

Knowledge management and enhanced policy application¹

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Large post-war housing estates provide some of the most striking examples of the mismanagement of knowledge in recent European urban development. The symptoms are manifold. Some apparently mediocre large estates have fared well on the housing markets or have achieved a turnaround after a problematic past, while other, previously highly acclaimed, model housing estates of the second half of the 20th century were demolished after only a few decades as they had become unsustainable, ungovernable or were just no longer in demand.

A third group of estates remain in constant need of refurbishment; neither the original plans nor repeated attempts at urban repair have proved able to curb physical and social decay. The question is: what constitutes the differences between these groups?

The central argument of this chapter is that it was not only the quality of the estates, their social structure and status, or a lack of means or political and professional goodwill, that led to the failure of the efforts made to improve the large estates. A partial neglect of available knowledge and, in particular, an inappropriate management of knowledge as a basis for policies of change are seen as important reasons for many obviously problematic decisions and practices.

In this chapter, knowledge management in housing is contrasted with the development practice reflected in some of the RESTATE cases. Some of the difficulties in adapting the different paradigms of knowledge management to the development of the large estates are debated and a communicative model is presented of knowledge management as a reflexive methodology to support the sustainable development and change of the estates.

Knowledge and the large housing estates

Over the years, different examples of mismanaging knowledge have emerged. Technological and engineering knowledge may clearly have been neglected during planning and building of the large housing estates (Gibbins, 1988, p 46). The evidence for this can be found in the serious deficiencies which have often only emerged a decade or so after the residents moved in (Gibbins, 1988, p 22). Second, existing knowledge about the social and economic use of built-up space seems very often to have been given scant attention in the planning phase, in the clay-to-clay management of the estates, and during the repeated attempts at rehabilitation that some estates have experienced. Third, the tacit (that is, unwritten) knowledge of residents and other local society members, whose experience and understanding of the estates' affairs is of ten decisive, has only reluctantly been used in the running and sustainable improvement of the estates.

The evidence from current evaluations of many of the integrated policies for neglected urban areas in Europe is that the mismanagement of knowledge is still a key factor in the failure of the implementation of these policies (Difu, 2002; Neighbourhood Renewal Unit (NRU), 2003; Droste and Knorr-Siedow, 2004). Despite the common jargon of integration and collaboration to 'ensure that policies and decisions build on existing knowledge and are evidence based' (NRU, 2003), the barriers between the different holders of professional planning, administrative, and political knowledge on the one hand and the everyday knowledge of residents, shopkeepers, wardens and so forth on the other of ten remain high. As a result, the potential benefit of shared knowledge for the planning process (Healey, 1997, P 160) and for running the estates cannot be harvested. Finally, an international transfer of knowledge about success and failure factors has only taken place to a limited degree, and mistakes are constantly repeated. A rare historic opportunity was missed after the fall of the Iron Curtain, when the transfer of knowledge to the emerging new market economies was only very limited and strongly dominated by political considerations on both sides.

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Certainly, the reasons for the observed neglect of knowledge that could have been a permanent asset in the steering of development are not to be found exclusively in deficient forms of knowledge management. Economic and political power overruled the use of knowledge in many cases. Sometimes knowledge was suppressed as irrelevant - over decades in the West as well as the East - since what had been done could not be questioned. The neglect of knowledge was particularly striking in the countries of Eastern Europe. Despite Eastern European countries' experience with technological faults and social problems as early as the 1970s, which led Western countries to stop this type of construction, all former Eastern block countries continued building large estates right up to the implosion of their economic system at the end of the century. Had Western knowledge of the 1970s and 1980s not been deliberately blocked, the staunchly held assumption of a sustainable special relationship between the socialist personality and the panel-construction apartment block could easily have been stripped down to its rational core (Kipta, 1989).

Knowledge types and their place in the rehabilitation of large housing estates

It is important to provide a broad definition of knowledge here in order to describe its management. The emphasis is on the difference between data, information, knowledge, and learning.

