Mapping the market: a portfolio approach for informed deliberation of urban development strategies
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3 Relevant and rigorous knowledge and information in planning

Tell me and I will forget. Show me and I may remember. Involve me and I will understand.
Chinese proverb, sometimes attributed to Confucius

3.1 Introduction

One of the most frequently used definitions of planning (in the public domain) is ‘linking knowledge to action’ by John Friedmann (1987). Before and after Friedmann’s definition, planning underwent tremendous changes, as discussed in the previous chapter. Nonetheless, I believe the idea of linking knowledge to action still stands. It is rather ideas of who is to take which kind of action, how this is to be linked to knowledge and what constitutes relevant and rigorous knowledge, as well as who is to decide about this, which have changed dramatically and continue to stimulate academic debate and application dilemmas. In this chapter, the focus will be on the types of knowledge and information that are important in planning and how they can be deployed in order to increase the chances of executing a successful action.

The portfolio approach aims to contribute to the informed deliberation of planning strategies and, eventually, action. It is therefore crucial to understand the type of information the approach uses, how this relates to the knowledge of practitioners using the approach, and the kind of outcome in terms of knowledge and information. The chapter will start with a short overview of some of the dominant epistemologies in planning and the treatment of rationality, particularly highlighting the limits of the ‘technical-rational’ model and some criticism (e.g. Mintzberg’s criticisms of some strategic planning strands already touched upon this issue in the previous chapter). The traditional ideal of instrumental rationality is increasingly being replaced by more pluralist ways of looking at rationality and knowledge. Yet it is difficult to translate these ideas into practical guidelines for practitioners. Since the effectiveness of instruments such as the portfolio approach depends on the extent to which they facilitate knowledge exchange and generation, the details of their operation need to be clarified in detail. As a focal point, this chapter will assert that the field of knowledge management, and the work of Nonaka and Takeuchi in particular, may provide a useful conceptual starting point.

3.2 From instrumental to communicative rationality

Up to the early 1970s, planning was considered by most as a discipline grounded in a technical-rational way of thinking. In oversimplified terms, planners were generally expected to collect and analyse the necessary data and information and to rationally assess alternative solutions based on this information. Consequently, they would
then provide decision-makers with non-political, value-free advice to make optimal decisions. In the 1970s, as part of a trend of increasing awareness in science and society, the positivist epistemology started showing cracks, and with it the base of the technical-rational paradigm of planning was shattered. Increasingly, there was growing awareness that the technical-rational model was flawed in a number of ways (e.g. Owens et al., 2004).

Already in the 1950s, Simon (1957) demonstrated the severe limitations of instrumental rationality, which was the base for many disciplines, including planning. The ability to make decisions on purely rational grounds proved to be bounded by human emotions, which is related to the impossibility to collect and process the expansive amount of information needed to make rational decisions. In addition, instrumental rationality is bounded by the inability to comprehend the complexities of modern day life. Despite the advances in computer technology, the complexities of human behaviour and social phenomena continue to be one or more steps ahead of the scientific conceptions and models. This particularly applies to the social sciences and social policies. Unlike most of the natural sciences, knowledge in social science cannot be captured in closed systems or universal laws, as it is always contingent and context-laden (Flyvbjerg, 2001). Consequently, one can say that social problems and policies are just as contingent, or ‘wicked’ (Rittel and Webber, 1973). Instrumental rationality not only fails to deal with the uncertainties about how to plan, but it also runs into the more fundamental problem that the initial goals of planning are not self-evident either. They can be in mutual conflict, for example the aim to stimulate economic growth and to preserve the environment.

In addition, the positivist knowledge and information that should support decision-making proved to be flawed in political sense. Not only did providing complete and rigorous analysis for policy-makers end up being very problematic, such knowledge and information could not live up to the ideal of judgement-free policy information. Seemingly objective information, particularly in the form of quantitative models and data, appeared to contain various implicit choices and assumptions that, whether consciously or not, steered discussions or decisions in a certain direction. Moreover, decision-making was supported and based upon such ‘objective’ knowledge and information only to limited extent. As demonstrated for instance by Flyvbjerg (1998), decision-makers are selective, (un)consciously giving preference to the knowledge and information that fit their ideas while often neglecting the rest.

