The Practice of Planning for Transit Station Districts

Two Qualitative Case Study Analyses of Cross-Sectoral and Cross-Scale Planning in Switzerland

Stefan Markus Müller

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THE PRACTICE OF PLANNING FOR TRANSIT STATION DISTRICTS:
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CROSS-SCALE PLANNING IN SWITZERLAND

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Preface

This thesis is a cumulative dissertation composed of the following three research articles submitted for publication or published in peer-reviewed academic journals:


I included the three articles in the thesis without changing their contents. I adapted their formatting and streamlined abbreviations to ensure consistency throughout the thesis, updated web references, and combined the previous article-specific reference sections into one section for the entire dissertation. The writing style and wording may vary with articles targeting different academic communities. Regarding their contents, particular article sections and appendices are repetitive, as the research project, empirical case studies, and data collection methods were the same for the three studies.

The thesis is structured as follows. Section 1 introduces my research and provides an overview of the relevant theories and concepts. Section 2 presents the context, approaches, methodology, and strategy used for the thesis. Sections 3, 4, and 5 contain the three research articles STUDY I, STUDY II, and STUDY III. Finally, I discuss the implications, suggestions, and limitations of the findings in Section 6 and conclude the thesis in Section 7.
Meinen Eltern gewidmet. Dedicated to my parents.

“Seja paciente – cresça diariamente” (Kai Asa Savon “Sângo” Wright).
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<thead>
<tr>
<th>Abbreviation (in alphabetical order)</th>
<th>Explanation</th>
</tr>
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<tbody>
<tr>
<td>armasuisse</td>
<td>Federal Office for Defence Procurement</td>
</tr>
<tr>
<td>BG Bern</td>
<td>Burgergemeinde Bern</td>
</tr>
<tr>
<td>BLS</td>
<td>Bern-Lötschberg-Simplon Railway</td>
</tr>
<tr>
<td>CC BY 4.0</td>
<td>Attribution 4.0 International</td>
</tr>
<tr>
<td>CC BY-SA 2.0</td>
<td>Attribution-ShareAlike 2.0 Generic</td>
</tr>
<tr>
<td>cf.</td>
<td>Cōnfert (compare)</td>
</tr>
<tr>
<td>COVID-19</td>
<td>Coronavirus disease 2019</td>
</tr>
<tr>
<td>e.g.</td>
<td>Exempli gratia (for example)</td>
</tr>
<tr>
<td>EPF</td>
<td>École Polytechnique Fédérale</td>
</tr>
<tr>
<td>ETH</td>
<td>Eidgenössische Technische Hochschule</td>
</tr>
<tr>
<td>ewb</td>
<td>Energie Wasser Bern</td>
</tr>
<tr>
<td>EZP</td>
<td>Entwicklungszielplan</td>
</tr>
<tr>
<td>FEDRO</td>
<td>Federal Roads Office</td>
</tr>
<tr>
<td>FOBL</td>
<td>Federal Office for Buildings and Logistics</td>
</tr>
<tr>
<td>FOT</td>
<td>Federal Office of Transport</td>
</tr>
<tr>
<td>i.e.</td>
<td>Id est (that is)</td>
</tr>
<tr>
<td>km</td>
<td>Kilometers</td>
</tr>
<tr>
<td>m</td>
<td>Meters</td>
</tr>
<tr>
<td>N</td>
<td>Number</td>
</tr>
<tr>
<td>RBS</td>
<td>Regional Transport Bern-Solothurn</td>
</tr>
<tr>
<td>RES</td>
<td>Räumliche Entwicklungsstrategie</td>
</tr>
<tr>
<td>RKBM</td>
<td>Regionalkonferenz Bern-Mittelland</td>
</tr>
<tr>
<td>RQ</td>
<td>Research question</td>
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<tr>
<td>SBB</td>
<td>Swiss Federal Railways</td>
</tr>
<tr>
<td>TD</td>
<td>Transdisciplinary</td>
</tr>
<tr>
<td>TOD</td>
<td>Transit-oriented development</td>
</tr>
<tr>
<td>WP</td>
<td>Work package</td>
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<tr>
<td>ZBS</td>
<td>Zentrale Baustelle</td>
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Abstract

Problem: The districts surrounding transit stations have great potential to support integrated development in the urban planning–transportation nexus. Thus, they help make public transport and sustainable transportation modes more attractive and enable the sustainable use of increasingly scarce surfaces and spaces in municipalities, increasing people’s well-being, place attachment, and perceived safety. However, the planning practices needed to realize this potential and align multiple actors and their formal and informal perspectives, procedures, and routines across various sectors and planning scales have remained poorly institutionalized, contested, and largely unexplored.

Aim: This thesis strives to unpack current practices for planning station districts, following a conceptual framework that views novel planning processes on their paths to potential institutionalization. Three studies tackle my research questions by applying different lenses informed by new institutionalist, network governance, and power resource and relation theories. I combine the study-specific findings in an analytical overview from which I derive implications and suggestions for practice and research.

Methods: My research underlies constructivist assumptions derived from transdisciplinary sustainability research and planning theories. In line with this, I adopt a thematic analysis approach to qualitative social scientific research, producing themes based on iteratively coded interviews, observations, and documentation materials from two empirical case study station districts in Switzerland. The data collection and interpretation are contextually embedded in a transdisciplinary research project with Swiss Federal Railways, to which I am a former insider because of my previous employment. Due to my project engagement, I deconstruct current planning practices from inside the processes and contexts in which they occur.
**Results:** Actors launch station district planning processes as networks to foster horizontal development integration, addressing the lack of institutional structures. These processes are implemented despite diverging from institutionalized practices in local planning contexts. Actors do not redevelop their prevailing practices to align with novel processes, so these processes continue to layer over rather than effectively translate into station districts’ existing and future developments. The processes’ persistent novel, informal, and strategic traits thus offer actors ways to dominate planning domains outside traditional jurisdictions without formally trespassing on the legal sovereignty of other actors.

**Conclusions:** Development concertation in station districts remains a strategic aim of actors, without them aligning operational resources and local projects accordingly. Therefore, planning authorities and public transport agencies should provide other practitioners with streamlined information on station district planning and communication platforms to promote the benefits of allocating resources to the perimeters’ integrated and networked cultivation. Despite the value of cross-context exchange and learning, determining the appropriate timing for launching a station district planning process must emerge from a network of actors firmly rooted in the respective local planning contexts.

**Keywords:** institutional change; institutional interaction; institutionalization; multi-actor collaborations; network governance; planning practice; planning theory; power relations; power resources; qualitative case studies; thematic analysis; transdisciplinary sustainability research; transit-oriented development; transit station districts; urban planning–transportation nexus
Zusammenfassung

Problemstellung: Die Quartiere rund um Bahnhöfe haben ein grosses Potenzial, die integrierte Entwicklung im Nexus zwischen Stadtplanung und Verkehrswesen zu unterstützen. So tragen sie dazu bei, den öffentlichen Verkehr und nachhaltige Verkehrsmittel attraktiver zu machen und die nachhaltige Nutzung der immer knapper werdenden Flächen und Räume in Gemeinden zu ermöglichen, was das Wohlbefinden, die Bindung an den Ort und das Sicherheitsempfinden der Menschen erhöht. Die Planungspraktiken, die erforderlich sind, um dieses Potenzial zu realisieren und die verschiedenen Akteur:innen und ihre formellen und informellen Perspektiven, Verfahren und Routinen über verschiedene Sektoren und Planungsebenen hinweg in Einklang zu bringen, sind jedoch nach wie vor kaum institutionalisiert, umstritten und weitgehend unerforscht.


Methodik: Meine Forschung basiert auf konstruktivistischen Annahmen aus der transdisziplinären Nachhaltigkeitsforschung und Planungstheorien. Im Einklang damit wende ich einen thematischen Analyseansatz für die qualitative sozialwissenschaftliche Forschung an, welcher auf der Grundlage von iterativ kodierten Interviews, Beobachtungen und Dokumentationsmaterialien aus zwei empirischen Fallstudien-Bahnhofsquartieren in der Schweiz Themen produziert. Die Datenerhebung und -interpretation sind kontextuell


Schlagworte: Bahnhofsquartiere; Institutionalisierung; Institutionelle Interaktion; Institutioneller Wandel; Machtressourcen; Machtverhältnisse; Multi-Akteurs-Kollaborationen; Netzwerk-Governance; Planungspraxis; Planungstheorie; Qualitative Fallstudien; Städteplanungs-Transportwesen-Nexus; Thematische Analyse; Transdisziplinäre Nachhaltigkeitsforschung; Transitorientierte Entwicklung
1 Introduction and scientific and conceptual starting points

This section introduces the societal dimension in which the thesis is situated, the relevant scientific background, and my research with its conceptual framework.

1.1 Societal dimension: How can Swiss railway stations and their surroundings be developed as mobility hubs?

Swiss Federal Railways (SBB) is a joint stock company under public law, owned and regulated by the Swiss Confederation, with around 30,000 employees. SBB fulfills the most essential service obligations in the Swiss public transport domain, transporting over 1 million passengers and providing one of Europe’s densest public transport services jointly with other operators. SBB de facto has a monopoly on Switzerland’s long-distance public transport services, covers large parts of regional railway services, and substantially develops and maintains the Swiss railway network (UVEK, 2016).

As a so-called integrated railway agency, SBB manages and develops portfolios of railway stations and properties close to the stations. SBB previously used the latter for railway operations management, which the Confederation later legally released for area development. SBB spends the returns from these developments to support its railway infrastructures’ maintenance and expansion and its employees’ pension fund (SBB, 2021).

SBB’s 2030 target vision assigns railway stations a pivotal role in increasing the company’s flexibility to align thoroughly with customer needs and spatially integrate various transportation modes. Hence, with Swiss cantons and municipalities, SBB intends to develop railway stations and their surroundings as mobility hubs,\textsuperscript{1} including station access points, shared mobility service zones, and adjacent neighborhoods (including SBB properties). Strategically, SBB’s developmental priorities encompass creating sustainable and livable

\textsuperscript{1} Translated from the German Verkehrsdrehscheiben (cf. ARE, 2021b).
station districts, intensifying land use for compact suburban areas and regional population centers, and increasing the modal split in favor of public transport through more efficient and new transfers (SBB, 2021).

A standardized approach to these priorities is implausible; approximately 800 SBB railway stations operate throughout Switzerland, ranging from the principal and secondary hubs in the main centers and agglomerations to more peripheral regional hubs. Therefore, to receive guidance on how planners can facilitate and improve the development of railway stations and their surroundings as mobility hubs, SBB launched the transdisciplinary (TD) research project Co-Creating Mobility Hubs with ETH Zurich and EPF Lausanne in 2020, on which this thesis is based (cf. Section 2.1.1). I led a work package (WP) called Actors in the project, which pursued the following goals (Müller et al., 2022):

- Deepen the common understanding of mobility hubs and their development perimeter within SBB and with relevant actors at the federal, cantonal, and

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**TD research project context in brief**

Co-Creating Mobility Hubs lasted two years, from May 2020 to April 2022, and included three WPs (Actors, Society, and Space) and three SBB railway stations as primary empirical sites (Bern Wankdorf, Nyon, and Ostermundigen). While SBB’s Real Estate division provided the steering committee chair and project leader, Co-Creating Mobility Hubs overall balanced project involvements of the other two company divisions (Passenger and Infrastructure) and the four research groups from ETH Zurich and EPF Lausanne.

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2 While the Co-Creating Mobility Hubs project operated with the term “mobility hubs” (referring to SBB’s 2030 corporate strategy), this thesis uses the term “(transit) station districts” to balance transportation (infrastructural) and spatial aspects that this development perimeter implies (a station and its surroundings; cf. Section 1.3.1). Moreover, I choose this term based on my approach to the academic literature that underpins the thesis (cf. Section 1.2).
municipal administration levels and other public transport and mobility service providers.

- Devise conceptual models and heuristical methods to develop railway stations and their surroundings as mobility hubs with the collaboration of SBB and other actors.

1.2 Scientific background: Transit-oriented development and stations’ node and place dimensions

Across the globe, cities and large municipalities take action to integrate spatial and settlement development with transportation planning (Cervero, 1998; Dittmar & Ohland, 2004). The reasons for this are sustainability-driven in many cases. These reasons emphasize how increasing transit, accessibility, and quality of stay support the lasting use of increasingly scarce urban surfaces and spaces (Creutzig et al., 2016; Qviström & Bengtsson, 2015).

These arguments can be traced to the transit-oriented development (TOD) concept, first introduced by Calthorpe (1993), to find alternative designs for American suburban areas to tackle urban sprawl and the dominance of private cars. TOD implies that urban development should concentrate on a perimeter radius of roughly 400 to 800 meters around mass transit access points, such as transit corridors and stations, to increase public transport attractiveness and conserve spatial connectivity when expanding settlements (Ewing, 1997; Guerra et al., 2012). However, relevant initiatives by planners do not necessarily occur under the TOD label, and related approaches exist, including new urbanism, smart growth, and the compact city (Chapple & Loukaitou-Sideris, 2019; Dieleman & Wegener).

TOD tenets stress the role and potential of transit stations for integrated urban planning (Chapple & Loukaitou-Sideris, 2019; Rookwood & Breheny, 1993). This underpins a research avenue to unravel which station designs exploit such potential (e.g., Papa & Bertolini, 2015; Reusser et al., 2008; Zemp et al., 2011a), which Bertolini’s (1996a, 1996b)
node-place model has substantially shaped in Europe. The model understands well-designed accessibility as a function of the transportation node and attraction place that, for example, a railway or tramway station can provide (Bertolini & Spit, 1998).

Underpinning the node-place model’s assumptions, Bertolini (1999) stated that stations and their surroundings (station districts) are “where many, different people can come, but also…where many, different people can do many different things” (p. 201; Bertolini & Dijst, 2003). While node denotes the “potential for physical human interaction” based on a station’s technical accessibility due to the transportation infrastructure and services available, place refers to the “actual realisation” of this potential because people indeed visit the district due to the activities they can do there (Bertolini, 1999, p. 201). Bertolini (1999) assumed that after moving between unstable ideal-typical situations, a station balances place and node dimensions in the long term, enabling an accessible node with an evenly accessible place.

1.3 My research: The practice of planning for transit station districts

This section clarifies the research gap that the thesis tackles, the research questions (RQs), and the conceptual framework for doing so.

1.3.1 Research gap: How can station districts be planned and the challenges involved overcome?

The term “station [district]” emphasizes the place dimension and expanded development perimeter around a station, which, in the railway case, can be described as “[a]ll the built and open spaces, together with the activities they host, contained within the perimeter designed

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3 The original term used by Bertolini and Spit (1998) is “station [area]” (p. 13). I use the term “(transit) station district” to make explicit that the perimeter being considered goes beyond the surfaces and spaces between a station’s access points and transit platforms (Bertolini, 1999) and includes adjacent neighborhoods with their area developments. In addition, I differentiate my use of district from an administrative district into which a region is divided for official purposes (Macmillan Dictionary, 2023b).
by a ‘walkable radius’ centred on the railway station building, as amended to take account of case-specific physical-psychological, functional-historical and development features’’ (Bertolini & Spit, 1998, p. 13). In contrast to the node dimension, the place dimension has experienced a more pronounced shift in its conceptualization and operationalization by node-place model scholars and practitioners (Caset, 2019). For instance, studies increasingly include built environment design indicators and investigate their effects on a station district’s ridership (e.g., Kamruzzaman et al., 2014; Provincie Noord-Holland & Vereniging Deltametropool, 2013; Vale, 2015).

Other studies on the node-place model raise challenges that this perimeter development implies for collaboration among actors⁴ (e.g., Bertolini et al., 2012; Stadler Benz & Stauffacher, 2023; Zemp et al., 2011b). It entails substantial integration and coordination efforts across multiple (project) foci that cross-cut various sectors, planning scales, and administration levels.⁵ However, the necessary planning practices⁶ to overcome these challenges have remained largely unexplored, resulting in a research gap on how planners can orchestrate various actor perspectives, procedures, and routines in a shared direction in an expanded development perimeter.

These practices may be undertheorized because coherent development trajectories for station districts are indistinctly framed in tradition. This can be traced back to a fragmented policy groundwork that poorly governs the required multi-actor collaborations (Banerjee, 2023).

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⁴ I refer to actors as individuals who make decisions and act as members of organizations, including projects, companies, and other administration types (Burton et al., 2020).
⁵ Urban planning, transportation, and real estate are examples for different sectors; local, regional, and national scales for different planning scales; and municipal, cantonal, and federal levels for different (Swiss) administration levels (Schenkel & Plüss, 2021).
⁶ In brief, I understand planning practices as a set of diverse activities that partitions “the life-world of planning” and can be contingently framed by its “epistemic object” (e.g., space, transportation, the urban fabric; Alexander, 2016, p. 93; cf. Section 2.1.3).
2022; Blad et al., 2022; Weustenenk & Mingardo, 2023). Relevant planning processes typically overlap multiple statutory planning systems (to which single development projects report based on the applicable laws and jurisdictions), thus producing declarations of intent rather than legally binding plans and having a novel, strategic, and “informal” character (Albrechts & Balducci, 2013, p. 25; Healey, 1997).

While previous research discusses planning forms dedicated to similar spatial imaginaries, where actors interact beyond sectoral structures at the regional level (e.g., Blad et al., 2022; Granqvist et al., 2021; Nadin et al., 2021), pertinent studies on transit station districts are lacking. Researching the “station-district case” would be all the more educative because local statutory planning authorities, such as cities and large municipalities, play a more formative role than in regional planning. This extends the cross-scalability of collaborations with actors at superordinate scales, including federal administration offices and national railway agencies (Stadler Benz & Stauffacher, 2023; Wallsten et al., 2021).

1.3.2 Aim and research questions: Unpacking current practices for planning station districts

This thesis addresses the research gap from Section 1.3.1 by unpacking current planning practices for station districts to produce an analytical overview, practical recommendations for process organizers and decision-makers, and directions for what established literature strands could learn from the “station-district case.” To guide my research and form the three

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7 A concrete example of such a planning process is the test-planning method; it is a procedure conducted in an ad hoc organization, enabling actors to conduct a dialogue over competing solutions to complex spatial and infrastructural problems (Scholl, 2017).

8 I refer to spatial imaginary as a selective mental map that actors have to simplify and reduce real-world spatial complexity. Referring to Jessop (2012), imaginaries have normative functions; they “help to construct the reality that they purport to map” (p. 17) and typically suggest actions for spaces with development potential, such as station areas (Bertolini & Spit, 1998), city-regions (Granqvist et al., 2021), and the railopolis (Banerjee, 2022).

9 I understand process organizers as the actors who organize and lead a novel process to plan a given station district.
overarching RQs to be tackled by each study, I applied three different theoretical lenses, as shown in Table 1. The theoretical lenses jointly form a conceptual framework that I outline in Section 1.3.3, elucidating the interlinkages between the three lenses and how they help to reach the aim of this thesis.

1.3.3 Conceptual framework: Station district planning on the path toward institutionalization

To unpack the current planning practices for station districts, this thesis examines the related planning processes during multiple sections of their paths toward potential institutionalization. By viewing station district planning as potentially institutionalized, I apply a theoretical lens of new institutionalism (March & Olsen, 1983; STUDY I). It underpins the thesis’s entire conceptual framework and, thus, the other two lenses (STUDY II and STUDY III) that deepen specific points of interest. New institutionalism deals with the
phenomenon of institutions,\textsuperscript{10} how they may change their functions as rules over time, and how actors comply and align their behaviors with institutions (Sorensen, 2017).

The institutionalist approach to station district planning developed symbiotically with my involvement as a WP leader in the Co-Creating Mobility Hubs project. This resulted from an exploratory problem-framing phase jointly with SBB. During this period, I started collecting data for this thesis and completed the first analysis iterations while exploring different strands of academic literature. Empirically, the planning processes I investigated in the project were poorly institutionalized, contested among the participating actors, and inadequately integrated with their existing organizational, sectoral, and scale-specific practices. Therefore, the strand of new institutionalism and its previous contributions to planning studies (e.g., Alexander, 2005; Buitelaar et al., 2011; Granqvist et al., 2021) have inspired meaningful conceptual starting points to structure the preliminary problems identified, which I explain in the following paragraphs.

STUDY I applies the new institutionalist lens mentioned to address the overarching RQ, “How institutionalized is station district planning?” and is included in Section 3. Novel planning processes must be reflected in social and cultural patterns of expectations – thus, they are institutionalized – to change the everyday behaviors of actors (Buitelaar et al., 2017). Hence, attention is drawn to the interactions of a novel process with institutionalized practices that prevailingly shape actors’ behaviors (Lipsky, 1980). The greater the congruence of the process with existing institutions in planning,\textsuperscript{11} the more likely it becomes institutionalized (Buitelaar et al., 2011; Meijer & Van Der Krabben, 2018).

\textsuperscript{10} Institutions are referred to as “…the humanly devised constraints that shape human interaction” (North, 1990, p. 3) and include “…not just formal rules, procedures or norms, but the symbol systems, cognitive scripts, and moral templates that provide the ‘frames of meaning’ guiding human interaction” (Hall & Taylor, 1996, p. 947).

\textsuperscript{11} In planning, institutions may underpin practices in the forms of planning laws, written procedures, policy reports, local cultural traditions, social appropriateness, shared beliefs, and implicit expectations (Meijer & Van Der Krabben, 2018; W. R. Scott, 2013).
When novel planning processes interact with institutionalized planning practices, they may indicate emerging institutional changes. As actors track, reproduce, and reinterpret institutions in dialogue with others during a novel process, they can drive incremental change to align the process with social and cultural acceptability (Buitelaar et al., 2011; V. A. Schmidt, 2008). Applying this analytical framework to station district planning, STUDY I aims to answer the following study-specific RQs:

- How do station district planning processes interact with institutionalized planning practices?
- Which signals for emerging incremental change in institutionalized planning practices are identifiable?

STUDY II applies a theoretical lens of network governance to tackle the overarching RQ, “What is the role of actor networks in initializing station district planning?” and is included in Section 4. As I explored novel processes through Co-Creating Mobility Hubs, I noticed how an initial actor network was typically responsible for promoting and introducing these processes to a large collective of actors to bridge a governance gap previously identified in station district planning.

Governance involves creating and adhering to the institutions on which actors follow and base their behaviors (Hirschhorn et al., 2020). It emphasizes institutions’ function as societal rules, addressing “the complex processes and interactions that constitute patterns of rule” (Bevir, 2011, p. 2). In planning, governance traditionally deals with the vertical and top-down alignment of processes between different scales and administration levels, neglecting

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12 In STUDY I, STUDY II, and STUDY III (cf. Sections 3, 4, and 5), I refer to the respective analytical framework as (study-specific) conceptual framework. They are not to be confused with the conceptual framework of the entire thesis, which is the subject of this section and encompasses the three analytical frameworks.
horizontal and bottom-up integration across multiple sectoral policies (Hansson, 2020; Nadin et al., 2021).

In contrast, network governance has occurred as an effective bottom-up mode in the absence of dedicated top-down processes and jurisdictions. It refers to how an informal actor network\(^\text{13}\) emerges as a guiding structure to support both vertical and horizontal process integration (Mu & De Jong, 2016; Provan & Kenis, 2008). Applying this analytical framework to station district planning, STUDY II strives to address the following study-specific RQs:

- What are the governance challenges of station district planning?
- How do actor networks form to respond to governance challenges?

STUDY III applies a theoretical lens of power resources and relations to answer the overarching RQ, “Which power resources and relations are characteristic of station district planning?” and is included in Section 5. My preliminary empirical project work indicated that the extended cross-scalability of station district collaborations induced dynamics peculiar to novel planning processes. This was due to the imbalanced power relations perceived between, for instance, SBB and a rural municipality, whose public administration follows and upholds the militia principle.

Institutions and the sectoral and local planning cultures building upon them\(^\text{14}\) can enhance and constrain different kinds of power\(^\text{15}\) resources (Reimer, 2013). Structural power

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\(^{13}\) I understand an informal actor network as an open-ended, cross-sectoral group of actors with a shared commitment to mutual exchange but without following a formally prescribed process (Huggins & Thompson, 2022).

\(^{14}\) Referring to Buitelaar et al. (2011) and Meijer and Van Der Krabben (2018), planning cultures relate to institutions, as a particular planning culture involves a set of (informal) institutions specific to an actor group from a particular organization, sector, or planning scale. Planning cultures encompass specific planning artifacts, processes, tools, and the socially constructed meanings that they carry (Knieling & Othengrafen, 2015).

\(^{15}\) Power denotes “…persons, assets, materials or capital used to realize a certain goal, including human, mental, monetary, artifactual and natural resources…” (Avelino & Rotmans, 2011,
refers to actors’ given resources that are activatable during bargaining, including intellectual, physical, and financial resources, and favoring laws and rules (Wolff, 2020). As a tactical response, when facing power from others, actors deploy behavioral power using skills, knowledge, and alliance-forming capacities (Pfetsch & Landau, 2000).

The resulting power relations must be well anticipated and understood. They are more likely to be one-sided than symmetric in collective bargaining and thus jeopardize broad-based planning outcomes (Flyvbjerg, 1998; Wolff, 2020). Applying this analytical framework to station district planning, STUDY III aims to tackle the following study-specific RQs:

- Which power resources are characteristic of station district planning?
- How do actors respond when they face power in station district planning?

The analytical frameworks of STUDY I, STUDY II, and STUDY III cover different path sections toward potential institutionalization to thoroughly unpack current practices. In the Co-Creating Mobility Hubs project, deepening the actors’ common understanding of the examined planning processes led to a conceptual pathway model in the final report. I adopted this model to illustrate in Figure 1 how the thesis’s conceptual framework involves these path sections.

