Moving forward as an organisation:
The importance of uncertainty work for the development of strategy practices

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Summary

The question of how an organisation's strategy practices develop is essential for managers and executives as those practices form the underlying means to move their organisation forward. Despite a growing research body in this field, there is room to further understand how strategy practices develop over time. In order to provide further insights on that question, this dissertation focusses on the underlying and mutually constitutive relationship between strategizing and uncertainty. Given that strategizing is concerned with the future of an organisation and that this future is per se uncertain, both concepts are intimately interlinked. However, previous research has only occasionally looked at this relationship explicitly and if so, has focussed on environmental uncertainty rather than the practice dimension of uncertainty, which we understand as a reflective uncertainty about the strategy practices themselves. Therefore, to better understand the development of strategy practices, we focus on the practice dimension of uncertainty and, by drawing from the general turn to work as a conceptual attractor, introduce uncertainty work. The concept of uncertainty work turns uncertainty from 'something out there' that must be taken for granted to an inherent part of an organisation's own strategy practices. Given the newness of the concept, we require an empirical case of how this engagement with the inherent uncertainty in strategizing unfolds and how this relates to the development of strategy practices. This dissertation provides such a case in the form of an in-depth ethnographic and interview-based study of PubLib's strategy practices development, centred around their executive board. PubLib is a large European public library that, given various internal and external developments, has set out an explicit process trying to improve and develop their own strategy practices where the practice dimension of uncertainty surfaces and thus becomes observable. Hence, PubLib provides a promising case to study the development of strategy practices in relation to uncertainty work. The findings indicate five different uncertainty work types: uncertainty avoiding, uncertainty reducing, uncertainty inflating, uncertainty experimenting, and uncertainty accepting. All five uncertainty work types display different effects on both the strategy practice landscape and its development. The third type, uncertainty experimenting, is especially relevant for the development of strategy practices as uncertainty serves as a trigger to introduce alterations, which can subsequently serve as the breeding ground for lasting changes to the strategy practices. Here, the empirical case provides further insights on how strategy practices develop in the aftermath of uncertainty experimenting. First, alterations seem to require some connection to the existing practice landscape. Second, temporary protection, immediacy, and materiality support initial mobilisation of new practice elements. Third, collectivisation and interlocking support the further stabilisation of such new practice elements.

In sum, this dissertation offers new insights on the development of strategy practices over time, which appears to be closely related to uncertainty work. The findings offer important implications for both strategy-as-practice research as well as managers and executives.

Zusammenfassung

Die Frage, wie sich Strategiepraktiken entwickeln, ist essenziell für Manager und Führungskräfte, da dieses strategische Handeln grundlegend ist für die Weiterentwicklung ihrer Organisation. Trotz zahlreicher Studien im 'strategy-as-practice' Feld fehlt uns zum aktuellen Zeitpunkt ein genaueres Verständnis über die Entwicklung von Strategiepraktiken im Zeitverlauf. Daher widmet sich diese Dissertation genau dieser Frage: Wie entwickeln sich Strategiepraktiken im Zeitverlauf innerhalb einer Organisation? Das grundlegende und sich selbst-erhaltende Verhältnis von Strategieren und Unsicherheit bildet dabei die Grundlage dieser Dissertation. Aufgrund der Tatsache, dass Strategieren sich mit der Zukunft der Organisation beschäftigt und diese Zukunft per se unsicher ist, sind beide Konzepte eng verknüpft. Allerdings haben bisherige Studien diese Beziehung nur vereinzelt explizit analysiert. Studien, die sich mit dieser Thematik auseinandersetzten, fokussierten dabei jedoch hauptsächlich auf Umweltunsicherheiten und nicht auf die Praktiken-Dimension von Unsicherheit, welche wir als eine reflektive Unsicherheit über die eigenen Strategiepraktiken verstehen. Daher ist das Ziel dieser Dissertation, die Entwicklung von Strategiepraktiken im Kontext von Unsicherheit und unter Heranziehen der verbreiteten Arbeitsperspektive besser zu verstehen. Dafür führen wir den Begriff von Unsicherheitsarbeit ein. Das Konzept Unsicherheitsarbeit wandelt Unsicherheit von ‚Etwas da draußen', das man akzeptieren muss, zu einem inhärenten Teil der eigenen Strategiepraktiken um. Diese Dissertation erforscht diese Thematik anhand einer Fallstudie in Form einer tiefgehenden ethnografischen und Interview-basierten Studie, welche die Entwicklung der Strategiepraktiken einer großen öffentlichen und europäischen Bibliothek (PubLib) mit einem besonderen Fokus auf die Geschäftsleitung analysiert. PubLib versucht aktiv vor dem Hintergrund verschiedener interner und externer Entwicklungen, ihre eigenen Strategiepraktiken zu verbessern und zu entwickeln – Ein Prozess, bei dem die Praktiken-Dimension von Unsicherheit an die Oberfläche tritt und beobachtbar wird. Unsere Ergebnisse zeigen fünf verschiedene Arten der Unsicherheitsarbeit auf: Unsicherheitsvermeidung, Unsicherheitsreduzierung, Unsicherheitsinflationierung, Unsicherheitsausprobieren und Unsicherheitsakzeptieren. Alle fünf Arten zeigen unterschiedliche Effekte, sowohl auf die Landschaft von Strategiepraktiken als auch auf deren Entwicklung. Insbesondere Typ drei, Unsicherheitsausprobieren, ist relevant für die Entwicklung von Strategiepraktiken, da Unsicherheit hier als Anstoß zur Einführung von Veränderungen genutzt wird. Infolgedessen können diese Veränderungen ein Startpunkt für nachhaltigere Entwicklungen der eigenen Strategiepraktiken sein. Vor diesem Hintergrund bietet unser empirischer Fall weitere Erkenntnisse über das ‚Wie' der Entwicklung von Strategiepraktiken, welche sich in drei Hauptaspekten äußern: Erstens scheinen Veränderungen eine gewisse Anschlussfähigkeit zu den bisherigen Strategiepraktiken zu benötigen. Zweitens unterstützen das zeitweise Beschützen, die Unmittelbarkeit sowie materielle Elemente die Mobilisierung von neuen Praktikelementen. Drittens tragen Kollektivierung und Verzahnung zur weiteren Stabilisierung von neuen Praktikelementen bei. Zusammenfassend bietet diese Dissertation neue Erkenntnisse der Entwicklung von Strategiepraktiken im Zeitverlauf, welche basierend auf unseren Ergebnissen in engem Zusammenhang mit Unsicherheitsarbeit stehen. Die Ergebnisse dieser Dissertation tragen sowohl zur ‚strategy-as-practice' Forschung als auch zur Unterstützung von Managern und Führungskräften in der Praxis bei.

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1. Introduction to this dissertation

'How do I develop a successful strategy?' is probably one of the most frequently asked and most fundamental questions in the world of executives and managers. It has filled many textbooks, consulting projects, and policy papers – Nevertheless, the answers seem to be far from easy to find. For us[1], this question points towards the productivity of an organisation's own strategizing, i.e. the mobilisation of specific strategy practices, as the underlying means of how an organisation actually *does*[2] strategy. Hence, in order to develop a successful strategy (however you may define that), one needs to develop a set of strategy practices that jointly enables the organisation to work on its own future productively. Therefore, in this dissertation, we set out to better understand *how* such strategy practices develop.

In these first introductory pages, we first look backstage of research on strategizing, where, with the concept of uncertainty, we find an important puzzle that requires further attention in order to understand the development of strategy practices (Chapter 1.1). We subsequently prepare the main stage by embedding our puzzle in the existing research (Chapter 1.2). When entering the stage (Chapter 1.3), we argue why we are interested in this specific puzzle and why this is relevant to both strategy-as-practice researchers and strategy practitioners. Finally, we provide an overview of this dissertation by briefly previewing each part and its respective core chapters (Chapter 1.4).

1.1. Looking backstage - a puzzle behind the scenes

For more than half a century, we have observed assertions like "uncertainty appears as the fundamental problem for complex organizations" (Thompson, 1967, p. 159) and "uncertainty is a term which is used daily in a variety of ways. This everyday acquaintance with uncertainty can be seductive in that it is all too easy to assume that one knows what he is talking about" (Downey & Slocum, 1975, p. 562).

Contingent upon this, *strategizing*[3], understood as the enactment of practices shaping "how an organization will move forward" (Rumelt, 2011, p. 3), is the central organisational activity to address and work with uncertainty. It involves core organisational topics such as resource

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[1] The 'editorial we' is used to refer to the single author of this dissertation due to the simplification of language. It further emphasizes that, despite this dissertation being the sole work of the single author, researching in this dissertation is understood as a team effort where even subtle third party contributions are important for shaping the final outcome.

[2] *Italic* text is used for content-based emphasis throughout this dissertation

[3] As common within the strategy-as-practice field (see for example Vaara & Whittington, 2012), we deviate from the traditional British English spelling of *strategising* to the more common spelling as *strategizing* throughout the dissertation.

allocation (Bower & Gilbert, 2005; Burgelman, 2002) or competitive positioning (Porter, 1996). Due to its "forward-looking creation of existence-relevant foundations" (Rüegg-Stürm & Grand, 2015, p. 186) and its emphasis on "reaching out into the unknown" (Chia & Holt, 2009, p. 159), strategizing is concerned with how organisations address and develop their future. As such, it connects intimately to uncertainty. As the future is always unknown, past experiences can never "provide a perfect guide to the future" (Gomez & Jones, 2000, p. 697). Consequently, strategizing always includes an "imprecision in estimates of future consequences conditional on present action" (March, 1994, p. 178), here understood as uncertainty. More specifically, strategizing involves the very practices through which environmental uncertainties, i.e., those uncertainties that originate in the external environment caused by, for example, unforeseeable events in the environment (Schumpeter, 1934), limited understanding of cause-effect relations (Lippman & Rumelt, 1982), or rapidly changing markets (Eisenhardt, 1989) are addressed, altered and formed into scenarios of how the organisation can move forward. However, any decision taken while strategizing creates new uncertainties (Grand, 2016), thus making this relationship mutually constitutive. Essentially, there is no strategizing without environmental uncertainty – and as the future (of the environment) is always uncertain, there is always strategizing. Consequently, researchers have repeatedly emphasised the importance of uncertainty for strategizing (see for example Eisenhardt, 1989; Michel, 2007). Executives try to improve their organisation's 'readiness' by developing internal capabilities that allow them to address uncertainty more productively (Lipshitz & Strauss, 1997). Therefore, we require a turn towards an organisation's strategy practices, understood as "ways of doing things, embodied and materially mediated that are shared between actors and routinized over time" (Vaara & Whittington, 2012, p. 278) that are relevant for strategy.

Against this background, we observe that contemporary strategizing is "something in which more people are involved, more often, than ever before" (Johnson, Melin, & Whittington, 2003, p. 5). Furthermore, strategists engage in diverse activities such as discussing in meetings (Jarzabkowski & Seidl, 2008), developing slides and visuals (Kaplan, 2011), and crafting texts and plans (Giraudeau, 2008; Vaara, Sorsa, & Palli, 2010). While doing so, they employ a variety of tools such as Business Modell Canvas (Bleicher & Stanley, 2016), Scenario Planning (Augier, Dew, Knudsen, & Stieglitz, 2018; Ramírez & Selsky, 2016), or Lego play (Heracleous & Jacobs, 2008). Finally, these activities take place in various forms of interactions and meetings such as scrum teams (Davidson & Klemme, 2016), virtual teams (Fiol & O'Connor, 2005), or corporate retreats and off-sites (Frisch & Chandler, 2006). Given this complexity of strategizing, practitioners face increasing difficulties in assessing how to engage with their organisational future productively (Alvarez, Afuah, Gavetti, et al., 2018), also in the face of complex issues or wicked problems (Dittrich, Jarzabkowski, & Lê, 2018). In other words, strategy practices must answer a series of questions such as *when, where, how, with whom, how*

often, how long, and *with what* to strategize. The potential answers to these questions are diverse and offer various options whose effects and productivities cannot be determined a priori. In addition, a strategy practice landscape always contains "partial inconsistencies and tensions within the components of a practice and among different practices" (Nicolini & Monteiro, 2017, p. 5), which make them subject to various contestations and continuous development.

Hence, executives engaging in the development of their strategy practices meet two different types of uncertainties: First, environmental uncertainty that is largely out of their control and is the underlying reason for strategizing in the first place. Second, a practice dimension of uncertainty that focusses on difficulties in assessing the 'appropriate' way of strategizing. Developing an organisation-specific repertoire of strategy practices in the context of such uncertainties seems like a challenging yet important task for managers and executives as it forms the underlying means and activities to move their organisation forward.

Given that strategizing is about addressing inherent environmental uncertainties and that strategists further express uncertainties about how to productively address these uncertainties, it is surprising that there is only limited scholarly effort to understand how executives involved in strategizing *engage* with uncertainty itself (Müller-Seitz, 2014), and how this engagement relates back to the development of strategy practices. Hence, despite its intimate and mutually constitutive relationship on a conceptual level, we have a limited understanding of how strategy practices and uncertainty relate to each other and how strategy practices develop in the context of uncertainty. This puzzle, besides its relevance, has been hiding backstage in organisational scholars' research interest (Alvarez, Afuah, & Gibson, 2018) for some time. We now take it to the main stage and reveal the dynamics that unfold when the puzzle performs its play, both conceptually and empirically.

In essence, this dissertation sets out to shed further light on the development of an organisation's strategy practices and the inherent engagement with uncertainties involved in this process.

1.2. Setting the stage - Embedding the puzzle in existing research

The strategy-as-practice turn (Golsorkhi, Rouleau, Seidl, & Vaara, 2015a) provides an important reframing of strategy as something that people *do* rather than something that organisations *have* (Whittington, 2006). Numerous studies in the strategy-as-practice field provide details of the different elements of strategy practices (Vaara & Whittington, 2012), and as such they lay important groundwork for this dissertation with its focus on the development of strategy practices in relation to uncertainty work. Importantly, "practice approaches are a primary way to study organisation processually. This is because all coherent practice approaches subscribe to the view that social and organization life stem from and transpire through the real-time accomplishments of ordinary activities" (Nicolini & Monteiro, 2017, p.

1). Such a processual understanding in practice research has important consequences for studying *development* in a practice perspective. Rather than looking for clear transitions from one strictly bordered practice or elements of it to another, *development* must be understood as an emerging pattern of various practices or practice elements becoming more or less pronounced and visible over time. Thus, we suspect hiding and resurfacing rather than deletion or full omission, based on the continuous "competition between old and new ways of doing things" (Nicolini & Monteiro, 2017, p. 5). Such a processual understanding allows us to infer several implications about the development of strategy practices, despite a lack of empirical studies focussing on the *development* of strategy practices per se (Burgelman et al., 2018). From previous research we can infer that such a strategy practice development follows an iterative and experimental process (Jarzabkowski & Spee, 2009; Vaara, Kleymann, & Seristo, 2004). Further, this process is local and specific (Nicolini & Monteiro, 2017) while also relating to the external environment (Ansari, Reinecke, & Spaan, 2014), and it involves meetings (Bucher & Langley, 2016), artefacts (D'Adderio, 2011) and reasonable rather than rational actors with more than simple goals (Dittrich & Seidl, 2018). Furthermore, we understand that executives, given their formal power and involvement in strategizing (Angwin, Paroutis, & Mitson, 2009), play a crucial role in the development of an organisation's strategy practice landscape (Jarzabkowski & Seidl, 2008), which makes the executive board of an organisation a key element for inquiries like ours.

In terms of uncertainty, we enter a highly contested yet currently rather inactive research field. The actual engagement with uncertainty seems to follow one of two paths, where strategists, broadly speaking, engage with uncertainty either as a problem or as an opportunity. In addition, as laid out above, uncertainty and strategizing have a mutually constitutive relationship, where uncertainty has both an environmental dimension that is largely outside the control of an organisation and a practice dimension that becomes an inherent part of strategizing. With this in mind, existing research predominantly conceptualises uncertainty as an objective state of the external environment (Lawrence & Lorsch, 1967; Milliken, 1987) or as a cognitive process black-boxed in the perceptions of strategic actors (Gao, Sirgy, & Bird, 2005; Levy, 2015), which leads to a stark focus on the environmental dimension of uncertainty in both existing research and practitioners' accounts.

Despite the strategy-as-practice field's efforts to understand the details of what strategists actually do, we lack an understanding of how such practices develop over time. Moreover, "most studies of practice deal with already established practices [therefore capturing] a practice in its slow, longitudinal processes of coming to be […] is a rare opportunity" (Bjørkeng, Clegg, & Pitsis, 2009, p. 145 & 147). Hence, we have a limited understanding of how practices develop (Gomez & Bouty, 2011) and more specifically how this development happens within a single organisation (Ansari, Fiss, & Zajac, 2010). Overall,

"empirical studies of such processes are […] lacking" (Vaara & Whittington, 2012, p. 311). In relation to this lack of empirical studies focussing on the development of strategy practices, we observe a surprising absence of the *practice* dimension of uncertainty where we observe an "imprecision in estimates of future consequences conditional on present action" (March, 1994, p. 178) regarding an organisation's own strategy practices. This practice dimension of uncertainty "shifts from comparison of known [or unknown] options to open-ended consideration of possibilities" (Packard, Clark, & Klein, 2017, p. 846), where the open-ended possibilities involve the various elements of a strategy practice landscape described above. Overall, these related areas around the empirical examination of the development of strategy practices and the consideration of the practice dimension of uncertainty deserve further research.

1.3. Entering the stage – Research interest and relevance

In this dissertation, we approach this puzzle around the development of strategy practices in the context of the uncertainties involved by taking a practice perspective (Golsorkhi et al., 2015a; Nicolini, 2012b), which offers detailed accounts on the different elements contributing to the concrete doing of strategy. Consequently, it intrigues us how strategy practices, both as a single practice but also as their conglomeration in the form of a strategy practice landscape, develop within a single organisation; hence, our underlying research interest is

How do strategy practices develop over time within one organisation? [4]

In this dissertation, we focus on the specific connections between strategizing and uncertainty. Hence, this dissertation aspires to enrich our understanding of how strategy practices develop within one organisation[5]. Given that strategizing fundamentally intertwines with uncertainty, it is almost imperative to analyse the development of strategy practices with a focus on uncertainty. As briefly discussed above, uncertainty often refers to the larger environment where extra-organisational factors shape and influence strategic decision-making (see for example Maitland & Sammartino, 2015). However, based on the understanding of contemporary strategy practices presented above, we argue that uncertainty is also relevant for

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[4] Please note that one could also ask 'How do strategy practices develop over time in the context of uncertainty?' However, this question would have a tautological element as strategy practices always happen in the context of uncertainty due to their mutually constitutive relationship mentioned above.

[5] Please note that in other fields, especially in studies drawing on institutional theory, research tries to understand how practices dissolve through a larger industry or field, thus how practices develop in the supra-organisational level. However, this area remains silent on the intra-organisational processes of practice development. In order to distinguish our work from previous research foci, it is important to note that we emphasize the *organisation-specific* practice development, which we can observe within one organisation rather than the practice development in the larger field, which mostly focuses on an industry level. Therefore, to ease the reading of the present dissertation, we refer to *practice development* when talking about the *organisation-specific practice development*, unless explicitly stated differently.

the strategy practice landscape itself and therefore propose shifting the focus of uncertainty away from exclusively looking at the external environment and more towards the internal strategy practices. Such a focus adjustment towards the *practice dimension of uncertainty* leads to a necessary revisiting of managerial conduct. While uncertainties in the external environment are de facto outside of the managerial realm of control, the practice dimension of uncertainty sees strategic actors like the executive board as a constitutive element of and directly involved in uncertainties. Hence, we turn uncertainty from something external out there that executives have no or little control over to something that is malleable by executives "being engaged in forming, repairing, maintaining, strengthening or revising the constructions" (Sveningsson & Alvesson, 2003, p. 1165) of uncertainty. Importantly, this reframing happens in a '*both…and* fashion' not in an '*either…or* fashion', as merely replacing the one dimension (environmental dimension of uncertainty) with the other (practice dimension of uncertainty), is unlikely to reveal insightful new results. Hence, understanding how senior executives act upon, manifest, share and more generally *engage with the inherent uncertainty in strategizing* is a key concern of this dissertation and offers an important element to enrich our current understanding of how a strategy practices develops.

Motivated by the challenge described above and informed by the existing research, we are curious to understand how we can comprehend the development of strategy practices in the context of uncertainty. Given the lack of empirical studies on both the development of strategy practices per se and the relation between the practice dimension of uncertainty and strategizing, we lack an understanding of how strategic actors engage with the inherent uncertainty in strategizing and how this relates to the development of their strategy practices. Consequently, this dissertation investigates the following two research questions:

> Research Question 1:
>
> *How do executives engage with the inherent uncertainty in strategizing?*
>
> Research Question 2:
>
> *How does the engagement with the inherent uncertainty relate to the development of strategy practices?*

Working on these two questions is likely to benefit both strategy-as-practice research as well as strategy practitioners, for three primary reasons:

First, existing work in the strategy-as-practice perspective tends to focus on the intimate details of strategy practices rather than on their development over time. Nevertheless, we notice repeated requests to place more focus on the organisation-specific development of strategy practices, as, for example, Burgelman et al. (2018) explicitly call for more studies examining

such phenomena. Here strategy-as-practice research integrates its ability to pay attention to the nuanced details of strategy practices with its process ontology when trying to understand how strategy practices develops over time.

Second, the role of strategists is constantly changing (Grant, 2003; Whittington, Cailluet, & Yakis-Douglas, 2011) and, given highly dynamic, fast changing, disruptively innovative contexts (Christensen, 1997; Ismail, 2014), especially prevailing in the so-called digital age (Brown & Eisenhardt, 1997), our contemporary times seem to require ever more swift and agile strategic changes. Under those circumstances, we observe an increasing need to understand how managers and executives can support the development of their own strategy practices in order to maintain or regain productivity in developing their organisation forward.

Third, "often decision makers underestimate the level of uncertainty in their environments [as they are] systematically overconfident about their ability to anticipate the results of a decision" (Alvarez & Barney, 2005, p. 779). Hence, a more nuanced understanding of the relationship between strategizing and uncertainty in both its dimensions is required to provide advice on how to engage with uncertainty when trying to strategize productively. Further stretching the relevance of this topic, we observe a schizophrenic role of uncertainty in the context of strategizing. On the one hand, uncertainty seems to serve as a basis for "creating something from nothing" (Baker & Nelson, 2005, p. 329), where it becomes "a premise for questioning, reviewing, and transcending what is established (Garud, Nayyer, & Shapira, 1997)" (Rüegg-Stürm & Grand, 2015, p. 180). On the other hand, uncertainty resembles an obstacle that requires corrective measures to overcome it. In this regard, uncertainty as something "to manage and reduce in order to gain greater certainty and control over events" (Giles, 2018, p. 1) implies a rather negative understanding of uncertainty that mirrors many common accounts from executives who described uncertainty as an issue that needs to be overcome.

Overall, working on our underlying research interest and the two derived research questions is likely to support the strategy-as-practice field in moving forward by looking at the development of strategy practices over time and by entangling the relationship between strategizing and uncertainty. Further, practising strategists are likely to benefit from this work through a novel perspective on how their strategy practices can develop and how their different forms of uncertainty engagements influence this process. Importantly, practising strategists often may engage with uncertainty without explicit intent. Hence understanding this engagement further is important to enable productive strategizing.

1.4. Telling the plot - Approach and overview

As mentioned before, we build on the mutually constitutive relationship between strategy practices and uncertainty. Therefore, in order to answer the two research questions and

contribute to the understanding of how strategy practices develop, we initially need to discuss these two concepts: *strategy practice* and *uncertainty*.

First, we understand practice as "ways of doing things, embodied and materially mediated that are shared between actors and routinized over time" (Knorr Cetina, Schatzki, & von Savigny, 2001; Reckwitz, 2002)" (Vaara & Whittington, 2012, p. 287). Despite the heterogeneous background of the general turn towards practice in the social sciences (Nicolini, 2012b; Schatzki, 2012), we observe some common ground across most practice conceptualisations that form the basis for our understanding of practice: Practices are inherently activity oriented, material, social, directional, both repetitive as well as evolving, and finally they are relational. Strategy practices are a specific form of practices. They refer to such ways of doing things that are relevant for "how an organization will move forward" (Rumelt, 2011, p. 3), which involves "reaching out into the unknown and developing an incomplete but practically sufficient comprehension of the situation in order to cope effectively with it" (Chia & Holt, 2009, p. 159). As a result, by looking at the *development* of strategy practice, we pay particular attention to those ways of doing things that are not yet fully materially mediated, shared, or routinised. In other words, we try to capture practices on their way towards *becoming* a practice.

Second, we focus on the practice dimension of uncertainty and, by drawing from the general turn to work (Barley & Kunda, 2001) as a conceptual attractor, introduce the concept *uncertainty work*. This concept turns uncertainty from 'something out there' that is taken for granted to something that practitioners engage with as an inherent part of their own strategy practices. As such, it is the consequence of reframing uncertainty away from the external environment and towards the internal strategy practice landscape. As mentioned previously, we do not suggest replacing environmental uncertainty as an important element in strategizing with a focus on practice uncertainty. Rather, we see an important step in looking at both uncertainty dimensions simultaneously to receive a more complete picture. Hence, while fully acknowledging the importance of environmental uncertainty in strategizing, we introduce a second equally important focus in the form of the practice dimension of uncertainty, where both dimensions are relevant for strategizing, however in different ways. Overall, we propose uncertainty work, which we define as the *discursive and behavioural processes in which individuals engage to create, present, sustain, share, and/or alter uncertainty*. Uncertainty work is an activity-oriented, primarily intra-organisational, and reflective concept that allows us to better understand how uncertainty can interact with the development of strategy practices. Given the newness of the concept, we require an in-depth empirical case on how executives engage with the inherent uncertainty in strategizing and how this relates to the development of strategy practice.

Thus, in this dissertation, we draw on an in-depth case study following and analysing the strategy practices of PubLib[6], a large public European library. We investigate the development of PubLib's strategy practices as a single-case study by conducting an in-depth ethnographic and interview-based study over the course of 18 months. This case provides a promising research setting for studying the development of strategy practices in relation to uncertainty work in three ways:

First, PubLib engages in a diverse set of value-creating activities. Among other things, they serve as a cultural site offering events and exhibitions, as a city archive storing and curating a significant body of the city's historic artefacts, as a research institution providing access to stored information, and as an educational premise by supporting a diverse student body in their daily activities. At present, this value creation ecosystem seems to require more active steering, as the executive board foresees increasing resource constraints and competitive pressures. Due to this expectations, PubLib's executive board aspires to develop their strategy practice and introduce new or alter existing activities, meeting formats, tools, and actors involved in strategizing.

Second, the library landscape is experiencing several developments with potentially profound implications for the way PubLib currently functions. These include plans for a new library in their vicinity, open science and access, and the digitalisation of previously analogous content and processes. This increases the internal need to further work on their strategy and thus the urgency to develop a productive strategy practice.

Third, PubLib's strategy practice has rarely been the subject of conscious examination in the past. The organisation mostly *"moved forward in ways we always have, without thinking about it too much"* (Interview Quote). Hence, encouraged by the inauguration of a new director, PubLib's executives started to question their strategy practices more consciously, trying to increase the ability within their executive board to develop their organisation forward productively in a collective and routinised manner.

By following this process through ethnographic observations, interviews, and the analysis of strategic documents over the course of two years, we were able to empirically observe the executives' engagement with the uncertainties involved. During this process, we were able to identify both the different elements of uncertainty work and their relationship to the development of strategy practices in a distilled and promising way. Hence, PubLib provides a promising case to study the development of strategy practices in relation to uncertainty work. In order to present and analyse our large data body in a systematic way, we mobilised an

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[6] The organisation's name has been changed for the protection and anonymity of strategic materials and organisational dynamics of our case partner.

integrative understanding of practice that draws from the rich background of the general turn to practice in the social sciences. More specifically, we employed Nicolini's toolkit for analysing practices, which includes zooming in, zooming out, and zooming dynamically (Nicolini, 2009, 2012a).

To conclude the introduction, Figure 1 summarises the present dissertation by centring the empirical phenomenon on the top and drawing two closed triangles with the methodological lens and theoretical concept. As the inner arrow triangle indicates, this study analyses the development of strategy practices (empirical phenomenon) with a strategy-as-practice perspective (methodological lens) to better understand uncertainty work (theoretical concept) by studying it in the promising case of the development of strategy practices (again empirical phenomenon). All three pillars of this research project, the empirical phenomenon, the theoretical concept, and the methodological lens, emerged in a strongly abductive process (Klag & Langley, 2013), involving iterations within the field that influenced both the theoretical concept to make sense of the data and the methodological lens to analyse the data and vice versa. Hence, the triangle works in both directions, as indicated by outer arrow triangle. We aim to better understand the development of strategy practices (empirical phenomenon) by approaching it with the concept of uncertainty work (theoretical concept), which we empirically investigate in a strategy-as-practice perspective (methodological lens) as an appropriate lens to study the development of strategy practices (again empirical phenomenon).
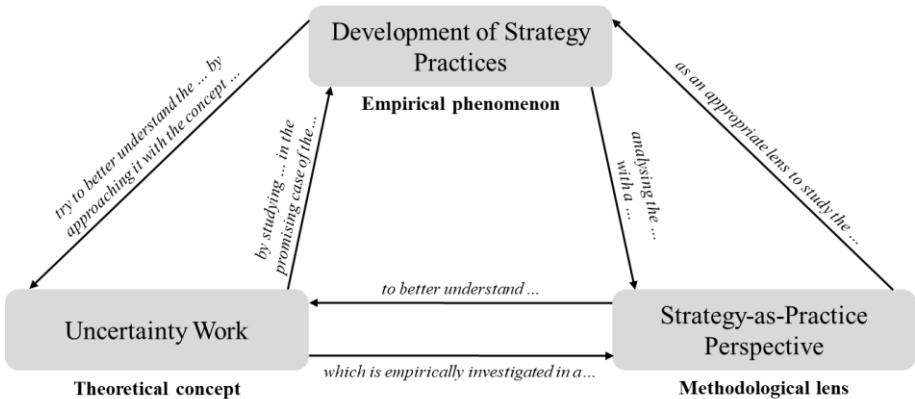
Figure 1: The research triangle of empirical phenomenon, methodological lens, and theoretical concept

In order to work on and answer the puzzle outlined above (Chapter 1.1) with the relevant positioning in the existing literature (Chapter 1.2) and in the way that we have outlined (Chapter 1.3), we need to achieve several things. Therefore, we briefly outline the four parts of this

dissertation to provide a condensed overview of what the respective chapters offer and how they contribute to the overall storyline of this dissertation.

Part A: Theoretical foundations, research opportunities & the theoretical lens

Part A lays the theoretical foundation around strategy practices and uncertainty by providing an overview of the existing research that supports us in understanding our underlying research interest of how strategy practices develop. It does so in the following flow:

Chapter 2 focuses on three main points, one concerning strategy practices, one concerning uncertainty, and one concerning the intersection of the two.

First, we introduce the strategy-as-practice field to derive the definition of strategy practices by briefly connecting it to the larger strategy field. Moreover, we focus on what we can infer from the existing literature in the strategy-as-practice field about the development of strategy practices. The chapter concludes that despite the detailed accounts around strategy practices, we lack tangible empirical accounts on how strategy practices develop.

Second, we focus on uncertainty by reviewing the concept's relevance and historic development in organisation studies. We conclude that uncertainty as a research concept is overly concerned with environmental uncertainty rather than the practice dimension of uncertainty and the actual *engagement* with uncertainties of various types.

Third, informed by previous research, we integrate the first two parts by presenting the mutually constitutive relationship between strategizing and uncertainty. We further illustrate how this intimate relationship can enrich our current understanding of the development of strategy practices.

Drawing on the previous chapters, *Chapter 3* argues that there is a need for further research on both the development of strategy practices and its connection to the engagement with uncertainty. Here, we present our two research questions.

In *Chapter 4* we introduce uncertainty work, by drawing from the general turn towards work (Barley & Kunda, 2001), as the concept that supports us in addressing our research questions with their focus on the *engagement* with uncertainty.

Finally, in *Chapter 5* we present our theoretical lens in the form of a practice perspective. Against a heterogeneous field of various theoretical roots, we develop five key commonalities of practice and their implications for studying the *development* of practices. We close with an elaboration on Nicolini's (2009, 2012) toolkit approach for observing, presenting, and analysing practices in research. This toolkit approach forms the basis for our empirical investigation, which we turn to in Part B, after having summarised Part A in *Chapter 6.*

In *Chapter 7* we focus on our empirical case study, our data, and our analysis. We do so in five consecutive steps.

First, we introduce our understanding of doing research, its value and its ontological underpinnings.

Second, we provide a detailed account around PubLib, our single-case study, by briefly presenting PubLib as an organisation and then turn towards the executive board, as their strategy practices are our unit of analysis.

Third, we focus on how we collected our data structured along our three main data types: observations, interviews and strategic documents.

Fourth, we describe how we engaged with our data and how our various zooming moves transformed our data into presentable findings and conclusions.

Fifth and finally, we discuss the important topic of quality in our data and analysis. Given our qualitative, single-case study design, we present how we tried to ensure a trustworthy and credible research project.

Chapter 8 builds the groundwork for the subsequent findings part. We do this by presenting our data in four ways.

First, we contextualise PubLib's executive board within the overall organisational structure and present the other important strategists and meeting formats that relate to the executive board.

Second, we present how PubLib's strategy process unfolded over time by briefly describing the key events between 2018 and 2019.

Third, we present the various uncertainties that are pertinent during the strategy work at PubLib. We cluster them along this dissertation's two dimensions of uncertainty, namely the environmental and the practice dimension.

Finally, we zoom in on our unit of analysis, which is the executive board's strategy practices. Here, we present the four core strategy practices, preparing strategy work, discussing strategic topics, structuring strategy work, and documenting strategy work. Each of the four practices contain three different variants, which describe distinct forms of mobilisation. Given that most of PubLib's strategizing takes place in and around the executive board meetings, these four strategy practices have a certain overlap with common meeting practices. These four practices and the three variants each form the backbone of the subsequent findings section in Part C.

Part C: Empirical Analysis and Findings

Part C focuses on the results of our empirical analysis.

In a first step, we present five different types of uncertainty work that illustrate the engagement with uncertainty and their specific differences with regard to strategy practices. These are uncertainty avoiding, uncertainty reducing, uncertainty inflating, uncertainty experimenting, and uncertainty accepting.

Second, by presenting the result of a zooming out movement, we relate these five types to each other in a first process model of uncertainty work that displays multiply iterative cycles of different uncertainty work types.

Third, based on a zooming in, we show the dynamics of uncertainty experimenting, which is the one uncertainty work type that is most important for the development of strategy practices.

Fourth, we focus on understanding the development of strategy practices based on the previous findings.

Finally, we integrate all the previous subchapters into a model of practice development in uncertainty work.

Part D: Bringing it all together

In the final part, we tie together the different avenues taken in our attempt to enrich the understanding around the development of strategy practices. First, we integrate our findings one final time in order to provide specific answers to our research interest. Second, we return to the existing literature and integrate what we already know, what we do not know yet, and what we may have contributed in this dissertation.

In a second part, we summarise the core message, discuss the implications of our work, and take a look ahead towards where research might be heading next.

In sum, this dissertation focusses on the development of strategy practices in their multifaceted relationship to uncertainty, the introduction of uncertainty work, and the empirical investigation of PubLib's development of their strategy practices in relation to uncertainty work. Overall, this sets the stage for an exciting research journey that can enrich both the strategy-as-practice field as well as strategists in practice.

Part A: Theoretical foundations, research opportunities & the theoretical lens

2. Theoretical foundations

Although they are fundamentally intertwined, we will present strategizing and uncertainty as two separate parts in order to do justice to both research fields and to appreciate both fields in their specific evolution. By doing so, we will increase our ability to put our later findings into the context of the historical development of each field and provide ideas on how they could develop further in the future, both as distinct research fields but also and especially in their intersections.

2.1. Strategizing as the mobilisation of strategy practices

Strategiz-*ing*, as indicated by the use of the gerund form originally introduced in the strategy-as-practice field (Golsorkhi et al., 2015a; Whittington, 1996), focusses on the actual doings of actors involved in strategy making. Before we can fully commit to the exciting field of strategy-as-practice focussing on the *doing* of strategy, we need to understand what strategy actually entails. In other words, in order to understand strategizing, we first need to define strategy, as this forms the underlying concept that strategizing deals with. We will do so in Chapter 2.1.1. We subsequently focus on strategy practices and develop our definition in Chapter 2.1.2. Finally, in Chapter 2.1.3, we turn towards the existing literature in the strategy-as-practice field and present what we can infer about the development of strategy practices.

2.1.1. Embedding strategizing in its origin of strategy

Defining strategy is not a straightforward task. In 1987, Ansoff called strategy "an elusive and somewhat abstract concept" (p. 104) and apparently, little has changed since then. In fact, there is scarcely any agreement on what strategy actually is (Markides, 2004). De Wit and Meyer (2010) claim that "any such sharp definition of strategy here would actually be misleading [as there is no] widespread agreement among practitioners, researchers and theorists as to what strategy is" (p.3). Despite this lack of widespread agreement on what strategy is, we observe four elements that seem to be integrative pillars of strategy, which further stretch the importance of strategy for organisational success.

First, strategy refers to a fundamental or existential element that influences significant parts of the organisation as it involves the "creation of existence-relevant foundations" (Rüegg-Stürm & Grand, 2015, p. 186). This should not be confused with the actions of senior executives, as also small and remote organisational units (Regnér, 2003) or lower management levels below the top management team (Rouleau & Balogun, 2011; Wooldridge, Schmid, & Floyd, 2008) act strategically if their activities develop relevance for the larger organisation. However, per formal positioning, senior executives have lower burdens to act strategically and in the realities

of organisations the executive board still often acts as a key strategic actor (Angwin et al., 2009; Ocasio & Joseph, 2008).

Second, strategy implies a concern with the future orientation of an organisation, as indicated by our underlying strategy definition as "how an organization will move forward" (Rumelt, 2011, p. 3). Other scholars have emphasised the future orientation in similar ways such as "direction" (Grant & Jordan, 2012; Johnson, Scholes, & Whittington, 2009), "long term" / "long run" (Chandler, 1990; Johnson et al., 2009) or "objectives, goals, plans" (Andrews, 1997).

Third, strategy often involves a reference to resources and the allocation of such (Bower & Gilbert, 2005; Burgelman, 2002). In this context, allocating the limited organisational resources, such as financial capital, staff, and management attention, to different projects and initiatives directly influences how an organisation will move forward.

Finally, strategy often includes a reference to external elements in the form of competitive positioning. This implies an intent to achieve uniqueness or competitive advantage as a "unique mix of value" (Porter, 1996) or a "unique set of interdependent activities to create and capture value" (Ott, Eisenhardt, & Bingham, 2017, p. 306), which points to the fact that strategy pays into an organisation's uniqueness, meaning how it differentiates itself from its competitors.

To conclude, strategy understood as an organisational activity influences significant parts of the organisation and addresses its future orientation in terms of resource allocation and competitive positioning. Building on these four common features of strategy and against the background of the diverse strategy field, we agree with Feldman (2015), who argues that definitions of strategy "need to be developed in the context of specific empirical settings and specific research questions" (p. 317). Consequently, the research questions posed in this dissertation have direct consequences for the conceptualisation of strategy. Given the interest in the development of strategy practices and its connection to uncertainty, this dissertation's strategy definition requires a processual logic to enable an understanding over time and must be receptive to the concept of uncertainty.

As mentioned previously, Rumelt (2011) defines strategy as "how an organization will move forward" (p.3). Accordingly, *how* has two equally important dimensions. First, it refers to the direction in which an organisation will move forward, thus a *content* dimension of strategy. This could be the entrance into a new regional market or the development of a new product. Second, *how* has a *practice dimension* in terms of *how / by which means* an organisation will work on their moving forward. Examples include the conduction of a strategy workshop or the hiring of a strategy consultant. The two dimensions *content* and *practice* can scarcely be separated empirically as both constantly co-evolve. As Burgelman et al. (2018) rightfully noted: "it has become well-established that drawing boundaries between the content and process

subfields is unduly limiting" (p.532). Therefore, while this dissertation focusses on the practice dimension in terms of strategizing, describing it without the content element resembles an empty shell, as the purpose of strategy practices are moving an organisation forward on a content level.

In addition, Chia and Holt (2009) understand strategy as a "reaching out into the unknown and developing an incomplete but practically sufficient comprehension of the situation in order to cope effectively with it" (p.159). This resonates with this dissertation in trying to understand the development of strategy practices in connection to uncertainty. Uncertainty is an omnipresent factor in strategizing and thus strategizing will always resemble a "reaching out into the unknown and developing an incomplete but practically sufficient comprehension", described elsewhere as a process of wayfinding (Chia & Holt, 2006).

Integrating the above, we understand strategy as

> *How an organisation will move forward, which involves a reaching out into the unknown and developing an incomplete but practically sufficient comprehension of the situation in order to cope effectively with it*

2.1.2. Towards a definition of strategy practices

The focus on strategy practices, as the activities involved when people strategize, developed in the strategy-as-practice field (Golsorkhi et al., 2015a; Whittington, 1996) about two decades ago. The field originally emerged as a response to an "increasing dissatisfaction with conventional strategy research" (Jarzabkowski & Spee, 2009, p. 69). Between 1980 and 2006, more than 90% of empirical work published in the Strategic Management Journal was based on quantitative methods (Molina-Azorín, 2009). By taking "seriously the work and talk of practitioners themselves" (Whittington, 1996, p. 732), the strategy-as-practice approach counteracted the dominating quantitative strategy research, which tended to explain performance on firm or industry levels. Consequently, an increasing number of studies aspired to "humanize management and organization research by bringing the individual back in (Weick, 1979; Whittington, Pettigrew, & Thomas, 2002)" (Jarzabkowski & Spee, 2009, p. 70). A key commonality of these studies is that strategy work or strategy-making activities (often labelled strategizing) have an impact on "both the process and the outcome of resulting strategies" (Vaara & Whittington, 2012, p. 286). While there are many different definitions of practice, highlighting various nuances of the concept, we define it by drawing on Knorr Cetina et al. (2001), Reckwitz (2002) and Nicolini and Monteiro (2017) as

> *"ways of doing things, embodied and materially mediated that are shared between actors and routinized over time"* (Vaara & Whittington, 2012, p. 278).

2.1.3. Current understanding of the development of strategy practice

When looking at the development of strategy practices, we necessarily need to turn to the underlying understanding of development in a practice perspective. Crucially, "practice approaches are a primary way to study organisations processually. This is because all coherent practice approaches subscribe to the view that social and organization life stem from and transpire through the real-time accomplishments of ordinary activities" (Nicolini & Monteiro, 2017, p. 1). This emphasis on practice as a processual concept is further mirrored in a recent call to enrich strategy-as-practice research with a strong process ontology (Langley, 2007; Langley, Smallman, Tsoukas, & Van de Ven, 2013; Langley & Tsoukas, 2010). This "casts processes, practices, and actors as all equally made up from ongoing activity" (Burgelman et al., 2018, p. 533) and "reflects an understanding of the world as in flux, in perpetual motion, as continually in the process of becoming – where organizations are viewed not as 'things made' but as processes 'in the making' (Hernes, 2007)" (Langley & Tsoukas, 2010, p. 1). However, "practices do not occur automatically and unproblematically. Rather, they are enacted in context, often in ways that vary considerably from their espoused pattern (Feldman & Pentland, 2003)" (Jarzabkowski, Kaplan, Seidl, & Whittington, 2016, p. 250). Consequently, "the goal is to represent practices as dynamic, contested, and provisional affairs" (Nicolini, 2012a, p. 226), where practices are always partly in flux and practices are reproduced on each novel occasion. At the same time, practices reside in their own history, which supports duration and endurance over time. Hence, practices are both repetitive and constantly evolving (Nicolini, 2012a). Therefore, we broadly define development in the specific case of strategy practices by drawing on the previous influences as

> *a temporarily stabilised propensity to certain embodied, materially mediated and collective actions that is noticeably different within the larger flow of practices.*

With this in mind, we see that much of the existing work on strategy practices focusses on different aspects of existing strategy practices rather than their development over time (Bjørkeng et al., 2009), which points to a lack of empirical studies focussing on the development specifically. However, given the underlying processual understanding in practice research, the detailed accounts within the strategy-as-practice field offer a robust starting point for understanding the development of strategy practices. Overall, we can develop five key features from the existing work on strategy practices and strategy routines. The latter also regularly draws on practice-based thinking (see for example Dittrich & Seidl, 2018; Feldman & Pentland, 2008; Parmigiani & Howard-Grenville, 2011); therefore, we included additional insights from this field in the literature review whenever they contributed to the research focus of this dissertation. The research on routines is also increasingly focussing on routine *dynamics*, which understands routines "as a *process* that unfolds over time" (Bertels, Howard-Grenville, & Pek,

2016, p. 575; emphasis in the original), which is congruent with this dissertation's research focus on the development of strategy practices over time. In the following, we will outline the five aspects of strategy practices development derived from the existing literature in the subchapters below.