The traditional epistemology of knowledge and rationality has been contested on several grounds. This fuelled the idea that if the experts do not have all the answers then planning should be a more inclusive and democratic endeavour. Despite the risk of oversimplification, one can say that the limited capability of instrumental rational planning approaches to produce sufficiently good and just solutions resulted in the proposal of planning approaches based on other types of rationality and alternative ideas about who’s and which kind of knowledge (and values) should be incorporated in the process.

Davidoff (1965) acknowledged the inherent political nature of planning and hence the flaws of instrumental rationality. In response, planners should try to balance traditional power relations in favour of ‘those planned for’. His concept of ‘advocacy planning’ urged planners to represent and empower the usually underrep-
resented groups. For Friedmann, the limits of instrumental rationality meant that practitioners should foster mutual learning among experts and ‘client actors’, in order to transfer knowledge into action (Friedmann, 1973; Friedmann and Hudson, 1974). Instead of instrumental rationality, Friedmann adhered to Mannheim’s concept of substantive rationality. Rather than (or at least before) finding optimal solutions for given objectives, one should try to understand the complexity of social reality. This will enable a rational discussion and decision-making on goals and means. However, as Reade (1991) pointed out, both Mannheim and Friedmann were unclear about how goals, grounded in values, could be decided upon rationally.

Others, inspired by the work of Habermas, replaced the ideal of instrumental rationality with the idea of communicative rationality. Decisions regarding both the ends and the means should be the result of a fair, inclusive and open discussion. Being among the first to translate Habermas’ ideas to planning, Forester introduced his influential ‘critical pragmatism’, as a way to make planning practice more inclusive (Forester, 1980). Like instrumental rationality, Forester acknowledged that communicative rationality is bounded as well. The core objective of planners should be to minimise the communicative distortions that impede open dialogue.

Despite significant differences, the above mentioned concepts, as well as more specific elaborations, share some basic characteristics. With the idea that planning is a matter of interaction and communication among various (political) agents and institutional actors, research methods and methodology are seen as in particular consisting of ‘listening and registering the daily interactive work of planning professionals, (…) accumulating evidence about speech, narratives, professional profiles, consensus-building and negotiation’ (Yiftachel and Huxley, 2000, p. 908). In a more normative sense, communicative planning theories share the idea that planning should be, in the first place, a social process of ‘reasoning together’ based on communicative rationality. One of its main characteristics is the pluralist view of knowledge in planning processes. Decision-making processes should incorporate different types of knowledge, from different (types of) stakeholders. Several authors (e.g. Healey, 1997b; Innes, 1998; Khakee et al., 2000; Gibbons et al., 1994) pointed out that knowledge is a social construct and that other types of knowledge, such as local and experiential knowledge, play an important role in strategy making. Thus, one of the premises of the communicative approaches is that the pluralist nature of knowledge should be recognised in planning processes.

Limitations to the communication focus
The notion that communication is at the core of planning as a social and inclusive process, has become one of the most, if not the single most, researched topic in planning. A survey by the Journal of Planning Education and Research seems to support this. According to over 200 mainly US based planning scholars, ‘citizen participation’ and ‘community development’ were ranked as the first and second largest concerns for planning (Christensen, 2004). It reflects the notion that many researchers speak of the ‘communicative paradigm’ (Innes, 1995; Healey, 1996).

Yet the paradigmatic status of communicative planning is not undisputed. There are theoretical discussions about the extent to which the communicative turn actually led to a fully established communicative paradigm (Huxley and Yiftachel, 2000). Others argued that the conditions for Habermas’ ideal speech situations are
almost never or only partially satisfied. Building on Foucault, it is argued that the self interest of strategic rationality is prone to dominate over the ideal of communicative rationality. In the end, according to these scholars, forms of power inevitably determine the outcome of planning processes, making communicative planning a normative rather than an explanatory concept (Flyvbjerg, 1998, 2004; Tewdwr-Jones and Allmendinger, 1998).

Apart from the effectiveness of communicative approaches, some scholars question the very foundation of communicative planning approaches, by asking why planners should primarily serve ‘the public’ in the first place. After all the public is ‘only one part of a multifarious, conflicting and confusing number of clients in urban planning’ (Allmendinger and Tewdwr-Jones, 2002, p. 17). What constitutes ‘public interest’ and, if it can be identified as such in the first place, is it more important than the organisation, politicians, future generations, the planner’s own beliefs, or the profession? (Campbell and Marshall, 1998, p. 117). In addition, ‘communicative theory runs into the fundamental issues of pluralist theory. Communicative theorists avoid dealing with the classic topic of what to do when open processes produce unjust results’ (Fainstein, 2000, p. 457).

