaheer et al., 2010). Not seldom, a core point is to explore how it is possible to overcome persistence and how new solutions can be developed and implemented (Abrams et al., 2020). Abrams et al. argue that conflict and an inability to innovate often hinder IORs from adequately facing environmental challenges. They conclude that both informal and institutionalised

processes for coordination, horizontally across the actor groups and vertically across spatial levels, are relevant (Abrams et al., 2020).

Some authors consider strategic aspects (e.g., tensions between innovation vs replication, design vs emergence) and aspects of legitimacy and relationship management particularly relevant (Cristofoli et al., 2017; Li et al., 2020; Rond & Bouchiki, 2004). The latter two points will get particular attention in the following.

Dialectics, a second theoretic reference, guides the study theoretically and methodologically as a meta-theoretic position. That means that theory is a tool for exploring content-related aspects and reflects the process of exploring itself (Locke, 2015). The central concept in dialectical thinking is that of contradictions. As "roots of movement and vitality" (Hegel G. W. F., 1969), they are anthropological constants and shape the individual as well as social interaction. Aporetic contradictions are those which are not resolvable simply by deciding between right and wrong. They are inherent to human beings, who can long for different things at the same time, and they result from societal life, where different interests and perspectives collide. Scholars argue that in modern society – which is characterised by complexity, wicked problems, and pace – organisations are forced to develop new strategies, which go along with organisational change, particularly towards more porous boundaries and inter-organisational action. A dialectic approach is estimated to be suitable to meet the specific requirements on an organisational and inter-organisational level (Nonaka & Toyama, 2002; Rond & Bouchiki, 2004). It informs research designs in the sense that selected fields of tensions and contradictions are empirically analysed (Alimadadi et al., 2019), and it is perceived as a meta-theoretical perspective (Clegg & Pina e Cunha, 2017) which guides the interpretive process. The latter is particularly relevant for the study under discussion. The dialectic approach allows a deeper analysis of the quality of inter-organisational relations and an insight into the drivers for the dynamics in such relationships. In the course of a descriptive analysis of IORs, the view on the traceable contradicting positions, on the interaction effect and its meaning, and on possible equilibria between conflicting elements over time are relevant (Smith et al., 2017).

A dialectical approach not only provides a theoretical concept for the analysis but also integrates a strong process- and development perspective. Of course, contradictions do not necessarily create dialectics; they can be faced via exclusion or separation as well as synthesised and transformed, as proposed by Hegel (Clegg & Pina e Cunha, 2017). Some authors outline the transformational potential of conflicts and perceive contradictions as a source of institutional change (Clegg & Pina e Cunha, 2017; Hargrave & van de Ven, 2017). Through processes of transcending, tensions inherent to organisation result in the emergence of new organisational states through synthesis (Clegg & Pina e Cunha, 2017).

The core of dialectical thinking lies in bringing into dialogue different, eventually conflicting perspectives or forces with the aim to transcend the opposition by

developing new perspectives, which, in the best of all cases, will provide solutions but, more often, provide new ways of dealing with irresolvable contradictions. Such processes continually evolve in societal interaction and are often unnoticed. Despite that, for the initiative under discussion with its focus on transformative aspects, the management of transcendence as a complex process of change is of interest (Clegg & Pina e Cunha, 2017). In this regard, research ideally initiates meta-communication in the analysed fields to explore new organisational constellations, and it can accompany synthetic learning (Clegg & Pina e Cunha, 2017).

In summary, it can be stated that inter-organisational constellations and their dynamics are complex and highly variable and deserve specific attention in terms of their institutionalisation and management. In the face of complex tasks, the development of innovative forms of organisation has to be emphasised. The creation of experimental spaces, even in highly institutionalised fields, is a major step towards transformative partnerships, innovative organisational solutions, and – possibly – systemic changes (Cartel et al., 2019; Ferraro et al., 2015; van Tulder & Keen, 2018). The prerequisites for developing innovative organisational settings include a clear focus on processes and adequate forms of management and/or moderation, participatory processes, and the willingness of those involved to critically reflect on the development process and to initiate organisational learning (Gulati et al., 2012; Hartley & Allison, 2002; Wetzel & Aderhold Jens, 2009; White, 2008).

