International Journal of Project Management 43 (2025) 102768

Contents lists available at ScienceDirect

International Journal of Project Management

journal homepage: www.elsevier.com/locate/ijproman

Co-fabricating the permanent to enable temporary organizing: Insights from an ethnography of emergency response operations

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ARTICLE INFO

Keywords:
Emergency response
Temporary organizing
Time
Stability
Change

ABSTRACT

Research on temporary organizations such as projects acknowledges the interplay between the temporary and the permanent. However, we still lack deeper understanding of the processes responsible for (re)producing and transforming permanent structures for temporary organizing. We present an ethnography of collaborative emergency response operations in a major German city – a setting providing an example of temporary organizing including more permanent structures drawn from intra- and interorganizational processes. Revealing the recursive interplay between the permanent and temporary across multiple levels, we explore practices of temporary organizing in situations that require both routine and highly situated responses. We also show how more permanent structures are co-fabricated in the process of temporary organizing. Furthermore, our study addresses the intricate interplay between organizing for the temporary and the permanent in relation to the tensions associated with the duality of stability and change. Finally, we outline implications for the effectiveness of emergency management and planning.

1. Introduction

In uncertain environments, temporary organizing is considered an attractive alternative or at least a complement to more permanent forms of organizing (Bakker, 2010; Kenis et al., 2009; Lundin et al., 2015; Bakker et al., 2016; Burke & Morley, 2016; Livne-Tarandach & Jazaieri, 2021). Existing research acknowledges the tensions when temporary and permanent approaches to organizing interact, for instance, in regard to the tension between autonomy and embeddedness or in light of time pressures arising from differences in time horizons (see e.g., Engwall, 2003; Danner-Schröder & Müller-Seitz, 2020; Lundin & Söderholm, 1995). Thus, corresponding works on temporary organizing already recognize the intricate, often tension-ridden interplay between the temporary and the permanent (Braun & Lampel, 2020; Dille et al., 2023; Ojansivu et al., 2021; Stjerne & Svejenova, 2016; Sydow & Windeler, 2020). But the literature provides less clarity as to how practitioners manage the coexistence of permanent and temporary elements in processes of organizing. This is problematic, as this lack of clarity hinders our ability to explain how practitioners (re)produce permanent structures to infuse stability into temporary organizing, and how, in turn, temporary organizing might reproduce or transform permanent structures. We therefore ask two intertwined research questions: *How do practitioners in temporary organizations enact permanent structures to organize operations* in situ*? And how does this process contribute to the (re)production or transformation of these more permanent structures?*

Drawing on ethnographic research, we employ a project-as-practice approach (Blomquist et al., 2010; Brunet, 2019; Clegg et al., 2018; Floricel et al., 2014; Hällgren & Söderholm, 2023; Hedborg et al., 2024) and study emergency response operations as instances of temporary organizing in the city of Düsseldorf, Germany, where multiple organizations interact in the face of expected as well as unforeseen events. Our findings reveal the importance of three sets of practices for connecting the temporary with the permanent: (1) practices of *establishing interorganizational planning hubs* – in the form of both (temporary) interorganizational projects (IOPs) and (permanent) interorganizational groups (IOGs); (2) practices of *relying on practitioners with decision and command responsibilities across all levels;* and (3) practices of *designing structures for day-to-day usability*. With regard to these sets of practices, we show inter alia how structures are produced, reproduced, and transformed across levels, thereby forming a multi-level cycle of constant, though not

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https://doi.org/10.1016/j.ijproman.2025.102768
Received 25 November 2024; Received in revised form 19 September 2025; Accepted 26 September 2025
Available online 27 September 2025

always consonant, temporary-permanent coordination.

In doing so, our study offers three theoretical contributions. First, we reveal the micro-processes on which practitioners rely in the recursive interplay between the permanent and the temporary. Specifically, we shed light on the intra- and interorganizational structures that enable practices of temporary organizing in situations that may require not only routine, but also highly situated responses. In turn, and more importantly, we show how these more permanent structures are not only an outcome of the original setup or design that is more or less adapted to specific emergency operations. Rather, these structures turn out to be co-fabricated in the process of temporary organizing; not only within IOPs and IOGs, but also with regard to hybrid forms between these two extremes.

Second, our study addresses, quasi on a meta-level, hitherto unresolved questions regarding tensions in the interplay between organizing for the temporary and the permanent on the one hand, and the duality of stability and change on the other (Farjoun, 2010; Hernes & Feuls, 2023; Muruganandan et al., 2022); these questions have so far been addressed best in research on routine dynamics in multi-project contexts (Biesenthal et al., 2019; Bygballe et al., 2021; Hedborg et al., 2020) but are of relevance far beyond this domain of research. Here, we elucidate how structures obtain relative permanency – or at least transient continuity – via change, and thus become useful for temporary endeavors that require flexibility and adaptability because of their very stability. In turn, we show how change becomes possible in temporary organizing with the help of rather more stable processes.

Third, our study offers insights into how emergency responses can become effective by performing the unearthed cycle of temporary-permanent coordination specified in a process framework and involving those practitioners that are endowed with the capacity to make planning decisions, while allowing for constant monitoring of their adequacy.

In what follows, we first explicate our practice-based perspective on the role of the permanent in temporary organizing in multi-project environments on the one hand and on the duality of stability and change (Farjoun, 2010) on the other. Then we describe our case setting and methodology. The section that follows presents the findings of our case study, before we end with a discussion and conclusion, pointing not only in detail to these three contributions but also to the limitations of our study.

2. A practice-based perspective on the temporary and the permanent

2.1. Temporary organizing and more permanent contexts

Temporary organizations feature an ex-ante, built-in termination mechanism, i.e., either a set date or the reaching of a predefined condition for completion (Bakker, 2010; Lundin & Söderholm, 1995). By contrast, we use hereafter "more permanent" to point to structures that do not feature such an ex-ante termination mechanism and are to be found in formal organization and collaborative arrangements between organizations or field-wide institutions (DeFillippi & Sydow, 2016).

To date, many forms of temporary organization have been studied, e.g., most prominently projects, but also SWAT teams, theater groups, and film crews (e.g., Bechky & Okhuysen, 2011; Burke & Morley, 2016; Goodman & Goodman, 1976; Majchrzak et al., 2007). Research in these more often than not multi-project environments suggests that not only the temporary structures of these forms are important for them to function, but also the structures offered by the more permanent contexts in which they operate (Engwall, 2003; Sydow & Windeler, 2020). Thereby, different levels should be taken into consideration.

A first level is that of the permanent *organizations*. Most forms of temporary organizing rely on some form of "parent" or background organization (e.g., consulting projects on a consulting firm). Practitioners involved in such temporary organizations, not least in the case of emergency responses, do not only produce resources collectively on the spot but make use of resources provided by their parent organizations (Bechky, 2006; Bechky & Okhuysen, 2011; Berthod et al., 2021).

A second level of permanent context is *interorganizational*. Interorganizational projects are, for instance, usually embedded in project networks or project network organizations (cf. Manning, 2017). Not unlike single organizations, the interorganizational context characterizing these network forms provides more permanent structures for temporary organizing. In the case of emergency responses, for instance, such networks provide emergency teams with timely access to urgently required technical expertise (Berthod et al., 2017).

Third, the level of the *organizational field* constitutes an additional context with more permanent structures. Organizational fields such as industries are composed of social relations and interactions between organizational actors (Zietsma et al., 2017). In a recent review of the literature, Sydow and Windeler (2020) conclude that studies of temporary organizing not only conceive the temporary and the permanent as being mutually constitutive, but – with regard to the field level – account for the institutional embeddedness of project-based organizations and project networks.

While research notes that practitioners (e.g., project managers or first responders) mobilize in situ specific aspects or dimensions of structure across different levels in their organizing efforts, we still know little about *how* they do so. Understanding such efforts is important because it addresses the fundamental duality of stability and change that has to be managed in and among organizations (Farjoun, 2010). This duality is expected to unfold in processes of temporary organizing as changes and situated adaptations emerge to secure stable operations. At the same time, relatively stable structures are expected to enable the on-site flexibility needed for effective and reliable operations, albeit temporary ones. A key implication of seeing change and stability as a duality is, hence, that change and stability enable one another (Feldman et al., 2022; Hernes & Feuls, 2023; Muruganandan et al., 2022).