Following an iterative and experimental process

Vaara et al. (2004) argue that the "problematization of traditional strategies" (p.11) is a key feature in strategizing, which involves activities that increase the understanding of something as a problem. This supports "paving the way for subsequent ideas presented as 'solutions'" (p.11). Furthermore, Jarratt and Stiles (2010), drawing on a multiple case study, propose that within a complex and dynamic environment, strategy leaders tend to engage in reflective practices in which they start to question their overall conduct. Similarly, the development of new practices may be motivated by a novel problem internally or new events transpiring outside the organisation (Birkinshaw, Hamel, & Mol, 2008). Such reflecting activities can happen both while performing a specific practice as well as through a distant perspective outside the mobilisation of the actual practice (Gutzan & Tuckermann, 2019).

Furthermore, Dionysiou and Tsoukas (2013), drawing on Mead (1934), focus on role taking as a crucial process for routine development. In this process, "each individual aligns his or her action to the action of others by identifying the social activity in which they are about to engage and by ascertaining what those others are doing (or what they intend to do) in forming the joint action" (Dionysiou & Tsoukas, 2013, p. 186). Consequently, the development of strategy practices seems to involve some form of anticipation of other actors' behaviour, which marks an important element towards the collectivisation of activity. As Joas (1997) notes, this is an important condition for reflexivity, as an actor "sees himself from the perspective of the other" (p.118). This further resonates with Feldman, Pentland, D'Adderio, and Lazaric (2016), who portray actors as often being reflective. Hence, the development of strategy practices seems to involve a reflective element (Dionysiou & Tsoukas, 2013; Feldman et al., 2016), understood here as looking at one's own strategy practice landscape.

Besides reflexivity, several scholars have emphasised the importance of trial-and-error learning and experimenting for the development of new practices (Dionysiou & Tsoukas, 2013; Rerup & Feldman, 2011). In this context, "in practice research, routine creation is conceived as an emergent process resulting from the repetitive patterns of action and internal dynamics of routines" (Davies, Frederiksen, Cacciatori, & Hartmann, 2018, p. 1406). Similarly, Jarzabkowski and Balogun (2009) describe "how a common strategy emerges over time through modifications to the planning process" (p.1255). Overall, due to its iterative nature, the development of the strategy practice landscape is likely to have a "blurred boundary between designing and executing" (Feldman et al., 2016, p. 510).

All of the above support the idea that the development of strategy practices is far from a linear step-by-step model but rather follows a strongly iterative pattern, jumping back and forth between or being 'stuck' at any of the steps involved such as an examination of the existing practices, developing of something new, experimentation with this new and mobilisation of the new. In sum, we understand that developing strategy practices involves a reflective moment focussing on the existing strategy practice landscape that may originate from a novel problem or situation, where the executive board examines their strategy practices and scrutinise their productivity.

Involving meeting structures

Given the previous argument, platforms for reflections and experimentation are critical (Bucher & Langley, 2016; Dittrich, Guérard, & Seidl, 2016) in "addressing the challenge of creating a new routine" (Feldman et al., 2016, p. 510). Such platforms can be strategy projects, workshops or off-sites (Hodgkinson, Whittington, Johnson, & Schwarz, 2006; Johnson, Prashantham, Floyd, & Bourque, 2010) or even business dinners (Sturdy, Schwarz, & Spicer, 2006).

Here, Jarzabkowski and Seidl (2008) identified several important practices around strategy meetings: They differentiate between

1) Initiation practices involving bracketing participants in central location, setting the agenda, and chairing the meeting (p.1401)

2) Conduct practices involving free discussion, restricted free discussion, restricted discussion, and administrative discussion (p.1404)

3) Termination practices involving working groups, rescheduling (building bridges to other meetings), voting, stage-managing (re-coupling to the wider organisation) (p.1410)

Their model of an "evolutionary path of variations through taxonomy of meeting structures" (p.1414), displayed in Figure 2, identifies free discussions and working groups as key elements to allow for the emergence and development of variation – which subsequently can support the development of strategy practices.
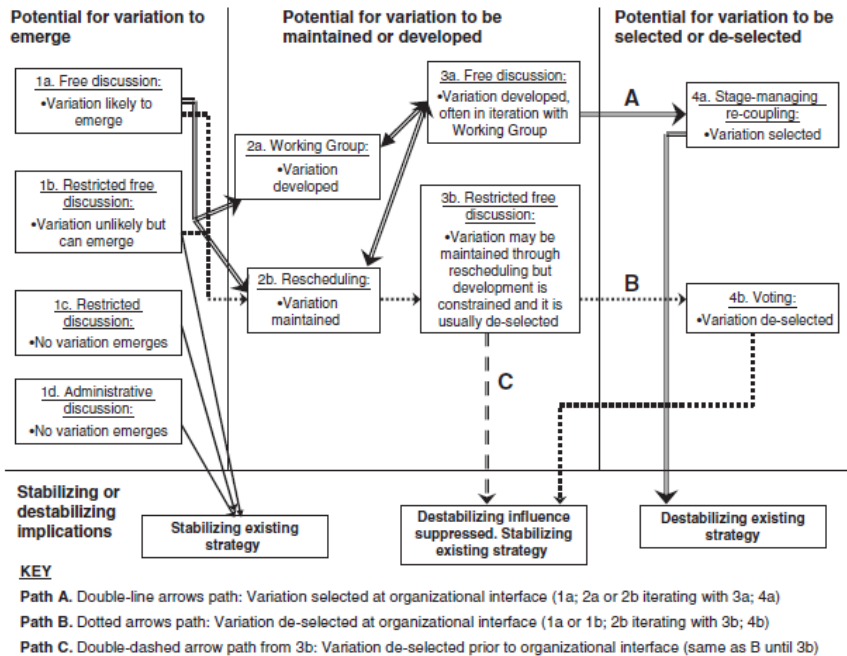
Figure 2: Model of Evolutionary Path of Variations through Taxonomy of Meeting Structures, directly copied from Jarzabkowski & Seidl (2008, p.1414)

In addition, Bucher and Langley (2016) offer an important comparison between reflective and experimental spaces. While a reflective space has some physical distance from the practice at stake, an experimental space displays no distance. Furthermore, in a reflective space, actors develop an envisioned practice and coordinate the further process; in an experimental space, an envisioned practice is put to a test. Most importantly, reflective spaces relate to the "development of intentional variations", while an experimental space offers "experimental selection of intentional variations" (Bucher & Langley, 2016, p. 600). Hence, we infer that free discussions and working groups are important elements for the development of strategy practices and that different meeting forms can serve different purposes, where physical distance to the practice is an important factor to distinguish between reflecting and experimenting.

Being local and specific but relating to macro elements

Given the understanding of practices in this study, it becomes apparent that practices are "inherently situated in a particular moment in time, space, and history" (Nicolini & Monteiro, 2017, p. 5). Consequently, "hardly any management practice qualifies as a 'one size fits all'"

(Ansari et al., 2014, p. 1314) logic and practices are reconfigured, altered, adapted and fitted into the local context.

Hence, "to 'transfer is to transform' (Gherardi & Nicolini, 2000) and 'to adopt is to adapt' (Akrich, Callon, & Latour, 2002)" (Ansari et al., 2014, p. 1314). Importantly, "practices can also travel and be tentatively reproduced elsewhere in time and space without any sort of 'direct' contact" (Nicolini, 2012a, p. 232). Empirical examples of such local adoptions via 'travelling' practices include Six Sigma (Canato, Ravasi, & Phillips, 2013), telemedicine (Nicolini, 2010), total quality management (Zbaracki, 1998), or strategic planning (Bromley, Hwang, & Powell, 2012). In this context, Ansari et al. (2010) propose four modes of how practices can be 'made to fit' in the context of diffusion, depending on how extensively and how precisely they are adapted in a local context. Their "dimensions of practice variability and adaptation" (p.72) are displayed in Figure 3.
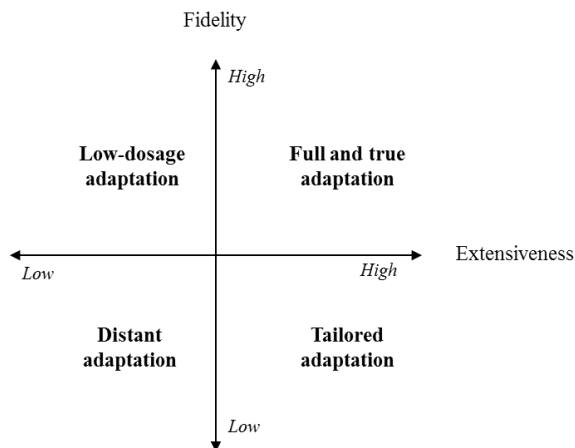
Figure 3: Dimensions of Practice Variability and Adaptation, redrawn based on Ansari et al. (2010; p.72)

The authors conceptually argue that fundamental to the type of adaption is the fit between the adopted practices and the local organisation. In this context, the extent of a specific practice implementation seems to depend on whether the adopters perceive the new practice as legitimate and congruent with their goals or whether they perceive it as imposed from the external environment (Kennedy & Fiss, 2009). Recent research suggests that the internal and external fit of organisational practices is not, as is often assumed, external to an organisation's realm of control. Rather, "organizations may actively seek to create and/or balance the internal and external fit of organizational practices" (Fortwengel, 2017, p. 691).

Despite this   local adoption, Huising (2016) rightfully noted that "the managerial work of adoption requires being a part of and moving between macro and micro realms to transform universal prescriptions into activities that can be implemented in a particular organization" (p.384). Against this background, existing research offers multiple accounts of how the extra-organisational field is included in organisation-specific strategy-making activities. For instance, Johnson et al. (2010) emphasise the importance of well-accepted external experts or consultants for strategy workshops. Consequently, while being local and specific through various modifications, the development of strategy practices is embedded in and draws from the larger external field.

Involving artefacts

With the above in mind, practice adaption is often directly related to artefacts, as practices, if reproduced somewhere else, "must first be disembodied and materialised into mediators (objects such as texts, representations, or prototypes)" (Nicolini, 2012a, p. 232). Artefacts[7] refer to any "material objects that are the product of human activity" (Cacciatori, 2012, p. 1559). Many of these objects in the form of templates or strategy tools are "based on academic research and they offer practitioners the opportunity to implement management theory in practice" (Moisander & Stenfors, 2009, p. 228). Despite repeated observations that these tools are little appreciated or adopted in practice (Miller & Ireland, 2005), such artefacts play an important role for the development of strategy practices by "providing the glue that can hold patterns together" (D'Adderio, 2011, p. 197). Moreover, this relevance is not only true for an individual artefact, but also the interaction of systems of artefacts (Cacciatori, 2012). The interaction with artefacts, including strategy tools (Jarzabkowski & Kaplan, 2015), software (Kaplan, 2011), visualisations like flipcharts (Eppler & Platts, 2009), or drafted strategy texts (Giraudeau, 2008) is more than a rational-logical usage, but rather involves "hands-on, practical crafting skills in getting strategising done" (Whittington, Molloy, Mayer, & Smith, 2006, p. 615). This crafting with and around artefacts can also support "managers to debate specific strategic challenges in a generative fashion" (Heracleous & Jacobs, 2008, p. 309). Furthermore, it serves as "a powerful process enabler that can enable strategizing as a joint managerial practice" (Eppler & Platts, 2009, p. 42). Giraudeau (2008) emphasises that strategy texts can, depending on how they are crafted, not only provide rigidity and structure but also offer potential for inspiration and new future strategies, whereas other authors also point towards the power dimension involved in strategic texts (Vaara et al., 2010). Artefacts develop "a kind of 'textual agency'" (Vaara & Whittington, 2012, p. 315) and limit or increase the possible realm of activities for

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[7] Please note that we will use the term artefact, which is the traditional British English version. While some authors also use the term artifact, both have similar meanings.

strategists. Consequently, strategic artefacts are more than objective elements ready for practitioners to pick them up and use. Rather, they are loaded with strategic significance (Ezzamel & Willmott, 2008), thus increasing the relevance and importance of certain practices, while decreasing the importance of others. Hence, the development of strategy practices is likely to be affected by the artefacts both as a source of inspiration for supporting the introduction of new elements, but also as a stabilising element manifesting the status-quo.

Involving reasonable agents with goals and ends-in-view

While other fields look at questions similar to this study, such as "how firms introduce new ways of managing" (Volberda, Van den Bosch, & Mihalache, 2014, p. 1245) in the field of management innovation, those fields often focus on change agents and tend to idealise managerial rationality (Sturdy, 2004). They assume that actors strongly build upon "rational evaluation" and "careful analysis of costs and benefits" (Volberda et al., 2014, p. 1247) of the implementation of management innovation. This contradicts the "incomplete but practically sufficient comprehension" (Chia & Holt, 2009, p. 159), which is fundamentally woven into this dissertation's definition of strategy. Agents' practices are reasonable in the context of a concrete situation but never rational in regard to some universal standard. Strategy "is based on the practical sense, which largely bypasses cognitive structures, is registered in one's body and enables one to act 'as one should'" (Bourdieu, 2000, p. 139). Another way to frame this reasonable agent is by describing her[8] with a certain "feel for the game" (Bourdieu & Wacquant, 1992, p. 128), all of which directly links to the strategy definition including a "reaching out into the unknown" (Chia & Holt, 2009). Consequently, research in this field should consider the *reasonable* agent rather than a *rational* actor.

Against this background of reasonable agents, Bourdieu's (1990b) concept of 'intellectualocentrism' describes "the overwhelming predominance of a means-ends analytical logic and conceptual stance that presupposes deliberate intentional action and presumes a practitioner reliance on instrumental reason" (Chia, 2004, p. 30). This, on the one hand, further resonates with the inherent processual understanding of practices and, on the other hand, calls for further engagement with the ideas of agency and rationality. Obstfeld (2012) emphasises that a creative project involves "an unfolding action path by anticipating or responding to emergent means and ends" (p. 1574). For him, a creative project is "an emergent trajectory of interdependent action initiated and orchestrated by multiple actors to introduce change into a social context" (Obstfeld, 2012, p. 1571). This emphasises a creative project as a way to start

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[8] Throughout this dissertation, we will use the female version of unspecific personal pronouns. The primary reason is that, in our later empirical case, we had the pleasure of working with an executive board in which women are the majority. In order to appreciate this exception, we decided to only use the female version.

new things – for example, the development of strategy practices. It involves "action pursuing an envisioned outcome […] based on a possible future [and is] conscious and explicit" (Obstfeld, 2012, p. 1574). This point is further elaborated by Dittrich and Seidl (2018), who introduce the term 'emerging intentionality'. By drawing on Emirbayer and Mische (1998), who claim that "action [should] not be perceived as the pursuit of pre-established ends, abstracted from concrete situations, but rather that ends and means develop coterminously within contexts that are themselves ever changing (p.967)", Dittrich and Seidl (2018) differentiate between 'ends-in-view' and 'goals'. While practitioners pursue ends-in-view in a specific practice performance, goals describe what the practice is generally designed to accomplish. For example, this might mean that while a budgeting practice is intended to allocate funds across different initiatives (the practice's goal), in a specific budgeting meeting, an actor might try to show off how well her project is managed (the routine's specific end-in-view). Thanks to this conceptual differentiation, the authors show that "participants often gained a different understanding of what the routine ought to accomplish – that is, they updated the goals for the routine and its associated patterns" (Dittrich & Seidl, 2018, p. 112). This has important implications for understanding the development of strategy practices. Given that "intentionality is *constituted* through action rather than being *brought into* the action by the actor" (Dittrich & Seidl, 2018, p. 112; emphasis in the original), there is a different perspective for understanding practices that fall short on delivering to their purpose. While one might assume that this practice is inversely selected and eventually no longer mobilised, the previous findings suggest that such practices could well survive when actors update the assigned goals, a process that is likely to happen without clear intent. This displays the development of strategy practice not only as the introduction of new practices but also as the reassigning or modification of existing practices.

Summarizing the five elements of the development of strategy practices

Concluding the previous arguments, we contend that the development of strategy practices is an iterative and reflective rather than a linear process, involves meeting structures, is locally-specific but relates to the larger field, involves artefacts, and finally, involves reasonable agents with goals and ends-in-view rather than rational actors. Given these five points on the development of strategy practices drawn from existing work, we will partly guide the later data analysis according to the implications developed here.

Despite these intimate accounts offered by the strategy-as-practice field, we lack an understanding of how strategy practices, both as individual practices and as the manifold relations within a strategy practice landscape, develop (Gomez & Bouty, 2011). Consequently, studies offering detailed accounts on the development of strategy practices over time are likely to support the field in moving forward. Against this background, given that strategizing is fundamentally concerned with addressing uncertainties, this study focuses on uncertainty as a

key element to better understand the development of strategy practices. Therefore, we will now turn towards uncertainty research and its relevant positions in regard to the development of strategy practices.

2.2. Uncertainty – crucial for the development of strategy practices

Considering uncertainty in the context of the development of strategy practices appears to be an important task for several reasons. Uncertainty is deeply ingrained in strategizing. It is both the fundamental reason for strategic activities to exist and one of the key factors influencing the work of strategists. Given its importance for strategizing, it is all the more surprising that we observe uncertainty as an "ubiquitous, elusive, and paradoxical" concept (Abbott, 2005, p. 249). Hence, uncertainty deserves a closer look to further develop its relevance and role(s) in strategizing and the development of strategy practices conceptually in order to embed our later empirical research in a solid foundation.

2.2.1. Uncertainty in organisation studies – Reintroducing a long-lost concept

Despite its importance, uncertainty has been hiding backstage of organisational scholars' research interest (Alvarez, Afuah, & Gibson, 2018), where "by the early 1980s, the amount of work on […] uncertainty for managers and organizations had fallen off dramatically" (p. 170). However, we observe a recently initiated renaissance of uncertainty as a key concept in research (Sutton, Devine, Lamont, & Holmes, 2020; Teece & Leih, 2016), with a call by the Academy of Management Review for papers specifically focussing on uncertainty as an important element. This special issue, expected in spring 2020, points to the importance of better understanding the relationship between uncertainty and strategizing (Alvarez, Afuah, Gavetti, et al., 2018). Against this background, scholars have defined uncertainty in a variety of ways: Grand (2016, p. 50), by drawing from Gomez and Jones (2000), discusses three fundamental types of uncertainty: Knightian, Keynesian, and Karpikian.

First, Knightian uncertainty occurs as the past can never be a complete blueprint for future actions. Even in very similar instances occurring over time, there will always be at least small differences (Knight, 1921). Consequently, in Knightian uncertainty we have "*no valid basis of any kind* for classifying instances" (Knight, 1921, p. 225; emphasis in the original). In such circumstances, past experiences can never "provide a perfect guide to the future" (Gomez & Jones, 2000, p. 697). Several empirical studies on managerial decision making confirm this type of uncertainty (McGee, Dowling, & Megginson, 1995; Stuart & Abetti, 1990). Knightian uncertainty is a key element for the inherent connection between strategizing and uncertainty, as it is the underlying logic for the 'reaching out into the unknown' that is part of this

dissertation's strategy definition. Most studies working with the uncertainty implicitly or explicitly refer to Knightian uncertainty as the underlying mechanism.

Second, Keynesian uncertainty draws on the complex interplay of multiple activities by multiple actors happening at the same time. Thus, practitioners must base any of their activities on incomplete information about others' behaviour. As one might infer, this type of uncertainty plays an important role in game theory approaches (Davidson, 1991). Reger and Palmer (1996) provide an interesting empirical example of this uncertainty type by studying managerial categorisation of competitors' moves. For the present dissertation, Keynesian uncertainty points to the human aspect of strategizing. The involvement of multiple actors during the development of strategy practices involves Keynesian uncertainty around the potential activities of the fellow strategists. This uncertainty further transpires, as the development of strategy practices involves both current strategists as well as potential strategists when an organisation, for example, considers hiring an external consultancy to support their strategizing.

Finally, Karpik's (2010) book on 'the economics of singularities' focusses on a normative uncertainty arising from the inability to evaluate the quality of something "because judgment criteria are often highly subjective and controversial" (Grand, 2016, p. 51). This adds an important normative dimension to the development of strategy practices, where certain changes are likely to be evaluated differently by different actors. Hence, Karpikian uncertainty can provide support in explaining the controversial and opposing understandings that we expect during the development of strategy practices, where the way of strategizing is likely to be contested.

2.2.2. Towards a definition of uncertainty – many concepts, one terminology

 "There are almost as many definitions of uncertainty as there are treatments of the subject" (Argote, 1982, p. 420). Consequently, studies around uncertainty have dispersed into various fields and developed partly contradicting conceptualisations of uncertainty. While a comprehensive review of all major influences lies beyond the scope of this dissertation, which seeks to understand the *engagement* with uncertainty, we briefly turn towards the most pertinent strands in uncertainty research. In the 1970s, when uncertainty was at its historic peak in organisation studies (see for example Downey & Slocum, 1975; Duncan, 1972)), scholars were embroiled in a heated debate on whether uncertainty is an objective state of the environment or a subjective perception of individuals. The former implies that we can develop indices and factors measuring certain levels of uncertainty in the external environment, whereas the latter implies that it is the managerial perception that *makes* an environment uncertain. Fundamentally, "ambiguity about the nature of uncertainty itself tends to obscure examination

of this central concept" (Downey & Slocum, 1975, p. 567), leading to the fundamental question "is uncertainty perceived or objective?" (ibid).

Arguing for an objective state of uncertainty, Emery and Trist (1965) proposed four ideal types of organisational environments that differ in regard to their degree of uncertainty. Similarly, Lawrence and Lorsch (1967) attempted to measure environments according to their uncertainty. However, several studies pointed towards the manifold problems of 'measuring' uncertainty in a positivist fashion as a given in the external environment. Overall, academia in this regard suffered from "inconsistent and often difficult to interpret results (see, for example, Downey, Hellriegel, & Slocum, 1975; Duncan, 1972) […and] poor reliability and validity evidence for measurement instruments (Downey et al., 1975; Tosi, Aldag, & Storey, 1973)" (Milliken, 1987, p. 133). Trying to work towards a more fine-grained understanding of the locus of uncertainty, management research has repeatedly focussed on the external causes of uncertainty by attending to the question regarding *what* type of information is missing (Packard et al., 2017)[9]. In this respect, the seminal work by Milliken (1987) proposed three different forms of what he labelled "uncertainty about the environment". Table 1 summarises Milliken's (1987) three core concepts, state uncertainty, effect uncertainty, and response uncertainty, with two examples for demonstrative purposes. His terminology is still one of the most commonly used uncertainty frameworks today (see for example Sutton et al., 2020).

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[9] Please refer to Miller (1992) for a comprehensive list of all kinds of potential causes of uncertainty clustered into general environmental uncertainties, industry uncertainties, and firm uncertainties.

Uncertainty Type	Explanatory / Defining Quote	Illustrative Example *We are uncertain…*	Business Example *We are uncertain…*
State uncertainty	*"the organizational environment, or a particular component of that environment, to be unpredictable"* (p.134)	… whether there will be rain tomorrow	… whether our competitor will enter into a new business segment
Effect uncertainty	*"inability to predict what the nature of the impact of a future state of the environment or environmental change will be on the organization"* (p.137)	… how rain may affect our garden party	… how our current customers may react to the competitor's move
Response uncertainty	*"A lack of knowledge of response options and/or an inability to predict the likely consequences of a response choice"* (p.137)	… how we should prepare our garden for rain	… how we should react to the competitors market entry

Table 1: The three elements of environmental uncertainty based on Milliken (1987)

Arguing against uncertainty as an objective state, several authors focussed on the psychological-perceptive dimension of uncertainty. For example, Perrow (1970) suggested that "environments are neither certain nor uncertain but are simply perceived differently by different organizations" (Downey & Slocum, 1975, p. 569). The authors pointed towards "the importance of restricting the concept of uncertainty to a perceptual one" (Downey & Slocum, 1975, p. 569). From this strand of research, uncertainty in organisation studies has increasingly shifted towards a dependent variable in decision-making research (see for example Gao et al. (2005); Levy (2015)), where the concept became more individualistic and cognitivist (see for example Hsu, Bhatt, Adolphs, Tranel, & Camerer, 2005). Consequently, uncertainty was increasingly defined as "a cognitive state where people *feel* that the physical and social world is an unpredictable place over which they have little control" (Giles, 2018; own emphasis).

We argue that neither of the previous conceptualisations alone is fully equipped to understand *engagement* with uncertainty. Rather than focussing on the state of the external environment or the cognitive processes of managers, uncertainty becomes relevant for strategizing when it manifests itself in embodied and materially mediated ways of doing things and an *engagement*

with uncertainty. Hence, when taking a practice perspective on strategy seriously, as this dissertation intends to do, uncertainty has a pivotal role for strategizing not so much by the various environmental sources of uncertainty, nor exclusively through the cognitive processes of strategists, but through its manifestation in observable patterns of action and engagement with uncertainty itself. Consequently, we will employ an uncertainty definition that remains neutral to the historic ontological debate but more importantly one that has an inherent activity focus allowing for a practice-based study on uncertainty. Therefore, we will define uncertainty as an

> *"imprecision in estimates of future consequences conditional on present action"* (March, 1994, p. 178).

Given the importance of understanding the relationship(s) between uncertainty and the development of strategy practices, we now turn towards a review of the existing work that supports us in understanding how strategists may engage with uncertainty while strategizing.

2.2.3. First hints on engaging with uncertainty

Despite its neglect in much of the existing research, we observe hints on how uncertainty relates to observable practices throughout the historic development of uncertainty research. In earlier times, when facing severe security threats, miners translated uncertainty into actions such as informal aligning, mutual scapegoating or not showing up to work (Trist & Bamforth, 1951). Today, many managers employ "tools to support situation analysis and evaluation of strategic choices" (Jarzabkowski & Kaplan, 2015, p. 537). These tool-based activities "have lulled us into complacency with their comforting illusion of certainty in what is in reality a hopelessly uncertain world" (Liedtka, 1998, p. 120). Alternatively, strategists tend to confuse uncertainty with risk[10] by going "to their tool kit of risk management techniques (which include hedging, insurance, and buffer inventories) and double down with respect to investment in, and attention to, traditional risk management protocols and procedures" (Teece & Leih, 2016, p. 5).

When searching the existing work on uncertainty for specific descriptions of how organisational members may actually *engage* with uncertainty, we broadly see two ways in which such engagement may happen: engaging with uncertainty as a problem or engaging with uncertainty as an opportunity.

Engaging with environmental uncertainty as a 'problem'

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[10] Although not central to this dissertation, we should briefly attend to the difference between risk and uncertainty: Risk "can be quantified using probabilities, including conditional probabilities. Uncertainty cannot be quantified that way at all. With uncertainty, the unknowns are unknown, requiring very different management responses and coping mechanisms and entrepreneurial proclivities" (Teece & Leih, 2016, p. 5)

Engaging with uncertainty as a problem that needs to be tackled, erased or reduced is probably the most traditional understanding of uncertainty engagement (see for example Cyert & March, 1963). We observe a handful of accounts that increase our understanding of how strategists may engage with uncertainty in such a way: both Smithson (2012) as well as Lipshitz and Strauss (1997) propose a shift in attention by ignoring uncertain or unwanted information as a way to avoid uncertainty. Underlying the engagement with uncertainty as a problem is the idea that "uncertainty reduction […] is a core human motivation" (Hogg & Terry, 2000, p. 124). This uncertainty reduction hypothesis in identity research (Hogg, 2000) proposes that uncertainty can best be reduced by referring and relating to some accepted prototypical solution where a "simple, clear, highly focused, and consensual" (Hogg & Terry, 2000, p. 124) prototype may be more effective. Similarly, we find propositions to search for advice from experts and to strictly follow norms and best practices (Lipshitz & Strauss, 1997) as well as to imitate other firms and their processes (Miller, 1992) as further engagement types of uncertainty reduction.

All the previous clearly point to external standards and benchmarks in the form of prototypes, external experts, best practices, or competitors as an important part of uncertainty reduction. Given that this shifts the engagement with uncertainty away from an organisation's own strategizing, it is less likely that uncertainty engagement of such kind may actually lead to the development of strategy practices.

Engaging with environmental uncertainty as an 'opportunity'

In contrast with the previous, there are some accounts arguing "that managers should seek out uncertainty rather than construct positioning defenses to avoid it" (Roberts & Eisenhardt, 2003, p. 347). It appears that the simple, possibly conscious acknowledgement of uncertainty as an integral part of strategizing is a first step in engaging with uncertainty as an opportunity. Activities such as improving readiness by developing capabilities and allowing for slack resources (Lipshitz & Strauss, 1997) support the acknowledgement of uncertainty. Müller-Seitz (2014) on his study on "practising uncertainty in the face of large-scale disease outbreaks" (p.276) proposes uncertainty inducing, which he describes as "championing an overarching cause" (p.276) as one way of employing uncertainty as an opportunity.

In this context, the effectuation literature (Dew, Read, Sarasvathy, & Wiltbank, 2009; Sarasvathy, 2001, 2009) argues for an active *shaping* of future outcomes through the inventive use of resources rather than attempts *predicting* the future. Hence, rather than deliberately working towards a clear goal, effectuation starts with the means of creation. Strategists begin with a broad idea of what they want to achieve and then employ the resources available to them when trying to develop the idea (Sarasvathy, 2001). Consequently, "those using effectuation processes remain flexible, take advantage of environmental contingencies as they arise, and learn as they go" (Perry, Chandler, & Markova, 2012, p. 837). In this regard, uncertainty is not

something that needs to be controlled, but an inherent part of the own way of strategizing. Furthermore, engaging with uncertainty in such a way that emphasises a logic of opportunity invites executives to active forms of experimentation, trying out new things and trial-and-error learning (Roberts & Eisenhardt, 2003), which is likely to support the development of strategy practice, as we outlined in Chapter 2.1.3. Hence, strategy practices are most likely to be mobilised if they "are able to collectively, creatively, and experimentally deal with the development, assessment, and implementation of alternative possibilities in an orderly fashion" (Rüegg-Stürm & Grand, 2015, p. 181). Overall, "by gravitating toward or even inciting uncertainty, managers will be more likely to find themselves in the midst of turbulence, where the most and best opportunities for profit and growth lie." (Roberts & Eisenhardt, 2003, p. 347).

Engaging with uncertainty beyond environmental uncertainty

Regardless of whether uncertainty engagement happens based on uncertainty as a problem or uncertainty as an opportunity, the previous pages clearly point to a strong and recurrent pattern in the research of attributing the locus of uncertainty to the external environment. Given the importance of an organisation's strategy practices for any type of uncertainty engagement, it is surprising that the practice dimension of uncertainty has received so little attention. This practice dimension of uncertainty refers to an "imprecision in estimates of future consequences conditional on present action" (March, 1994, p. 178) regarding the strategically relevant "ways of doing things, embodied and materially mediated that are shared between actors and routinized over time" (Vaara & Whittington, 2012, p. 278). This dimension is important both for the development of strategy practices and for a more nuanced understanding of how strategists engage with uncertainty – however, we lack empirical studies that address this practice dimension of uncertainty.

Even when we find, mostly in conceptual work, a focus on the organisation-internal elements of uncertainty, they remain silent on the actual *doing* of strategy. For example, Miller (1992) brings forward a total of twelve firm-specific uncertainties ranging from operating uncertainties such as machine failure or labour unrest, to credit or liability uncertainties. However, he does not address any potential uncertainties around the organization's strategy practices. Hence, and somewhat ironically, to the best of our knowledge there is no account on the uncertainties around the underlying strategy practices to actually work on the uncertainties.

Nonetheless, two notable exceptions that enrich our understanding on the practice dimension of uncertainty are the idea of procedural uncertainty (Dosi & Egidi, 1991) and creative uncertainty (Packard et al., 2017).

First, procedural uncertainty describes a "competence gap in problem-solving" (p.146) based on "limitations on the computational and cognitive capabilities of the agents to pursue

unambiguously their objectives, given the available information" (p.145). However, conceptualising procedural uncertainty as a 'competence gap' and a 'limitation' contradicts the previously established foundation of understanding uncertainty as an opportunity for practices development to take place.

Second, in many regards, a practice dimension of uncertainty seems to follow a creative uncertainty pattern (Packard et al., 2017). Creative uncertainty arises when "for example, a supervisor might assign an employee a task without specifying the means: 'I don't care how you do it, just get it done.' The set of outcomes is thus reduced to two given outcomes, 'done' and 'not done,' while the set of means for achieving the desired outcome remains open. Of the potentially infinite possible solutions, at least one must be imagined and selected to achieve the desired outcome" (Packard et al., 2017, p. 845).

In the case of the practice dimension of uncertainty, we can understand the desired outcome similarly to the example above as 'moving the organisation forward successfully'[11], which can be 'done' or 'not done'. The means of achieving this goal however are open, as we pointed out above by presenting the numerous elements that can jointly form strategy practices (Chapter 2.1.2). Hence, the practice dimension of uncertainty "shifts from comparison of known[12] options to open-ended consideration of possibilities" (Packard et al., 2017, p. 846). Such a shift further forefronts Keynesian and especially Karpikian uncertainty, as the interactions of people and their varying valuation schemes are key components in such a case.

Before turning towards the connections of strategy practices and uncertainty, we briefly summarise the two dimensions of uncertainty along four comparative categories. These underline once more the importance of considering the practice dimension of uncertainty when trying to understand the development of strategy practices.

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[11] We consciously do not address the fact that 'success' is a contested term in strategy that is understood in many different ways and can often only be assessed ex ante. Regardless of the underlying success or performance concept, the statement made above holds.

[12] Please note that under deep uncertainty, the options may may be unknown in parts or in their entirety.

	Practice dimension **of uncertainty**	**Environmental dimension** **of uncertainty**
Status in existing research	Largely absent, requires further investigation	Focus point, though ontologically contested
Focus in existing research	//	Different loci of uncertainty and cognitive processes around them
Underlying logic of uncertainty	Keynesian & Karpikian uncertainty	Knightian uncertainty
Role for strategy practices	Central element of inquiry	Underlying cause for strategy practices to be mobilised

Table 2: Two dimensions of uncertainty: practice and environmental

2.3. Connecting strategy practice and uncertainty

Based on the previous two subchapters, we conclude that uncertainty and strategizing as the mobilisation or enactment of strategy practices have a multifaceted and deeply rooted relationship.

First, it should become apparent that uncertainty, primarily as environmental uncertainty, is the primary cause for strategizing, as it requires organisational members to engage with their own future. Furthermore, given that strategizing can never eradicate the inherent uncertainty, it becomes apparent that the two are mutually constitutive. It seems like "the experience of uncertainty is an inevitable reality of human life" (Giles, 2018), and "uncertainty is ubiquitous in connected interdependent economies" (Teece, Peteraf, & Leih, 2016, p. 13). Empirical research confirms that "strategy leaders' activities depend upon their interpretation of the operating environment" (Jarratt & Stiles, 2010, p. 28). If uncertainty were zero (a theoretical state at best), all future consequences of present action would be precisely known. Consequently, there would be no need for strategizing, i.e., activities trying to shape how an organisation will move forward. If everything were known, the *moving an organisation forward* would become an automatic and indisputable mechanism requiring no further attention, thus making uncertainty a fundamental and omnipresent prerequisite for strategizing to take place. At the same time, any decision taken in strategizing creates new uncertainties (Grand, 2016), which, in turn again, form the basis of further strategizing.

The lithograph Drawing Hands by Escher in Figure 4 nicely draws the mutual relationship between the mobilisation of strategy practices and uncertainty. The one does not exist without the other and vice versa[13].
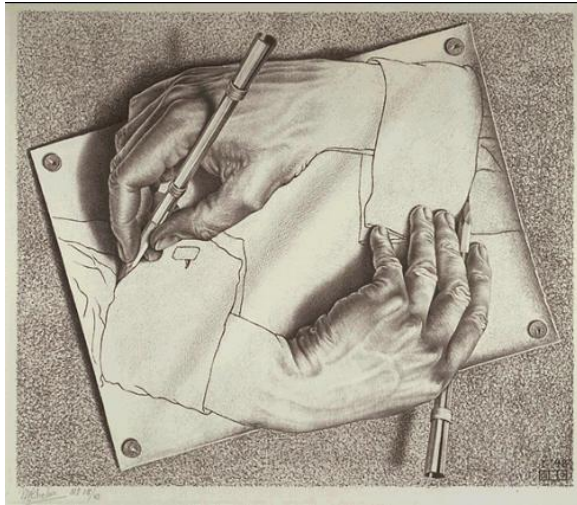
Figure 4: Drawing Hands, 1948 Lithograph

Second, uncertainty in the context of strategizing has a somewhat schizophrenic element – where it has received both a negative and positive valence as an element of creation and confusion. As also indicated by the two types of engagement (as a problem and as an opportunity), uncertainty can, on the one hand, serve as a basis for "creating something from nothing" (Baker & Nelson, 2005, p. 329) where it becomes "a premise for questioning, reviewing, and transcending what is established (Garud et al., 1997)" (Rüegg-Stürm & Grand, 2015, p. 180). On the other hand, uncertainty resembles an obstacle that requires action to address it or to overcome it. In this context, uncertainty reduction seems to become a fundamental need for organisations. Formulations portraying uncertainty as something that we need "to manage and reduce in order to gain greater certainty and control over events" (Giles, 2018) or as "the fundamental problem for complex organizations" (Thompson, 1967, p. 159) imply a rather negative understanding of uncertainty as something that impedes progress. Interestingly, despite their intimate relationship, "there has been a failure to think through what

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[13] The idea to demonstrate a mutually constitutive relationship with the drawing hands is borrowed from Orlikowski (2002), who used the picture to present the relationship between agency and structure engrained in many practice theories.

[uncertainty] means for management decision making, business organization, and business strategy" (Teece & Leih, 2016, p. 6).

3. The research questions – what this study aims to answer

By integrating the previous chapters, we contend that there are two strongly interrelated avenues for further research. These form the foundation of the research questions of this dissertation:

First, Chapter 1.1. introduced a fundamental problem in the daily realities of organisational strategy making. Executives need to mobilise a set of productive strategy practices repetitively that address the inherent uncertainty in strategizing when they try to move their organisation forward. This repetitive mobilisation requires a development of their own strategy practices. Chapter 2.1 turned towards strategy practices as the underlying core concept and the implications we can draw from the existing work regarding how strategy practices, both as individual practices and as their collective landscape, develop over time. Despite implicit inferences, we lack an understanding of how strategy practices develop (Bjørkeng et al., 2009; Gomez & Bouty, 2011) and how this development happens within a specific organisation (Ansari et al., 2010). Overall, "empirical studies of such processes are […] lacking" (Vaara & Whittington, 2012, p. 311). Hence, while providing a rich bouquet of the different elements relevant for doing strategy, the strategy-as-practice perspective offers room for a stronger processual consideration (Burgelman et al., 2018). Therefore, we are state our underlying research interest in the form of the following puzzle:

How do strategy practices develop over time within one organisation?

Finally, Chapter 2.2 showed that a) the development of strategy practices involves a practice dimension of uncertainty, focussing on the practices themselves rather than the external environment, and b) we lack an understanding of how strategists engage with the uncertainty itself. Finally, as Chapter 2.3 illustrated, strategizing has a fundamental and mutually constitutive relationship with uncertainty. Despite this important relationship, research has only occasionally theorised uncertainty as a distinct element when trying to understand strategizing in general and the development of strategy practices more specifically.

Based on this, we turn our research interest turns to two specific research questions:

> *Research Question 1:*
>
> *How do executives engage with the inherent uncertainty in strategizing?*
>
> *Research Question 2:*
>
> *How does the engagement with the inherent uncertainty relate to the development of strategy practices?*

In regard to the order of the research questions, it seems surprising that, despite the development of strategy practices being our underlying research interest, the first question focusses on executives' engagement with uncertainty. Given that, to the best of our knowledge, there is no prominent study focussing on executives' *engagement* with uncertainty in terms of action-oriented *shaping*, rather than cognitive *processing*. Thus, we need to answer our initial research question first before we can relate these findings to the development of strategy practices, as required by our second research question and our underlying research interest.

Notably, these two research questions, despite their explicit focus in the strategy-as-practice literature, seem to address puzzles that we also observe in neighbouring research fields, which further emphasises the relevance of our research interest, as the empirical phenomenon of the development of strategy practices seems to be attracting research attention in various fields. Within practice-based management innovation research, scholars work on "advancing our understanding of how firms introduce new ways of managing [, which] will have substantial benefits in terms of enhancing firm performance" (Volberda et al., 2014, p. 1246). Within practice-based research on routines, we see that "our understanding of how organizations integrate coveted routines remains limited" (Bertels et al., 2016). Furthermore, "while the broad evolutionary process of variation and selective retention has received a great deal of attention in the capabilities literature, there has been little empirical research identifying how this takes place in practice, particularly during the generation of new routines" (Davies et al., 2018, p. 1405).

Finally, as outlined above, uncertainty has recently been recognised as an important element in these questions by asking "what tools and frameworks are most helpful to managers dealing with the realities and practicalities of managing under deep uncertainty?" (Alvarez, Afuah, Gavetti, et al., 2018, p. 2).

In order to gradually move towards the empirical analysis concerning our research interest and both research questions, we require a solid applied theoretical lens as a form of thinking tool. While the practice perspective offers an abundance of such tools to examine strategy practices, the uncertainty field lacks such a solid grounding to analyse the *engagement* with uncertainty.

Hence, before turning to the applied theoretical lens, we require a more in-depth discussion on how to understand the *engagement* with uncertainty. We do so in the following chapter by introducing uncertainty work as an important link between uncertainty and strategy practices.

4. Uncertainty work – the link between uncertainty and strategy practices

"[T]o understand any form of social activity, we need to foreground the object of work around which it unfolds" (Nicolini, 2012a, p. 224). While the first and reasonable intuition of a strategy-as-practice scholar may be to take strategic outcomes as the object of work by asking questions like how a certain practice relates to the resource allocation or the competitive positioning, the previously outlined relationship between strategizing and uncertainty points towards a second important object of work – uncertainty. Given that uncertainty is both the fundamental reason to strategize and an outcome of strategizing, we need to consider uncertainty work, which foregrounds uncertainty as the object of work in strategizing.

In this context, the 'turn to work' (Barley & Kunda, 2001) as a conceptual attractor focussing "on how individuals and organizations try to impact social structures" (Kreiner, Hollensbe, Sheep, Smith, & Kataria, 2015, p. 985) has become a focus in a variety of research fields. Common across these fields is the notion that "one of the powerful effects of adopting a 'work lens' is a shift in focus from the outcomes of action to the actors involved and the action itself" (Phillips & Lawrence, 2012, p. 227). Hence, this work lens on uncertainty leads from focussing on uncertainty as an environmental or cognitive concept towards the strategists and their actions around strategy and uncertainty as the key point of inquiry. When developing our definition of uncertainty work, we can thus benefit from the various advancements made in those fields applying a work lens.