Despite the fact that collaborative inter-organisational settings are important contributors to solving complex problems, there is still a lack of sound knowledge on how inter-organisational relations function in different collaborative settings and on the factors that lead to success (Cristofoli et al., 2017). Apart from that, authors have recently emphasised that further empirical research on how to design experimental spaces and how to configure institutional work is needed (Cartel et al., 2019). In doing so, cross-sectoral and system-oriented approaches attract more and more attention. Consequently, it seems indispensable to employ multi-perspective analyses rather than investigating only one party in inter-organisational relations, just as acknowledging multiple relations between actors should replace the focus on singular entities or features (Lumineau & Oliveira, 2018).

Following the requirements mentioned above, the research on the Educational Lab starts right here and, generally formulated, aims to contribute to a better understanding of the social and organisational dynamics in multi-actor constellations. It specifically focuses on the dynamics of handling organisational issues. It is about the chances and risks of attempts to develop an "organisational self" that may support the transformative intentions in the inter-organisational initiative.

## **Methodological Approach: Project Design and Applied Methods**

The inter- and transdisciplinary research project that accompanied the establishment process of the Educational Lab over four years comprised two stages. In the

first stage, the research team was integrated into the development of a so-called "concept of utilisation", which provides some key points regarding the thematic orientation, the organisation, participants and roles in the establishment process, and the general approach and attitude towards education (Ukowitz et al., 2016). The concept paper was developed in intensive cooperation with the management team of the Lakeside Science & Technology Park, and it should guide the following development stage within a larger group of participants, namely with the modules. It provided the framework for a participatory further development of the initiative, and it was formulated in an open manner. In the second stage, which started when the first modules began to work within the lab, the research team slightly changed its role and took up a more distant, observing perspective. The qualitative research in the second stage focused on an analysis of motives, the thematic orientation and organisational development of the lab, cooperation and networking, and the user's perspective (school teachers) on the initiative.

The phenomenological-interpretive case study analyses a concrete functional respectively social system (Flyvberg, 2011). The methodological approach is phenomenon-driven (Wohlgezogen et al., 2021) and follows the early conception of the grounded theory concept (Glaser & Strauss, 2010). It aims at hypothesis and theory building based on the authentic reconstruction of everyday life experiences of actors in the field under discussion, including the understanding of meanings and relevance of phenomena rather than providing only insights into facts and routines (Froschauer & Lueger, 2003; Turner et al., 2017). Interviewees are selected by means of a systemic sampling strategy, which allows a reflective and recursive process of data collection (Glaser & Strauss, 2010; Levitt, 2020).

In the course of the explorative study, in three series of interviews, 65 semi-structured in-depth interviews (average duration about 80 minutes) with members of the Educational Lab and relevant environments (e.g. regional education administration, regional politics, teachers) were conducted. Forty participatory observations were conducted at network workshops, meetings, and events in the Educational Lab. Field observation was conducted throughout the project. The interviews were audio-recorded and transcribed verbatim. Participatory observations are documented in observation protocols, and field observations are documented as memos. The development of the interview protocol, the selection of specific observation foci, the development of coding categories, and the interpretation of the data were carried out collectively within the research team in adequate workshop settings (41 team meetings, including hypotheses-building workshops).

The hermeneutic analysis and interpretation of the data are carried out in a process of continuous comparison of sets of data and a process from observable phenomena to a more abstract level of themes and "aggregate dimensions" (Gioia et al., 2013; Levitt, 2020). The latter allows the development of major emergent concepts and the analysis of their interrelations (Gioia et al., 2013). The interpretation process

from raw data to hypotheses and approaches to a theoretical framework is carried out following a dialectical-hermeneutic tradition. Analysis and interpretation do not follow a mechanistic procedure along a template like the recently criticised (Turner et al., 2017). Instead, it is an evolving process, a cyclic dialogue between prior understanding, data and the relevant literature (Mayring, 2015). The analysis focuses particularly on tensions and contradictions and traces underlying structures of meaning. Both strategies, the grounded theory and the dialectical-hermeneutic approach, aim to achieve a comprehensible interpretation and sound documentation of "data-to-theory connections" (Gioia, 2021).