But perhaps most problematic is the shared belief among the above mentioned authors that the communicative paradigm is predominantly a theoretical paradigm, without sufficient resonance in daily planning practice. In the planning office, technical-instrumental rationality seems to be less out of fashion than in theory (see Morçöl, 2001). In spite of all the theoretical, political and practical inadequacies of the technical-rational model – even if practitioners are well aware of these – it remains an attractive view of the world and decision-making (Owens et al., 2004). Notwithstanding countless types of communicative ambitions and initiatives in practice, for many practitioners communicative planning is not a completely satisfactory alternative. As a result, whether because of the appeal or familiarity with the technical-rational model (or due to suspicion or dislike of communicative approaches) many practitioners and some theorists continue to follow the technical-rational model (Alexander, 1984; Baum, 1996). This seems to be related to the roles allotted to the planner and the required expertise that comes with a communicative approach. Although practitioners may fully acknowledge the boundaries of instrumental rationality, feeling the burden of many past planning disasters (see Hall, 1981; Scott, 1998), many still feel unsatisfied with merely designing communicative process strategies (e.g. Couclelis, 2005). For these practitioners, the participative discourse may even feel as a call for a ‘deprofessionalisation’ (Allmendinger and Tewdwr-Jones, 2002), as something they were not educated for. Planners may be sympathetic to the idea of inviting a multitude of stakeholders to the table, but feel the risk that it may also ‘hamper both planning and action by de-emphasising substantive planning expertise and information’ (Helling, 1998, p. 345). Just like its over-dominance, a complete lack of technical information or expert knowledge can lead to sub optimal solutions that cannot properly address the complex reality. Surely the complexities of societal phenomena and problems have demonstrated the bounded instrumental rationality of planning and the limitations of the planners’ expertise. Yet this does not mean that such substantive expertise is now redundant. On the contrary, it is ‘a grounding in knowledge about the socio-spatial processes
that, in interaction with each other, produce the urban habitat that lies at the heart of what characterises planners (Friedmann, 1998, p. 251, original emphasis).

One can say that involving different types of stakeholders and different types of knowledge in planning processes serves two general purposes. First, it enriches the knowledge upon which action may be based. This is one of the key arguments for Friedmann’s transactive planning: ‘that expert knowledge should be wedded to experiential knowledge to achieve a greater rationality in decision-making’ (Friedmann 1994, p. 378). Second, bringing together a multitude of actors allows for more inclusive, democratic, transparent decision-making in planning processes.

It seems, however, that in most of the research on communicative practices the emphasis lies with the latter: whether and how inclusive planning processes are or should be organised. Although the need to involve other than traditional or professional types of knowledge in such processes is highly emphasised, this is often where the contribution of this research ends. Particularly for practitioners this can be problematic, as it seems to overshadow the need for professional, systematised knowledge, which they feel is still important for addressing the complex planning challenges they face (e.g. Couclelis, 2005; Vigar and Porter, 2005). More importantly, it does not tell practitioners how to integrate local and experiential types of knowledge with the more traditional, professional types of knowledge. It can be argued that this is one of the main reasons that the ‘communicative paradigm’ remained mostly a theoretical paradigm. Without knowing how to reconcile different types of knowledge in planning processes, chances of collective action are reduced and based on limited knowledge.

Practitioners are still looking for technical information that can help them understand spatial and socio-economic patterns, which in turn contributes to developing good solutions. Thus the shift in focus from modernist/rational goal-oriented planning towards a communicative approach could at best be seen as a gradual, evolutionary change, where multiple ‘bodies of discourse’ co-exist and compete (this pluralistic standpoint is elaborated in Alexander, 1984; and Foucault cited in Flyvbjerg, 2001, p. 30). Elements and supporters of both traditions (i.e. the communicative and the technical-rational view on planning) are apparent in day-to-day planning practice and theory (Owens et al., 2004). To reduce it to a simple polarisation unjustly suggests a battle between pure positions, which is neither true nor constructive. The vast majority of scholars and practitioners acknowledge the importance of both content and process, as well as the impossibility of separating them (e.g. Sager, 1999; Allmendinger, 2002b).