2.2. Research on emergency management and planning

Emergency response operations require quick coordinated action and terminate with the end of the emergency, constituting a specific form of temporary organizing (e.g., Bakker, 2010; Bechky & Okhuysen, 2011; Wolbers et al., 2018). Nevertheless, both the emergency management and also crisis management literatures typically do not connect to the theory of temporary organizations (Li & Song, 2023; Unterhitzenberger et al., 2024) – with rare exceptions such as studies by Older (2024) focusing on disasters, by Zijderveld and Kalkman (2023) on how temporary crisis organizations emerge, and by Stingl and McClellan (2023) on how recurring temporary organizations such as annual festivals react when they themselves run into a crisis. Apart from these exceptions, the concept of temporary organization remains only implicitly addressed in this literature (cf. Hällgren et al., 2018). However, the aforementioned duality of stability and change, on the other hand, has indeed been an important topic in the literature surrounding emergency management and planning, though a little theorized one. Researchers have stressed that organizations facing emergency situations are particularly dependent on balancing stable and reliable structures on the one hand with high degrees of flexibility, adaptation, and even improvisation on the other (Faraj & Xiao, 2006; Grothe-Hammer & Berthod, 2017; Lindell, 2013).

To address this particular practical challenge, a plethora of research has developed guidelines and principles for effective emergency planning and management (e.g., Alexander, 2005; Henstra, 2010; Perry & Lindell, 2003). One crucial insight of this literature is that emergency response plans in themselves are neither sufficient nor necessarily helpful. Plans must be usable at the scene and need to avoid being overly detailed because this can give responders a false sense of security (Grothe-Hammer & Berthod, 2017; Rae et al., 2018) – a phenomenon known as "paper plan syndrome" (Auf der Heide, 1989). Consequently,

emergency planning should be considered an ongoing process (Perry & Lindell, 2003), occurring locally (Henstra, 2010), and including all relevant organizations, not just emergency services (Pollock, 2017). However, empirical research shows that interorganizational collaboration despite these insights often fails in practice (Wankhade & Patnaik, 2020). Response efforts can seem to be ad hoc and are often inconsistent with existing arrangements (Pitt, 2008). Recurring issues thereby include poor planning, ineffective communication, insufficient implementation, and inefficient monitoring of emergency plans (Pollock, 2013, 2017).

A crucial issue is that existing research tends to focus on general planning at the policy level (Pollock, 2013) and on collaborative network governance (Wankhade & Murphy, 2023), often ignoring the day-to-day practices of emergency responders. Even though researchers emphasize the importance of practitioners' experiences and their inclusion in planning processes (Brooks et al., 2022; Henstra, 2010; Pollock, 2013), there remains a lack of understanding on effectively managing the collaboration process. Therefore, it is essential to examine the "people" and the "process" closely as, for instance, Wankhade and Patnaik stress (2020, pp. 134–136).

2.3. Towards a structurationist perspective on temporary organizing in emergency responses

Management and organization research in general and project studies in particular have already approached temporary organizing as collaborative processes that combine stability and change, increasingly conceptualizing their relationship in fact as a "duality" (e.g., Sydow et al., 2025). Empirical studies of routine dynamics in multi-project environments constitute one important stream of research in this regard (e.g., Biesenthal et al., 2019; Hedborg et al., 2020). Routines are repetitive and recognizable patterns of actions that are the object of reflexive, situated regulation and adaptation (Feldman & Pentland, 2003). Research in this stream has highlighted how individuals in and across organizations not only apply and adapt routines but also use specific activities to make patterns appear stable or flexible to others (see also Bygballe et al., 2021; Danner-Schröder & Geiger 2016; Schakel et al., 2016). We also know that these patterns of activities contribute to the creation of mental frameworks that individuals use as structures to make sense of events and adapt their responses (Patriotta & Gruber, 2015).

On a similar note, research on coordination has produced significant insights into how organizations enact and adapt coordination mechanisms to situated requirements (Bechky, 2006; Okhuysen & Bechky, 2009). For example, Faraj and Xiao (2006) show that coordination is fundamental to the timely interplay of expertise and dialogic practices to allow for a situated response to critical events. Similarly, Jarzabkowski et al. (2012) show that members in organizations facing change create and recreate elements of their coordinating mechanisms by orienting their work towards absences and missing elements in coordinating. Finally, similar findings have made their way into research on more distributed and improvised interorganizational arrangements, with studies on the coordination of emergent response groups during disasters (e.g., Beck & Plowman, 2014; Majchrzak et al., 2007). These studies point, among others, to the role of boundary objects and explain how the transformation of extant structures contribute to organizing for high(er) reliability in inter-organizational settings (Beck et al., 2024; Berthod et al., 2017, 2021).

In this article, we build on and expand these contributions by explicitly drawing on a practice-based perspective informed by structuration theory (Giddens, 1984) to explore the continuous, reflexive (re) production and eventually transformation of permanent as well as temporary structures over time. This theory has been used before to study emergency management (e.g., Berthod et al., 2017) and temporary organizing more generally (e.g., Bakker et al., 2016), and sensitizes our analysis to the situatedness and recursiveness of practice. Beyond the project-as-practice approach (e.g., Hällgren & Söderholm, 2023) scholars have used practice theories to explore the contextual and intricate nature of organizing processes (Faraj & Xiao, 2006; Feldman & Orlikowski, 2011; Nicolini, 2012; Jarzabkowski et al., 2022). Thus, such theorizing is sensitive to the role of organizations and interorganizational relations, and how actors and their interactions both relate to and shape structures in and across time and space. Structures are thereby conceived as rules and resources (Giddens, 1984). Through their recurrent actions, i.e., practices, actors produce, reproduce and/or transform these structures which, in turn, enable and constrain their daily "sayings and doings" (Schatzki, 2002).

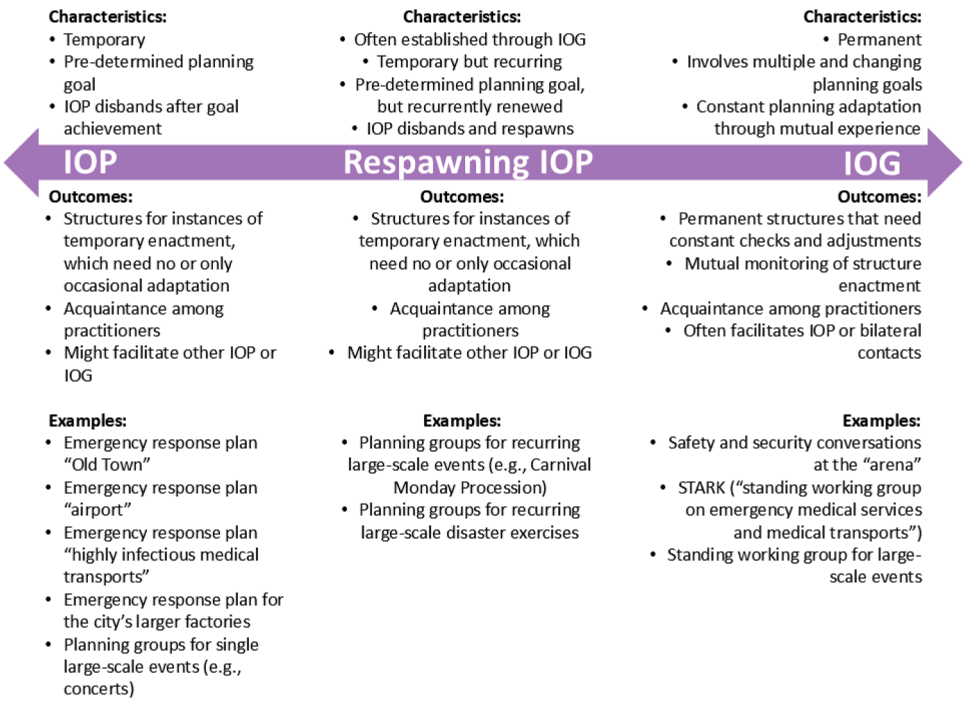
We turn to Giddens' (1984) theory of structuration rather than other practice theories for three reasons. First, it is an approach that is particularly sensitive to tensions and contradictions arising in practice. Second, the theory of structuration has been used before to conceptualize the relationship between stability and change as a duality (Farjoun, 2010), not least in the realm of routine dynamics research (Feldman & Pentland, 2003). Third, in contrast to other theories of practice, it also allows us to adopt a tall ontology, i.e., to distinguish different levels of analysis and to investigate the recursive, co-constitutive interplay across such levels (Seidl & Whittington, 2014; Sydow & Windeler, 2020). Thereby, this moderate rather than strong process theory conceives social practices as being an outcome as well as a means of structuration processes. Respective agents, individuals as well as collectives, are seen as 'knowledgeable agents' (Giddens, 1984), who monitor the conditions and consequences of their actions without being able to control all of them (Ortmann et al., 2023).