Figure 1 mainly exemplifies a simplified planning context with parts of the underlying institutional system, which revolve around the path of a novel planning process toward potential institutionalization. The figure region around displays the formation of an initial actor network that typically vouches for introducing a novel planning process to this context, delivers advance services in favor of the large collective of participating actors, and brings

\[ \text{loosely translated from the German Transformationsprozessmodell (cf. Müller et al., 2022).} \]

\[ \text{I refer to institutional system as a context-specific landscape that contains the plethora of relevant institutions and can be partitioned into micro, meso, and macro abstraction levels (Alexander, 2005; V. A. Schmidt, 2008).} \]
the process into the arenas. STUDY II covers the section from forming the initial network and initializing the process to cultivating short-term network governance.

The figure region around ❷ represents an exemplary local arena\(^\text{18}\) in which the novel process interacts with institutionalized planning practices, resulting in divergent or convergent interactions due to varying levels of congruency. The additional actors participating in this arena behave following institutions specific to their groups’ practices; prevailing institutions can mean different things to different audiences. Thus, actors must subliminally and repeatedly endorse the novel process to stabilize it as a planning practice, considering it in social exchanges until routine. The figure region around ❸ outlines how this

\(^{18}\) According to Wolff (2020), planning is “not defined in one arena but during several parallel processes of decision-making. They take place in diverse communicative settings…that involve different actors” (p. 2216). Hence, Figure 1 includes a simplification by implying that a novel process’s interactions occur in one single arena.
may imply a potential for incremental change in the existing institutional system to promote congruency, to which actors contribute through a reinterpretation of their practices.

STUDY I covers the section from characterizing interactions of the novel process with institutionalized practices to identifying signals for institutional change due to the process’s potential institutionalization. STUDY III deepens this section, focusing on power relations in institutional interactions. However, this coverage is slightly offset by unraveling how actors use power resources during local process initializations and neglecting signals for institutional change during process stabilizations.
2 Research context, approaches, methodology, and strategy

This section substantiates the thesis’s scientific and conceptual starting points with the context, approaches, methodology, and strategy for my research.

2.1 Research context and approaches: Project embeddedness and assumptions

This section clarifies my research’s project embeddedness, assumptions derived from TD sustainability research and planning theories, and the symbiotic relationship between context and approaches.

2.1.1 Co-Creating Mobility Hubs project context

My research is based on a subset of the data I collected as the leader of the Actors WP in the Co-Creating Mobility Hubs project. The project lasted two years, from May 2020 to April 2022, and included three WPs (Actors, Society, and Space\(^{19}\)) and three SBB railway stations as primary empirical sites (Bern Wankdorf, Nyon, and Ostermundigen\(^{20}\)). While SBB’s Real Estate division provided the steering committee chair and project leader, Co-Creating Mobility Hubs overall balanced project involvements of the other two company divisions (Passenger and Infrastructure) and the four research groups\(^{21}\) from ETH Zurich and EPF Lausanne.

A core team of eight – four scholars and four SBB employees – was responsible for most of the operational project work, including collecting and analyzing empirical data, developing and testing models and methods, and learning and reflecting on knowledge integration and project impact (Müller et al., 2022). Moreover, the project work stimulated several bachelor’s and master’s theses, out of which two master’s theses were conducted.

\(^{19}\) Translated from the German Akteur:innen, Gesellschaft and Raum (cf. Müller et al., 2022).

\(^{20}\) The selection of the primary project sites resulted from a management decision by SBB.

\(^{21}\) The four groups were the USYS TdLab, Spatial Development and Urban Policy group, Institute of Science, Technology and Policy (all ETH Zurich), and the Habitat Research Center (EPF Lausanne).
under my supervision (cf. Dunkel, 2020; Eisenring, 2021). To unravel the symbiotic relationship between Co-Creating Mobility Hubs and this thesis, I outline the project’s approach to TD sustainability research and its mark on my research in the following paragraphs (cf. Section 2.1.2).

2.1.2 Approach to transdisciplinary sustainability research

With the normative concept of sustainability\(^{22}\) as its epistemic object,\(^{23}\) sustainability research questions traditional ways of knowledge production that aim for objective and value-free explanations from monistic worldviews (Grunwald, 2004; Potthast, 2015). Instead, it emphasizes the entanglement of science and society and stresses redesigning their interfaces. This includes rethinking approaches to societal actors’ roles and participation in science and their contribution to that dimension, which, in tradition, still left scholars in charge of knowledge production (Funtowicz & Ravetz, 1993; Gibbons, 1999).

Tackling contemporary sustainability challenges requires research processes that involve societal actors and their knowledge beyond the traditional ways of doing justice to the uncertainty, ambiguity, and value-ladenness of the underlying societal dimensions (Cornell et al., 2013; Head & Alford, 2015; Reid et al., 2010). Against this backdrop, transdisciplinarity\(^{24}\) emerged as a field that brought forward an actor-oriented research approach that relates societal with scientific problems; it produces new knowledge by integrating different scientific and extra-scientific insights; [and] its aim is to contribute to both societal and scientific progress” (p. 8) and integration as “the cognitive operation of establishing a novel, hitherto non-existent connection between the distinct epistemic, social[-]organizational, and communicative entities that make up the given problem context” (pp. 8-9).

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\(^{22}\) According to the Brundtland Report (cf. WCED, 1987), sustainability connects development with environment, merging into sustainable development that describes “development that meets the needs of current generations without compromising the ability of future generation to meet their own needs” (p. 54). Highlighting the terms’ normativity and interpretative flexibility, Kemp and Martens (2007) concluded that sustainability and sustainable development draw on the “social consensus on what we consider to be unsustainable and what constitutes progress, perspectives that will differ across nations and localities” (p. 7).

\(^{23}\) Epistemic objects are “objects of knowledge,” and they can be real-objective natural things or scientifically generated cognitive-cultural artifacts (Alexander, 2016, p. 190; Knorr-Cetina, 2000).

\(^{24}\) Referring to Jahn et al. (2012), I view transdisciplinarity as “a critical and self-reflexive research approach that relates societal with scientific problems; it produces new knowledge by integrating different scientific and extra-scientific insights; [and] its aim is to contribute to both societal and scientific progress” (p. 8) and integration as “the cognitive operation of establishing a novel, hitherto non-existent connection between the distinct epistemic, social[-]organizational, and communicative entities that make up the given problem context” (pp. 8-9).
approach. A constituting feature of this approach is the integration of societal knowledge for knowledge co-production by science and society (Jahn et al., 2012; Jantsch, 1970).

The TD approach to sustainability research, which the Co-Creating Mobility Hubs project followed, can be briefly explained using the design principles by Pohl and Hirsch Hadorn (2007). They include (1) reducing complexity by specifying the need for knowledge and identifying the people involved, (2) achieving effectiveness through contextualization, (3) achieving integration through open encounters, and (4) developing reflexivity through recursiveness. Accordingly, the project aimed to consider diverse societal and scientific understandings of mobility hubs (through three WPs) to grasp the full complexity of developing railway stations and their surroundings and to reduce it purposefully. It intended to connect case-specific knowledge (from three primary empirical sites) with abstract

Figure 2: TD research process of the Actors WP and influence on this thesis (adapted from Jahn et al., 2012; Lang et al., 2012; Pohl & Hirsch Hadorn, 2007; Pohl et al., 2017)
knowledge and iteratively co-produce knowledge, models, methods, and practices to develop railway stations and their surroundings as mobility hubs (Müller et al., 2022).

Figure 2 shows how the project’s approach transferred into a TD research process for the Actors WP. It adapts iterative, recursive, and ideal-typical research phases devised by transdisciplinarity scholars (Jahn et al., 2012; Lang et al., 2012; Pohl & Hirsch Hadorn, 2007; Pohl et al., 2017), differentiating between alternating activities dedicated to problem framing, problem analysis and knowledge co-production, and knowledge integration and impact exploration. Figure 2 also highlights the marks that the WP activities left on the research presented in this thesis.

Regarding the thesis’s epistemological assumptions, the approach to TD sustainability research outlined in the last paragraph suggests a constructivist position on how knowledge is co-produced. This position emphasizes that the reality of an object is constructed by the subject who interacts with it, which negates a universal truth based on objective facts (Crotty, 1998). Instead, facts are contextually embedded and interwoven with the subject’s norms and values (Kaiser, 2015; Knorr-Cetina, 1983).

The TD sustainability research approach relates to an ontological understanding implying that knowledge co-production involves acknowledging and integrating multiple object realities rather than qualifying one given reality detached from subjects (Law, 2004). Consequently, science does not occur far from this plurality of realities. Instead, it is contextually embedded in society and engages with subjects to co-produce scientifically sound and societally relevant knowledge (Denzin & Lincoln, 2017; Knorr-Cetina, 1983).

Referring to the thesis’s aim, unpacking current planning practices for transit station districts

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25 In brief, epistemology asks the question of how knowledge is created (Moon & Blackman, 2014).
26 In brief, ontology asks the question of what knowledge can be created about (Moon & Blackman, 2014).
means – based on my contextual embeddedness and engagement in the Co-Creating Mobility Hubs project – deconstructing actors’ spatial imaginaries and their perspectives, procedures, and routines regarding how an expanded development perimeter can be cultivated.

2.1.3 Approach to planning theories

Planning can generally be defined as the practice of knowing that links knowledge with action and the present with the future (M. P. Brooks, 2002; Davoudi, 2015). Accordingly, planning studies frequently scrutinize practical traits concerning the epistemic objects that contingently frame planning, including space, transportation, and the urban fabric (i.e., spatial planning, transportation planning, and urban planning). In this respect, Alexander (2016) stated that “[t]here is no planning, in the sense of a definable and identifiable ‘planning’ practice, but ‘planning’ exists as a set of different and diverse planning practices” (p. 93).

Other fields research planning more pronouncedly as an epistemic object by itself, investigating various activities planners do (e.g., creating plans, brokering knowledge, and coordinating and moderating processes; Knorr-Cetina, 2000; Levin-Keitel & Behrend, 2022). The activities constitute planning in these fields; however, they cannot be considered without clarifying which planning theories\(^ {27} \) prevail as lenses for understanding practices. Therefore, Levin-Keitel and Behrend (2022) stressed that clarifications should be clear on who is planning what and how, and they distinguish narrow (or narrower) and broad (or broader) planning understandings as fundamental reference points:

- Narrow(er) planning understanding: Public authorities mostly prepare planning decisions that politicians then make. The decisions primarily involve locations in

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\(^ {27} \) Referring to Davoudi (2015) and Levin-Keitel and Behrend (2022), I understand planning theories as basic constructs to agglomerate, organize, and systematize knowledge in planning research. Furthermore, I adopt the position of the latter scholars who view planning theories and practices as two sides of the same coin. By clarifying the planning theories underpinning my thesis, I make the planning understandings involved explicit and carve out epistemological and ontological implications these theories have for my research on the practice of planning for transit station districts.
the physical space, which also frame social actions by enabling and constraining potential land use. Planning occurs predominantly through legally binding formal instruments supplemented by informal processes.

- Broad(er) planning understanding: The public and private domains, as well as civic actors, jointly shape planning actions. The actions mainly involve bargaining processes in the societal space through learning networks, political discourses, and democratic target setting, which then translate into specific physical perimeters. Planning occurs extensively through a diverse array of informal processes that first need to be identified, selected, and assimilated to the perimeter at hand by using more formal instruments.

The scientific background of this thesis contoured the initial approach to planning theories for my research. While Co-Creating Mobility Hubs did not convey this approach per se, planning theories underpinning the thesis’s scientific and conceptual starting points were increasingly manifested in the operational work of the project, thus constituting a link from approach to context. This contrasts with the approach adopted for TD sustainability research, which tends to translate from context into approach.

With his view on stations and surroundings, on which he grounded the node-place model, Bertolini (1996a) took a theoretical stance that understands planning as a process that involves a plurality of actors with their interests, resulting in communicative and collaborative endeavors to create “lively and diverse urban fabrics” (p. 134). This stance refers to communicative planning theory (e.g., Healey, 1992; Innes, 1995, 1998). Its tenets entrust planning by navigating a plurality of knowledgeable realities constructed by the actors involved (Levin-Keitel & Behrend, 2022). In addition, the theory pleads for attention to the value-laden processes and normative contexts in which planning occurs (Hall, 2014).
The conceptual framework of the thesis, which draws on new institutionalism, reinforces the constructivist position implied in the previous paragraph. STUDY I refers to sociological and discursive institutionalists who perceive reality as socially embedded institutional systems that affect actors’ interpretations and, in turn, are incrementally reinterpreted by actors (Sorensen, 2017). STUDY II uses a (multi-actor) governance approach to planning theory, which views actor networks as a form of coordinated action and institutional decision-making, equivalently enhancing governmental rules and market mechanisms (Bevir, 2011; Levin-Keitel & Behrend, 2022). Finally, planning culture underpins the power lens of STUDY III. This theory focuses on diverse cultural imprints driven by different actor groups’ assumptions of how planning should occur based on their shared norms, values, and traditions (Levin-Keitel & Othengrafen, 2016).

The research presented in this thesis conclusively follows a broader planning understanding based on its approach to planning theories and the constructivist assumptions these theories imply in epistemological and ontological terms. It opposes rationalist assumptions, presuming that planning can and should be universal and that statutory planning authorities single-handedly produce the required knowledge (Davoudi, 2015). More importantly, this understanding denies the thesis of unpacking planning practices by scrutinizing them from the outside. Instead, a TD research approach is needed to trace actors’ interpretations, actions, and decisions that they enact in value-laden processes and normative contexts (Levin-Keitel & Behrend, 2022).

2.2 Research methodology and strategy: Data analysis and collection methods

This section elucidates which methodology my research follows and which strategy I have pursued to collect the data for the thesis.
2.2.1 Thematic analysis approach to qualitative social scientific research

The primary units of interest for my research are actors’ spatial imaginaries of transit station districts and their perspectives, procedures, and routines concerning how this perimeter can and should be developed. I consider these traits to be the basic constructs of current practices for planning station districts. This thesis intends to expose meaningful constructs and their roles in interpretations, actions, and decisions by tracing actors’ narratives and perceptions, necessitating an in-depth and firmly focused approach. Qualitative social scientific research offers an appropriate methodological starting point for such an approach, emphasizing “the understanding of the social world through an examination of the interpretation of that world by its participants” (Bryman, 2012, p. 380). In line with the assumptions outlined in Section 2.1, it postulates that “social properties are outcomes of the interactions between individuals, rather than phenomena ‘out there’ and separate from those involved in its construction” (Bryman, 2012, p. 380).

To balance the thesis’s specific analytical approach to qualitative social scientific research with my WP activities in Co-Creating Mobility Hubs, I follow a methodology that leaves room for my research’s conceptual framework to unfold as a theoretical lens on the data I gathered from the project (cf. Section 2.2.2). Hence, I adopted a thematic analysis approach (Boyatzis, 1998), particularly following the methodical developments of J. Brooks et al. (2015), King and Brooks (2018), and Braun and Clarke (2006, 2022, 2023). Braun and Clarke (2022) do not refer to thematic analysis as a methodology in the spirit of a theoretically informed framework. Instead, they view it as a family of methods from which scholars select the appropriate type based on various considerations, including RQs, theoretical lenses, assumptions, and empirical sites and materials.

Since my inquiry focuses on (shared) meanings underlying interpretations, actions, and decisions, I located my thematic analysis approach between template and reflexive types
(Braun & Clarke, 2023; King & Brooks, 2018). I assigned codes to selected data (text) excerpts and produced themes based on codes that referred to narratives and perceptions (shared) among actors. While the coding occurred iteratively, the theme conceptualization was more pooled and occurred later in the inquiry. Consequently, memo-writing was central to articulating my interpretations and reimmersing with codes after regularly disconnecting from the texts to regain distance and room for thematic reflection (Braun & Clarke, 2006, 2022).

Although my coding activity was explorative and inductive to some extent, the high-level operationalization templates of the theoretical lenses applied guided the thematic analyses (J. Brooks et al., 2015). Thus, I made the analyses’ theoretical underpinnings from the start explicit. This enabled focusing on (shared) meanings that contour actors’ behaviors and exchanges during the targeted path section toward potential institutionalization, including initialization, institutional interactions, and stabilization of novel planning processes. However, the templates did not restrict the number of themes reported or the levels of coding.

2.2.2 Empirical case studies and materials

The strategy for my research consisted of conducting case-specific thematic analyses inquiring into selected qualitative data derived from multiple material sources in the Co-Creating Mobility Hubs project. These materials entailed documents28 on the relevant empirical sites (following J. Scott, 1990) as well as transcripts of semi-structured interviews29 (following Kelly, 1955; Kvale, 1996) and protocols from participant observations30 in

28 In brief, the collected documents included news articles, press releases, mission statements, parliamentary interventions, land-use plans, workshop materials and minutes, presentations, and memos.

29 The interviews were conducted in German and lasted between 60 and 90 minutes.

30 I attended the meetings and workshops as a nonparticipating observer having very little exchange with anyone (Adler & Adler, 1987).
Table 2: Empirical case studies and materials

<table>
<thead>
<tr>
<th>Empirical site (all Switzerland)</th>
<th>Used as a primary project site</th>
<th>Used a case study for my research</th>
<th>Collected materials</th>
<th>Used for which studies of the thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bern Wankdorf (Canton of Bern)</td>
<td>Yes</td>
<td>Yes</td>
<td>22 documents</td>
<td>STUDY I, STUDY II, and STUDY III</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16 interview transcripts</td>
<td>STUDY I, STUDY II, and STUDY III</td>
</tr>
<tr>
<td>Ostermundigen (Canton of Bern)</td>
<td>Yes</td>
<td>Yes</td>
<td>11 documents</td>
<td>STUDY I, STUDY II, and STUDY III</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16 interview transcripts</td>
<td>STUDY I, STUDY II, and STUDY III</td>
</tr>
<tr>
<td>Nyon (Canton of Vaud)</td>
<td>Yes</td>
<td>No</td>
<td>7 documents</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 interview transcripts</td>
<td>–</td>
</tr>
<tr>
<td>Bellinzona (Canton of Ticino)</td>
<td>No</td>
<td>No (master’s thesis of Elide Eisenring; cf. Eisenring, 2021)</td>
<td>23 documents</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11 interview transcripts</td>
<td>–</td>
</tr>
<tr>
<td>Bern Europaplatz (Canton of Bern)</td>
<td>No</td>
<td>No</td>
<td>10 documents</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 interview transcripts</td>
<td>–</td>
</tr>
<tr>
<td>Münsingen (Canton of Bern)</td>
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<td>No</td>
<td>9 documents</td>
<td>–</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>5 observation protocols</td>
<td>–</td>
</tr>
<tr>
<td>Risch-Rotkreuz (Canton of Zug)</td>
<td>No</td>
<td>No (master’s thesis of Katja Dunkel; cf. Dunkel, 2020)</td>
<td>6 documents</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9 interview transcripts</td>
<td>–</td>
</tr>
</tbody>
</table>

planning meetings and workshops (following Adler & Adler, 1987; Hammersley & Atkinson, 2019; Murphy, 1980). The interviews were the core material source with which I deliberately
sought conversations with actors\textsuperscript{31} whose site-specific roles and involvements were clear or strongly presumed. While the document reviews had a preparatory character regarding the interviews, the observations supported the validation of insights and cues from the preceding interviews.

Table 2 shows which materials from which empirical sites I used for which studies in this thesis. Concerning the respective scope of the collected documents, certain pieces cover more than one empirical site and are thus counted multiple times. Sections 3, 4, and 5 contain further information on the materials and data collection methods.

I chose Bern Wankdorf and Ostermundigen as empirical case studies for two main reasons. First, I needed to reduce the data. Co-Creating Mobility Hubs offered numerous opportunities to collect materials on various sites (in addition to the primary sites), which was valuable to attaining the project’s goals. However, for an in-depth and firmly focused approach to my research, I needed to select one or two empirical sites as case studies (Yin, 2003). Second, my selection process was inspired by a most similar cases design to complete a second case study to confirm the preliminary results of the first case study and assess how case-specific pathways may have led to comparable outcomes (Lijphart, 1975; Przeworski & Teune, 1970). The following paragraph briefly explains how the two station districts correspond to the most similar cases, whereas Sections 3, 4, and 5 include more information on the case study contexts.

Bern Wankdorf and Ostermundigen belong to the Canton of Bern and the administrative district of Bern-Mittelland (RSTA des Kantons Bern, 2023). Both station districts have the same railway infrastructure provider, tramway infrastructure provider, and

\textsuperscript{31} In brief, the interviewees represented public authorities at different administration levels, local property owners, public transport infrastructure providers, public transport service providers, and a local stakeholder group and were sampled after a snowball strategy (cf. Coleman, 1958).
local public transport service providers (Bauer, 2020; Hartmann, 2020). While they have identical superordinate administrative affiliations and principal actor constellations in station district planning, Bern Wankdorf and Ostermundigen have different municipal affiliations. The City of Bern is the municipal planning authority for Bern Wankdorf, and the Municipality of Ostermundigen overlooks the development of the sole local station district (Bauer, 2020; Iten, 2020).

The case-specific thematic analyses based on the selected qualitative data from the Bern Wankdorf and Ostermundigen station districts resulted in case-specific reporting of the analysis results. Afterward, I cross-case answered the study-specific RQs to produce an analytical overview and discussed the results with their implications and suggestions for practice and research. Hence, I took inspiration from the most similar cases design for my choice of Bern Wankdorf and Ostermundigen rather than conducting a systematic comparative analysis of the two station districts. Figure 3 summarizes the strategy for my research in consideration of the methodological aspects mentioned in Section 2.2.1.

Figure 3: Research strategy (own representation; CC BY 4.0)
3 STUDY I – new institutionalism lens

An institutionalist approach to transit station district planning based on two qualitative case studies in Switzerland

Abstract: To harness station districts’ potential for TOD, planners collaborate across different sectors and multiple scales. While research has clarified this potential and the challenges involved, studies on the required planning practices are rare. This article adopts an institutionalist approach to address this gap. It investigates how planning processes for transit station districts interact with institutionalized planning practices and which signals for incremental institutional change can be identified. Based on two qualitative Swiss case studies, the findings show that station district planning remains a strategic aim of relevant actors without translating into concrete redevelopments of their existing practices.

Keywords: institutional change; institutional interaction; institutionalization; qualitative case studies; transit-oriented development; transit station districts

3.1 Introduction

Disintegrated spatial and transportation planning contributes to many unsustainable trends (e.g., urban sprawl, declining transit, traffic congestion; Ewing, 1997; Rookwood & Breheny, 1993). TOD suggests that spatial and settlement development is aligned with mass transit stations and corridors to counteract these trends. Following this approach, spatial and transportation planners foster intensive, mixed land use and develop attraction centers where people can effortlessly access mass transit (Calthorpe, 1993). Districts around transit stations are potential focal points for TOD (Papa & Bertolini, 2015).

To improve the spatial connectivity between mass transit and inner-city transportation modes, developing a transit station district occurs across multiple foci (e.g., transit stations, station areas, adjacent neighborhoods) managed by various actors (Brons et al., 2009; Van Acker & Triggianese, 2020). This development consists of guiding actors in a common
direction (Hickman et al., 2021; Stadler Benz & Stauffacher, 2023). This can be challenging because guidance must transcend prevailing sectoral and organizational structures (Bertolini et al., 2012).

For instance, a railway infrastructure provider may redevelop a station access point. At the same time, a private real estate company may create a plan for mixed-use buildings in adjacent areas. This example shows that actors operate in different sectors and at multiple planning scales, including local (real estate company), regional, and national scales (railway infrastructure provider; Reusser et al., 2008; Zemp et al., 2011b).

While the potential of station districts for TOD has been well studied, specific planning traits need clarification. District planning processes are novel, constituting a planning form that overlaps the relevant statutory planning systems and results in declarations of intent rather than legally binding plans (Albrechts & Balducci, 2013; Granqvist et al., 2021). An example is the test-planning method, a planning procedure conducted in an ad hoc organization that allows actors to enter into a direct dialogue over competing solutions to complex spatial and infrastructure problems (Scholl, 2017).

To explore its specific traits, I analyze station district planning through the lens of new institutionalism (or new institutionalist theory; March & Olsen, 1989). This defines institutions as “…the humanly devised constraints that shape human interaction” (North, 1990, p. 3). They include “…not just formal rules, procedures or norms, but the symbol systems, cognitive scripts, and moral templates that provide the ‘frames of meaning’ guiding human interaction” (Hall & Taylor, 1996, p. 947).

Individuals involved in a planning context (referred to as actors here) behave according to institutions specific to their group (e.g., project, organization, sector). Institutions may be different things to different groups. Accordingly, a novel planning
process must gain actors’ acceptance to become institutionalized as a planning practice in a given context (Buitelaar et al., 2011).

Actors may subliminally approve of this process by considering it in social interactions until it becomes routine (Buitelaar et al., 2017; Meijer & Van Der Krabben, 2018). Its path toward institutionalization is shaped by how congruent the novel process is with existing institutions and how it interacts with institutionalized planning practices (Buitelaar et al., 2011; Lipsky, 1980). Such interactions may suggest a potential for institutional change to foster congruency, to which actors contribute by reinterpreting institutionalized practices (Giddens, 1984; Granqvist et al., 2021).

While rapid change is unlikely, actors may drive change incrementally. In discussions with other actors, they may respond to the evolving environments of planning procedures and routines, which, in the longer term, may shift institutionalized practices and the core ideas behind them (Granqvist et al., 2021; Mahoney & Thelen, 2010). For example, a real estate company could rethink its planning practice for mixed-use buildings to absorb and better exploit a test-planning study’s outcomes.

This article explores station district planning processes and their interactions with institutionalized planning practices. These interactions may signal a potential for change in institutionalized practices, which is discussed. To this end, I conducted qualitative case studies of station districts in Bern Wankdorf and Ostermundigen, Switzerland.