If this is the case, it should be clear that multiple rationalities exist and that a planning paradigm cannot be based on just one type of rationality. Planners thus face the difficult task of finding workable combinations of instrumental, substantive, communicative and even strategic rationality, while being well aware of the bounded nature of all of these (Sager, 1999; Alexander, 2000; 2001).

It seems, however, that this awareness is not reflected in most of the planning research (Fainstein, 2000, Yiftachel, 1989). Although the ‘silent majority’ of planning researchers may indeed not adhere to just one type of rationality; nonetheless there seems to be a rough division of labour. On the one hand, scholars try to understand and/or improve collaborative and communicative processes, focusing on issues of democratisation and participation. On the other hand, others focus
more on the substantive development of concepts and/or models that try to grasp the increasing complexity of socio-economic patterns and urban form1 (see Faludi, 1973). There are very few scholars who study how the multiplicity of rationalities can be applied in practice. According to Alexander,

a whole new set of questions arises if we recognize that planning is too complex to be explained in a single paradigm, and that rationality is an integral part of planning. This research agenda would abandon sterile advocacy of one paradigm or another, instead mounting research into planning practice and planning institutions and their contexts (...) or developing alternative ways to address the question: In planning, who does what, when, how, and to what effect? (...) What kinds of rationality are or should be invoked by what kinds of agents in which types of decision situations, contexts, or circumstances? (Alexander, 2000, p. 252)

This quote clearly demonstrates why the idea of polarisation between seemingly conflicting bodies of discourse is unconstructive: it impedes opportunities for combining two (or more) approaches (Owens et al., 2004). It is therefore crucial for effective planning that process strategies and information requirements are recognised as mutually dependent. Focussing too much on the process can result in neglecting the content (see Vigar and Porter, 2005). The opposite also holds true: explicit information itself does not drive policy, but should be seen as a means to kick start a fruitful discussion about possible outcomes (Innes and Booher, 2000).

The main challenge is finding ways to combine, confront and integrate different types of knowledge and information, provided by the different actors in the planning process (ranging from expert knowledge and technical information to community values and knowledge). In the planning literature, there is a widespread call to integrate process and content, and it may seem somewhat of a cliché. However, both in theory and in practice, there is an open discussion how to achieve this integration. It seems that for this purpose one should look at the way knowledge is treated in other disciplines. In the remainder of this chapter, I will discuss ideas about the different possible avenues for integrating these multiple rationalities in terms of knowledge and information requirements.

3.3 Information and planning

To say that the role of content in planning has been overshadowed by a focus on the process does not mean that processes are ‘empty’. They obviously consist of some form of substantive discussion (Owens et al., 2004). However, the issue is more connected to the sort of content addressed in the process, to the manner in which they are constructed and to the agents who generate the content. Therefore, when discussing the role of content in planning, it is more useful to speak of the role of knowledge and information. One should look at the way different types of knowledge and information participate in the process and how they can fuel processes of knowledge creation.

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1 Healey is a notable exception, as put forward by Fainstein (2000).
There is no clear academic consensus about what precisely constitutes different sorts of information, data, and knowledge (Checkland and Holwell, 1998). Two primary distinctions are often used. First, there is a difference between data, information, and knowledge, seen as part of a wider (hierarchical) conceptualisation. Checkland and Holwell (Ibid., 1998) distinguished four concepts to describe the conversion of data into knowledge. The first concept is data, i.e. unstructured facts (Avison and Fitzgerald, 1988). One does not simply use all available data, but only a particular selection. Such a selection of relevant data is labeled *capta*. If persons individually or collectively assign meaning to the data they select, by relating different sort of data with each other and adding interpretation, ‘data’ and ‘capta’ are turned into ‘meaningful facts’, which is called information. Larger, more enduring and more embedded structures of information are referred to as knowledge (Checkland and Holwell, 1998, p. 90). Following these authors, information is thus seen as a means to support, contest, and link different kinds of knowledge. In practice however, this distinction is often blurred and it can be difficult to tell whether something should be considered as knowledge or information. It is due to this reason that I will continue to use knowledge and information interchangeably, despite the conceptually important distinction.