3. Case setting and methods

Düsseldorf is the state capital of North-Rhine Westphalia and has approximately 600,000 inhabitants. We selected Düsseldorf because it constitutes an exemplary case of effective emergency planning and management, promising to provide insights into how the temporary and the permanent interact in practice. Several of our interviewees from emergency services of other German cities emphasized that Düsseldorf is particularly successful in achieving locally-adapted, inclusive, and practitioner-driven emergency planning and management. As a commanding officer of an emergency medical service provider and disaster relief organization put it: "Düsseldorf, I must say, is a bit ahead of other cities in that regard" (I64). Moreover, the Ministry of the Interior and Municipal Affairs of the State of North Rhine-Westphalia (2013) declared Düsseldorf's standing working group for large-scale events – one of the permanent interorganizational groups in our sample (see Table 1) – a "model case" for interorganizational planning and coordination, which has served as a basis for the subsequent development of state-level regulations for the safety planning of large-scale events.

In Düsseldorf, we encountered >60 organizations that were recurrently involved in emergency responses. Initial field access was provided by the municipal fire and emergency department (FED). In North-Rhine Westphalia, as in many German states, the responsibility for organizing all emergency and rescue services (apart from law enforcement) lies with the municipalities, which have relatively high autonomy. For example, the municipalities set their own response time targets and monitor their effectiveness. Thus, the City of Düsseldorf has organized fire, emergency medical, medical transportation, and technical relief services in a single city department, the FED. In addition to the FED, large companies and the city's international airport operate their own fire and medical emergency services on their compounds. Furthermore, the FED outsources parts of their emergency medical services and medical transportation services to four service providers (e.g., the Red Cross), which, however, are integrated operationally into the FED. Compared to other municipalities, the Düsseldorf FED is relatively well-funded. Consequently, the Düsseldorf case is different from others that are often discussed in the literature, where emergency services are underfunded, confronted with unrealistic response time targets, and

Table 1
Types of interorganizational planning hub.



stressful working conditions (Granter et al., 2019). None of these issues were apparent in our fieldwork.

During non-criminal incidents, the FED is usually in charge of all operations. Nevertheless, most operations require interorganizational collaboration. Even in small-scale medical emergencies or technical relief operations, the FED must often work together with other organizations such as the police or the traffic management authority. Thereby, emergency responses encompass a broad range of routine and non-routine incidents, from individual medical emergencies to mass casualty incidents, from traffic accidents, search and rescue operations, cellar fires, and stuck elevators to the handling of ordnance, large-scale flooding and airport disasters.

At the field level, there are certain national recommendations for command structures and standard operating procedures that provide important common ground for fire and emergency services. There are, moreover, supra-regional mutual aid agreements and certain state-level and federal support structures. However, apart from these rather general and broad background structures, the affected organizations are mainly on their own when it comes to determining interorganizational planning requirements and engaging in related activities and practices.

3.1. Data collection

Field access from 2012 until 2016 allowed us to conduct an ethnography of both preparatory planning work and actual emergency operations. Over the course of 24 months, we conducted 565 h of direct observations (see supplementary material for details). We followed specific 'objects of study' (cf. Marcus, 1995), i.e., plans, operations, resources and field-level events connecting several organizations across multiple sites, in order to study the range of coordination. We often used two investigators during larger operations. For several periods, the first author stayed directly in the field – living and sleeping at a fire and ambulance station for >4 weeks total – or on "stand-by" at a hotel at the disposal of the FED, the Red Cross, and other organizations. Thus, he could join responses to crises or observe disaster management first hand, as well as more mundane interorganizational meetings at short notice. Furthermore, we interviewed as many practitioners as possible, repeatedly asking the same persons to make sense of the role of the specific patterns observed (Spradley, 1979).

We began our observations with interviews and short observation phases, until the face of our principal ethnographer became familiar to members of the FED. This familiarity facilitated his introduction to members of other organizations during observation phases at incident sites or during interorganizational meetings. During observations we took field notes and converted these into detailed reports. Furthermore, we conducted ad hoc interviews and extended our insights through semi-structured interviews to gather contextual data. We were able to conduct a total of 114 interviews (61 semi-structured and 53 unstructured) with 104 individuals in 30 organizations (of which 99 interviews were taped; see supplementary material for details). Finally, we collected documents in the field (e.g., regulations, operation protocols, email-communications) whenever possible, amounting to over 5500 pages.

3.2. Data analysis

We conducted an abductive analysis as outlined by Timmermans and Tavory (2012). This strategy for analyzing data connects theoretical preconceptions such as a practice-based understanding of temporary organizing and the conceptualization of stability and change as a duality with a grounded theory approach (Glaser & Strauss, 1967), thus departing from a purely inductive paradigm. The abductive approach adopted from Timmermans and Tavory (2012) also goes beyond a mere mixture of induction and deduction by calling, against the background of theoretical preconceptions, for a creative and bold treatment of the empirical material to allow for the emergence of novel ideas that embrace the researchers' intellectual positions. This strategy is particularly relevant in our case. Our interest in practices required inductive coding of the activities performed and interpretative work regarding the meaning of these activities for the participants in the field. However, we

also referred to practice theory in general and structuration theory in particular (as well as to respective research on temporary organizing and emergency management) as conceptual devices for making sense of our material and interpreting our findings.

Specifically, we used the three analytical movements of revisiting the phenomenon, defamiliarization, and alternative casing, as recommended by Timmermans and Tavory (2012) to infer conclusions abductively. In this process, we adopted a practice-based perspective on temporary organizing that employs a tall ontology allowing for different levels of analysis (Sydow & Windeler, 2020). Specifically, we were interested in how permanent structures on the interorganizational level influence the temporary organizing of concrete emergency management on the micro-level – and vice versa (see supplementary material for a detailed description of our analytical process). This process took a long time until we identified three sets of practices that are crucial for the co-fabrication and adjustment of permanent structures for temporary organizing: (1) practices of *establishing interorganizational planning hubs* in the form of temporary IOPs and permanent IOGs, (2) practices of *relying on practitioners with decision and command responsibilities across all levels,* and (3) practices of *designing structures for day-to-day usability*. Based on these three identified sets of practices, we then looked into the overall process of (re)producing and adapting permanent structures for and during temporary organizing. To do so, we began to draw maps and figures, in which we sought to depict the three levels of analysis in which we were interested – temporary organizing during operations in situ (the incidents); the level of the permanent organizations involved; and the level of interorganizational planning hubs that, in light of Lundin and Söderholm's 4Ts framework (1995), emphasize either temporariness (as in the case of IOPs) or permanency (as in the case of IOGs), with regard to not only time but also task, team, and transition (Sydow et al., 2025). As indicated, we paid less attention to the field level because these structures, which are fairly general and have been institutionalized for decades in our context, are reproduced but not transformed in temporary organizing. In the analysis of incidents and planning meetings, we identified several activities that related either to the fabrication of new structures being enacted in a specific moment, or to the maintenance and adaptation of structures inherited from practical experiences across multiple incidents. For example, we observed the usage of triage tags, a practice that was then thematized in subsequent interorganizational planning meetings. Similarly, we noted discussions about, and planned adjustments of, existing maps in emergency response plans because of their poor quality – the effects of which we were able to observe on the spot. In doing so, we finally succeeded in reconstructing the co-fabrication, i.e., the enactment, maintenance, and adaptation of structures by practitioners as an ongoing process across the three different levels.

4. Findings

In the following, we present the three sets of practices through which permanent structures are co-fabricated across the organizational and the interorganizational levels via temporary organizing. We then unfold the temporary-permanent cycle of constant co-fabrication, beginning with the enactment and ending with the reproduction or adaptation of permanent structures in a recursive and dynamic process across three levels.

4.1. Establishing interorganizational planning hubs

The first central set of practices we identified was the recurring establishment of planning hubs on an interorganizational level. These planning hubs are set up officially and formally by permanent organizations, and take the shape of either (temporary) IOPs or permanent IOGs, and sometimes a hybrid form.