Important examples[14] include boundary work (Gieryn, 1983; Langley et al., 2019), identity work (Kreiner et al., 2015; Sveningsson & Alvesson, 2003), or institutional work (Zietsma & Lawrence, 2010). In this context, despite different variations, the definitions of *X* work follow a similar pattern of understanding the concept as "purposeful individual and collective effort to influence the social, symbolic, material, or temporal" (Langley et al., 2019, p. 704) elements of *X*, where *X* refers to the respective element of inquiry such as organisational boundaries, identities, institutions, or in our case *uncertainty*.

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[14] Please see Phillips & Lawrence (2012) for a more detailed review of all major research streams that have included a work lens. Their list of "'new' forms of work" (p.225) identifies a total of 15 different types of work.

This purposeful individual and collective effort resembles a "struggle to come to terms with and, within limits, to influence the various" (Watson, 2008, p. 129) uncertainties that includes "people being engaged in forming, repairing, maintaining, strengthening or revising the constructions" (Sveningsson & Alvesson, 2003, p. 1165) of uncertainty. Both previous definitions from Watson (2008) and Sveningsson & Alvesson (2003) are adapted from the field of identity work, where we replaced the term identity with uncertainty – aside from that the definitions are unchanged. Overall, we see strong similarities between the more mature field of identity work and the concept of uncertainty work proposed here. First, both fields historically started with a primarily psychological-cognitive construct (identity and uncertainty). While the identity research field gradually utilised the value of understanding the concept in a more processual-practice oriented way, we hope to begin this turn in uncertainty research with this dissertation. Secondly, just as "identity is treated and described in a 'thing-like' way by organizational members, but is manifest through the process of organizational identity work" (Kreiner et al., 2015, p. 982), our previous chapters suggest that uncertainty manifests itself through the process of uncertainty work.

Hence, by integrating the different definitions of boundary work and identity work discussed above and primarily drawing from Watson (2008) and Kreiner et al. (2015), we define uncertainty work as the

> *discursive and behavioural processes in which individuals engage to create, present, sustain, share, and/or alter uncertainty.*[15]

Phillips and Lawrence (2012), in their comprehensive review of the various streams employing a work lens, lay out several underlying elements of the work concept. In the following, we will present two of their arguments that are most pertinent to our concept of uncertainty work.

First, "it is notable that the study of these forms of work includes a social-constructionist epistemology that highlights the role of actors in socially constructing elements of work and organizations that were previously seen as either 'natural' or beyond the control of individual actors" (Phillips & Lawrence, 2012, p. 224). This strongly resonates with our concept of uncertainty work. Similarly, to other concepts that have benefitted from a work lens, uncertainty is still predominantly seen as an external natural given and as outside of strategists' control. By introducing uncertainty work, we reframe uncertainty as something that actors engage with, create, present, sustain, share, and/or alter rather than as something that is beyond their control.

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[15] This definition is in large part adopted directly from Kreiner et al. (2015), who define organizational identity work as "the processes organizational members employ to create, maintain, and share organizational identity" (p.982). Given the more elaborated status of the identity work field, we believe that a definition of uncertainty work close to this field allows us to benefit from previous definitional work done in the field of identity work.

Second and related to the previous argument, work involves "actors engaged in a purposeful effort – a 'conscious, intended try' as Hochschild (1979) put it – to manipulate some aspect of their social context" (Phillips & Lawrence, 2012, p. 224). However, studies with a work lens do not adopt "a simplistic understanding of unconstrained agency" (Phillips & Lawrence, 2012, p. 224). This argument is essential for our understanding of uncertainty work. We understand a 'purposeful, conscious, intended try' in a modest sense where agency is inherently embedded in "mutually constitutive processes" (Watson, 2008, p. 129) of the various social-symbolic structures it aspires to alter (Battilana & D'Aunno, 2009). Based on the previous outline on the development of strategy practices, there is a clear connection between the understanding of agency in uncertainty work and the development of strategy practices. First, such an embedded and restricted agency relates to the idea of agents involved in the development of strategy practices that act reasonably in a specific instance but never rationally to some universal standard (please see Chapter 2.1.3). Hence, uncertainty work, just like strategizing, involves agents "reaching out into the unknown and developing an incomplete but practically sufficient comprehension of the situation in order to cope effectively with it" (Chia & Holt, 2009, p. 159)[16]. Especially given the inherent and mutually constitutive relation between uncertainty and strategizing, uncertainty work requires a very modest and limited understanding of 'purpose'. Overall, uncertainty work "carries with it a conception of agency that is humbler and more nuanced than is often seen in the strategy literature" (Phillips & Lawrence, 2012, p. 226).

We argue that focussing on uncertainty work is important when trying to understand the development of strategy practices in order to capture the essence of what happens during this process. For this reason, analysing uncertainty work empirically is a crucial element of this dissertation to find answers to our two research questions. While strategy practice is inherently connected to and shaped by uncertainty, previous studies in the strategy-as-practice field have tended not to theorise uncertainty itself. Hence, we have a limited understanding of how uncertainty functions in the development of strategy practices, how strategists engage with uncertainty and how various strategy practices relate to uncertainty and vice versa. Therefore, this study intends to counter this tendency by explicitly including uncertainty as a theoretical concept when trying to understand the development of strategy practice. We do so by having introduced the concept of *uncertainty work* that we now need to enrich empirically in later chapters.

Figure 5 summarises the previous arguments and puts uncertainty work into perspective as the important link between various uncertainty concepts (as an objective state and as a subjective perception) and strategy practice.

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[16] This quote is directly taken from our strategy definition, developed in Chapter 2.1

A simple model positioning uncertainty work	Relevance for strategy	Type of uncertainty	strategists' agency in respect to uncertainty	Focus in this dissertation
Strategy practice development **Strategy Practice** / **Uncertainty work**	High	**Practice dimension of uncertainty**, internal focus	**Present, but modest**, actors engage with uncertainty, not necessarily consciously	**Key**, understanding uncertainty work and its effects on the development of strategy practice empirically
Subjective perceived uncertainty / Objective state of environmental uncertainty	**Medium**, managers cognitive process affect decisions **Low**, equally given for all stakeholders	**Environmental dimension of uncertainty**, external focus	**Minimal**, uncertainty is a subconscious process **None**, uncertainty is an external given	**None**, only briefly reviewed in chapter 2.2. to provide context

* Mutually constitutive relationship between uncertainty and strategy practice presented in chapter 2.3.

Figure 5: Putting uncertainty work into perspective

In conclusion, uncertainty work is the conceptual bedrock to understanding the development of strategy practice in relation to the *engagement with uncertainty* as posed in our two research questions. It further prescribes important implications for *how* to study this object of inquiry empirically. We require an applied theoretical lens that allows focussing on details of coordinated, collective and purposeful activities while maintaining a connection to larger organisational outcomes, which relate to an organization's strategy. In this regard, the practice perspective can offer such a lens and thus forms the underlying logic for the collection and analysis of our empirical data.

5. The applied theoretical lens for this study: Practice

> "Practice always needs to be brought to the fore, to be made visible or, more precisely, it needs to be turned into an epistemic object in order to enter discourse."
> (Nicolini, 2012a, p. 217)

Given this quote, we require a discussion of the following three aspects, which are essential for a practice perspective. First, we require a clear account of what we understand as practice (Chapter 5.1). Second, we need to discuss the implications of such a practice understanding for our concrete study (Chapter 5.2). Third, we need to provide an applicable way of making practices visible as an epistemic object in an empirical study (Chapter 5.3).

In Chapter 2.1, we introduced and reviewed the strategy-as-practice turn in strategy research with the specific implications it can provide to understand the development of strategy practices. This field, just like our study, draws from the larger practice turn in the social sciences (Golsorkhi et al., 2015a; Schatzki, 2001). Practice-based thinking is a diverse and multifaceted field connected to different roots and research areas. Most fundamentally, it focusses on the activities of actors as opposed to for example their personal traits. Over time, this way of thinking received different labels, with scholars regularly referring to it as 'practice theory', 'practice perspective', 'practice approach', or simple the suffix '–as practice' indicating practice-based studies. Such practice-based thinking and researching was shaped by various influences (Schatzki, 2001), including among many others, philosophical thinkers such as Wittgenstein (1951), social theorists and sociologists such as Bourdieu (1977, 1990) or Giddens (1979, 1984) and cultural theorists like Foucault (1980). Consequently, "given this multiplicity of impulses, issues, and oppositions, it is not surprising that there is no unified practice approach" (Schatzki, 2001, p. 2) and that "there is no such thing as a unified practice theory" (Nicolini, Sher, Childerstone, & Gorli, 2003, p. 12). Putting this heterogeneity aside, a practice perspective serves as a promising tool for studying organisational dynamics, as it understands organising as a "complex, dynamic, distributed, mobile, transient, and unprecedented" (Feldman & Orlikowski, 2011, p. 1) phenomenon. This emphasises the relevance of a practice perspective in this dissertation, which analyses the development of strategy practices in relation to uncertainty work, where we expect to find many of the above-mentioned characteristics. Thus, "the great promise of the practice lens is that of explaining social phenomena in a processual way without losing touch with the mundane nature of everyday life" (Nicolini, 2012, p. 9). Given that the practice field is a large stream comprising various heterogeneous approaches (Nicolini et al., 2003), we display the core features of our understanding of practice in the following.

5.1. Core features of our practice understanding

As defined above (please see Chapter 2.1.2), we understand practices based on Knorr Cetina et al. (2001), Reckwitz (2002), and Nicolini and Monteiro (2017) as "ways of doing things, embodied and materially mediated that are shared between actors and routinized over time" (Vaara & Whittington, 2012, p. 278). This definition carries many of the underlying features of the common understanding of practices. In sum, we see five elements of practices that describe them as "a powerful lens for studying particular social phenomena" and how "practices shape reality" (Orlikowski, 2010a, p. 35). These features illustrate practices as relational, material, social, directional and normative, as well as processual.

Practices are relational

Practices are relational in two directions. On the one hand, they consist of different sub-components, meaning smaller pieces of activities such as "doings and sayings" (Schatzki, 2001). Many different empirical studies focussing on the micro set-up of practices confirm the modular set-up of practices that comprise various activities (see for example Jarzabkowski & Seidl, 2008; Orlikowski & Scott, 2015; Rouleau, 2005). Hence, when analysing uncertainty work and its effects on the development of strategy practices, we need to focus on subcomponents in the form of different activities and material elements. On the other hand, practices form connections to each other. While referring to them with different terms such as "knots, networks, nexuses, assemblages, and textures (Czarniawska, 2007; Gherardi, 2006; Latour, 2005; Nicolini, 2009, 2012b)" (Nicolini & Monteiro, 2017, p. 3f), practice scholars agree that practices do not occur in isolation but rather build connections to each other. This implies that practices can and should be studied as both an object of study in itself and as relations between them by looking at the networks of practices.

Practices are material

Artefacts play an important role for the development of strategy practices (see Chapter 2.2.3). Similarly, practice based studies, regardless of the underlying subject, have repeatedly emphasised the importance of materiality and artefacts (Orlikowski, 2010b). In particular, an influential stream of science and technology scholars (see for example Callon, 1984; Knorr-Cetina, 1982; Latour, 1999) have emphasised the importance of nonhumans actors. Hence, "their work has been particularly influential in helping practice scholars acknowledge the importance of materiality in the production of social life" (Feldman & Orlikowski, 2011, p. 3). Artefacts are relevant for practices, for example, with regard to means of communication (Whittington et al., 2006), as key resources for change (Heracleous & Jacobs, 2008), or as powerful agents for including or excluding certain actors from strategizing (Kaplan, 2011). As Nicolini (2012a) rightfully noted "tools and artefacts carry the script their designers embodied into them, and for this reason they convey a particular culture of action". Overall, we can conclude that "specific behaviours or actions are closely linked with or mediated by material resources" (Golsorkhi, Rouleau, Seidl, & Vaara, 2015b, p. 3).

Practices are social

"The term 'social practice' says the same thing twice" (Nicolini, 2012a, p. 227), as practices are always more than individual actions. Nevertheless, "practices are strongly shaped by the practitioners who develop and advocate them" (Jarzabkowski et al., 2016, p. 252). Hence, while practices are carried, shaped, and performed by individuals, the basic unit of analysis necessarily is the organised *social* activity (Nicolini & Monteiro, 2017), as practices are "not

synonymous with individual action or heroic agency" (Nicolini & Monteiro, 2017, p. 8). Consequently, when studying practices (and their development), we necessarily need to look at all actors (both human and nonhuman) that jointly contribute to the mobilisation of specific practices. Thus, "rather than focussing on discrete actions, motivations, and individual rational decisions, practice approaches foreground flow and sequence […] of a community of practitioners and the dispositions and practical wisdom that comes within being part of an ongoing regime of activity" (Nicolini & Monteiro, 2017, p. 9).

Practices are directional and normative

Practices are not means in themselves but they are guided and mobilised in regard to the accomplishment or direction that they hold (Nicolini, 2012a). Thus, "practices and their sub-elements only acquire sense when organised around an end or object" (Nicolini & Monteiro, 2017, p. 3). If one considers the example of 'kicking a ball': It is an essential and natural part of the practice of 'playing football' on a sports field with the clear object of bringing the ball closer to and ideally into the opponent's goal. However, this activity lacks an end or object in a board meeting, thus it feels 'off' in such a setting. Overall, "the productivity or consequentiality of everyday practices is a consistent theme" (Feldman & Orlikowski, 2011, p. 3) in practice research. Therefore, we look at strategy practices as directed towards both how an organisation moves forward but also to the inherent uncertainty (please see Chapter 4). Additionally, practices maintain a sense of right and wrong, as they carry prescriptions as to what is deemed acceptable or unacceptable in a specific practice field. Hence, practitioners follow a common practice "if their actions are appropriately regarded as answerable to norms of correct and incorrect practice" (Rouse, 2001).

Practices are processual

We established above (see Chapter 2.1.3) that practices are inherently processually. Therefore, we only attend to this argument briefly at this point. Practice approaches "subscribe to the view that social and organization life stem from and transpire through the real-time accomplishments of ordinary activities" (Nicolini & Monteiro, 2017, p. 1). Hence, we need "to represent practices as dynamic, contested, and provisional affairs" (Nicolini, 2012a, p. 226). This first prescription for how to represent and study practices directs us to the consequences for studying the development of strategy practices in relation to uncertainty work.

5.2. Consequences for studying the development of strategy practices

Given the core features of our practice understanding, we just discussed and our understanding of development of strategy practices (see Chapter 2.1.3), there are several consequences for

how to collect and analyse empirical data to enhance our current comprehension of the development of strategy practices. Based on the previous, we identified four main consequences for how to study our research questions.

First, since practices are processual, "practice approaches foreground flow and sequence" (Nicolini & Monteiro, 2017, p. 9). As such, practice is necessarily a processual concept, where the dynamic of practices over time is the rule rather than the exception. In other words, practices constantly *become* rather than clearly *are* in distinct phases. Hence, when trying to understand practices in their development, we focus on the relationship between change and stability, between doing something 'as we always have' and doing it differently than the status quo. Nicolini and Monteiro (2017) put it as "the competition between old and new ways of doing things [...that] triggers the expansion of the practice, the development of different ways of doing things, the introduction of new artefacts [...], the importation of new elements from other practices, the dissolution of traditional alliances between practices, and the establishment of new ones" (p.5). It is important to note that, "such variations are not necessarily failures of practice, but rather necessary adaptations or improvisations in changing circumstances" (Jarzabkowski et al., 2016, p. 250). Hence, when looking at the *development* of practices, we do not look for strictly bordered transitions from one practice to another. Rather, we expect an emerging pattern of more or fewer elements from a certain practice over time, with hiding and resurfacing rather than deletion or full omission.

Second, we have established that practices are social, directional and normative. As such, the development of strategy practices is far from an undisputed automatic given but involves strategists' explicit attempts to improve the productivity of their own strategy practices. In practice, strategists are likely to mobilise different practices or a specific practice differently whenever they perceive shortcomings in their current strategizing (as discussed in Chapter 2.1.3). Given the social and collective element of such attempts, they are subject to various perspectives and evaluations. This normativity of practices emphasises the contested nature of practices as the locus of negotiations and struggles around the acceptable conduct. This underlines the importance of uncertainty, especially in the form of Karpikian uncertainty (see Chapter 2.2.1) in the context of strategy practice development, where measures of value are subjective and contested. In addition, given their social aspect, we necessarily need to study practices in a collective context. Board structures, with their various meetings and exchanges both within and outside the actual board meetings, offer a promising case when taking the sociality of practices seriously.

Third, given the importance of materiality for both, the development of strategy practices (see Chapter 2.1.3) and its relevance for our theoretical lens (see Chapter 5.1), we need to carefully

analyse the role of materiality. Hence, when investigating the development of strategy practices, one focus point has to be placed on the artefacts involved in strategizing.

Finally, the relationality of practices requires a two-sided focus in our empirical research. One the one hand, we need to study their development by focussing on specific practices and their underlying activities and artefacts. On the other hand, we must also pay attention to the web of practices in which the relationships and causal effects between practices may develop over time. This approach is likely to lead our investigation beyond a specific group, as the interconnections of practices transcend group and board structures. Therefore, when focussing on the executive board, we must be attentive to the relationships that their practices may form with other meeting formats and strategists outside the executive board.

5.3. A toolkit approach to studying practices

Given these underlying features of practices and the related consequences for our research design, we require a method-theory combination that provides actionable support in how to actually *study* practices. It must be able to account for the messy micro dynamics of practices while keeping track of the larger connections that such practices have to each other and to the directional effects both on how an organisation moves forward and on how uncertainty unfolds. Against this background, Nicolini (2009, 2012a) offers "a strategy to 'cut' the world in terms of a nexus of interconnected practices" (Nicolini, 2012a, p. 219) that involves movements of zooming in and zooming out as a promising approach to study practices. Therefore, the following chapter delineates this approach and its importance as the foundation for the subsequent data collection and analysis.

5.3.1. Zooming in

Zooming in as an analytical concept helps us to uncover the close details of practices. There are many ways of zooming in on specific practices, as "zooming in is not obtained by putting the practice under an ideal microscope but rather by expanding the number of tools in our bag of tricks" (Nicolini, 2012a, p. 223). Hence, zooming in requires the appreciation of various foci on the observed practices. In this dissertation, we mobilise in particular three tools of zooming in: zooming in on the doings and sayings, zooming in on the tools and artefacts, and zooming in on the directionality.

First, given that "practices only exist to the extent that they are enacted and re-enacted […] their study necessarily entails a preliminary focus on the mundane activities at hand" (Nicolini, 2012a, p. 221). Therefore, trying to uncover meaningful insights in a practice perspective starts with ethnographic observations of what practitioners actually *do* and *say*. This focus on sayings and doings allows observing practices as they unfold with questions that guide the observation

and analysis such as: "what are people doing and saying? […] Through which moves, strategies, methods, and discursive practical devices do practitioners accomplish their work?" (Nicolini, 2012a, p. 220).

Second, given the prominence of artefacts and tools both in strategizing and the practice perspective more generally, we need an additional focus on these material elements. Zooming in on the artefacts requires one to "interrogate the scene of the practising by asking what active effects are produced by different artefacts" (Nicolini, 2012a, p. 224). Here, the guiding questions are "How do these artefacts contribute to the accomplishing? [and] what connection do they establish with other practices?" (Nicolini, 2012a, p. 224). By focussing on the various artefacts involved in the development of strategy practices, we are able to uncover how certain artefacts receive a significant agency on their own by shaping the current practice beyond the practitioners' intent and how these agentic tools relate to the development of strategy practices and the engagement with uncertainty.

Thirdly, zooming in on the directionality of practices is particularly insightful for understanding the objective(s) of practices. During this step of zooming in, key questions are: How and where does a certain practice impact how an organisation moves forward, when does it alter elements of uncertainty or when does it contribute to both? Recalling the 'kicking the ball' example from above, "practices are always oriented and they are performed in view of the accomplishment of the meaning and direction that they carry" (Nicolini, 2012a, p. 224). Hence, we need to confront the data with questions like "what do they [the practitioners] see as their main object of activity? Where do they direct their efforts?" (Nicolini, 2012a, p. 224). All in all, this zooming in movement supports us in "bringing forward and articulating the lived directionality and telos of the practice" (Nicolini, 2012a, p. 224). Crucially, this telos can be conscious and explicit but also serendipitous and non-intentional. Therefore, we require a careful analysis of what a practice really contributes to - both in the sense of conscious goals and implicit directions.

Figure 6 visually summarizes the three focus points of zooming in along three exemplary practices.
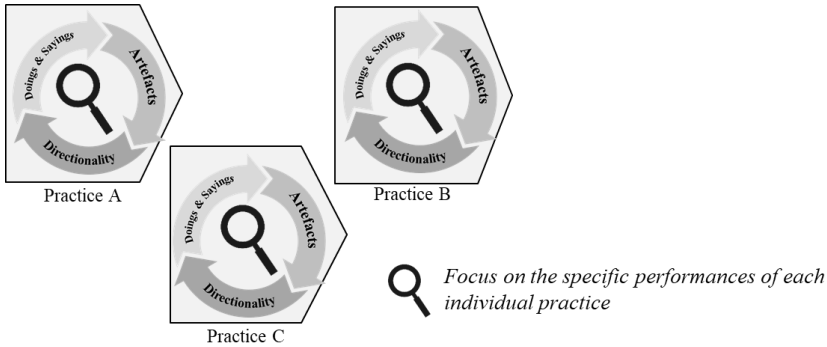
Figure 6: Graphical representation of zooming in

5.3.2. Zooming out

As practices are not only relational in the sense that they are comprised of various micro activities, but also in the sense that they relate to each other in networks of practices, we require a second analytical lens to investigate these connections. "All practices are involved in a variety of relationships and associations that extend in both space and time, and form a gigantic, intricate, and evolving texture of dependencies and references" (Nicolini, 2012a, p. 229). In order to understand these, Nicolini (2012a) further offers a zooming out movement by asking questions such as "What are the connections between the 'here and now' of practising and the 'then and there' of other practices? […] How are configurations, assemblages, bundles, and confederations of practices kept together? […] How is the practice under consideration causally and materially connected with other practices?" (Nicolini, 2012a, p. 230f). We have already established that practices may develop by travelling across different sites (see Chapter 2.1.3). In this regard, practices become disembodied into various different mediators, often artefacts (Czarniawska, 2004). Therefore, it is important to consider materiality not only in the context of specific strategizing episodes but also investigate its presence over different times and spaces. In order to investigate these connections of practices, we need "to follow its intermediaries (people, artefacts, and inscriptions) wherever they go" (Nicolini, 2012a, p. 231).

Figure 7 summarizes the focus of zooming out, where we seek to understand the connections between practices.

Focus on the relationships and dynamics within the strategy practice landscape (multiple practices)
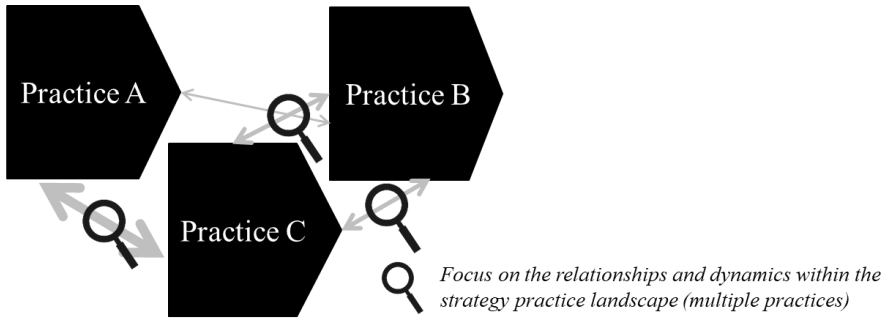
Figure 7: Graphical representation of zooming out

Given the previous presentation of our zooming in and out moves, it is important to clarify that the metaphor of zooming "risks introducing the idea that the world is organized according to neatly arranged micro, meso, and macro levels that can be peeled like layers of an onion" (Latour, 2005) in (Nicolini, 2012a, p. 239). In order to remedy this, we, during later stages of the analysis, try to zoom dynamically, not limiting ourselves to either the intimate details of a practice nor the connections between practices and the effects they have. Instead, zooming dynamically allows focussing on the level of analysis that best advances our understanding of the case in that respective moment of analysis. In conclusion, "zooming is thus about moving around and amid practices, not hovering above them." (Nicolini, 2012a, p. 239).

While the previous chapter introduced the ideas around the toolkit approach with the two core moves of zooming, we turns towards our concrete doings while collecting and analysing the data and the respective underlying research paradigm in Part B. In a sense, we now turn towards our *research practices* to investigate the development of *strategy practices* in relation to uncertainty work, after having summarized the first Part A.

6. Summarizing Part A

In the previous five chapters, we have developed several foundations for the upcoming sections of this dissertation. The key points of the previous chapters are:

Better understanding the development of an organisation's strategy practices is an important endeavour that is equally relevant to the strategy-as-practice field and to practising strategists. For research, it points to the important temporal dimension of strategy practices and complements much of the existing work with a more processual perspective that tries to understand the development of practices over time. For practice, it addresses how executives could develop and improve their own way of strategizing, which is at the forefront of practising

strategy and directly related to the future orientation of the organisation. As such, creating these prerequisites for an effective strategizing is among the key tasks of any executive. We approach this research interest with a specific focus on the intimate and mutually constitutive relationship between strategizing and uncertainty. By moving beyond merely the environmental uncertainties that are quite prominent in existing research, we focus on the practice dimension of uncertainty, which describes "an imprecision in estimates of future consequences conditional on present action" (March, 1994, p. 178) regarding the own strategy practices. As such, we turn uncertainty from something out there, which is a given from the external environment, into something that can be formed, shaped and *engaged with*. In order to provide us with the right thinking tools for understanding the engagement with uncertainty, we benefit from the existing turn towards work (Barley & Kunda, 2001). Here, we introduced uncertainty work as the discursive and behavioural processes in which individuals engage to create, present, sustain, share, and/or alter uncertainty[17]. Finally, the practice perspective provides a promising lens to approach our research interest empirically. With the underlying features of our practice understanding (practices as relational, material, social, directional and normative, and processual) and the versatile toolkit approach of zooming in and out (Nicolini, 2009 & 2012a), we are well equipped to study the development of strategy practices in relation to uncertainty work as a provisional form of transformation within the constant mobilisation of various practices as a process that is both ongoing and running parallelly to many other processes.

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[17] As mentioned above (see Chapter 4), this definition is in large part adopted directly from Kreiner et al. (2015) who define organizational identity work as "the processes organizational members employ to create, maintain, and share organizational identity" (p.982).

Part B: Empirical context and research methodology

7. Methodology, Doing Research and Empirical Setting

This study builds on a specific understanding about the world. In this context, Guba (1990) defines a research paradigm as a "basic set of beliefs that guides action" (p.17). Given this definition, a research paradigm shapes the researcher's actions within the world and has important implications for our observations, our methodology, and our concrete methods choices. Hence, as, for example, Rüegg-Stürm (2003) noted, it is an important task for a researcher to discuss the consequences of this basic set of beliefs, and the overall research activities. In the following chapter, we turn towards our empirical case (Chapter 7.2), our data collection (Chapter 7.3), our data analysis (Chapter 7.4), and conclude with a discussion on how to assess and increase the quality of our research (Chapter 7.5).

7.1. Constructivist research

Nicolini's (2012a) conceptualisation of practice and his toolkit approach play an important role in this dissertation. Unsurprisingly, his basic understandings of researching resonate with us as well. First, "the aim of social science is to provide a richer and more nuanced understanding of the world, and not to offer simplified answers to complex questions" (Nicolini, 2012a, p. 215). Second and consequentially, "good science is generative not eliminativist: its goal is to increase our capacity to make connections among phenomena, not to eradicate interesting features in the name of generalization" (Nicolini, 2012a, p. 216).

Hence, this dissertation builds on a subjectivist ontology, where everything we observe is socially situated and constructed. Logically, we subscribe to an interpretivist epistemology, where knowledge is more than stored and accessible text. There is no reality out there waiting to be discovered, but everything we present in here is a subjective and social construction. As mentioned previously (please see Chapter 4), the focus on uncertainty work requires such an understanding of the world, as studying "work includes a social-constructionist epistemology" (Phillips & Lawrence, 2012, p. 224). In this context, the idea of double hermeneutic posits that "the concepts of the social sciences are not produced about an independently constituted subject-matter, which continues regardless of what these concepts are" (Giddens, 1984, p. 20). Such an ontological background has important implications for our approach in regard to the practical use of methods.

Methods, in our understanding, are much more than ready-made frameworks with simple step-by-step guidelines on how to conduct an interview or how to analyse data, as many textbooks try to convey. Instead, as Law (2004) notes, methods are in themselves a practice and entail a constant learning journey and appropriation process of the respective methods used. Therefore, it is important to describe what we have done when collecting, dealing with or presenting our

data. Rather than referring to commonly known *templates* (Langley & Abdallah, 2011), we believe in opening up the black boxes of the methods used and allowing the reader to follow what we have actually done and why we decided to do so. Overall, this resembles a personal method assemblage (Law, 2004) where several research practices come together in one personal toolbox while the respective performance of each tool is connected to the regular usage and experiences of the researcher. Hence, we describe our processes of data collection and analysis in the following chapters, after presenting the single-case study, which builds the empirical basis of this dissertation.

Notwithstanding the previous, we need to acknowledge that the following presentation of the case, the data collection, and data analysis is, in the sense of "ready-made science" (Latour, 1987), an overly linear presentation of an inherently iterative and messy process. However, we do offer occasional insights into our complex, non-linear process of "science in the making" (Latour, 1987) to offer a candid account of what we have done while collecting and analysing the data. Hence, "contrary to descriptions of research which suggest an orderly progression from observation to interpretation of data and writing up, the rhizomatic character of the study design requires that the ethnographer goes through multiple cycles of observation, analysis, and reflection" (Nicolini, 2012a, p. 238).

7.2. PubLib – describing the empirical case

PubLib is the central city, regional, and university library in a European city characterised by vibrant cultural life and home to renowned research. PubLib's history dates back to the early medieval ages in the 13th century. Since the early 1900s, it has operated under a public trust consisting of the city and the regional district as the board of trustees. As of 2017, it manages more than 6 million objects including books, graphics, photos, historic handwritings, maps, sheet music, artefacts, microfilms, audio-visual media, newspapers, academic journals, and licensed electronic media. Currently, it has about 260,000 registered users with about 50,000 users qualifying as active users. Additionally, PubLib employs more than 240 people in various functions.

PubLib's organigram provides a good indication of its overall purpose and value creation activities.
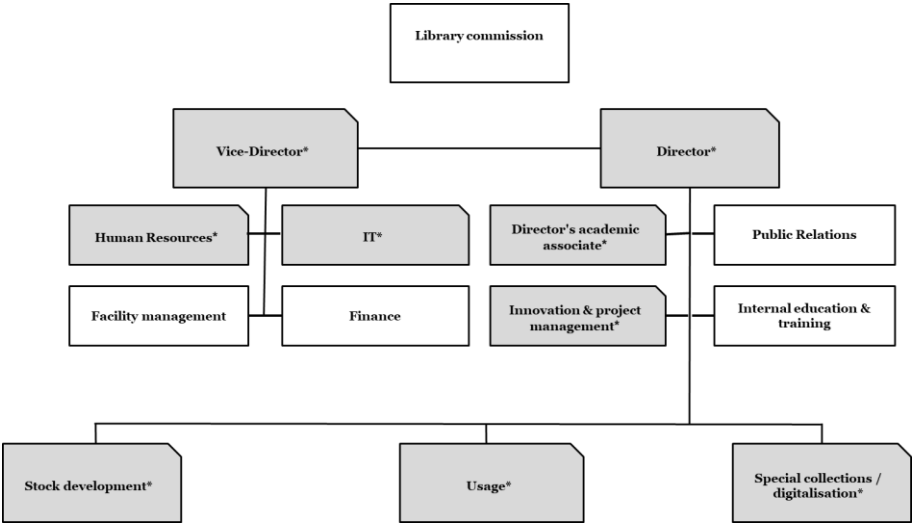
Figure 8: PubLib's organigram including members of the executive board (in grey and with *), please note that this version displays the members of the executive board as of January, 2019.

The directorate, consisting of the director and vice-director, comprises the highest hierarchical level. Both are members of the executive board and the direct supervisor of all additional seven executive board members, of whom five report to the director and two to the vice-director. Crucially, the three core library divisions, which are stock development, usage, and special collections / digitalisation (three lower branches in Figure 8) form the core value creation of PubLib.

The core task of 'stock development' is to continuously select, purchase and structure relevant positions. This involves negotiating with publishing houses, selecting for quality content and curating the purchased content in PubLib's overall stock. The six departments within this division share these tasks across their respective area of expertise.

The division 'usage', as the name indicates, is concerned with delivering PubLib's large stock of content to the various users. This involves creating, managing, and maintaining (digital) access portals, providing user support and offering a variety of courses to the public. Given PubLib's diverse roles as a city, regional, and university library, the users are a large and heterogeneous group. They include, but are not limited to, high school students, university students, researchers, professors, and the 'general public'. University students, for example, require more specialised academic and recent sources for a variety of subjects, while researchers and professors not only require access to the stored stock but also request access to positions outside the stock and occasionally try to influence certain purchasing decisions based on their

understanding of what constitutes a valuable resource. Increasingly, international researchers are requesting digital copies of historic documents or other printed content from within the PubLib stock. In addition, the 'general public' forms another heterogeneous group including, hobby readers who demand access to common popular literature such as novels or fiction stories and hobby historians who want to work with original historic pieces. A final group that primarily draws from PubLib's 'brick and mortar' resources requires a comfortable and quite workspace, independent of PubLib's other services. Generally, those workspaces are a scarce resource, especially during exam periods at the local universities. In contrast to these 'physical users', ever more people are demanding access to PubLib's offerings via remote and digital access options. Those two user groups overlap to a large extent, with many people using both the physical premises as well as remote access options at different times.

Finally, the 'special collection / digitalisation' division contains a variety of different collections organised around different types of objects such as maps or handwritings. A somewhat special department is 'local artefacts', which serves as an important archive of a variety of objects relevant to the city's history. In addition, the department 'stock maintenance' is responsible for repairing and maintaining historic objects and the digitalisation centre takes care of scanning analog objects both upon specific request and in general, striving to offer a digital database of most of the historic content that has been collected, stored and maintained within PubLib over centuries. Another important aspect of this division is the regular preparation of theme-based exhibitions and events that showcase the diverse collection and thus also fulfil tasks, which are traditionally attributed to museums and cultural event institutions.

In addition to these three key library divisions, PubLib has a public relations department and a directorate's academic associate directly reporting to the director. The PR activities are comparable to PR departments at other organisations and involve the maintenance of all public outlets, such as website, twitter account, flyer, and the like, the management of press contacts and the advertisement of special events or offerings. The academic associate is responsible for several specific projects and is in charge of the preparation and documentation of board meetings.

The vice-director oversees many of the so-called support functions, such as the human resources department, facility management, accounting, and IT. Given that ever more information must be digitally accessible, the IT department has become increasingly important for PubLib's core processes and value creation activities.

7.2.1. The unit of analysis – PubLib's executive board strategy practices

In the overall organisational set-up, PubLib's executive board is the primary strategic group with a clearly expressed responsibility of developing the future of PubLib by discussing and

developing topics and projects that have both a longer-term impact and that are likely to impact the organisation as a whole. In order to best fulfil this role, PubLib's executive board strives to develop their strategy practices by introducing new or altering existing activities, meeting formats, tools, and actors involved in strategizing. Hence, based on our ethnographic approach focussing on these processes involved in PubLib's strategizing, the executive board's strategy practices are our unit of analysis. We specifically focus on the most prominent strategy practices mobilised within the executive board and their development over time.

7.2.2. The promises of this research case

Studying the development of strategy practices in relation to uncertainty work in the context of PubLib's executive board is promising for five reasons.

First, there is a certain opposition between the work characteristics of a librarian compared to that of a strategist. As librarians, the executives are trained to structure and present data in a way that reduces or eliminates ambiguity and uncertainty, which allows users to navigate a large number of available items in a structured fashion. As strategists, given the intimidate and mutually constitutive relationship between uncertainty and strategizing, they are necessarily required to engage with uncertainties in a way that enables productive strategizing and therefore needs to involve forms of engagement other than reduction or elimination. Hence, the present research may yield new insights by trying to unveil the dynamics of uncertainty work in this context. Due to the contrast of the two professions, librarian and strategist, we expected to observe the development of strategy practices in a more pronounced fashion that allows us to zoom in on the fascinating dynamics.

Second, PubLib's executive board embarks on a journey trying to jointly develop their strategy practices with little explicit strategizing background. More specifically, the executive board aspires to steer their organisation forward more actively and consciously considers the appropriateness of its own strategy practice landscape. Importantly, the executive board decided to approach their own strategy practices *jointly* as a collective rather than individually. This was a crucial aspect contributing to the clear emergence of the practice dimension of uncertainty. It allowed individual uncertainties around the strategy practices to collectivise within the board and thus these uncertainties become explicit, as "no one really knows how to do this; we are no strategy experts" (Interview Quote). In contrast, managers in the free economy are less likely to be so frank about their uncertainties in strategizing, as it is expected that they know how to do strategy and they tend to display a systematic overconfidence in their ability to take strategic decisions (Alvarez & Barney, 2005).

Third, such a conscious examination of one's own strategy practice landscape is a rare research opportunity. More often, established boards perform single changes such as changes to the

overall composition of the board or the introduction of a new format or tool to facilitate strategizing. In such cases, new practice elements are introduced to an existing background of strongly routinised strategy practices. In comparison, PubLib explicitly works on the entirety of their strategy practices, which offers a promising extreme case to study the development of strategy practices. As Dionysiou and Tsoukas (2013) noted, organisations in which we do not have a complex network of influences and interactions across the various strategy practices is a promising case to study the development of strategy practices over time in a purified manner.

Fourth, most of PubLib's strategizing takes place in and around the executive board. Given that both the development of strategy practices and the related concept of uncertainty work lack empirical studies, PubLib offers a promising starting point for empirical investigation. With PubLib as our case, we are able to focus on strategizing as a more centralised activity that gravitates around one board, which enables us to focus on these processes in a clear setting without missing essential dynamics happening in subsidiaries or other more remote organisational units.

Finally, PubLib, like many other libraries, has endured as an organisation over centuries. Throughout large parts of their history, their core value creation only changed sporadically. However, due to recent developments, such as digitalisation or open access, the executive board agreed that they require a more proactive strategic direction in order to maintain their future relevance as a library.

Overall, the combination of the previous five reasons underscore both the promises and the uniqueness of the case, which offers us a fascinating case to enrich our understanding of the development of strategy practices in the context of uncertainty work and find specific answers to the related two research questions posited above.

7.3. The data collection – a bouquet of potential insights

"The study of practice [is a] patient, craft-like, and necessarily time-consuming articulative work of getting close to the practice and the practitioners, identifying connections and exploring relationships" (Nicolini, 2012a, p. 240). These necessities of practice research shaped how we interacted with PubLib's executives and how we collected our data.

The initial contact for a potential research collaboration with PubLib's designated director took place in July 2017 in the form of an informal and serendipitous meeting. After exchanging ideas on current organisational challenges and our way of researching them, PubLib's designated director was intrigued by how the RISE Management Lab conducts research in an embedded and academically focussed fashion. She expressed an interest in engaging in such a research collaboration on the PubLib strategy process. After several rounds of alignments, we met again

with the designated director and a small delegation of executives in December 2018 in order to finalise the goals and general terms of a potential research collaboration. During this meeting, we repeatedly emphasised that the basis for a promising research collaboration, and therefore a prerequisite for us, was that all PubLib executives work towards an open and candid exchange as a joint decision to engage in this research project. Both partners agreed to these terms. We also held another presentation in front of the entire executive board as an explicit prerequisite to receive approval and ensure candid access from all board members before both parties could take a final decision. Therefore, we presented the overall research project and RISE's specific research approach in a board meeting in January 2018. After some controversial and critical discussions on anonymity and potential benefits for PubLib, the executive board agreed to the research collaboration. This marked the official start of the research project and the data collection. We subsequently regularly engaged with the PubLib executive board and other key staff in ethnographic observations, personal interviews, and the analysis of strategic documents. In the following, we discuss all data forms and the respective collection practices.

7.3.1. Observations

"For investigating practice one must always start by zooming in through immersion in the action" (Nicolini, 2012a, p. 237). Hence, we require a research design that focusses on "deep data gathering" (Balogun, Huff, & Johnson, 2003, p. 198), which often entails *observing* everyday social activities with ethnography (Cunliffe, 2015). Therefore, ethnographic observations are both the backbone of this dissertation and the source of the initial data points we collected. We can broadly separate the many different observations conducted within the research project into passive and active observations. Passive observations make up the majority of all observations. They involve us as researchers being 'a fly on the wall' trying to minimise our overall presence in the observed episode of praxis, hence giving the researcher a passive role. Active observations took place in a few instances when we presented our observations to the executive board and enriched them with our academic background, which offered novel perspectives. In some instances, we also conducted more informal preliminary reflection meetings, which we used to share our understanding of the observed dynamics with a few executives. Similarly, those executives took the opportunity to comment on our observations and preliminary interpretations. In all these meetings, we took a more active role, as we provided at least parts of the input and thus shared our observations more actively.

Passive observations

Concretely, we passively participated in the executive board meetings on a regular basis. As indicated above, during the meetings, we were completely silent and did not participate in any discussions. Over time, when talking to the executives during breaks, before or after the

meetings, they referred to us as 'the fly on the wall', indicating that although we were present, our presence did not significantly affect their normal conduct. Before our first observation, we secured a seat outside the U-shaped conference table in the corner of the room. This further enhanced our ability to stay in the background of the meeting, as we placed ourselves out of sight of most executives. In a short reflective part in some of our later interviews, several executives confirmed that we had only a small impact after a short period of brief period of accustomisation to our presence:

> *"In the beginning, I sometimes asked myself, when you turned to your laptop and noted down something 'Oh was it something I said or did?'. I just did not know what you had actually observed and then also I, in the first meetings, sometimes thought to myself 'Oh I hope he notes that down, that is typical for us'. But I hardly, if ever, changed my behaviour, I would say"*

> *"I think you generally became much more accepted once you did your first presentation. Your reflections were generally very well received and it was good for us to have an external person give us these perspectives on how we work. After this presentation we actually understood why it was good to have you here."*

> *"To be honest, by now, it is more noticeable if you are not present. Then we might ask where you are. You kind of became a normal element of our meetings now."*

Over the duration of our research collaboration, we received a copy of all digital communication in regard to the board meeting in Cc. This especially involved all agendas, minutes and relevant documents. We experienced two major advantages of continuously receiving all information on board meetings in real-time[18].

First, we always had all documents for the respective meeting at hand when required. This allowed us to follow discussions in the concrete text or spreadsheet involved, thus receiving a more complete picture of *how* the executive board used different documents and the development of such usage over time. Whenever a document was not shared in advance (because it was prepared just in time or because it was too large to share digitally), we received a hardcopy right in advance of the meeting like the other executives. This was a crucial prerequisite to understanding the role of tools and artefacts within the executive board strategy practices.

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[18] By real-time we want to indicate that we have received all information at the same time as the other board members.

Secondly, the sharing of the agenda and all key documents in advance allowed us to thoroughly prepare each passive observation. By knowing the agenda in advance, we were able to return to our previous field notes of board meetings with similar (or the same) topics. This preparation allowed us to observe subtle differences across board meetings and follow certain topics over time. Hence, we were able to refresh our understanding of a particular topic with the previous notes before entering a new passive observation.

During the meetings, we took field notes on our computer. While we documented every observation in a separate file, they all follow a similar structure. In the beginning, we noted the participants (especially guests, if present) and the respective seating arrangement. Afterwards we grouped the notes according to the agenda of the meeting, with each agenda point receiving one chapter. All notes were then written down in a simple bullet point list. The field note documents consisted of an unstructured mix of different elements that were ordered chronologically in meeting order.