Bern Wankdorf and Ostermundigen are part of the Bern agglomeration and offer access to regional transit networks (AUSTA der Stadt Bern, 2021). These cases are worth examining because local land use is intensifying due to multiple area and infrastructure developments, which actors have attempted to integrate using novel planning processes. While this study is exploratory and limited to case-specific pathways, it may offer insights into considerations for initiators of novel processes when planning with actors across
different sectors (horizontal integration) and multiple scales (vertical integration). This study aims to answer the following RQs:

- RQ-1: How do station district planning processes interact with institutionalized planning practices?
- RQ-2: Which signals for emerging incremental change in institutionalized planning practices are identifiable?

This article is structured as follows: First, I provide an overview of the relevant theory and outline the study’s conceptual framework. Second, I describe the methods used in my research. Third, I introduce the case studies of Bern Wankdorf and Ostermundigen and present the results of my analyses. Finally, I discuss the article’s findings, theoretical and practical implications, and limitations.

3.2 Theoretical background

3.2.1 Station district planning for transit-oriented development

Spatial and transportation planners develop compact spaces with integrated mass transit to support TOD. To this end, they combine intensive mixed land use with well-designed spatial connectivity between different transportation modes (e.g., mass transit, human-powered mobility, shared vehicle journeys; Calthorpe, 1993; Papa & Bertolini, 2015). TOD typically focuses on a perimeter radius of approximately 400 to 800 meters around transit stations or along transit corridors (Guerra et al., 2012).

Station districts may have the favorable conditions needed to become focal points of TOD (Bertolini, 1999; Cervero, 1998). By linking particular catchment areas to regional or long-distance transit networks, these districts help align local settlement development with regional and national public transport services and infrastructures (Reusser et al., 2008; Stadler Benz & Stauffacher, 2023). Station districts support TOD as environments for public spaces and attractions (e.g., housing, work, education, leisure; Bertolini, 1996b). Finally, as
they connect mass transit with inner-city transportation modes, they may extend ridership as nodes with multimodal accessibility (Lu et al., 2021; Vitale Brovarone, 2021).

While the potential of station districts for TOD is well known, the necessary planning practices remain unexplored. Single area or infrastructure developments within districts report to different statutory planning authorities (based on the applicable laws and jurisdictions) and follow institutionalized practices. In contrast, overarching planning processes have a novel character (Bertolini et al., 2012; Healey, 1997). The reason for this may be twofold. First, the scope of a station district may include built or scheduled developments for a transit station, its access points, and its adjacent neighborhoods. Numerous actors may qualify to participate in an overarching process (e.g., public authorities, public transport providers, private developers; Brons et al., 2009; Van Acker & Triggianese, 2020). Second, station districts imply planning in the nexus of spatial and transportation development seen from multiple sectoral viewpoints (e.g., real estate, transportation, urban planning) and include aligning local settlement structures with public transport services and infrastructures at regional and national scales (Toro López et al., 2021; Zemp et al., 2011a).

This cross-scale characteristic differentiates station district from regional planning. At the regional scale, actors collaborate beyond sectoral structures without specifying the local links between a single station and the surrounding areas (Blad et al., 2022; Granqvist et al., 2021). Local statutory planning authorities (cities or smaller municipalities) play a more formative role in station district planning (Wallsten et al., 2021). In contrast, superordinate public administration bodies (e.g., states, cantons) are usually more involved at the regional planning scale (Schenkel & Plüss, 2021).

3.2.2 Conceptual basics of new institutionalism

To explore station district planning, I view it as potentially institutionalized. This means that the processes involved may become socially and culturally accepted (Buitelaar et al., 2011;
March & Olsen, 1989). This theoretical lens is grounded in new institutionalism, which
distinguishes between the three fundamental schools of thought shown in Table 3 (Hall &
Taylor, 1996; North, 1990). Compared to old institutional theory, which mainly focuses on
formal rules in public administration, new institutionalism includes a wide range of
phenomena, thereby allowing for more diverse definitions, conceptions, and roles of
institutions, actors, and institutional change (Sorensen, 2017).

Table 3: Three schools of thought on new institutionalism and their characteristics (adapted
from Sorensen, 2017)

<table>
<thead>
<tr>
<th>Key aspects</th>
<th>Historical institutionalism</th>
<th>Rational choice institutionalism</th>
<th>Sociological institutionalism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition of institutions</td>
<td>“…the formal or informal procedures, routines, norms and conventions embedded in the organizational structure of the polity or political economy” (Hall &amp; Taylor, 1996, p. 938).</td>
<td>“…rules of the game…the humanly devised constraints that shape human interaction” (North, 1990, p. 3).</td>
<td>“…not just formal rules, procedures or norms, but the symbol systems, cognitive scripts, and moral templates that provide the ‘frames of meaning’ guiding human interaction” (Hall &amp; Taylor, 1996, p. 947).</td>
</tr>
<tr>
<td>Role of institutions</td>
<td>Regulate political processes.</td>
<td>Provide coordination, certainty, and information.</td>
<td>Provide shared understandings that shape action and imagination.</td>
</tr>
<tr>
<td>Conception of actors</td>
<td>Historical processes encompass political conflicts and compromises that shape individuals’ interpretations, preferences, and actions.</td>
<td>Groups of rational individuals create institutions to organize collective action, reduce risks, and maximize self-interest.</td>
<td>Socially and culturally embedded systems affect individuals’ interpretations of situations and shape potential actions.</td>
</tr>
<tr>
<td>Conception of institutional change and the role of actors</td>
<td>Institutions change (exogenously) at historically critical junctures and (endogenously) along developmental paths; actors can develop agency in the latter change model.</td>
<td>Less effective and efficient institutions change due to market forces; actors usually do not develop change agency.</td>
<td>Institutions change incrementally due to developing social and cultural systems; actors can develop change agency.</td>
</tr>
</tbody>
</table>
In contrast to previous institutionalist theory, new institutionalism considers institutions to include formal and informal rules and understandings. In planning, for example, they may manifest in planning laws, written procedures, policy reports (formal or rather formal), local cultural traditions, social appropriateness, shared beliefs, and implicit expectations (informal or rather informal; Meijer & Van Der Krabben, 2018; W. R. Scott, 2013). The formality of institutions is a matter of their manifestations in written or visualized descriptions rather than bindingness. Actors face sanctions if they do not comply with institutions, with sanctions ranging from more formalized to informal consequences (Buitelaar et al., 2011; Sorensen, 2017). For example, violating a law (formal institution) may imply a formal sanction (e.g., financial penalty, custodial sentence), but noncompliance with social appropriateness (informal institution) may result in subliminal resentment from other individuals.

3.2.3 Conceptual framework: Institutional interaction and incremental change in planning

To view station district planning as potentially institutionalized, I follow sociological institutionalism and some of its previous contributions to planning studies (Buitelaar et al., 2011; March & Olsen, 1989). A novel planning process must become reflected in social and cultural expectation patterns to be institutionalized and lead to a change in actors’ routine behaviors (Buitelaar et al., 2017). This draws attention to how a process interacts with the institutionalized practices that shape the planning activities of these actors (Lipsky, 1980). The more congruent novel processes are with existing institutions in planning, the likelier it is that these processes will become institutionalized (Buitelaar et al., 2011; Meijer & Van Der Krabben, 2018).

The political scientists Lauth (2000) and Helmke and Levitsky (2004) have devised different forms of institutional interaction that reflect ascending levels of congruency. Several
planning studies have adopted and adapted them (e.g., Buitelaar et al., 2011; Hirschhorn et al., 2020; Meijer & Van Der Krabben, 2018). For this study, I adopt the distinction of Buitelaar et al. (2011) but limit the forms to competing, accommodating, substitutive, or complementary interactions (sorted by ascending congruency levels).

Translated into this study’s context, this means that a novel planning process may converge with an institutionalized planning practice and complement and enhance this practice’s implementation efficiency and planning outcome. If actors ignore or violate the practice, the process may be a lower-cost substitute. On the other hand, interactions may be divergent. In the case of an effective institutionalized practice, a novel process may be accommodating, providing actors with space to withhold support for the practice that is enforced otherwise (outside the process). If the practice is not enforced and considered ineffective, the divergent process may compete, potentially resulting in conflicting planning outcomes.

If a novel planning process interacts with an institutionalized planning practice, it may signal emerging institutional change. Following discursive institutionalism (a more recent branch close to sociological and historical institutionalists), change may occur at abstract levels, ranging from specific policy solutions (micro level) to programmatic ideas (meso level) and axiomatic philosophies (macro level) behind institutions (V. A. Schmidt, 2008). While external shocks due to crises are the primary change drivers at the macro level, actors’ capacities to shape what constrains their behaviors may rise at the meso and micro levels (Mahoney & Thelen, 2010).

The meso level, set at the altitude of inter-organizational networks, may be relevant to planning. It includes many institutions that provide the planning groundwork for concrete policies and projects at the micro level (Alexander, 2005). By following, reproducing, and reinterpreting institutions in discourse with others, actors may drive change incrementally so
that planning practices align with what is socially and culturally accepted (Buitelaar et al., 2011; V. A. Schmidt, 2008).

Mahoney and Thelen (2010) distinguish between four different types of incremental change, depending on actors’ support for an existing institution and the flexibility of its application (i.e., degree of discretion in interpretation and enforcement). In planning, Granqvist et al. (2021), for instance, have applied this typology at the city-regional scale. I adopt it for my study and understand the four different types of incremental change as follows:

- **Conversion**: Actors strategically redevelop institutionalized planning practice and enact it to cover the novel planning process.
- **Drift**: The impact of institutionalized practice drifts toward the novel process due to changing environmental circumstances.
- **Displacement**: Actors remove and displace institutionalized practice with the novel process.
- **Layering**: Actors add the novel process as an institutional layer alongside institutionalized practice.

I use the conceptualizations introduced above, which have previously proved valuable for planning studies, to discuss this study’s results in relation to RQ-1 (institutional interaction forms) and RQ-2 (incremental change types).

### 3.3 Methods

#### 3.3.1 Case study selection

I conducted case studies of two Swiss transit station districts: Bern Wankdorf and Ostermundigen (cf. Figure 4). I selected these districts from the larger case study sample of the Co-Creating Mobility Hubs TD research project (Müller et al., 2022). In both districts, actors introduced novel planning processes to align numerous ongoing developments. I also
wanted to complete a second case study to assess the first case study’s preliminary results and explore how case-specific pathways may have led to similar outcomes (Yin, 2003).

Bern Wankdorf and Ostermundigen have the same superordinate administrative affiliation. They belong to the Canton of Bern and, therein, the administrative district of Bern-Mittelland (RSTA des Kantons Bern, 2023). Both station districts have similar principal actor constellations for planning: the same railway infrastructure, tramway infrastructure, and local public transport service providers. They differ in municipal administrative affiliation. The City of Bern acts as the municipal planning authority for Bern Wankdorf, whereas the Municipality of Ostermundigen oversees developments in Ostermundigen’s station district (Bauer, 2020; Hartmann, 2020).
The analyses of two Swiss station districts may produce pathways and outcomes that are transferable to other countries, where planners make analogous efforts to integrate spatial and settlement development with mass transit. If station districts feature land-use intensification patterns, actor constellations, and administrative affiliations comparable to those in these cases (cf. Sections 3.4.1.1 and 3.4.2.1), the initiation of novel planning processes may induce similar interactions with institutionalized planning practices and the potential for incremental institutional change.

3.3.2 Data collection

I collected the data for this study from May 2020 to December 2021. I gathered qualitative data from 32 semi-structured interviews conducted in German with actors involved in the station districts. The interviews were broken down into 16 in-depth interviews (90 minutes each) and 16 explorative interviews (60 minutes each; Kelly, 1955; Kvale, 1996). The latter were explorative insofar as I was not entirely sure of the nature of the involvement of my conversation partners before the interviews, as I followed a snowball sampling strategy and the suggestions of previous interviewees, resulting in profoundly explorative conversations (Coleman, 1958).

I structured the interviews with the help of a basic guide from Co-Creating Mobility Hubs (Müller et al., 2022), and they consisted of general, open questions. Most talking points evolved alongside a thread based on interviewees’ stories and my ad hoc queries. My questions focused on carving out behavioral patterns that may have indicated the presence of institutionalized planning practices, as it is difficult to query institutions directly (Buitelaar et al., 2017; Meijer & Van Der Krabben, 2018). Appendix A contains detailed information on the interview guide, and Appendix D on the interviewees. Each interviewee represented one of the following roles in station district planning:
• public authorities (municipal, regional, or cantonal levels; N = 10);
• local property owners, developers, or managers (N = 5);
• railway or tramway infrastructure providers (central or regional units; N = 9);
• public transport service providers (central or regional units; N = 7);
• local stakeholder groups (N = 1).

To triangulate the data from the interviews, I collected 25 documents from public bodies’ official reports and internal correspondence, including a parliamentary intervention, land-use plans, mission statements, press releases, presentations, workshop materials and minutes, and a memo, and consulted five news articles. I received these documents via personal e-mail, or they were publicly available on the web. When selecting the documents, the only criterion I applied was that they covered the station district in Bern Wankdorf or Ostermundigen (J. Scott, 1990). Appendix E offers more information on the collected documents.

Finally, I attended four meetings that were part of a novel planning process for the station district in Ostermundigen (no such opportunity was available in Bern Wankdorf). Through participant observations, I used this opportunity to delve into this planning context and validate the insights and cues I had received from the preceding interviews. During these meetings, I collected field notes as a nonparticipating observer using the protocol template shown in Appendix F (Adler & Adler, 1987).

3.3.3 Data analysis

Using a qualitative coding and memo-writing approach, I analyzed the interview transcripts, collected documents, and observational protocols. The analyses were explorative and reflexive and used the operationalization shown in Table 4 as a conceptual guide at the primary coding level (Braun & Clarke, 2022; J. Brooks et al., 2015). Supported by NVivo software (March 2020 release), I conducted multiple analysis iterations to find themes and
Table 4: Data analysis: Guiding concepts and generated subcodes (second-level codes; adapted from Brooks et al., 2015; Meijer & Van Der Krabben, 2018)

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definition</th>
<th>Operationalization for this study</th>
<th>Exemplary quote from semi-structured interviews (translated from German)</th>
<th>Subcodes</th>
</tr>
</thead>
</table>
| **Strategic (spatial) planning process**              | “…a social process through which a range of people in diverse institutional relations and positions come together to design planning processes and develop contents and strategies for the management of spatial change” (Healey, 1997, p. 5). | Novel planning processes that overlap statutory planning systems (Albrechts & Balducci, 2013; Granqvist et al., 2021). | “…a test-planning study, with which various problems regarding urban development, land use, and mobility...are worked out together in a superordinate, conceptual manner” (Interviewee 19). | • *Entwicklungszielplan*  
• Test planning |
| **Institutionalized planning practice (formal or rather formal)** | “…rules which are enforced by the legal system, such as laws, constitutions, ordinances, and local land-use plans” (Buitelaar et al., 2011, p. 930). | Land-use plans, planning laws and regulations, written planning procedures, mission statements, and policy reports (Alexander, 2005; Meijer & Van Der Krabben, 2018). | “I truly had to learn what a planning approval procedure under federal law is, what legal weight it carries, and that is quite enormous” (Interviewee 18). | • Planning approval procedures  
• Special land-use plans  
• Structural plans  
• Total revisions of local zone plans |
| **Institutionalized planning practice (informal or rather informal)** | “…less explicit rules which emerge as a result of repetition and solidification of behaviour...conventions, codes of behaviour, taboos, traditions, religious beliefs, and moral values” (Buitelaar et al., 2011, p. 930). | Social appropriateness, shared beliefs and expectations, local cultural traditions, planning ideologies, and implicit planning procedures and routines (Alexander, 2005; Meijer & Van Der Krabben, 2018). | “They realized that this was not their way of working. They are used to following instructions and implementing them in line with their roles. And if something does not work out, they report back, and someone above them takes care of it” (Interviewee 1). | • Avoiding redundant planning activities  
• Engaging outside traditional jurisdictions  
• Integrating the private domain  
• Showing organizational unity |
narratives in the collected data, building upon the generated subcodes (Kohler Riessman, 2008; Ryan & Bernard, 2003).

I sought themes and narratives that suggested interactions of novel station district planning processes with institutionalized planning practices (tackling RQ-1) and a potential for incremental change toward institutionalizing station district planning (tackling RQ-2). I then consulted the article’s conceptual framework to interpret and discuss the results of the analyses and answer my RQs.

3.4 Results

3.4.1 Bern Wankdorf case study

3.4.1.1 Case study background

Bern Wankdorf’s station district (cf. Figure 5) is part of the larger Wankdorf development perimeter, with a permanent resident population of approximately 3,500 in 2015 and a workforce of roughly 24,000 allocated to 770 workplaces in 2013. The station district’s recent history contains a series of intense developments, including the opening of the railway station in 2004, the inauguration of Wankdorf Stadium in 2005, and the launch of extended and renewed tramway and motorway connections in 2012 (BVD des Kantons Bern, 2023).

The district currently features multiple area developments at different stages of completion, as well as track and road infrastructure extensions and renewals (BVD des Kantons Bern, 2019; RKBM, 2021; SPA der Stadt Bern, 2016, 2017). It is also the subject of several development concepts, mission statements, and other strategic (land-use) plans. How dedicated these schemes are to addressing the station district varies according to the overall scope of each strategy (RKBM, 2021; SBB & Kanton Bern, 2016; SPA und VP der Stadt Bern, 2017). Appendix G describes the developments and strategic (land-use) plans involving the station district during the data collection period.
The strategic (land-use) plans emphasize the station district’s unexploited potential, particularly regarding the relief of Bern’s central station. The main station has long shown high capacity utilization levels, which the city and canton intend to mitigate by making public transport access points and connections more attractive at Bern Wankdorf (RKB, 2021; VP der Stadt Bern, 2017). The station district’s current area developments, mainly overseen by the City of Bern, and railway infrastructure projects, managed by SBB, are expected to contribute to this targeted upgrading (BVD des Kantons Bern, 2019; SBB & Kanton Bern, 2016; SPA der Stadt Bern, 2016).

3.4.1.2 A transportation-driven approach to station district planning

In March 2019, the transportation planners of SBB and the City of Bern jointly initiated a novel planning process called *Entwicklungszieleplan* (EZP). During two workshops with selected actors, it addressed Bern Wankdorf’s station district specifically (Interviewees 3, 6). This first process iteration produced a legally nonbinding plan that contained a target state for the district’s future transportation offers and the required areas (Bauer, 2020, 2021).
Actors from SBB (railway infrastructure provider and property owner), BERNMOBIL (tramway infrastructure and service provider), Bern-Lötschberg-Simplon Railway (BLS; railway service provider), Energie Wasser Bern (ewb; property owner), the city, and the canton collectively completed the iteration in January 2020 (Interviewee 10). The EZP initiators then expected the participants to translate the target state into their individual developments to realize the plan (Interviewees 1, 2, 12). They requested that participants give updates on these developments to revise the plan during an annual, shortened EZP iteration (Bauer, 2021).

3.4.1.3 Adding value for advanced area developments and private property owners

Single actors were skeptical about how the EZP initiative added value to well-advanced developments. The city’s urban planners, recently onboarded by their transportation planning colleagues in August 2019, signaled difficulties in considering yet another target state in their projects. This was also because a revision of the legally binding structural plan for the larger Wankdorf development perimeter (Entwicklungsschwerpunkt) was ongoing. Other SBB members who were participating in this revision were partially aware that the EZP initiative had commenced in parallel for the station district perimeter (Interviewees 3, 4, 5). Urban planners were critical that private property owners were not invited to the first EZP iteration, which did not conform to how the city should involve these actors, as noted by one representative (translated from German):

“It would have been desirable to bring the owners concerned to the table to feel their pulse for the first time: Did they like it? Could they imagine it? At the same time, we could have communicated the added value of the entire infrastructure development, which is widely located on private property, so that they hopefully saw more opportunities than risks”

(Interviewee 3).
3.4.1.4 Conflicting signals on willingness to participate and support

The invited public law property owners refused to participate (Burgergemeinde Bern; BG Bern) or pared down participation by limiting engagement during the workshops (ewb and SBB; Interviewees 1, 6, 7), and they were unenthusiastic about the transportation-driven initiative that gave spatial development a subordinate priority. By envisaging infrastructure development outside railway tracks and stations, SBB’s transportation planners assumed a nontraditional role at the local scale. Property owners and fellow SBB staff members disliked this (Interviewees 9, 10, 11, 15).

The interface with the railway station redevelopment project was conflicted. Other SBB transportation planners, indirectly represented in the EZP workshops, managed this project. The project was in a critical phase due to previous disagreements with the city regarding qualitative requirements of and cost allocation to the redevelopment (Interviewees 2, 10, 13). Consequently, the project members had already submitted a revised plan for approval by the Federal Office of Transport (FOT), which the EZP organizers intended to use as an essential piece of their plan in March 2019 (Bauer, 2021). Fearing other change requests by making the revisions accessible, the project members released documentation late, and reluctantly, during the EZP iteration. This reinforced participants’ impressions that not all SBB units endorsed the EZP process or were aware of it (Interviewees 1, 7). One EZP organizer described the contestation within SBB as follows (translated from German):

“During the workshops, everything could have gone well. However, in the aftermath, other units or superordinate boards would suddenly come along to exert influence somehow and control the results. But these people never actively engaged in the workshops; they may have only received a result summary” (Interviewee 6).
3.4.2 Ostermundigen case study

3.4.2.1 Case study background

The Municipality of Ostermundigen had a permanent resident population of approximately 18,000 in 2020 (BFS, 2022). After more than a decade of factual stillstand, the development of the station district (cf. Figure 6) continued from 2011 with the developments of BäreTower and Poststrasse Süd (Interviewee 24). Building on this momentum, the municipality initialized a total revision of its local spatial planning in 2017. This was done considering that SBB was about to commence planning for the railway track extension and renewal and redevelopment of Ostermundigen’s sole railway station. The local zone plan revision was incentivized by planning activities by BERNMOBIL for a new tramway to connect Ostermundigen to the City of Bern via the station district (Interviewees 17, 18).

The total revision started with strategic analysis and development phases that produced a strategic land-use plan known as Räumliche Entwicklungsstrategie (RES). It was released in 2021 and provides the basis for municipal building law changes (Interviewee 19). The RES plan explicitly addresses the station district as one of three focal points of local spatial development (O’mundo, 2021). The municipality intends to change zone plans for these foci to allow for highly intensive land use (Interviewee 17). Appendix G offers an overview of the strategic (land-use) plans and developments for Ostermundigen’s station district during the data collection period.

At the regional and cantonal scales, the same strategic (land-use) plans involve the station district, as in Bern Wankdorf. They identify the potential of Ostermundigen to disburden Bern’s central public transport junctions (RKBM, 2021; SBB & Kanton Bern, 2016). In contrast to Bern Wankdorf, an integral part of Bern’s new town, Ostermundigen still has a rural character valued by its inhabitants and the municipal administration (Interviewee 19), which requires the municipality to perform a balancing act, as discussions
on possible incorporation into the City of Bern, launched in June 2019, are advancing (O’mundo, 2021).

3.4.2.2 Two novel planning processes with different foci

In a similar period, different actors enacted novel processes to orchestrate individual developments in the station district. First, as part of the RES process and with a spatial focus, the Municipality of Ostermundigen offered the district’s property owners the opportunity to join a test-planning study in 2019 (O’mundo, 2020). Of the twelve property owners, nine joined, including SBB and the municipality as the only public bodies, and contributed financially to the test-planning process completed in February 2020 (Interviewee 19).

Second, a group of SBB transportation planners and area developers designated Ostermundigen as a station district that should draw up an EZP by the end of 2020. It focused on transportation modes, their spatial connectivity, and the necessary areas (Interviewees 21, 28). As in Bern Wankdorf, this was the first EZP iteration. Participants included SBB (railway infrastructure provider and property owner), BERNMOBIL (tramway infrastructure and service provider), BLS (railway service provider), the municipality, and the canton. The
EZP organizers reduced the workshop series to one unit because coordination was well advanced due to the ongoing total revision (Hartmann, 2020; Interviewee 28).

3.4.2.3 Coping with “the synchronicity of the nonsynchronous”

The municipality used the test-planning process to secure a clear starting point for future collaborations with property owners. It intended to offer favorable conditions for area developments that adhere to the big picture to which it has committed (Interviewees 19, 20). However, not every owner was eager to follow up with concrete actions in 2020. In contrast, those ready to take measures expected more accurate specifications than those provided by the study (Interviewees 17, 19).

Public law and private actors had divergent notions of how promptly and distinctly commitment should devolve into concrete actions. While the municipality and SBB valued a gradual process that met administrative demands and public expectations, private property owners emphasized opportunity windows driven by profitability and received the planning process more variedly. However, once within such a window, the time spent on administrative procedures should be minimized (Interviewees 17, 18). As one municipal planner commented on the acclaim of test planning (translated from German):

“Let us call it ‘the synchronicity of the nonsynchronous.’ Of course, we would like an overall picture, but we also know that some owners are ready to act now, some in five years, others in ten or 20 years. But somewhere, in the end, there should be a significant whole...until recently, the municipality was also relatively helpless in formulating its requirements or needs for such actions, and that is what we now can do with this big picture”

(Interviewee 19).

3.4.2.4 What happens in the projects does not stay there

Following their participation in the test-planning study, SBB’s area developers were aware of the municipality’s overarching planning activities. Accounting for additional
(re)developments concerned with the railway station and track infrastructure, they joined forces in October 2020 with transportation planning colleagues, who generated the idea of an EZP initiative (Interviewees 21, 28). Although they promoted the initiative as the missing puzzle in hitherto development coordination, the EZP organizers faced mixed feedback on the workshop. Participants from BLG, the canton, and SBB, who were less involved in the district’s day-to-day project activities, appreciated it as an opportunity to catch up with the latest developments (Interviewees 26, 29, 30, 31). The municipality and BERNMOBIL viewed no value added, as conveyed by a member of the tramway infrastructure project (translated from German):

“I was like: Why do I have to go there now? We had already defined everything during the project...so I was not pleased with this workshop. I thought the theoretical idea of this plan in a setting, maybe not so far advanced, was excellent to overlook what was happening around the station and how one needed to include the various developments. However, we had already discussed it all at this stage of the tramway project. We now needed a solution for our approval procedure” (Interviewee 22).