4.1.1. Setting up interorganizational projects (IOP)

IOPs are set up in cases in which practitioners of two or more organizations see a need for joint planning without setting up a permanent planning arrangement (see Table 1). Typically, IOPs are set up in pursuit of specific planning purposes or events. For example, the planning group for the emergency response plan for the airport consisted of members of the FED, the state police, the federal police, the airport, and the airport fire department. Together, they developed a detailed plan – including a shared map – determining a broad range of rules and resources identical for all the organizations involved in the event of operations at the airport:

> 'There is nothing like this nationwide, such integrated operational planning where everyone doesn't just call and say, "What do you want?," but rather, "This is a shared document and this document is available to all authorities." …We determine what we want to plan in terms of space, and then we move on to the content… That's a great success, because it's not a given that the airport operator will say: "We're setting up a working group where organizations can also formulate needs that are actually none of our business."' (I1, deputy fire chief)

4.1.2. Setting up interorganizational groups (IOGs)

We also identified several formally established permanent IOGs in which delegates of several organizations meet regularly and plan for mutual activities that are about to take place in the city (e.g., major concerts or soccer matches) or for recurring emergency forms (e.g., medical emergencies). IOGs are set up in those cases, enabling the constant creation, maintenance, and adaptation of rules and resources. One IOG is the 'Standing Working Group on Emergency Medical Services and Medical Transports' (called 'STARK' for short in German). This group meets about quarterly and is the 'central body' (I75, FED) for the collaboration between the FED, four other emergency medical services (including the Red Cross), the airport's emergency medical service, and the private emergency medical services of the larger factories in the city that are responsible for incidents occurring within their compounds. Another example is a 'Standing Working Group on Large-Scale Events'. This IOG meets monthly and consists of delegates from roughly 30 organizations. In this group, these organizations design together the safety and security concepts of upcoming large-scale organized events. To do that, the group identifies all the organizations that are specifically relevant for a particular event, then sets up a temporary detail planning group, which constitutes an additional IOP. In case of recurring events, these IOPs are then also recurring, thus constituting a third, hybrid form, mixing elements of IOG and IOP. Such respawning IOPs can, hence, be found in case of recurring events such as the yearly Carnival Monday Procession, or in preparation of recurring large-scale disaster exercises. We call them "respawning" because these IOPs formally dissolve after a specific event or exercise but are reactivated in case the event or exercise is repeated.

4.1.3. Consequence: interorganizationally matching structures

The organizations involved in IOPs and IOGs match their structures when creating interorganizational ones, thus supporting permanent collaboration across organizational boundaries. At the same time, the resulting plans and procedures become parts of the participating organizations' way of functioning, more or less inscribed into their structures – both formally and informally as one interviewee described it:

> 'It's like a jointly developed code […] we have got together and developed our own meta-language.' (I1, deputy fire chief, FED, on the emergency response plan 'Old Town')

Rules in these cases like the mentioned 'meta-language' imply using mutual emergency response plans. Resources can vary and range from parking spaces, personnel, or mutually agreed denominations. One example from the STARK IOG (cf. Table 1) is the harmonization of the

gurneys used in the ambulances of the different organizations, an important material resource involved in handling medical emergencies:

> 'Let's assume that there are now five ambulances at a major fire and they have all brought out their gurneys … and everyone helps and the tension is high, and then afterwards a gurney from our [Red Cross] ambulance lands on an ambulance of the fire department [FED]. … The only thing that really matters is that the gurneys match each other.' (I67, Red Cross)

4.2. Relying on practitioners with decision and command responsibilities

Interorganizational planning hubs produce, reproduce and transform important permanent structures for instances of temporary organizing. Against the background risk that these structures may merely exist on paper ('paper plan syndrome'), we found that the reliance on practitioners across all levels was crucial. We see this as an overarching practice that takes two different concrete forms: delegating practitioners into interorganizational hubs, and allowing them to identify and articulate the need for hubs.

4.2.1. Delegating practitioners into interorganizational hubs

The delegates participating in the planning hubs were usually individuals in positions responsible for emergency management in their organizations, that is, incident commanders of the FED, police, and emergency medical services. In the case of the other organizations (e.g., the airport), the representatives formally selected were usually the ones with deep operative knowledge who manage matters on the scene in case of an incident. For example, in the IOG called 'Arena', which is a standing working group concerned with safety and security issues for large events at Düsseldorf's local multi-purpose event arena, both the arena's crowd manager and a manager of the event organizer usually participate. The delegates are, therefore, usually agents with practical knowledge of their respective organizational structures and operational needs. In the case of the above-described STARK IOG, the fire commander involved describes his position as follows:

> 'I am the subject area manager in the emergency medical service. … This includes the organization with the respective rescue stations including the other [emergency medical services] organizations, the cooperation. That's why we have STARK meetings. … I'm on station 5 today, C-level officer. … So today I'm a firefighter.' (I75, FED)

4.2.2. Identifying and articulating the need for new hubs

Interorganizational planning hubs are not only attended by practitioners, but usually initiated by those very individuals. In light of their work, experience, and socialization in a particular organization or department and in face of ongoing collaboration with other organizations, these practitioners see and articulate the need for interorganizational planning. Several organizations in our sample granted their practitioners the decision autonomy to initiate and engage with such hubs at their own discretion. New hubs are then either initiated through the practitioners' own permanent organizations or spawned from already existing interorganizational planning hubs. To continue the example of the STARK IOG:

> 'The idea then arose to say: "Okay, we are increasingly involved with them [other emergency medical services], including at fire stations, and there are many points of contact, so we should meet with them regularly." So a need was discovered because there were more points of contact…And that's how it came about: "Okay, let's set up these STARK meetings."' (I75, FED)

As this quote indicates, the aforementioned socialization becomes important because of both the delegated practitioners' long-term employment in their home organizations on the one hand, and the stability of the collaborative relationships on the other; allowing for setting up an interorganizational planning hub. The importance of such interlocking has repercussions for the participating organizations and their own internal staffing decisions as well. As a police officer puts it:

> 'It's a huge advantage that you actually meet the same heads [people], with whom we can talk on the phone all the time, even without meeting. …We are really a huge network, in terms of people.… Now I'm leaving next year, and there are already voices saying, "Well, okay, now of course the new head of [undisclosed police department] has to fit into this network."' (I66, high-ranking senior police officer)

4.2.3. Consequence: familiarity amongst practitioners

One positive side-effect of the frequent interchanges of actors across organizations is that the informal familiarity, institutionalized in this way, can facilitate the establishment of other IOPs and IOGs, and bilateral exchange outside the hubs and incidents. For example, the contact between the FED and the police, created through the IOP for the emergency response plan 'Airport', facilitated pre-coordination between those two organizations before the establishment of a new IOP for the emergency response plan 'highly infectious medical transports':

> 'The joint coordination regarding the emergency response plan [for the airport] is expressly welcomed by us, because we have to coordinate … possible rescue or evacuation operations. Not only do we like to get involved, we also do that in our own interest. … And we have now … when it comes to Ebola. … We are also prepared for this in terms of the emergency response plan. There were meetings there, too.' (I43, high ranking officer, federal police)

Moreover, the familiarity that developed among the practitioners involved in planning also translated, at least partly, into the smooth coordination of activities during an incident:

> 'At the incident site, of course you know each other, you can also say things like "watch out, do this and that". This has come with time, and certainly also because … I would say that the same heads [people]… have now found each other. Because we also have a lot of meetings on a regular basis.' (I75, FED)

4.3. Designing structures for day-to-day usability

The practitioners in the planning hubs ensure that structures are designed for day-to-day usability, that is, they are workable in everyday operations and can be easily used and adapted during actual incident responses. They make plans based on their own experience of incident management, but at the same time are sensitive to their different perspectives and needs across participating organizations; and they integrate these into the planning process by exchanging their views and designing the structures in a way that acknowledges any differences. During a meeting of the IOP for the response plan " airport", we could observe how this process is not restricted to thinking about one's own organization and needs:

> Julie [a police officer] suddenly throws in an additional idea: 'What if there is a mass-casualty incident or something like that and you [pointing at Paul, FED] need a lot of space?' Paul does not know. Julie: 'If we block this point here and this point there…you could use it to set up treatment centers, assembly areas and so on.' (Observations)

In many cases, this mutual sensitivity also means designing the interorganizational plans so that they do not contradict the different structures and processes of the organizations involved. However, the practitioners also know which organization's internal structures can and perhaps should be changed to allow better coordination on the interorganizational level. As the safety and emergency manager of the airport, for example, told us:

> 'I made sure … that it didn't contradict itself. … I now had to change … the hazard prevention plan because of the emergency response plan for the airport, because some formulations were no longer adequate.' (I99)

4.3.1. Consequence: implementing, using, and monitoring interorganizational structures

In the interorganizational planning hubs, the practitioners from different organizations design these plans together, based on their experience and aiming at integration into their own organizational structures. This integration is, on the one hand, ensured with the help of training sessions and exercises – some of which we were able to observe firsthand. On the other hand, practitioners frequently design formal plans oriented towards scalability. This means that plans are designed (or redesigned) so that they can be scaled up or down depending on the extent of the incident. In a meeting about the development of the response plan "airport", we observed the following:

> Mr. Harmon [Police] then explains how the cordon points and priorities work. It doesn't make sense to block off the inside first, if traffic continues to flow in from the outside. That's why there is an outer barrier ring with priority one. …Then there are inner cordon points that would be activated if needs be to let traffic flow out. … Then there are priority three cordon points. (Observations)

With regard to these practices, which match structures ready for use, the process of planning is at least as important as the resulting plan. This view is shared by many of the participants we interviewed in the IOPs and IOGs:

> 'It was clear from the outset that the police would be responsible not only for police issues, and that the Düsseldorf fire department would be responsible not only for non-police emergency response, and the arena not only for the whole of crowd management, but … that we all feel jointly responsible for security.' (I66, high-ranking senior police officer)

As another result, the practitioners also verify rather informally during the incidents whether these structures are working or not, and whether they need to be adapted. They then carry these observations into the interorganizational planning hubs where they give feedback in the recurrent meetings. This includes open discussion among the organizations involved about previously made mistakes. For example, during a meeting of the IOG 'Arena' in preparation for a soccer derby, we observed the following:

> Then, the entrance is the issue. Mr. Mills [city's soccer team representative]: 'In the last match between the two teams in December, we had problems with the coordination between the police and the [private] security service [contracted by the arena] …This time, the preliminary work at the guest entrance should run as it did at the last Cologne match.' (Observations)

In the case of respawning IOPs for large-scale events (see Table 1), practitioners would often conduct dedicated debriefing meetings after the events to be able to learn from their experiences and mistakes for the next events.

> So, these are really the classic things that happen year after year. The carnival, the Rhine Marathon, Japan-Tag, our funfair, yes, or just when we have things, I'll put it this way now, that have perhaps gone off the rails, whereby going off the rails is always meant in a smaller way, where you then say: "it's just better if we do a debriefing, that's the only way we can optimize it for the next year" (I62, undisclosed city department)

However, because of the familiarity between the practitioners of the different organizations, this kind of feedback also takes place outside the meetings in the interorganizational planning hubs. This, again, also includes open communication about 'misunderstandings or perhaps because certain procedures were not followed' (I75, FED)

4.4. The cycle of temporary-permanent coordination

Distinguishing among (1) the micro-level of temporary organizing during incidents, (2) the level of the involved permanent organizations, and (3) the level of permanent and temporary interorganizational planning hubs, we will now foreground how practices are enacted and unfold *across* the three different levels. We present two vignettes unpacking how practices interconnect.

4.4.1. Interconnected practices across levels

In this first vignette we look at the interorganizational emergency response plan "Old Town" ("Altstadt" in German). The starting point for the development of this permanent structure was a debriefing meeting of several organizations after the annual carnival – which can be understood as a respawning IOP that reactivates every year for the event.

> 'We got together in 2012 for the now already customary meeting of the fire department, the agency for public order, and the police, for an operation debriefing. … The situation of Altweiber [Carnival Thursday] in the Old Town is not dissimilar to a large-scale event. That is, we have a predictable situation, festivities, a high density of people …, and all components of a security concept are missing. That is, the thinking was: "management by let's see." And that was actually no longer appropriate in this very charged situation. … So, we had to conclude that this is a public area. So then, in this debriefing, there was the decision: "Let's create a taskforce."' (I77, high-ranking senior police officer)

This quote shows the practice of *identifying and articulating the need for new hubs* (see Section 4.2.2) enacted, which is thereby fueled by the fact that the practitioners in this debriefing are largely the same as were on scene during the carnival festivities reflecting the practice of *relying on practitioners with decision and command responsibilities* (4.2) across levels and particularly *delegating practitioners into interorganizational hubs* (4.2.1). Since these practitioners are endowed with sufficient decision responsibilities, they indeed also decided to found a new interorganizational taskforce for the development of a new interorganizational response. This taskforce constitutes a newly established IOP – hence indicating the enactment of the practice of *establishing interorganizational planning hubs* (4.1).

Into this new IOP, the involved organizations again *delegated practitioners* (4.2.1) enabling the enactment of *designing structures for day-to-day usability* (4.3) based on the first-hand experience of the practitioners:

> 'such a plan is also based to a large extent on experience. This experience has been shaped by the aid organizations [other emergency medical services such as the Red Cross], and … also reflects the practice at events…they already know from their own events that you define patient transfer points, set up first aid areas, and that the access routes are always the same. In that respect, it is 'lived' practice that is reflected in a plan.' (I27, company commander, FED)

The combination of designing structures in an interorganizational planning hub towards day-to-day usability by experienced practitioners with sufficient decision responsibility consequently led to *interorganizationally matching structures* (4.1.3) in the form of an elaborate and usable emergency response plan for the entire area of the Old Town including a shared map:

> 'The planning for the Old Town builds on two ideas: First, do not enter a space that is difficult to enter and to leave. Instead, place emergency vehicles at clearly defined transfer points, and plan who will use which access streets … Second, this plan is identical for and known to all other organizations who could be involved in an emergency.' (I9, brigade commander, FED)

This plan, therefore, constitutes a permanent structure, which was produced by a temporary project (IOP) staffed by permanent employees of the permanent organizations involved, who leveraged their on-site experiences from the temporary events (here: the Carnival festivities and the related incidents). The plan subsequently became the basis for all operations in the area of the Old Town, and for all organizations involved. We could observe this first hand in several situations, for instance, when accompanying ambulances in the Old Town.

Furthermore, the newly developed response plan "Old Town" was then used in practice by the new iteration of the respawning IOP for the Carnival, which had originally articulated the need for the plan and decided to set up a dedicated IOP to develop such plan (see remarks above). In particular, the first author observed how the plan and the map were adapted to the specific Carnival days, for instance, at an FED-internal mission briefing for the Carnival Monday:

> 'The presentation starts at 8 a.m. sharp… Then it's about the operational planning for today…The carnival procession will pass through Düsseldorf's old town. There is the response plan "Old Town" for this, which has been further specified for Carnival Monday, as the carnival procession will cut off parts of the old town from external access. There is talk of an "encirclement." Because of this, three mobile rescue stations have been set up…The "Old Town" response plan will be deviated from with regard to the routes. During the carnival procession, the routes will be determined by the control center.' (Observations)

One year later, the first author could analogously observe the joint mission briefing for the ambulance crews of the four medical service providers involved in the Carnival Monday Procession. The adapted emergency response plan "Old Town" was also prevalent here:

> Each ambulance crew is given a stack with the radio call names, the object plan 100 and the object plan 112 adapted from the emergency response plan "Old Town", the operational orders, and other information…Then the route of the carnival procession is explained. They continue: "The aim is for the patients to be handed over at the first aid stations or at the patient transfer points [from the response plan "Old Town"]"…Then reference is also made to the three mobile rescue stations that have been set up. And the route to the [undisclosed] first aid station is explained. (Observations)

Later that day, the first author also observed how the plan was enacted at this very first aid station mentioned. While most ambulances approached the first aid station according to the plan, some ambulances of one particular organization repeatedly used incorrect access routes. This, however, triggered corresponding feedback communication from the section leader for the medical services who monitored the approaches. Hence, we find the *implementing, using, and monitoring of interorganizational structures* (4.3.1) – here: the emergency response plan "Old Town" – the structures' adaptation in temporary planning efforts (here: for the Carnival) as well as their the enactment in the concrete temporary incidents (here: with most but not all ambulances approaching according to the plan).

4.4.2. Overarching consequence: an ongoing cycle of enacting and co-fabricating structures that traverses the three levels

Whereas the example of Carnival Monday and the Emergency Response Plan "Old Town" illustrate how practices and consequences are intricately connected across levels, we want to conclude our findings with another vignette, which showcases how these interconnected practices across levels become a full cycle in both directions. We begin with the following observation of the first author who was at that time waiting on stand-by to be called by a high-ranking fire commander in case of a larger incident. One night a call came and the first author was instructed to come to the main gate of a large manufacturing plant we call "BigCorp":

> At about 1:15 an FED vehicle arrives to pick me up. I greet the firefighter, get into the car with him and let him drive me across the plant area in the direction of the incident site. The firefighter in the car says that he had just gotten lost because the compound is so large, and he hopes that he will now be able to find the site directly. He succeeds. We arrive and head straight for Jack. … He walks me through the incident site and gives me a short briefing. An unknown, liquid, corrosive substance has leaked in a hall. The BigCorp's plant fire service requested assistance from the FED. Because the hall had not yet been cleared when the FED arrived, >40 affected persons were seen by the emergency medical service and four of them were taken to hospital. Some of the uninjured victims are walking around with white triage tags hanging around their necks, clearly visible. (Observations)

Drawing on this observation, we want to focus on two specific aspects that occurred: (1) the driver getting lost on the compound, and (2) the triage tags.