**Tacit and explicit information and knowledge**

It is also, and maybe even more important to distinguish between different types of knowledge and information. In the field of knowledge management, Polanyi (1966) introduced the distinction between explicit and tacit knowledge. Explicit types of information and knowledge are formal (i.e. data, formulas and general/universal theories); therefore, they are easily codified and are presumed to have a broad validity (see Table 3.1). This is the more traditional, Western scientific view of knowledge, which has significant similarities with the principles of instrumental rational planning methods in the field of planning.

**Table 3.1: Differences between tacit knowledge and explicit knowledge**

<table>
<thead>
<tr>
<th>Type of information / knowledge</th>
<th>Explicit</th>
<th>Tacit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Codified</td>
<td>Hard to codify</td>
</tr>
<tr>
<td><strong>Domain</strong></td>
<td>Within disciplines</td>
<td>Not related to particular disciplines</td>
</tr>
<tr>
<td><strong>Validity</strong></td>
<td>Wide or even universal</td>
<td>Context-specific</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Formal: data, theories, jargon</td>
<td>Informal: face-to-face</td>
</tr>
<tr>
<td><strong>Origin</strong></td>
<td>Taught</td>
<td>Experienced</td>
</tr>
<tr>
<td><strong>Focus</strong></td>
<td>Truth</td>
<td>Meaning</td>
</tr>
<tr>
<td><strong>Attitude</strong></td>
<td>Rational, distant</td>
<td>(Emotionally) involved</td>
</tr>
</tbody>
</table>

Source: a non-exhaustive synthesis of characteristics based on different academic sources

Tacit knowledge on the other hand is what Polanyi meant by his famous quote ‘we know more than we can tell’. Tacit knowledge is more difficult, or even impossible to codify, because it is context-specific, informal and acquired by experience. As stated by Nonaka and Konno (1998, p. 42), ‘tacit knowledge is deeply rooted in an individual’s actions and experience as well as in the ideas, values, or emotions he or
she embraces’. Whereas explicit knowledge usually resides within a certain discipline, accompanied by rules about how new knowledge can be created, tacit knowledge is not necessarily related to particular disciplines; rather, it is connected to the individual’s personal experiences (Gibbons et al., 1994).

In particular during the 1990s, efforts were made in knowledge management to synthesise the two ways of looking at knowledge, based on the notion that both are important. This produced new concepts (e.g. organisational learning) that emphasised the need to combine different types of knowledge in order to learn and create new ideas (Senge, 1990). Particularly in management and organisational sciences, as well as in business, increasingly more energy and resources is allotted to knowledge management. This increase follows the conviction that knowledge is an important asset for organisations to have, in order to be productive, innovative and competitive.

The SECI-model

Probably the best known concept in knowledge management that integrates explicit with tacit knowledge and information can be found in the work of Nonaka and Takeuchi (particularly on their introduction of the SECI-model, which was based on research on innovation in Japanese companies). The SECI-model will be discussed here as a potentially useful concept for knowledge management in planning. The reason for this is that the concept not only emphasises the importance of different types of knowledge for knowledge creation, but also provides a descriptive and potentially also prescriptive framework for accomplishing this goal.

Apart from the idea that tacit and explicit information should be combined, as a way of processing pre-given information, Nonaka (1994) argued that the integration of the two generates new knowledge. This idea resulted in a conceptual mechanism that described the way interactions between tacit and explicit knowledge should take place in a cyclical process, thus creating new knowledge (Nonaka and Takeuchi, 1995). Knowledge is converted from tacit to explicit, and exchanged between groups and individuals, thus producing new knowledge or a ‘justified belief’. Knowledge creation is believed to occur through four conversion processes, which are essentially learning processes: socialisation, externalisation, combination, and internalisation. Together, these accumulate into a spiral of knowledge creation called the SECI-model (Figure 3.1).

Socialisation of knowledge is the sharing of tacit information between individuals or in a small group, particularly by means of shared experiences: observation and imitation. It is related to socialisation as a sociological concept. A typical example of learning by socialisation is the relationship between mentor and apprentice. By observing and imitating knowledge becomes embedded, but remains of tacit nature. Such tacit knowledge can crystallise and become explicit by means of externalisation. Here, tacit knowledge is articulated and codified from the individual to a group, through a ‘meaningful dialogue’ (Nonaka, 1994). Externalisation requires words, images, concepts, narratives and metaphors. Hopefully ‘the sum of the individuals’ intentions and ideas fuse and become integrated with the group’s mental world’ (Nonaka and Konno, 1998, p. 43-44). It seems that the conversion from tacit