Whereas data are representative of conditions and differences without any specific value being attributed to them, information combines data with criteria of relevance. In consequence, without a system of references there is no information, and different parties with different systems of reference can easily conclude quite different information from the same data.

Knowledge, however, relates information to context; the process seeks to externalise irrelevant information and is combined with a process of sense-making and reflection. Knowledge 'implies comparisons, consequences, linking and dialogic practice, has to do with experience, judgement, intuition and values' (Matthiesen, 2004). Knowledge describes the process and the result of learning and is 'a thing' and 'a flow' (Snowden, 2002). Snowden describes three important features of knowledge:

- We only know what we know when we need it.
- We always know more than we can tell
- Knowledge can only be volunteered, not conscripted.'

Of course, as soon as more than one party is involved there can never be only one version of knowledge, since it is the result of individual cognitive processes. Thus, finding a common understanding is a spiralling process of enhancing knowledge, which involves learning as well as a readiness to see the views of others before new knowledge can emerge in a following round of reflection.

Only respect for the differences between data, information, knowledge and learning as a process leads to the development of new or enhanced knowledge. Especially in those parts of the RESTATE national reports that deal with the recent history of policies and actions for the estates' improvement, a lack of contextualisation of data and differences in the systems of reference regarding information between the various players is stated.

Account needs to be taken of the differentiation between the different forms of knowledge and the links between them in order to reach a concept for the utilisation of knowledge in socio-spatial development (Willke, 1998). Matthiesen (2004) states that the commonplace dual schemes of explicit/implicit knowledge, codified/uncodified knowledge, and institutionalised/personalised knowledge 'are helpful, but not sufficient'. To obtain a working understanding of knowledge in spatial research, he suggests structuring the knowledge landscape according to the following interrelated and partly overlapping fields.

Before its value in estate management became apparent, everyday knowledge of common-sense relevance for action in an everyday environment was often considered irrelevant and dismissed. Everyday knowledge, however, is by no means a simple form of knowledge.

Local housewives with children have a different form of understanding of how their estate ticks than a plumber or a manager who may only work there. Age, gender, and ethnicity are factors shaping individual everyday knowledge, as well as specific inflows from other types of knowledge.

Expert and professional knowledge describes the scientific and codified knowledge about technology, the social situation, the institutional (and legal) structures, and what lies behind them. Expert and professional knowledge is often directed towards the refinement of professional practices and the generation of new expert knowledge. This realm of professionals, planners, administrators, and politicians - the place-makers in a narrow sense - is often characterised by hermetic separation from other types of knowledge. Technicians tend to live in a world that is decisively different from that of social workers or housing managers, and often the separation of expert knowledge is cultivated to secure professional identities. Competition often prevents the building of bridges between these enclosed fields of expertise, since it is feared that sharing may endanger autonomy for action.

Milieu knowledge describes the social conception of 'how things are' within social networks and milieus. Large housing estates accommodate different milieus, ranging from the different resident groups (with regard to ethnicity, gender, age, social status, institutional embedding, or a mix of these factors) to the estate management, economic, political and administration realms. Milieu knowledge reaches out beyond the estates, although the extent of the reach differs for different individuals and social groups. There is a wide difference between the ranges of locked-in milieus (and their exclusive knowledge of an often ethnic character) and open milieus (that readily allow a more distanced and reflexive look at life on the estates).