Qualitative research on IORs appears in the shape of inductive case study designs. Apart from the descriptive approach, studies in the context of sustainable development clearly show transformative intentions (Perrotti et al., 2020), which in some cases are realised in participatory, transdisciplinary designs (Schneider & Rist, 2014; Wiek et al., 2012; Wiek et al., 2014). Besides the reconstructive, analytical approach, a future-oriented transformative perspective is essential for our project, too. With the latter, specifically in politicised environments, the importance of bridging institutional boundaries grows, and collaborative governance arrangements and adequate forms of management appear as essential means to find the balance between the multiple tasks and interests of the involved actors (Conteh, 2013).

As described above, transformative intentions lie behind the establishment of the Educational Lab. The proponents of the initiative not only expect sound scientific research. First and foremost, they expect results that provide orientation in the development and support the establishment process. Thus, the research focuses on both scientific relevance and implementation-oriented results. Besides, participatory research should foster communication, network-building and cooperation within the lab. Against the background of advanced conceptions of the science-society interface, a transdisciplinary methodology provides the basis for recursive research processes to generate scientifically relevant and socially robust knowledge (Funtowicz & Ravetz, 1993; Gibbons et al., 1994; Jahn et al., 2012; Nowotny et al., 2008; Ukowitz, 2014). Participatory, transdisciplinary research settings allow the actor groups to be involved in integrative scientific research and mutual learning as they are relevant players regarding questions of societal change (Frodeman et al., 2017).

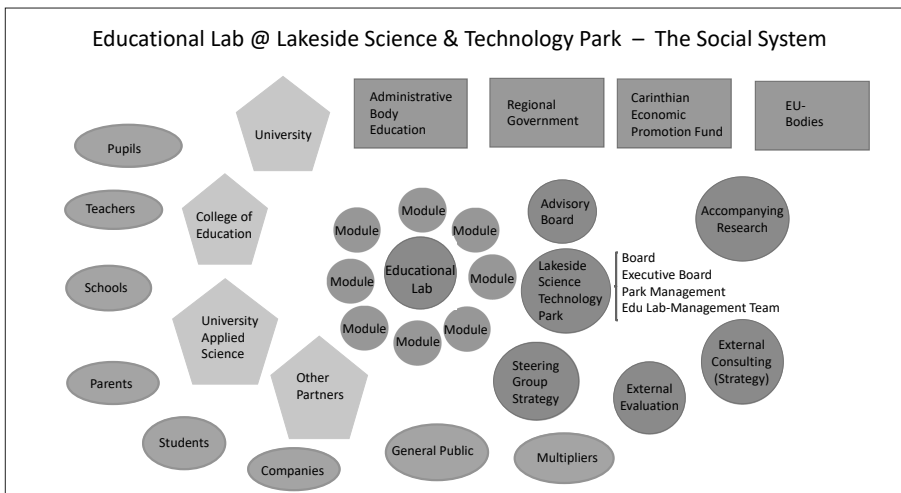
In the empirical research practice, the transdisciplinary approach requires a co-construction of the research topic by practitioners and researchers (Jahn et al., 2012). That typically leads to a broader research focus in formulating research questions and designing the methodical steps. The researchers analyse and theoretically contextualise phenomena at different levels of detail. While results are presented to the practice actors at a lower level of detail, particularly regarding the references to the scientific discourse, researchers further elaborate on specific aspects of academic interest. In this paper, aspects of organising in a transformative initiative are focused on, and the empirical data were analysed against that specific background.

## Results: The Lab on Its Way Toward Long-Term Institutionalisation

One central observation in the accompanying research is that the consideration of organisational aspects, precisely the questions of the lab's organisational shape and structure as a long-term initiative, are approached hesitatingly or are avoided and only run sluggishly. The analysis of interview material, observation protocols, and field notes (Lerchster et al., 2021) leads to seven hypotheses regarding the social dynamics and their consequences on organisational issues. Following the dialectical approach, the hypotheses focus on tensions, ambivalences, and contradictions in the social system. They appear in two interlinked thematic bundles. The first bundle addresses heterogeneity and its consequences, and the second deals with how the involved actor groups deal with organisational issues and what could be the reason for this.

### Differences Provide Chances and Provoke Tensions

A view on the Educational Lab reveals that it involves a relatively large number of stakeholders and that it is a rather complex social system, regarding both the core of the initiative with the modules and the management entities and the supporting and accompanying entities (research, counselling, evaluation). The following figure provides an overview of all the actor groups concerned.