First, every chapter, usually referencing one specific agenda item, begins with a high-level description of what happened. These elements are comparable to traditional minutes documenting the *what*, as they briefly describe what the topic of discussion or presentation is and what tools (flipchart, printout, PowerPoint presentation, excel spreadsheet, or other) are involved.

Second, we summarised the key points of the discussion. While we always received them via the official minutes a few days later, it was important to also briefly note down what we *understood* as key points of the discussions. Field note segments that deviated from the official minutes served as triggers for further investigation. In addition, we occasionally also noted down the time that was spent on a specific topic when we observed that a specific topic was discussed overly long or remarkably briefly.

Third, the field notes contain direct quotes. Whenever we identified parts of a conversation as crucial for the current discussion or for the overall understanding of the case, we noted them down in a direct quotation.

Fourth, the field notes contain direct observations. These often involved behaviour and bodily actions, such as emphasising a point by hitting a fist on the table, focussing on their laptop screen rather than the discussion, or getting up to illustrate a point on the screen.

Fifth, we collected our initial interpretations of what we had observed. These are often phrased as initial propositions or questions, drawing from our emerging understanding of the case, and often directly connect to certain concepts of our theoretical understanding.

Finally, the field notes sometimes contain questions. These often illustrated things we did not understand, such as abbreviations or names. We clarified these elements after the board meetings with the respective executives. Sometimes these questions also contained developments we wanted to discuss more intensively in the interviews.

The ongoing collection of observations and field note taking was a time-intensive and sometimes hectic task, which resulted in rather messy 'raw' field notes. Therefore, after each observation episode, we returned to the field notes, read them and separated the different elements via colour coding and formatting. Overall, the field notes served the fundamental purpose to 'bring us back to the room'. Hence, the field notes enabled us to return to a particular discussion, including the content, the actions, the atmosphere, and the dynamics we had observed. Therefore, our field notes serve as crucial mental cues of what we had observed and experienced.

This deep immersion into the executive board and their strategy practices increasingly encouraged us to observe additional meeting formats beyond the executive board. We came to realise that, while the executive board is PubLib's key strategic body, several preparatory and follow-up activities happened in various other settings. Therefore, in order to receive a more complete picture, we conducted further observations of different meeting formats. The open and candid access we received for the executive board was extended to all other observed meetings. Consequently, we passively participated in meetings such as a project evaluation meeting, a department meeting, and meetings of the reflecting round – two meeting formats discussed below.

Finally, several board members provided us with extensive tours across the facilities they supervise. These include, among others, the IT and Server stacks, the digitalisation department with multiple high-technology scanners, the historic underground archive with numerous objects and safety features, different reading rooms, public exhibition spaces, and many, often open office type, work areas. While the tours had limited direct impact on the findings of this study, they supported us in creating an all-embracing and fine-grained understanding of PubLib's value creating activities. In turn, this emerging understanding helped to contextualise several discussions in the board meetings and put certain topics into perspective.

Active observations

As indicated above, some observations had a more active character as we provided some content and had open discussions with the participants. These events were crucial to challenge the emerging understanding of the case and to validate or adjust certain elements. During these meetings, we often provided academically informed input and used the reactions of our discussion partners as a first feedback in regard to the suitability of the respective concept. As

Nicolini (2012b) puts it "we accept that the phenomenon can bite back [and] the informants can tell us that our findings are rubbish" (p.217). Importantly, the initial idea of mobilising uncertainty as an explanatory concept emerged from one of these discussions, where several participants expressed their uncertainty about the appropriate way to move forward. Another way for us to be active was by asking questions. In several of the reflection meetings, we did not prepare any content or participate actively in the discussions but we were allowed to ask questions and thus shaped the discussions to a certain extent; not all active observations happened on PubLib's premises but occasionally were conducted via phone and video calls.

The following table summarises all observations conducted in chronological order separated by passive or active.

Type	Date
Passive observations	
Executive Board Meeting	2018-02-08
Executive Board Meeting	2018-03-08
Executive Board Meeting	2018-04-05
Executive Board Meeting	2018-04-19
Executive Board Meeting	2018-05-17
Executive Board Meeting	2018-08-28
Strategy workshop	2018-09-06
Discussion of project reporting & its purposes	2018-09-18
Executive Board Meeting	2018-09-20
Executive Board Meeting	2018-09-20
Meeting of department heads	2018-10-01
Meeting of reflecting group	2018-10-16
Strategy workshop	2018-11-06
Executive Board Meeting	2019-01-10
Executive Board Meeting	2019-03-25
Executive Board Meeting	2019-04-02
Executive Board Workshop with external coaches	2019-04-15
Executive Board Meeting	2019-04-25

Type	Date
Executive Board Meeting	2019-05-16

Active observations

Initial contact	2017-07-11
Kick-Off discussion	2017-12-13
Research proposal at Executive Board	2018-01-25
Project evaluation meeting PubLib 2020	2018-03-01
Interim discussion	2018-03-04
Tour through parts of the library buildings	2018-05-17
Tour through parts of the library buildings	2018-05-18
Tour through parts of the library buildings	2018-05-22
Interim discussion	2018-05-24
Interim discussion	2018-05-28
Interim presentation	2018-06-01
Interim discussion	2018-06-11
Phone discussion with executive	2018-10-12
Phone discussion with executive	2018-11-07
Phone discussion with executive	2018-11-29
Interim discussion	2019-04-01
Phone discussion with executive	2019-04-03
Phone discussion with executive	2019-04-03
Reflection on innovation and strategy	2019-04-15
Interim discussion	2019-05-08
Preliminary final presentation	2019-05-23

Table 3: Overview of observations

7.3.2. Interviews

In addition to the direct observations, we conducted personal interviews with all executive board members in May 2018 and March 2019. We conducted them as semi-structured interviews. An interview guide (see Appendix 16.1 for the May 2018 version) served as an inspiration for questions and topics we wanted to cover in each interview. However, depending on the core topics the interviewee emphasised during the interview, we allowed for deviations from the topics covered. Based on our more fine-grained understanding of the case, the second interview round focussed on benefiting from the individual executives' perspectives as much as possible. Therefore, we created individual interview guides for each interview in March 2019 covering those topics, issues and dynamics we wanted to discuss with the respective executive. All interviews were audio recorded, summing up to 23.5 hours of audiotape, and were transcribed verbatim for later analysis. Table 4 provides an overview of the interviews in chronological order.

Interview Partner	Date	Duration
2018		
Vice Director, Member of the Executive Board	2018-05-17	1h 23min
Head of IT, Member of the Executive Board	2018-05-17	1h 27min
Head of PR, Member of the Executive Board	2018-05-18	1h 18min
Head of special collections & digitalisation, Member of the Executive Board	2018-05-18	1h 19min
Director, Member of the Executive Board	2018-05-22	2h 7min
Head of usage, Member of the Executive Board	2018-05-22	1h 27min

Interview Partner	Date	Duration
Head of stock development, Member of the Executive Board	2018-05-22	1h 28min

2019

Interview Partner	Date	Duration
Head of usage, Member of the Executive Board	2019-03-11	1h 25min
Innovation and Project Coordinator, Member of the Executive Board	2019-03-11	1h 30min
Academic Associate, Member of the Executive Board	2019-03-11	1h 27min
Head of special collections & digitalisation, Member of the Executive Board	2019-03-11	1h 15min
Head of HR, Member of the Executive Board	2019-03-12	1h 23min
Head of IT, Member of the Executive Board	2019-03-12	1h 19min
Director, Member of the Executive Board	2019-03-21	2h 13min
Head of stock development, Member of the Executive Board	2019-03-21	1h 19min
Vice-Director, Member of the Executive Board	2019-03-29	1h 07min
Sum		**23h 27min**

Table 4: Overview of interviews

7.3.3. Archival data

Finally, as a third major data source, we worked with both internal and external documents. As briefly mentioned above, we received access to all of PubLib's strategic and executive board documents. Especially the preparatory and summarising documents of the board meetings were a crucial data source that supplemented our own observations. They helped to understand the topics at hand and how the executive framed them in the specific strategizing episodes. In addition, several further documents, such as the annual reports, allowed us to develop an in-depth understanding of the various value creating activities that PubLib engages in and how they developed. Table 5 summarises all documents and archival data in specific groups, sorted by the amount of data per type.

Data Type	Exemplary Data	Sum of pages
External Reports	*Reports issued by other institutions, and academic studies*	563
Presentations & Visuals	*Diverse PowerPoint presentations, pictures, photo documentations*	319
Project documents & Budgets	*Spreadsheets, milestone plans, project status reports*	319
Annual Report	*Annual reports from 2014 to 2018*	181
Organisational documents	*Agendas, Minutes, Preparatory task descriptions*	172
Strategy documents	*Description of potential future roles, requirements of skill sets*	105
E-Mails & Communications	*Various E-Mail communications, internal memos*	60
Others	*Various documents such as an internal directory*	47
Sum		**1766**

Table 5: Overview of archival data relevant in PubLib's strategy practice

7.4. Analysing the data – what we have done

Our data analysis approach can best be summarised in accordance with Mintzberg (2017), who claims that "first, I start with an interesting question, not a fancy hypothesis. Hypotheses close me down; questions open me up" (p.11). Similarly, we constantly interrogated our emerging data with different questions and tried to extract interesting answers with different tools and lenses. Hence, our data analysis resembled a strong oscillation between data and theory. Given the richness of the multiple data we collected, the analysis was an ongoing iterative sensemaking process, where we conducted numerous interactions with our data. Over time, the increasing body of data and different preliminary analyses lead to a better understanding of both the case and suitable theoretical concepts to analyse it. This largely resembles an abductive data analysis (Klag & Langley, 2013).

In the following, we start with a description of each of the different key steps of our data analysis separately before we summarise all data types and their respective use in our analysis in a comprehensive table at the end.

7.4.1. Developing an overview of PubLib's strategizing

In an initial step that continued throughout the data analysis, we developed a systematic overview of the different aspects that were relevant for understanding PubLib's strategizing. After every ethnographic observation, we noted down the *whos* (actors involved) the *whats* (activities and tools involved) and the *wheres* (places and meetings of strategizing). Thus, we created a successively growing landscape of PubLib's strategy practices. We understood this step of analysis as a preparation for zooming in by first describing all relevant actors, tools, artefacts and activities that contributed to PubLib's strategy practices. In order to create the fullest picture possible, we enriched our observations with interview data, and archival data where necessary. We continuously asked our data *who and what contributed to developing PubLib forward.* In doing so, we also developed a better understanding of the roles and functions of the different actors involved in strategizing. This analysis led to the subsequent question, *where does PubLib develop the future of the organisation.* This served as a guiding question towards strategy platforms based on which we created an in-depth understanding of the different strategizing episodes in which PubLib's various strategic actors came together. In the process of understanding these strategizing episodes, we focussed on the physical attributes of the locations, their frequency, the actors involved, the preparation of the episodes and the outcomes that they created.

As a result of such continuous mapping, we received a comprehensive overview of PubLib's strategists, strategy meeting formats, and their development over time. During this analysis, two aspects prominently emerged from the data as being core to PubLib's strategizing. First,

the executive board and their strategy practices and second, their Focused Future Direction (FFD) strategy program, which started at the beginning of 2018 and continued throughout the year and into 2019. Therefore, we used this initial overview of PubLib's strategy practices to contextualise the executive board and their strategizing within the larger PubLib organisational realm. This overview (displayed in Chapter 8.1) served two purposes. First, it provides the reader with an important overview of the context in which our unit of analysis, the executive board, enacts their strategy practices. This is especially important for sketching the boundaries for the cautious and subsequent transferability of our findings. Second, it provides the required breadth in understanding how the executive board's strategizing creates impact for the larger organisation. This breadth serves as an important element for context understanding and enables us to embed our focus on the executive board within the larger organisation whenever necessary. Hence, this is crucial for a zooming out movement, which involves trying to understand the effects and the connections that practices have across a net of practices.

7.4.2. Zooming in on strategy practices and their development

As mentioned before (see Chapter 5.3.1), "zooming in is not obtained by putting the practice under an ideal microscope but rather by expanding the number of tools in our bag of tricks" (Nicolini, 2012a, p. 223). Hence, when zooming in on PubLib's executive board strategy practices, we focussed on three elements: Zooming in on the doings and sayings, zooming in on the tools and artefacts, and zooming in on the directionality. In this zooming movement, we coded the field notes and interviews to extract those elements that specifically refer to behaviours, activities and sayings, material elements, and the intentions and objectives around them. The result was an unstructured list of strategically relevant activities that we subsequently clustered into specific practices. In this process we paid particular attention to the various activities and emergently grouped them into different more stable patterns of practices. An early, abductive insight proved to be essential for our ongoing analysis: When zooming in on the directionality, we discovered that there are objectives of practices and objects of work that go beyond PubLib's strategy and rather point to the relationship between strategizing and uncertainty. This outcome of our analysis forms one pillar on which the concept of uncertainty work rests.

Each of the three zooming in moves happened in an over-time logic in order to uncover the respective developments while zooming in. Given that practices are always both evolving and stabilised (please see chapter 5.1), investigating the development of strategy practice over time requires a sensitive focus on both the changes in the elements of one practice as well as stable elements that are performed without recognisable changes. Considering our definition and understanding of practices, we specifically focussed on the level of material mediation, sharing, and routinisation of the practices without presupposing that every practice is per se fully

materially mediated, shared between actors, and routinised over time. Instead, we tried to understand *how much* each of the characteristics of the practice unfolds in reality in order to capture practices in their process of *becoming*. Hence, when zooming in on specific practices, we delved deeper into these three distinct characteristics. We achieved this by performing the zooming in movement on each practice repeatedly at different points in time. In one-month intervals (after about two additional observations on average), we looked at the doings and sayings, the tools and artefacts, and the directionality, asking ourselves *what is new? what is as before?* and *how materially mediated, how shared and how routinised are the present (pre-)practices?* Hence, we first analysed the types, quantities and qualities of the material elements involved to observe notable difference across practices over time. Second, we looked at the level of 'sharedness', which we understood as collectiveness when a practice is performed. This refers to the number of different executives that are involved in the specific performance. For instance, a practice that requires only one executive to be fully mobilised, like a simple version of note-taking, has a low level of collectiveness. In comparison, a practice that requires multiple or even all executive board members, like a collective brainstorming exercise, has a high level of collectiveness. Third, we focussed on the levels of routinisation, understood as the unquestioned performance of a certain practice as a 'default' option. Fourth, we recall that the development of practices seems to involve critically evaluating one's own conduct (see Chapter 2.1.3). Hence, we paid specific attention to episodes of questioning the respective practice as an important element for development. More specifically, we looked at episodes where the executives questioned their own strategizing, both during the enactment, 'while in', and outside the enactment, 'while out'.

By repeatedly zooming in on the PubLib executive board strategy practices over time, we were able to derive four practices with three differently developed variants over time. Those variants describe different forms of how a specific practice could be mobilised. The four practices we derived are *preparing strategy work, discussing strategic topics, structuring strategy work,* and *documenting strategy work*, which we delineate in Chapter 8.4. Considering that most of the strategizing happened within the executive board, these strategy practices have a strong resemblance to meeting practices. However, this categorisation of strategy or meeting practice is of no concern here, as both types of practices are largely overlapping in our empirical case.

7.4.3. Identifying elements of uncertainty work in PubLib's strategy practice

As discussed before, during the continuous process of data analysis, the concept of uncertainty repeatedly emerged as an important element from the case. On the one hand, this was present in the interviews, where executive board members repeatedly referred to various external developments that *"are beyond our control", "will develop in an unpredictable direction",* or *"we have absolutely no control over"* (environmental dimension of uncertainty) as well as their

inability to assess the *"correct"*, *"best"*, or *"appropriate"* way to work on their own strategy (practice dimension of uncertainty). On the other hand, uncertainty emerged from multiple observations, both in its environmental dimension, but more crucially in its practice dimension, where we observed difficulties in assessing and deciding on how to move forward. Given our abductive research approach, we further considered the concept of uncertainty and probed it in regard to its explanatory power for understanding the development of PubLib's strategy practices. Over time, the engagement with uncertainty happening within strategizing proved to be a well-suited concept to make sense of the dynamics around the development of PubLib's strategy practices. Hence, we first focussed on the different uncertainties that were apparent in PubLib's executive board. We paid special attention to the various uncertainties involved in order to better identify the actual *engagement* with such uncertainties based on a solid database. In order to identify these uncertainties, we coded all major data types (interview transcripts, field notes, and archival data) for elements of uncertainty and grouped them into either of the two dimensions (environmental or practice). We discuss the uncertainties pertinent in the executive board's strategizing in Chapter 8.3.

Subsequently, we focussed on the engagement with uncertainty in the form of uncertainty work. Here, we returned to the unstructured list of strategic activities we had developed when analysing the executive board's strategy practices. In order to allow uncertainty work to emerge from the data in an orderly fashion, we repeated our steps of analysis, which we conducted during zooming in, and examined our data by looking at the objectives and directive effects that the practices had in respect to the conceptualisation of uncertainty. We asked questions like *How does this strategizing activity affect the role of uncertainty? Which concepts of uncertainty are mobilised here and how is uncertainty used in this activity? How does the present strategizing activity contribute to creating, presenting, sustaining, sharing, and/or altering uncertainty? How does this engagement with uncertainty relate to strategizing?*

Concretely, we coded these activities into 15 conceptual categories in terms of their impact on the strategy practices based on the previous questions. After a first complete coding, we asked a colleague to assign a group of randomly selected activities to the conceptual categories in order probe the sensibility of our terminology. Where her coding diverted from our original coding, we discussed the differences and changed the wording of certain labels in order to minimise ambiguous terms. In one instance, we also combined two previously distinct categories, thus reducing the number of conceptual categories to 14. In a final coding exercise, we grouped the 14 conceptual categories into five aggregate dimensions based on the effect they had on the underlying uncertainty inherent in strategizing. Importantly, these elements of uncertainty work are based on the same activities that form PubLib's strategy practices. Strategy practices and uncertainty work are two concepts that emerge from looking at the same

underlying activities with a different lens. In regard to strategy practices, we focussed on how these activities, as consistent bundles, i.e. practices, shape PubLib's moving forward, while for uncertainty work, we focussed on how these activities relate to the inherent uncertainty. We discuss the resulting data structure, consisting of our five types of uncertainty work, in Chapter 10.1.

7.4.4. Zooming out on the connections and effects of uncertainty work

After having identified and described both the temporal development of four PubLib strategizing practices and five types of uncertainty work, we turned towards the investigation of how the development of strategy practices and uncertainty work relate to each other. Considering the explanatory power of uncertainty for understanding the development of PubLib's strategy practices, we started by zooming out and relating the five uncertainty work types to each other. We looked at the dynamics between them and how one uncertainty work type may increase or decrease the likelihood of enacting another type. More specifically, we looked at what activities are likely to precede or follow another both on a micro-episodic level in one meeting and on a more macro-episodic level across various meetings happening at different times and spaces. The result was a first process model that places the five uncertainty work types in relation to each other, developed in Chapter 10.2.

7.4.5. Zooming dynamically between uncertainty work and the development of strategy practices

While zooming out on the connections of uncertainty work types, we also investigated the effects that the emerging patterns of uncertainty work had on the strategy practices and their development. Key questions for this part of our analysis were *What uncertainty types enable or disable which types of strategizing? How do different uncertainty types affect the enactment of strategy practices?* and *how does uncertainty work relate to the different variants of specific strategy practices?*

In doing so, we did not limit our investigation to either the micro-details or the macro-connections, but rather, followed the trails of uncertainty work and the development of strategy practices wherever they led us. Given that one uncertainty work type proved to be particularly relevant for the development of strategy practices, we first zoomed in deeply into the dynamics happening within this type, namely *uncertainty experimenting*, trying to reveal the core dynamics taking place within this crucial type of uncertainty work. However, in the same process we zoomed out to understand how these dynamics within uncertainty experimenting affect the development of strategy practices. This dynamic shifting in levels of zooming in and out conclude in our movement of *zooming dynamically*. This last step of analysis resulted in

three findings around the dynamics of uncertainty experimenting (displayed in Chapter 10.3) and the effects on the development of strategy practices (displayed in Chapters 10.4 and 11).

Data source	Type of data	Relevance for analysis & value for research project
Observations	*Digital field notes from executive board meetings* (14)*, reflecting group meetings* (2)*, department head meeting* (1)*, strategy project debriefing* (1)*, project management re-evaluation meeting* (1) documenting interaction patterns, direct quotes where applicable, and personal observations on strategic activities	Emerge into the field and enable a practice-based study by observing practices in practice Develop an emergent and close-to-the-case understanding around the dynamics around the strategy practices and their development over time
Interviews	*Interviews with members of the executive board* (16) with full verbatim transcripts to collect individual understandings of PubLib's current situation (both internally and externally) as well as of the different aspects of their strategy practices and to reflect upon specific observations	Develop an understanding of the organisational context and dynamics (especially in first round) and of the specific strategy practices and the role of uncertainty (in second round) Identify and probe potential topics and stories that are currently unfolding (especially in first round) Receive an in-depth understanding around the strategy practices development and uncertainty work (in second round) Increase trustworthy rapport

Data source	Type of data	Relevance for analysis & value for research project
Informal conversations	*On-site 'coffee talks' & lunches* (25)*:* conversations with all board members (individual and small groups), and several lower management levels, usually documented from memory right after the meeting, sometimes with hand-written notes during the meeting *Ad-hoc phone and video calls* (6)*:* digital notes of calls with different executives on specific events or topics, usually happening with close temporal proximity to the event or topic	Gather direct and personal insights, test, verify and falsify emerging understandings Allow for unrecorded interactions Follow-up, clarify and dive deeper into certain events and dynamics that we deemed noteworthy Increase trustworthy rapport
Archival data & strategy documents	*All documents circulated within the executive board* (1555 pages): including project documents & budgets, strategy documents, organisational documents, expert reports & academic literature, presentations & visuals, e-mails & other forms of written communication *Annual reports & external communications* (133 pages): including PubLib's annual reports and further marketing communications	Develop an understanding of the organisational context and dynamics Enable a zooming in on material aspects Triangulate own observations and interviews with minutes, agendas and the like Probing own observations and triggers for further questions and investigations

Data source	Type of data	Relevance for analysis & value for research project
Correspondence	*E-Mail communications with different board members* (individual and small group): clarifying and reflecting upon certain topics, often after a personal interview, to further discuss certain topics	Follow-up, clarify and dive deeper into certain events and dynamics that we deemed noteworthy Increase trustworthy rapport

Table 6: Summarising data sources and analysis

7.5. Assessing the 'quality' of data and analysis

How to assess the quality of such a qualitative single-case study is a widely contested and discussed question (see for example Birkinshaw, Brannen, & Tung, 2011; Cornelissen, 2017; Gephart, 2004; Klag & Langley, 2013; Pratt, 2009). However, most authors agree that "the explanatory potential of qualitative research should be harnessed rather than suppressed" (Cornelissen, 2017, p. 368) by avoiding pushing traditional quality measures of quantitative research onto such data and analysis. According to Stengers (1997), *good* research is about creating interim propositions that "make us more capable of appreciating differences that matter [and] that we can make new and enlightening connections between things of the world" (Nicolini, 2012a, p. 215f). In order to do so, overly relying on existing templates for qualitative data collection and analysis is likely to result in unsatisfying results, as qualitative work "will require scholars to go beyond mechanical replication by a creative development and re-combination of extant designs" (Lê & Schmid, 2019, p. 24). The toolbox approach of zooming in and out clearly supports this, as Nicolini (2012b) invites us to "appropriate the toolkit, and adopt and adapt it, and possibly betray it, in an attempt to produce convincing, coherent representations of a world of practices" (p.240f). However, the quality of interpretive designs, like our practice-based study, should not be ignored in an 'everything goes' fashion and is commonly assessed by trustworthiness and credibility (Lê & Schmid, 2019). Trying to increase both our trustworthiness and credibility requires more than mere ex post reports of numerically quantifiable validity or reliability measures. Rather, trustworthiness and credibility are achieved from the beginning of the research project and enhanced through various measures during the ongoing data collection and analysis. Against this background, "one should be very clear about one's 'position in the field': The relationship between the researcher and the researched" (Pratt, 2009, p. 859). Hence, "what are needed are not formulaic approaches to enhancing either validity or trustworthiness but understanding of and respect for the issues that underlie those

terms. We must grapple with them, doing our best to increase our ways of knowing and of avoiding ignorance, realizing that our efforts are quite small in the larger scale of things" (Seidman, 2013, p. 26). Consequently, "part of doing ethnography is gaining rich experiences over an extended period of time. This can and should change how you view the data you collect" (Pratt, 2009, p. 859). We tried to ensure that our research is a trustworthy and credible report primarily based on three measures: interim presentations, a trustworthy rapport, and consistent transparency throughout our research project.

7.5.1. The importance of interim presentations

One crucial element to critically evaluate and potentially increase the appropriateness of our data analysis and our understanding of the case involves several reflection workshops. As part of the research collaboration, we as researchers presented our preliminary findings and the dynamics we observed in an academically enriched fashion. Hence, we not only presented *what* we saw and heard but also contextualised it with different academic perspectives. Following such interim presentations, we engaged in an open discussion with the executives, during which they asked questions and provided their thoughts on our preliminary insights. Often, our input only served as an initiating spark that quickly led to a collective discussion in which we were also involved. When, for example, we presented a preliminary analysis based on the concept of habitus (Bourdieu, 1977, 1990; Gomez, 2015), the executive board quickly went beyond our presentation and discussed the appropriateness and productivity of these different elements. We as researchers, despite sitting in the presenter's seat, returned to our notepad and tried to document the core statements from the discussion. Hence, such instances blurred the boundaries between preliminary data presentation and continuous data collection. Those instances of interim presentations were crucial for us to validate or dismiss certain ideas on how to frame this empirical case in a way that does justice to the understanding of the key actors involved. As Nicolini (2012b) puts it "learning requires engaging with the world, embarking on an inquiry which entails intervening in the world and giving it a chance of biting back at us, our presuppositions, and our inquiry tools" (p.216). Multiple times, we gave the field a chance to bite back at us and the varying levels of biting back provided us with important indications regarding whether our understanding was plausible or not.

7.5.2. Creating a trustworthy rapport

Another fundamental element of working towards a trustworthy and credible report of the dynamics at PubLib was a trustworthy rapport with the executives.

Here, the perception of us as researchers changed significantly over time, as several executive quotes from later interviews and informal exchanges indicate:

"We sent you out of the room at the first encounter, right? When we discussed whether we want to engage in this research collaboration – Yes, we did, makes sense… In politics, we would probably say that you started as a minority government. There were several critical opinions about this, ranging from 'why would we do that; he only wants to finance his PhD', to 'how will such a young person help us? He has virtually no experience'".

"We were very sceptical in the beginning, I personally too, to be honest. I did not see the value in this. For me personally, it changed with the first round of interviews. The questions you asked were often very good… thought provoking, making me look at things from a different angle… That helped me."

"I felt that the dynamics changed after your first presentation in the executive board. All of a sudden we started to reference certain observations you provided in our discussions and from that point, in my opinion, everybody was on-board and convinced that your research provides value for us."

Given that the executives saw an increasing value in the observations, interviews and the ongoing academic analysis, they were increasingly willing to share dynamics and personal interpretation proactively and more openly. At later stages of the research project, we received e-mails from executives that either further elaborated a statement from an interview or that proactively shared their experiences in various meetings. Given this very candid and proactive relationship, it was a crucial task for us to assure that no statement, meant as a trustful exchange, can be traced back to a specific person. Given the complex and multiple interactions, this involved the challenging task of constantly differentiating between 'executive board public knowledge', which we could discuss with other executives, and confidential information, which was meant as exclusive information for us as researchers. Overall, we had the feeling that all executives involved had high levels of intrinsic motivation to ensure that we, as researchers, understood what was happening around PubLib's development of strategy practices. This supported our data collection, analysis and the credibility of our accounts.

7.5.3. The role of the researcher

Overall, given our constructivist research paradigm, which we discussed above, we see ourselves as researchers who serve as co-creators of a continuously evolving social world. Hence, rather than trying to reduce our impact on the field, we need to be aware of the influences and effects we might have on the field we are trying to study. Consider the following example from one concrete ethnographic episode. After having observed multiple executive board meetings, one executive invited us to observe a meeting of the team leaders in her department.

As we were new to this specific setting, it became apparent that our presence made a difference. The executive board member chairing the meeting started with

> *"Okay, welcome everybody. As always, let us have a quick look at the agenda […] It differs quite a bit from the one we use in executive board meetings. It has the advantage of being […]."*

It is obvious that the comparison to the agenda for board meetings was intended as an explanation to us sitting silently in the back of the room, in order for us to understand why they were using this type of agenda (in contrast to the one already known from the executive board meetings). Hence, as Bansal and Corley (2011) rightfully noted "one of the key philosophical differences between most qualitative research and quantitative research is acknowledging the role the researcher played in the research outcomes" (p. 236). Consequently, we subscribe to Seidman's (2013) argument that the human researcher is a powerful instrument: "rather than decrying the fact that the instrument used to gather data affects this process, we say the human interviewer can be a marvellously smart, adaptable, flexible, instrument who can respond to situations with skill, tact, and understanding" (Seidman, 2013, p. 23). The special role of being the *instrument* is particularly present in our concrete empirical case. Initially, the new directorate triggered the research partnership because they anticipated the need for a conscious reflection on their strategy practices. At times, finding the balance between the more neutral researcher and the more involved participants, which manifested itself in the balance between passive and active observations, for instance, was a challenging task. The executive board repeatedly challenged our role as an 'outside' researcher by trying to involve us in their discussions. Over time, executives mobilised the results of our interim presentations during their discussions – thus making our preliminary feedback an element of further observations. When reporting quantitative data, authors often try to remove the researcher from the data, as if the data had a full identity detached from the researcher who collected it. We can further observe this in the usage of the common third person narrative in quantitative research, where 'the data' tells something. In contrast, in qualitative research we tend to accept the inherent connection between the data and the researcher. Hence, "the researchers' role in the research and their voice must be visible in their manuscripts" (Bansal & Corley, 2011, p. 236). In sum, it is illusionary to assume that the fact that there is a researcher involved makes no difference. It is a matter of good (qualitative) research to report how this presence may have affected the overall data generation and analysis, which we have done in the previous chapters.

8. Data Presentation

The following data presentation includes four subchapters whose logic follows the flow of the data analysis presented in Chapter 7.4. Hence, we begin by presenting the executive board in its context of the strategists involved and the further formats around it (Chapter 8.1) and subsequently provide a timeline of the key events around PubLib's strategy process FFD (Chapter 8.2). We subsequently present the result of zooming in on the four PubLib executive board strategy practices as the unit of analysis (Chapter 8.4) and, finally, present the elements of uncertainty (environmental and practice dimension) pertinent in the executive boards strategizing (Chapter 8.3).

8.1. Contextualising the executive board in PubLib's strategy landscape

Given the unit of analysis of this dissertation, the strategy practices of PubLib's executive board, we require a solid and detailed understanding of the executive board as such. In the following, we describe the board, its way of working, its members and the most important formats that it interact with.

The executive board formally meets every two weeks on a fixed date and time slot of three to four hours including a 15- to 20-minute break. The meeting usually takes place in the same room. Figure 9 displays the general room-set up of the board meetings including our position in the room. The set-up contains a centrally located large touchscreen for presentations and a U-shaped table arrangement around it, with the chairman, usually one of the directors, moderating the meetings, sitting almost centrally at the head of the U. Initially, throughout 2018, all other members sat at the same seats during every meeting. Towards the end of our observations, executives explicitly changed seats from time to time to *"mix things up a little bit"* (interview quote).
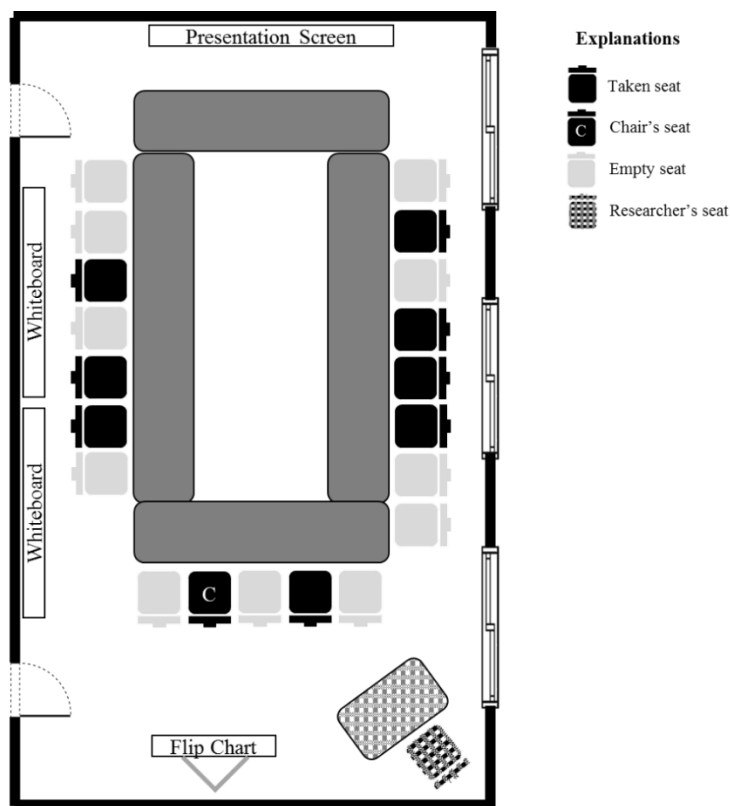
Figure 9: Set-up of executive board meeting room[19]

All meetings have a clear agenda including the relevant documents distributed prior to the meeting. In addition, there are usually detailed notes and final minutes, which are distributed across the higher hierarchical levels within PubLib upon approval by the executive board. In addition to their regular board meetings, the executive board conducts a one-day off-site once a year. Traditionally, they visited other libraries for exchanging ideas and best practices. However, the board off-site in 2018 took place at a large corporate think tank that develops scenarios for the long-term future. The executive board hoped to gain methodological inspiration on how to address the inherently uncertain future more productively. Overall, the regular discussions of the executive board created impact within the organisation through

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[19] Please note that due to construction work, the original meeting room was not accessible at a certain point. The temporary meeting room had a very similar layout with only minor deviations.

initiating further workgroups, further research or triggering activities in lower hierarchical levels. In addition, the executive board had a significant self-referential element where agenda items discussed in one meeting often return in a later meeting.

PubLib's executive board originally consisted of seven members: the two directors, the three head librarians, the head of PR, the head of IT, and the academic associate. This constellation changed at the beginning of 2019, as the head of PR was no longer present in the executive board, but the head of HR and the head of innovation joined the board. Regularly, depending on the specific agenda, PubLib-internal guests joined the board meetings for specific items on the agenda. For instance, whenever the board discussed the general budget, the head accountant joined the meeting to present the subject and answer specific questions. Besides the executive board as such, the executives interacted with each other in two additional key formats with varying constellations, namely bilateral meetings and the reflecting round. Figure 10 displays the executive board, its members, the adjacent positions and the three key formats. We will briefly describe both the five different roles and the three key formats below.
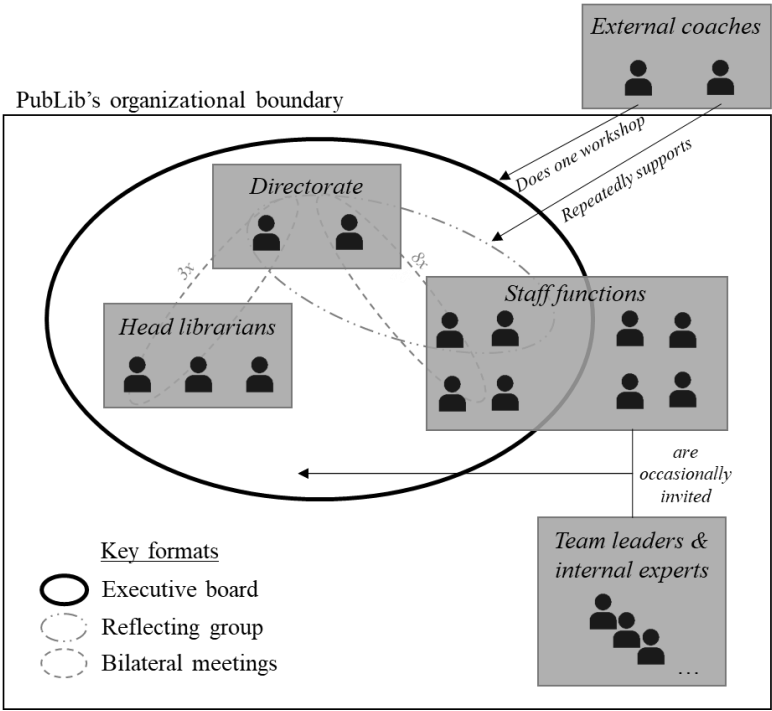
Figure 10: The executive board embedded in the PubLib structure

8.1.1. Strategists in and around the executive board

Directorate

The two PubLib directors are, according to the hierarchical structure of the organisation, the actors with the highest level of power. They usually chair the board meetings and are the direct superiors of all other department heads at PubLib.[20] They have a combined organisational tenure of 25 years and both had positions in other libraries or administrations within the education field before joining PubLib.

Given their positions, they regularly also represent PubLib's interest to other players in the field, often in associations or multi-partner projects. In addition, they fulfil two major roles. First, they oversee all library divisions that form the building blocks of PubLib's core value creation. Second, they are responsible for maintaining all major administrative support functions such as facility management, IT, finance, and HR.

Head librarians

The three head librarians, responsible for stock development, usage, and special collections / digitalisation, oversee all major librarian operations. Taken together, they have worked at PubLib for 39 years and occupied lower hierarchical positions within their own department before their promotion to the head librarian position. In line with a common librarian career path, they completed additional librarian trainings over the course of their career, after having completed studies in different subjects such as music, history, arts history and biology. They have gained experience from previous positions in other renowned libraries, a publishing house, and the restoration field, thus in areas that all directly link to PubLib's value creation.

Staff functions

PubLib's members of staff comprise of a variety of expertise and functions that support the overall organisation, including IT, HR, and PR. Overall, they have a combined organisational tenure of 14 years and filled previous positions in different university networks as well as the private economy. The head of HR, as the exception in the executive board, has no background in libraries or the educational sector, as noted in an interview:

> *"Yes, not only is she relatively new to PubLib but also completely new to our field. When you look through our board, we all have a lot, sometimes decades, of*

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[20] Please refer back to Figure 8 on page 60 for PubLib's detailed organigram

experience in libraries or related institutions. This new perspective is rare, but obviously could be very enriching."

In addition, the head of innovation and the academic associate closely cooperate with the directorate on various topics. Among other things, they oversee the project landscape by functioning as a project office, they started to set up an innovation department, and they are responsible for all meeting preparations for the executive board, including agenda compilation, minute taking and document preparation. Both have a background in the social sciences related to literature, history, and culture, and filled previous positions within different universities and libraries. Together, they have worked for PubLic for more than 8 years.

Team leaders & internal experts

In addition, there are several different team leaders and internal experts within the different PubLib departments. In terms of strategic activities, they are primarily involved in informal discussions with their superiors and peers in the middle management symposium, a meeting format we briefly present below, and as frequent guests in the executive board. For example, when discussing their strategy for people development and internal trainings, the executive board invited an early test user of a new digital learning solution to provide feedback on her experiences. Finally, this group had a more implicit role as a frequent reference point for justification in discussion at the executive level. Quite frequently, we observed statements like

"I will be the one who has to explain that to my team"

"[Person X] and [Person Y] in my department should be involved before we decide anything. They are working on a similar topic."

"But how do we communicate that to the middle management? We have to be careful how to phrase that."

External coaches

Finally, there is one important external group of strategy actors: two external strategy coaches. The first strategy coach joined PubLib in mid-2018 as a consultant in three reflecting round meetings. Given the primary task of the reflecting round of preparing the executive board's FFD workshops, she provided hands-on support on how to structure such a strategy process methodologically. She introduced a variety of different templates and methods to conduct a workshop. Jointly with the reflecting round, she developed a 9-month timeline laying out the different steps and meetings that a) the reflecting round has to prepare and b) the executive

board has to do working through their FFD strategy program. She further facilitated a flipchart-based competitor analysis and introduced the megatrends that served as an important element for the strategy work in the executive board.

In addition, the entire executive board participated in one half-day off-site workshop with a different duo of external coaches. The clear goal of this workshop was to evaluate whether the executive board wanted to finalise the FFD process with that team or not. In the workshop, the two coaches applied several methods, known from systemic coaching approaches, such as an appreciative inquiry. Overall, the decision was to not continue with that team of coaches, as the majority of executives were rather critical of the workshop because they disliked the lack of focus on their actual strategy work and an overly strong emphasis on interpersonal dynamics.

8.1.2. Further formats around the executive board

Reflecting round

The reflecting round is a newly established group that was first introduced in the first half of 2018 and which was originally initiated by the directorate as a

> *"space for small group discussions on different matters and a preparatory group, trying to facilitate the strategic discussions within the executive board".*

This group consists of the directorate, the head of innovation, and the academic associate. Until October 2018, the former head of innovation participated in the reflecting round before she left PubLib at the beginning of 2019. The reflecting round repeatedly prepared board meetings in which strategic discussions were on the agenda, especially in the FFD process. They prepared certain methodological frames, curated contents, and 'dry ran' certain discussions. As mentioned above, the reflecting round was subject to significant scepticism and criticism from the executive board. The board members described it as a

> *"shadow executive board where the real deal happens"*

> *"[group] that pre-chews our food, which we may then swallow"*

> *"a complete black-box. We have no clue what they do in there, what they discuss. They come up with a process and with quite some knowledge advantage. It is apparent from the way they present the tasks that they have discussed the content before, so we as the executive board do not start with a blank sheet. They had some thoughts before. At times, it is difficult to find our spot in there then."*

Overall, the reflecting round primarily created impact towards the executive board, as their work directly framed and structured the board's discussion on the FFD process and other strategic discussions.

Bilateral meetings

Bilateral meetings are used for regular updates between the department heads and all staff functions individually with the directorate. These exchanges usually happened on a monthly basis, sometimes more frequently, when the operational day-to-day work requires it. When, for example, a larger construction work project required significant moves to a temporary location, the head of facility met the directorate more often. In these bilateral meetings, the respective department head and the directorate update each other on the specific operational topics and often work on more departmental strategies. These departmental strategies include topics like an IT sourcing strategy, where the directorate asks for specific strategic preparations that influence the respective department. The exchanges between the directorate and the respective department head vary in duration and in level of formality or reporting, ranging from formal minutes to less formal quick e-mail summaries. Often, the topics of these meetings are subsequently also presented or discussed in the executive board meeting. Hence, this praxis is another important preparatory meeting that feeds into the executive board. Sometimes, the topic overlaps between the two formats are evaluated negatively:

> *"Sometimes I discuss something with the directorate and in my opinion have discussed everything – time to get going so to say. But then I also present to the executive board and they can also provide their input, although everything has been said. And then you get another four or five opinions on it."*

Further formats

In addition to the four formats presented above, four more meeting structures are relevant for understanding PubLib's strategy practices in their specific context.

First, the trilateral meeting among the head librarians takes place in a rather informal setting over coffee. It was also established in 2018, shortly after the first meetings of the reflecting round. The meeting was scheduled for every two weeks, but timing was handled flexibly and adjusted to the availabilities of the three participants. The primary goal of these trilateral meetings was to align informally and quickly on operational topics that transcend the boundaries of the three library departments. However, several executives also understood this format as an implicit counter-weight to the reflecting round. As the discussions were only informally documented and this format had limited formal authority, it created only minor

impact on the overall strategy, although the potential alliance building and a priori alignments may have impacted some of the discussions that we observed in the executive board.