By “approval procedure,” the project member referred to an ongoing process in which transportation planners of BERNMOBIL were involved with their SBB counterparts to integrate their railway station and tramway stop redevelopment projects. The FOT, the relevant statutory planning authority, demanded joint planning documentation to prevent constructional prejudice (Interviewees 22, 23, 29). The required collaboration between BERNMOBIL, the municipality, and SBB has proceeded sluggishly since 2019 because of substantial delays in the railway infrastructure project and SBB’s lack of commitment to persist with decisions previously taken together. These issues were inexplicable for BERNMOBIL and the municipality, and they objected to their planning routines (Interviewee 23, 28). They perceived SBB’s invitation to the EZP workshop as ignorant. Due to the
municipality’s efforts, cross-project coordination was already sophisticated, and SBB should have prioritized the severe collaboration issues at the project level (Interviewees 17, 19, 22).

3.5 Discussion

3.5.1 Interactions between station district planning processes and institutionalized planning practices

For RQ-1, the findings imply that processes for planning transit station districts may develop divergent interactions with institutionalized practices. The EZP iterations and test-planning study were completed, even though they were incongruent with institutionalized planning practices in these contexts. The consequences of such incongruencies may be manifold, with some diametral to aligning station district planning to support TOD.

In Bern Wankdorf’s EZP iteration, urban planners disapproved of the non-consideration of a strategic plan revision running in parallel and not including private property owners. The unconventional initiative and role of SBB’s transportation planners displeased fellow staff members in the railway station project and the property owners. Interpreting these results according to the forms coined by Lauth (2000) and Helmke and Levitsky (2004) suggests accommodating interactions. The EZP process may have provided a space to plan for the station district without following several otherwise enforced institutions. The iteration’s potential to foster integration would have been greater if it had accounted for effective institutionalized practices. Instead, it offered actors a potential loophole to diverge from these practices.

Ostermundigen’s EZP initiative de facto ignored the saturation point of further planning for the station district. Previously, the test-planning study had partially run into developmental limits with property owners, signaling nearing saturation. Referring to Lauth (2000) and Helmke and Levitsky (2004), I interpret these interactions as accommodating.
because both planning processes may have contradicted the spirit of institutionalized practices but without expanding on existing institutional violations.

Ostermundigen’s EZP initiative may have followed a competing interaction with institutionalized planning practice that was not enforced at the public transport infrastructure project level. The related collaboration issues between BERNMOBIL, the municipality, and SBB undermined the EZP workshop because the former two actors withheld full support if the joint planning documentation process kept objecting to their planning routines. Such strong incongruency is diametral to coordinating actors to move in a common direction and may have reduced the process’s potential even more than in Bern Wankdorf.

Discussing these interactions against station district planning’s cross-sectoral nature has implications for contrasting the contribution of new institutionalism to planning studies. Congruency between novel processes and institutionalized practices may not run along spatial and transportation planning sectoral structures. Transportation- and settlement-driven orchestration efforts may diverge from institutionalized planning practices within the same sector and partially within the same organization, as shown in Ostermundigen’s test-planning study and Bern Wankdorf’s EZP iteration. This contrasts with previous studies on implementing TOD and increasing public transport attractiveness (Dirgahayani et al., 2020; Hirschhorn et al., 2020).

The argument becomes more differentiated if we carve out the real estate sector, driven by private actors, from the spatial planning sector. We increasingly understand “cross-sectoral” as overlapping public law and private domains. In this light, the analysis of the test-planning study indicates that private–public domain integration could be more formative than sectoral spatial and transportation planning structures in interpreting institutional interactions.

For planning practice, RQ-1 findings suggest that station district planning initiatives should arise from broad-based actor coalitions representing all sectors and domains involved
in the corresponding planning contexts. This applies to integrating private domain actors, which must not occur after statutory planning authorities and public transport providers have started a process.

Judging if the time is right for jointly planning a station district must consider individual developments and collaborations that are underway. Actors may transfer friction from the project level to an overarching planning process, which may lead to actors no longer supporting initiatives of fellow staff members because they make the inadequacies of ongoing collaborations visible to additional actors. Stadler Benz and Stauffacher (2023) suggested defining a dedicated caretaker who collects knowledge on ongoing projects and supports assessing appropriate timings for novel planning processes.

3.5.2 Signals for emerging incremental change in institutionalized planning practices

In response to RQ-2, the findings signal the potential for incremental change that renders the integration of planning within station districts increasingly institutionalized. This involves explicitly translating an integration’s programmatic idea from the meso to the micro level of the institutional system that underlies a planning context (Alexander, 2005). Harnessing station districts’ potential for TOD may depend on whether this idea remains a strategic aim or is effectively translated and put into practice.

Translation deficiencies were evident in both case studies. The strategic planning groundwork relevant to Bern Wankdorf and Ostermundigen incorporated aligned station district development as an unexplored potential, stated priority, and formalized expectation. Dedicated policies, resources, and routines, on which the EZP iterations and test-planning study could have relied as an institutionalized basis, were absent at the project level.

Station district planning’s cross-scale nature may exacerbate the lack of translation from the meso to the micro level. I ground this on case study observations of how railway infrastructure projects, operating from regional and national perspectives, were poorly
positioned to converge with station district planning processes. Consequently, developments involving districts from these perspectives may require particular care to align with novel processes that predominantly display local views.

From an institutionalist planning perspective, these results suggest that the potential institutionalization of station district planning could follow a type of incremental change. Station district planning processes may diverge from institutionalized planning practices that are otherwise mainly put into practice and supported by actors (Helmke & Levitsky, 2004; Lauth, 2000). Strong support for existing institutions may signal an incremental change through conversion and layering rather than drift and replacement (Mahoney & Thelen, 2010). Replacing institutionalized practices appears unfeasible due to strong support. Drifting their impact toward station district planning may also be improbable, which Granqvist et al. (2021) would have denoted a starting point for programmatic change at the meso level. The reason is that the programmatic idea of station district planning may already exist at that level, as shown by the case studies’ strategic planning groundwork.

My analysis suggests incremental change toward layering institutionalization. It considers the idea’s missing translation from strategic (land-use) plans to concrete area and infrastructure developments at the micro level. Station district planning may remain a strategic ambition that layers over institutionalized planning practices, but these may not align with this ambition.

Previous regional planning case studies have found similar misalignments (Granqvist et al., 2021; Reimer, 2013). For example, Granqvist et al. (2021) concluded for a city-region case that “[w]hile the imaginary of the city-region, with its core philosophical and programmatic ideas, provided the joint master planning process with cognitive arguments, the regional and local authorities drew their normative arguments from the idea of prevalent statutory planning, namely local self-governance” (p. 852). In contrast to these contributions,
my study included national planning perspectives (federal railway infrastructure and service planning) and shows how these may strain the cross-scalability of novel processes and reinforce this inclination toward self-governance.

To challenge current planning practices, I deem their strategic redevelopment and enactment (to cover station district planning) vital to closing the gap with strategic planning groundwork and reducing the self-governance inclination. Actors should translate their strategic (land-use) plans and reflect station district development idea and resource requirements in their developments and related policies, procedures, projects, and routines. For local actors (e.g., municipalities, property owners, inner-city public transport providers), this may be more viable than for railway providers with superordinate perspectives, who downscale approaches and involve districts from an overall system view. To bridge gaps between national and local planning perspectives, Stadler Benz and Stauffacher (2023) emphasized a strong transfer layer at the regional level. The question remains whether that suffices, as certain actors involved in station district planning, such as real estate companies, may not refer to regional planning in their developments.

3.5.3 Methodical limitations and suggestions for further research

This article provides a starting point for studying station district planning traits. Due to the selected research methods, the findings are not generalizable, but they may be transferable to station districts with similar land-use intensification and regional transit network access. They should have similar superordinate development conditions based on a federalist allocation of tasks, competencies, and responsibilities for spatial and transportation planning (Stadler Benz & Stauffacher, 2023).

It would have been useful to extend the research period beyond 20 months of data collection and conduct a thorough investigation of incremental institutional change. This is
why the study is limited to signals of the potential institutionalization of novel planning processes.

Additional case studies are needed to continue exploring the planning traits of station districts. Future research may delve into how actors could effectively introduce station district development’s idea and spatial imaginary at the scale where novel processes are applied. The work of Granqvist et al. (2021) on city-regional planning provides a promising framework for station districts to clarify novel processes’ dialectical tensions with statutory planning systems.

3.6 Conclusion

This article tackled the research gap in planning processes for transit station districts. It investigated how they interact with institutionalized planning practices and become institutionalized. Following an institutional approach, the study shows that station district planning initiatives are implemented despite diverging from institutionalized practices in affected social and cultural contexts. Distinctions between private and public law actors proved more meaningful in explaining these incongruencies than sectoral spatial and transportation planning structures. The findings demonstrate that actors may anchor station district planning in strategic planning groundwork but insufficiently carve out what this would signal for redeveloping planning policies, procedures, and projects in the relevant districts.

The article concludes that station district planning processes may remain layered over institutionalized planning practices. These practices may not be redeveloped to foster the integration of planning in districts, but keep strengthening a tendency to self-governance, especially for actors who operate beyond local scales. To realize station districts’ full potential for TOD, aligning planning practices is essential to provide fertile ground for novel planning processes that aim to organize actors in a common direction.
3.7 Acknowledgments

I wish to thank the interviewees and the members of the Co-Creating Mobility Hubs research project for sharing their time, insights, and expertise. I am also grateful to the reviewers, especially Prof. Dr. Michael Stauffacher, for their constructive comments and helpful suggestions. Finally, thank you to Sandro Bösch-Pauli, for his valuable help with the graphical figures, and Swiss Federal Railways and ETH Zurich for supporting this research.

3.8 Disclosure statement

No potential conflict of interest was reported by the author.

3.9 Ethics declarations

The ETH Zurich Ethics Commission (Proposal 2020-N-93) approved this research, and the study participants gave informed consent.

3.10 Data availability statement

Supporting data is not available, as, due to the nature of this research, the participants in this study did not agree to their data being shared publicly.

3.11 Funding details

This work was supported by Swiss Federal Railways.
4 STUDY II – network governance lens

Two qualitative case studies on network governance in Swiss transit station district development

Abstract: Designing station districts to support TOD requires multi-actor collaborations across sectors, planning scales, and administration levels. Dedicated planning processes are rare and perceived differently by the relevant actors. Previous TOD studies have shown that actors respond to this challenge with network governance, forming networks through a bottom-up approach to integrating development policies and processes. This article examines whether and how network governance occurs for transit station districts in two Swiss case studies. Through a qualitative analysis of the role of network formations in actors’ handling of governance challenges, the findings demonstrate that actors learn about plurality and structure collaborative operations management through network governance. The article suggests that statutory planning authorities and public transport operating agencies promote the profile of station districts’ spatial imaginaries so local practitioners acknowledge the benefits of dedicating resources to networked development orchestration.

Keywords: multi-actor collaborations; network governance; qualitative case studies; transit-oriented development; transit station districts; urban planning–transportation nexus

4.1 Introduction

Transportation and urban planning must become more sustainable to tackle global challenges (Creutzig et al., 2016; Geels et al., 2017). TOD contributes to this transition by aligning urban planning with mass transit stations (Calthorpe, 1993; Qviström & Bengtsson, 2015). Following this approach, transit stations and their neighborhoods (i.e., transit station districts) provide mixed-use areas with well-designed access to public mass transit and seamless transfers to sustainable inner-city transportation modes. These modes and mass transit options become more attractive for users (Bertolini, 1996b; Blad et al., 2022).
To develop a station district in a common direction to support TOD, actors from different sectors and multiple planning scales and administration levels – public transport providers, public authorities, and private developers – must collaborate (Hickman et al., 2021; Papa & Bertolini, 2015). As a jurisdiction – to entrust selected actors with the tasks, competences, and responsibilities for development – is unavailable (Stadler Benz & Stauffacher, 2023), station district development often lacks consistent governance, with each party operating in ways specific to particular organizations, sectors, planning scales, and administration levels (Bertolini et al., 2012; Stepanova & Polk, 2023). Dedicated development processes are rare and, if available, guided by informal planning procedures and contested by actors (Albrechts & Balducci, 2013; Scholl, 2017).

Previous TOD research discusses network governance as a bottom-up mode if dedicated processes and jurisdictions are lacking from the top down (Dirgahayani et al., 2020; Mu & De Jong, 2016). Network governance denotes how informal actor networks unfold as guiding structures in different forms and on varying rungs to support process integration (Mu & De Jong, 2016; Provan & Kenis, 2008). In addition to focusing on vertical alignment across planning scales and administration levels within a sector, network governance allows for the horizontal integration of sectoral policy avenues. It emphasizes synchronizing developments along vertical and horizontal axes, which is vital to TOD (Dirgahayani et al., 2020; Thomas et al., 2018).

The governance challenges of station district development have been roughly outlined, and research on whether and how network governance may occur is lacking. This article aims to tackle this gap by conducting two qualitative case studies. First, I explore the governance challenges that actors face in developing station districts. Second, I clarify how actor networks may have unfolded as guiding structures to tackle them. The article aims to answer two RQs:
RQ-1: What are the governance challenges of station district planning?

RQ-2: How do actor networks form to respond to governance challenges?

The case studies focus on two Swiss station districts, Bern Wankdorf and Ostermundigen, with multiple commonalities. Both are part of the Bernese agglomeration and represent transforming commercial land-use structures through housing development changes to transition from industry-dominated areas to service centers with enhanced public spaces (AUSTA der Stadt Bern, 2021). They are subject to multiple development projects concerning settlement areas or public transport infrastructures and involve collaborations between actors.

The analysis of two Swiss station districts has the potential to provide results and insights that can be transferred to other contexts in which actors strive to integrate urban development with transportation planning. If station districts exhibit patterns of land-use intensification, constellations of actors, and organizational affiliations comparable to those in these cases, as outlined in Section 4.3, then similar governance challenges may occur to which network formations present a potential response and remedy.

In this article, I provide a synopsis of the relevant theory. The case studies and methods used are presented. Then, the results are discussed with suggestions for further research and limitations. Finally, I conclude with implications for practitioners and policymakers.

4.2 Theoretical background

4.2.1 Transit station districts’ development potential and implications for multi-actor collaborations

The TOD planning principle exploits the nexus of transportation and urban planning to form the basis for sustainable development (Qviström & Bengtsson, 2015; Reusser et al., 2008). It aspires to integrate urban development with mass transit services and infrastructures and shift
planning for compact spaces toward a shared vision (Calthorpe, 1993; Geels et al., 2017).

TOD suggests that planners combine intensive, mixed land use with multimodal transit accessibility and enhanced spatial connectivity between transportation modes to make public transport and human-powered mobility more appealing (Blad et al., 2022; Papa & Bertolini, 2015).

Transit station districts support TOD by offering attractions and public spaces with easy access to mass transit (Bertolini, 1996b; Cervero, 1998). Station districts include transit stations, station areas, and adjacent neighborhoods (Brons et al., 2009; De Wijs et al., 2016). Broadly supported development across each foci helps foster alignment beyond the boundaries of sectors, planning scales, and administration levels (Reusser et al., 2008; Stadler Benz & Stauffacher, 2023).

Guiding potential developers of a station district in a common direction is challenging. Coherent development trajectories that support TOD are indistinctly framed (Thomas et al., 2018; Zemp et al., 2011b). Previous studies have implied that current policies inadequately reflect multi-actor collaborations, using spatial imaginaries similar to transit station districts (e.g., multimodal transportation, railway transit, and shared mobility hubs; Banerjee, 2022; Blad et al., 2022; Stadler Benz & Stauffacher, 2023; Weustenenk & Mingardo, 2023). Prevailing governance modes do not appropriately consider the urban planning–transportation nexus (Hirschhorn et al., 2020; Van Acker & Triggianese, 2020).

In Switzerland, Stadler Benz and Stauffacher (2023) investigated problem structuring, the primary challenges in developing multimodal transportation hubs, and the cross-scalability of trajectories by including actor perspectives from local, regional, and national planning scales and administration levels. As a central challenge for implementation governance, they emphasized the “[m]ultitude of actors with their different interests, roles,
and processes” (p. 106). To explore this in detail, this article aims to unpack the governance challenges in developing two Swiss station districts (cf. RQ-1).

4.2.2 Governance and network governance

Governance refers to “the complex processes and interactions that constitute patterns of rule” and acknowledges “the diverse activities that often blur the boundary of state and society” (Bevir, 2011, p. 2). It includes creating and adhering to rules that governmental, nongovernmental, and private sector actors refer to and comply with (Hirschhorn et al., 2020). For this article, actors are individuals who make decisions and act as members of organizations, including projects, corporations, and other administration types (Burton et al., 2020).

Traditionally, governance modes have been concerned with vertical and top-down alignment of processes between different planning scales and administration levels rather than with horizontal and bottom-up process integration across multiple sectoral policy avenues (Hansson, 2020; Nadin et al., 2021). Network governance is a differentiated approach that revolves around an unclosed, cross-sectoral group of actors who interact to tackle a problem with a shared commitment but without following a prescribed process (Huggins & Thompson, 2022; Knox & Arshed, 2022). While early scholars analyzed organizational networks in corporates, nonprofits, and public administrations (e.g., Fama & Jensen, 1983; Provan, 1980), dedicated network governance research occurred later, focusing on public–private partnerships (Hill & Lynn, 2005) and regional entrepreneurship (Knox & Arshed, 2022). The latter contributions viewed networks as governance modes and an entire network as the unit of analysis rather than single network nodes with their ties (Provan & Kenis, 2008, p. 232).

Mu and De Jong (2016), adopting a network governance approach to researching TOD, devised a conceptual model with three ascending rungs along which actor networks
integrate different policies and planning processes to reduce deficiencies due to fragmented, poor guiding structures in the urban planning–transportation nexus. The rungs describe how network governance addresses the (1) substantial complexity, (2) strategic uncertainty, and (3) institutional deficiency of TOD planning, as outlined in Section 4.2.3. The case study of Urumqi, China, illustrates the cumulative “ladder of network governance” by Mu and De Jong (2016, p. 57) by demonstrating how actors achieved mutual recognition, process alignment, and trust along the three rungs while planning for TOD. Dirgahayani et al. (2020) developed this by framing the ladder as a response to poor regulatory planning groundwork for TOD (Newman, 2009). A qualitative study of a developing mass transit corridor in Jakarta, Indonesia, showed how slight network formations helped deal with existing but fragmented regulatory groundwork (Dirgahayani et al., 2020). This article adopts the model by Mu and De Jong (2016), without the extension of Dirgahayani et al. (2020), as part of its conceptual framework to clarify how actor networks may have formed in two Swiss station districts in response to governance challenges (cf. RQ-2).

4.2.3 Conceptual framework to examine horizontal policy and process integration in station district development

This section develops this article’s conceptual framework using the network governance concept to illustrate how actors may horizontally integrate perceptions, interests, and objectives to address poor guiding structures (Dirgahayani et al., 2020; Mu & De Jong, 2016). Figure 12 in Section 4.4.2 summarizes the conceptual framework and the article’s RQs, data collection methods, and expected results.

Station district project actors could mitigate implementation difficulties by adopting network governance (Dirgahayani et al., 2020). Network governance may target a degree of horizontal policy and process integration, depending on the particular deficiency, distinguishing between the three ascending rungs of the cumulative ladder by Mu and De
Jong (2016). Rising up the rungs, an informal actor network may unfold as a guiding structure to overcome governance challenges by enabling:

1. mutual recognition, awareness of plurality, and information and knowledge exchange between actors to reduce substantive complexity;
2. the management of structures and processes, goal alignment, and collaboration between actors to reduce strategic uncertainty;
3. rule changes and trust between actors to reduce institutional deficiencies.

Initially, scholars interpreted network governance as a novel, universal response to coordination failures of dominating hierarchical modes and did not distinguish between different forms. To unpack effective network management, Provan and Kenis (2008) differentiated between three primary forms of network governance based on two design dimensions (cf. Table 5). First, an actor group decides how their network will be brokered, either by all actors in equal shares (i.e., shared participant governance), one organizing actor (i.e., lead organization governance), or somewhere in between. Second, the adopted broker configuration is kept within the network or outsourced to an external provider (i.e., administrative organization governance) that is not a network participant and administers the network (Provan & Kenis, 2008). Dirgahayani et al. (2020) adopted these three forms to reflect on network management against the background of TOD.

This article uses deficiency rungs (Mu & De Jong, 2016) and primary forms (Dirgahayani et al., 2020; Provan & Kenis, 2008) to discuss how network governance may

Table 5: Forms of network governance (adapted from Provan & Kenis, 2008)

<table>
<thead>
<tr>
<th>Broker origin</th>
<th>Broker configuration</th>
<th>Single actor</th>
<th>Multiple actors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant(s) inside network</td>
<td>Lead organization governance</td>
<td>Shared participant governance</td>
<td></td>
</tr>
<tr>
<td>Nonparticipants outside network</td>
<td>Administrative organization governance</td>
<td></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

occur to target a degree of horizontal policy and process integration (cf. RQ-2) in response to identified governance challenges (cf. RQ-1).

4.3 Case study contexts

This study was part of a TD research project between SBB, ETH Zurich, and EPF Lausanne (Müller et al., 2022; USYS TdLab, 2023). From the case study sample, I chose two station districts of the same size: Bern Wankdorf and Ostermundigen (cf. Figure 7). They have the same administrative affiliations with the Swiss Confederation, the Canton Bern, and the Bern-Mittelland District (RSTA des Kantons Bern, 2023). They are connected to the same regional railway network (belonging to SBB, but operated by BLS) and local public transport services offered by BERNMOBIL (tramway and bus) and the Regional Transport Bern-Solothurn (RBS; bus; SBB, 2023). Due to these commonalities, most station district
development actors are the same, except for local public authorities (Bauer, 2020; Hartmann, 2020). Bern Wankdorf corresponds to a district of the City of Bern, Switzerland’s federal
city, which had a permanent resident population of roughly 135,000 in 2021, while Ostermundigen is a municipality with a permanent resident population of approximately 18,000 in 2021 (BFS, 2023).

Bern Wankdorf describes a district of the City of Bern, which includes the railway station of the same name (cf. Figure 8 and Figure 9). Wankdorf corresponds to a greater development perimeter that covers parts of the Municipalities of Ostermundigen and Ittigen. This perimeter has been a development focus of the Canton of Bern for more than two decades and is the subject of numerous projects and strategic (land-use) plans devised by various actors (BVD des Kantons Bern, 2023). Many of these projects involve the station district. In contrast, strategic (land-use) plans address it as part of the Wankdorf perimeter or even larger development scopes, such as the city or canton. Appendix H summarizes ongoing projects and strategic (land-use) plans.

Ostermundigen’s station district (cf. Figure 10 and Figure 11) revolves around the municipality’s only railway station (Hartmann, 2020). Although a 1997 cantonal development program focused on the district, no investments occurred. The first development by a (private) owner was the BäreTower project in 2011. The Poststrasse Süd project followed in 2014 and the Municipality of Ostermundigen passed a land-use plan (Iten, 2020). In 2017, the municipality initiated the first total revision of local zone plans since 1995 to harness the increasing development interests of property owners in the station district, including SBB and private developers, and other focal points in Ostermundigen (O’mundo, 2021). Appendix H summarizes these plans and projects.

4.4 Methods

4.4.1 Data collection

The data for this study were collected between May 2020 and December 2021. I conducted 32 semi-structured interviews of 60 to 90 minutes in German with station district actors of
Bern Wankdorf and Ostermundigen (Charmaz, 2002; Kvale, 1996). The interviewees were public transport providers (N = 16), public authorities (N = 10), local property owners (N =
and a local stakeholder group (N = 1; cf. Appendix D). I used these interviews to identify other interviewees (Coleman, 1958).

The interviews explored the case studies’ process settings and guiding structures, signaling potential governance challenges (cf. RQ-1). I conducted the interviews with the help of an interview guide containing generic, open questions (cf. Appendix B; Kvale, 1996) and followed up on responses with ad hoc inquiries to expand how interviewees, with other actors, responded to challenges (cf. RQ-2).

I studied documents for both districts to identify their current development processes and planning groundwork and to prepare for the interviews. They contained mass media outputs (N = 5) and public relations and official reporting pieces of public bodies – press releases, mission statements, land-use plans, and a parliamentary intervention (N = 16). Further documentation originated from actors’ internal correspondence – presentations, material from workshops, workshop minutes, and a memo (N = 9; cf. Appendix E).

4.4.2 Data analysis

Following an explorative and reflexive coding and memo-writing approach to analyze the interview transcripts (Braun & Clarke, 2022, 2023), supported by NVivo (March 2020 release) software, I iteratively inquired the collected data into themes and narratives signaling governance challenges (Kohler Riessman, 2008; Ryan & Bernard, 2003) to address RQ-1. For RQ-2, I reviewed the case-specific challenges for actor network formations and their roles in responding to them. To ensure that the study’s theoretical background provided a lens on the empirical analysis and to guide my coding at the primary level, I worked with the operationalization presented in Table 6.