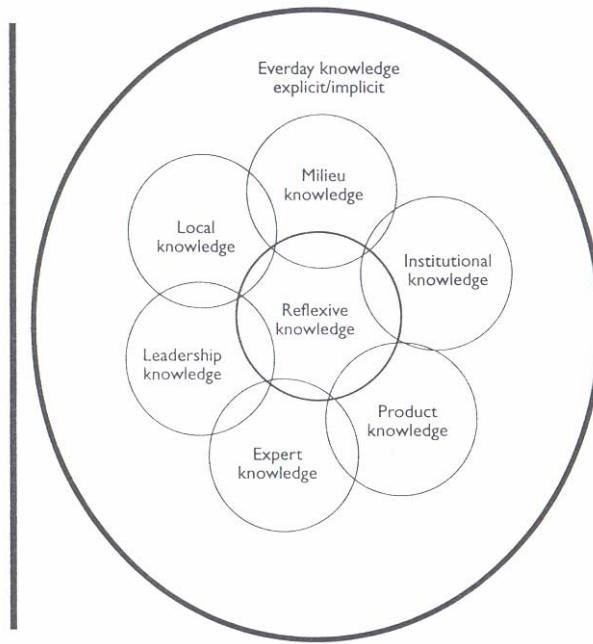
Institutional knowledge is knowledge about the processes within organisations and institutional arrangements. In relation to the large housing estates, institutional knowledge is unevenly distributed between the different milieus. Whereas professional milieus often have considerable capacity to use their institutional knowledge, culturally marginalised milieus, such as the elderly or children, are often the bearers of important bits of local knowledge, but they usually have little institutional knowledge to make that local knowledge heard or transform it into the improvements they need. Thus groups with a low level of institutional knowledge are highly dependent on socially inclusive forms of knowledge management if they are to make useful contributions to sustainable change.

Local knowledge, combining different forms of knowledge, is based on and enhances the perception of local potentials and deficiencies. On the estates, the concept of local knowledge (Knorr-Siedow and Gandelonas, 2004) combines the different forms of knowledge that are available within the specific circumstances of a specific locality. Sectoral knowledge of the different milieus needs to be communicated into a joint space (Snowden, 2002, p 6). Thus, the local knowledge of socio-spatial entities, including the large estates, differs for different milieus and actors, but can be enhanced and activated by appropriate forms of management.

Reflexive knowledge, finally, links types of knowledge and context, and includes the capacity for the critical understanding of relationships (see Figure 16.1). Reflexive knowledge at the estate level is produced over time, for example in forums.

The utilisation of different forms of knowledge was explicitly addressed within the RESTATE research project. Local knowledge was considered in the Dutch and German cases, where residents were seen as providers of specific knowledge for improved development/ action planning, and in Hungary and Poland for the understanding of regional processes with an influence on the locality. Training the unemployed and especially migrants (Sweden, Spain) falls within the same realm as improving inclusion into the neighbourhood through the introduction of specific knowledge for the non-specific goal of allowing for greater individual and neighbourhood identity (the UK). The lack of specialist knowledge was reported as a decisive factor in enhancing sustainable estate development (the UK, the Netherlands, Germany). Building new knowledge about condominium management (Hungary) was seen as a major factor for a resident-oriented development of the estates. And a lack of knowledge about the allocation of residents and institutions (Italy) was found to lead to counter-productive consequences from well-intentioned policies.