Second, projects and project management are an important formal vehicle at PubLib; however, their role and productivity are repeatedly under scrutiny. A few years ago, PubLib introduced the project management system Hermes, which provides ample templates and structures on how to manage projects in different phases as well as how to continuously monitor and report a project's progress. Some board members refer to their project management as "form filling" and indicate that having such a complex project management system "only eats up time", while others appreciate the opportunity to have a well-structured overview of the various different projects happening at PubLib. As of February 2018, PubLib operates 63 formally distinct projects. All projects are discussed twice a year in one board meeting during which every project team prepares a project status report template. To exemplify one concrete template of Hermes and to provide an overview of how a project is conducted, Appendix 16.2 displays the intended project procedure.

Third, the middle management symposium is a formal meeting of all PubLib middle managers. In the past, the meeting was involved in an earlier strategy program, called PubLib2020, but once this process was completed, the middle management symposium lacked a clear purpose and was criticized for that. Currently, there are ambitions to revitalise this format with a different, yet to be found, purpose.

Fourth, we observe informal discussions and alignments that happen within but also across different departments and across different hierarchical levels. On the executive board level, we perceived the coffee breaks between the formal meetings as a productive place which executives use to discuss work-related topics that usually do not get on the agenda.

8.2. Timeline of PubLib's strategy process 'focussed future direction'

As discussed previously, the FFD process is the current strategy program at PubLib. Figure 11 provides a graphical overview of the five events in the FFD process and the three key formats discussed above. The strategy work at PubLib was an ongoing process prior to our research project and defining any 'starting point' is an analytical step rather than a realistic picture. Hence, we will briefly describe the antecedents and strategy elements before 2018, prior to the beginning of our data collection, and then turn towards the five key strategy events, which are displayed as a timeline in the upper part of Figure 11.
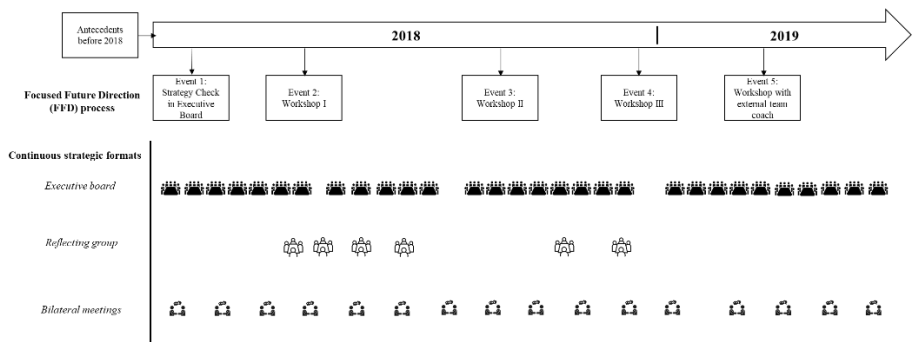
Figure 11: PubLib's strategy timeline and continuous formats

Strategy antecedents before 2018

PubLib's second last official strategy paper dates back to 2008. Entitled 'the PubLib opens up', this strategy text focussed on increasing PubLib's visibility to a larger public and an emphasis on digital access options to offer constant access to PubLib's various materials, independent of time and place.

In November 2016, PubLib published their last strategy paper 'PubLib 2020', which comprised 23 goals under five different categories: 1) PubLib as a university library, 2) PubLib as a regional and city library, 3) PubLib in leadership role as an academic library – nationally and regionally, 4) making a mark and increasing visibility, and 5) using and enhancing potentials. Appendix 16.3 displays all 23 goals across these five categories.

Prior to these 23 goals, published in the PubLib 2020 brochure, there was a participative 12-month process including various formats where internal and external stakeholders were invited to contribute to the strategy development. These formats involved interviews with members of the library commission, a large impulse workshop with more than 60 participants from various stakeholder groups, and an executive board retreat. Although the process was completed before our research project started, PubLib 2020 was still an important element when engaging with PubLib's strategy. Different executives regularly referred to it as

"The PubLib strategy that we now have"

"Our status quo strategy until 2020"

"The playing field we can work with for the next years"

which emphasises the understanding of PubLib 2020 as the basis for future strategizing. When engaging with both their future orientation and their own strategy practices, the executive board started with the PubLib 2020 goals in the form of a strategy check, as described in Event 1.

Event 1: Strategy Check in Executive Board

In February 2018, the executive board engaged in a strategy check during one of their regular meetings. They tried to develop a prioritisation among the 23 goals from PubLib 2020. These to-be prioritised goals were meant to serve as a focus point for the years 2019 and 2020. As a preparatory step, the 23 goals of PubLib 2020 were compared to the existing project landscape in order to distinguish those goals that were already sufficiently covered by existing projects from those that still required more dedicated engagement. As a result, the executive board identified six goals that required further focus in the coming years[21]:

7.	Collecting and communicating the local artefacts
9.	National leadership role
14.	Acquisition profile
15.	Expanding electronic version of local artefacts
20.	Service quality and process optimisation
22.	Innovation culture

Three out of the six goals could clearly be allocated to individual departments, whereas goals *9. National leadership role, 20. Service quality and process optimisation,* and *22. Innovation culture* were identified as more trans-departmental. The executive board agreed to elaborate these three goals further in the form of a strategic focus for the coming years.

Event 2: Workshop I

In May 2018, the executive board focussed on goal *9. National leadership role* and used it as an anchor for a fundamental discussion evaluating those areas that PubLib wants to strengthen when developing their future. The reflecting round prepared this workshop. Overall, they proposed a three-step approach to develop the Focused Future Direction.

1. Presentation of possible focus areas in order to prioritise them following a discussion in the executive board, which was supposed to take place at this first workshop (Event 2)

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[21] Numbering refers to the original number in the PubLib 2020 strategy goals

2. Selection of focus areas for the future direction, environmental analysis, and decision on the future direction within the executive board, supposed to be achieved by October 2018

3. Development of a roadmap for long term planning, showing how PubLib wants to achieve this positioning, supposed to be achieved by December 2018

During the workshop, the executive board discussed seven potential roles that PubLib could focus on. These seven roles formed the potential basis for their national leadership role.

1. PubLib as a large access library, 'mass rather than class'

2. PubLib as a clearing house for meta data, 'class rather than mass'

3. PubLib as a cultural institution and stock-oriented research library

4. PubLib as a public library

5. PubLib as a university library: services for the daily needs of students and support for teaching

6. PubLib as a university library: research support for university-based research

7. PubLib does everything

They evaluated each of the seven roles based on the respective client needs, the core competencies, and the focus. A conclusive ten-page document summarised the results.

Event 3: Workshop II

During the second workshop, which took place in September 2018, the executive board started with collecting their perceptions on PubLib's current strengths and weaknesses and grouped them into different higher-level categories. In a second step, they discussed several external social, technological, economic, and political trends. They discussed these trends based on their potential opportunities and threats for PubLib and clustered them according to their potential impact and immediacy, with the goal of prioritising certain trends over others. At the end, the executives tried to combine both the internal strength and weaknesses with the external threats and opportunities. In order to provide first-hand data that illustrates the outcomes from this executive board meeting, Figure 12 displays exemplary visuals that were created during the workshop.
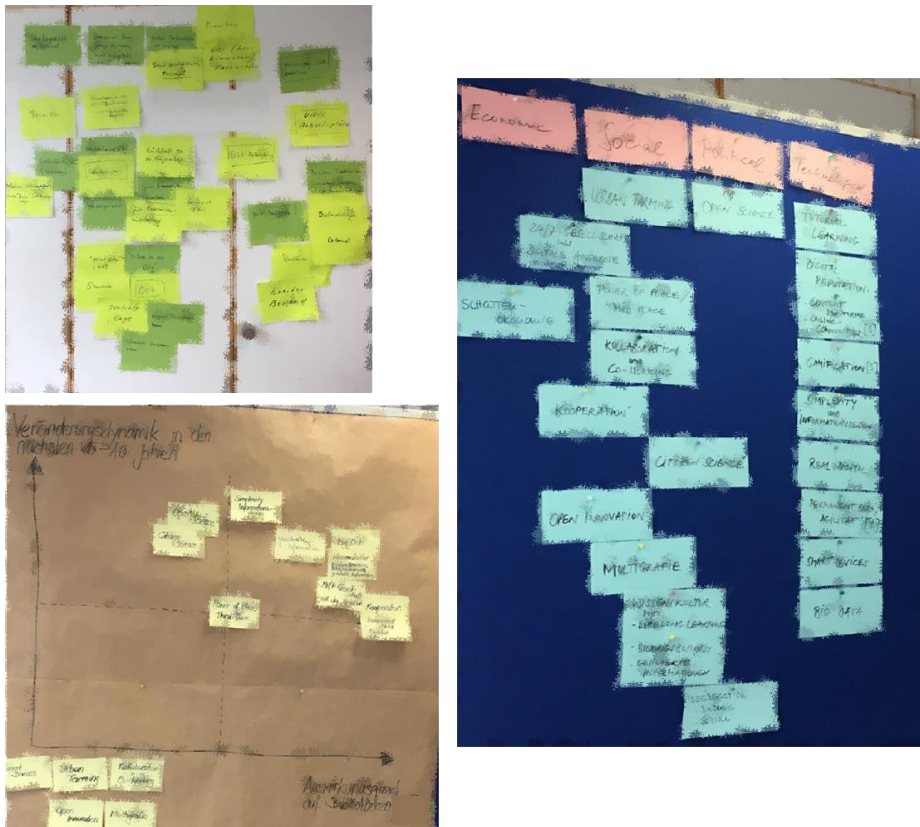
Figure 12: Exemplary visuals from Event 3: Workshop II of FFD process (partly blurred for confidentiality)

Event 4: Workshop III

In November 2018, the executive board embarked on their supposedly last workshop within the FFD strategy program. In this workshop, they wanted to finalise and agree upon three designated roles which the reflecting round had further elaborated in the meantime. By integrating and combining core elements of the seven roles developed in the first workshop (Event 2 as described above), the reflecting round proposed three consolidated roles to the executive board. These three roles were to serve as the future core foci for PubLib:

1. PubLib as a public place for culture and education

2. PubLib as a research supporter

3.   PubLib as a university library: library services for students and teaching

In addition, the executive board wanted to develop a concrete implementation plan for the designated focus roles by understanding where they were already strong and where they required further investments. As an additional preparation for this workshop, the reflecting round prepared a table in which they matched the three roles and several external trends (identified in the second workshop, Event 3 as described above) to derive the most pertinent courses of action.

Overall, the executives expressed high levels of frustration with this last workshop and the FFD process more generally, as the following quotes from interviews, informal discussions, and the meeting itself exemplify:

> *"They are constantly changing the goal. At one point it is about the long-term orientation, and then about the arrangements until 2020. I am confused."*

> *"It's like we're going for a hike, and we're changing both the map and the target location all the time, like 'ohh this is a nice bench, let's sit down here and then we see where it takes us next'"*

> *"This entire exercise has no value. Now, it is just about getting through with it."*

This criticism also repeatedly targeted the work of the reflecting round as a

> *"shadow executive board"* where

> *"We [the executive board] have absolutely no clue what the reflecting round does; it is one big black box."* and

> *"The executive board does not have to think for itself. They think for us".*

Given this criticism, we observed the executives' ambition to discuss not only the strategy content but also their strategy practices. They raised concerns about the timing, the time horizon, the level of analysis and the tasks that the executive board should fulfil.

This last workshop closed with an atmosphere of disappointment in the room but with the consensus that the executive board should jointly reflect upon how to proceed with the process. This joint reflection followed in another executive board meeting a few weeks later where the board discussed the following issues:

- Role conflict of members of the reflecting round and the desire to use an external coach to guide the further process

- Preparatory work of the reflecting round went too far at times

- Executive board composition and team dynamics within the relatively new team constellation

- Goal of the strategy process

- Desire to include the status quo in the form of 'where do we stand' more strongly

- Further work on the megatrends in the specific context of libraries

As a conclusion, the executive board decided that, despite the limited available time due to various other ongoing and time-intensive initiatives, they wanted to develop the next steps of the FFD together as a cooperative group.

Event 5: Workshop with external team coaches

In the aftermath of event four, the reflecting round probed several options to receive support from an external strategy coach. In April 2019, the executive board jointly participated in a half-day off-site workshop with two external coaches to test whether and how this team of external coaches could facilitate the next and final steps of FFD. The rather systemic approach focussed on the interpersonal dynamics within the team instead of the strategic contents or practices. This received critical feedback within the executive board and during an internal feedback session, the executive board therefore decided to not continue their work with this coaching duo.

The aftermath of our research project in the FFD

After the workshop with the external team coaches (Event 5), the executive board re-evaluated their next steps in several board meetings. At this point, our formal data collection, which eventually formed the basis for this dissertation, ended. However, we were further involved in the process, partly also as facilitators of certain discussions. In a two-day workshop after our data collection, which we also facilitated in a more active role, the executive board further worked on their three main focus areas (*PubLib as a public place for culture and education, PubLib as a research supporter, PubLib as a university library: library services for students and teaching*) and developed one specific project for each of the three focus areas. The three projects were intended to "fill the focus areas with life" (Interview quote). All three projects were then integrated into PubLib's project planning with a high priority and are currently in the development and execution phase.

8.3. Elements of uncertainty in the executive board strategizing

When working on their strategy, the executive board operated in the context of various uncertainties. As these are the core object of uncertainty work, we require a detailed understanding of what these uncertainties are. Following the arguments made in the theoretical foundations of this dissertation (see Chapter 2.2), we will present the uncertainties along their environmental and their practice dimension.

8.3.1. Environmental dimension of uncertainty

The strategy work at PubLib took place in the context of various external developments that all related to the environmental dimension of uncertainty. More specifically, developments within the social, technological, economic, and political environment influence PubLib's value creation, competitive positioning and resource endowments or are likely to do so in the near future. PubLib executives discussed these in different ways and formats. Figure 13 displays current megatrends that the reflecting round had mobilised in preparing some of the FFD workshops. Several PubLib executives worked with this map and selected core trends based on the PubLib-specific relevance (coloured circles on certain trends).
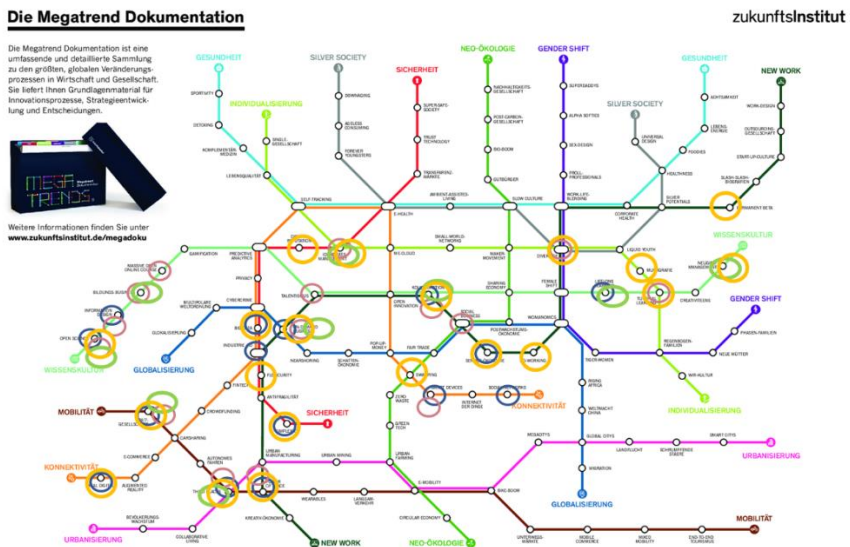
Figure 13: The megatrend documentation used at PubLib, provided by zukunftsinstitut
(https://www.zukunftsinstitut.de/artikel/megatrend-dokumentation/)

Over the course of their strategy work, the executives narrowed them down to six trends that they considered as most impactful for PubLib: 24/7 society & on-demand society, simplexity & information design, permanent beta & agility, knowledge culture, big data, and power of place. In order to provide a brief overview of how PubLib executives understood these megatrends and the environmental dimension of uncertainty in their strategic macro environment, we will briefly describe each trend separately[22]:

24/7 society & on-demand society

The standardised 9-to-5 life model of the industrial era, with fixed regulations of business hours and a clear separation between work and free time, is decreasing and gives room for more flexible and mobile lifestyles. As a consequence, people have higher expectations for around-the-clock availability of services. Overall, people are increasingly used to having constant (both in time and in space) access to information, goods, and services. This requires organisations to react ever more quickly and flexibly to client demands. This in turn requires close-to real-time supply chains. Next day delivery was yesterday – same day delivery is today.

Simplexity & information design

The growth of information is unimaginable. Hence, instruments that can handle such amounts and visualise sensible connections across the vast amount of data are increasingly important. Information, more than ever before, is graphically visualised, prepared and designed in order to allow for an easier and more attractive approach to masses of data.

In this context, simplexity refers to the simple and intuitive usage of complex systems and products. The increasing demand for simplexity, meaning the desire for straightforward, easy-to-grasp usage of technically complex devices, should not be understood as a sign of being overwhelmed or scepticism towards new technology. Instead, it reflects the widespread desire of a truly intelligent design of the human-machine interface.

Permanent beta & agility

The term 'beta' originally describes a not-yet fully finalised software version. When transferring this term to today's business environment, it describes the increasingly present phenomenon that processes, projects, and products as well as the individual career path and employment status are all subject to continuous change, different stages of development and

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[22] Please note that the following descriptions are intended to resemble the actual wordings that PubLib executives used in order to provide their understanding as well as possible. Hence, these paragraphs are closely linked to the original descriptions (in German) of those megatrends provided by Zukunftsinstitut (Megatrend-Dokumentation | Publisher: Zukunftsinstitut | September 2018). The original descriptions in German are available here https://www.zukunftsinstitut.de/artikel/mtglossar/.

adjustment modes. This process never finds an end, hence permanent beta. As a consequence, organisations need to be ever more agile in their conduct.

Knowledge culture

The megatrend ‚knowledge culture' is undisputedly part of today's society. Especially in connection with the megatrend 'connectivity', it changes our view on knowledge across the world and the ways in which we interact with information. In decentralised structures, we generate enormous amounts of knowledge and we observe new forms of innovation and collaborative research. Thus, knowledge loses its elite character and increasingly becomes a commodity; the global level of education has never been higher. More complex and unforeseeable job requirements and new, collaborative forms of knowledge appropriation require a shift in focus: towards lifelong learning and towards the continuous teaching of methods and soft skills.

Big data

Big data describes the collection, management, and analysis of large, and complex sets of computer-generated data, which can be individualised, personal as well as public or geo-stationary data. For its storage, analysis, and processing, we require new technological tools. Generally, big data is seen as a potential source of new value creation across many industries.

Power of place

Despite a globalised world, certain specific local places will imprint our daily conduct, our work life and our way of living. Places as a guidance for orientation in a complex and connected world will not decrease in importance but actually become more central. They possess a very specific and implicit impact, the power that can steer our behaviour.

In addition to these megatrends, PubLib executives also developed a more local and PubLib-specific mind map of uncertainty sources and trends that are likely to affect them in the future. They all contribute to imprecisions in estimates of future consequences conditional on present action, as the mind-map in Figure 14 shows.
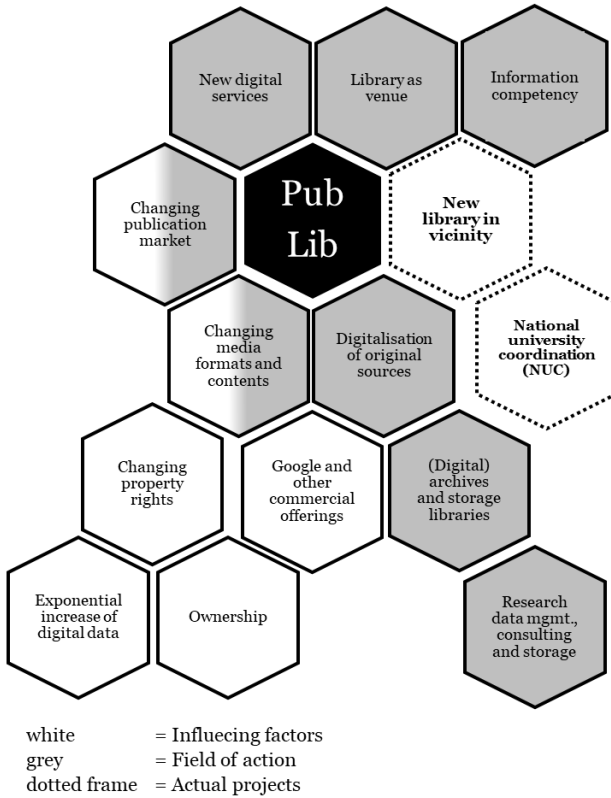
Figure 14: PubLib's mind map of important influencing factors and fields of action (draft version circulated internally), translated from German by the author.

To provide a complete overview of this environmental dimension of uncertainty that directly influenced PubLib's strategizing, we briefly present a summary of the nine short explanatory texts that are attached to this mind map in the PubLib internal document.[23]

New library in vicinity

A large university in PubLib's vicinity plans to centralise all their formerly separate institute libraries in one central library that is responsible for all library-based services for the university. Given that many of PubLib's student users are enrolled at this university, the establishment of

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[23] Again, in order to 'let the data speak' as much as possible, we have prioritised a close relation to the original German text over a fine translation to the English language.

a new central university library is likely to affect their user base significantly. At present, the organisational relation between PubLib and the new central university library is still open. However, it is in their statutes as two public libraries that both serve as university libraries to collaborate in a coordinated fashion. Still, the questions remain of how and where the two libraries can concretely live up to their statutes.

National university coordination (NUC)

PubLib functions as one of the shareholders in the nation-wide project NUC. Through NUC, most routine library tasks, such as indexing and licensing, will be organised and, to a large extent, also conducted centrally. Therefore, PubLib expects that the migration of data as well as the shift to new workflows will require a large PubLib-internal preparatory and training effort. Nevertheless, PubLib has not decided how to handle this project internally. Especially questions around a) how strongly PubLib will participate in national work groups and b) whether NUC requires a formal internal change project are under continuous discussion.

The library as a place

It is likely that new digital forms of working will significantly increase within the humanities and social sciences in the near future. Scientific libraries, like PubLib, are predestined to function as laboratories of these disciplines. This may involve offering appropriate rooms, tools (cultural labs) and community-oriented maker spaces.

New digital services

Libraries should draw from the opportunities of digital media and the global internet by permanently integrating them into their service portfolio and their service organisation.

Information competency

Competencies around media and information are key qualifications for studying, doing research, and performing in jobs more generally as well as the overall participation in our society. Libraries do not only provide digital information and tools but also systematic consulting services for human multipliers and individuals. Those offerings should be increasingly aligned with the digital university strategies in teaching and research.

Changing publication market

The provision of information is among the core tasks of libraries. In the academic field, we expect a significant increase in electronic media, where acquisition and licensing models will diversify as part of the open access transformation. Traditional collection management, compared to evidence-based and user-oriented ways of acquisition, will decrease in importance.

Digitalisation of original sources

Permanently providing (online) access to handwritten, printed, and text- or non-text based knowledge objects still requires significant effort. Commercial models to digitalise such cultural heritage only work in parts (see Google) and do not guarantee comprehensive and reliable access.

(Digital) archives and storage libraries

Similar to printed materials, we also require stable and sustainably available infrastructures for the long-term archiving of digital materials (audio, pictures, books, texts, videos, web contents, and the like). For printed materials, PubLib participates in a national project. In the field of digital archiving, they have decided to cooperate with another library and employ a standardised product for managing digital content. For the field of exclusively digital materials (digital born), they are in the process of clarifying a first idea for a collection concept as well as the underlying infrastructure. For licensed products, PubLib aspires to search for national solutions.

Research data management, consulting and storage

Measures to allow a subsequent usage and archiving of research data (in order to provide transparency of research) are an important aspect of research projects across all disciplines and still offer improvement potential. The required infrastructures and consulting services are under construction on a local, national, and international level. This construction process is characterised by cooperative and discipline-oriented implementation measures. PubLib is participating significantly at a Data Management Center of a specific university, which is currently being developed.

In sum, these developments, both as distinct trends but also in their multifaceted and complex interrelations, contribute to the environmental dimension of uncertainty within PubLib's strategizing. While there are many different global and more local trends on the horizon, how they all will eventually unfold and develop remains unknown. Given the sheer number and magnitude of these developments, PubLib's executive board aspires to address their organisational future productively and develop a way forward that ensures continuous value creation and resource allocation via public funds.

8.3.2. Practice dimension of uncertainty

Whilst doing so, the executive board is also encountering the practice dimension of uncertainty. PubLib's executive board members express varying levels of difficulty in assessing the appropriateness and productivity of their own conduct in regard to strategizing. However, they all agree that these external trends require a proactive positioning and that the established way

of moving forward needs to develop further. By anticipating and experiencing difficult and controversial discussions around these trends and the consequences for PubLib, the executive board advanced their understanding of how to address these developments productively and proactively, realising that they also require different strategy practices. This is particularly pertinent in episodes where executives reflect upon the executive's board strategizing:

> *"It feels like we are working and working but not really progressing. I feel a certain frustration within the board."*

> *"You probably have your opinion about it, since you have observed quite a bit now, but I am wondering why we are having such a hard time discussing the real stuff."*

> *"It is interesting, you know, when I talk to my colleagues individually in the breaks or over coffee, we basically all agree that we would like to discuss more strategically. As you said it 'moving the organisation forward as a whole', not our single departments, but whenever we try to do that in the executive board, we have immense difficulties."*

Given this dissatisfaction, the executive board questioned and contemplated their strategy practices and the elements that contribute to it:

> *"If I had an answer, I would tell you. Maybe it's the framing in the board; maybe it's just time, the lack thereof to be more specific… maybe it's also us, meaning we don't have the right people on board."*

Against this background, PubLib executives expressed the practice dimension of uncertainty in regard to all major elements of a strategy practice: doings and sayings, artefacts, and directionality.

Doings and sayings

This element of the practice dimension of uncertainty is probably the most pertinent one. We observe it in personal interviews and informal exchanges as well as during our ethnographic observations.

Several quotes exemplify how PubLib's executives express their inability to assess the future consequences and value of their present actions and discussions:

> *"Actually, that is one of the key questions for me: This whole question of my role in the executive board. Am I in there to represent my department or am I in there to*

kind of take the bigger picture? Obviously, this strongly affects what I say, how I argue and what I do with the executive board decisions. And I think I am not the only one with this question."

"In my opinion, four hours is way too long, every other week. I mean, if we think there is nothing to discuss, we also cancel a board meeting. I like that. At least we don't have meetings for the sake of having a meeting. I just have the feeling that if we limited ourselves to two hours it might make more sense, maybe."

"Sometimes we just hop over one topic, which I would have liked to discuss a little more. Then again, we take hours, I mean literally hours, to discuss something that has very little strategic relevance in my opinion. I just don't know whether we do those things the right way."

As mentioned above, we observe comparable statements in the actual executive board meetings:

"Can we wait for one second? Before we go into this discussion. We have about 20 minutes left and still have some stuff on the agenda. I don't know whether discussing this now is the most important thing."

Artefacts

Executives expressed certain levels of the practice dimension of uncertainty when interacting with or reflecting about the usage of several of PubLib's tools, templates and other material elements. We exemplify this with selected quotes relating to the project management template Hermes and the physical attribute of the executive board meeting room as two prominent examples of material elements in PubLib's strategizing.

In regard to Hermes as the prominent project management tool, several executives were uncertain about its value:

"That [the introduction of Hermes] was a longer process. In my opinion, we could still optimise it […] Yes it has improved already. A few years ago, it was even more extensive. Maybe we still have a few opportunities to conduct this more compact."

"I am very ambivalent about it [Hermes]. On the one hand, I like the overview it creates. On the other hand, it is a lot of work and reporting. Maybe we could spend the time more efficiently, but I just don't know any viable alternative, to be honest."

When we asked about the relationship between PubLib's strategizing and project management, another executive responded:

> *"Yes, our strategy is very strongly represented through the various projects. [...] I don't know whether I like it or not. Maybe it should be the other way around – The strategy generates projects, but in our case, it is a bit opposite, maybe"*

Furthermore, executives contemplated their meeting room from time to time:

> *"Sometimes I also think that our room somewhat keeps us in the same habits. By the way, I thought about that even before you talked about the importance of materiality in one of your reflection presentations. But just think about it, we always sit at the same spot, in the same set-up. Maybe a certain change could help us here. We all know these pictures from the Google offices and other examples. They do things differently. I am not saying that we need to be like Google, but they probably do not have it all wrong."*

After the executive board moved to a new temporary meeting room, due to renovation work in their former block, one executive positively noted some changes. However, at the same time she appeared uncertain as to whether and how this could be used more productively:

> *"That was funny to see. The first time, we met in the new room… As you know we all just drop in one by one a few minutes before the meeting. And I think everybody, including me, hesitated for a moment and was wondering where to sit because the old order was broken. And we joked about it about before the meeting, but I think it broke some habits in a positive way. I just don't know how we could benefit from it. We can not change the room for every meeting"*

Overall, despite seldom attributing it to their own strategy practices directly, PubLib executives expressed their uncertainty about material aspects on multiple occasions.

Directionality

Especially during those meetings that were based on significant preparation by the reflecting round, we observed repeated signs of the practice dimension of uncertainty with respect to the directionality. On the one hand, this surfaced in the preparatory reflecting round meetings:

> *"Why exactly do we want to map this [the external trends]? What will the final product look like?"*

"But we should be able to name the purpose of this exercise. Otherwise, they [the other executives] will take it apart."

On the other hand, we observe this element of the practice dimension of uncertainty in the actual executive board meetings working on the FFD:

"It's nice and all, but I still don't see why we're doing this. What's the purpose of this activity? A short-term orientation? The long-term strategy? I want to understand what we are working towards before actually working on it"

"What exactly are we supposed to do now? And what do we do afterwards? I don't see where we are heading to."

In sum, we see that despite the doings and sayings and the artefacts involved, the PubLib executives also strategize in the context of uncertainty about the directionality of their own practices. The underlying questions across all quotes above remains 'Are we doing the right things with the right tools to achieve what we want to achieve?'. All of these questions and impressions from board members are directed towards a constant imprecision in estimates of future consequences conditional on present action regarding their own strategizing. Thus, it illustrates the practice dimension of uncertainty.

8.4. A zoomed in perspective on PubLib's strategizing practices

After having provided an overview of the PubLib strategy actors and timeline around the executive board and the uncertainties pertinent in their strategy work, we now turn towards the core unit of analysis –PubLib's executive board strategy practices. In the following, we present our zoomed in perspective onto four specific practices that are prevalent within the executive board's strategizing. These four practices of preparing strategy work, discussing strategic topics, structuring strategy work, and documenting strategy work contain different variants that differ in the artefacts involved, their contributing activities, their level of collectiveness, routinisation, and questioning, which we discussed in the corresponding analysis in Chapter 7.4.2. Given that we understand the development of practices as the continuous flow of different variants of *how* a certain practice is enacted (see Chapter 5.2), the three variants of the practices do not follow any particular temporal flow. Instead, we aim to understand when and why a certain variant is enacted, which we consider a key question for the later findings section. After describing each practice and its different variants, we provide a summarising table that compares each variant based along the aforementioned characteristics of the practices.

8.4.1. Preparing strategy work

Preparing a board meeting serves the purpose of arranging everything required to conduct an executive board meeting as effectively as possible. In order to prepare a board meeting, we identified three different practice variants. One dominant variant is enacted for most of the agenda items that we observed. The variant PRE I, which we labelled *overload by documents*, involves the executive responsible for a certain agenda item compiling an all-embracive set of reports, documents, or visuals. We regularly observed agenda items that were prepared and consisted of more than 100 pages of text. During the enactment of this practice and its implications in a meeting, almost no executive actively questioned this practice; however, when reflecting about it outside the mobilisation, several executives indicated that it was not an ideal practice for preparing because it creates a strong information asymmetry, as the following interview statements indicate:

> *"Nobody can expect that I read through 70 pages, It's just not feasible, so I skim through it at best."*

> *"If it was only one of such long documents per meeting, maybe I could prepare thoroughly, but then we have two or three of such items on the agenda and reading two or three of such thorough preparations is not possible."*

> *"I mean the fact that we have so many documents up front is not a problem per se. What becomes a problem is that in a meeting, some executives actually discuss as if everything in these documents was common knowledge, so we kind of have to read everything to be able to participate in the discussion."*

PRE II, *rigid process planning*, refers to a practice that we primarily observed in the workshops around the FFD, where the reflecting round thoroughly prepared a systematic template outlining which activities will take place, which supportive tools to use and how long each activity will last. This rigid planning of the workshop segments displayed medium levels of collectiveness, as those executives that were members of the reflecting round jointly prepared while the other executives were only involved once the reflecting round had completed the planning. This created a remarkable opposition between the involved and the non-involved executives. During the mobilisation, executives regularly challenged the developed process and asked the members of the reflecting round to provide a further rationale for why a certain step or tool was used. Outside of the enactment, executives generally appreciated the methodological preparations to support a productive discussion but heavily criticised the separation between the reflecting round executives and the 'non-reflecting-round executives', which was indicated in the previous chapters.

Finally, we observed a few instances of PRE III, *minimal preparation*. This practice was most prominently mobilised in the first meeting of 2019, where two new members had joined the board and who, given their newness, were less accustomed to the common way of doing things. One of the new members prepared an agenda item with the goal of collecting the current opinions and ideas of all executives around that topic in order to further develop it in the weeks to come. She only sent around half a page with a brief introduction to the topic and a few preparatory thoughts. Over the course of our investigation, we only witnessed such minimal preparation in a few more instances, showing low levels of routinisation for PRE III. In addition, this practice became subject to significant criticism both during the mobilisation,

> *"I don't understand what you want from us now. What are we supposed to say?"*

> *"But we can't build our opinion based on such a thin data basis, can we?"*

and also during reflections following the mobilisation in later interviews:

> *"Somehow it was completely unclear what we were supposed to do."*

> *"It obviously lacked preparation in this case."*

Table 7 summarises the three variants of the practice *preparing strategy work* in a comparative manner.

Preparing strategy work

Practice variant	PRE I – overload by documents	PRE II – rigid process planning	PRE III – minimal preparation
(Digital) artefacts involved	Various texts, reports and/or presentations, preparatory e-mail send around to all executives	Detailed storyboard incl. the responsible moderator, materials involved, and intended outcomes	Short introductory text stating the intentions of this agenda item
Activities	*Before meeting:* Members (usually individually) compile and distribute various documents prior to the meeting; *During meeting:* Presentations are often presented in the meeting, texts are sometimes discussed but often only referred to as background information	*Before meeting:* Some members (mostly the GdR) jointly have a preparatory meeting and plan how the workshop or agenda item is best conducted *During meeting:* Workshop or agenda item is usually followed with high fidelity, following the original plan	*Before meeting:* Members (usually individually) briefly develop the idea of the agenda item without providing much, if any, content, but ask for preparatory thoughts *During meeting:* Executives provide little input due to the lack of structure, and criticise the seemingly unprepared executive who is responsible for this agenda item
Exemplifying material (blurred for confidentiality)			
Level of collectiveness, if mobilised	**Low** A single executive prepares significant amounts of preparatory materials and creates an information asymmetry	**Medium** Some executives (members of the GdR) engage intensively with the preparation	**Medium–High** One member provides minimal structure and there is room for open discussion
Level of routinisation	**High** Everybody engages in this type of preparation regularly, it is the default option	**Medium - Low** Is mostly mobilised for the 'focused future orientation' workshops, but rarely in regular meetings	**Low** Happens in a few rare instances
Level of questioning during mobilisation	**None** Everybody accepts this practice in the meetings	**High** Executives regularly ask how to proceed and demand justification for the proposed approach	**High** Executives argue on the value of such unprepared discussions and openly argue about it
Level of questioning outside of mobilisation	**Medium - High** Several executives question the amount of data and the resulting information asymmetry	**Medium** Executives accept the preparation but heavily criticise if they were not involved	**High** Executives question whether such 'unprepared' discussion are worthwhile
Temporal perspective	**Stable over time** Is consistently mobilised across time	**Increase over time** From selected mobilisations in the FFD, this practice slightly increases over time	**Increase over time** Moves from virtual absence towards a few instances in 2019

Table 7: Summarizing the practice 'preparing strategy work'

8.4.2. Discussing strategic topics

During a board meeting, discussions are a common communicative strategy practice. Again, we identified three distinct variants of this practice, two of which (namely DIS I and DIS II) were enacted regularly while DIS III was only occasionally enacted.

The practice DIS I, *contested discussion,* appeared to be one of the default practices that involves a moderate struggle to get one's own point and position across. We observed activities

such as interrupting each other or trying to prioritise one's own statement in the implicit order of speakers by establishing eye contact with the meeting's chair and trying to emphasise the importance of one's own statement. Several executives described this practice of contested discussion as unsatisfying:

> *"We could still work on our discussion culture. We interrupt each other too often or are overly critical"*

> *"Within the executive board, we lack a solid and trustful relationship; there is too much resentment when we discuss things"*

In addition, some executives indicated that this discussing practice discouraged them from contributing to the discussion more generally:

> *"Why would I say something questionable, critical or even something that could be wrong? I can spare myself this wave of criticism. We are just really, really critical with each other."*

Consequently, this practice remained at a medium level of collectiveness, as it excluded some executives from the discussion. During the mobilisation, executives hardly ever engaged in questioning the practice, as one executive noted:

> *"I have learned that I am too harsh sometimes. I guess we are an expert organisation where we all know a lot about the subject, and everybody believes that his or her position is right. But sometimes, a few hours after the meeting, I realise that I was too harsh, too pushy."*

As the previous quote further illustrates, this practice is repeatedly questioned outside its mobilisation. Especially in the interviews, we learnt that most of the executives desire a safer, respectful and trust-based interaction during their meetings.

The second variant of the discussing strategic topics practice, DIS II, *observed dialogue,* also has levels of routinisation. In this practice, two executives engage in a knowledge-intensive dialogue on a specific topic, with all other executives observing the dialogue. The 'observing' executives rarely contributed to the discussion between the two people and regularly diverted their attention to something else, often their own laptop. As one executive noted:

> *"We just have too much irrelevant stuff there. At least it is irrelevant for my own work and then I sit there and listen to stuff I often don't understand and also do not*

need to understand. That would be fine, but, you know, there are other things on my plate I need to get to."

During mobilisation, this practice was rarely questioned; however, when asked about it during an interview, several executives expressed their desire to reduce this type of expert discussion between single executives and rather focus on topics with greater relevance for the executive board as a whole.

DIS III, *open discussion*, resembles a rather rare practice, with low levels of routinisation. It was often mobilised in FFD workshops and involved the majority of executives actively contributing to the discussion. In such discussions, executives raised their opinions on a certain topic openly without notably fearing negative feedback. Usually, the diverse overview of opinions was then aggregated and systematically reviewed at a later stage. During the mobilisation, executives sometimes questioned the purpose of such discussions and demanded more structure or a greater focus on the intended outcome. However, when asked about it during individual interviews, most executives appreciated the opportunity to also voice thoughts that were not fully developed and data-backed yet:

> *"I actually like that. This kind of 'thinking out loud', the thought may be stupid, but sometimes such a thought can be taken up by somebody else and developed further. This cannot happen if anything we say must be bulletproof. I would appreciate it if more of my colleagues would raise this kind of preliminary, of the top of the head, opinion."*

> *"In those rare instances, I feel comfortable also contributing to a topic I am not an expert on, asking those stupid questions so to say. But that happens all too rarely, although I have the feeling that sometimes those questions or 'stupid' statements actually help the discussion.*

In the following, Table 8 summarises the *discussing strategic topics* practice.

Discussing strategic topics

Practice variant	DIS I – contested discussion	DIS II – observed dialogue	DIS III – open discussion
(Digital) artefacts involved	None	None	None
Activities	Members occasionally interrupt each other, ask for prioritised 'air-time' or silently argue for prioritisation, executives regularly critically scrutinise each others comments in a negative fashion, sometimes the chair intervenes to give priority to somebody, sometimes executives refrain from raising their opinion to avoid potential humiliation	Two executives talk to each other about a specific topic (often more operational) with all other executives passively observing their dialogue, often diverting their attention elsewhere, such as their own laptop	The majority of the executives openly discuss a topic, there is an implicit list of speakers that is largely respected, occasionally executives provide the space for others to talk by actively inviting them to contribute
Exemplifying material (blurred for confidentiality)	None	None	None
Level of collectiveness, if mobilised	**Medium** Several executives engage in the discussion but some consciously exclude themselves	**Low** Two, occasionally three executives engage in the conversation, all others divert their attention	**Medium-High** Several executives engage in the discussion, others have the position to participate if desired
Level of routinisation	**High** Regularly, this is the practice mobilised in discussions	**High** Regularly, this is the practice mobilised in discussions	**Low** Happens in a few instances
Level of questioning during mobilisation	**Low** Sometimes executives ask to maintain a respectful conduct	**Low** Occasionally executives ask to move on with the agenda	**Medium** Executives ask for more structure or orientation when discussing by stating an intended outcome or the scope of the discussion
Level of questioning outside of mobilisation	**Medium** Several executives desire more open-minded, respectful and trust-based discussions	**Medium** Executives regularly express their desire to have more relevant discussions in the board meetings	**Low** Most executives see an inherent value in such discussions as they offer room to articulate diverse opinions
Temporal perspective	**Decrease over time** Moves from constant mobilisation in all meetings towards less frequent mobilisation in 2019	**Decrease over time** Moves from constant mobilisation in all meetings towards less frequent mobilisation in 2019	**Increase over time** Moves from a few instances towards a more routinised practice in 2019

Table 8: Summarizing the practice 'discussing strategic topics'

8.4.3. Structuring strategy work

The practice STR I, *traditional agenda*, is the default variant of structuring the interactions within the executive board. Executives can place items for the agenda in advance, which are subsequently compiled and shared prior to the meeting. The executive board also re-submitted topics based on discussions from a previous meeting on a regular basis. Oftentimes, agenda items also originated from the bilateral exchanges between the directorate and other executives when the discussion in the bilateral meeting indicated that a specific subject also required

further discussion by the executive board. Especially at the beginning of our research project, we observed that meetings often did not finish on time or even more frequently, that the executive board did not manage to cover all agenda items. Some executives argued that the reason for this generally lay in heavily packed agendas, while others argued that:

> *"At any point in our meetings, we could just dive into one topic, regardless of what it is, and then discuss it to an exhaustingly detailed level. Obviously, this eats up a lot of time. And then towards the end of the meeting we are rushed or skip stuff. We need more discipline from the beginning."*

To address the increasing dissatisfaction with time fidelity, the executive board introduced fixed time boxes for each agenda item from September 2018 onwards. Even after the introduction of time boxes, the executives regularly ignored or stretched the respective time windows without further consequences.

STR II, labelled an *'empty shell' practice*, could also be referred to as a *non*-practice, as it never actually developed into an observable action pattern. In order to address parts of the criticism that executives raised in the context of DIS I, DIS II, and STR I, the executive board jointly developed three documents that were supposed to govern significant parts of the executive board's conduct.

Firstly, they introduced an internal organigram outlining the different meeting formats and the respective places for discussing strategic or operational topics. The executive board assured their role as a clearly strategic board and decided to discuss operational topics only if they required high levels of trans-departmental coordination.

Secondly, they developed a short white paper with five propositions that further outlined the differences between strategic and operational topics. In this document, they agreed upon ways to increase the relevance of discussions within the executive board by increasing the amount of strategic discussions.

Finally, the executive board developed a two-page document stating various interaction rules for their own conduct. These included a ban on interrupting each other, engaging in overly negative-critical comments, and demanded strict time management. All executives accepted these three documents after a brief discussion.