To interpret and discuss the results and answer the RQs, I reflected on the identified themes and narratives against the conceptual framework (cf. Figure 12). First, to assess the required degree of horizontal integration in the station districts, I contrasted case-specific
Table 6: Conceptual operationalization for qualitative data analysis and generated subcodes (adapted from Brooks et al., 2015; Meijer & Van Der Krabben, 2018)

<table>
<thead>
<tr>
<th>Analytical interest points behind the concept</th>
<th>Concept</th>
<th>Definition</th>
<th>Operationalization</th>
<th>Quote from semi-structured interviews (translated from German)</th>
<th>Subcodes from data analysis</th>
</tr>
</thead>
</table>
| RQ-1                                          | Governance | “…the ways in which societies create and uphold rules and order in social processes in the pursuit of collective interests” (Hirschhorn et al., 2020, p. 2). | The ways in which actors consider rules and patterns of rules in development processes (Bevir, 2011). | “Some want to move forward quickly, but others think it does not hurt if we have revised zone plans, but we are not investing there currently” (Interviewee 17). | - Aligning concepts, narratives, projections, and needs  
- Clarifying the operation mode and leadership  
- Diversifying the actor group  
- Gathering relevant knowledge carriers |
| Challenge                                     | A condition requiring skill, determination, and energy to be achieved or dealt with (Macmillan Dictionary, 2023a). | Critical conditions and moments in development processes that require intensified interaction and communication between actors (Stadler Benz & Stauffacher, 2023). | | | |
| RQ-2                                          | Organizational network formation | “…groups of three or more legally autonomous organizations that work together to achieve not only their own goals but also a collective goal” (Provan & Kenis, 2008, p. 231). | Unclosed group of three or more actors who periodically interact and horizontally integrate development processes and policies to address a deficiency (Knox & Arshed, 2022; Mu & De Jong, 2016). | “We have tried to create joint agreements. It is more of a brief coordination, so these organizations talk to each other and proceed in a coordinated way” (Interviewee 19). | - Mobilitätshub Bern Wankdorf  
- Zentrale Baustelle Bahnhof Ostermundigen |
governance challenges (cf. RQ-1) with ascending deficiency rungs (Mu & De Jong, 2016). Second, I collated these degrees with the organizational network formations found in the qualitative data (cf. RQ-2), which I interpreted using the three primary forms of network governance (Provan & Kenis, 2008).

4.5 Results and discussion

This section discusses the results, with a summary in Table 7.

4.5.1 Bern Wankdorf

4.5.1.1 RQ-1: Diverging identifications with the district space at the core of actors’ fragmented knowledge

Actors involved in local projects followed coordination frames and strategic plans established at larger planning scales. They neglected to create a coherent, dedicated development trajectory for the station district. The city and canton integrated area development projects and inner-city transportation planning within the Wankdorf perimeter, whereas SBB mandated railway infrastructure projects through a regional coordination program (Interviewees 4, 5, 9, 13). Actors emphasized vertical process alignment in these programs,
mainly isolating railway infrastructure planning from urban settlement and transportation development.

An exception was the station redevelopment project that SBB initiated in 2018, which selectively involved the City of Bern and faced implementation difficulties due to insufficient horizontal process integration. Although the project completed a joint exploration phase that included a test-planning study, close collaboration between SBB and the city subsequently diminished (Interviewees 2, 13, 21). Poor alignment of user forecasts and what different dimensions of the planned underpass would mean for the budgeted costs led to a deadlock, which continued until the project’s discontinuation in 2020 (Interviewees 2, 10, 12, 13).

The fragmented knowledge of the station’s future importance signaled divergence between actors. This may be traced to different identifications of SBB and the city with the station district, which underpinned their respective development policies. Given their involvement in developments around the station, city representatives wanted the underpass to provide a corridor for human-powered mobility, connecting two developing areas (Interviewees 2, 3). For SBB, layover safety, transit service punctuality, and efficient project completion were crucial (Interviewees 7, 12). They identified with the station insofar as it
was one node within the regional coordination program’s scope to contribute to a targeted railway network capacity increase (Interviewees 7, 13, 15).

These governance challenges may point toward rungs of the cumulative ladder of TOD deficiencies by Mu and De Jong (2016). The challenges of isolated district projects and fragmented knowledge of future station frequencies and functions signal substantive complexity. This resulted from the gap in dedicated integrating structures, which enabled the co-existence of contrasting identifications and policies among actors. The challenge of meaningful, continuous process and policy integration in the project demonstrates that unaligned knowledge and identifications may imply severe implementation difficulties – especially if an undertaking requires intensified collaboration beyond the prevailing silos in the district. This challenge also suggests strategic uncertainty that complicated finding common ground.

4.5.1.2 RQ-2: Mobilitätshub network

As suggested by SBB and the Hauptstadtregion Schweiz regional development association, the Bern Wankdorf station district became a pilot in 2019 to test a coordination process devised by SBB to support the iterative design of Mobilitätshubs (mobility hubs; Bauer, 2020; Friedli, 2020). This process included two workshops with city representatives, the canton, SBB (railway infrastructure provider, public law property owner), BERNMOBIL (tramway infrastructure and service provider), BLS (railway service provider), and ewb (public law property owner). During these workshops, they created a legally nonbinding plan depicting the district’s current and future projects and mobility offers and the space needed for them (Bauer, 2021). Most actors saw the benefits beyond the process (to be repeated annually) in gathering diverse developers to create a network dedicated to the station district that balanced vertical and horizontal alignments of interests (Interviewees 1, 2, 6, 8, 16).
As the first vessel to connect actors in this context and fill the governance gap, the Mobilitätshubs network reduced substantive complexity in the district’s development. With SBB as a leading actor, this network resembled a lead organization governance form (Provan & Kenis, 2008). In line with the results of Mu and De Jong (2016) in Urumqi, this formation enabled the exchange and pooling of knowledge on future projections and project pipelines, even if it was too late in the station’s redevelopment (Interviewees 7, 11, 13). It prepared common ground to address strategic uncertainty and collaborative operations management (Interviewee 3). Dirgahayani et al. (2020) highlighted the rung’s preparatory character in their case study’s analysis and how actors could not remedy omissions on forthcoming rungs. In contrast to the Chinese and Indonesian case studies mentioned earlier, the interactions on this rung were less disputed and substantial in output within the Mobilitätshubs network, except for the plan creation. This plan’s nonbindingness may have been why collaboration remained lighthearted, and participants benefited from getting to know each other. The following quote from a city representative underpins this (translated from German):

“By...getting to know each other...you come to understand each other. Then, one says, ‘We had the same aim. So, the bottom line is getting a working infrastructure up and running’”

(Interviewee 2).

4.5.2 Ostermundigen

4.5.2.1 RQ-1: Unaligned overall development due to actors’ contrasting needs and time horizons

The Municipality of Ostermundigen initialized the total revision of local zone plans in 2017 as a partial response to the increasing development interests of property owners in the station district. As it was the first total revision in 20 years, it was vital to prepare for pressing issues, such as Ostermundigen’s transition from a large village to a small town and perhaps its incorporation into the City of Bern (Iten, 2020). These issues required spatial consideration at
the municipality-wide planning scale. The district’s private developers pushed for a district-focused specification of how they could seize property-related windows of opportunity without waiting to complete the revision’s large-scale “bureaucratic” processes (Interviewees 17, 18, 19).

SBB’s developers remained reserved about developing their properties in the station district (Interviewees 20, 27), continuing the “tradition” that SBB’s local property development was limited to conducting explorative studies (Interviewees 17, 19). SBB acknowledged the potential for growing frequency and a more vibrant public space due to the recently opened ground-floor uses and urban significance of the BäreTower and Poststrasse Süd projects (Interviewee 20). Its railway infrastructure planners would redevelop Ostermundigen’s railway station and lay the foundation to implement quarter-hour intervals for regional trains only after 2030 (Interviewees 28, 29). Deeming this renewal as the driver of a profitability-driven window of opportunity, SBB’s developers would operate with a time horizon for station redevelopment that was longer than those of private developers (Interviewees 20, 21, 30).

Reflecting on the case-specific challenges against the cumulative ladder of Mu and De Jong (2016) suggests that a gradually widening governance gap may complicate the handling of strategic uncertainty created by actors’ needs and time horizons. Existing horizontal ties between the municipality, private developers, and SBB’s developers proved meaningful in recognizing mutual interests and contrasting conceptions about station district development and reduced substantive complexity. The frame of the total revision provided an umbrella for developers to become vocal about their future intentions. As the revision advanced, these votes signaled a demand for strategically orchestrating the plurality of potential development processes to ensure that temporally distributed actions align with the same vision for the district.
4.5.2.2 RQ-2: Zentrale Baustelle network

In 2019, the municipality began to explore three development foci within the total revision frame – Zentrale Baustellen (ZBSs; O’mundo, 2021). One ZBS addressed the station district (Interviewee 19; Iten, 2020). In contrast to the 1997 cantonal development program, the municipality intended the early integration of its development policy and forthcoming planning process with local property owners (Interviewee 17). It proposed joint test planning to private developers and SBB to study specific subjects, such as housing development, traffic management, and district access points (O’mundo, 2020). Participation had vesting financial conditions, as the municipality would partially fund the study through money from the participating actors. By signing a joint planning agreement, nine of the twelve property owners entered test planning. They completed the study in early 2020. From then on, the municipality would plan single property developments with respective owners (Interviewee 19).

Using the primary forms of Provan and Kenis (2008), the ZBS frame shows the contours of a network with a single-actor brokerage, highlighting the municipality’s critical role as the lead organization that initialized, cultivated, and maintained collaboration while being a property owner. The ZBS network’s first activities established a vision for the station district and a policy to structure future collaborations. The test-planning study resulted in a broad-based big picture that property owners, the municipal council, and competent cantonal agency endorsed (Interviewee 19). In this study, the municipality defined the strategic ground rules for developing the district to give actors transparency on potential property actions for which the statutory planning authorities would adjust building laws to allow more intensive land use (Interviewee 17).

For mitigating strategic uncertainty, there are a few differences compared to the Chinese and Indonesian case studies mentioned earlier. As in Ostermundigen, orchestration
efforts in Urumqi came from a public body, albeit a dedicated coordination committee with extensive resources to initiate multiple process management strategies. These addressed a larger and transportation-focused development scope compared to the ZBS frame that has, so far, mainly covered spatial and settlement issues (Mu & De Jong, 2016).

While Ostermundigen shared Jakarta’s primary driver of strategic uncertainty – necessary goal alignment between planning groundwork under revision and private developers pursuing different interests – the case-specific, network-leading organizations’ options to reduce this uncertainty differed. A public law operating agency led Jakarta’s transit corridor development and interacted with private property owners to support TOD, acting as a coordination body with no financial resources to support flanking area developments. The agency also faced implementation difficulties with private developers because the regulatory groundwork that underlay land releases for public infrastructures excluded elements vital to TOD, such as pedestrian and cycle paths (Dirgahayani et al., 2020). The Municipality of Ostermundigen’s involvement was as the statutory planning authority (for the total revision and tramway infrastructure development) and a local property owner. A municipal planner summarized how they used the resulting negotiation position to (1) lead the way with property development investments and (2) require developers to support potential land releases for the tramway project in exchange for relaxing land-use conditions (translated from German):

“Suppose we must acquire land for the tramway development. We should not have lengthy negotiations. We record this in the bilateral planning agreements with the developers. If building law changes occur for your property, you give us the land” (Interviewee 19).

4.5.3 General discussion, suggestions for further research, and limitations

The case studies differ in the deficiencies addressed by the organizational network formations (substantive complexity in Bern Wankdorf; strategic uncertainty in Ostermundigen). Both
networks followed lead organizations, SBB and the Municipality of Ostermundigen. Provan and Kenis (2008) proposed that the lead organization governance form enables effective network management if a network formation exhibits a (1) low and centralized trust level, (2) moderate participant number, (3) low goal consensus, and (4) moderate need for network-level competencies. Findings for both case studies on the second and third factors align with this proposition, while case-specific outcomes on trust levels require a differentiated view. The different rungs on which the Mobilitätshubs and ZBS networks tackled deficiencies suggest that trust in Ostermundigen may not have been as low as in Bern Wankdorf due to previous ties between actors and the resulting awareness of the plurality of interests and conceptions. A few persistent fixations do not signal higher trust, including SBB never following up on its explorative studies.

Investigating the need for network-level competencies would offer a suggestion for expanding the case analyses. For example, it could be promising to clarify how participants deal with the burden of being part of formations and how degrees of network interdependencies and exposures affect acquiring the necessary competencies (Provan & Kenis, 2008). To zoom into tasks and interactions within networks and how participants simultaneously serve external demands and needs, I propose conducting a single qualitative in-depth case study oriented toward the work of Knox and Arshed (2022) on regional entrepreneurial ecosystems. They inductively explored related network formation in the Tay Cities region in Scotland, deriving three relational work dimensions that included forming, structuring, and interrupting activities that network participants performed. A similar inquiry into a transit station district’s context would deepen the understanding of network governance’s role in coordinating and integrating the corresponding plurality of actors.

This article has limitations. The research draws on 20 months of data, which was too short a period to observe network governance cultivation. Collecting more evidence on trust
building would have been interesting (for instance, in the Ostermundigen case study that signaled potential institutional deficiencies), as single developments advance based on integrated policy and planning groundwork, and trust in a joint implementation becomes critical. A limitation of the conceptual framework is that Bern Wankdorf’s and Ostermundigen’s actors did not pursue TOD as explicitly as developers in the Urumqi and Jakarta case studies. The research focuses on a TOD pillar (i.e., station district development) whose analysis extends network governance’s explanatory power in TOD-related contexts. The article offers a base on which further station district case studies with articulated TOD backgrounds can build, for example, using the extended cumulative ladder model of Dirgahayani et al. (2020). This base may be particularly transferable to station districts with similar land-use intensification and access to regional transit networks. Based on a federalist allocation of tasks, competencies, and responsibilities for spatial and transportation planning, they should have comparable overarching development conditions (Hooghe & Marks, 2003).

4.6 Conclusions

This article expands on governance challenges in developing transit station districts in a common direction to support TOD. To clarify how the actors responded to these challenges, I used a conceptual framework based on network governance to unpack which network formations reduced deficiencies by horizontally integrating development policies and planning processes. The findings show that actors (e.g., public authorities, railway infrastructure providers, and property owners) can form effective organizational networks to orchestrate station districts’ development projects. The governance challenges they tackle encompass fragmented knowledge of future projections, diverging identifications with districts, and actors’ contrasting needs and development time horizons, resulting in substantive complexity and strategic uncertainty. The networks mitigate these deficiencies by fostering knowledge exchange and actors’ awareness of the plurality of identifications,
interests, and goals and by providing structural frameworks to manage joint operations and align temporally distributed processes. These results reinforce previous findings (Dirgahayani et al., 2020; Mu & De Jong, 2016) and align with regional research on network governance on a broader scale (Huggins & Thompson, 2022; Knox & Arshed, 2022) to show the potential of network governance for station district developments.

Practitioners should rethink how they frame the aggregated coordination of single development projects at planning scales superordinate to station districts for two reasons. First, sectoral consolidation may impede districts’ cross-sectoral development integration because sector-specific projects operate in isolation, resulting in separate approaches of mass transit infrastructure providers and public urban planning agencies. Second, once established, coordination frames may reduce actors’ willingness and openness to dedicate additional resources to development orchestration within other perimeters that they (perhaps unknowingly) affect. Practitioners must increase awareness of the existence and potential of station districts’ perimeters and how they can jointly cultivate them in their interests through dedicated guiding structures. Station districts’ spatial imaginaries must be given a higher profile to mitigate the risk that actors ignore this perimeter. This includes streamlined information on possible station district definitions, and development approaches that combine existing and novel procedures and instruments.

The policy work of planning authorities and public transport agencies should promote networked station district planning to support this profiling by ensuring that development policies provide solid incentives for actors to seek exchange, interaction, and collaboration. If public policymakers take TOD-inspired directions of impact seriously, such as increasing public transport attractiveness and redemocratizing public spaces, station districts must become part of the agenda. Since their perimeters overlap multiple property lines that different planning systems guide, promoting development policies should include measures
beyond creating and revising single pieces of the regulatory jigsaw. A Swiss example is *Verkehrsdrehscheiben Program*\(^{32}\) launched in 2021 by the Federal Department of the Environment, Transport, Energy and Communications, cantonal conferences, and municipal associations. This information and networking platform aims to spread knowledge of how actors can emphasize integrated and networked station district developments based on existing laws and instruments.

4.7 Acknowledgments

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4.8 Declarations of interest

None

4.9 Ethics statement

The ETH Zurich Ethics Commission (Proposal 2020-N-93) reviewed and approved this research, the participants in the study provided appropriate informed consent, and all procedures followed relevant laws and institutional policies.

4.10 Data statement

Supporting data are unavailable, as the participants did not agree to have their data shared publicly due to the nature of this research.

\(^{32}\) cf. [https://www.are.admin.ch/are/de/home/mobilitaet/programme-und-projekte/verkehrsdrehscheiben.html](https://www.are.admin.ch/are/de/home/mobilitaet/programme-und-projekte/verkehrsdrehscheiben.html)
4.11 Funding

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5 STUDY III – power resources and relations lens

A qualitative exploration of actors’ power resources and relations in Swiss transit station district planning

*Abstract:* Cross-sectoral collaboration between actors is essential when planning station districts for TOD. However, power relations and the resulting dominance of selected actors complicate collaborative processes and the necessary integration between transportation and urban planning. Despite the previous problematization of power in planning, dedicated research is lacking on station districts. This article aims to tackle this literature gap through qualitative case studies of two station districts in Switzerland. The findings suggest that municipalities and public transport providers use power resources to assume institutional roles outside their traditional planning domains, partly as a tactical response to initiatives that they contest. For planning practice, the article proposes that process organizers grasp actors’ power potentials early and, if mobilized, integrate them in favor of broadly supported station district development.

*Keywords:* planning practice; power relations; power resources; transit-oriented development; transit station districts

5.1 *Introduction*

Collaboration is vital in harnessing station districts’ potential for TOD (Bertolini et al., 2012). Numerous actors (organizations and their representatives) become involved (e.g., public authorities, public transport providers, and property owners) due to station districts’ expanded development scope. This scope may encompass projects in transit stations, their access points, and surrounding neighborhoods (Brons et al., 2009; Van Acker & Triggianese, 2020). Furthermore, station district planning requests the integration of different sectors (e.g., urban planning, public transport, and real estate) whose actors typically operate at various planning scales (e.g., local, regional, and national scales; Reusser et al., 2008; Toro López et al., 2021).
Consequently, planning process organizers should prioritize coordination and synchronization among actors (and their respective projects within the scope) to facilitate consistent and broadly supported station district development (Bertolini et al., 2012; Rongen et al., 2022).

However, overarching process governance typically is nonexistent in station district planning, and shared collaboration trajectories are not well-framed among the various sectors, organizations, and persons involved (Hickman et al., 2021; Zemp et al., 2011b). Instead, sectoral and local planning cultures may enhance and constrain actors’ power resources differently during collaborations, including sectoral/local planning artifacts, processes, and tools with their socially shared, underlying meanings (Knieling & Othengrafen, 2015; Reimer, 2013). Previous research frequently has distinguished between structural and behavioral power resources (e.g., Chatterjee & Kundu, 2020; Fritz & Binder, 2020; Pfetsch & Landau, 2000; Wolff, 2020). Structural power denotes given power resources based on intellectual, material, and financial assets, as well as privileging laws and regulations (i.e., structures; Wolff, 2020). However, actors deploy behavioral power using negotiation and leadership skills, procedural and expert knowledge, and alliance-forming capacities (i.e., behaviors) during collaborations (Pfetsch & Landau, 2000). Understanding power relations in planning is crucial for organizers, as power tends to dominate collective negotiations and rational decision-making unilaterally, rather than symmetrically (Flyvbjerg, 1998; Frimpong Boamah, 2022). Consequently, abuse of power may hinder broad-based alignment among actors and lead to suboptimal planning outcomes (Wolff, 2020).

Research on power in station district planning is lacking, and this gap is problematic because power relations might elicit unpredictable process dynamics for organizers, complicating the communication and synchronization needed among persons, organizations, and sectors. Consequently, planning outcomes primarily could consider the interests of those
using power resources, which do not necessarily view station districts as public goods and harness their potential for TOD. Therefore, this article inductively examines power resources in station district planning and aims to clarify the corresponding relations and actors’ responses when facing power during collaborations. To this end, the article aims to answer the following RQs:

- **RQ-1**: Which power resources are characteristic of station district planning?
- **RQ-2**: How do actors respond when they face power in station district planning?

I conducted a qualitative analysis for this article, comprising case studies of the station districts in Bern Wankdorf and Ostermundigen, Switzerland. Both station districts lie in the Bern agglomeration and are undergoing substantial transformations due to land-use intensifications and public transport infrastructure renewals that various actors manage. Despite its case-specific analysis, this article provides planners facing analogous collaborative processes with insights into (1) how individual actors might mobilize power resources and (2) how organizers can stay abreast of power relations and still enhance coordination and guidance. The article is structured as follows. First, I give an overview of the relevant theory to substantiate and clarify further the study’s RQs. Second, I present the methods used in this research. Third, I introduce the case studies of Bern Wankdorf and Ostermundigen and describe the results from the analyses. Finally, I discuss the findings and limitations and conclude the article with implications for planning practice.

### 5.2 Theoretical background

#### 5.2.1 Multi-actor collaboration at the nexus of urban and transportation planning

Station districts represent the nexus of spatial and transportation planning in the urban fabric and other compact spaces (Toro López et al., 2021; Zemp et al., 2011a). As gateways to regional or long-distance transit networks, they can integrate local settlement structures with public transport services and infrastructures at the regional and national scales (Reusser et al.,
The concept of TOD expands on this potential by suggesting that planners intensify urban and settlement development in territories where people can access mass transit easily (Calthorpe, 1993). For station districts, land-use intensification typically focuses on a catchment area with a perimeter radius of approximately 400 to 800 meters around transit stations (Guerra et al., 2012). Within this development scope, urban and transportation planners jointly foster public spaces and mixed-use attraction centers, e.g., areas with high employment and housing concentrations, with improved spatial connectivity to multimodal transport, including mass transit and inner-city transportation modes (Bertolini, 1996b; Papa & Bertolini, 2015).

The alignment of developments within and beyond transportation and urban planning’s sectoral structures complicates station district development (Toro López et al., 2021; Zemp et al., 2011b). The development scope may encompass multiple projects concerning transit stations and their access points, adjacent neighborhoods, and inner-city transportation infrastructure (Brons et al., 2009; Lu et al., 2021; Van Acker & Triggianese, 2020). Accordingly, organizers might find numerous organizations eligible to participate in collaborative processes with their representatives (Bertolini et al., 2012; Hickman et al., 2021). With different sectoral backgrounds and local mindsets, these actors work with various frameworks and assign diverse values and assumptions to their planning practice, which can be referred to as sectoral and local planning cultures (Knieling & Othengrafen, 2015; Nostikasari & Casey, 2020). The resulting cross-sectoral multi-actor collaborations typically are not reflected adequately in current transportation and urban planning policies and practices (Banerjee, 2022; Rongen et al., 2022). Thus, station district planning may lack effective governance among the numerous actors involved, rendering collaboration more susceptible to unpredictable dynamics exposed by power relations (Reimer, 2013; Thomas et al., 2018).
Power resources and relations in collaborative processes and planning

Power is a multilayered concept and can be defined as “…persons, assets, materials or capital used to realize a certain goal, including human, mental, monetary, artifactual and natural resources…” (Avelino & Rotmans, 2011, p. 798). When collaborating, actors’ exchanges and communications depict how they wield power over and with others (Forester, 2021; Partzsch, 2015). They dominate and wield power over others by causing them to behave in uncharacteristic ways (Partzsch, 2017). However, using power with others describes productive collective learning and the behavioral capacities employed to attain shared goals (Allen, 1998; Fritz & Binder, 2020). In both contexts, power predominantly denotes a relational force – partly rigid, e.g., material-based power, and partly fluid, e.g., evolving during collaborations (Eskafi et al., 2019; Fritz & Meinherz, 2020b; Reimer, 2013). Thus, actors’ power may vary across collaborative processes based on the respective constellations of organizations and their representatives (Pfetsch & Landau, 2000; Wolff, 2020).

Power in planning can be classified under structural and behavioral resources (Wolff, 2020). The former describes power resources given to actors based on institutional structures – e.g., financial, material, and intellectual assets – as well as laws, regulations, rules, and assignments that endow these actors with legitimacy (Fritz & Binder, 2020; Reimer, 2013; Wolff, 2020). Structural power resources are context-dependent, but precede actual collaborations between actors. They constitute power potentials that selected actors can activate and use when exchanging and communicating with others. However, behavioral power resources denote actors’ tactical options, i.e., active responses in a primary relational setting (provided by institutional structures) during collaborations (Frimpong Boamah, 2022; Habeeb, 1988). Actors likely respond with tactical behaviors using the following resources when facing power, particularly if institutional structures endow them with poor resource potentials (Pfetsch & Landau, 2000; Wolff, 2020):
• negotiation skills and knowledge;
• coalition-building capacities;
• rule and agenda-setting knowledge;
• strategies to create package deals and reach compromises and alternatives.

5.3 Methods

5.3.1 Case study selection

This study used in-depth case analysis based on qualitative empirical research in planning. I conducted case studies of two station districts in Switzerland: Bern Wankdorf and Ostermundigen. This study was part of Co-Creating Mobility Hubs, a TD research project (Müller et al., 2022). I selected Bern Wankdorf and Ostermundigen because both districts currently are undergoing various area and public transport infrastructure projects and experiencing land-use intensifications, which actors aim to orchestrate and synchronize, rendering them ideal for in-depth case analysis. Located in the agglomeration of Bern, Switzerland’s federal city, Bern Wankdorf and Ostermundigen are part of the regional transit network connecting the midland with Bernese Oberland. Whereas Bern Wankdorf belongs to the City of Bern (with a permanent resident population of approximately 135,000 in 2020) at the municipal scale, Ostermundigen’s station district is affiliated with the Municipality of Ostermundigen (with a permanent resident population of roughly 18,000 in 2020; AUSTA der Stadt Bern, 2021; BFS, 2022). Figure 13 illustrates the locations of the stations in Bern Wankdorf (magenta pin), Ostermundigen (orange pin), and Bern (mint pin). The red dotted line corresponds to approximately two kilometers, whereas the green and blue dotted lines represent roughly three kilometers of linear distances.