Figure 16.1: Landscape of knowledge

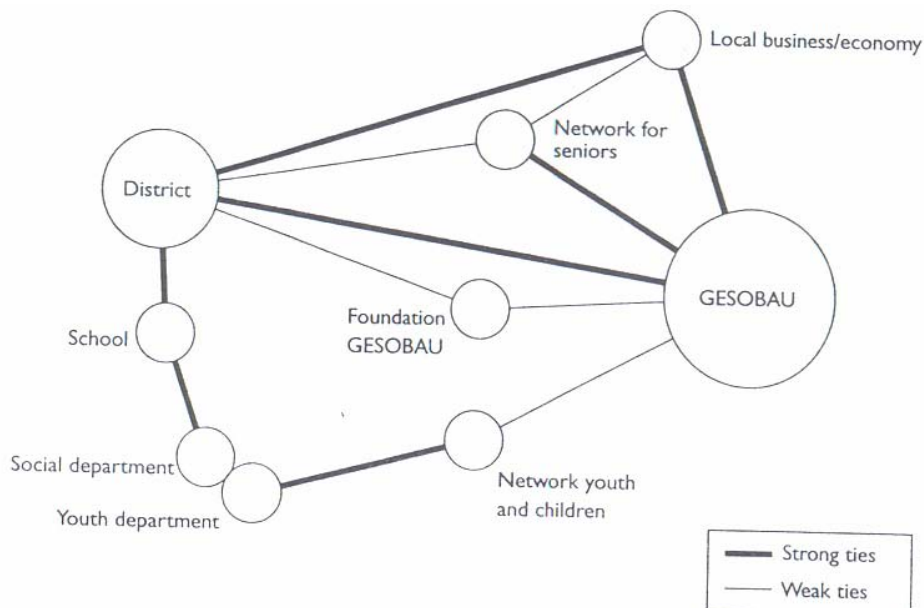


Source: Matthiesen (2004)

In planning and policy making, the management of specialist knowledge was seen to be a prerequisite; introducing elements of the knowledge society into peripheral estates (Sweden) and enabling local populations to take part in policy-related action (Spain) was considered essential for more socially inclusive developments leading to better opportunities for individuals and groups.

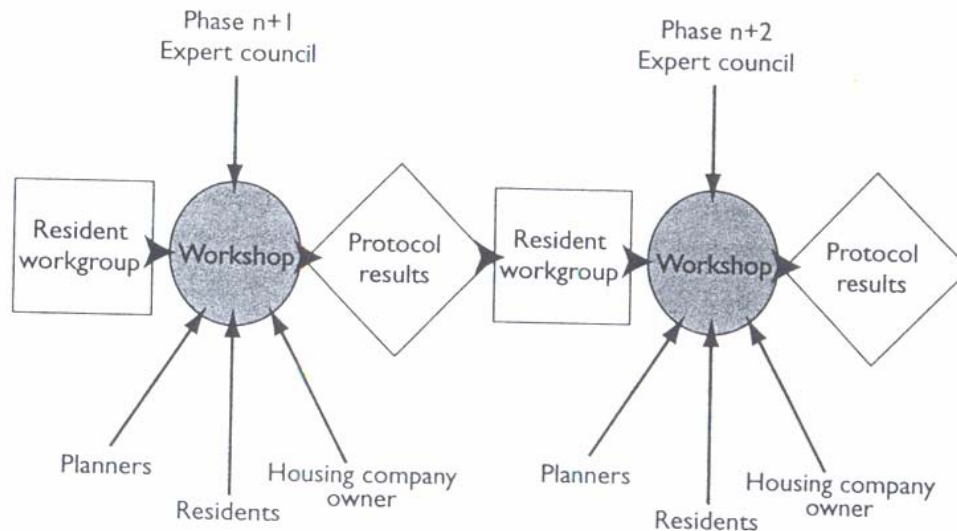
Despite an underlying notion that a lack of knowledge may be problematic and that the means of carrying and combining different forms of knowledge to better secure the success of rehabilitation processes are usually insufficient, there is hardly any explicit mention of a need to enhance the area of reflexive knowledge, placed centrally on the map of knowledge (see Figure 16.2).

Figure 16.2: Knowledge flow and relational ties in a rehabilitation process



Source: Droste and Knorr-Siedow (2004)

Figure 16.3: Iterative workshop in Marzahn/Hellersdorf estate management



Source: STERN ltd (2003, p 14)

In general terms, the reports show that knowledge in its differentiated form has not usually been understood as a resource for the housing estates, and that appropriate knowledge management could lead to ways out of the dangers of not knowing or understanding why policies or actions fail or succeed.

The theory and practice of knowledge management

Knowledge management has been infiltrating the economic world since the late 1980s (Grünberg and Hermann, 2003). It became obvious that a casual and random combination of existing knowledge could not lead to sufficiently robust and realistic estimations of given situations nor to the production of satisfactory, sustainable innovation. It was hoped that organised forms of a strategic management of knowledge would lead to a targeted exploitation and recombination of existing knowledge in order to further the emergence of new usable knowledge that has social and economic relevance (Katenkamp and Peter, 2003).