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2 SECI (Socialisation, Externalisation, Combination, and Internalisation)
to explicit knowledge by means of externalisation is the focus of most of the research on communicative planning approaches: how to integrate viewpoints of different planning actors into consensus or a shared knowledge base. It seems to be what Forester (1985) meant with his term ‘making sense together’. In the next step, the externalised – now explicit – knowledge can be reconfigured, recategorised, coordinated and linked with other bodies of knowledge by combination. Mere combination of knowledge is what characterises the Western epistemological tradition of knowledge creation, in which technical or instrumental rationality have a central position. This approach has an inherent risk of becoming detached from the tacit, more personal meaning of knowledge. However, in the SECI-model the knowledge to be combined is the result of a much richer process, crucially involving socialisation and externalisation of tacit knowledge. Finally, by the process of internalisation, individuals convert the collectively generated and combined explicit knowledge back into a tacit form. Through practice, experimentation, or training programmes – essentially Schön’s (1983) ‘learning by doing’ – knowledge is made personal. The internalised knowledge can then be socialised again; the knowledge generating process has no predefined end or beginning; it does not have to start with socialisation.

Figure 3.1: The SECI-model

Although the SECI-model was greeted with wide enthusiasm, especially by organisational science and practice, and obtained a paradigmatic status in the field of knowledge management, it does have its weaknesses (as directly acknowledged by Nonaka et al. [2006]). So far it has received relatively little, yet some profound criticism. The empirical grounding of the mechanism of knowledge conversion, particularly with respect to internalisation and combination, is deemed as weak and requiring more research (Gourlay, 2006). In theoretical terms, the idea of what exactly constitutes knowledge in the SECI-model is contested. As argued by Gourlay (2006), the idea of
knowledge is easily confused with specific managerial beliefs about a product or organisation, which is not the same as knowledge that satisfies scientific criteria. The subjective belief – whether justified or not – that supports a manager’s decision is not necessarily the same as ‘real’ knowledge. Even though it may form the basis for decision-making in practice, this fact does not make it ontologically ‘true’. I shall return to this controversy in Chapter Four.

Another point of criticism is related to the definition of tacit knowledge. According to Tsoukas (2003), tacit knowledge in the SECI-model is erroneously understood as ‘not yet articulated’ knowledge, i.e. knowledge that is simply waiting to be made explicit. If indeed ‘we know more than we can tell’, then this is in contradiction to Polanyi’s idea of tacit knowledge as ineffable by definition. For Polanyi, tacit knowledge is a type of knowledge that a person unconsciously uses while thinking and feeling he or she is doing something else. For instance, when one is busy shifting gears, steering and using the pedals, this is the unconscious subsidiary for the conscious activity of simply ‘driving a car through traffic’. The unconscious, tacit type of knowledge can only be learned by repeated experience (see also Flyvbjerg, 2001). Knowing how to drive a car is to know more than one can tell. Clearly, some tacit knowledge cannot be made explicit and converted through the SECI-model.

This seems to raise an awkward connection between the tacit dimension of knowledge and communicative rationality. If (made) explicit, knowledge can be subjected to either substantive or instrumental rationality, and can become part of a discussion that is to a certain degree based on communicative rationality. But, how can one be rational about tacit knowledge, when it cannot be articulated by definition?

The whole idea of noncommunicable knowledge is therefore a threat to rationality and the insight that being rational with others is to be able to justify one’s expectations, beliefs and actions – to oneself as well as to others. (Bordum, 2003, p. 53)

Falsely pointing at tacit knowledge may certainly be a potential threat to communicative rationality; however, this does not make inarticulable tacit knowledge the ‘inevitably bounded part’ of rationality (Foss, 2003). Not being able to describe exactly the intuitively ‘knowing how’ does not make it irrational (Malterud, 1995). As described by Flyvbjerg, practitioners become real experts when they stop following the rules they learned and replace them with experienced intuition:

Their deliberation, however, is not based on calculated problem solving, but on critical reflection over the intuition, which the expert applies. [This is not] some kind of guesswork, irrationality, or supernatural superstition, as the cognitivists often describe it, usually as a preface to a critique. (Flyvbjerg, 2001, p. 17-19)

According to Schön (1983), tacitly knowing something is always richer than when it is externalised and described. This implies that the problem not necessarily lies with a (ir)rationality of knowing-how, but with language: it is a matter of bounded communication rather than bounded rationality. However, these important tacit particu-
larities can be made explicit (Tsoukas, 2003). Even imperfect descriptions can be useful to point at important tacit particularities (Schön, 1983).