(1) The driver getting lost on the compound. The incident we observed of a driver getting lost occurred only four days after our ethnographer had attended an internal meeting of the FED at which several fire commanders discussed the need to update the internal response plans for incidents on the compounds of the city's larger manufacturing plants. One particular issue was the inadequacy of the maps these plans featured, which they discussed using the example of another manufacturing plant (LargeCorp):

> For the LargeCorp map, it is then discussed which objects should be on it and which not. Johann says that they are still working as in 1950, drawing circles on outdated maps, and then manually searching for endangered objects. He says everyone works with different software and uses old maps. (Observations)

Bearing in mind that the FED, only four days before the BigCorp incident, had internally discussed the outdatedness of the maps they use in such cases, the observation of the FED driver getting lost on BigCorp's compound can be seen as symptomatic. Of course, emergency responders get lost from time to time when searching for a location. However, such experiences motivate the practitioners to reconsider issues such as the design of the maps. Consequently, efforts were made to establish an IOP for the development of an improved emergency response plan/map for the larger factories in the city, including BigCorp and LargeCorp. One inspiration for these efforts was the development of the aforementioned IOP for the emergency response plan for the airport:

> 'The problem is that this plan is more of an administrative construct. … But this 800-page folder doesn't help you when … it's getting real. And we want to get the hang of making an operational digest out of this administrative document. Ten pages quick overview: what is important for me… so like a short and concise emergency response plan "airport".' (I1, deputy fire chief)

Therefore, the establishment of this interorganizational planning hub is, again, driven by the needs of the practitioners (employed by different permanent organizations) based on their experiences on the level of temporary response operations. Hence, the practice of *setting up interorganizational hubs* (4.1) is enacted in this context based on *practitioners with decision and command responsibilities* (4.2) who had *identified and articulated this need* (4.2.2) – thereby reproducing the previous enactments as in the case of the response plan "airport". The inadequacy of the maps was also a motivation for the practitioners of the police to endorse the interorganizational planning efforts to match the maps of the different organizations. As a police officer explained to us using the example of one of the city's other factories, all participating organizations had their own maps, with different gates having the same name. Hence, *designing towards interorganizational day-to-day usability* (4.3) and *interorganizationally matching structures* (4.1.3) can be identified as well:

> 'We have one map, we have one grid square, it's the same for everyone. And that already makes it easier in the initial phase of such an incident. There are no orientation problems anymore, no coordination problems.' (I76, police officer)

The new plan was finally introduced roughly two years after we had observed the driver getting lost at BigCorp. This illustrates how experiences from temporary response operations inspire practitioners to engage in adapting existing structures (rules and resources) and in co-fabricating novel structures on the interorganizational level in IOPs and IOGs, with repercussions for the organizations involved. And the more permanent structures produced this way underlie the activities in the following temporary response operations. Hence, we can identify as a final *overarching consequence, an ongoing cycle of enacting and co-fabricating structures that traverses the three levels.*

(2) Triage tags. The observation of the triage tags that many of BigCorp's employees were wearing adds another aspect. An emergency physician screens those people who were involved in the incident and then assigns a colored triage tag to each of them that indicates the medical condition afflicting each person: red, yellow, and green for different severities of injuries, and white for non-injured. Indeed, the first author could see that the BigCorp employees being evacuated were wearing white tags.

The usage of triage tags was originally a practice developed and implemented by the FED to handle mass casualties. This was also the case during our observation period. Although BigCorp has its own emergency medical service, the extent of the incident led to the FED taking over and an FED emergency physician screening the employees. A couple of months later, the first author attended the STARK meeting. During that meeting, the representative of BigCorp's emergency medical service said that they wished to be included in the FED's triage tag system:

> The BigCorp's emergency medical service representative wants to talk about triage tags. He says: "We have up to 600 employees working in the buildings. Wouldn't it make sense if we immediately handed out your tags? Because our own tags are not in your system." The FED representative then promises to work on this issue. (Observations)

This observation illustrates how practitioners also carry their experiences from the temporary incidents into the existing interorganizational planning hubs. Hence, we can find a *feedback loop* that shows that not only do permanent structures emanating from the interorganizational level affect the activities during temporary incidents, but experiences from these temporary activities also rebound onto the activities in the interorganizational hubs.

5. Discussion

Our empirical findings – interpreted from a structuration perspective on temporary organizing that conceptualizes the relationship between stability and change as a duality – provide answers to our research questions by revealing the practices on which practitioners in emergency services rely to produce permanency in and from the temporary, and vice versa. These results elucidate how organizational actors manage tensions between temporary and permanent as well as between stability and change in a way that is meaningful in context, without attempting to resolve the tensions completely.

5.1. Towards a framework of temporary-permanent organizing

The practices of establishing interorganizational planning hubs (see 4.1), of relying on practitioners with decision and command responsibilities (4.2), and of designing structures towards day-to-day usability (4.3) unfold in a cyclical manner (4.4), traversing the three levels of analysis: the micro-level of temporary organizing in situ, and the two meso-levels of the permanent organizations as well as the interorganizational planning (with the more macro-level of the field in the background). This socially highly situated and relational approach explains how practitioners avoid the problems that usually result from the more traditional approach of developing a formal plan and adapting it in situ (Pollock, 2013, 2017; Wankhade & Patnaik, 2020).

The planning hubs, established and enacted by practitioners are central for temporary and permanent organizing in the face of the duality of stability and change, as they can be either temporary (which we have called IOPs), or permanent (which we have called IOGs), or a mixture of both (see again Table 1). This is where the next identified practice becomes particularly apparent: The organizations involved delegate specific practitioners to these hubs. Doing so ensures that also on this level, practitioners carry important experiences into the planning process. This, in turn, allows for the practice of designing structures towards day-to-day usability. Such a reflection loop is usually aspired to in all kinds of planning processes, but in many cases it is not executed effectively and leads to 'paper plan syndrome' (Auf der Heide, 1989) and 'safety clutter' (Rae et al., 2018) – phenomena that are well known from project management and, together with others, led to 'rethink' and broaden the scope of the discipline (Svejvig & Andersen, 2015).

In our case, by contrast, the practitioners reflexively use the rules and resources of multiple organizations. An important aspect of this process is that the practitioners are also familiar with the permanent structures of their own organization, and can therefore determine, in the interorganizational planning process, which solutions fit their respective organizations or need further adaptation. The practitioners also carry the developed plans from the planning hubs into their permanent organizations, where they, crucially, participate in their implementation. A side effect of this practice is that practitioners meet repeatedly in these planning settings, thus creating and institutionalizing an informal familiarity that they can, on the one hand, leverage in the temporary incidents and, on the other hand, exploit to set up new interorganizational planning hubs more easily.

Drawing on these empirical insights, we offer a more general theoretical framework of this cycle of permanent structure co-fabrication via enactment and adjustment. We visualize this framework in Fig. 1 as a recursive process framework which, we believe, has relevance well beyond emergency response situations – particularly for interorganizational multi-project settings and other types of temporary organizations facing high uncertainty and rapid change affording highly situated responses. From a structurationist perspective, this figure accounts for the (re)production and transformation of rules and resources through the practices of practitioners as knowledgeable agents (Giddens, 1984); a potentially tension-ridden but in this particular case surprisingly smooth process.

The *colored circles* represent the three levels of analysis to which we paid attention in our case: (1) the level of temporary organizing in single incidents, (2) the level of permanent organizations involved in the process, and (3) the level of the interorganizational planning hubs. Our representation emphasizes recursiveness and situatedness. Between the colored circles we have put different types of arrows. The arrows represent the above-identified practices and their consequences.

1) The *double-line arrows* in the center emphasize the ongoing cycle of temporary-permanent coordination that is achieved through the practices and their consequences. The underlying factor is the overarching practice of "*relying on practitioners with decision and command responsibilities*" (see 4.2). This is enabled and restrained by rules and resources of the organizations participating in the interorganizational collaboration and works across all levels. The overarching consequence is an *ongoing cycle of enacting and co-fabricating structures that traverses the three levels* (4.4.2) – the production, reproduction, and potential transformation of rules and resources.
2) The *solid-black arrows* show the practices that can be located between levels, and the terms adjacent to the arrows explain their meaning.