**Figure 1. Educational Lab @ Lakeside Science and Technology Park. The Social System (Ukowitz et al., 2019)**

The actor groups' different shapes reflect their different roles in and for the initiative.

- The elements with a round shape are the central part of the system. The actors in this group are either formally part of the lab and actively involved in its activities (modules, LSTP-Team, advisory board, steering group of the strategy process), or they are part of the project of developing the lab and accompanying the activities (accompanying research, external strategy-consulting, external evaluation).
- The actor groups with the oval shape are the (potential) users of the Educational Lab's offers.
- The actor groups with the pentagonal shape are the 'home' or supporting institutions of the people who are engaged in the modules (university, university of applied science, college of education, and other partner organisations). In most cases, supporting institutions play an important role since they have decision-making power regarding human and financial resources as well as their own strategic goals.
- Finally, the rectangular-shaped groups (administrative bodies, regional government, funding bodies) are indirectly interested, involved, and important in their supportive role and as multipliers.

The short outline of the system gives an idea of the various challenges that have to be tackled during the participatory development process on the way from the initial idea behind the Educational Lab to a shared vision of possible futures. In terms of the organisational aspects discussed in this paper, the modules, the home institutions, and the LSTP management team are relevant to the dynamics of the process.

In the interviews, the representatives of the modules expressed that the possibility for inter-organisational and inter-disciplinary cooperation is one motive for participating in the lab, not least because the transcending of boundaries can support innovation. Heterogeneity is perceived as a chance. On a micro-level, instead, the differences create difficulties. Some examples: During meetings, people are hesitant to contribute time resources to joint projects because of duties related to their "home" institutions. University staff can be observed to decide and act more freely compared to others; people who have been in an organisation for a long time take more liberties than others. During meetings, it becomes evident that, obviously, little is known in the home organisations about what the members of the Educational Lab are doing in the lab. In joint projects, the question of making their contributions visible and of the affiliation of results arises. The development of a joint booking platform for the Moduls' courses and events appears highly tricky because of the various structural requirements. Modules must remember to communicate the Educational Lab as a joint initiative when they present their offer to relevant addressees.

The heterogeneity has turned out to be a challenge in the development of cooperative educational formats, above all in terms of the development of an adequate

long-term organisational form for the Educational Lab and the establishment process as a whole. The actor groups have different institutional backgrounds, forms of being involved in the process, and different roles. The way and the intensity in which they are integrated in the lab and in the development process influence their knowledge about the process and their involvement, the possibility to connect, the commitment, and the emotional closeness to the initiative. Apart from this, a closer look at the development process itself and the process of positioning and institutionalising the Educational Lab reveals the diverging relevance of the involved actor groups. For example, whilst the supporting institutions of the modules are rarely involved in the activities of the lab, they are important players in the background, particularly with regard to long-term institutionalisation. That becomes obvious when cooperative projects among the modules strand due to rigid planning requirements from one side or when the team cannot realise meetings dedicated to long-term institutionalisation.

The modules' different development histories and organisational structures mean that they can contribute to the Educational Lab under very different conditions with regard to organisational stability and financial resources, and this results in considerable overall heterogeneity. The modules are required to organise themselves internally (setting up structures, defining communication and decision-making processes) and to contribute to the Educational Lab. This "double burden" can be a challenge for those modules which are composed more heterogeneously and for those who are struggling with financial aspects. Financial resources and organisational stability support people and their activities. Conversely, stability is sometimes accompanied by a higher degree of obligation, for example, regarding the home institutions of the people involved, which can limit the modules' flexibility. A relatively large inter-organisational interdependence of people and activities (people and activities are also partially anchored in other contexts) provides the possibility to use synergies between activities and to bring more human resources into the Educational Lab. Yet, the various affiliations of the involved actors lead to tensions and ambivalence between responsibility for the whole initiative, while at the same time, there seems to be a lack of interest in the initiative and the other parties involved. In consequence, the inter-organisational activities of the people involved lead to multiple identities. In the Educational Lab, there are constantly several identities to be related to each other: the identity of the module as a separate educational initiative, the identity derived from belonging to a supporting organisation and the identity as part of the Educational Lab.