So if one accepts the impossibility of actually articulating tacit knowledge, the SECI-model remains a useful concept. However it implies that instead of converting tacit into explicit knowledge, the focus is actually to draw attention to the tacit particularities. The tacit knowledge made explicit is not the real benefit; rather it is the where and the how that are much more important. In urban planning for example, one might try to articulate the feeling one has for a certain neighbourhood and stress the importance of this feeling, without actually being able to make it explicit.

At the same time, the externalisation of tacit knowledge can be seen as articulating the ‘so far not articulated’ knowledge which is called tacit by some, but actually strictly speaking is explicit. This includes various types of experiential knowledge, for example about why certain spaces and places are successful or about types of policies and interventions that proved effective. In the remainder of this chapter and this book, I will refer to all of these different types of tacit, local, experiential or other knowledge jointly as tacit knowledge.

The SECI-model in planning
In spite of the shortcomings of the SECI-model, one can say that it provides a useful heuristic concept for knowledge generation in urban planning processes. Much of the literature (in particular on communicative planning) stresses the importance of incorporating different types of knowledge; the SECI-model takes this idea as its starting point. More importantly however, the possible added value of the SECI-model for planning is that it encapsulates different types of knowledge in a descriptive and normative mechanism of how to exchange and create knowledge. It is a helpful concept for reconciling and integrating ‘professional’, systematised knowledge with tacit and experiential types of knowledge in a communicative planning approach. In addition, to consider knowledge not as a universal truth but as ‘justified belief’ about issues and sensible courses of action is a useful aim for providing support to decision-making in complex urban planning issues.

None of this is easy of course. The SECI-model was developed for the purpose of facilitating learning mostly within individual organisations, with the aim of stimulating innovation and enhancing production. Differences of opinion and interest may impede the learning process (e.g. by means of strategic behaviour), but employees will generally have a relatively shared interest in the performance of their division or company. In the end, it is the manager who decides what constitutes useful knowledge for the organisation (Nonaka, 1994). This ‘filter of managerial evaluation of what is and is not practicable for the organization’ (Gourlay, 2006, p. 1423) is relatively uncontested.

When compared to contemporary decision-making in urban planning issues, which typically feature a multitude of conflicting interests, one may expect that it is more difficult to reach a shared, justified belief in this case. Analytical differences and differences in interests are easily blurred in planning situations that face continual uncertainties about goals and means. Even so, the SECI-model is about the exchange and creation of individual and shared knowledge, not about consensus building – even though it is closely related. Acknowledging that both tacit and ex-
plicit types of information and knowledge are important in planning (because they 'make sense together'); according to Nonaka, justified belief in planning issues should be the result of all four types of learning.

Although a tempting framework is provided by Le Clercq (1990), I will not try to elaborate how exactly and which specific information and knowledge is to be integrated in planning processes, nor will I look at how it could or should fit with existing models of decision-making. The idea of applying the SECI-model in planning should be seen as a general concept for knowledge management. Hence it can be used to produce different results in different planning situations with different stakeholders. Socialisation, externalisation, combination and internalisation take place in different ways, at different moments and at different paces. These different types of learning concern all sorts of aspects of the practitioners’ work. One can think of socialisation as planning practitioners watching and working with their peers and seniors, during the daily practice of processing information, developing ideas and policy-making. Learning by externalisation and combination may take place in all kinds of discussions with local residents, with developing agencies, but also in expert meetings. Combination may also come in a more traditional, scientific way of collecting and synthesising sources of explicit information into new knowledge. Internalisation involves ‘learning by doing’ of essentially every aspect of the practitioner’s job, as demonstrated for instance by Schön (1983).