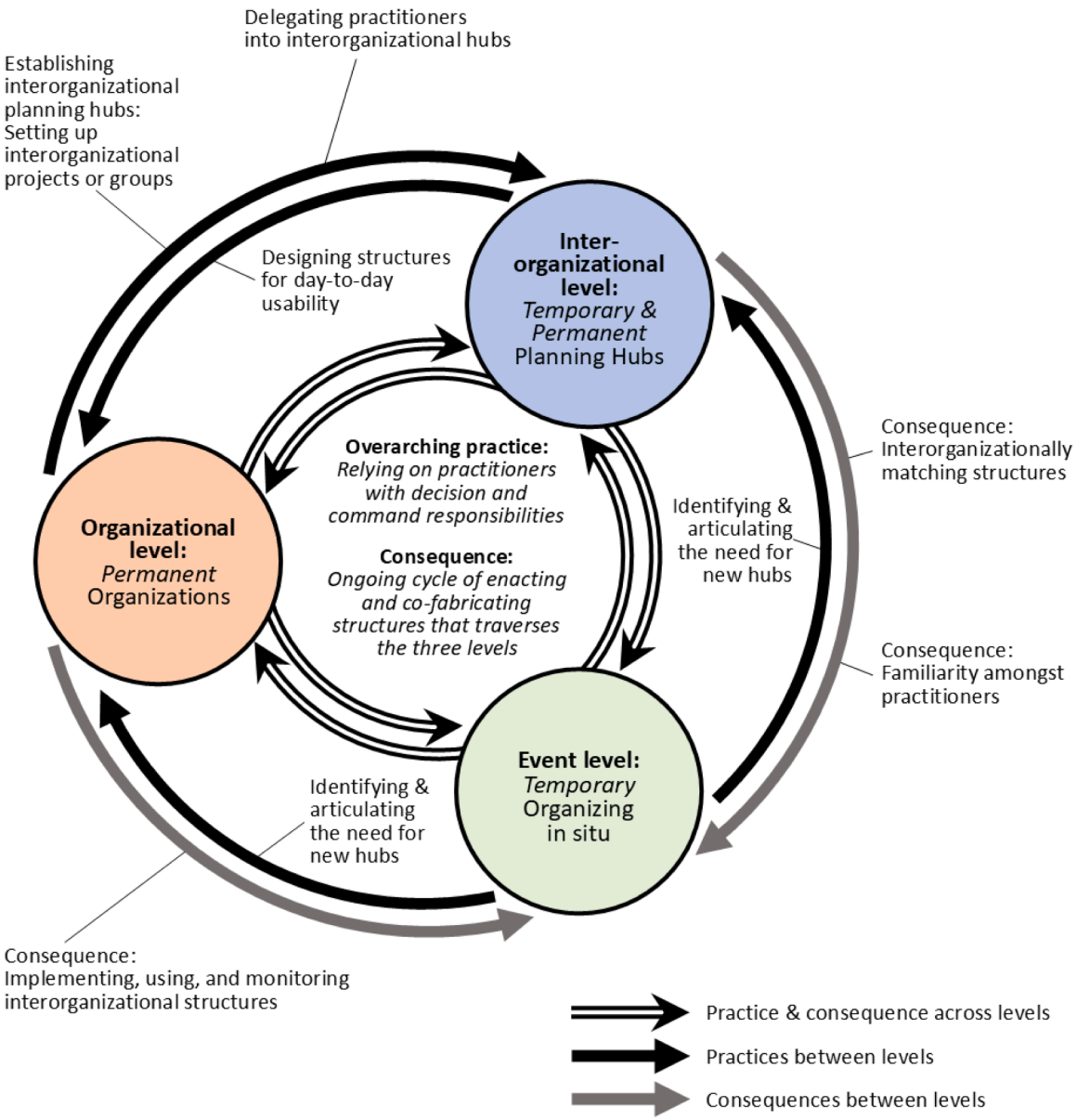


Fig. 1. The temporary-permanent cycle of organizing.

Starting from the event level, we find the practice of "*identifying and articulating the need for new hubs*" (4.2.2) – articulated first either within permanent organizations or within already existing planning hubs. This practice is the concrete materialization between levels of the overarching practice of relying on practitioners with decision and command responsibilities. Based on this practice, the practice of "*establishing interorganizational planning hubs*" (4.1) is located between the organizational and the interorganizational levels, as every interorganizational planning hub is hosted and administrated by a permanent organization. When such hubs are established, the practice of "*delegating practitioners into interorganizational hubs*" (4.2.1) is enacted. Once planning hubs have been established and practitioners delegated into them, the final practice of "*designing structures for day-to-day usability*" (4.3) becomes possible. These practices are not only carried out by practitioners as knowledgeable agents but again enabled and restrained by rules and resources.

3) Finally, the *grey arrows* indicate the identified consequences of these practices between levels, specifically, "*interorganizationally matching structures*" (4.1.3), "*implementing, using, and monitoring interorganizational structures*" (4.3.1), and the "*familiarity amongst practitioners*" (4.2.3). While the first two consequences concern the rules and resources of the organizations participating in the interorganizational collaboration, the last consequence provides practitioners with additional scope for interaction, not least for initiating the creation of new planning hubs.

We contend that mastering this temporary-permanent cycle against the background of existing and co-fabricated structures provides actors with the necessary operational flexibility and stability needed in such environments in which a variety of stakeholders are involved, problems are similarly ill-structured, and uncertain change happens rapidly – as is particularly common in large interorganizational projects (Roehrich et al., 2024). However, managing this cyclical process reliably against this background is generally not without tensions, not least with respect to resourcing issues (Auschra & Sydow, 2023). While we could not unearth such tensions in our case, uncertainties and ambiguities are likely to continue to accompany day-to-day operations, even if the process is rather smooth.

5.2. Contributions to research on temporary organizing and interorganizational projects

This study contributes primarily to the existing literature on *temporary organizing* (Bakker, 2010; Bakker et al., 2016; Burke & Morley, 2016; Kenis et al., 2009; Sydow et al., 2025). While this literature already considers the intricate interplay between the temporary and the permanent, it does so mostly with respect to the importance of permanent structures for temporary activity – even in the highly relevant contexts of disasters (Older, 2024), emerging temporary crisis organizations (Zijderveld & Kalkman, 2023), and recurring temporary organizations facing an existential crisis (Stingl & McClellan, 2023). This is also true for project studies adopting a routine dynamics perspective (as it is for research on coordination more broadly). Biesenthal et al. (2019), for instance, make use of the classic distinction between ostensive and performative aspects of organizational as well as project routines and argue that "constituent project management methodologies and associated capabilities offer a high degree of commonality and stability across similar projects and contexts (Davies & Brady, 2000), but they are assembled (i.e., configured) explicitly to allow for adaptability across different projects and contexts" (p. 352). By contrast, Hedborg et al. (2020) provide one of the few studies unearthing "inter-project routines" in multi-project environments that emerged informally and produced on a more macro level collegial relationships in an urban development project ecology. These studies, although valuable, do not address both sides of the recursive interplay between organizing the temporary in the more permanent and vice versa.

Viewed through a coordination lens, the interorganizational planning hubs in our case as well as the co-fabricated structures such as interorganizational plans act as coordination mechanisms—an organizational arrangement that brings different actors together (Okhuysen & Bechky, 2009). In this respect, our findings also acknowledge that coordination mechanisms are continually re-created in practice rather than designed once and for all (Jarzabkowski et al., 2012). Co-fabricated structures in the form of rules (e.g., interorganizational plans) and resources (e.g., matching gurneys) can in this sense also be understood as "boundary objects" between different forms of temporary and permanent organizing that create accountabilities, a degree of predictability, and a common language and understanding across the different levels of temporary and permanent organizing (cf. Okhuysen & Bechky, 2009; Beck et al., 2024).

Expanding upon earlier theorizing attempts, our practice-based study captures the recursive influence of temporary organizing on permanent structures and takes multiple levels of organizing into account (Jarzabkowski et al., 2022; Sydow & Windeler, 2020). Employing a multi-level approach – like Biesenthal et al. (2019) and Hedborg et al. (2020) – we show that in temporary organizing, more permanent structures are co-fabricated in a process involving at least three levels: the micro-level of temporary organizing, the level of permanent formal organizations (including project-based and project-supported organizations), and the level of interorganizational relations (including interorganizational projects and project networks) (cf. Lundin et al., 2015).