The organisations in which the members of the lab are institutionally anchored support the modules (and, in consequence, the Educational Lab) with staff, formats and access to the addressees of the offers (and conversely, the system logic and interests of the supporting organisations are carried into the Educational Lab, which sometimes leads to tensions). The representatives of the larger institutions are part of the advisory board. Despite that, the home institutions seem to be barely

involved, and it seems that they are hardly interested in the initiative. The initiative lives from the commitment and engagement of individuals. It can be assumed that competitive dynamics between the institutions and a lack of willingness to make financial commitments to the lab are among the reasons for this reluctance. These observations lead to the first bundle of three hypotheses that address two contradicting forces simultaneously effective in the Lab: Centripetal forces deriving from the shared transformative intention support the participatory establishment process, and centrifugal forces deriving from the different organisational backgrounds endanger the initiative.

*Hypothesis 1: The heterogeneity of the involved actors/modules (their organisational backgrounds, financial logics, and working cultures) is a resource for innovative developments on the one hand, but may lead to tensions and ambivalence towards the whole initiative Educational Lab on the other hand.*

*Hypothesis 2: The involved actors/modules act in a field of tension between autonomy and dependence on the institutions in which they are mainly anchored.*

*Hypothesis 3: The contradiction between actors'/modules' high commitment to innovative learning environments and the supporting institutions' potentially low interest in and commitment to the initiative as a whole leads to imbalances in the establishment process.*

The three hypotheses contribute to the understanding of the topic under consideration, namely the tendency to put organisational aspects under taboo in unclear inter-organisational constellations, as they provide a view of the causes that provoke the difficulties in handling this issue. The involved people do not have sufficient resources, do not want (or cannot) involve themselves in time-consuming considerations about organising, do not have the legitimacy to decide about organisational issues, or do not want to introduce those discussions into their home institutions.

### Omitting the Issue of the Organisation as a Self-Protective Reaction

Questions regarding organisation and management have accompanied the Educational Lab from the beginning. The utilisation concept provides an outlook: The organisation is envisaged as lean, flexible and target-group-oriented. Various variants which differ regarding the binding nature of the collaboration and the degree of organisation are seen as possible. The organisation should be feasible, useful, and reasonable, acting in the background of the core ideas of the initiative (Ukowitz et al., 2016).

It can be observed that communication about the organisation has been left out for a long time. No stipulations have been made on organisational structures and questions of future management among the participating actor groups. The attitude to-

wards questions of the organisation seems to be ambivalent, particularly on the part of the actual management team, while the modules do not seem to be interested in such questions. In the interviews, the management team members commented, sighing, "We know this is still a big open question". Instead, most of the modules do not address organisational issues regarding the lab. Only one representative has repeatedly remarked at the meetings that the long-term anchoring of the lab needs attention without receiving any reactions to his remarks. However, this situation also has positive effects. The non-communication about the future organisational shape of the lab, the future management structure and financial aspects means that more attention is devoted to the development of educational offers. At the same time, the entire process remains fragile. In a way, parallel worlds seem to be developing. On the one hand, the modules succeed in making an interesting educational offer, and they reach young people as well as teachers. On the other hand, it remains uncertain how the development of the lab is to be pursued beyond the duration of the project. The accompanying research indicates (and the project management shares this opinion) that long-term institutionalisation appears to be important, not least because of the transformative intention of the initiative. The Educational Lab aims at more than just the selective transfer of content, which is why the initiative should continue to exist beyond a five-year planning horizon.

In the second project year, a strategy process with external moderation, commissioned and financed from project funds, was started. Organisational questions were on the agenda again; however, they were not followed up on in the process. There was limited communication with responsible entities from the involved institutions, and the issue was altogether omitted in the strategic work with the modules' representatives. Feedback from the research team hardly brought any movement into the system. It can be observed that there is no institutionalised space to locate this question – organisation seems to remain a taboo subject. From social psychology, we know that taboos have an ambivalent character: they can hinder development in a social system when important issues are not addressed and resolved. On the other hand, they also have a protective character in the face of difficult situations when the risks associated with open communication about an issue are perceived as too high. At this stage of development, there are obvious imponderables in the Educational Lab. Therefore, omitting the issue of organisation and management can be perceived as a self-protective reaction.