In this research, I will not investigate all the possible ways in which learning in planning may take place according to the SECI-model. My aim is rather to focus on the portfolio approach and to assess how different types of knowledge and information may be used and exchanged, and how this may generate new knowledge. The portfolio approach is meant to accommodate and stimulate what Healey calls a social ‘construction site’, which are arenas in which multiple ways of knowing about what is significant, and about what could happen, are explored, conceptualised and symbolised, tested and, in instances where powerful new frames are formed, re-embedded into the ongoing flow of the various transecting relations, in the form of a new (or reinvigorated) idea of ‘place’ and the priorities that arise from this. (Healey, 2007, p. 236)

Healey mentioned several types of these formal and informal arenas. The portfolio approach should be seen as a mechanism that can facilitate informal meetings among experts. It means that the SECI-model is used as a conceptual model to look at knowledge exchanges and knowledge generation in relatively condensed, but complex processes of strategy-making (which involve different types of actors and interests). One should expect that generating a fruitful social construction site will depend in particular on the capacity to externalise and combine knowledge, i.e. on the conversion of tacit into explicit knowledge – or at least on the drawing of attention to the tacit particularities – and its integration and combination with explicit knowledge. This is where ‘making sense together’ may be expected to provide a basis for collective learning. This is also where the different types of rationalities have a role to play and where it should be possible to shift between the multiple rationalities that are linked to different types of knowledge.
3.4 Conclusions

Few planning theorists still dare to proclaim instrumental rationality as a guiding principle for planning. The idea that planning is or that it should be a communicative process between a wide range of actors has become more than widespread in both theory and practice, notwithstanding the problems of the so-called communicative paradigm (as argued by different scholars). Researchers who adhere to communicative approaches generally argue that the interests, as well as the knowledge, of different types of stakeholders should be involved. It seems, however, that much research is oriented at the noble aim of incorporating community interests and local experiential knowledge, but without clear ideas and practical guidelines for the manner of combining and integrating this knowledge with the systematised ‘professional’ types of knowledge traditionally used by planners. Even if practitioners sympathise with communicative planning approaches, they still feel the need for such substantive, systematised knowledge to support their plans. It seems that the questions of how to organise communicative processes that integrate different types of knowledge are difficult to answer with concrete practical guidelines. Yet if one acknowledges that planning is about linking knowledge to action, as defined by Friedmann, then it is important to see where and how knowledge – or justified belief – is generated and crystallised.

The idea put forward in this chapter is that one of the challenges faced by planning research and practice is to find ways of meaningfully integrating different types of knowledge and information: tacit, local or experiential knowledge with explicit, systematised, or professional knowledge. Subsequently, it can be concluded that knowledge management should be seen as a central aspect of planning. The SECI-model, introduced by Nonaka and Takeuchi (1995), provides a conceptual mechanism of how different types of knowledge and information are transferred and exchanged (ultimately resulting in new generated knowledge).

Whether with or without concepts such as the SECI-model, the main suggestion of this chapter is that practitioners should find ways of integrating explicit, systematised knowledge with the tacit knowledge and ideas of other planning actors. It should be noted that the merit of such integration is more than the simple recognition of the values of both. Explicit, systematised knowledge and information need experiential knowledge to become meaningful; only with experiential knowledge can it become more than flat numbers, figures and maps. At the same time, local and experiential knowledge require such numbers, figures and maps in order to check their credibility and to place local knowledge in a wider perspective. This is how the integration of knowledge can lead to the generation of new knowledge.

The idea of integrating different types of knowledge is often discussed in terms of planners making use of systematised knowledge, which is then contrasted to the local experiential knowledge of other stakeholders, particularly ‘those planned for’. I would like to emphasise that although this dichotomy may be useful for sketching the treatment of knowledge and the issue of rationality in planning, the reality of planning practice is obviously more complicated. Particularly with the tremendous increase in the availability of data and information for ‘non-experts’, different types of stakeholders may be about as knowledgeable as the practitioner (or even more so). At the same time, practitioners in planning obviously do not restrict themselves to mere technical knowledge; they are guided by tacit and experi-
ential knowledge and information as well. The same holds true for the relationship between practitioners and researchers. Here, one would generally expect the researcher to use relatively more technical knowledge, whereas the practitioner would use his/her experiential knowledge from practice. But here too, such a stereotypical division of labour is and should not be the case. Particularly in strands of planning research that aim to develop tools and instruments to assist practice, the researchers should be acutely aware of the limitations of the technical knowledge they work with.

As will be discussed in the next chapter, the generation of knowledge that is both useful for practice and rigorously grounded in research requires the integration of types of knowledge in a similar line of reasoning as discussed in this chapter. The issue of how to generate rich and useful and knowledge then becomes a methodological one.