5.3.2 Data collection

For both case studies, I collected the data between May 2020 and December 2021 to pursue a research strategy that uses the following data source mix:
A body of documentation to dive into the case study contexts with their (statutory) planning groundwork and current development projects, and to prepare for the interviews, including recruiting initial conversation partners (cf. next point). The collected documents included five mass media reports and 16 public relations and official reporting pieces that public agencies produced, comprising six press releases, five mission statements, four land-use plans, and a parliamentary intervention. I also gathered nine documents comprising actors’ internal correspondence, including five presentations, material from two workshops, a workshop’s minutes, and a memo. The files were received via web research or personal e-mail (within Co-Creating Mobility Hubs). I viewed any document that dealt with a planning process involving one or both station districts studied as
cases, and I did not apply any further selection criteria (J. Scott, 1990). Appendix E includes detailed information on the collected documents.

- Semi-structured expert interviews to understand power resources and relations inductively, including actors’ responses when facing power. Due to these constructs’ informality and latency, conversations were structured minimally through a few generic open questions from an introductory guide used by Co-Creating Mobility Hubs, which I complemented with spontaneous queries to trace selected narratives (Charmaz, 2002; Kvale, 1996). I conducted 32 interviews in German, with 16 lasting 60 minutes each (explorative interviews) and 16 lasting 90 minutes each (in-depth interviews). The explorative interviews were conducted when the experts’ roles in the case studies still needed to be clarified. However, I conducted in-depth interviews when I was confident about the interviewees’ significant involvement in one of the station districts, and when they were available for a conversation of that duration. The interviewees represented public authorities (N = 10), local property owners (N = 5), public transport infrastructure providers (N = 9), public transport service providers (N = 7), and a local stakeholder group (N = 1). Based on preliminary document analysis, I identified an initial case-specific set of interviewees relevant to my RQs, encompassing the myriad actors involved in the station districts’ current projects. Oriented toward a snowball sampling strategy, I interviewed persons afterward that previous interviewees explicitly recommended to me or mentioned multiple times during our conversations (Coleman, 1958). Appendix D offers more information on the interviewees, and Appendix C on the primary interview guide.
- Participant observations in the closed settings of three meetings and a workshop in Ostermundigen’s station district to validate and complement preliminary results from the interviews regarding this case. An interviewee invited me to attend this planning workshop and the three preparatory meetings, during which I assumed the role of a nonparticipating observer and had very little interaction with anyone (Adler & Adler, 1987). I focused on which power resources became perceptible during these settings (because actors used them) and what responses followed from other participants (Murphy, 1980). Appendix F contains the template that I used to establish protocols for my observations. Unfortunately, no comparable observation opportunities were available for the Bern Wankdorf case.

5.3.3 Data analysis

I coded the interview transcripts and observational protocols to analyze the data. The coding approach followed an inductive and qualitative content analysis focusing on themes and narratives signaling power resources (addressing RQ-1) and actors’ responses to exercised power in station district planning (addressing RQ-2; Kohler Riessman, 2008; Ryan & Bernard, 2003). My coding included written memos, and I used the operationalization provided in Table 8 to align the primary level of analysis with the conceptual framework of this research (Braun & Clarke, 2022; J. Brooks et al., 2015).

NVivo software (March 2020 release) was used to conduct the data analysis. To consider the identified themes and narratives’ potential to suggest sequences of events that contribute to causal inferences, I employed process tracing within single case studies. Process tracing helped carve out case-specific cause-and-effect relationships and, thus, a thorough understanding of the case study contexts (Bengtsson & Ruonavaara, 2017; Bennett & Checkel, 2014).
Table 8: Qualitative content analysis: Conceptual operationalization and subcodes from the inductive data analysis (adapted from Brooks et al., 2015; Meijer & Van Der Krabben, 2018)

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definition</th>
<th>Operationalization for this study</th>
<th>Exemplary quote from semi-structured expert interviews (translated from German)</th>
<th>Subcodes from the inductive data analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power resource</td>
<td>“…persons, assets, materials or capital used to realize a certain goal, including human, mental, monetary, artifactual and natural resources…” (Avelino &amp; Rotmans, 2011, p. 798).</td>
<td>The capacity of actors mobilized to achieve specific goals based on structural or behavioral resources (possibly as a response to such resources used by other actors; Pfetsch &amp; Landau, 2000; Wolff, 2020).</td>
<td>“Federal law overrides everything, especially the municipal authorities. I understand that the municipality feels externally controlled” (Interviewee 18).</td>
<td>Complying with the regulations, Concealing information, Imposing transparency, Providing the budget, Pooling knowledge, Scrutinizing the rules, Setting the rules, Valuing mutual empathy</td>
</tr>
</tbody>
</table>

5.4 Results

5.4.1 Bern Wankdorf case study

5.4.1.1 Case study context

Bern Wankdorf’s station district (cf. Figure 14) is a central public transport junction within the larger Wankdorf perimeter that has been a cantonal focus of development since 1989.

While the station district is located within the City of Bern, the Wankdorf perimeter further contains areas of the Municipalities of Ittigen and Ostermundigen, with a permanent resident population of roughly 3,500 in 2015 and a workforce of about 24,000 in 770 workplaces in 2013 (BVD des Kantons Bern, 2023). Appendix J lists recent and current planning processes...
and critical events that specifically have concerned Bern Wankdorf’s station district perimeter, including the involved actors (December 2021).

During the explorative data collection for the Bern Wankdorf case study, one planning process stood out and qualified for analysis within the theoretical framework for this research because it covered the entire station district, not just a single project within the perimeter. This is the first iteration of the novel EZP process between 2019 and 2020, organized by SBB. With this process, SBB attempts to push forward the orchestration and synchronization of the station district’s projects that included area developments, motorway and railway infrastructure extensions and renewals, and the redevelopment of the railway station at that time. Therefore, SBB met with selected actors during two workshops in March 2019 to draw up the first EZP version for Bern Wankdorf, which would be a legally nonbinding coordination plan and instrument for station district development (Interviewees 6, 7).
5.4.1.2 Power resources: First iteration of the Entwicklungszielplan process

The analysis of the first EZP iteration offers evidence of how SBB pressured others under the guise of collective action. While the communicated purpose of the process vouches for horizontal process integration to attain shared goals in station district planning, SBB designed the methodology and format for this first iteration predominantly without consulting actors who then were invited to the workshops as participants (Interviewee 6). Accordingly, participants felt that the process design was imposed on them and primarily met SBB’s requirements and administrative structures (Interviewees 1, 3, 8, 16). These actions were formally legitimate because SBB created and designed the EZP process that neither produces a legal obligation nor claims democratic legitimacy. However, one SBB representative noticed confusion among participants when starting the first workshop (translated from German):

“Many participants wondered: What does SBB want with this? They seemed unsettled, perhaps because we had not done this before and suddenly came up with this proposal to take an active role in coordinating this joint planning, which goes beyond our property perimeter” (Interviewee 7).

Based on the formal legitimacy and self-assigned task to foster alignment within the station district, SBB wielded power and put other actors in a tight spot. Specifically, the EZP process addressed an item that already had been on the canton and city’s agendas: the integration of developments around mass transit stations to create dense and vibrant districts to make public transport and human-powered mobility more attractive (BVD des Kantons Bern, 2019; Interviewees 3, 4; SPA und VP der Stadt Bern, 2017). Moreover, considering that the process was the first initiative to gather actors in the station district around a table, invited participants still joined the workshops even if SBB had not involved them in commenting on the format or the methodology. For SBB, increasing public transport
attractiveness and pioneering integrated planning were only one side of the coin in choosing Bern Wankdorf’s station district to pilot the EZP process. The station district hosts its current headquarters (within the WankdorfCity area); thus, SBB management specifically views Bern Wankdorf’s railway station as the public law corporation’s calling card (Interviewee 13).

5.4.1.3 Actors’ responses when faced with power: The City of Bern and the other Entwicklungszielplan participants

SBB’s initiative for integration within the station district in particular took the city by surprise and put specific participants on the spot, considering that at that time (around 2019), they were at a critical project impasse with SBB in the railway station redevelopment due to disagreements regarding cost coverage (Interviewees 1, 2, 10, 13). Although different SBB representatives managed the EZP process, compared with those of the railway station redevelopment, city representatives expressed their irritation over SBB’s alleged two-sided practice of, on one hand, advocating for planning the station district collectively further within the EZP process, while on the other hand, SBB would not follow up on the city’s requirements for railway station redevelopment with financial contributions (Interviewees 1, 2). More fundamentally, the city could not grasp the nontraditional institutional role that SBB played in Bern Wankdorf as organizer of the EZP process and, thus, station district planning, which was the basis on which the public transport infrastructure provider “left” the station, its traditional jurisdiction (Interviewees 3, 7, 11). Moreover, that SBB did not assume a similar role (in cost-covering terms) in the railway station redevelopment project may have intensified this impression on the city’s part, as one representative suggested (translated from German):
“Just imagine: SBB invites you to a strategic, conceptual round, and the same organization does not bring its projects in the perimeter to the discussion table, which are advanced and have numerous interfaces with the urban fabric and other development projects”

(Interviewee 1).

Consequently, the City of Bern became more vocal during the second EZP workshop and openly expressed skepticism toward essential methodological aspects. For instance, representatives questioned the emphasis on qualitative locations for future uses and offerings in the station district, which were viewed as overly abstract, and corresponding quantified space requirements, which were viewed as overly detailed (Interviewees 1, 3). Other issues included the plan’s nonbinding character and the timing for its implementation, which partly was viewed as a fait accompli (Interviewees 2, 3, 26). The city may have used this power resource strategically to strengthen its position during the planning process, but most actors viewed it as a constructive process that created a common understanding among actors (Interviewees 2, 7, 16). After SBB released the first EZP version at the beginning of 2020, the prospect lead for the subsequent annual iterations was extended to the city, resulting in a coordinating partnership between SBB and the City of Bern in Bern Wankdorf (Friedli, 2020; Interviewees 6, 14).

While other EZP participants benefitted from the city’s reaction (as it created a shared understanding of the process), a similar response was not evident from BLS, BERNMOBIL, the Canton of Bern, or ewb (Interviewees 7, 8, 16). Although they partly shared the initial irritation over SBB’s initiative and judgment of imposition, the canton, BERNMOBIL, and BLS participated somewhat free of emotion during the process, assuming they were only marginally affected by the plan’s outcomes (Interviewee 7). However, ewb, a property owner in the station district, used the workshop to point out its space requirements based on future
construction projects and its reduced willingness to offer services in favor of other transportation infrastructure in Bern Wankdorf (Interviewee 1).

5.4.2 Ostermundigen case study

5.4.2.1 Case study context

The station district in Ostermundigen (cf. Figure 15) functions as one of the municipality’s focal points of local spatial development (Interviewee 17). This is a so-called ZBS, defined within Ostermundigen’s ongoing total revision of local zone plans (O’mundo, 2021). The comprehensive revision of subregional spatial planning was triggered by two significant area developments in the station district: BäreTower in 2011 and Poststrasse Süd in 2014. Private developers mainly pursued both projects, ending a decade during which development in the station district was at a standstill (Interviewee 24). Appendix J outlines the planning processes that have involved the station district since development took off in this perimeter.

The Ostermundigen case analysis focused on the ZBS planning process because it functioned as a conduit through which to coordinate and synchronize multiple ongoing developments in the station district, thereby corresponding to this study’s theoretical frame.
During data collection, these initiatives comprised several area developments, as well as tramway and railway infrastructure projects. On one hand, the ZBS framed a test-planning study between nine actors in 2019 for comprehensive area developments within the station district (Interviewee 19). On the other hand, it denoted a venue for coordination between SBB, the Municipality of Ostermundigen, and the tramway infrastructure provider BERNMOBIL, all representing ongoing track infrastructure and station/stop redevelopment projects (Interviewees 23, 29).

5.4.2.2 Power resources: Zentrale Baustelle coordination frame

The analysis of evidence emphasizes the ZBS frame’s function as a coordination venue for the track infrastructure and station/stop projects. These projects contain far-reaching interdependencies, as there will be one transit station in the district eventually that includes Ostermundigen’s sole railway station and the associated tramway stop. To ensure alignment between these projects, the approval authority – the FOT – requested a joint submission of planning documents from the project teams (Interviewees 22, 23, 29). Although the teams mainly operate in the same sector (public transport infrastructure), integrating planning practices was cumbersome and provides evidence of how SBB dominated BERNMOBIL and the municipality. This was because representatives of the tramway infrastructure project were unfamiliar with professional requirements under federal law (according to which SBB operates; Interviewees 18, 28). One municipal representative described the experience as follows (translated from German):

“Railway law at the federal scale is a whole new ballgame. They have many more project requirements: How does it have to be designed? What level of detail and at what stage? But above all, there are other needs. And even though you try to overlay everything, there is an unambiguously hierarchical story behind it” (Interviewee 18).
Tramway infrastructure project members felt that a combination of their counterpart’s actions between 2019 and 2020 led to a problematic relationship between the teams facing extended decision-making periods and varying commitments to previous decisions due to the necessary cross-scale alignment. SBB did not take a proactive stance toward BERNMOBIL and the municipality, which typically were informed on short notice about approved change requests in the railway infrastructure project, affecting the joint planning approval process with FOT (Interviewees 22, 23). Furthermore, SBB did not provide project managers with the resources needed to manage the tramway infrastructure project as a stakeholder critical to successful station district development. Accordingly, an active professional knowledge transfer to BERNMOBIL and the municipality was nonexistent, which would have helped with understanding SBB’s “infrastructure world” (Interviewees 28, 29). These railway infrastructure project members’ practices may signal activated power resources through adherence to the status quo project lifecycle, for whose management they primarily were supplied with resources. Thus, SBB representatives used power to shield the railway infrastructure project’s basic progress, which the tramway infrastructure project still viewed as stalling.

5.4.2.3 Actors’ responses when faced with power: BERNMOBIL and the Municipality of Ostermundigen

The tramway infrastructure project reacted in two ways in response to its power relations with the other project. First, it asked FOT in 2019 to approve plans for two separate processes: one for the railway and another for the tramway developments in the station district. FOT rejected the request because it viewed the projects’ interdependencies as overly strong and was cautious about creating constructional prejudice (Interviewees 22, 23). BERNMOBIL representatives then attempted to improve their relationship with SBB within their projects’ existing institutional structures, and they succeeded in 2021. Specifically, they
tried to elicit empathy from railway infrastructure project members, demonstrating that they understood their issues and emphasizing that “they are all in the same boat” (Interviewees 22, 28, 29). The path to this newfound alliance displays how the tramway infrastructure project worked actively toward a relational setting in which one actor’s dominance yields collective learning and action. One tramway project member described this progress as follows (translated from German):

“Despite changes in the railway infrastructure project management, we noticed that our needs had been increasingly considered and that it is coordinating both our needs and not always us initiating everything, and that mutual understanding is shown going forward”

(Interviewee 22).

The municipality's institutional role within this relational setting was less reactive than that of BERNMOBIL for two reasons. First, coordinating the station district’s infrastructure projects was only one among several process settings within the ZBS frame that, in turn, constituted one among three developmental perimeters of the total revision of local spatial planning (Interviewees 17, 18). Second, for a municipality the size of Ostermundigen, in trying to lead this revision, the resources and professionalization available at the local scale are lacking (Interviewees 19, 22, 23). Consequently, the Municipality of Ostermundigen did not respond to the power it may have faced within the ZBS coordination frame with any tactical behavior.

5.5 Discussion

5.5.1 Power resources characteristic of station district planning

Responding to RQ-1, the findings from the case studies suggest that actors in station district planning might wield power by assigning themselves the task of planning integration, exploiting procedural and expert knowledge, hoarding specialist professional knowledge, and implementing alliance-building strategies.
First, the Bern Wankdorf case study exemplifies how actors who decide to position themselves as organizers in station district planning might opt to dominate the corresponding process designs, possibly because this role is typically not formally defined and, thus, not bound further to legally binding planning frameworks and liabilities (Hickman et al., 2021; Toro López et al., 2021). Consequently, an intervention to bring together the relevant actors is essentially legitimate as long as it does not trespass on the statutory planning authorities’ sovereign jurisdiction. However, such an initiative still may be viewed as an imposition or domination based on structural power over other actors, as demonstrated by actors’ mixed feelings regarding SBB’s nontraditional institutional role during the first EZP iteration (Partzsch, 2015).

Second, expert and procedural knowledge at the core of power resources is perceptible in Bern Wankdorf, laying the basis for the City of Bern to express critical judgment toward essential aspects of the EZP process, which might be viewed as a tactically motivated practice (cf. Section 5.5.2). Previous research has found similar behavioral power wielded in cases in which citizen groups involved in local spatial planning drew on procedural knowledge to share legitimacy concerns for collaborative processes with municipalities (Meijer & Van Der Krabben, 2018; Wolff, 2020). However, in station district planning, municipalities might express concerns themselves and question the legitimacy of public transport infrastructure providers’ cross-sectoral initiatives that soften traditional jurisdictions.

Third, the Ostermundigen case study provides evidence of how specialized professional knowledge might be deployed as a structural power resource when actors decide not to share that knowledge with others who otherwise could have benefitted from more inclusive collaboration (Frimpong Boamah, 2022; Habeeb, 1988). Suggesting that this decision by SBB’s railway infrastructure project mostly was due to resource constraints tends
to align with earlier planning studies emphasizing how institutional structures might constitute barriers to knowledge transfer (Nostikasari & Casey, 2020; Taufiq et al., 2022). Due to these structures, certain actors may view a particular piece of knowledge as self-evident and, thus, place it in a “black-box,” even though sharing it would be critical to sustaining mutual exchange and communication with others (Nostikasari & Casey, 2020, p. 686).

Fourth, my findings concerning coordination activities within the ZBS frame in Ostermundigen shed light on how encumbered collaboration conditions might induce actors to seek alliances based on collective learning and action (cf. Section 5.5.2) and, thus, increasingly seek power with others (Allen, 1998; Fritz & Binder, 2020). In this regard, national and regional planning studies have found that actors might employ alliance-building capacities in spatial planning for multiple reasons, including attempts to improve social relationships (Reimer, 2013). However, the reasons also may involve aligning conditions and exchanging favors between approving statutory authorities and property developers, which do not apply to the motivation behind the behavioral power resources deployed by BERNMOBIL and SBB (Pfetsch & Landau, 2000; Sanli & Townshend, 2018).

5.5.2 Actors’ responses when facing power in station district planning

Concerning RQ-2, the study results imply that actors might respond to exercised power in station district planning by scrutinizing novel processes’ methodological soundness and informal legitimacy, improving social relationships with power-wielding actors, and not reacting specifically. The findings addressing RQ-1 also partly provide answers to RQ-2, as some reactions to exercised power again might be based on using power resources.

First, city representatives’ reaction to SBB’s positioning outside its traditional jurisdiction in the Bern Wankdorf case study points to an interesting characteristic of station district planning: Municipalities might face difficulties finding their appropriate institutional
roles. On one hand, they may want to be and should be involved actively as local statutory planning authorities (Valler & Phelps, 2018). On the other hand, municipalities tend to be highly dependent on public transport providers at the cantonal and federal scales to integrate local settlement structures with regional and long-distance transit networks toward TOD (Reusser et al., 2008; Zemp et al., 2011b). Previous research has found similar dilemmas at the root of skeptical views of novel initiatives at the regional scale, which recently have received greater attention in strategic spatial planning (e.g., Meijer & Van Der Krabben, 2018; Purkarthofer, Humer, et al., 2021; Purkarthofer, Sielker, et al., 2021; Zimmermann & Momm, 2022). In responding to the potential loss of statutory competence due to formal regional planning empowerment, both actors at traditionally subordinate and superordinate scales may question the methodologies and formats used in these frameworks and their practical legitimacy (Reimer, 2013; Sanli & Townshend, 2018). However, these findings are not in a position to clarify why actors might take tactical action when facing power in station district planning, in which no legal empowerment has occurred, and statutory competencies have not been at stake.

Second, BERNMOBIL representatives’ tactical response to exercised power by SBB in the Ostermundigen station district reinforces how integrating public transport infrastructure planning across multiple planning scales might intensify the need for mutual empathy and understanding (Nostikasari & Casey, 2020). In this regard, improving social relationships based on collective learning and action might lay the groundwork for change, particularly when alternations in planning frameworks are less promising (or, as in the case of Ostermundigen, rejected by the relevant statutory planning authorities). Previous planning studies have provided partial evidence of actors’ agency in using power resources to converge with others (Meijer & Van Der Krabben, 2018; Wolff, 2020). However, power-wielding actors might reciprocate with suggested coalitions to signal convergence only on the
surface. They may draw on tactical behaviors to preserve, rather than alter, power relations and selectively support change requests in novel planning frameworks, albeit without sustained convergence in underlying values and assumptions (Reimer, 2013; Sanli & Townshend, 2018). These findings may carry implications for the next EZP iteration in Bern Wankdorf regarding the question of how the partnership between SBB and the City of Bern will transform from the acquired shared understanding into actual shared leadership, or merely remain a rule change “on paper.”

Third, the case study results found that actors might not respond specifically to exercised power in station district planning. This absence of a reaction due to the municipality’s insufficient resources within the ZBS frame in Ostermundigen again raises the question of which institutional role municipalities should or can take. Specifically, the Municipality of Ostermundigen may have more difficulty facing regional and national transport providers on an equal footing than the City of Bern. Switzerland’s federal city employs a thoroughly professionalized administration with a clear political brief, in which more attractive public transport and human-powered mobility are high on the agenda. In this respect, earlier research on local statutory planning authorities’ role in sustainable mobility suggests differentiating leaders from enablers (Wallsten et al., 2021). The Municipality of Ostermundigen might view its role mainly as enabling other public law and private actors to complete their projects and keep the threads together, including providing networking platforms and appropriate incentive schemes.

5.5.3 Limitations and suggestions for further research

This article may continue the hitherto-short examination of power in station district planning for TOD, but I acknowledge that my analysis is limited to case-specific pathways and how urban and transportation planning are conducted in Switzerland. For example, Swiss public transport infrastructure planning increasingly occurs at the federal scale, while cantons and
municipalities play more formative and autonomous roles in spatial and settlement planning (ARE, 2021a; Schenkel & Plüss, 2021). Accordingly, more case studies are needed to improve our current understanding of the collaborative integration of space and settlement with transit, particularly for station districts.

Furthermore, the selected research methods and periods limited the ability to capture actors’ power resources in the article’s case studies and how power relations may change over time. While the results from the analysis may apply to the selected cases, they cannot be generalized due to the sample size and the qualitative, explorative empirical approach. However, the pathways and outcomes that the case-specific analyses elicited might be transferable to planning problems in other countries within similar cultural contexts, embracing analogous tenets in urban planning and its alignment with mass transit (Przeworski & Teune, 1970).

Theoretically, the presented findings mainly focus on actors wielding power over and with others (Partzsch, 2015). This focus was a conceptual simplification that neglected other power theories, e.g., power to, which might be a promising direction for further research to examine why actors wield power and the specific goals they pursue (Haugaard, 2012). Furthermore, differentiating behavioral from structural power resources presents another simplification that ignores poor selectivity and should be expanded further. Finally, the article’s results point out how station district planning might become contested because actors leave their traditional jurisdictions, creating novel power relations. In this respect, future research should clarify institutional interactions between local statutory planning authorities and public transport providers at superordinate scales. Both play critical roles in TOD, which needs to be understood more thoroughly to facilitate cross-sectoral collaboration.
5.6 Conclusion

This article addressed the research gap in station district planning power and attempted to characterize the power resources used during cross-sectoral collaboration and how actors react when facing power. Beyond these characterizations, the study may contribute to broader research discourses on actors’ willingness and readiness to collaborate and, thus, align planning for TOD. In this context, my findings demonstrate how local statutory planning authorities and public transport infrastructure providers may interact while leaving usual jurisdictions and assuming nontraditional institutional roles in each other’s planning domains. From the perspective of power resources and relations, the in-depth case analyses shed light on potential structures and behaviors, as well as the underlying assumptions and values concerning why actors jeopardize integration and, thus, broadly supported planning outcomes.

This article concludes with implications for practice, addressing process organizers in station district planning with a direction of impact to achieve the necessary coordination and guidance. Understanding process dynamics induced by power requests the capture of corresponding resources and relations at the beginning of a collaboration and again after the first round of substantial negotiations and decision-making. I assert that it is crucial first to grasp the primary relational settings that various actors encounter and shape with selected power potentials that institutional structures provide. It may help organizers imagine which resources might be mobilized once collaboration begins, or soon afterward. To examine these initial expectations, organizers then should target a temporal reference point, e.g., after completing the first “hard” negotiations. This would help refine actors’ institutional roles that they likely assume by wielding power during collaborations. Moreover, organizers would be able to capture tactical behaviors that some actors might have activated in response to exercised power, including more person-centered resources. Eventually, organizers should
attempt to integrate actors’ power potentials and already activated resources in favor of collective action and station districts’ development as public goods.

5.7 Acknowledgments

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5.8 Disclosure statement

No potential conflict of interest was reported by the author.

5.9 Ethics declarations

The ETH Zurich Ethics Commission (Proposal 2020-N-93) reviewed and approved this research, and the study’s participants provided appropriate informed consent.

5.10 Data availability statement

Due to the nature of this research, this study’s participants did not agree to allow their data to be shared publicly, so supporting data were not available.

5.11 Funding

Swiss Federal Railways supported this research, and ETH Zurich provided open access funding.
6 Discussion

This section derives implications and suggestions from the analytical overview, which the studies of this thesis form, and discusses my research’s limitations.