The unclear and unaddressed positions of the involved institutions and the fact that the representatives of the modules only have limited decision-making power contribute to a complex situation. Apart from that, the establishment process requires both self-organisation, which is supported by participatory settings, and (hierarchical) organisation in the form of decisions about structures and procedures by project management. The result from these three aspects is, first, a double-bind situation for the members of the Educational Lab and second, a disbalance in the establishment process. Instead of an integrative establishment process, there is a

vivid and successful "internal" development process among modules and management teams and only a partly existing "outside process" on the institutional level. Again, the above-mentioned positive and negative effects of such a situation have to be taken into consideration.

The work of the management team, as well as the cooperation with the individual team members who take on different functions for the Educational Lab, are very much appreciated by the modules. The members of the lab know that without the high commitment of the management team, the successful development of the whole initiative would not have been possible. Management continuously balances impulses for self-organisation (which are only partly recognised as such) and decision-making. The team is also in the demanding position of clearly taking on management responsibilities and, in view of not yet decided future organisational structures, making its own function available for disposition.

To sum up, the interviews contain vague statements about organisational issues. The observations show hesitant, evasive, maybe a little bit helpless reactions to the feedback expressed by us researchers regarding the lack of consideration of how the Educational Lab should be anchored as a joint initiative in terms of organisation. At the same time, the observations show a growing number of courses, teaching formats, and projects. The interviews and participant observations also show that the management team is more aware of the pending situation than the representatives of the modules. They try to balance their role between taking responsibility and demanding that the modules and their home organisations assume responsibility. Those observations lead to the second bundle of hypotheses. Hypotheses 4 and 5 address the emotional state of the involved actors that oscillates between security and clarity on the one hand and insecurity, which leads to organisational silence regarding organisational issues on the other. Hypotheses 6 and 7 focus on two contradicting strategies in the development process that implicitly set the scene and are not yet integrated: organisation and self-organisation.

*Hypothesis 4: Non-communication about organisation leads to parallel worlds. Individually successful programs meet the fragility of the initiative as a whole.*

*Hypothesis 5: The non-communication, which can be explained by the particular hybrid constellation and the inherent uncertainties, leads to a tendency to taboo the issue of organisation and management. Vice versa, the taboo reinforces non-communication.*

*Hypothesis 6: Hybrid organisational logics in the establishment process lead to a field of tension between organisation and self-organisation.*

*Hypothesis 7: The management team is confronted with the challenge to do both, to foster self-organising dynamics and to fulfil the management duties, to provide stability and – in a way – to work on its own replacement.*

Hypotheses 4, 5, 6, and 7 derive from what was delineated in the first bundle of hypotheses. The first bundle focused on the background conditions. The second goes beyond the first as it addresses the current state regarding handling organisational issues by the various actor groups in the lab. It gives insight into the emotionality perceived in the lab and touches on contradictory steering mechanisms. Without caring about organisational issues, the initiative cannot gain the stability necessary for long-term institutionalisation. It remains pending in a partly-formal state, and that causes irritations. Missing clarity about how the future organisational structures should look and about the allocation of responsibilities leads to the fact that responsibility is only partially assumed and shifted back and forth between actors. Putting organisational issues under taboo is a reaction to insecurity and, at the same time, it increases the insecurity. From a short-term perspective, keeping the taboo in a certain way protects the actors because they are not forced to enter "unsafe territory" and to explicitly deal with the different institutional logics and interests they are confronted with in the inter-organisational initiative. From a long-term perspective, the further development of the lab is hindered.

## **Discussion: Hybrid Threats and Their Consequences**

The results of the inductive empirical analysis show a social system in which diverging institutional logics are traceable. Among the stakeholders, these differences are recognised, but they are not explicitly discussed and reflected. On a more operative level, in the activities of the lab, due to high commitment and increasing trust among the modules, the actors are succeeding in overcoming their differences. In contrast, on the institutional level, there have been only a few attempts to negotiate the differences in this inter-organisational constellation and to design an adequate future organisational structure for the initiative. The latter results from the different interests of the concerned stakeholders. The modules are more engaged in their work within the lab than in thinking about the lab as an organisational construct.