However, although the adjusted organigram, the white paper and the interaction rules contained clear actionable prescriptions, none of the three documents created a lasting impact on developing the practice of structuring strategy work further. In the following board meeting, we observed executives interrupting each other and ongoing mobilisation of both DIS I and DIS

II, two practices that were identified as suboptimal by the majority of executives. Originally, the documents created within this STR II were supposed to address these suboptimal practices. Hence, although the executive board jointly addressed their collective desire to alter existing practices (DIS I, DIS II) with a new form of structuring a board meeting and developed a full-fledged set of documents addressing these issues, the executive board did not develop an adjusted structuring practice, thus making STR II an *empty shell* or *non*-practice. Several executives also contemplated about the lack of enactment, as the following interview quotes indicate:

> *"When we introduced these interaction rules, there was some real energy in the room. It felt like we really achieved something in terms of how we want to interact, at least I felt that way. But somehow in the next meeting nobody actually followed up; the energy was just gone somehow."*

> *"Yes, it is all written down, but we have nobody to enforce it. It is weird. We all want the change but nobody acts upon it, but I don't really know why. I guess everybody waits for everybody else and then we all wait."*

Finally, STR III was internally labelled a *"promising experiment"*. We oriented our label to this terminology and refer to this practice variant as the *role card experiment*. This practice contains six cards that the executives distributed among themselves at the beginning of each meeting. Each card assigns a specific rule keeper role to an executive who has to raise the card whenever the respective rule is violated. The six cards are:

- *Green feedback*

  Indicating overly critical feedback and asking the executive to rephrase her statement in a more constructive tone

- *Content*

  Indicating that the currently discussed content is misplaced in the executive board

- *Behaviour / Communication*

  Indicating a violation of the basic interaction rules such as not interrupting each other

- *Time*

  Indicating that the time window of a specific agenda item has run out

- *Setting*

Indicating that the current topic, despite being important, should be discussed in a different setting, such as a small work group or the monthly bilateral exchanges

- *Level*

Indicating that the current topic is being discussed from a perspective that is too operational and should be lifted again to a strategic level

Crucial for the initial mobilisation of this practice was its framing when introduced. One executive presented the cards at the beginning of a meeting, which led to initial resentments and critical voices:

"Do we really need them?

"Don't we spend too much time thinking about ourselves, rather than the actual work?"

When the executive was about to put the cards back into her bag, possibly making the cards the next *non* practice, another executive provided a protective space and voiced support for the opportunity to actively experiment with this new element:

"Why don't we try this one now? We do it for a few meetings and then at some point we discuss whether it is worth it or not? We can still cancel it later, but now let's just try it… and I will take the time card today."

At the end of her statement she stood up actively and asked for one of the cards to be handed to her. At that point, she gave little opportunity to further question this new practice element. Other executives subsequently took the remaining cards. At the time, the practice appeared as an experiment that was subject to evaluation at a later point in time.

Since the introduction of this practice variant STR III, the executives kept on distributing the cards. Especially the cards for *time*, *setting*, and *level* were regularly raised during the meeting. Although sometimes accompanied by some individual grunt, the cards were respected and the interactions seemed to improve, as the following examples shows:

While briefly informing the members about how employees were supposed to book lunch breaks and business trips in the internal time management software, two executives started a discussion on how a certain new project should be booked (DIS II - enactment of an observed dialogue). The executive holding the *setting* card quickly raised it and asked the two executives to shift their discussion to a bilateral meeting at another point in time. At that moment, the two executives as well as other executive board members appeared surprised. Yet, they all

appreciated this cut and went on to the next item on the agenda. Several executives indicated a positive attitude towards this role card experiment:

> *"That really helps us, some cards more than others, but generally it supports us in being more strict and getting things done."*

> *"I was really surprised how quickly the critical voices disappeared. We kind of agreed to try it and then from the next meeting onwards we did it and nobody niggled around it – I guess we quickly learned that this is actually something we should keep on using."*

Table 9 summarises the previously discussed practice and its three variants.

Structuring strategy work

Practice variant	STR I – traditional agenda	STR II – an 'empty shell' practice	STR III – role card experiment
(Digital) artefacts involved	Agenda	Code of conduct, overview of different roles and their respective meetings, white paper on differences between strategic-operational topics	Six roles cards
Activities	An agenda was compiled before the meeting, so that all executives could position certain items. Regularly, meetings did not manage to cover all items or rushed through the last ones, at some point the agenda included a time window for each item, which was sporadically enforced	Comparable to I; the new documents were hardly used as a reference, and regularly executives acted against their provisions without consequences	The six cards were distributed to one member each at the beginning of every meeting, making that member the person responsible for this meeting, the cards were raised with varying intensity; once raised, they discussion was adjusted accordingly, time strictness improved noticeably with the introduction of this practice
Exemplifying material (blurred for confidentiality)			
Level of collectiveness, if mobilised	**Low-Medium** Responsibility lies with the meeting chair, but certain level of self-organisation	**Low** No member actively tried to increase the mobilisation	**High** All members (six per meeting) received a specific role, over time every members was responsible multiple times
Level of routinisation	**High** This was the default option that is automatically mobilised	**None** Hardly ever mobilised, documents remained an "empty shell"	**High** Once established, it was mobilised in every meeting
Level of questioning during mobilisation	**Low** Executives rarely questioned this practice within a meeting	**None** There was no mobilisation	**Low** It was accepted that this is *"something we try for some time"*, and that is to be evaluated at a later stage
Level of questioning outside of mobilisation	**Medium-Low** Most executives did not question this practice, some desired more strict time keeping	**Medium** Executives agreed upon the potential value but wondered why this practice was not mobilised	**Medium** Executives were aware that they were able to jointly evaluate the value of this practice later
Temporal perspective	**Stable over time** Remained mobilised throughout all meetings	**Stable 'non' practice** Never became mobilised until STR III's role cards are implemented	**Stable ad-hoc introduction** Once introduced its remained a constant within all meetings

Table 9: Summarizing the practice 'structuring strategy work'

8.4.4. Documenting strategy work

The textual and/or visual storage of the board meeting discussions and outcomes create referable documents. These documents are created through three different variants of the *documenting strategy work* practice.

DOC I *standard minutes* primarily involves a laptop and one executive taking extensive notes during the board meetings. Usually, the same executive board member took notes and compiled well-crafted minutes in a text document that reflected a detailed account of what had been said

by whom. The preliminary minutes were sent around to all executives and the last meeting's minutes were a fixed agenda item at the beginning of each meeting. The executives regularly spent some time discussing the previous minutes, asking for smaller changes in wording and semantic nuances. Given the strong involvement of one particular executive, this documenting practice displayed low levels of collectivisation. It was an unquestioned practice that none of the executives argued about, during or outside its mobilisation. Such minutes were prepared for every meeting. According to interview accounts, this practice of thoroughly text-based documentation was not only very routinised in the executive board but also across various other PubLib meeting formats. As several executives noted:

> *"We love to document everything, minute by minute, so that we have it black on white."*

DOC II, *single-person visual*, involved a publicly visible documentation of the discussions on a whiteboard, flipchart or occasionally digitally displayed on a projector. As soon as a discussion started, an executive noted down the key points on the respective artefact. Given their visibility, they could be corrected or supplemented, which decreased the ex post correction work. Usually the notes were photographed and typed into a digital form that was subsequently distributed together with the photo. This practice was originally introduced and mainly mobilised in FFD workshops. However, it occasionally made its way to regular board meetings where an executive spontaneously stood up to document key results from a discussion on a whiteboard. Such spontaneous mobilisation, in contrast to the clearly pre-planned mobilisation in a workshop, developed less strongly, and in several instances, after one or two comments were taken down, this form of documentation stopped and the executive reverted to the traditional minutes (DOC I). Generally, this practice variant DOC II was well-received and not criticised, while mobilised outside of mobilisation. Overall, DOC II could be summarised as visual live minutes that introduced more immediate and visual elements into the *documenting strategy work* practice.

The practice DOC III *collective visuals* involved the creation of documenting visuals as a collective group, where all executives contributed by actively getting up and sticking their comments to flipcharts or brown papers. Consequently, this documenting practice had high levels of collectiveness. The created visuals (matrixes, fully covered walls and similar formats) were photographed. Given the complexity of the visuals, they were not transferred into a text-based version but rather, shared directly as a photo-documentation. Interestingly, this DOC III integrated the actual work and discussion on a topic with the documentation practice so that the *discussing strategic topics* and *documenting strategy work* practice directly intertwine.

Table 10 summarises the three different variants of the *documenting strategy work* practice.

Documenting strategy work

Practice variant	DOC I – *standard minutes*	DOC II – *single-person visuals*	DOC III – *collective visuals*
(Digital) artefacts involved	Laptop; pages of dense text in form of meeting minutes	Whiteboards / Flipchart / projector, different coloured pens, camera, pdf with photos	Whiteboards, room walls, brown paper, different coloured post-its, camera, pdf with photos
Activities	One member continuously took notes on PC, prepared a consolidated version and sent it around a few days later; sometimes, at beginning of next board meeting small changes (often language details) were requested and discussed	One member stood at whiteboard & noted down key elements of discussion into pre-defined categories; board members occasionally corrected immediately if they disagreed with the note taken; at the end, one member took photos and sent them around incl. a typed version of the content	While one member explained the logic of different coloured Post-its, another distributed them, all board members wrote on post-its individually & stuck them to pre-defined groups on the wall / brown paper, afterwards they discussed the results & occasionally regrouped post-its, sometimes other board members stoop up and also proposed regrouping by rearranging
Exemplifying material (blurred for confidentiality)			
Level of collectiveness	**Low** primary one member was engaged, other occasionally provided small feedbacks later	**Medium** One member stood up, all others sat but jointly participated verbally	**High** All members moved to the front to stick their notes and engaged in the discussion bodily to correct certain post-its
Level of routinisation	**High** Previous meeting's minutes were always on the agenda of the next meeting by default	**Medium** Mainly during FFD workshops, but occasionally transferred to regular meetings too	**Medium – Low** Happened mainly during 'focused future direction' workshops
Level of questioning during mobilisation	**Low** Nobody argued about the need to have these minutes, while discussing them or working on them	**Low** Details of the process were questioned during the practice mobilisation	**High** regularly scrutinised also during the mobilisation where certain steps were questioned for their appropriateness
Level of questioning outside of mobilisation	**Low** Nobody actively questioned the minutes, single executive argued around the later distribution	**Low** Single executives occasionally proposed changes	**High** Executives explicitly asked to evaluate the process and be more involved in its creation
Temporal perspective	**Decrease over time** Although omnipresent, later meetings were occasionally not documenting this way	**Increase over time** Though not pronounced, this practice became mobilised more often over time	**Selective, but stable** was mobilised occasionally but stably through 2018 and 2019

Table 10: Summarizing the practice 'documenting strategy work'

9. Summarizing Part B

The previous part has focused on the empirical study, its approach, its empirical case, and the data collection, analysis and presentation. Taken together, the previous parts laid the foundations to dive into the empirical findings in the next part.

Our research with its subjectivist ontology and the consequential constructivist research paradigm fully subscribe to the claim that "the aim of social science is to provide a richer and more nuanced understanding of the world, and not to offer simplified answers to complex questions" (Nicolini, 2012a, p. 215). Therefore, the methods we applied are more than mere templates to follow on the path to findings. Instead they form practices in themselves, where we as researchers need to appropriate them and form them into our very own method assemblage (Law, 2004). We mobilized our various data collection practices (observing, interviewing, analysing strategic documents) in the context of the PubLib, a large public library that offered a promising research case. More specifically, our unit of analysis were PubLib's executive board strategizing practices, which we studied and analysed over the course of almost two years.

Part C: Empirical Analysis and Findings

10. Findings

The following chapter presents our findings based on the analysis on the strategy practices of PubLib's executive board. In our empirical case, uncertainty work serves as the linking concept between uncertainty and the development of strategy practices. As such, it is one of the main focus points of our empirical analysis. Therefore, the following section provides answers to the first research question '*How do executives engage with the inherent uncertainty in strategizing?*' by presenting five types of uncertainty work (Chapter 10.1). We subsequently relate all the five types in a first process model of uncertainty work (Chapter 10.2). We then shift our attention to our second research question '*How does the engagement with the inherent uncertainty relate to the development of strategy practices?*' and present the results of one of our core zooming in movements by focussing on the dynamics of uncertainty experimenting as the key type of uncertainty work that supports the development of strategy practices (Chapter 10.3). Finally, we attend to the actual development of strategy practices and present three important dynamics that help us in better understanding our research interest '*How do strategy practices develop over time within one organisation?*' (Chapter 10.4).

10.1.   Understanding Uncertainty Work at PubLib

Overall, the empirical analysis indicated five different ways in which executives engage with uncertainty while mobilising strategy practice: *uncertainty avoiding, uncertainty reducing, uncertainty inflating, uncertainty experimenting*, and *uncertainty accepting*. The following figure displays the data structure of the five different types of uncertainty work, their respective elements and exemplary activities contributing to these elements. Subsequently, we will present each of the five uncertainty work types, understood as aggregate dimensions based on our coding exercise, individually. In addition, we offer short exemplary vignettes from ethnographic observations and interview data. While, in practice, we observed several of the respective elements simultaneously, we discuss them separately for presentational clarity.

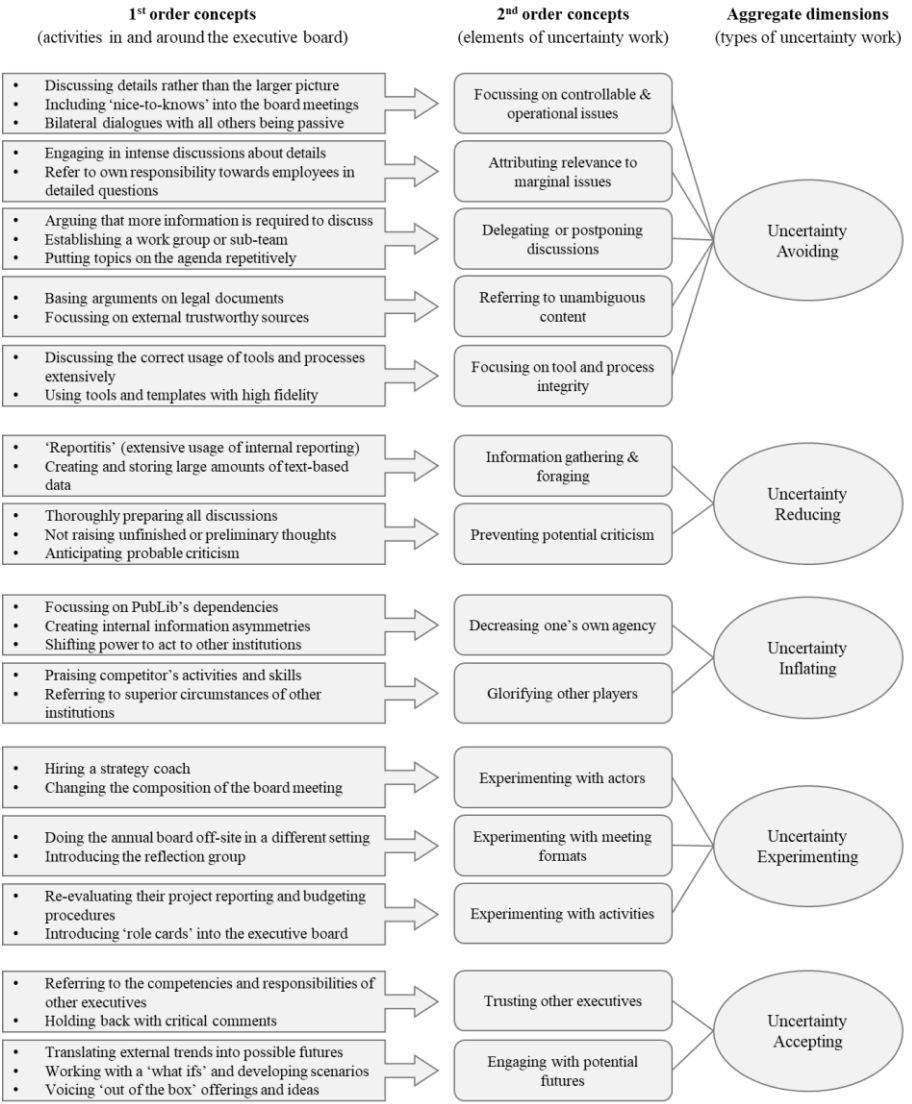| 1st order concepts (activities in and around the executive board)	2nd order concepts (elements of uncertainty work)	Aggregate dimensions (types of uncertainty work)
• Discussing details rather than the larger picture • Including 'nice-to-knows' into the board meetings • Bilateral dialogues with all others being passive	Focussing on controllable & operational issues	
• Engaging in intense discussions about details • Refer to own responsibility towards employees in detailed questions	Attributing relevance to marginal issues	
• Arguing that more information is required to discuss • Establishing a work group or sub-team • Putting topics on the agenda repetitively	Delegating or postponing discussions	Uncertainty Avoiding
• Basing arguments on legal documents • Focussing on external trustworthy sources	Referring to unambiguous content	
• Discussing the correct usage of tools and processes extensively • Using tools and templates with high fidelity	Focusing on tool and process integrity	
• 'Reportitis' (extensive usage of internal reporting) • Creating and storing large amounts of text-based data	Information gathering & foraging	Uncertainty Reducing
• Thoroughly preparing all discussions • Not raising unfinished or preliminary thoughts • Anticipating probable criticism	Preventing potential criticism	
• Focussing on PubLib's dependencies • Creating internal information asymmetries • Shifting power to act to other institutions	Decreasing one's own agency	Uncertainty Inflating
• Praising competitor's activities and skills • Referring to superior circumstances of other institutions	Glorifying other players	
• Hiring a strategy coach • Changing the composition of the board meeting	Experimenting with actors	
• Doing the annual board off-site in a different setting • Introducing the reflection group	Experimenting with meeting formats	Uncertainty Experimenting
• Re-evaluating their project reporting and budgeting procedures • Introducing 'role cards' into the executive board	Experimenting with activities	
• Referring to the competencies and responsibilities of other executives • Holding back with critical comments	Trusting other executives	Uncertainty Accepting
• Translating external trends into possible futures • Working with a 'what ifs' and developing scenarios • Voicing 'out of the box' offerings and ideas	Engaging with potential futures	

Figure 15: Data structure of uncertainty work

10.1.1. Uncertainty avoiding

In total, we identified five elements of *uncertainty avoiding*. All elements in this type of uncertainty work direct the executive's attention, discussions, or efforts to less uncertain, and thus often less strategic, topics. Hence, executives tend to avoid the uncertainty inherent in strategizing. The five elements of uncertainty avoiding are: focussing on controllable and operational topics, attributing relevance to marginal issues, delegating or postponing discussions, referring to unambiguous content, and focussing on tool integrity.

Focussing on controllable and operational topics

First, the board discussions regularly focussed on more controllable and less uncertain issues, such as operational tasks. One prominent example that we observed frequently during the board meetings centres around the discussion practice variant *observed dialogue* (DIS II). In this communicative element of the executive's board strategy practice, two executives exchange information that is largely or exclusively relevant for the two involved or their respective department, with all other board members passively observing their dialogue. During episodes of observed dialogues, the observing executives regularly shifted their attention away, often focussing on their laptops. Such episodes consumed a significant amount of time in the board meetings, which subsequently shortened the time for strategic and uncertain topics.

The focus on controllable and operational topics also occurs when the executive board is actually discussing a strategic topic. During one of the regular budget planning discussions, the executive board started to debate on the allocation of a significant amount of their infrastructure budget to refurbish meeting rooms with new IT hardware. One interviewee, when asked about this episode later, stated that

> *"This is at the core of our role as an executive board, right? The money we dedicate here is lacking for new chairs or tables or what not. These are the types of prioritising decisions we should be discussing, even if they may hurt".*

This discussion on a strategic topic, directly contributes to how PubLib will move forward. Yet, the executive board focussed on small aspects within this overall topic. As two exemplary quotes from our field notes indicate, during the actual discussion in the board meeting, the content of the contributions quickly descended into detailed operational decisions, which they could have solved later outside the board meeting.

> *"But what about compatibility of our existing laptops to this new hardware? Will they have the right cable connectors?*

"What are we planning for the projector in our temporary meeting room[24]? Will this one still have the old infrastructure? I would prefer to have one system across our facilities."

One executive confirmed that this level of detail orientation and focus on rather small issues within a larger topic was unsatisfying.

"That's an overload, the board meetings. It makes no sense, if I am sitting in there 1½ to 2 hours listening to stuff I hardly or do not at all understand because I lack detailed knowledge. I am sitting in the hot seat then because other things are waiting. This makes it very difficult."

Attributing relevance to marginal issues

Related to this *focussing on controllable and operational issues*, we identify a second element of uncertainty avoiding: *attributing relevance to marginal issues*. This element involves discussions that are focussed on marginal topics although other topics may deserve greater attention. Our findings indicate that the executive board often attempted to increase the relevance of these topics. A concrete example is the vignette on the printer discussion that took place in one board meeting that included a quick info block on the newly developed printer layout indicating the future location and types of printers and their overall distribution across PubLib's facilities. While this agenda item was scheduled as a purely informative slot, several board members engaged in a heated discussion about relocating the printers and why certain employees would have a longer trip to the community printers in the future. The following quote illustrates the intensity of this discussion:

"I don't want to go back to my people and tell them that in the future they need a badge for printing from these community printers. They will absolutely not approve of that and there must be an alternative solution".

In a later interview, one executive confirmed that such behaviour is typical of the board meeting discussions:

"Obviously, it is easier to discuss where which printer should be. It feels like we are actually deciding something and really arguing about it. We are engaged in

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[24] At the time of the meeting, parts of the PubLib administrative offices were about to move to a temporary location to make space for renovation work.

> *trying to make sure that these printers are located where we want them to be. Nevertheless, at the end of the day, printers remain printers – and their location is a topic with marginal relevance at best. You know what I mean, right? I mean, the library won't be out of office tomorrow if a few employees have a longer trip to the next printer, but other topics might have such fundamental consequence if we don't tackle them the right way."*

This statement clearly demonstrates that such attributing relevance to marginal issues, requires resources, especially in the form of executive board time, which is missing for other, potentially more important, discussions. Such episodes often became even more contested by the executive involved, as the evaluation of the relevance of topics is highly subjective and some executives perceived certain topics as more fundamental (and strategic) than others.

A second vignette further exemplifies the dynamics of attributing relevance to marginal topics. During the second FFD workshop (Event 3, described in Chapter 8.2), the executives discussed external trends and tried to position them on a matrix in order to achieve a PubLib-specific prioritisation. In this process, the trends were clustered along the common categories 'political, economic, social, and technological'. One executive noted that the external trend describing increasing unequal wealth distribution in our society was missing on the matrix, as the respective post-it was partly hidden at the corner of the wall. Instead of quickly placing the trend 'unequal wealth distribution' on the matrix and continuing with the ongoing more fundamental discussion, several board members engaged in a heated discussion around whether this trend belonged to the political, economic, or social category – a discussion that had little, if any, relevance to the overall process. Regardless, it consumed around ten minutes of board meeting time until one member stopped the discussion vigorously by referring to the unimportance of the matter.

Overall, one executive's interview statement nicely summarised the behaviour of overly focussing on operational tasks and issues by attributing relevance into these topics.

> *"It is quite interesting to be honest, right in the moment, being in the meeting, it always feels like we are really arguing about important topics, but then when I read the minutes a few days later or just go through my personal notes, I often think to myself 'Wow…did we really discuss this?' Overall, we are good at discussing the small subjects extensively but struggle to account for the big topics."*

Delegating or postponing discussions

Delegating or postponing discussions is the third element of uncertainty avoiding, which describes the tendency to avoid uncertainties inherent in strategic discussions by either asking other people to take on or contribute to the discussion (delegating) or shifting it to a later point in time (postponing). The previously presented printer location discussion also serves as a good example here. At the end of the discussion, the executive responsible was asked to prepare a more detailed concept that could address the different concerns and questions, thus postponing the discussion. The following interview quote further exemplifies this:

> *"We have a stark tendency to put forward something that is extremely broad, so basically, it could mean anything or nothing, excluding almost nothing. Then we hand this document down to the organisation and basically hope that they will miraculously make it more tangible, that they will come up with concrete ideas on how to do it. Obviously, that is somewhat the classical role distribution, right? But I think on a meta-level, and this is very black and white now and also maybe a little too harsh, but it is at its core true so, basically, we hand down the difficult jobs that we, as an executive board, have a hard time doing."*

When asked to explain how certain items become part of the board meeting's agenda, another executive responded:

> *"Oftentimes it is a follow-up from something that has been discussed or presented already. I mean, many of the topics are reoccurring or continuous so it makes sense to look at them repeatedly, so generally, that makes sense but sometimes I have the feeling that if a discussion is stuck a little, you know, there is some resistance or disagreement… But probably [the discussion] only needs to be lifted over this last edge, we stop and postpone it to a later date, asking for more data or another opinion rather than taking these five or maybe ten minutes to finish the discussion so we have a result we can work with."*

One final ethnographic observation offers an insightful aspect to this element, as it provides a partially external view on this executive board dynamic. During a board meeting, one item on the agenda invited the executives to reflect jointly upon PubLib's potential position in relation to the newly planned second library in their vicinity. A PubLib project manager who is not a permanent member of the executive board visited the meeting to provide her expertise on trans-library collaboration. After she silently listened to the rather vague discussions around the topic for a while, she spoke up and actively asked for a clear executive board positioning:

> *"Now, come on! Now finally position yourself. What do we want? What do we not want? We can't just let all the other ones move forward and we have no position."*

This nicely displays how the repeated delegating or postponing of discussions had become routinised within the executive board strategy practices, as the external perception demanded a more active positioning.

Referring to unambiguous content

Fourth, PubLib executives avoided uncertainty by *referring to unambiguous content*. Such content often appears in the form of legal documents, contracts, external reports and studies. In one instance, we find a good example of this behaviour when the executives were discussing the future of the to-be established second library in their vicinity as a clearly strategic topic. PubLib executives started to discuss the bigger picture of how PubLib should move forward by sketching out potential assets that might set PubLib apart and potential variations to their existing value creation in order to become more distinctive. However, the discussion quickly diverted to a different focus after the following comment:

> *"This is all nice and fun to discuss, but what about our legal form? Can we actually do the things we are discussing here? What about our building and all these implications?"*

In the 20 minutes that followed, the discussion shifted to the legal and contractual details of the potential juridical consequences. Board members discussed how their governing body would have to be altered if they wanted to change their current activities, what a future legal entity might look like and what legal remedies this discussion might have for their physical building properties. This discussion largely focussed on legal contracts and their implications that are designed to be free of ambiguity and uncertainty by definition. In doing so, the discussion contributed little to the underlying question of *how* PubLib wants to position itself. When asked about this particular instance, one executive commented:

> *"Oh, that was interesting. You know – it actually started great. People participated and we ping ponged different ideas. Not all of them were equally feasible, obviously, but in my opinion, this was the whole point of this agenda item. Openly and freely discussing what could make us special in the future – I enjoyed that very much. However, somehow… I don't really know why, the energy disappeared very quickly when we turned towards these legal implications."*

Again, by *referring to unambiguous content*, such as contractual underpinnings, the executive board avoided discussing the inherently uncertain aspects of their strategic orientation.

Focussing on tool and process integrity

Finally, the fifth element of uncertainty avoiding directly concerns the different tools, templates and processes that the executive board uses when mobilising their strategy practices. The executive board regularly focussed on the prescribed and integer usage of such tools rather than focussing on the actual content.

A collection of direct quotes from our field notes demonstrates this aspect:

> *"Shouldn't that be a sub-project on its own – with its own reporting template?"*

> *"Well, this number is basically a guess… has no value currently, but I had to fill in something."*

> *"This collection of numbers is full of uncertainties. The underlying calculations are basically wrong; they still need to be done."*

> *"This comment does not belong in the risk analysis, but rather should be posted in the comment field at the end."*

> *"Wait! What list are we looking at now? Shouldn't it be the trans-departmental projects now? Or am I mistaken?"*

While these types of engagements with different tools (in this case, often the Hermes project-reporting template) are an episode of reflection, they are often the predominant, and sometimes exclusive content of the discussion. When conducting their regular project reporting, the executive board flipped through different lists and reporting dashboards. The discussions regularly evolved around the tool itself and the correct usage rather than the actual content that the tool should facilitate or prepare. More concretely, the members discussed where a certain number should be entered, rather than discussing whether a certain number was high or low and what potential insights the number could provide for their strategy content. As one interviewee stated

> *"It almost feels like we cling to our template and its structure to avoid talking about the real stuff".*

In doing so, these tools and templates received an agency on their own where the strategic responsibility was attributed to the tools rather than the people using them. The following interview quote recapitulates this aspect:

> *"One thing is the usage of tools, here especially Hermes, as strategic guidelines, you might say. And I have this hypothesis, which I believe is not entirely wrong: That this Hermes, or let's call it strategic project management, is our attempt to bring structure into this very complex field. But what this leads to is that you engage very intensively with this structure rather than the contents."*

Overall, all five elements of uncertainty avoiding lead to an increasing disconnection from the strategy practices and the inherent uncertainty. Given that uncertainty is both the underlying reason for strategizing and an inherently connected part of strategizing, uncertainty avoiding decreases the likelihood of productive strategizing, despite being labelled 'strategic' by many of the actors involved. In doing so, uncertainty avoiding reduced the strategic content and discussion in the board meetings. Figure 16 displays this effect visually.

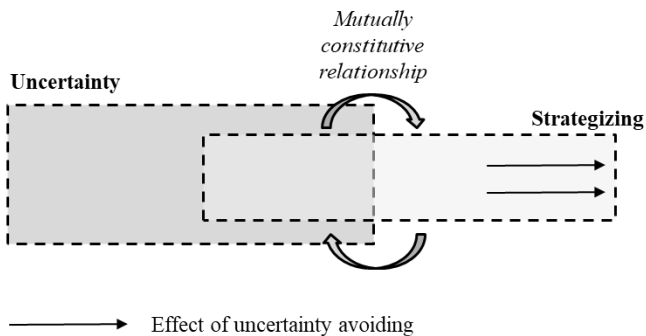Figure 16: Uncertainty avoiding – Strategists 'try to get away' from the uncertainty in their strategy practice

10.1.2. Uncertainty reducing

The second type of uncertainty work, *uncertainty reducing*, contains two elements: First, *information gathering and foraging* and second, *preventing potential criticism*. Both facilitate the reduction of uncertainty that is inherent in strategizing, often implicitly.

Information gathering and foraging

In regard to *information gathering and foraging*, we identify several activities that all attempt to reduce the uncertainty inherent in strategizing by gaining and storing more information. Overall, the PubLib executives create numerous different reports and internal documents: regular project status reports, final project closing reports, monthly reports on the activities of the departments, or detailed minutes of the board meetings are only a few examples. The external strategy coach team, who conducted one off-site workshop with the executive board (Event 5 described in Chapter 8.2) concluded her opening remarks with:

> *"So, I was briefed on your current topics and received some background information [...] That's what I understood the status quo is...Ahh and you guys create a lot of text. That was surprising, how extensively you document and how much effort you seem to put into written documents."*

One executive actively questioned the value of the many different reports:

> *"It is not just the reports, but we also have quite a few jours fixes, so regularly meeting with different teams and we all have our monthly meeting with the directorate. So oftentimes, my reports are just a summary of what has been discussed and often documented elsewhere already. If I could, I would erase a few of the reports, but they are required for some reason."*

Most of the reports are written and archived without creating much resonance within the organisation. However, several executives still hold onto the reports in order to have the opportunity to inform themselves about certain topics if necessary. One board member's statement represents this element of *uncertainty avoiding*:

> *"Yes, that is a lot, now that we are laying out systematically all the documents we regularly create, but I still want to know what is going on elsewhere. It can happen that there is another department working on something that may affect my work at some point and I want to know about it earlier rather than later, so I can react to it".*

This statement also points to *information gathering and foraging* as a possible mitigation for interpersonal uncertainties arising from the possibility that things happen elsewhere without the board members knowing about them.

Preventing potential criticism

A second element of *uncertainty reducing* is preventing potential criticism. One executive noted that the executive board is a rather critical panel, which we also saw in the practice variant *contested discussion* (DIS I).

> "*I was really surprised by how critically everything is evaluated. You have to weigh everything very carefully, so you better have thought about your argument very well before speaking up*".

> "*I still feel that talking freely and basically just thinking out loud is something that we do not do enough. Some members might actually be afraid – I don't know – but probably our very critical fundamental attitude makes people want to shy away from saying anything controversial or potentially wrong.*"

Consequently, the executives often prepared their presentations and inputs for the board meetings in a thorough manner and backed up their arguments with a significant amount of data in order to be prepared for potential criticism (PRE I overload by documents).

This pattern of preventing potential criticism was also prevalent in the reflecting round. As indicated above, although their original purpose was to prepare the strategic discussions in the board meeting, the general perception of the executive board on the work of the reflecting round was rather sceptical and critical.

The reflecting round seemed well aware of these criticisms, as their members often tried to anticipate and prevent potential criticism by repeatedly anticipating potential perspectives of the other executives. During one reflecting round meeting, we observed repeated comments along the following lines:

> "*Are we going too far here? Isn't that exactly what the others would criticise?*"

> "*Hold on a minute. What would the executive board say to this if we discussed all this here and now?*

> "*I am sure that they want more information on this. If we bring it to the executive board like this, they will rip it apart.*"

Overall, by trying to anticipate and prepare for potential criticism both on a content and on a methodological level, PubLib's executives decreased the uncertainty in their strategy practices.

At the same time, they contributed to a certain manifestation of certain information asymmetries across the board.

Both *information gathering and foraging* and *preventing potential criticism* contribute to reducing the inherent uncertainty in strategizing, as displayed in Figure 17. While strategizing still takes place in the context of this type of uncertainty work, it especially addresses Keynesian and Karpikian uncertainty, which points towards a higher relevance of the practice dimension of uncertainty.
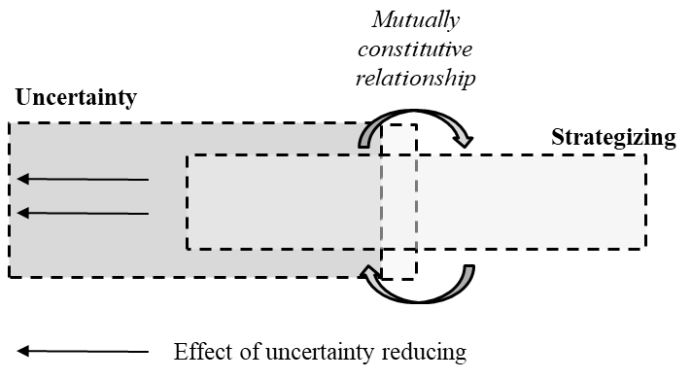

Figure 17: Uncertainty reducing – Strategists 'try to reduce the uncertainty' in their strategy practices

10.1.3. Uncertainty inflating

We identified a third type of uncertainty work, which we label *uncertainty inflating*. In this third type, executives take uncertainty as the most fundamental and central aspect of their strategizing and thus inflate it to unbearable and unproductive levels. Consequently, uncertainty inflating leads to high levels of paralysis and stagnation in the overall strategy process. We observed two elements that contribute to *uncertainty inflating*: *decreasing one's own agency* and *glorifying other players*.

Decreasing one's own agency

The general and shared attitude of the executive board was repeatedly guided by 'we can't do anything about it anyway'. This attitude was very palpable in instances of complete silence in the room while executives looked at each other in search of what to do next. Repeatedly, PubLib executives focussed on the external embeddedness of their own institution, where other libraries, the public administration and several national and international collaborative projects dissolve their organisational boundaries and especially their own ability to act and create impact, as the following two executives' quotes show:

> *"Obviously, we are not fully autonomous like a firm in the free economy. We have certain obligations to cooperate and to fulfil certain roles, but in my understanding, we could be more self-focussed than we currently are."*

> *"It sometimes feels like we are a little child being pushed around. Whenever there is a new idea on the table, there is some killer argument for why we cannot do it. Either it is because somebody else does it or because it is against our statutes or something else. But, I mean, we could do it better or more quickly or more cheaply or statutes could be changed, right? I often feel like a toothless tiger in those kinds of discussions, but I guess we have more teeth than we might think."*

In addition, the executive board often dove deeply into discussions on developments that were out of their control, even if everyone agreed upon the presence of high levels of uncontrollability. In two instances of discussing the future governance structure of the local library landscape and the future contracts with publishing houses, the discussions started with the following quotes:

> *"We first need a new structure over there [other library] before we can do anything, so all we can do is wait at this moment"*

> *"Here, the publishing houses are in the driver's seat, so what are we supposed to do right now?*

While there was widespread agreement across the board that these developments were currently beyond PubLib's realm of control, the discussions still proceeded with a focus on their current inability to act.

The executive board also regularly described a strong information asymmetry as a result of the common preparation practice PRE I *overload by documents*. As described above, by providing an extensive preparatory material list, several executives felt unable to contribute to the discussions on equal footing, as expressed by one executive during an interview:

> *"Sometimes I am afraid to say anything because other people in the room seem to have such a different knowledge level, so anything I ask or say seems to be mundane or stupid. But probably others have the same or a similar question."*

This perceived inability to actively contribute to the discussions, although not perceived by all executives equally, further decreased the personal perception of being a strong player with the

ability to act. Furthermore, this decrease in one's own agency happened by overly attributing the ability to act to other institutions:

> *"You were present at this one discussion about the relationship between us and the new library, right? I mean, it is a topic that really moves us at the moment, but what I perceive as troubling is that we always try to understand what they are doing so we can react to it. I am missing the internal perspective: What can we bring to the table? Where are we good at?"*

Glorifying other players

In addition to decreasing their own agency, PubLib's executive board also inflated uncertainty by overly focussing on the positive aspects of other players. The following quote clearly shows this:

> *"We could be more confident in our discussions. I mean, we are PubLib; that is something! But when we discuss something, it actually does not really matter what it is, then we often hear 'hey, there at [other library] they know how to do it; they figured it all out… I have been at [other library], and not everything that glitters is gold. I mean, they are not perfect, but somehow we all think they are, and then all of a sudden we are the small player again."*

In addition, we observed this glorification of other players in several board meetings. Often, when referring to potential future offerings, the executive board, based on their extensive knowledge, was able to refer to an, often international, example of another library that had undergone something similar. Rather than using these examples as a best practice from which PubLib could benefit, we observed statements like:

> *"Well, but there [different library], they have a much larger city. Their potential user base is much larger."*

> *"True, but they [different library] have had to do severe cost-cutting over the last several years, so this project was born out of necessity not out of free will."*

Thus, while discussing these examples, the discussion focussed on those local contingencies that made it less likely for PubLib to be successful with such an endeavour. In doing so, the executive board increased the feeling of *'nothing is possible'*, which ultimately inflated the uncertainty in strategizing.

To conclude, both *decreasing own agency* and *glorifying other players* inflates the uncertainty in strategizing to levels that seem to be unproductive for strategizing, leading to states of paralysis rather than action. At the end of one board meeting during which we observed particularly high levels of uncertainty inflating, the meeting chair closed with the words:

"I hope I am not looking only at sad faces right now"

while the other executives started packing up their things in silence. The feeling of paralysis had a tangible presence in the room and was an important element to uncertainty inflating.
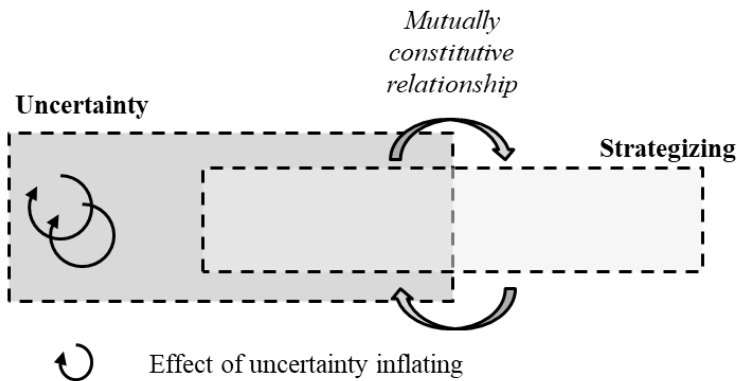

Figure 18: Uncertainty inflating – Strategists suffer based on an exaggerated focus on uncertainty

10.1.4. Uncertainty experimenting

The fourth uncertainty work type *uncertainty experimenting* is the most important for the development of PubLib's strategy practices. Within this type, PubLib's executive board started to introduce alterations to their own strategy practices.

Overall, *uncertainty experimenting* introduces variations to the strategy practices in three different ways: by experimenting with actors, by experimenting with meeting formats, and by experimenting with activities. In this context, experimenting includes the introduction of something new, the omission of something existing, the alteration of something existing or any combination of the previous three.

Experimenting with actors

One of the early and impactful experiments in regard to actors in PubLib's strategy practices was the hiring of an external strategy coach. As presented previously, she regularly attended the reflecting round meetings and provided input by proposing a potential structure, relevant

tools and materials that the members of the reflecting round could use for the following executive board strategy workshops. During this phase, the strategy coach met exclusively with the reflecting round in order to prepare the board meetings. The actual executive board never met her. During the executive board meetings, the reflecting round members facilitating the strategy workshop executed the planned workshop that they had previously developed together with the strategy coach. Given her professional background as a strategy coach, she introduced many strategy practices not previously mobilised to the executive board in an indirect manner – via the reflecting round. As one member of the reflecting round recalled:

> *"Yes, she was definitely helpful. I don't know whether she was the best person to do it, but the fact that we had this support, someone who knows which template to use for an external analysis or for facilitating a discussion on our strengths and weaknesses, all these things really helped us. After all, we have probably heard the term SWOT before, but never really used it. She definitely guided us and gave useful inputs."*

This point was further exemplified in one of the reflecting round meetings in which the strategy coach was absent. In this instance, she became an important reference point for the discussion, despite her absence:

> *"What did she [the strategy coach] draw again on this one flipchart? Does somebody have the photo at hand? I think what we are currently discussing can be addressed with that."*

> *"Didn't we develop this part [a specific agenda item for the next strategy workshop] already? I remember that she [the strategy coach] gave some good input on that. I think we saved it in the share folder."*

Another important example of alterations to the strategy actors was the change to the executive board structure by introducing new members and replacing one former member. One executive explained the rationale for the decision to include the head of HR in the board with the rationale that HR is an important strategic function for PubLib:

> *"I guess we have established by now that we are not as free in our planning as a normal firm is. However, we believe that one element where we actually can steer our organisation forward is through our HR. By hiring people with the competencies we want in the future, we can actively develop what we will do in the future. For example, let's assume one colleague in the usage department retires*

and we need to re-staff this vacancy. He probably was old and received a traditional education: cataloguing, analogue research, and the like. The future of user interaction obviously is more digital, more interactive, more 24/7, so we would require a different skill set, more IT skills, digital databases and so on. Hence, HR is an extremely strategic position for us and one of the few where we can provide a real impetus by looking for the right people. This is why we wanted the head of HR to be in the executive board – so we also increase our ability to discuss strategically."

Experimenting with meeting formats

Several alterations of the PubLib strategy meeting formats, especially the executive board and the reflecting round, further contribute to uncertainty experimenting. The original idea to establish the reflecting round provides an exemplary case. The very reason to start the reflecting round was the understanding that the existing executive board's strategy practices required support to become more productive:

> *"I had the feeling that we, in our current set-up, did not reach satisfactory levels of discussing our strategic topics. Without fully knowing why, a smaller group that could prepare the board meetings felt like a promising new format to start the executive board discussions on a different level."*

The reflecting round was clearly framed as an experiment, as the following quote illustrates:

> *"We did not know whether that was the best or final idea. It was an attempt to change something."*

The reflecting round, as described above, served as an important launch pad for further changes to the executive board in which this new format supported the introduction and partial routinisation of more collaborative workshop formats that executives perceived as supportive for their strategic discussions.