6.1 Implications and suggestions

This section collates the implications and suggestions of my research for the theoretical lenses of the thesis’s conceptual framework, practice, and the approaches used for this research. I selectively refer back to Figure 1 and Figure 2 to guide these discussions. Pro memoria, the different regions in Figure 1 display the following path sections toward the potential institutionalization of transit station district planning:

- **1** exemplifies the formation of an initial actor network that typically vouches for introducing a novel planning process to the specific station district context, delivers advance services favoring a large collective of participating actors, and brings the process into the local arenas.

- **2** represents one exemplary arena in which the novel process interacts with institutionalized planning practices in this station district context, resulting in divergent or convergent interactions due to varying levels of congruency.

- **3** outlines how institutional interactions may imply an incremental change in the institutional system underpinning local station district planning to promote congruency in this context, to which actors contribute by reinterpreting their practices.

6.1.1 Theoretical lenses

**1**

STUDY II uses network governance as a theoretical lens to address this section of the institutionalization path and answer the overarching RQ, “What is the role of actor networks in initializing station district planning?” Based on the findings, this role includes enabling
clarification and reflection among actors and structuring and mitigating governance challenges. Network formations hold great potential as a bottom-up governance mode to facilitate horizontal planning integration in station districts. This conclusion aligns with earlier research on network governance to support TOD (Dirgahayani et al., 2020; Mu & De Jong, 2016) and regional development (Huggins & Thompson, 2022; Knox & Arshed, 2022).

In light of what follows this path section, namely the institutional interactions in multiple planning arenas, an initial actor network unfolds as fertile ground to include a large collective of actors in a station district planning context. Referring to STUDY II, the network can grow accordingly, led by a single participating organization that previously belonged to the initiators. While an initial network member may be designated to oversee a novel planning process’s implementation as a process organizer, other members may not follow the network in this particular context or any of the corresponding arenas.

In addition, the findings imply that initial network members may co-shape the local network formation and process implementation yet change their stance on the joint

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<thead>
<tr>
<th>STUDY II – answers to the study-specific RQs in brief</th>
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<tr>
<td>What are the governance challenges of station district planning? They include:</td>
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<td>- fragmented knowledge of future projections;</td>
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<td>- diverging identifications of actors with station districts;</td>
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<td>- contrasting needs and development time horizons of projects.</td>
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<tr>
<td>How do actor networks form to respond to governance challenges? They form to:</td>
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<tr>
<td>- foster knowledge exchange;</td>
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<tr>
<td>- raise awareness of the plurality of identifications, interests, and goals;</td>
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<tr>
<td>- provide structures for managing joint operations and aligning temporally distributed processes.</td>
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undertaking. I trace these observations to emerging interdependencies and altered exposures that contextualization may entail for these actors. In this respect, Provan and Kenis (2008) emphasized a need for network-level competencies that allow actors to balance network-internal duties with context-specific expectations external to the formation.

My research on the “station-district case” suggests a path dependency of the institutional interactions in local planning arenas involving the expanded actor network. These interactions might depend on how contextualizing the novel process (and thus the initial network) may affect the need for network-level competencies of initiators who transfer to the local formation and thus become exposed to unprecedented, context-specific demands and pressures. Consequently, future network governance research should consider emerging dependencies through network contextualizations. Inquiries should produce insights into the potential effects on local network formation and cultivation for TOD (Dirgahayani et al., 2020), the degree of horizontal process and policy integration (Mu & De Jong, 2016), and the prevailing governance forms (Provan & Kenis, 2008).

STUDY III involves a path section that takes up the initialization of a novel planning process and covers its implementation in local planning arenas. It uses a theoretical lens of power to address the overarching RQ, “Which power resources and relations are characteristic of station district planning?” The findings demonstrate how the circumstance that process organizer roles are usually not formally defined in a station district encourages selected actors’ inclination to position themselves to fill this gap. They use the self-imposed task, which is neither statutorily legitimate nor invalid, as a power resource to dominate orchestration efforts, leave traditional jurisdictions, and have a say in other planning domains the extended development perimeter encompasses.
STUDY III – answers to the study-specific RQs in brief

Which power resources are characteristic of station district planning? They include:

- assigning oneself the task of planning integration;
- exploiting and hoarding knowledge;
- implementing alliance-forming strategies.

How do actors respond when they face power in station district planning? They do so by:

- questioning the methodology and informal legitimacy of novel processes;
- improving social relationships with power-wielding actors;
- showing no reaction.

STUDY III implies that railway infrastructure providers may do so to impact urban development more profoundly. The resulting power relations with local statutory planning authorities are characteristic of station district collaborations and their inherent extended cross-scalability. Municipalities find themselves in a tricky spot because they depend on public transport providers at superordinate planning scales to align local settlement structures with regional and long-distance transit networks for TOD. Hence, they should welcome untraditional, transportation-driven initiatives involving districts of their sovereign jurisdiction but ideally appear as co-organizers of the related planning processes.

If the latter does not occur, tactically motivated defensive behaviors may appear, accompanying process implementations as responses to the power exercised by those who informally trespass on the local urban planning domain. These dynamics tend to reinforce previous studies on strategic spatial planning at the regional scale (e.g., Purkarthofer, Humer, et al., 2021; Reimer, 2013; Sanli & Townshend, 2018) after this scale experiences recent legal empowerment at the expense of the planning competences of traditionally superordinate and subordinate scales. When facing power, the tactics employed to become vocal were the
same: questioning novel processes and their methodological soundness and practical legitimacy.

Future research on power in cross-scale (strategic) planning settings can learn from the “station-district case” that actors do not perceive impositions and dominations only through a formal withdrawal of competences. Instead, this may start noticeably earlier, when structurally resourceful actors collaborate in processes that provide them with loopholes to impact other domains by leaving their traditional jurisdictions via the novel, strategic, and informal spaces that, for instance, station district planning initiatives offer. To deepen this direction, more examinations of the relations of local statutory planning authorities with actors at the superordinate scales of other infrastructure sectors in these spaces are necessary. In this respect, the findings of STUDY III suggest that future investigations should deliberately explore the role of empowerment\textsuperscript{33} that might be situated at the root of actors’ motivations to exploit the loopholes mentioned.

STUDY I researches a path section similar to the one targeted by STUDY III. However, it focuses on the conceptual framework’s core – the potential institutionalization of station district planning – and signals for how this path could be envisaged. Therefore, it applies a new institutionalist lens to tackle the overarching RQ, “How institutionalized is station district planning?” The findings imply that station district planning processes may continue to layer over institutionalized practices in districts. These practices may not be redeveloped to align with concertation ambitions anchored in strategic planning groundwork; however, they keep strengthening an inclination toward self-governance.

\textsuperscript{33} The meaning of empowerment in this light traces back to the theory of power to (Haugaard, 2012). It constitutes a depiction of power in addition to the power over (domination) and power with (collective learning) theories considered by STUDY III (Allen, 1998; Fritz & Meinherz, 2020a). Power to describes actors’ capacity to achieve their goals despite opposition from others and would thus add a more nuanced layer to the analysis of power relations in station district planning.
Translation deficiencies from the (strategic) meso level to the (operational) micro level of the context-specific institutional system may be particularly evident for actors who operate beyond local scales, such as national railway agencies and federal administration offices. Viewing station districts from an overall system perspective, they tend to downscale planning policies and procedures. Thus, they are poorly positioned to align with novel planning processes that become strongly exposed to settlement-driven local attitudes toward districts, thus emphasizing stations’ place dimension.

In addition, the findings of STUDY I challenge previous studies’ argument that congruency between novel processes and institutionalized practices is primarily shaped along spatial and transportation planning sectoral structures (Dirgahayani et al., 2020; Hirschhorn et al., 2020). In contrast, the findings indicate that private–public domain integration may be more formative in interpreting institutional interactions. Concerning this discourse, the “station-district case” holds considerable research potential, provided that it involves actors as

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**STUDY I – answers to the study-specific RQs in brief**

How do station district planning processes interact with institutionalized planning practices?

- Novel planning processes develop divergent interactions.
- These processes are locally implemented, even though they are incongruent with institutionalized practices in the corresponding planning contexts.

Which signals for emerging incremental change in institutionalized planning practices are identifiable?

- Signals indicate incremental change toward layering institutionalization.
- Station district planning remains a strategic ambition whose processes layer over institutionalized practices, but these do not align with this ambition.
whose local developments operate in more than one sector (as projects by SBB did in the empirical case studies).  

Finally, STUDY I suggests that future institutionalist research contributing to the study of planning examines the dialectical tensions of novel processes with institutionalized practices to better understand the emergence of incongruencies. Based on the findings, a direction in that regard includes the following: Private and public domain actors might grasp spatial imaginaries variedly and what these imaginaries would signal for rethinking practice. Accordingly, studies should consider which planning scales contour prevailing institutions, as well as the domains in which actors operate, aligning their behaviors with these institutions.

6.1.2 Practice

The findings of STUDY II suggest that aggregated coordination frames at planning scales beyond a station district (e.g., a regional coordination program) can hamper the introduction of a novel process in the station district context. Therefore, practitioners involved in networks pushing for the concertation of development projects within the district should carefully consider how these projects are already engaged in consolidating programs beyond the perimeter at hand. Particularly, if these frames consolidate geographically distributed projects sectorally (e.g., a program coordinating all railway infrastructure projects in the Bern-Mittelland District), cross-sectoral alignment in the station districts affected may become more complicated.

According to my findings, compared to these (geographically) superordinate frames, station districts’ perimeters and potential still fly below the radar and lack dedicated guiding

34 SBB turned out to be a “station-district chameleon.” The public law joint stock company regularly represents multiple development projects in the same district. Some operate in the real estate sector to manage and develop properties in a market strongly driven by private domain actors. Others operate close to the federal administration, implementing the railway infrastructure extensions and renewals agreed by the Swiss parliament.
structures. Consequently, the initial network must be aware that the large actor collective may not acknowledge a station district’s spatial imaginary. Likewise, these actors may not recognize why they should dedicate (additional) resources to supporting a networked and integrated approach to planning in this perimeter.

Cultivating and coordinating the plurality of interests within station districts must enter the strategic directions of impact for urban planning, public transit, and personal mobility if these are to be inspired by TOD, new urbanism, smart growth, and the compact city. Based on STUDY II, I recommend that public transport providers and statutory planning authorities create development policies (e.g., mission statements, strategic land-use plans, and subsidy mechanisms) that incentivize and nudge other practitioners to address station districts’ perimeters, support relevant initiatives, and approve the advanced services of the actors leading the way. Their actions should also establish pertinent information and networking platforms since a large part of the lack of guidance initially concerns raising awareness and sharing knowledge about station district planning as a potential lever to contribute to the sustainable use of increasingly scarce urban surfaces and spaces. I would recommend prioritizing promoting and communicative measures instead of substantially creating and revising instruments and regulations, which likely could not stay abreast of the many statutory planning systems affected in station districts.

The findings of STUDY I and STUDY III imply that – once introduced to the planning context of a station district – a novel process can become a proxy for frictions between actors transferred from existing collaborations at the project level. This typically affects the process’s standing with actors external to the conflictual project(s) and aggravates sensitizing these actors to the value of joining forces in the expanded development perimeter. Therefore, practitioners driving the process initialization should pull into a key pit stop as soon as the
idea of gathering district actors around a table reaches a large collective. They need to address the following questions before continuing with their undertakings:

- Do we have a broad-based coalition of actors representing all sectors and domains (especially private domain actors) engaged in this station district planning context?
- Which organization-centered resources (e.g., financial, material, and legal assets) do we expect actors to mobilize to influence decisions and actions once we bring the novel planning process into the arena?
- How are individual development projects and potentially ongoing collaborations between single actors underway in this context? Do frictions and inadequacies exist that could surface and harm integration efforts once we bring the novel planning process into the arena?

Responding to these questions may result in the judgment that time is unsuitable for initiating the process immediately. However, practitioners should not abandon the initiative but monitor how developments in the district proceed toward a potential window of opportunity. To this end, appointing a well-connected district caretaker or concierge, who continually gathers knowledge on ongoing projects and pursues assessing appropriate timings for station district planning initiatives, is advisable. If there is no time to defer the initiative, pushing forward might not be optimal, but at least, it puts the topic on the agenda.

As suggested by STUDY III findings, process organizers should track tactical behaviors based on person-centered resources (e.g., creating package deals and reaching compromises), which some actors may employ when faced with the power exercised by

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35 The roles of the station district caretaker/concierge and process organizer can but do not need to be taken by the same actor. Familiarity with the local planning context and its prehistory and actor constellations is a key condition for both roles.
others. Tracing power dynamics supports the effort to incorporate actors’ activated assets and resource potentials to benefit collective action in this planning context.

A final decisive aspect that process organizers must clarify with participating actors is how collective process outputs translate into individual developments in the station district and related policies. They should do this ideally while implementing the process and, at the latest, after completing it. The findings of STUDY I demonstrate how practitioners neglect to represent, in their projects, procedures, and routines, what they intend to do to align planning in the district according to strategic (land-use) plans and other planning groundworks. To close this gap, actors in the planning context’s large collective need to break down what the stipulated station district vision implies for the resource requirements of their individual local developments. Accordingly, they should redevelop and enact their means of realizing the shared vision.

6.1.3 Transdisciplinary sustainability research and planning theories

My research underlies the epistemological and ontological assumptions that I derive from this thesis’s approaches to TD sustainability research and planning theories, as outlined in Sections 2.1.2 and 2.1.3. These shared a symbiotic relationship with the Co-Creating Mobility Hubs research project context, elucidated in Section 2.1.1, which resulted in translation links from context to approach, and vice versa. In the following paragraphs, I reflect on these links and discuss the most prominent aspects with respect to the approaches’ backgrounds.

Looking at Figure 2, one notices that the ideal-typical TD research process phases translate more evenly into the WP activities than these activities inform the thesis. Whereas roughly one to two WP activities trace back to each process phase, the WP’s problem-framing activity – exploring process understandings and collaboration challenges in the empirical sites – extensively influences the thesis and its studies, marking the RQs,
conceptual framework, and research methodology and strategy. Meanwhile, the other WP activities underpin producing and discussing the studies’ findings, including deriving implications and suggestions for practice and research.

This uneven distribution displays well how disseminating co-produced knowledge is a TD research process task that not only differs for scientific and societal dimensions but also varies regarding which project activities are deemed relevant and educative to contribute to societal and scientific progress. Hoffmann et al. (2019) illustrated that disseminating new knowledge needs separation from other tasks dedicated to knowledge integration and impact exploration to constitute a self-contained process phase.\textsuperscript{36} More fundamentally, this phase exists twice outside the TD research process in the narrow sense, relating more directly to scientific and societal progress processes instead (cf. Hoffmann et al., 2019, pp. 40-41). Finally, both societal and scientific dissemination processes share numerous formal and informal links with the TD research process phases, which signify functional-dynamic interactions between a project team and dissemination target group members of the scientific and societal dimensions (Krütli et al., 2010; Landry et al., 2001; Polk, 2014).

Applying this theoretical reasoning to the unequally distributed meanings of the WP activities mentioned, I assign this thesis, particularly its studies, to knowledge dissemination, integration, and impact exploration in the scientific dimension. I conclude that I consider the WP’s problem-framing activity to be more decisive in tailoring my research to my scientific target groups’ interests, structures, norms, and routines. These groups primarily include scholars of the academic communities of (spatial, urban, and transportation) planning theory and practice, serving in conference-organizing committees and journal editorial offices and as anonymous peer reviewers.

\textsuperscript{36} Besides disseminating new knowledge, Hoffmann et al. (2019) suggested a second self-contained process phase dedicated to using new knowledge, which I do not expand on in this section.
Referencing to the academic communities that my research strives to address brings in the thesis’s planning theoretical approach. Levin-Keitel and Behrend (2022) called for a TD research approach to the study of planning, scrutinizing the strand’s fundamental and still tenacious assumption of separating theory and practice. To tackle today’s pressing issues, such as climate protection and adaptation measures, they suppose an “ontological turn” to disentangle the choice of a planning theory to address a societal issue from that theory’s association with a specific paradigm shift, including turns from rationalist and communicative to agonistic and pragmatic assumptions (Levin-Keitel & Behrend, 2022, p. 116).

Much likelier, Levin-Keitel and Behrend (2022) urged that TD planning research efforts drive forward, deliberately selecting the planning theory that fits best as a lens to grasp the full complexity of problematic practices causing the societal issue to be addressed, regardless of that theory’s association with a specific paradigm and related assumptions. In return, Levin-Keitel and Behrend (2022) again stressed the importance of making these assumptions and the relevant planning understanding explicit while embarking on such a TD research process37 and henceforth treating this as a topic of continuous conversation, reflection, and learning during a project. So, how did we, in the Actors WP of Co-Creating Mobility Hubs, come off concerning this?38

I would argue that planning theories played a rather implicit role in the WP activities and that the understanding of planning was evenly tacit. A joint take on mobility hubs was prioritized, which aligned with SBB’s efforts to devise and disseminate a mobility hub

37 This and the following paragraphs relate to TD research efforts, which scientifically situate themselves deliberately in planning theoretical debates and discourses, and not TD research processes in general.
38 The following paragraphs concern the activities of the Actors WP during the active project period. Their statements cannot be extended to the project’s other WPs or proposal preparation period.
However, the scientifically driven conceptual tenets in the background of the otherwise markedly societally informed WP strongly implied assumptions toward communicative planning theory, including TOD, the node-place model, and the TD sustainability research approach adopted.

The central presumption in this respect, namely that actors of a given transit station district are, in principle, willing and able to mutually coordinate and communicate their individual developments and collaborate in a common direction, was accepted and regularly reinforced by project colleagues and interviewees, with only a few exceptions. From my point of view, this generic approval resulted from loyalty to SBB management and the (frequently ostensible) commitment to the company’s 2030 target vision rather than an epistemological positioning jointly undertaken in the project.

Self-critically, I must admit that I did not use the link from my research’s planning theoretical approach to its context, the Co-Creating Mobility Hubs project, to put planning theories in a more prominent position in the Actors WP. Although I shared my preliminary observations of planning theoretical manifestations during my initial fieldwork with project colleagues, I delved into new institutionalist, network governance, and power resource and relation theories mainly by myself. Likewise, I developed the conceptual starting points for this thesis independently and largely disconnected the manuscript conceptualizations and preparations from the TD research process. However, the latter also occurred due to project political reasons (cf. Section 6.2.2.3).

Prioritizing unpacking what we viewed as a mobility hub over how we understood planning signals a tendency toward planning research’s much quoted and criticized separation between process and content (Faludi, 1973). In this light, the Actors WP revealed its strong societally and practically informed character by corresponding to the observation of Levin-Keitel and Behrend (2022) that practitioners may prefer researching substance over procedure, while it may be the other way around for theorists.
Building on the preceding discussion, the research presented in this thesis implies the following for a TD research approach to the study of planning: (1) jointly accessing planning theories may still be restrained in solidly society-based TD research projects and (2) the meaningfulness of the knowledge co-produced in such processes may be limited to a fraction of the overall amount to contribute to planning theoretical debates and discourses. To increase the usability of an approach informed by TD sustainability research to bridge better planning practices and theories, I suggest the following directions:

(1) Choosing the planning theories to be used as research lenses should be a central task in the joint problem-framing phase of a TD research process, including forming a shared epistemic object and planning understanding. To do so, project members and representatives of the societal and scientific dimensions must interact. Regarding the actors from society, it is pivotal to understand that interactions comprise not only practitioners but also users and people directly affected by the problematic planning practices to be investigated, which may increase the friction in collectively accessing and assessing planning theories (which likely already exists between practitioners and theorists, as well as among scholars from different scientific disciplines). However, the resulting debates and learnings are highly productive in the TD research process. They should not be dismissed as an additional burden but embraced and facilitated by boundary objects and systematization approaches, such as streamlined information on possible spatial imaginaries and structuring topologies.

(2) As the TD research process advances, and the project alternatingly undergoes phases of problem analysis and knowledge co-production, as well as knowledge integration and impact exploration, links with dissemination target group members must not be neglected but cultivated purposefully. For a project tending to be
thoroughly informed by the societal dimension and planning practice, this means expeditiously involving planning scholars and theorists and – based on that exchange – thinking about strategies for communicating co-produced knowledge meeting their agendas and rules. For a solidly science-driven TD research process, this may translate into engagement efforts toward society, such as participating in workshops, forums, commissions, and boards, to evenly space out the potential of the co-produced knowledge for contributing to societal progress.

6.2 Limitations

This section goes into the general limitations of my research. In contrast, I discuss selected restrictions of the analytical frameworks used in this thesis in the respective limitation sections of STUDY I, STUDY II, and STUDY III. Furthermore, the present section includes extended reflections on my position as a researcher.

6.2.1 Methodological limitations

Due to the selected research methodology and strategy, the findings of this thesis do not lend themselves to generalization. The implications and suggestions of my qualitative social scientific research are widely bound to the respective “social world” inquired in the empirical case studies (Bryman, 2012, p. 392). However, the orientation toward a most similar cases design, the case-specific thematic analyses, and the cross-case discussions aim at transferability to other planning contexts (Lincoln & Guba, 1985; Yin, 2003). More case studies are needed, especially in transit station districts. This thesis can be particularly instrumental in interpreting their analyses if the planning contexts involved share the following characteristics:

- an overall development framework based on a federal division of roles, powers, and responsibilities for spatial and transportation planning (Hooghe & Marks, 2003);
• substantial federal involvement in public transport infrastructure planning and long-distance services, with states and municipalities taking over competent and autonomous roles in spatial and settlement development and regional and local public transport service planning (Schenkel & Plüss, 2021);

• access to regional transit networks and ongoing land-use intensification in an extended development perimeter, with current and scheduled projects reporting to multiple actor organizations and cross-cutting various sectors, planning scales, and administration levels (Stadler Benz & Stauffacher, 2023).

A 20-month research study is too brief to explore the answer options in depth to certain RQs, including those revolving around network governance cultivation and trust beyond the short term, and how institutionalized practices may change incrementally to enable congruency with novel processes. Particularly concerning the latter, mere signals indicating potential change are identifiable, which is why my research only touches upon the region around ① in Figure 1. Consequently, I combine the implications and suggestions affecting this area with those involving ②.

As a characteristic of good qualitative social scientific research, Yardley (2000) emphasized theoretical and societal importance of opening novel avenues for understanding the topic empirically accessed. It also incorporates the instruments used to follow qualitative research paradigms. Viewing the interview guide as one of the instruments employed for my research, I ascertained an imbalance between theoretical and societal utility and impact. After deciding on the theoretical lenses for this thesis based on preliminary fieldwork, I did not explicitly adjust the initial open-ended questions (developed within the Co-Creating Mobility Hubs core team). Instead, I kept using the guide from the first few interviews, which aligned

40 The original terms that Yardley (2000) used are “socio-cultural” and “practical” (p. 223), which I unite under societal for this section.
with the goals of the Actors WP rather than the thesis’s RQs. Therefore, there may have been a mismatch between this guide, designed for a rather inductive data collection approach, and the use of high-level operationalization templates of the theoretical lenses to guide the subsequent thematic analyses somewhat deductively.

The reason why I did not alter the guide was twofold. First, the guide’s role in the conduct was factually minor and did not control the line of questioning. I used its questions primarily for breaking the ice at the beginning of an interview and as a backup to fetch back an interviewee when their descriptions drifted too far away from the themes of interest. Second, I attempted to induce my conversation partners to go into pieces potentially relevant to answering my RQs via spontaneous queries based on their original accounts. Underpinning the attainment of the WP goals and producing important scientific findings via the same array of semi-structured interviews posed a balancing act, which is not a unique challenge for doctoral students participating in TD research projects (Rogga & Zscheischler, 2021).

6.2.2 Reflexive engagement with one’s own positionality

My positionality marked the activities for this thesis, notably those of a WP leader in Co-Creating Mobility Hubs. How I presented myself to project colleagues, interviewees, and meeting and workshop participants during observations affected the data on which my research was based. Disclosing the backgrounds and attributes that saliently constitute my positionality is integral to ethical practice in qualitative social scientific and TD research (Chiseri-Strater, 1996; Cockburn & Cundill, 2018; Tong et al., 2007).

Transparency, honesty, and reflexivity are crucial to contour how my positions and roles influenced my perspectives on people (Nyamnjoh, 2012; L. Schmidt & Neuburger,

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41 According to Chiseri-Strater (1996), positionality involves one’s “given attributes such as race, nationality, and gender which are fixed or culturally ascribed” and “is also shaped by subjective-contextual factors such as personal life history and experiences” (p. 116).
Kohl and McCutcheon (2015) understand positionality as altering and fluid, surfacing during “self-indulgent moments” throughout the research process (p. 748). These moments are problematic if their influence on the research is not reflexively unpacked, and this includes both situations in which my positionality was limiting and enhancing the project work (Herr & Anderson, 2014). I clarify my substantive positions and roles in the following by disclosing their backgrounds and attributes. In addition, I continuously made my positionality a topic of conversation and reflection during the project period, jointly with the project leader, my thesis supervisor, and other core team members.

6.2.2.1 A former insider returns as an outsider to collaborate

The project’s core team knew me as a former SBB insider or, in other words, a researcher who knows well “how SBB functions,” attributing an experienced handling of the informal company rules and prevailing organizational cultures to me (Herr & Anderson, 2014). I worked for SBB between 2015 and 2017, first as an intern after I received my bachelor’s degree and then as a part-time associate during my master’s studies. I also knew the project leader of Co-Creating Mobility Hubs from that period, and my previous connections to SBB were part of the reason I was hired and considered fit for the WP leader position.