Although empirical studies are only comparable to a limited extent, the analysed system shows similar characteristics with regard to social dynamics as they are described in other studies. In particular, it is the handling of different institutional logics (Nicholls & Huybrechts, 2016), which go along with obstacles and "hybrid threats" (Nikolic, 2018), and also the trust that develops over time, that characterise the collaboration (Oomsels & Bouckaert, 2014). The study on the Educational Lab provides further insights into the social dynamics in IORs. An aspect of particular interest for organisation research is the relation between the involved actors' heterogeneity, the (in)security regarding the development process, and the (im)possibility of addressing organisational issues (Hypotheses 4 and 5). It is a connection that so far has not received much attention in the context of (inter) organisational structures. The observations in the project lead to the hypothesis that insecurity and non-communication reinforce each other. Particularly in connection with the per-

petuation of initiatives, like the transition from a project to long-term institutionalisation, it is both necessary and difficult to address organisational issues. Not least because the relevant determinations are accompanied by questions of power, questions of legitimation and assumption of responsibility, but also of eventually renouncing responsibility (Hypotheses 1, 2, and 3). However, ignoring organisational issues is only possible for a certain period of time. In the case of impending changes in the framework conditions – as in the development process described here, it is only at the approaching end of the funded project that the system begins to move. It can be observed that there is a need for actors to address the issue when the time is right. Social systems follow their own logic and their own time regime. Once the question of the future form of organisation is on the table, it is a matter of exploring the organisational form in which a transformation issue can be meaningfully pursued (Hypotheses 6 and 7). In view of the complex initial situation, a balance has to be sought between the vision and what is actually possible. Not only the organisational form of cooperation but also the composition of the actor group is under consideration.

In the theory section, the concept of inter-organisational relations was proposed as a point of reference. As mentioned above, the concept is often adopted when research is confronted with innovation-oriented systems, complex environments and multi-actor constellations (Conteh, 2013; Cristofoli et al., 2017; Ostrom, 2011). Terms that are used in this discourse (cooperation, partnership, network, multi-level coordination) reflect qualities of relationships as well as specific framework conditions (Cropper et al., 2008). The presented initiative can hardly be assigned to a specific organisational shape, and the character of the relations on the institutional level is not yet apparent. It has characteristics of an organisation, of a network, as well as of cooperation between organisations. There is cooperation and competition. The initiative itself does not have an "organisational consciousness" yet. Ascribing a particular shape to the system from the researchers' side would be a preliminary decision that does not meet the constellation and the surrounding conditions. With regard to future research, it can be assumed that a descriptive analysis of hybrid organisations could contribute to the further development of the conceptualisation of IORs. That is of particular importance with regard to innovation and transformation processes in the face of complex societally relevant questions. In such cases, new paths have to be found, potentially in structures that are away from the familiar. Concepts and models can provide orientation, but it is of high importance to acknowledge the particular characteristics of constellations (Cartel et al., 2019; Huxham et al., 2000; Schnegg, 2018).

In the Educational Lab, a loosely defined space has become established under the label of a project organisation. It can be perceived as an experimental space where people are emotionally involved and share the common idea of contributing to a future-proof development of education in the STEM fields. The lab spans the boundaries between institutions in the educational sector, and it has the potential to

become an institutional innovation. In line with Cartel et al. (Cartel et al., 2019), boundary work (delineating the experimental space from the field), distancing work (alleviating members from dominant institutional rules), and anchoring work (connecting the space to the field) can be observed. The process in the Educational Lab reveals that these are not easy tasks. Particularly, the distancing from dominant logics appears more as a negotiation of rules and as an attempt to find compromises and does not really bring about relief. Nonetheless, the interactions between the singular actors and actor groups in the Lab help to develop a corporate feeling and an identity (Scott & Lane, 2000). At the same time, the management is setting measures that foster innovation: The open calls for new innovative projects and modules promote heterogeneity and lead to the continuing rejuvenation of the initiative. In terms of the latter, the management is in line with Soda et al. (2021), who argue that, in the context of networks, too much stability leads to cognitive and social rigidity and that low stability is favourable for creativity. Apart from that, the management focuses on intense networking, promoting joint projects and events, and communicating the projects and offers – knowing about the importance of narratives in the appraisal of innovations (Hasse et al., 2019).