Another good example of altering an existing meeting format in the form of an experiment is the change of the annual board off-site. In the past, the executive board had visited different libraries to exchange ideas, ways of working and best practices. In 2018, the executive board changed this praxis and decided in favour of a different approach. They visited a think tank of a large corporate bank that works on designing distant futures by creating future scenarios for the long-term functioning of our society and economy. During the exchange, the hope was:

> *"that we receive some methodological inspiration on how to tackle the future. And it felt like they [the think tank] had mastered it. They deal with the most distant future, or futures, as they put it, on a daily basis and with an apparent ease that could be helpful for us, too. So, it was about methods and not so much content, in my opinion."*

> *"After having visited the x-ed library, maybe the time was ripe to try something different. And considering the current issues we have at the executive board, that was worth a try – despite the normal scepticism."*

This experiment involved the annual off-site and clearly points to an increasing focus on the practice dimension of uncertainty. Rather than focussing on the uncertainties originating in the external market or the intersections with other institutions, the executive board focussed on their own conduct and the difficulties in assessing the quality of it.

Experimenting with activities

Given the importance of PubLib's strategy practices as a focal point of empirical investigation, we already presented several vignettes of alterations to the practices in the data presentation (Chapter 8.4). All of them, in one way or another, also involved the experimentation with activities. By examining the temporal development of the four presented strategizing practices, we can find multiple examples of how experimenting with activities unfolds.

One prominent example involves the role cards, relevant for STR III (see Chapter 8.4.3). Facilitated by the material elements of the physical cards that represent certain desired activities, the executives described some active experimenting with their own activities:

> *"I was more sceptical in the beginning. I just thought that we had enough stuff to work on and that we didn't need yet another methodological pinch. But I was surprised how that helped us. We just tried using it and our behaviour actually changed. We became more consistent in regard to timing and letting each other finish his or her sentence, at least in my perception."*

> *"I think it was the mere presence of the cards and the clearly assigned roles that came with them. We all agreed that we wanted to interact in a friendlier manner with each other, but nobody really enforced it. The cards just lowered the burden to say 'hey stop! That's against our code of conduct'."*

An additional brief example of experimenting with activities is the 'check-In' procedure at the beginning of each meeting. Before actually starting their meeting, it became common practice

to provide a short time window during which everybody could voluntarily share what was on her mind in that moment and with what kind of feelings and attitudes they were entering the present meeting. Comments in this check-in ranged from short reflections upon current events or incidents to personal matters such as an accident involving someone's child. Here, the executives tried to enter the meeting in a more open-minded, friendly, and approachable manner, which in part also affected the subsequent discussions.

> *"That's nothing big, right, but it is nice to also see that we are still humans at the table and not just machines jumping right into the work stuff."*

> *"Maybe that is one small piece of the puzzle for better conduct inside the executive board. I don't know. Maybe we will also skip it again in a few weeks, but I think it's good that we try these kinds of things.*

In sum, with the three elements of uncertainty experimenting, we contend that this element of uncertainty work is crucial for introducing variations into the existing strategy practices. Triggered by a dissatisfaction with the existing conduct, the executive board consciously started to introduce alterations to the strategic actors, strategic meeting formats, and strategic activities.
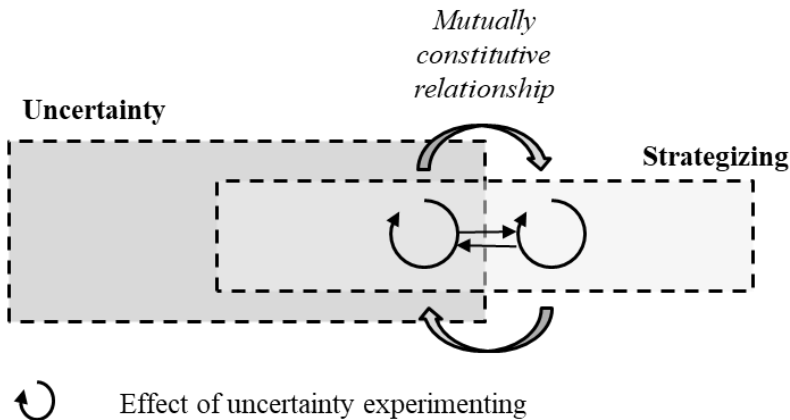

Figure 19: Uncertainty experimenting – Strategists introduce alterations to their strategy practices based on the underlying uncertainty

10.1.5. Uncertainty accepting

In the fifth type of uncertainty work, namely *uncertainty accepting*, we observe activities that all contribute to a harmonic relationship between the underlying uncertainty and strategizing,

where the uncertainty is accepted and productively mobilised. Two elements, namely *trusting other executives* and *engaging with potential futures*, contribute to this last type of uncertainty work.

Trusting other executives

Primarily in board meetings towards the end of our data collection, against the dominant tendency of *contested discussions* (DIS I), we observed several instances where the executives emphasised a more trustful relationship. Originally, the executives individually agreed that more trust in each other's competencies is an important area for improvement:

> *"What we need is less scepticism. Whenever somebody else does something, we all first suspect it to be bad or harmful or that we need to supervise it. Why not trust each other that we all have a common interest and that we all have our competencies? This brings us back to the expert organisation; we all seem to be the only expert in everything..."*

> *"In our discussions, we are often overly critical. There is no presumed innocence; we must always prove that something is good; otherwise, it is bad, to put it very simply."*

However, when looking at one short vignette from a board meeting, we see how this joint desire to build more trust and respectful communication within the executive board also occasionally manifests itself in observable actions. When discussing the future strategic focus areas for the development of PubLib's staff, the executives discussed the advantages and drawbacks of potential focus areas in a productive fashion. When the discussion turned towards more detailed implementation planning, the executive in charge of the *setting* role card raised her voice and stated:

> *"We now simply trust [name of executive responsible] to do this properly. The implementation is her task and her responsibility not the executive board's job. Those details can be aligned elsewhere."*

This moment was a prominent instance showing that the element of uncertainty accepting manifested itself in the executive board's strategy practices. Rather than fully diving into the controllable and operational issues of implementation planning, as regularly seen in uncertainty avoiding, the executives stopped the discussion as soon as it was about to leave the strategic realm and trusted their colleague to take the topic further. In an informal conversation shortly after the meeting, one executive noted:

> *"That was good, wasn't it? I think we as a collective have to learn to accept that things will not go wrong if we do not control everything. And this example is a good learning moment, I believe."*

We further observed this nascent tendency of more trust in several of the later quotes:

> *"I think I also personally developed. Back in the day, I was extremely critical; people even told me from time to time that I was too harsh. Now, I sometimes take a second to think before speaking up and raising my criticism. Don't get me wrong! I still think critically, but I first want to give my colleagues the opportunity to prove that they can do it before criticising the unborn child, so to say. I think this actually helped our dynamics in the executive board – it feels more like a team, more productive now. […] I also like having the green feedback card, I think I am the person who should have that one all the time as some kind of self-therapy [laughs]".*

> *"Our dynamics are improving, I would say, slowly but I'm starting to feel certain changes. We seem to be a little more supportive, less critical with each other."*

Overall, this element of uncertainty accepting strongly contributes to the productive acceptance of uncertainties, especially those evolving around the interpersonal aspects that are embedded in strategy practices.

Engaging with potential futures

In addition to an increasing level of trust among the executives, we further observed several activities that all contribute to a way of thinking about and arguing around potential futures that accepts uncertainty in the strategy practices.

In some meetings, especially in the FFD process, we observed how reports on external trends were not used in an information gathering and foraging fashion without much engagement (as seen in *uncertainty reducing*) but are mobilised in a more generative fashion. This involves the conscious prioritisation across different trends and the subsequent exclusion of less relevant trends. Considering how the many different external trends used in the FFD process[25] were quickly reduced to the most relevant ones, we see that this translating of external trends is less about quantity and completeness, where the executives tried to cover everything, and more about quality and relevance, where the executives translated those trends that were the most

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[25] Please refer back to Chapter 8.2 for an overview of the FFD process and to Chapter 8.3 for a more detailed discussion around the external trends

pertinent to their own work into further steps in their strategy work. In addition, during one of these discussions, we witnessed how marginal trends spark important episodes of voicing additional offerings in a generative fashion, as the following example from one of the board meetings indicates. After having discussed several trends and their relevance, this conversation took place:

> Executive A: *"And obviously, this urban gardening trend makes us create our own plantation on the rooftop of PubLib."* [general laughter and a short pause]

> Executive B: *"But why not? I mean, if we take those trends seriously, and I think they actually help us, obviously, a roof top garden is not feasible, but underlying this trend is a general societal tendency towards more green thinking. How could we incorporate this into our building is still a relevant question, right?"*

This short conversation shows how an external trend, despite its marginal relevance and the uncertainties surrounding it, becomes a productive launch pad for envisioning and discussing different future options. Several executives also confirmed this in individual exchanges:

> *"Yes, I definitely see some development. Clearly, we still have quite some issues, but it is different from a year ago. I think there is more openness to also raising thoughts that can be criticised and I really appreciate that and I think it also helps us to discuss our strategy together. This raising and appreciating of different ideas, rather than criticising them, helps us."*

Overall, when engaging in the uncertainty accepting type of uncertainty work, the executives accepted that uncertainty is an inherent part of strategizing and let it be a part of their strategy practices by trusting each other and engaging with future scenarios rather than trying to avoid or reduce the uncertainty. This seems to allow for the most productive strategizing of all five uncertainty work types, as we will discuss further below, where we develop an initial process model of uncertainty work. To conclude, Figure 20 displays the uncertainty accepting practice, where both uncertainty and strategizing are equally considered, doing justice to their mutually constitutive relationship.
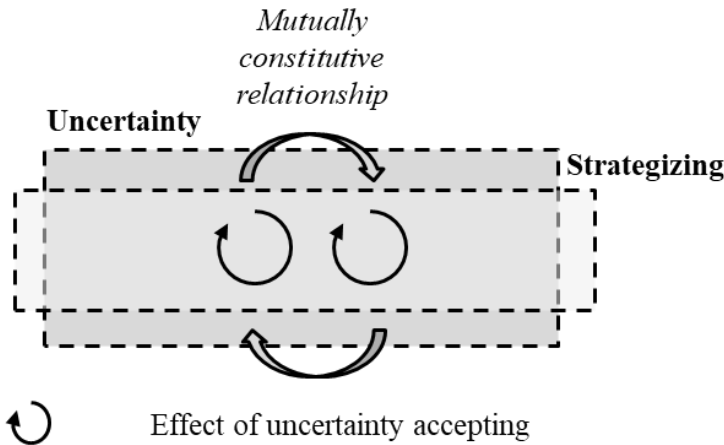
Figure 20: Uncertainty accepting - Strategists accept that uncertainty is an undeniable part of their strategy practices

10.2.   Towards a process model of uncertainty work

Each of the five types of uncertainty work are distinct and we are able to observe them empirically in different settings. At times, the executive board iterated between several types multiple times within the span of only a few minutes. In other phases, the executive board took weeks, including more than one meeting that was predominantly characterised by one specific type of uncertainty work, often *uncertainty avoiding* or *uncertainty reducing*. Therefore, uncertainty work can be a fluctuating concept in particular micro instances while also displaying significant stability over longer periods. This indicates that the five types of uncertainty work are far from a simple linear model. Hence, it is a crucial task to put the five types of uncertainty work in relation and to understand their processual dynamics in the form of how one may lead to another and how this relation unfolds.

Therefore, Table 11 compares the five different types of uncertainty work in regard to their focus point, the role of uncertainty in strategizing, the effect on strategizing, and the executives' perceptions about the resulting strategy practices. As the table indicates, the executive board members express an increasing satisfaction with their strategy practices in *uncertainty accepting*. This empirically supports our understanding of the mutually constitutive relationship of uncertainty and strategizing. Generally, we observe that it is in *uncertainty accepting* that the executive board is able to work on the content dimension of strategy most productively.

Type of uncertainty work	Focuses on…	Role of uncertainty in strategizing	Effect on strategizing	Perceptions about strategy practices
Avoiding	Largely certain aspects	Ignored	Decreases the likelihood of addressing strategic topics	High perceived levels of activities but low perceived outcome
Reducing	Environmental uncertainty	Combatted	Binds resources elsewhere and decreases the likelihood of openly discussing on equal footing	High perceived levels of activities with outcomes that create little perceived impact
Inflating	Environmental uncertainty	Primary or sole focus	Paralyses strategic discussion and decreases joint understanding that fate is in your own hands	Paralysed and powerless feeling
Experimenting	Practice uncertainty	Reason for change	Introduces new elements, alters or omits existing ones	Exhausting but also inspiring
Accepting	Both environmental and practice uncertainty	Source of value	Enables productive strategizing work	Strange or new but positive and productive

Table 11: Comparing the five types of uncertainty work

When focussing on the relationships between the five different uncertainty work types, we receive a first process model of uncertainty work that we display in Figure 21 and discuss in the following.

Uncertainty avoiding, *uncertainty reducing*, and *uncertainty inflating* create a very stable iterative loop where each individual type can reproduce itself, meaning *uncertainty avoiding* leads to more *uncertainty avoiding*, but can also fertilise any of the other two. For example, looking at *uncertainty avoiding*, the executive board regularly creates unambiguous content themselves. When developing joint texts, like the minutes that are written in the aftermath of every board meeting (DOC I), they regularly engage in quite detailed discussions about the exact semantics of certain words or the order of words in a simple listing. Several interview statements underline this tendency to create such detailed, largely accepted and thus less disputable content.

> *"You have probably heard the term 'reportitis' already around here. We tend to report everything in written documents. If something is black on white, it has a completely different value than just the spoken word."*

> *"That's where we have fun! When we can really go in and look at different words from all semantic sides and then really discuss and negotiate for the right way of phrasing something until we have the arguably perfect formulation. You have been present in those instances, right? Where we basically discuss single phrases of a letter sent to somebody important or a brochure or whatever. I mean eight people discussing a single word…You tell me whether that is efficient. But then again, at least we all agreed on it in the end."*

By creating such quantities of content, the executive board can always rely on and refer to existing unambiguous content, thus increasing the likelihood of subsequent *uncertainty avoiding*. Similarly, the detailed preparation of each agenda item (PRE I) supports preventing potential criticism, and thus *uncertainty reducing*. This often leads to a discussion practice of *observed dialogue* (DIS II), as there are only a few executive board members holding in-depth knowledge about a certain topic and who are able to discuss the topic on a level equivalent to the richness of the preparatory material. The underlying pronounced information asymmetry further decreases the individual's own agency, which is an element of *uncertainty inflating*.
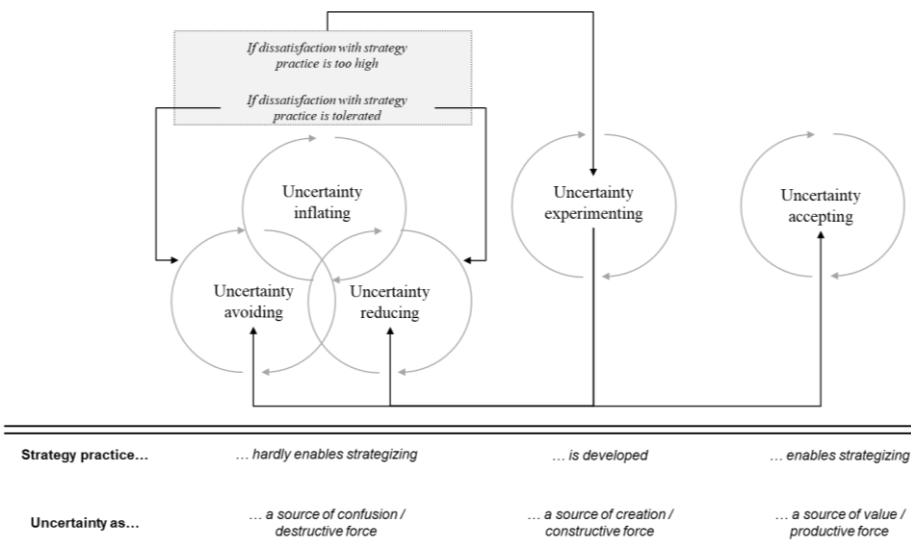
Figure 21: A first process model of uncertainty work

Hence, as illustrated by the two examples above, the three uncertainty work types *uncertainty avoiding*, *uncertainty reducing*, and *uncertainty inflating* can create numerous loops of rather stable self-enforcing cycles. This occurs despite the shared characteristic of all three types in hindering rather than enabling a productive strategizing. By avoiding or reducing the uncertainty that is inherently connected to strategizing, the executive board rarely reached a productive level of strategizing. However, elements such as focussing on controllable and operational issue or inducing relevance to marginal issues (both elements of *uncertainty avoiding*) can provide a strong understanding that strategizing actually happens, while progress in terms of actively steering the organisation forward is marginal. Those cycles of reducing, avoiding, and inflating can continue until the dissatisfaction with the strategy practices is too high (grey box in the process model). In this case, the actors developed an increasing understanding that something had to change and therefore PubLib's executive board entered the crucial type of uncertainty work, namely *uncertainty experimenting*. This process cannot be pinned down to any specific turning point, but the willingness and active push for *uncertainty experimenting* was a development in itself that manifested itself at a certain point in the form of an actual experiment around the strategic actors, meeting formats, and activities. Hence, *uncertainty experimenting* is the type of uncertainty work where the strategy practices start to develop based on alterations, omissions and modifications. Depending on the outcome of the various alterations, the executive board may return to the unproductive triad of uncertainty work

(left side of the model – *avoiding, reducing, inflating*) or may enter the productive type of uncertainty work, namely *uncertainty accepting* (right side of the model).

Given that *uncertainty experimenting* has a crucial role (indicated by its central position) in this initial process model of uncertainty work as *the* element of uncertainty work supporting the development of a strategy practices, we require a zoom in on the dynamics that take place within uncertainty experimenting.

10.3. Understanding the dynamics of uncertainty experimenting

As indicated above, the element of *uncertainty experimenting* is the key type of uncertainty work when explaining the development of strategy practices. By engaging with uncertainty in such a way that it becomes a constructive force for introducing new elements into the strategy practices, changing existing ones, or omitting existing ones, it becomes a source of creation and renewal. Hence, *uncertainty experimenting* is a first preliminary answer to our second research question 'how does uncertainty work relate to the development of an organisation's strategy practice?'. However, *uncertainty experimenting* as a concept offered dynamics within PubLib's strategizing. Several accounts of *uncertainty experimenting* in PubLib's executive board helped to uncover three important insights on the internal functioning of *uncertainty experimenting*, which we further elaborate in the following subchapters.

10.3.1. Experiments serve as a stage to uncover hidden agreements

Throughout the four key strategy practices *preparing strategy work*, *discussing strategic topics*, *structuring strategy work*, and *documenting strategy work*, and their respective variants, we observe an important pattern. Multiple practices that were routinely mobilised throughout board meetings were perceived as rather unproductive and evaluated negatively when reflecting about them later. While this dissatisfaction is an important trigger for uncertainty experiments in our process model, there is another important connection between *uncertainty experimenting* and the dissatisfaction with the existing strategy practices. Although the executives unanimously desired to change the existing strategy practice, there was little action to actually do so. In several instances, we observed how uncertainty experimenting, introduced alterations, both consciously and accidentally, that served as a stage to uncover the joint but largely hidden agreement that this practice element was actually worth developing. For instance, during the first workshops of the FFD, based on the mobilisation of PRE II – *rigid process planning*, we saw the introduction of several new activities. Many of them were approached with cautious scepticism in the beginning and the executives needed to motivate each other to actively participate. Over time, they developed into a more self-sustaining practice where multiple

executives actively mobilised them. This takes place in an iterative fashion where initial positive feedback within an experiment leads to an increasing trust in other executives to also positively participate in that experiment. For instance, after one executive put up and briefly explained her post-its during one of the first mobilisations of this practice (DOC III – *collective visuals*), other executives were willing to share their thoughts more openly in a similar way. Thus, such an alteration of the practice developed as a consequence of *uncertainty experimenting*, once it manifested itself, and provided the foundation to further develop this practice element based on the revelation of the joint desire to develop their practices.

10.3.2. Experiments produce further experimentation

As we have seen repeatedly throughout the different vignettes presented above, an initial experiment introducing an alteration to the existing practices creates further experiments and alterations. For example, the new strategy coach (experimenting with actors) quickly introduced new ways of framing discussions, a new trend overview, and new methods to prioritise elements (experimenting with activities). Those practice alterations subsequently triggered small alterations to the executive board (experimenting with meeting formats) when, for example, the executive board room required more space for open collaboration and more flipcharts. Similarly, as described above, the introduction of new members to the executive board supported the introduction of new activities and an alteration in the meeting format, like changing the board off-site or introducing the reflecting round.

Interestingly, experiments seem to increase the playfulness and willingness to engage within a single given experiment as well. The green feedback role card (part of STR III) was originally designed to elicit a shift from overly critical feedback ('it is bad that…') towards constructive feedback ('this could be improved by…') at any given moment during a board meeting. However, one executive who had the card in one of the first meetings interpreted the card as a task to provide positive feedback at the end of every presentation or agenda item, which she readily did. After several agenda items passed, one executive pointed out the misunderstanding; however, the executive board decided in a friendly and positive fashion that the green card could carry both functions forward in order to evoke positive feedback more regularly. Thus, the material element in the form of the green role card provided the fertile ground for introducing further experimenting and small alterations to the existing practices that seemed to be welcomed by the majority of the executives.

Overall, it seems that a single experiment rarely stands alone but can spark or even require further experimentation with different elements. This chain reaction further confirms the reinforcing cycle and iterative element of *uncertainty experimenting*.

10.3.3. 'Failed' experiments can provide serendipitous value

As presented above, the last workshop within the FFD process, which took place with the team of two systemic coaches (Event 5), received rather critical feedback throughout the executive board meeting. All executives agreed that they did not want to continue working on the FFD process in such a way. Nonetheless, the workshop served an important purpose, as one executive noted in a later informal discussion:

> "I think it showed us what we did not want. All this team building, focussing on the personal stuff. I have the feeling that by showing us 'oh this is also an option for how to work on it', we kind of pulled ourselves together and were more willing to work on it in a different way".

Hence, while the experiment of working with the coach duo was not successful in terms of creating a direct impact on PubLib's strategy, it still offered serendipitous value by providing scenarios of alternative futures. Taking these alternative futures of the executive board's own strategy practices as a reference point, several changes to the existing strategy practices seemed less drastic and executives who were previously very critical of such changes accepted them more openly, as one executive noted:

> "If you ask me, anyone coming in with something new now has a much easier game. Not because everybody has had an epiphany and believes that the new tools and things are better, but because they don't want to go back to the alternative. So, it actually helped us a lot, although everybody basically disliked it."

The role cards (STR III), which were understood as a true experiment to support the development of strategy practices, were introduced in the meeting after this off-site workshop (Event 5), which further supports the argument of serendipitous value in 'failed' experiments.

10.4.   Understanding the development of strategy practices

Our three key findings on how strategy practices develop after an alteration has been introduced through *uncertainty experimenting* can be understood along the temporal development of an exemplary practice. The first finding (Chapter 10.4.1) describes an important initial support element for a new practice variant to emerge against initial criticism. The second focuses on three important factors that foster the initial mobilisation (Chapter 10.4.2). The third presents two important aspects for stabilising a practice over time and thus making it an increasingly established element of the available repertoire of practices (Chapter 10.4.3).

10.4.1. Practice alterations require a connecting ground to the existing strategy practice

In several episodes, we observed how practice alterations that differed significantly from the existing practice landscape quickly vanished and thus hindered further development of that practice as well as productive loops of further uncertainty experimenting. The vignette referring to the preparation practice variant PRE III – *minimal preparation* provides a good example.

Starting with PRE I – *overload by documents*, we see that, what was often understood as a thorough preparation regularly created information asymmetry. This asymmetry manifested itself between two groups that displayed a significant difference in detailed knowledge on the subject. On the one hand, we have the executive that prepared the specific item on the agenda and sometimes one or two additional executives who were also involved in this topic and had an in-depth understanding of the subject matter and on the other, hand all remaining executives. The resulting information asymmetry directly affected the mobilisation of discussion practice variants, where the variant *open discussion* (DIS III) remained at limited levels of mobilisation, as multiple executives did not feel knowledgeable enough to participate in a discussion on the topic at hand. The practice of *observed dialogue* (DIS II) was mobilised, despite the executive board's clearly stated ambition to discuss more openly with all board members. The following two quotes exemplify this dynamic:

> *"And before I have even collected my thoughts and made up my mind about this topic, so before I would even be able to contribute something, those who know the topic moved further on. It makes it very hard to follow and participate without slowing down the discussion, so I guess the ones who are less informed just don't participate at all."*

> *"I also don't have the feeling that I can contribute or that my contributions will be valued, because they would be on a different level. We always have a few experts on a certain subject."*

Consequently, the discussion resembles an *observed dialogue* (DIS II) when executives with a knowledge disadvantage remain silent observers and the practice variant *open discussion* (DIS III) does not experience a solid mobilisation across time and space.

However, as briefly mentioned previously, we observed an interesting 'break-out' pattern in the first executive board meeting of 2019, where we had new members joining the meeting. As discussed in the presentation of PRE III – *minimal preparation*, given their newness, the two executives were not accustomed to the default option practice of PRE I – *overload by documents* and one prepared an agenda item with a very brief document providing only a few guiding

questions to think about. Due to this minimal preparation, there was little, if any, information asymmetry, which theoretically provided the ground for an *open discussion* (DIS III) to be mobilised. However, given the large stretch between the common PRE I – *overload by documents* and the now experimentally mobilised PRE III – *minimal preparation*, this new practice variant was met with stark criticism. Overall, the discussion was generally perceived as rather poor, and some executives openly criticised the poor preparation, as the quotes presented in the data presentation show[26]. Figure 22 summarises this dynamic graphically.
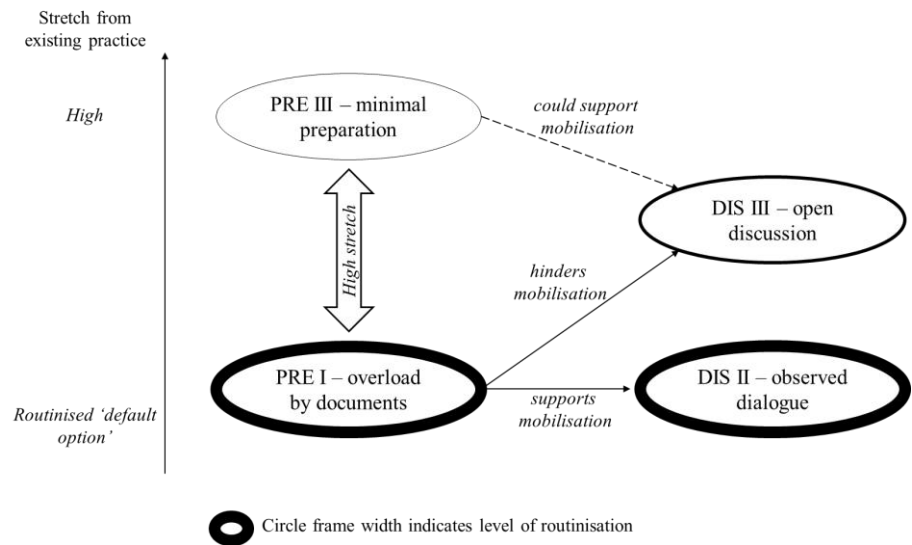

Figure 22: 'Radical' experiments hinder further uncertainty experiments

Hence, alterations to the strategy practice seem to require some connecting ground with the existing practice landscape, as the 'radical' experiment of minimal preparation did not elicit lasting development but met with rather high scepticism and is unlikely to be mobilised. When reflecting on that board meeting, the executive involved in the example mentioned above stated:

> Executive: *"I was really surprised by the amount and harshness of criticism. I just wanted their input to work on the subject further afterwards, so basically just*

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[26] Please refer back to Chapter 8.4.1 Preparing strategy work on page 111 to see the mentioned quotes again.

> *making sure that I did't run in a direction that nobody wants – but that failed big time and apparently, that is not how this board works. I was very disappointed."*

Interviewer: *"If you had the same subject in the board again? Would you do something different?"*

Executive: *"Ohh yes!" I mean, I do not want to go through this again. I would bring in all the data, write a proper text beforehand, and be as well prepared as possible, so that they couldn't criticise that anymore."*

We see that by accidentally introducing a radical new practice variant in the form of P III – *minimal preparation*, the executive quickly received criticism and reverted to thoroughly preparing and trying to prevent criticism, thus mobilizing an existing practice. Interestingly, the aspiration to prevent criticism contributes to *uncertainty reducing*, thus stopping that instance of *uncertainty experimenting* and the potential development of the strategy practices. This dynamic further confirms the fragility of *uncertainty experimenting* (as indicated in the process model by the arrows going from *uncertainty experimenting* back to *uncertainty avoiding* and *uncertainty reducing*), where loops of *uncertainty experimenting* can also quickly turn back towards less productive types of uncertainty work. Furthermore, this subchapter demonstrates that established practices display a certain persistence and that diverting from their mobilisation in an established setting is far from easy, especially if a newly mobilised practice displays a significant difference to the status quo.

10.4.2. Temporary protection, immediacy, and materiality support initial mobilisation of a practice alteration

As indicated above, our data suggests that new practices or variants of an existing practice can be subject to significant critical scrutiny both during their mobilisation (see for example PRE II, PRE III, DOC III) and outside an episode of mobilisation (see for example STR III, DOC III). Such practices often have not yet developed high levels of routinisation. Therefore, they struggle to develop into a stable practice that becomes regularly mobilised without questioning as it is "criticised to death" (Interview quote) before it develops in a way that it could prove its potential value. This may also result in potentially productive new practice elements lacking initial mobilisation. Thus, they do not become part of the repertoire of practices, despite their potential value. Against this background, STR III provides an example of how initial protection can provide an important safeguard for a practice to be probed sufficiently without ample initial criticism. We recall the vignette described in Chapter 8.4.3, where we discussed the introduction of the role card experiment used to structure strategic discussions in the board

meeting. The clear and active statement of one executive who justified and protected the experiment and thus created a period of 'criticism pause':

> *"Why don't we try this one now? We do it for a few meetings and then at some point*
> *we discuss whether it is good or bad? We can still cancel it later, but now let's just*
> *try it… and I will take the time card today."*

Hence, the executives distributed the role cards at the beginning of each meeting and raised them repeatedly, thus contributing to the mobilisation of this structuring practice (STR III) over a certain period without constantly scrutinising its value. Hence, independent of the potential productivity of a nascent practice, every alteration requires a certain period of protection to unfold its potential in order to show the potential value of an experiment. Evaluation and a potential discontinuation can follow this initial protection phase rather than starting with it. In addition, when altering an existing practice, immediacy, in the form of directly observable changes to the existing actions, appears to be an important facilitator to increase the likelihood of mobilisation of that nascent practice. Comparing the development of the *structuring strategy work* practice provides a good example. When looking at STR II – *an 'empty shell' practice* and STR III – *role card experiment*, both, qua design, tried to achieve the same purpose. Both were intended to facilitate more open, trust-based and cooperative strategy discussions in the board meetings. STR II contained all these elements in the explicit form of three documents: the code of conduct, the overview of different roles and the distinction between strategic and operational topics. When the board members jointly discussed these new documents at the end of one meeting and agreed upon them, we perceived a positive and energetic attitude. The executives seemed eager to engage in such new forms of discussions. However, about two weeks later during the next board meeting, these new interaction guidelines did not lead to any observable development of their strategic discussion practice. Nobody referred to them and the executive board continued as before, mobilising discussion practices DIS I – *contested discussing* and DIS II – *observed dialogue*, which counteracted the envisioned way of working together on strategic topics. Given that the introduction of these documents around STR II had no immediacy to the actual mobilisation, with the approximately two weeks separating the two instances, this practice variant remained a 'non' practice, until the executive board introduced the role cards of STR III. As the cards were physically present in each board meeting (placed on the table and requiring active movement to be raised), we observed how the interaction rules, originally developed in STR II, became more relevant and perpetuated the interactions in the executive board meeting. Thus, the immediacy created through the materiality of the role cards, in contrast to three distant documents (STR II), facilitated their mobilisation.

We observed similar dynamics of temporary protection and materiality around the development of the practice of DOC III – *collective visuals*, where the reflecting round provided a temporary protection in ensuring the mobilisation of this practice, at least for the workshops on the FFD. This further relates to the finding on how uncertainty experimenting can produce further experimenting. In this case, the experimentation with meeting formats (the introduction of the reflecting round) not only sparked further experimentation (introduction of new activities) but also temporarily protected it by ensuring the continuous mobilisation of practices like DOC III for an extended period.

Hence, we identified *temporary protection*, serving as a shield against early criticism and working towards initial mobilisation, *immediacy*, directly observable changes to the existing actions, and *materiality*, the impersonation or representation of certain new practices in physically present artefacts, as important facilitators of developing strategy practices.

10.4.3. Collectivisation and interlocking support the stabilisation of a practice variant

As a third key finding on the development of strategy practices, based on uncertainty experimenting, we see that the collectivisation and interlocking of several practices seem to stabilise new practices.

When considering the temporal development of the *documenting strategy work* practice through its three variants DOC I – *standard minutes*, DOC II – *single-person visual*, and DOC III – *collective visuals*, we observe an increasing collectivisation over the course of the three variants. Ultimately, DOC III involved all executives present at the meeting. Collectivisation plays an important role in increasing the acceptance of a certain practices and thus, increases the likelihood of its mobilisation. In contrast, we see that practices with low levels of collectiveness, such as PRE I – *overload by documents*, are increasingly contested and evaluated negatively. Hence, a practice tends to remain contested if it lacks collective mobilisation. Surprisingly, our data suggests that collectivisation does not follow a linear relationship of positive effects on stabilising new practices. In PRE II – *rigid process planning*, we observed how a subgroup of executive board members (those who are also a member of the reflecting round) thoroughly prepared a process and structure for the executive board discussions. The executives who were not members of the reflecting round regularly opposed and questioned the proposed methods and challenged the reflecting round to justify their choice of certain steps. Hence, a medium level of collectivisation that involves a separation of actors and meeting formats (temporal and physical separation between reflecting round and executive board) can lead to resistance to the developing practice, despite the fact that this new practice variant a) is generally perceived as more productive and b) has higher level of collectiveness (involving more executives) than the previous variant of that practice (PRE I).

Second, several executive board meetings indicated that the interlocking of practices seemed to increase their resilience and their likelihood of joint mobilisation. When looking at the actual activities of DIS III – *open discussion* and DOC III – *collective visuals*, we observed that the boundaries between these two practices were increasingly dissolved as activities contribute to the mobilisation of both practices at the same time. For example, when preparing their thoughts and post-its and subsequently discussing them openly, the executives simultaneously performed much of the documenting aspects and worked with the same artefacts. The only requirement for documenting the discussion was a photo, thus making both practices, *discussing strategic topics* and *documenting strategy work*, largely interlocked. Concretely, both DIS III and DOC III involve largely overlapping activities (writing on post-its, getting up and sticking them to a wall, jointly discussing and rearranging them), with identical actors involved (the executive board involving all or most of its members). In addition, both create and draw from identical artefacts (multiple post-its arranged in a certain logic on a wall or flip-chart). Through these artefacts, the process of discussing simultaneously creates a way of documentation that does not require further work. Hence, both practices, discussing and documenting, increasingly merge into one interlocked set of activities that involve the same actors and artefacts. Our case illustrates that both practices, DIS III and DOC III, stabilised over time and thus became a regularly mobilised element of PubLib's repertoire of strategy practices. Therefore, it seems as if the interlocking of activities supports the stabilisation of practices over time. Figure 23 displays these three dynamics visually.
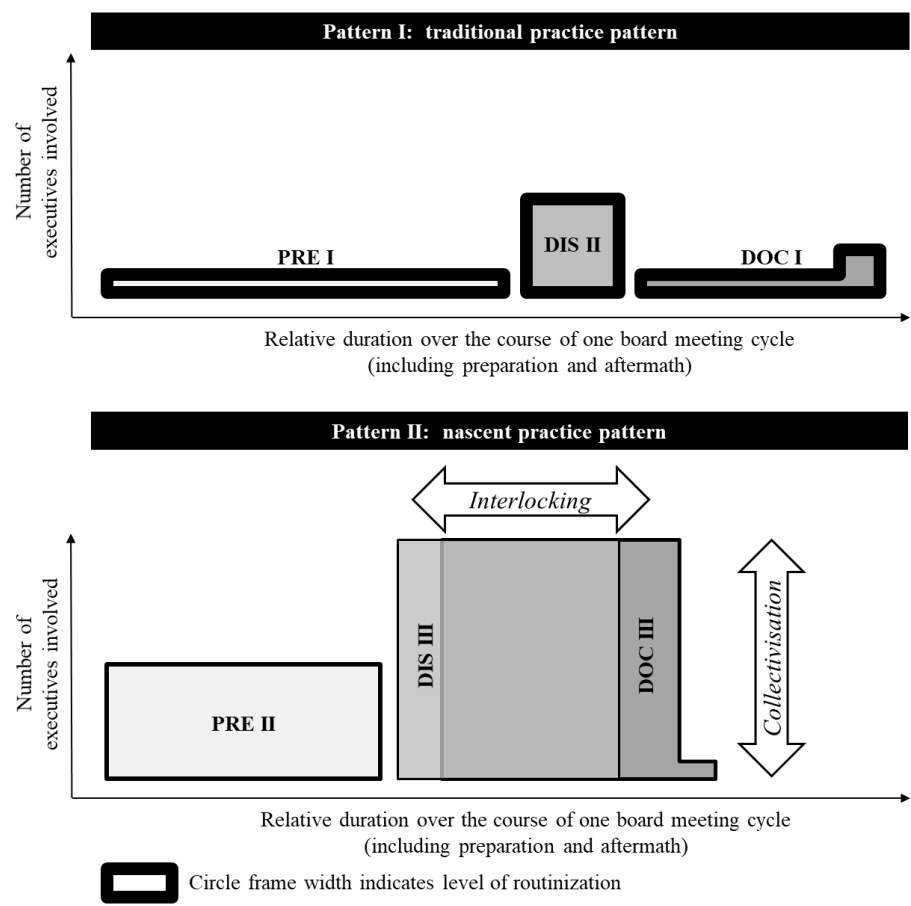
Figure 23: The interlocking and collectivisation of practices

On the upper part of the figure, we see a prototypical executive board meeting, with a thorough preparation (PRE I), with minimal levels of collectivisation. This increases the likelihood to subsequently mobilise the practice *observed dialogue* (DIS II) with similarly low levels of collectivisation, and the common minutes-based documenting (DOC I), which again mainly depends on one executive to be mobilized. In the lower part, labelled pattern II, we display the three dynamics presented above. PRE II – *rigid process planning* created a dichotomous opposition between the reflecting round and the executive board, which emphasises the delicate role of collectivisation. Collectivisation does not seem to follow a 'the more, the better' logic but suggests a more complex dynamic of collectivisation than simple high-low logics. In this

view, the vertical arrow labelled collectivisation indicates the importance of collective mobilisation across the executive board to stabilise a newly developed practice.

Finally, the horizontal arrow, labelled interlocking, displays the positive effect on the stabilisation of a practice variant over time when merging practices. This merging can happen through relevant activities that support the mobilization of more than one practice, a largely overlapping set of actors involved in the mobilisation, and similar artefacts that are relevant for mobilising these practices.

11. Towards a model of practice development in uncertainty work

In the previous chapters, we offered four different zooming movements. First, we zoomed in on five specific types of uncertainty work (Chapter 10.1). Second, we zoomed out to understand the relationships between these five types (Chapter 10.2). Third, we zoomed in on how uncertainty experimenting unfolds in regard to understanding the development of strategy practices (Chapter 10.3). Finally, we zoomed dynamically in order to unveil how strategy practices develop in relation to each other based on our nascent understanding of uncertainty experimenting (Chapter 10.4).

Based on our empirical case, we derive three main findings regarding the development of strategy practices and how this may either lead to less productive loops of uncertainty work (left part of the uncertainty work process model) or to the more productive type of uncertainty accepting (right part of the uncertainty work process model). First, we showed that practice alterations introduced through uncertainty experimenting require a connecting ground to the existing strategy practices (Chapter 10.4.1). Second, temporary protection, immediacy, and materiality support early mobilisation of practice alterations (Chapter 10.4.2). Third, the collectivisation and interlocking of several practices appear to foster their stabilisation over time (Chapter 10.4.3). Lastly, we conclude with a depiction of the multiple zooming in and out movements we have previously used. This concludes our examination of uncertainty work, its specific form of uncertainty experimenting and the development of strategy practices with a more elaborated process model of practice development in uncertainty work.
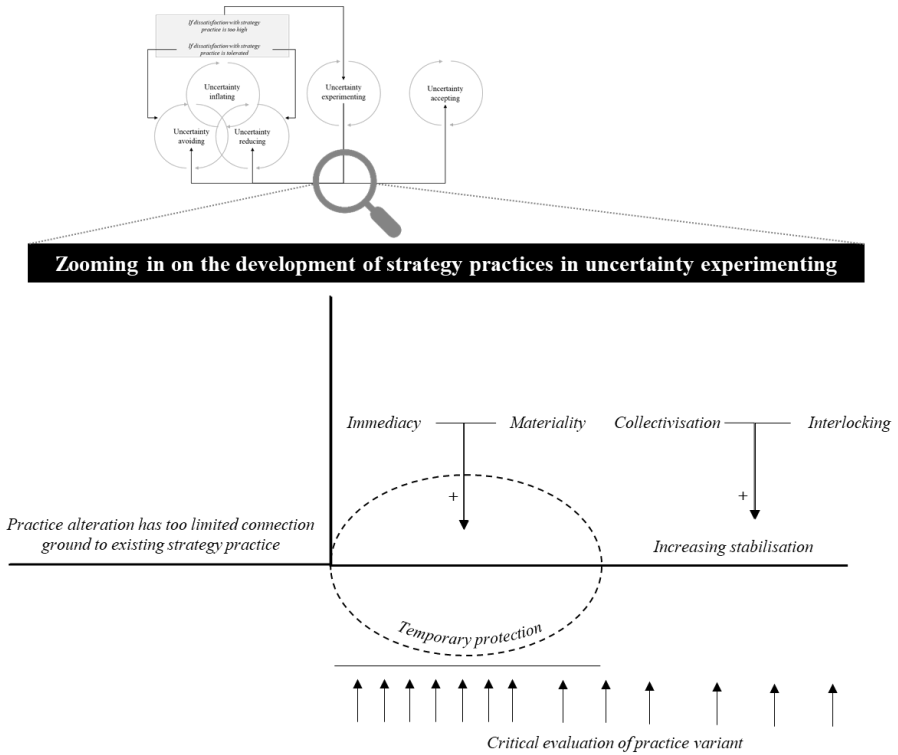
Figure 24: Zoomed in perspective on the development of strategy practices

Figure 24, in its lower part, indicates the occurrence of multiple dynamics when *uncertainty experimenting* supports the introduction of a new variant into the existing landscape of strategy practices. If the new variant lacks the connecting ground to an existing practice, this alteration is heavily criticised and likely to be deselected, which leads to a return to the unproductive cycle of *uncertainty avoiding*, *uncertainty inflating*, and *uncertainty reducing* (left path of the lower in part in Figure 24). Our empirical case indicates that the persistent dissatisfaction with the strategy practice may trigger another instantiation of uncertainty experimenting. Executives rarely seem to examine the potential value of a specific practice alteration at this point and thus, a developing practice, despite being potentially productive, is likely to be deselected if it lacks a connecting ground to some established practice. In cases in which a practice alteration persists, temporary protection, immediacy, and materiality increase the chances of initial mobilisation, also in the face of existing negative evaluation. Over time, an increasing collectivisation and the interlocking of different practices seem to increase the likelihood of further stabilisation of a practice alteration. Consequently, if new practices prove to be more

productive and become increasingly mobilised, they may support new forms of uncertainty work in the form of *uncertainty accepting*, which enables more productive strategizing. Ultimately, this indicates the productive development of an organisation's strategy practices.