In the case we studied, this took the form of interorganizational planning involving a continuum from temporary to permanent hubs, where important temporary organizing takes place beyond organizing at the incident site. All this temporary-permanent organizing on and across levels must be considered against existing and eventually also co-fabricated structures on the organizational and field levels. With this practice-based multi-level approach, we explain how practitioners involved in temporary organizations enact their permanent contexts in their temporary organizing, and show how these efforts either reproduce or transform the more permanent contexts. We also have shown how practitioners navigate stability and change as a duality with respect to both the temporary and the permanent, as well as between the multiple levels. That is, on the one hand, the practitioners make changes within and across levels to achieve stable operations with the help of such changes. On the other hand, they use stable, often highly routinized operations, to allow for flexible changes (Farjoun, 2010; Feldman & Pentland, 2003). Crucially, the temporary-permanent cycle of organizing shows how stability and change cannot be located merely on either side of the duality of the temporary and the permanent. Instead, both stability and change are achieved through the interconnection of both permanent and temporary organizing. In particular, the stability of co-fabricated permanent structures is achieved through their constant reproduction in the temporary incidents. Hence, the stability of the permanent structures crucially depends on their continuous re-actualization in the temporary. In our sample, the practitioners ensured this through designing structures towards day-to-day usability. This, in turn, enables flexibility as the practitioners can rely on the functioning of permanent structures allowing them to adapt these structures in situ, and to improvise.

As we showed, engaging participants as representatives of their contexts requires particular attention to staffing, an aspect of temporary organizing often overlooked (Bakker et al., 2016). For the temporary-permanent cycle of organizing crucially relies on practitioners, and therefore, on their motivation, competencies, and particular knowledge about their (inter)organizational context (cf. Grothe-Hammer & Berthod, 2017). What is more, these practitioners need to be endowed with sufficient resources and decision autonomy. In our case study, involving practitioners at all three levels produces and institutionalizes informal familiarity among them, which is beneficial for the collaboration between different organizations on the micro-level of temporary organizing (Kim et al., 2023). As Brooks et al. (2022) argued for the case of firefighting incidents and operations, the practitioners retain their experiences and knowledge over time, and use these as a basis to adapt and innovate. Our study adds to this fundamental insight by showing how practitioners engage in this process when moving across levels and forms of organizing. In our case, the practitioners with their practices – enabled and restrained by (inter)organizational structures – provide the permanency by which the temporariness is fertilized.

5.3. Contributions to research on emergency management and planning

Our study also contributes novel insights into the classic question as to how the temporary and the permanent, and stability and change can be effectively managed in the face of *emergencies* (Faraj & Xiao 2006; Lindell, 2013; Grothe-Hammer & Berthod, 2017). Emergency planning, in our case, takes place largely on the local level, in line with extant literature (Alexander, 2005; Henstra, 2010). Typical dangers of seeking stability by producing often impractical emergency plans (Auf der Heide, 1989; Rae et al., 2018) can be avoided by performing the outlined temporary-permanent cycle. This cycle conceives stability and change as a duality allowing to organize for the temporary as well as the permanent. Towards this end, the cycle embraces the temporary emergency response operations, the more permanent formal organizations dealing with these operations, and the interorganizational planning hubs. Therefore, the cycle successfully connects the operational, change-oriented practice with stability-oriented interorganizational planning, nevertheless allowing for stability and change respectively. This explains why the planning efforts of the participants in this study did not fail as has so often been the case elsewhere (Pollock, 2013, 2017; Wankhade & Patnaik, 2020). The ongoing adaptation and co-fabrication of permanent structures within and through this cycle avoid an often-observed tendency to see emergency planning as a one-off product rather than as an ongoing process (Perry & Lindell, 2003).

Our results thus confirm insights from existing research on emergency responses indicating that practitioners need to be thoroughly involved in the planning process (Henstra, 2010; Pollock, 2013; Wankhade & Patnaik, 2020). They design, implement, monitor, and, if necessary, adapt the plans through their active involvement on the three levels of temporary incidents, permanent organizations, and interorganizational planning hubs. The overarching presence of practitioners on

all levels in our case and the fact that they are usually endowed with decision responsibilities and the resources needed, ensured that plans are designed towards usability in operations. Going beyond received insights, our research therefore suggests that these practitioners should be present at all three levels of emergency planning and management. Through their presence in emergency response operations, practitioners are also able to detect necessities for new plans and interorganizational hubs. Therefore, the inclusion of emergency practitioners on all levels also ensures that interorganizational planning efforts are sufficiently inclusive and do not include just emergency services – an otherwise typical problem identified in the literature (Pollock, 2017).

Moreover, the interorganizational planning hubs also facilitate mutual monitoring, allowing for evaluation and feedback. This aspect addresses the common issue of a lack of effective monitoring of interorganizational plans in action (Pollock, 2013). As we showed, the cycle of temporary-permanent coordination yields a constant monitoring of the enactment of more permanent structures by the practitioners. Consequently, a feedback loop has emerged, in which the practitioners of the different organizations provide each other with feedback within and beyond the interorganizational hubs. The resulting temporary-permanent cycle ensures consistency, everyday usability and compatibility, constant monitoring of effectiveness, and adaptation.

Research on emergency and crisis management has not yet paid much attention to the theory of temporary organizing (Gregg et al., 2022; Li & Song, 2023; Unterhitzenberger et al., 2024). In this regard, our study builds on research that has highlighted the importance of achieving both stability and flexibility in emergency responses (Bigley & Roberts, 2001; Brooks et al., 2022; Faraj & Xiao, 2006; Lindell, 2013; Majchrzak et al., 2007; Wolbers et al., 2018). However, it goes beyond this research by considering the co-fabrication of the more permanent across multiple levels and highlighting the need to organize for stability and change regarding both, the temporary and the (more) permanent. Moreover, while we can confirm the relevance of deliberate as much as emergent forms of organizing to secure fast responses to crises (Danner-Schröder & Müller-Seitz, 2020), in our context we did not notice a major temporal lag between fast, temporary micro-level and slow, meso-level organizing, the latter targeting more permanent structures. We try to capture this virtual simultaneity using the notion of *co*-fabrication, which may well be relevant not only for crisis management and emergency response but also for other settings such as interorganizational multi-project contexts.

6. Limitations and conclusions

Like any inquiry, this study is not without limitations. Fire and emergency services in our case were highly autonomous and appeared to be well-funded. Consequently, challenges often reported in the literature such as underfunded services, unrealistic response time targets, and overly stressed practitioners (Granter et al., 2019) were not present. These factors limit generalizability, even within the field of emergency response, and will need to be taken into account when transferring our results to temporary organizing in other settings. For pragmatic reasons, we were primarily engaged with the FED. However, it might have been informative to inquire in similar depth into related organizations when it comes to organizing at the interface between the temporary and the permanent. In any case, we feel that the challenges arising from temporary and permanent organizing merit further attention – in particular for emergency-related settings but also in other organizations facing time pressures. Beyond this focus on a particular temporality, it would be worthwhile to inquire more closely into the different facets of temporality, as emphasized in recent work on time and temporality in organization studies (Reinecke et al., 2021) and on projects and other forms of temporary organizing (Geraldi et al., 2020; Rajan et al., 2024; Vaagaasar et al., 2023).

Despite these limitations we think that our study has enhanced our understanding of both the role of more permanent structures for temporary organizing and also, and in particular, of how such structures are co-fabricated in the process of temporary organizing in light of the duality of stability and change. Furthermore, we have clarified the role of this duality for constituting the temporary as well as the more permanent in a cycle of situated and recursive enactment and adjustment.

CRediT authorship contribution statement

Michael Grothe-Hammer: Writing – review & editing, Writing – original draft, Visualization, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Olivier Berthod:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Gordon Müller-Seitz:** Writing – review & editing, Writing – original draft, Project administration, Investigation, Funding acquisition, Conceptualization. **Jörg Sydow:** Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Investigation, Funding acquisition, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

The author Jörg Sydow is a Guest Editor and Strategic Advisory Board Member for this journal and was not involved in the editorial review or the decision to publish this article.

Acknowledgements

We gratefully acknowledge generous funding from the German Research Foundation (DFG; Grant SY32/6-2). We would also like to thank Associate Editor Christine Unterhitzenberger and the three anonymous reviewers for their invaluable feedback and guidance throughout the review process. Furthermore, we are grateful for the insightful comments and suggestions received from participants at the IRS Spring Academy 2021 at the Leibniz Institute for Research on Society and Space in Erkner, Germany; the NEON Conference 2023 in Trondheim, Norway; a presentation at the Centre for Organization and Time (COT) at Copenhagen Business School in Denmark in November 2023; the IRSPM Conference 2024 in Tampere, Finland; and the EURAM Conference 2024 at the University of Bath, United Kingdom.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.ijproman.2025.102768.

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