My familiarity with SBB and the social worlds of an integrated railway agency opened multiple doors for me as a TD researcher. During project team conversations, interviews, and observations, I gained quick access to the sense and narratives behind people’s statements. I understood what they talked about and reckoned what they may not have said and instead conveyed between the lines (Kohler Riessman, 2008). More fundamentally, my acquaintance with contexts and processes significantly facilitated

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42 Kohl and McCutcheon (2015) propose the concept of “kitchen table reflexivity” to provide a platform to navigate and negotiate positionality through everyday talk with colleagues and mentors (p. 748).
disentangling and deconstructing actors’ embedded perspectives, interpretations, procedures, actions, routines, and decisions and, based on this, creating insights concerning my RQs (Knorr-Cetina, 1983). Finally, I felt that I was frequently the first choice to accompany project presentations within and outside SBB as a scientific representative, which helped launch validation interviews and test cases and fueled the dissemination and integration of co-produced knowledge and project impact exploration.

6.2.2.2 Broaching the issue of power games with the steering committee

Throughout Co-Creating Mobility Hubs, it became evident that a meaningful integration and application of the co-produced knowledge from the project would challenge fundamental managerial incentive systems according to which SBB employees direct their daily actions. Developing railway stations and their surroundings as mobility hubs requires SBB to act in unity, transcending divisional and other organizational boundaries. In reality, power games starting at the top management level constantly cascade through the company and complicate the cross-boundary collaboration necessary to respect the strategic priorities that SBB sets for its railway stations (cf. SBB, 2021). These games literally shape SBB by triggering frequent reorganizations that typically trace to demonstrations of power by newly appointed unit heads and steadily reinforce hierarchical thinking across the company. For example, SBB reorganized all three divisions at some point during the two-year project period.

In the outsider position of a researcher from ETH Zurich at SBB, I intended to point the finger at this paradox based on evidence from the project (Herr & Anderson, 2014). From my previous employment with SBB, I knew that developing individual agency was challenging because of one’s embeddedness in the prevailing incentive systems. Accordingly, my intention might have affected which contents of the Actors WP I presented more prominently during the quarterly steering committee meetings. Since the committee consisted of SBB top managers, I considered the presentations opportunities to hold a mirror up to the
people close to the origins of the power games mentioned. I may have conveyed the message, but my remarks on the findings went through a filter for two reasons.

First, the SBB members of the project core team enjoyed less freedom than I had to speak out critically. They were insiders and subordinated to committee members through the company’s line organization. Because the project’s TD nature was well known and promoted, they had an integral stake in the findings, and my statements could have burdened their professional position outside of Co-Creating Mobility Hubs (Dunkel et al., 2021; Fritz & Binder, 2018). Second, SBB would release the second half of the project funding only after the steering committee approved preliminary versions of the stipulated deliverables. Although there was never a probable scenario in which SBB would have held back the money, I felt that overall project activities were constantly and carefully aligned with committee members’ wishes, even if their expectations diverged from the core mission or ignored the problem framed through the operational project work.

6.2.2.3 Effects of the coronavirus disease 2019 pandemic

The coronavirus disease 2019 (COVID-19) pandemic restricted Co-Creating Mobility Hubs in two main ways. First, SBB did not opt to fund research modules that the project proposal budgeted as optional because of company-wide cost-cutting measures in response to the COVID-19 pandemic (cf. Schweizerischer Bundesrat, 2021). For the Actors WP, such a module would have included writing and publishing research articles in peer-reviewed academic journals during the third project year. Although the USYS TdLab stepped in and funded me for the time I authored the studies of this thesis, SBB’s refusal may have caused me to disconnect the writing process from the operational project work more intensely. Whereas SBB colleagues had an integral stake in the project deliverables, their contributions to the manuscript conceptualizations and preparations were indirect and retranslated by me after SBB dissolved the project organization.
Second, most project meetings, workshops, and focus groups took place virtually due to the protection measures against the COVID-19 pandemic. The measures also limited joint inspections of the empirical sites. These barriers to coming together in person markedly impeded the conditions for conducting qualitative social scientific and TD research (Djinlev et al., 2023). On the one hand, virtual interviews and participant observations required substantially more careful preparation, attention, and time. Still, with minor exceptions, the depth and trust qualities I perceived were nowhere near what I had experienced during in-person conversations.

On the other hand, many of the core team’s pivotal TD research process activities, such as learning and reflecting on knowledge integration and project impact, would have benefitted notably from more in-person interaction possibilities, offering more proximity and informality. Finally, Co-Creating Mobility Hubs lacked dedicated social gatherings, such as apéros, after formal project meetings. I believe such occasions could have supported forging closer ties between the operational (core team) and strategic (steering committee) project domains outside the quarterly get-togethers.
7 Conclusion

This thesis addresses the research gap in planning practices for transit station districts and the lack of pertinent studies on how planners can integrate actors’ various spatial imaginaries, perspectives, procedures, and routines in an expanded local development perimeter. To this end, the thesis follows a new institutionalist conceptual framework. It contours three studies, each using a different theoretical lens, to jointly produce an analytical overview to unpack current station district planning practices and derive implications and suggestions for practice and research.

In conclusion, my research indicates that station district planning moves toward layering institutionalization with a stable presence in the strategic planning groundwork but inadequate anchoring and governance in operational planning activities. Station districts’ spatial imaginaries must receive a higher profile so that practitioners increasingly pay attention to the perimeters’ development potential. This potential should be made tangible and promoted by planning authorities and public transport agencies via broad and low-threshold information and communication campaigns. A local network of actors then needs to determine the appropriate timing for a station district planning initiative in a given context, considering existing developments, prevailing power dynamics, and possible inadequacies.

Qualitative case study research on station districts can contribute to the study of planning in multi-actor collaborations characterized by cross-boundary coordination and integration. Through my project engagement and my own contextual embeddedness, this thesis portrays a TD research approach to planning, deconstructing actors’ interpretations, actions, and decisions from inside the processes and contexts in which they enact these traits. Reflecting on my approach, I conclude that planning researchers should systematically increase the salience of practice and theory in knowledge co-production processes to benefit from productive friction between societal and scientific representatives.


**Appendix A**

Table A.1: Basic interview guide information (adapted from Kelly, 1955; Kvale, 1996)

<table>
<thead>
<tr>
<th>Question type</th>
<th>Guide levels</th>
<th>Basic wording: [process] was replaced with the precise indication for the processes discussed during the interview, which varied depending on an interviewee’s involvement (translated from German).</th>
<th>Points of interest behind the question, which were approached with more specific follow-up queries.</th>
<th>RQs of primary interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory questions</td>
<td>1</td>
<td>1.1 Would you please tell me about yourself and your role in the [process]?</td>
<td>Roles in the process</td>
<td>RQ-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2 Which impulses led to the start of the [process]?</td>
<td>Prehistory, initialization, and setting of the process</td>
<td>RQ-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3 Would you please tell me when and how the [process] started?</td>
<td>Initialization, starting time, and interfaces of the process</td>
<td>RQ-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4 How and by whom were the actors involved in the [process]?</td>
<td>Process framework, its initiator(s), roles, and interfaces</td>
<td>RQ-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.5 How did you feel about the final selection of actors as the collaboration began?</td>
<td>Expectations and beliefs</td>
<td>RQ-1 and RQ-2</td>
</tr>
<tr>
<td>Structuring questions</td>
<td>2</td>
<td>2.1 Would you please tell me how the [process] continued?</td>
<td>The course of the process</td>
<td>RQ-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2 Which events led to progress and toward completion of the [process]?</td>
<td>Critical moments in the process</td>
<td>RQ-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.3 Would you please tell me where the [process] stands right now?</td>
<td>Current status of the process</td>
<td>RQ-1</td>
</tr>
<tr>
<td>Intermediate questions</td>
<td>3</td>
<td>3.1 Would you please tell me about the most important actors in the [process]?</td>
<td>The setting and actors of the process</td>
<td>RQ-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2 How did you feel about the most important actors’ roles in the [process]?</td>
<td>Roles in the process</td>
<td>RQ-1 and RQ-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.3 What arguments did the most important actors use to justify their roles?</td>
<td>Roles in the process</td>
<td>RQ-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.4 How did you feel about the process understanding of the most important actors?</td>
<td>Understanding of the process, expectations, and beliefs</td>
<td>RQ-1 and RQ-2</td>
</tr>
<tr>
<td>3.5</td>
<td>What accounted for successful process completion in the minds of the most important actors?</td>
<td>Understanding of the process, expectations, and beliefs</td>
<td>RQ-1</td>
<td></td>
</tr>
<tr>
<td>3.6</td>
<td>Would you please tell me about the challenges that arose between the most important actors during collaboration?</td>
<td>Understanding of the process, challenges, expectations, and beliefs</td>
<td>RQ-1 and RQ-2</td>
<td></td>
</tr>
<tr>
<td>3.7</td>
<td>How did you react to these challenges, and what did you or others do?</td>
<td>Understanding of the process, challenges, expectations, and beliefs</td>
<td>RQ-1 and RQ-2</td>
<td></td>
</tr>
<tr>
<td>Ending questions</td>
<td>4</td>
<td>4.1</td>
<td>What would you choose to do differently and why?</td>
<td>Challenges, expectations, beliefs, and potential for change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.2</td>
<td>What advice would you give to someone who needs to gain experience developing a shared understanding among different actors and bridging their diverse viewpoints and interests?</td>
<td>Challenges, expectations, beliefs, and potential for change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.3</td>
<td>What advice would you give to someone who needs to gain experience guiding and coordinating a collaborative process?</td>
<td>Challenges, expectations, beliefs, and potential for change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.4</td>
<td>What other processes have you experienced with features that seem similar to those of this [process], and how would you describe these features?</td>
<td>Challenges and potential for change based on comparable experiences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.5</td>
<td>What other processes have you experienced with features that seem different from those of the processes mentioned so far, and how would you describe these features?</td>
<td>Challenges and potential for change based on comparable experiences</td>
</tr>
</tbody>
</table>
### Appendix B

**Table B.1: Essential interview guide (adapted from Kelly, 1955; Kvale, 1996)**

<table>
<thead>
<tr>
<th>Question type</th>
<th>Guide levels</th>
<th>Basic wording: [process] is replaced with the precise indication for the development processes discussed during the interviews, which varied depending on an interviewee’s project involvements (translated from German).</th>
<th>Points of interest behind a question, which were addressed by specific follow-up queries.</th>
<th>RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory questions</td>
<td>1</td>
<td><strong>1.1</strong> Would you please tell me about yourself and your role in the [process]?</td>
<td>Role(s) in the development process</td>
<td>RQ-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>1.2</strong> Which impulses led to the start of the [process]?</td>
<td>Prehistory, initialization, and setting of the development process</td>
<td>RQ-1 and RQ-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>1.3</strong> Would you please tell me when and how the [process] started?</td>
<td>Initialization, starting time, and interfaces of the development process</td>
<td>RQ-1 and RQ-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>1.4</strong> How and by whom were the actors involved in the [process]?</td>
<td>Guiding structures, process organizer(s), roles, and interfaces</td>
<td>RQ-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>1.5</strong> How did you feel about the final selection of actors as the collaboration began?</td>
<td>Deficiencies, challenges, and difficulties</td>
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<td><strong>2.1</strong> Would you please tell me how the [process] continued?</td>
<td>The course of the development process</td>
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<td><strong>2.2</strong> Which events led to progress and toward completion of the [process]?</td>
<td>Critical moments in the development process and the role of guiding structures</td>
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<td><strong>2.3</strong> Would you please tell me where the [process] stands right now?</td>
<td>Current status of the development process</td>
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<td>How did you feel about the most important actors’ roles in the [process]?</td>
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<td>What arguments did the most important actors use to justify their roles?</td>
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<td>What accounted for successful process completion in the minds of the most important actors?</td>
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<td>Deficiencies, challenges, and difficulties</td>
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<td>How did you react to these challenges, and what did you or others do?</td>
<td>Solution approaches and the role of other actors</td>
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<td>What advice would you give to someone who needs to gain experience developing a shared understanding among different actors and bridging their diverse viewpoints and interests?</td>
<td>Solution approaches and the role of other actors</td>
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<td>4.4</td>
<td>What other processes have you experienced with features that seem similar to those of this [process], and how would you describe these features?</td>
<td>Challenges and solution approaches based on comparable experiences</td>
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### Appendix C

Table C.1: Interview guide information (adapted from Kelly, 1955; Kvale, 1996)

<table>
<thead>
<tr>
<th>Question type</th>
<th>Guide levels</th>
<th>Basic wording: [process] is replaced with the precise indication for the planning processes discussed during the interview, which vary depending on an interviewee’s project involvement (translated from German).</th>
<th>Points of interest behind the question, which, if necessary, are approached with more specific follow-up queries.</th>
<th>RQs of primary interest</th>
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<td>1.1 Would you please tell me about yourself and your role in the [process]?</td>
<td>Roles and power resources in the planning process</td>
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<td>1.2 Which impulses led to the start of the [process]?</td>
<td>Prehistory, initialization, and setting of the planning process</td>
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<td>1.3 Would you please tell me when and how the [process] started?</td>
<td>Initialization, starting time, and framework of the planning process</td>
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<td>1.4 How and by whom were the actors involved in the [process]?</td>
<td>Process framework, its organizer(s), roles, and power resources</td>
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<td>1.5 How did you feel about the final selection of actors as the collaboration began?</td>
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<td>The course of the planning process</td>
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<td>2.2 Which events led to progress and toward completion of the [process]?</td>
<td>Critical moments in the planning process and power resources’ role</td>
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<td>2.3 Would you please tell me where the [process] stands right now?</td>
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<td>Would you please tell me about the challenges that arose between the most important actors during collaboration?</td>
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<td>How did you react to these challenges, and what did you or others do?</td>
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<td>4.5 What other processes have you experienced with features that seem different from those of the processes mentioned so far, and how would you describe these features?</td>
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## Appendix F

Table F.1: Template for an observational protocol (adapted from Adler & Adler, 1987; Hammersley & Atkinson, 2019; Murphy, 1980; Yin, 2011)

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<td>2.1 Characteristics of individual participants, including their clothing, gestures, and nonverbal behavior</td>
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<td>2.2 Interactions between or among participants, including language and dialogue</td>
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<td>2.3 Actions taking place, whether human or mechanical</td>
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<td>2.4 Physical surroundings, including visual and audio cues and props</td>
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<td>2.5 Unobtrusive/nonreactive measures and other physical traces of prior human activity</td>
</tr>
<tr>
<td>Reflection and analysis</td>
<td>3</td>
<td>3.1 Personal reflections</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2 Initial analytical thoughts</td>
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</table>
### Appendix G

Table G.1: The Bern Wankdorf case study: Developments and strategic (land-use) plans (active between May 2020 and December 2021)

<table>
<thead>
<tr>
<th>Bern Wankdorf case study</th>
<th>Scheduled completion / time horizon</th>
<th>Title</th>
<th>Actor(s)</th>
<th>Overall scope</th>
</tr>
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<tbody>
<tr>
<td><strong>Developments</strong></td>
<td></td>
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<tr>
<td></td>
<td>2025</td>
<td>Area development <em>WankdorfCity</em></td>
<td>City of Bern (lead), ewb, and private developers</td>
<td>Not applicable (not considered as strategic plans)</td>
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<tr>
<td></td>
<td>2026 (discontinued in 2020)</td>
<td>Railway station redevelopment</td>
<td>SBB (lead) and City of Bern</td>
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<tr>
<td></td>
<td>2028</td>
<td>Area development <em>Quartierstadt</em></td>
<td>City of Bern (lead), BG Bern, and private developers</td>
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<tr>
<td></td>
<td>2030</td>
<td>Area development <em>Gleisdreieck</em></td>
<td>SBB (lead), ewb, and Federal Roads Office (FEDRO)</td>
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<tr>
<td></td>
<td>2032</td>
<td>Railway track infrastructure extension and renewal</td>
<td>SBB (lead), Canton of Bern, and FOT</td>
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<tr>
<td></td>
<td>2033</td>
<td>Motorway road infrastructure extension and renewal</td>
<td>FEDRO (lead), Canton of Bern, City of Bern, Municipality of Muri bei Bern, Municipality of Ostermundigen, and RKBM</td>
<td></td>
</tr>
<tr>
<td><strong>Strategic (land-use) plans</strong></td>
<td>2030</td>
<td><em>Entwicklungsschwerpunkt Wankdorf</em></td>
<td>Canton of Bern (lead), City of Bern, Municipality of Ittigen, Municipality of Ostermundigen, BG Bern, BERNEXPO, armasuisse, FOBL, and SBB</td>
<td>Wankdorf (development perimeter)</td>
</tr>
<tr>
<td></td>
<td>2030</td>
<td><em>Stadtentwicklungskonzept Bern</em></td>
<td>City of Bern</td>
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<tr>
<td></td>
<td>2035</td>
<td><em>Gesamtperspektive Bern</em></td>
<td>SBB and Canton of Bern</td>
<td>Canton of Bern</td>
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<tr>
<td></td>
<td>2040</td>
<td><em>Regionales Gesamtverkehrs- und Siedlungskonzept</em></td>
<td>RKBM and Canton of Bern</td>
<td>Bern-Mittelland (administrative district)</td>
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</table>
## Table G.2: The Ostermundigen case study: Developments and strategic (land-use) plans (active between May 2020 and December 2021)

<table>
<thead>
<tr>
<th>Ostermundigen case study</th>
<th>Scheduled completion / time horizon</th>
<th>Title</th>
<th>Actor(s)</th>
<th>Overall scope</th>
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<tbody>
<tr>
<td>Developments</td>
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<td></td>
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<td></td>
<td>2021</td>
<td>Area development <em>Poststrasse Süd</em></td>
<td>Private developers (lead) and Municipality of Ostermundigen</td>
<td>Not applicable (not considered as strategic plans)</td>
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<tr>
<td></td>
<td>2022</td>
<td>Area development <em>BäreTower</em></td>
<td>Private developers</td>
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<tr>
<td></td>
<td>2029</td>
<td>Tramway infrastructure development (including tramway stop redevelopment)</td>
<td>BERNMOBIL (lead), Canton of Bern, and Municipality of Ostermundigen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2032</td>
<td>Railway infrastructure extension and renewal (including railway station redevelopment)</td>
<td>SBB (lead), Canton of Bern, and FOT</td>
<td></td>
</tr>
<tr>
<td>Strategic (land-use) plans</td>
<td>2035</td>
<td><em>Gesamtperspektive Bern</em></td>
<td>SBB and Canton of Bern</td>
<td>Canton of Bern</td>
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<tr>
<td></td>
<td>2040</td>
<td>RES</td>
<td>Municipality of Ostermundigen</td>
<td>Municipality of Ostermundigen</td>
</tr>
<tr>
<td></td>
<td>2040</td>
<td><em>Regionales Gesamtverkehrs- und Siedlungskonzept</em></td>
<td>RKBM and Canton of Bern</td>
<td>Bern-Mittelland (administrative district)</td>
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</table>
**Appendix H**

Table H.1: Bern Wankdorf case study: Strategic (land-use) plans and projects (at December 2021; BVD des Kantons Bern, 2019; RKBM, 2021; SBB & Kanton Bern, 2016; SPA und VP der Stadt Bern, 2017)

<table>
<thead>
<tr>
<th>Bern Wankdorf case study</th>
<th>Timeline</th>
<th>Name</th>
<th>Actor(s)</th>
<th>Overall scope</th>
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<tbody>
<tr>
<td>Strategic (land-use) plans</td>
<td>2016–2035</td>
<td>Gesamtperspektive Bern</td>
<td>SBB and Canton of Bern</td>
<td>Canton of Bern</td>
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<td>2017–2030</td>
<td>Stadtentwicklungskonzept Bern</td>
<td>City of Bern</td>
<td>City of Bern</td>
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<tr>
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<td>2019–2030</td>
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<td>Canton of Bern (lead), City of Bern, Municipality of Ittigen, Municipality of Ostermundigen, BG Bern, BERNEXPO, armasuisse, FOBL, and SBB</td>
<td>Wankdorf (development perimeter)</td>
</tr>
<tr>
<td></td>
<td>2021–2040</td>
<td>Regionales Gesamtverkehrs- und Siedlungskonzept</td>
<td>RKBM and Canton of Bern</td>
<td>Bern-Mittelland District</td>
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<tr>
<td>Projects</td>
<td>2008–2025</td>
<td>Area development WankdorfCity</td>
<td>City of Bern (lead), ewb, and private developers</td>
<td>Not applicable (not considered strategic plans)</td>
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<td></td>
<td>2012–2032</td>
<td>Railway track infrastructure extension and renewal</td>
<td>SBB (lead), Canton of Bern, and FOT</td>
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<tr>
<td></td>
<td>2018–2026 (discontinued in 2020)</td>
<td>Railway station redevelopment</td>
<td>SBB (lead) and City of Bern</td>
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<tr>
<td></td>
<td>2018–2033</td>
<td>Motorway road infrastructure extension and renewal</td>
<td>FEDRO (lead), Canton of Bern, City of Bern, Municipality of Muri bei Bern, Municipality of Ostermundigen, and RKBM</td>
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<tr>
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<td>2020–2028</td>
<td>Area development Quartierstadt</td>
<td>City of Bern (lead), BG Bern, and private developers</td>
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<td>2020–2030</td>
<td>Area development Gleisdreieck</td>
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Table H.2: Ostermundigen case study: Strategic (land-use) plans and projects (at December 2021; O’modo, 2021; RKBM, 2021; SBB & Kanton Bern, 2016)

<table>
<thead>
<tr>
<th>Ostermundigen case study</th>
<th>Timeline</th>
<th>Name</th>
<th>Actor(s)</th>
<th>Overall scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic (land-use) plans</td>
<td>2016–2035</td>
<td>Gesamtperspektive Bern</td>
<td>SBB and Canton of Bern</td>
<td>Canton of Bern</td>
</tr>
<tr>
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<td>2021–2040</td>
<td>RES</td>
<td>Municipality of Ostermundigen</td>
<td>Municipality of Ostermundigen</td>
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<td></td>
<td>2021–2040</td>
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<td>RKBM and Canton of Bern</td>
<td>Bern-Mittelland District</td>
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<tr>
<td>Projects</td>
<td>2017–2023</td>
<td>Local zone plan revision</td>
<td>Municipality of Ostermundigen (lead), private developers, and SBB</td>
<td>Not applicable (not considered strategic plans)</td>
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<tr>
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<td>2017–2029</td>
<td>Tramway infrastructure development, including tramway stop</td>
<td>BERNMOBIL (lead), Canton of Bern, and Municipality of Ostermundigen</td>
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<tr>
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<td>2019–2032</td>
<td>Railway infrastructure extension and renewal, including railway station</td>
<td>SBB (lead), Canton of Bern, and FOT</td>
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## Appendix J

Table J.1: Bern Wankdorf case study: Planning processes, events, and involved actors

<table>
<thead>
<tr>
<th>Period</th>
<th>Planning process / event</th>
<th>Involved actors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Opening of railway station in Bern Wankdorf</td>
<td>SBB (lead), Canton of Bern, and City of Bern</td>
</tr>
<tr>
<td>2008–2025</td>
<td>Planning and realization of <em>WankdorfCity</em> area development</td>
<td>City of Bern (lead), ewb, and private developers</td>
</tr>
<tr>
<td>2012</td>
<td>Launch of extended and renewed tramway and motorway connections</td>
<td>FEDRO (lead), BERNMOBIL, Canton of Bern, and City of Bern</td>
</tr>
<tr>
<td>2012–2032</td>
<td>Planning and realization of railway infrastructure extensions and renewals</td>
<td>SBB (lead), Canton of Bern, and FOT</td>
</tr>
<tr>
<td>2014</td>
<td>Opening of new SBB headquarters within <em>WankdorfCity</em> area</td>
<td>SBB</td>
</tr>
<tr>
<td>2018–2026</td>
<td>Planning and realization of railway station redevelopment</td>
<td>SBB (lead) and City of Bern</td>
</tr>
<tr>
<td>(discontinued in 2020)</td>
<td></td>
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</tr>
<tr>
<td>2018–2033</td>
<td>Planning and realization of motorway infrastructure extensions and renewals</td>
<td>FEDRO (lead), Canton of Bern, City of Bern, Municipality of Muri bei Bern, Municipality of Ostermundigen, and RKBM</td>
</tr>
<tr>
<td>2019–2020</td>
<td>Planning and realization of the first EZP iteration</td>
<td>SBB (lead), BLS, BERNMOBIL, Canton of Bern, City of Bern, and ewb</td>
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<tr>
<td>2020</td>
<td>Launch of <em>Quartierstadt</em> area development</td>
<td>City of Bern (lead), BG Bern, and private developers</td>
</tr>
<tr>
<td>2020–2030</td>
<td>Planning and realization of <em>Gleisdreieck</em> area development</td>
<td>SBB (lead), ewb, and FEDRO</td>
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</table>
Table J.2: Ostermundigen case study: Planning processes and involved actors

<table>
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<th>Period</th>
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<th>Involved actors</th>
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<tr>
<td>2011–2022</td>
<td>Planning and realization of BäreTower area development</td>
<td>Private developers</td>
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<tr>
<td>2013–2017</td>
<td>Planning and realization of railway maintenance and intervention center</td>
<td>SBB</td>
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<td>2014–2021</td>
<td>Planning and realization of Poststrasse Süd area development</td>
<td>Private developers (lead) and Municipality of Ostermundigen</td>
</tr>
<tr>
<td>2017–2023</td>
<td>Total revision of local zone plans, including ZBS</td>
<td>Municipality of Ostermundigen (lead), private developers, and SBB</td>
</tr>
<tr>
<td>2017–2029</td>
<td>Planning and realization of tramway infrastructure extensions, including the tramway stop</td>
<td>BERNMOBIL (lead), Canton of Bern, and Municipality of Ostermundigen</td>
</tr>
<tr>
<td>2019–2032</td>
<td>Planning and realization of railway infrastructure extensions and renewals, including the railway station</td>
<td>SBB (lead), Canton of Bern, and FOT</td>
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