12. Summarising Part C

In the previous chapters, we presented the findings corresponding to our research interest (*How do strategy practices develop over time within one organisation?*) by providing specific answers to our two underlying research questions. Initially, we offered a first typology of uncertainty work by discussing five different uncertainty types and exemplified their respective elements through multiple empirical examples. These five types are: *uncertainty avoiding, uncertainty reducing, uncertainty inflating, uncertainty experimenting*, and *uncertainty accepting*. In a second step, we integrated these five types of uncertainty work into a first process model of uncertainty work, which shows one self-enforcing cycle of *uncertainty avoiding*, *uncertainty reducing*, and *uncertainty inflating*. When stuck within this cycle, PubLib's executives engaged with uncertainty primarily in the form of the environmental dimension. By doing so, they understood uncertainty primarily as a problem and had difficulty strategizing productively. During phases of uncertainty experimenting, the focus turns to the practice dimension of uncertainty and uncertainty is mobilised as a spark for introducing variations into their own strategy practices. Hence, uncertainty experimenting assumes a fundamental role for the development of strategy practices. Finally, in uncertainty accepting, executives engage with uncertainty in a more productive way. In this regard, uncertainty is allowed to play its fundamental role in strategizing as an opportunity for developing one's own future actively.

In a second step, we turned towards the dynamics around the development of strategy practices in the context of uncertainty work. By diving deeper into the dynamics of uncertainty experimenting, we showed a) how experiments serve as a stage to uncover hidden agreements about the organisational strategy practice landscape, b) how experiments have a self-enforcing element, where one experiment can spark multiple others and c) how experiments that seem to deliver little value at first sight can create serendipitous value by offering new perspectives.

Finally, we showed a) how nascent practices require a certain connecting ground to the existing strategy practice landscape in order to withstand initial critical concerns, b) how temporary protection, immediacy, and materiality support the further mobilisation of nascent practices and c) how the collectivisation and interlocking of practices can support the stabilisation of practices over time.

All in all, the previous findings led us to propose a process model of practice development in uncertainty work. This model forms an important basis for the discussion section that follows in our last Part D.

Part D: Bringing it all together

13. Contributing to strategy-as-practice and uncertainty research

We started this dissertation with the ambition to shed further light on the development of strategy practices and uncertainty work. Given the deep connection between the two concepts, we wanted to further understand how uncertainties are involved in the process of developing strategy practices. We have done so by reviewing both the existing strategy-as-practice literature and its implications for the development of strategy practices as well as research on uncertainty. Based on our literature review, we concluded that the actual *engagement* with uncertainty is both important and underrepresented in the existing research. Our in-depth single-case study offered us the opportunity to empirically investigate the development of strategy practices in relation to uncertainty work in and around PubLib's executive board.

In this chapter, we discuss the key contributions of our work in a four-step approach. First, we turn back towards our research interest and discuss the key take-aways of our empirical chapters (Chapter 13.1). Second, we present our contributions to both of our core research fields, namely strategy-as-practice (Chapter 13.2) and uncertainty (Chapter 13.3). Lastly, we discuss our emerging understanding of the interrelations between the two fields and concepts (Chapter 13.4). In doing so, we integrate and connect the existing research we reviewed in Part A with our empirical inquiry and the findings we presented in Parts B and C.

13.1.   Relating back to our overall research interest

Underlying much of this dissertation's research was the overall research interest *How do strategy practices develop over time within one organisation?* Most fundamentally, approaching this question with practice-based thinking and researching requires us to appreciate the meaning of *development.* In stark contrast to common perspectives on change or development as more or less deliberate unfreeze-change-refreeze processes (Cummings, Bridgman, & Brown, 2016; Lewin, 1947), a practice perspective is inherently connected to a strong process ontology. This "casts processes, practices, and actors as all equally made up from ongoing activity" (Burgelman et al., 2018, p. 533) and "reflects an understanding of the world as in flux, in perpetual motion, as continually in the process of becoming – where organizations are viewed not as 'things made' but as processes 'in the making' (Hernes, 2007)" (Langley & Tsoukas, 2010, p. 1). However, "practices do not occur automatically and un-problematically. Rather, they are enacted in context, often in ways that vary considerably from their espoused pattern (Feldman & Pentland, 2003)" (Jarzabkowski et al., 2016, p. 250). Consequently, "the goal is to represent practices as dynamic, contested, and provisional affairs" (Nicolini, 2012a, p. 226), where practices are always partly in flux and practices are reproduced

on each novel occasion. At the same time, practices reside in their own history, which supports duration and endurance over time. Hence, when looking at the development of strategy practices, we must study practices as both repetitive and constantly evolving (Nicolini, 2012a).

Given the above, the development of strategy practices resembles a temporary and observable direction (such as involving middle management more frequently or using a specific tool more intensively) in a constant flow of related and parallel other developments. Thus, our theoretical foundations provide first important implications about how this process may unfold. The existing strategy-as-practice literature implies (1) that the development of strategy practices is likely to follow an iterative and experimental process; (2) that it involves meeting structures; (3) that it is local and specific but relates to macro elements; (4) that it involves artefacts, and (5) that it involves reasonable agents with goals and ends-in-view. With this in mind, we started our empirical study based on the observations that a) we lack empirical studies that specifically focus on the development of strategy practices and b) that looking at this phenomenon with an uncertainty work lens is a promising way to go forward. With our in-depth single-case study, we analyse PubLib's executive board strategy practices and uncover important findings on how an organisation's strategy practices develop. In the following, we present and discuss our findings in the light of the relevant literature in two parts, one concerning the importance of uncertainty experimenting as a crucial type of uncertainty work for the development of strategy practices and the other, concerning the dynamics of the practice development as such. We will start with two arguments on the former.

First, we are able to show that distinct forms of uncertainty work relate differently to the development of strategy practices. Uncertainty avoiding, uncertainty reducing, and uncertainty inflating seem to stabilise existing strategy practices regardless of their underlying productivity and normative evaluation by the actors involved. At the same time, uncertainty experimenting is crucial for introducing new elements (for example, in the form of new actors, new meeting structures, and new activities incl. new tools and artefacts) into the existing strategy practice landscape. Thus, engaging with uncertainty as a spark for experimenting displays important dynamics for the development of strategy practices. Such experiments serve as a stage to uncover hidden agreements among key strategic actors. This normative dimension of strategy practices often includes a widespread, yet not communicated, perception that certain practices (or elements of it) are unproductive for moving the organisation forward. Taking uncertainty as a spark for experimenting allows strategists to jointly elaborate these perceptions and thus uncertainty experimenting serves as an important stage to develop strategy practices. Furthermore, uncertainty experimenting has a significant self-maintaining force, as experiments produce further experimenting. Hence, once the development of strategy practices has started, it sparks further alterations and introductions of new elements. We can thus infer that

uncertainty experimenting, as the underlying type of uncertainty work for developing strategy practices, forms an iterative and self-enforcing cycle. Hence, the development of strategy practices that takes place at some point within the overall practice landscape is likely to spark further development of other practices or even relations between practices. Finally, assessing the value or contribution of an experiment in regard to developing strategy practices is a complex and delicate task that often offers more than one answer. More specifically, while at first glance, a certain experiment seems to be a 'failure' in regard to developing strategy practices, meaning there was no observable change to the practice landscape, it may have created serendipitous value. This value may, for example, materialise by presenting an alternative future of strategizing, i.e., opening up a vision on what the strategy practices could look like, which serves as a benchmark for future developments, and by doing so may increase the likelihood of other experiments to create a valuable development of strategy practices. Put differently, such experiments can rarely *fail*, as they always offer a new perspective on the existing strategy practice landscape.

Second, our findings tell us that alterations to existing practices, as an important form of developing practices, are more likely to stabilise over time if they have some connecting ground to existing practices. In other words, if a newly introduced practice variant differs significantly on multiple levels, i.e., by involving new actors, new meeting formats and new activities, it is rarely mobilised and consequently does not routinise over time. Hence, despite being a potentially productive practice, it may not be integrated into the existing strategy practice landscape because it displays little connecting ground. Against this background, some form of intermediate or bridging practice may be a promising approach to temporarily provide some connecting ground to the existing practice landscape if an envisioned new practice displays a significant departure from the status quo. However, this argument and especially its normative implications for practice requires further investigation.

Furthermore, we can infer from our empirical case study that temporary protection, immediacy, and materiality are three important elements for encouraging the mobilisation of a nascent practice. In addition, the collectivisation and interlocking of practices support their stabilisation over time. With regard to the dynamics of the development of practices, we discuss five main points.

First, the temporary protection of a newly introduced practice provides the room to repeatedly mobilise this practice without evaluating it overly critically at an early stage. Temporary protection seems to further require a clearly stated evaluation opportunity in the near future, where the practice at hand may then be evaluated. Otherwise, the protection itself may become subject to negative evaluation. On a conceptual level, this temporary protection pauses Karpikian uncertainty (normative dimension of the development of strategy practices, as

discussed in Chapter 2.2.1), as it shifts any normative evaluation to some point in the future without blocking the important evaluation altogether. This silencing of specific uncertainties seems to be a productive element in strategy practice development, and strategizing more general.

Second, immediacy refers to the close temporal connection between designing or conceptually thinking about an envisioned practice and actually enacting the practice in strategizing. This complements the argument made by Bucher and Langley (2016), who differentiate between a reflective space and an experimental space, which both serve different purposes in regard to the development of practices. We are able to contribute to their important work by offering single-case evidence that spaces should be in close temporary proximity to each other in order to ensure that the experimental space in which a new practice is actually mobilised can unfold its potential.

Third, materiality plays an important role in fostering initial mobilisation. In our case, materiality was most prominent through the strong connection of certain practices with specific material artefacts such as role cards. To put it differently, the role cards strongly representing the practice, become an integral part of it, and a mobilisation without the cards became increasingly unlikely. The different variants of the structuring strategy work (STR I-III) indicate that newly introduced practices are most likely to be mobilised repetitively if they receive some form of material representation.

Fourth, a new practice variant displays higher levels of mobilisation if it has high levels of collectiveness. It apparently needs to involve multiple executives to be performed. In this context, we suspect a more complex relationship between the number of people involved in the mobilisation of a practice and the likelihood of a more routinised mobilisation. In certain instances, especially if the local arrangements of the meeting structures (separation in time and space) allow for some kind of opposition within one practice, medium levels of collectivisation seem to reduce the likelihood of joint mobilisation. The reflecting round example provides fruitful insights in this regard. It serves as one subgroup of the executive board that developed certain envisioned practices, which encountered high criticism in the executive board despite its perceived productivity. However, practices that display high levels of collectiveness, i.e., include most of the executives for its mobilisation, seem to develop more fruitfully than those with low levels of collectiveness.

Finally, the interlocking of practices seems to increase the stability of the practices involved. Interlocking can occur through the integration of certain practice elements such as specific activities or artefacts in such a way that they contribute to the accomplishment of more than one practice. Hence, partly merging certain practices and blurring their boundaries by

increasing their interconnectedness in a web of practices seems to be beneficial for the further development and routinisation of the practices involved.

In conclusion, our empirical case confirms the theoretical understanding that the process of developing strategy practices is a messy, iterative and complex endeavour that still requires further research to grasp the dynamics more completely and in different contexts. However, our analysis also distilled key aspects that are important in regard to the development of an organisation's strategy practices, which we discussed above.

In developing these previous contributions to our research interest, we have also enriched both the strategy-as-practice field as well as uncertainty research. We discuss these field-specific contributions in further detail.

13.2.   This dissertation and strategy-as-practice research

Our research contributes to the path that the strategy-as-practice field has recently embarked on with only few contributions to date. Formally consolidated with the 2016 special issue on strategy-as-practice-and-process (SaPP) (Burgelman et al., 2018), researchers argued for a stronger consideration of processual thinking and temporal consideration more generally within practice research. Our research contributes one piece to this large puzzle by focussing on the development of strategy practices within a single organisation. We firmly believe that the nascent SaPP approach offers fascinating and important research opportunities for the years to come and with this dissertation, we seek to contribute to the further development of the field. Therefore, the most important contribution of this dissertation towards the strategy-as-practice field lies in the confirmation that process-based work in this field is valuable and interesting. Thus, we opened the way for one specific research opportunity, namely the development of strategy practices, and we firmly hope that there is more to come.

When looking at our empirical findings alongside the existing work in the strategy-as-practice field, we observe that several aspects of our findings confirm the existing convictions in the field while others complement or add to a more nuanced understanding in the strategy-as-practice field.

First, our case study confirms once more that materiality is a crucial element contributing to the mobilisation of practices (D'Adderio, 2011; Jarzabkowski & Kaplan, 2015). Our findings, in line with previous research, suggest that the micro nuances of *how* material objects are involved in the mobilisation of practices are crucial to understanding the impact of artefacts. Material objects, like an external report, can be mobilised in various types of uncertainty work. Depending on how actors engage with the artefacts, they could either contribute to uncertainty inflating if the engagement focuses on the strengths of other players and one's own relative

inability to act. Similarly, the engagement with artefacts could be used within uncertainty accepting if the report serves the translation of future trends. Overall, this emphasises the importance of *how* artefacts are used in the mobilisation of practices. This invites all researchers in the strategy-as-practice field to stay true to the important question of *how* and to recognise that even seemingly subtle differences in the role of artefacts can have significant effects on the strategic outcome.

However, our findings, especially the comparison between STR II and STR III, also complement the existing research around materiality. They show that materiality is also crucial for providing immediacy. Given the imprinting (in a quite literal sense) of certain prescribed activities such as 'sticking to the allocated time' or 'not interrupting each other' onto the role cards, the cards, through some form of material agency, can ensure that new practices can be mobilised. Given the lack of routinisation and stability of these new practices, the cards are an easy way to trigger a safeguard for the desired practice. This further suggests that the importance of materiality is not equally distributed across the lifetime of a practice. Rather, our findings suggest that a materially embodied representative of a practice is particularly important in the early phases of a nascent or newly introduced practice. This stretches the importance of process-based studies in the strategy-as-practice field once more, where one specific focus point should reside within the role of materiality over time.

Furthermore, our findings complement Jarzabkowski's and Seidl's (2008) "model of evolutionary path through taxonomy of meeting structures" (p.1414). While the authors focussed on the stabilisation or destabilisation of existing *strategies*, our work focusses on the stabilisation or destabilisation (broadly understood as development) of existing strategy *practices*. Despite the different foci, our findings share some commonalities. The restricted and administrative discussion archetypes from Jarzabkowski and Seidl resemble some of our DIS I and DIS II practice variants. All four stabilise existing strategy or, in our case, existing strategy practices. In comparison, free or open discussions support the emergence of variations. However, our findings also develop the previous research further. While in previous work, activities, such as rescheduling or delegating discussions to a work group, supported the variation to be developed or maintained, we also observed such activities as elements of uncertainty avoiding, which maintains rather than challenges the status quo. Once more, this subtle difference exemplifies the crucial element of *how* in practice mobilisation.

In addition, our findings add to the understanding of collectiveness in practices. Previous conceptual work has often stressed that collectiveness should be considered as an inherent part of practices by arguing that practices are more than *individual* actions. Our findings provide initial evidence that the repeated mobilisation of practices over time is influenced by the number of people involved. Therefore, it might be fruitful for the strategy-as-practice (-and process)

field to move past a dichotomous perspective of *individual actions* and *collective practices* and rather investigate how different types and levels of *collectiveness* influence the performance of specific strategizing practices.

Finally, and probably most importantly, we introduce uncertainty work as an important aspect in the development of strategy practices but also for the strategy-as-practice field more generally. Future empirical research projects subscribing to a strategy-as-practice perspective may benefit from analysing and interpreting their phenomena with an uncertainty work lens, as it offers a promising new approach. Given the fundamental and mutually constitutive relationship between strategizing and uncertainty, we are convinced that a stronger consideration of the various forms of *engaging* with uncertainty is a fruitful way forward. In order to enable this, we have brought forward the concept of uncertainty work conceptually and provided a first empirical enrichment of the concept. One important implication for a stronger consideration of uncertainty work in the strategy-as-practice research revolves around the term *strategic* itself. By looking at the development of strategy practices with an uncertainty work lens, we were able to uncover forms of 'pseudo' strategy work. Again, considering that there is no strategizing without uncertainty, forms of uncertainty work like uncertainty avoiding or uncertainty reducing are unlikely to support productive strategizing. It would be like baking a cake but trying to avoid or reduce the dough necessary to do so. Despite this, the work and meetings are still labelled 'strategic' and the actors involved claim to work *strategically*, while their mobilised practices contribute little if at all to moving the organisation forward. This requires that strategy-as-practice scholars are aware of their empirical phenomenon. It feels like we as researchers sometimes all too willingly accept that a certain activity is strategic because it is supposed to be strategic. However, our findings indicate that to identify strategizing in its original sense requires a deeper look behind the facade and an understanding of the connected types of uncertainty work.

13.3.   This dissertation and uncertainty research

By introducing uncertainty work to the strategy-as-practice field, we have also created value for the uncertainty research field as such.

First, some of our findings complement and confirm the existing work in the field. For example, our findings relate to the concept of escalating indecisions (Denis, Dompierre, Langley, & Rouleau, 2011) because we observed similar paralysis effects in uncertainty inflating. Moreover, our findings relate to the idea of exploitation of ambiguity (Sillince, Jarzabkowski, & Shaw, 2012). In our case, it displays similarities to uncertainty accepting, where the uncertainty (in the previous case, ambiguity) is mobilised as a productive force.

More fundamentally, we offer two important perspectives on the nature of uncertainty.

First, our work provides a novel view of the historic ontological debate about the concept of uncertainty itself. For a long time, uncertainty as a research concept was fractured between those claiming that it is an objective state of the environment (Emery & Trist, 1965; Lawrence & Lorsch, 1967) and those pointing towards "the importance of restricting the concept of uncertainty to a perceptual one" (Downey & Slocum, 1975, p. 569). This debate turned uncertainty into such a contested concept that "ambiguity about the nature of uncertainty itself tends to obscure examination of this central concept" (Downey & Slocum, 1975, p. 567) and many researchers refrained from studying it altogether. Hence, "by the early 1980s, the amount of work on […] uncertainty for managers and organizations had fallen off dramatically" (Alvarez, Afuah, & Gibson, 2018, p. 170) and has not recovered significantly until present. However, with today's powerful tools of a well-elaborated practice perspective, we are able to reconsider uncertainty. We did so by introducing uncertainty work, which explicitly remains open in regard to whether uncertainty is an objective state of the environment or a perception of managers. Uncertainty work prescribes that uncertainty truly matters for strategizing when it manifests itself in embodied and materially mediated ways of doing things, hence various practices. By re-introducing uncertainty into the strategy-as-practice research in such a way, we hope to provide a first, and admittedly still rudimentary, thinking tool for future research in a strategy-as-practice perspective that may struggle to come to terms with empirical observations. The engagement with uncertainty provides explanations for dynamics within and across strategy practices that may be hard to explain without it. As one concrete example and contribution of this dissertation, uncertainty work is able to enrich our understanding of whether, why, and when uncertainty is understood as 1) a problem or destructive force or 2) as value or a productive force. As outlined above (see Chapter 2.2.3), previous research studied uncertainty either as a problem that needs to be overcome or as an opportunity that can create inherent value. Nevertheless, previous research remained surprisingly silent on what *makes* uncertainty one or the other. Therefore, we argue that one promising approach is to understand uncertainty with an uncertainty work lens, where the actual *engagement* turns uncertainty into a source of problems or value. As such, uncertainty is neither good nor bad; it just is, but it depends on what strategists make out of it.

Second, our findings clearly point towards the importance of a more nuanced understanding of various forms of uncertainties. In fact, referring to uncertainty in the singular form and without an explanatory word to accompany it seems too generic in light of our empirical investigation. Studying uncertainty, uncertainty work and its effects on strategizing necessarily requires us to be specific about what types of uncertainty are at play. We have done so with a first, high level differentiation between the environmental dimension of uncertainty, which originates outside

the organisation's direct control, and the practice dimension of uncertainty, which is concerned with the organisation's own conduct in regard to strategizing. More nuanced differentiations do exist (see for example the three types of environmental uncertainty offered by Milliken (1987) presented in Chapter 2.2.2), but their impact on empirical research remains limited. Furthermore, the various uncertainty types, including Knightian, Keynesian, or Karpikian uncertainty (also discussed in Chapter 2.2.2), are likely to have varying relevance in different types of uncertainty work and strategizing. While some of the uncertainty work elements like preventing potential criticism clearly engage normative uncertainty arising from the "highly subjective and controversial" (Grand, 2016, p. 51) judgement criteria in a Karpikian sense, others engage with Knightian or Keynesian uncertainties. Fundamentally, in order to move this field forward, we need to move beyond *uncertainty* research and towards research on *uncertainties.* Only if we are aware of and candid about the various types and forms of uncertainty will we be able to further understand the complex dynamics of strategizing and uncertainties.

13.4.   The relation between uncertainty and strategizing

We have emphasised more than once that uncertainty and strategizing have a mutually constitutive relationship; however, the two concepts seem to differ in regard to how explicitly actors claim to engage with them. While PubLib's executives (and this is also true for many other executives) regularly stated that they were working on their strategy, here understood as strategizing, they rarely, if ever, stated that they were working on uncertainties. It appears that strategizing is the visible and argumentative front of the more delicate and hidden uncertainty work. In this regard, within our empirical work, we often witnessed a more subtle and below the surface element of uncertainty work, rather than observing explicit references in the form of '*I do this, in order to alter uncertainty in this or that way'*. Most of the strategizing practices, while having a different explicit purpose, also create, present, sustain share and/or adapt uncertainty. It seems like uncertainty work involves subtle effects, where a purposeful action directed primarily somewhere else (in this case, moving the organisation forward) also secondarily and more subtly influences uncertainty – a relationship that, given the mutually constitutive understanding of strategizing and uncertainty, appears logical. Therefore, uncertainty work, to a certain extent, overcomes "the overwhelming predominance of a means-ends analytical logic and conceptual stance that presupposes deliberate intentional action and presumes a practitioner reliance on instrumental reason" (Chia, 2004, p. 30) by allowing a very subtle form of purpose, in our case, in the form of serendipitous or unmeant effects on uncertainty. Figure 25 displays this relationship between strategy practices and uncertainty work. While both essentially involve the same activities and artefacts, such as developing a report or discussing future offerings, they have a different purpose and double effect. While the

first contributes to how an organisation moves forward, the latter shapes different constructs of uncertainty. Along similar lines, activity theory scholars (see for example Engeström, 2015) argue that any object of a practice is at least partly out of the control of the respective actor. Hence, uncertainty work is a type of work that seems to run in parallel to strategizing, as Figure 25 indicates.
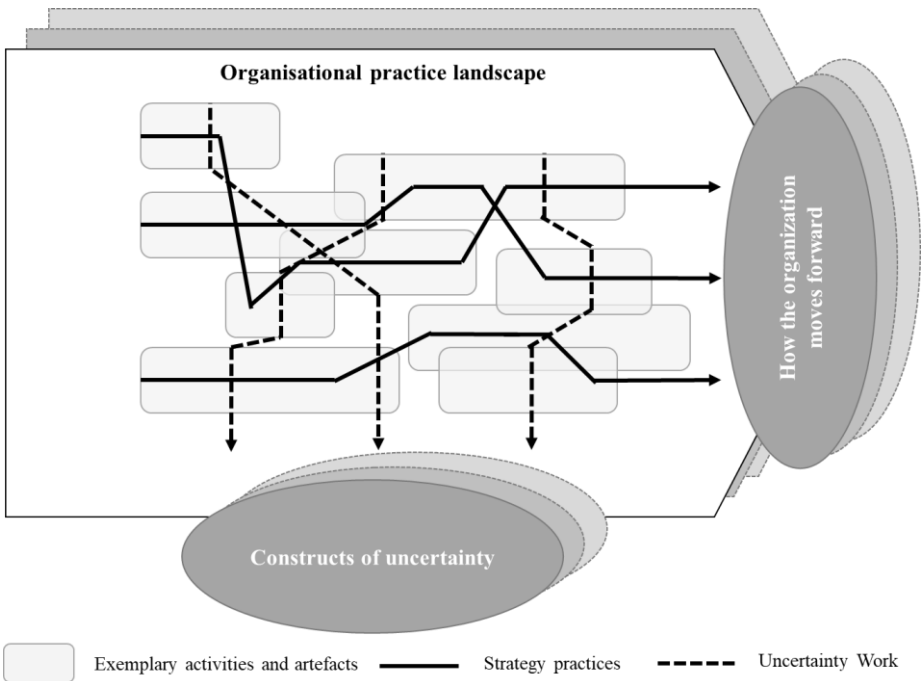

Figure 25: The relationship between strategy practices and uncertainty work

Against this background, an important question arises around pausing and unpausing or hiding and surfacing specific uncertainties. We briefly discussed above that temporary protection of a nascent practice can pause normative uncertainties in a Karpikian sense because the evaluation is shifted towards the future. It seems reasonable to argue that an important asset for productive strategizing is the skillful hiding and surfacing of specific uncertainties. For example, surfacing and thus actively working on both the environmental dimension of uncertainty and on the practice dimension of uncertainty appears to be a challenging task as one metaphorically tries to sharpen the saw while it is in the middle of cutting through a tree.

Overall, we are convinced that the relationship between uncertainty and strategizing is much more complex and delicate than occasionally assumed in previous accounts. It goes well beyond

a 'the environment is uncertain, therefore we strategize' logic, but the daily strategizing always involves uncertainty work, which in turn directly relates to how much of which uncertainty we allow to surface. The skilful accomplishment of bringing in the right doses of the right types of uncertainties into strategizing may be a core element for developing the organisation forward productively as well as develop the practices to do so.

14. Conclusion

This concluding section first summarises the current core messages of this dissertation and subsequently discusses the uniqueness and generalisability of the empirical case.

14.1.   Summarising the core of this dissertation

This dissertation has done a few first steps on the important research field around the development of strategy practices within a single organisation. By confirming the relevance of uncertainties and especially uncertainty work as an important concept for both strategizing in general and the development of strategy practices more specifically, it calls for a more nuanced differentiation across various uncertainty types and how to productively engage with them. In addition to the key findings, which are the typology of uncertainty work and various aspects that relate to the development of strategy practices, this dissertation offers important implications for the practice of strategizing as well as the education of future strategists.

14.2.   Implications for strategists in practice and management education

First, our findings regarding the dynamics of uncertainty experimenting provide implications for managers with the ambition to improve their organisation's strategizing. A single experiment frequently creates new experiments, as the experimenting with actors (for example, introduction of a new consultant) triggers several new experimenting episodes involving the meeting formats (for example, foundation of a new work group) and the activities (for example, introduction of new methods). Over time, this may develop into a largely uncontrolled chain reaction that becomes increasingly difficult to manage. Hence, managers should be aware of the magnitude and speed of various experimenting activities in order to avoid too many experiments running at the same time. Similarly to experiments within the natural sciences, where researchers try to manipulate only a few elements to see the effects on the system, managers would do well to only change a few elements when trying to actively develop their own organisation's strategy practice. Put differently, changing a high number of elements in a short time will reduce the possibility and impact of explicit reflection and evaluation, which

will reduce the value of the experiments altogether. The resulting lack of an overview of the current strategy practice landscape and the experiments around it may easily kill promising experiments due to unforeseen trans-experiment effects. Hence, the development of practices is a delicate and rather complex task that is only partly manageable. However, intermediate practices that provide connecting ground, temporary protection, materiality, and immediacy are first guidelines on how to 'support' a nascent practice towards more routinised and unquestioned mobilisation. In addition, the collectivisation and interlocking of practices seems to further increase the stabilisation of practices.

Second, our analysis supports the idea that we cannot increase our decision-making capabilities in conditions of deep uncertainty by increasing our analysis activities, as uncertainty reducing (of which analysis is an element) is unlikely to support the mobilisation of productive strategy practices. The way forward seems to be doing and trying rather than thinking. Put differently, managers involved in strategizing need to accept that in various situations and decisions, more analysis does not help. This has strong implications for how future managers and strategists should be trained today. Although it is beyond the scope of this dissertation, our findings call for a brief discussion on the implications for management education: Much of today's strategy practices are conceptually developed by academics trying to create practical relevance within their work. More generally, the field of academic teaching has repeatedly been criticised for creating managers that employ tools overly rationally (Moisander & Stenfors, 2009). Overall, "a better understanding of the field of education, particularly the MBA market field, would help enhance [our] perspectives on both teaching and research" (Gomez, 2015, p. 193). A prevailing perspective is that "as the increasingly complex and turbulent business environment challenges management educators and business schools preparing future managers, educators are frequently criticized for not sufficiently developing their students' skills to adapt to the turbulent contexts (Bennis & O'Toole, 2005; Waddock & Lozano, 2013)" (Schumacher & Mayer, 2018, p. 499). Other authors argue that educators in MBA programs lack the teaching skills that go beyond structured analytical approaches and support managers in addressing issues with limited information and minimal analysis at hand (Glen, Suciu, & Baughn, 2014). The present study helps to tackle this issue with the practice dimension of uncertainty. Understanding and embracing that managers tend to employ tools overly rationally and stick to the structure provided by a tool to avoid the inherent uncertainty in strategizing offers important implications for how to educate managers in addressing such situations more productively. Our findings suggest that, in addition to the common and reasonable call to teach more agile ways of working (Glen et al., 2014; Schumacher & Mayer, 2018), there is a strong need to also prepare future managers in terms of *uncertainty work*. People with the ambition to develop their organisation forward should be able to recognise the various forms of uncertainty around them and comprehend how various forms of uncertainty work may relate back to their strategizing

efforts. By teaching such skills, educators will equip their students with a valuable resource that seems to be often overseen in contemporary management education.

14.3.   The uniqueness and the generalisability of this case

The empirical case of this dissertation is special in many regards. An essential part of PubLib's specificities make it a fascinating case for studying the development of strategy practices in relation to uncertainty work. At the same time, they also point to several caveats when trying to transfer and apply the findings in different contexts. After all, both strategizing and uncertainty work are complexly embedded in specific circumstances. Therefore, any generalisations must be drawn with caution.

The library field and the PubLib executive board have certain characteristics that make them an extreme case for studying the development of strategy practices in relation to uncertainty work. As mentioned above, when discussing the strengths of PubLib as a case study for this dissertation (please see Chapter 7.2.2), we note that librarians and strategists, understood as generic job profiles, display some differences. Librarians are trained to structure and present data in a way that reduces or eliminates ambiguity and uncertainty. In contrast, strategists are required to engage with uncertainties in a way that enables productive strategizing. Both job profiles display different underlying attitudes towards uncertainty. While this offers an almost uniquely promising case to investigate uncertainty work and the development of strategy practices, it also marks one of the most important caveats for generalisation. Different organisations with different predominant backgrounds of their employees are likely to also have different relations to various types of uncertainty. Hence, while the findings presented above paint a somewhat normative picture of the *good* uncertainty accepting (right part of the process model of uncertainty work) and the *bad* cycles of uncertainty avoiding, uncertainty inflating, and uncertainty reducing (left part of the process model of uncertainty work), it may, to a large extent, be a case-specific finding. There may be different organisational settings or other strategic challenges in which uncertainty avoiding, inflating or reducing supports productive strategizing. For example, consider entrepreneurial ventures or start-ups that are often founded under circumstances of multiple and far-reaching uncertainties. Firms founded in such contexts may contain a different repertoire of uncertainty work elements and possibly have more and other elements that enable productive strategizing. Overall, this dissertation paves the way to a conversation on uncertainty work in academia and practice. It proposes five different types of uncertainty work and their implications for strategizing in the specific PubLib case. Any transfer and generalisability of these findings, especially the normative elements, have to be done with great caution and we are certain that there are more types of uncertainty work to be found in future research investigating different empirical settings.

14.4.   What's next? Future research

This dissertation is merely the starting point for many more research projects to come. Considering the newness of the concept of uncertainty work and the nascent field of strategy-as-practice-and-process, we have probably raised more questions than we have answered. The combination and detailed interactions of various uncertainty work types, their relations to the different forms of uncertainty and especially the effects on both strategizing and the underlying organisational strategy remain subjects of future research. From the many possible options, we will point out three particularly promising avenues for further investigation.

First, our work indicates that studying strategy practices requires a stronger temporal consideration. Those subscribing to practice as a philosophical world view (Orlikowski, 2010a) claim that the world is made up of practices. In this context, we see how too narrow practice definitions could reduce the power of research to generate genuinely fruitful perspectives. Considering a practice as per se *collective, routinised,* and *materially mediated* may limit our openness to interesting findings. The example of STR II (an 'empty shell' practice) shows that this vignette does not qualify as a practice in a narrow sense, as it never became properly mobilised. However, just after the introduction of the role cards (STR III), the original ambition of STR II was developed into the strategizing activities. Looking at such dynamics with a too narrow understanding of practices would have obscured the fascinating dynamics around STR II, which revealed an important comparison between a new 'practice' that was not further mobilised and a proper practice that actually developed. Ultimately, this may lead future research to the question: *when is a practice a practice?* which may enrich our understanding of the temporal dynamics around practices overall because there may well be 'pre'-practices or even 'post'-practices, we have not observed yet.

Second, given the previously discussed specifics of our empirical case, the concept of uncertainty work and its multifaceted relationships to strategizing require more research in different settings. Therefore, in order to gain a more comprehensive picture of uncertainty work, we require further qualitative research that unveils additional fine-grained accounts of this promising concept. A particularly interesting extreme case may be technological ventures and start-ups, where we expect to find very different types of uncertainty work compared to PubLib. From the existing research considering the industry level, we learn that there may be additional types of uncertainty work, such as uncertainty evoking, in which certain actors consciously induce uncertainty into a field in order to benefit from it (Müller-Seitz, 2014). However, we still lack an understanding of the micro dynamics of such additional uncertainty work elements. Further studies in different contexts can therefore enrich our understanding of uncertainty work and create a more nuanced understanding of the typology of uncertainty work, their relationships among each other and most importantly their dynamics in strategizing.

Third, future research on the development of strategy practices could benefit from an explicit commitment to overcoming the macro-micro divide. While we have a solid understanding of how practices behave when they travel through a field to various organisations (Ansari et al., 2010; Ansari et al., 2014; Kennedy & Fiss, 2009), our approach has focussed on the development of strategy practices in one single organisation. Both approaches share the fact that their investigation stops at the organisational boundary. While field level research, often working in an institutional logic, stops at the organisation, approaching it from the 'outside' by focussing on the field dynamics, we, in this dissertation, stopped at the organisation, approaching it from the 'inside' by focussing on the micro dynamics within a few single practices and their interactions. Future research should enable a stronger cross-fertilisation of both approaches by trying to understand the influence of the larger sphere that organisations are embedded in, while staying true to the dynamics within one or a few organisations. Although such a research project may be challenging in many regards, there are several theoretical thinking tools that can support such investigation to overcome the macro-micro divide, which resonates with repeated calls in the strategy-as-practice community (Seidl & Whittington, 2014). For example, Bourdieu's elaborate praxeology developed around the three core concepts habitus, capital and field is able to analyse organisational dynamics in a practice perspective that integrates multiple levels of analysis by dissolving the macro-micro divide through its "layered, multidimensional and relational analysis" (Özbilgin & Tatli, 2005, p. 856). With insights from the existing research conducted on a field level and this dissertation focussing on organisation-specific dynamics, we believe that there is a solid launch pad for future research that can stay true to both sides and thus offer insights beyond organisational boundaries in one single research setting.

14.5.   Concluding remarks

As this dissertation concludes, we are fully aware that we have set out an ambitious research project that tries to address and integrate multiple concepts and questions that could deserve a dissertation on their own. The resulting richness and complexity may at times be challenge at first sight. However, as previously mentioned, we firmly believe that "the aim of social science is to provide a richer and more nuanced understanding of the world, and not to offer simplified answers to complex questions" (Nicolini, 2012a, p. 215). We have tried to do that by providing a more nuanced understanding of uncertainty work and its crucial connections to the development of strategy practices. However, this is just the beginning in many regards. Therefore, in line with Mintzberg (2017) we recognise that our contribution to theory building is not *true*, nor *objective,* but rather one element on a *continuum* of unexpected developments. As such, the work is far from over. We invite both academics and practitioners to work with our findings, challenge them, further develop them, and by doing so enhance our understanding

of the development of strategy practices and uncertainty work in a more nuanced manner. In the final analysis, if this dissertation has enabled any individual, practitioner or academic, to think about strategy dynamics in a way that she has not done before and now has a spark to further think about the subject, we may declare 'mission accomplished'.

Part E: References & Appendices

15. References

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16. Appendices

16.1.   Interview Guide – Interviews May 2018 (in German)

Interview-Guide – PubLib Mai 2018

_____Einstieg & wichtige Entwicklungen_____

1. **Persönlicher Hintergrund**
   a. Ausbildung
   b. Zeit vor PubLib
   c. Arbeit in der PubLib

2. **Wo steht die PubLib aktuell?** - *Beurteilung der Entwicklung in der PubLib & in ggf. im Umfeld in den letzten 12 Monaten*
   a. PubLib Gesamthaft
   b. Umwelt
   c. [[Abteilung]]

a-c gerne Selbstgetrieben vom Interviewpartner, je nach eigenem Schwerpunkt; nicht zwangsläufig alle adressieren

3. **Welche Erwartungen haben sie an eine Strategie?**
   a. Generisch, aber vor allem
   b. PubLib-spezifisch **(Welche Rolle hat sie in der PubLib?)**
      i. Werden diese erfüllt?

4. **Wie beurteilen sie den aktuellen Strategieprozess der PubLib?**
   a. Beteiligte?
   b. Tools? Hermes?
   c. Meetings?
   d. Zeiträume & Rahmen?
   e. Aktuelle strategische Ziele?
   f. Interne Dynamiken?
   g. Unterschiede eigene Abteilung & Gesamtfirma?
   h. Probleme? Bottlenecks? Was könnte anders laufen?

5. **Wir beurteilen sie die aktuellen GL Sitzungen?**
   a. Themen?
   b. Diskussionskultur?
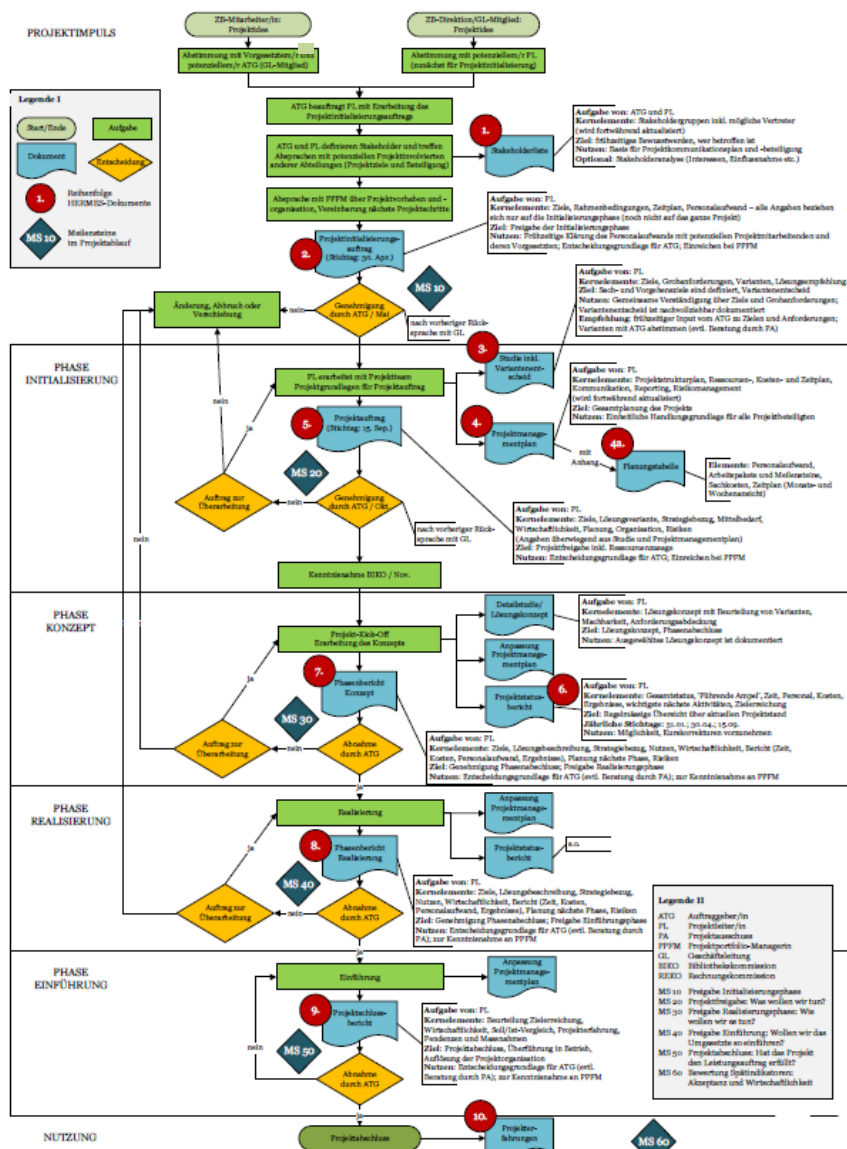   c. Zusammensetzung?
      i. Reflektionskreis?

6. **Wie sehen sie ihre Aufgaben / Rolle innerhalb der GL?**

7. **Fehlende Themen / Entwicklungen?**

_____ Back-Up _____

8. Welche großen Trends werden das Feld der PubLib, aber auch speziell ihr Feld zukünftig beeinflussen?

16.2.   Template for project procedures (in German)

16.3.   Summary of PubLib 2020 strategic goals

PubLib as a university library

1. Partnership role in relation to the city's university

2. Joint information supply

3. Focus on Humanities and Social Sciences

4. Coordinated information supply for higher education in the urban area

5. Digital long-term archiving

PubLib as a regional and city library

6. Public access

7. Collecting and communicating local artefacts

8. Collaboration in education and culture

PubLib in leadership role as an academic library – nationally and regionally

9. National leadership role

10. Strengthening cooperative IT information infrastructure and operation models

11. Promising collaborations

12. Leadership role in the library training and development

Making a mark and increasing visibility

13. Shift from print to e-resources

14. Acquisition profile

15. Expanding electronic version of local artefacts

16. Increased findability of stocks

17. Increased placement and access

18. Target-group oriented communication

Using and enhancing potentials

19. Increase leadership

20. Service quality and process optimisation

21. Enhancing competencies

22. Innovation culture

23. Internal collaboration and communication

16.4.   Glossary of key concepts

Term	Definition	Key Influences	Defined in chapter
Strategy	*How an organization will move forward which involves a reaching out into the unknown and developing an incomplete but practically sufficient comprehension of the situation in order to cope effectively with it*	Chia & Holt, 2009; Rumelt, 2011	2.1.1
Practice	*Ways of doing things, embodied and materially mediated that are shared between actors and routinized over time*	Nicolini, 2012, Knorr Cetina, Schatzki, & von Savigny, 2001; Reckwitz, 2002; Vaara & Whittington, 2012;	2.1.2
Development (of practices)	*a temporarily stabilised propensity to certain embodied, materially mediated and collective actions that is noticeably different within the larger flow of practices.*	Jarzabkowski et al., 2016 ; Nicolini & Monteiro, 2017	2.1.3
Uncertainty	*Imprecision in estimates of future consequences conditional on present action*	March, 1994	2.2.2
Uncertainty work	*discursive and behavioural processes in which individuals engage to create, present, sustain, share, and/or alter uncertainty*	Kreiner et al., 2015; Langley et al., 2019; Phillips and Lawrence, 2012	4

Note: Displayed in order of appearance. The definitions may contain direct quotes, which are only marked in the respective chapter to maintain the reading clarity of this table. Therefore, when looking for the exact quote, please refer to the respective chapter indicated in the last column of the table.

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	Grand, Simon & Scher, Benjamin Niklas: How Entrepreneurial Strategizing shapes Scaling Potentials: In the "trading zone" between opportunity creation and strategic engagement. 2018. - Academy of Management Specialized Conference From Start-up to Scale-up: Coping with Organizational Challenges in a Volatile Business Environment. - Tel Aviv, Israel.
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