The study reveals that further development in the theoretical conceptualisation of organisational forms, particularly for transformative multi-actor constellations, is a desideratum. That leads to the suggestion to link the discourses on inter-organisational relations to those on hybrid organisations. Hybrid organisations are organisations that are subject to conflicting demands by their environments (Pache & Santos, 2010) and arenas for conflicting interests of different stakeholders (Furusten & Alexius, 2019). In line with Schildt and Perkmann (Schildt & Perkmann, 2017), it can be suggested to acknowledge the presence of more or less powerful multiple logics within organisations and even more in inter-organisational constellations and to be aware of hybrid constellations, particularly in the context of innovation processes and transformative initiatives. In doing so, the focus shifts towards the dynamics of transitions from one organisational state to another. It is comprehensible that, to a certain extent, the establishment of new organisational structures goes along with turbulent emerging processes that are nonlinear and seldom totally transparent or controllable (Cheng et al., 2020). In inter-organisational configurations, the transition processes to a new organisational structure appear even more complex. With regard to practical implications in the case of the Educational Lab, the formation of a "constitutional hybrid" (Battilana et al., 2017) is advisable in the further development process. To make that possible, the stakeholders' awareness of the particular situation, the willingness to talk about it and the willingness to cooperate and commit to the initiative are crucial. In a research perspective that reaches far beyond the study of the Educational Lab, it will be interesting to further observe the interaction of complex inter-organisational configurations and complex fields of activity or problem constellations on the one hand and the organisational

structures and conceptualisations of management on the other hand. It is to be expected that hybrid forms will have greater importance.

### **Conclusion: The Case Study and Its Scientific Implications**

This article addresses the organisational aspects of transformation in the background of an inter-organisational initiative in the field of education. One basic assumption is that a certain degree of organisational stability supports transformative intentions. At the same time, in the presented study, a lack of organisational stability can be perceived. Moreover, organisational issues are even avoided by the people involved. The heterogeneity, on the one hand, is recognised as a chance to benefit from the multiple perspectives and to bundle innovation forces. On the other hand, the complex and unclear constellation hinders open communication about organisational issues. The question appears to be suspended. That can be perceived as a problematic prerequisite for attempts to find an adequate organisational shape and to develop adequate management structures. After four years, the Educational Lab is currently starting into a new phase. Under the title "Educational Innovation Lab for Sustainable MINT", the lab will partly leave the module-based structure and focus on the development of clearly defined cooperative innovation projects, including process counselling and documentation, in the future. The question of transitioning from a pure project organisation to another organisational structure has experienced new dynamics through the requirements of the funding program, where the plans were submitted and positively assessed. Co-financing and the establishment of an association that manages the lab are required in this program. In the proposal, five co-financing institutions (all of them involved in the Educational Lab up to this point) are mentioned. The smaller modules with less organisational stability and (financial) power also provided letters of intent and are committed to the new initiative. Their status in the required association is not clear yet. It will be the next step to manage the establishment of the association. If this proves to be successful, the question of organisation will be resolved – at least for the coming five years. It will most likely be difficult enough to find adequate management and cooperation structures, but it may be assumed that in the prospective development stage, questions of the organisation will be explicitly tackled by those who have decision-making power.

The findings in the case study allow the delineation of more general scientific insights. Putting organisational aspects under taboo and, subsequently, avoiding determinations regarding the organisational architecture for long periods leads to deadlock situations. The situation cannot be "unfrozen" (K. Lewin) easily. On the contrary, the dynamics of avoiding the topic and spreading insecurity reinforce themselves. Theoretically, that can be understood through systems theory and the concept of autopoiesis, which explains that systems tend to follow and reproduce their operational logics. In a process view, the question arises of how the obstacles

can be overcome or at least handled and how organisation research can theoretically contribute to grasping and successfully managing those processes. Two directions for further research appear. First, the further conceptualisation of the inevitable balancing acts in inter-organisational initiatives. Second, the further conceptualisation of organisation designs, including legal aspects, meets the character of transformational initiatives. Not seldom do such initiatives form experimental spaces that cannot be compared to well-known inter-organisational designs. New conceptions can contribute to rendering organisational issues a more acceptable and less delicate topic in inter-organisational relations.

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