Knowledge management frequently featured in attempts to enhance the competitiveness of individual organisations as it became clear that, in the context of the acceleration of knowledge production and the decreasing time span between knowledge production and knowledge utilisation, new efforts had to be made. The associations' intentions ranged from wanting to improve their position in the contest for innovation to their desire to raise self-awareness processes, often in crisis situations.

The theories of knowledge management are mostly rooted in the social sciences, ranging from psychology to the sociology of knowledge, and are often influenced by the managerial sciences (Peter, 2003). In contrast, the practice of knowledge management has branched into two strands, only one of which is related to the social theories of knowledge and interaction. On the one hand, a large number of information-technology based methods and tools is labelled knowledge management. Even simple databases or intranet solutions are proclaimed to be knowledge management. On the other hand, there are complex communicative methodologies that are based on the social sciences. For the housing sector and collaborative urban development strategies that were found to form the background to the sustainable change of large housing estates in the RESTATE project, the technology tools are of some interest. The availability of information as a basis for the development of reflexive knowledge is vital as this is the most rational possible form of strategic action.

Different models of knowledge management have been debated recently in the literature. Roughly, four types of strategy have emerged (Katenkamp and Peter, 2003, p 24):

1. technology-oriented knowledge management;
2. knowledge networks;
3. process-oriented knowledge-flow concepts;
4. hybrid models of a mixed nature.

While technology applications are usually targeted at making information available in a readily accessible and well-organised form, the other three strands are related to institutions (rules of actions) and forms of social organisation.

In urban and estate planning and management, the technology-based forms of knowledge management are probably of minor importance for securing context awareness and reflexivity. They have, however, changed the everyday work in housing and estate management markedly by making existing specialist and codified knowledge widely available, thereby helping to convert many housing associations and local government authorities from knowledge hierarchies to more open institutions, and allowing more flexibility. The internet and intranets have opened up previously hermetically sealed forms of expert disciplinary knowledge such as legal case databanks and other information to all staff within the housing associations; residents putting complex problems to desk-workers linked to an intranet or the internet can be given answers that were formerly only available to the legal professions. Even across the boundaries of organisations, tenants and tenant organisations also have increasingly easy access to these kinds of information.

But even though deliberately opening up access to different forms of IT-based expert knowledge (as in a German case) can change the internal culture of housing associations, knowledge flow and network-oriented forms of knowledge management were found to be of greater influence in generating the new action-oriented knowledge-based capacity (Fichter et al, 2004) that was vital for the turnaround of problematic estates. These forms are targeted at interdisciplinary and collaborative work, which was found frequently as an action paradigm within the RESTATE projects. These forms are about sharing personalised knowledge and enhancing the depth of knowledge across the interests of the individual parties involved.

- Knowledge networks are targeted at securing a rationale linking available knowledge and sustainable action. As a sub-form, storytelling amongst knowledge workers became a prime source of securing the success of complex action, linking knowledge and experience. Knowledge networks are dependent on a certain level of inn-a structure (specific meetings, access to databanks, and so forth); teamwork should bridge hierarchic and disciplinary boundaries. Communicating about work rather than just collaborating in work should also be understood to be a prerequisite for the development of reflexive networks. Usually, knowledge networks have a thematic core and are limited to specific tasks to prevent them from becoming too time-consuming and then petering out (Brödner et al, 1999a; 1999b).
- Communities of knowledge are usually oriented towards resolving limited focal questions through the development of new knowledge. Originating in multinational organisations, communities of knowledge bring the various parties together, either in person or virtually, through e-communication, or in mixed forms. Once set up, communities of knowledge continue in principle (although often to a limited extent) outside their everyday working structures and develop their own codes of conduct. In managing large housing associations, strategic planning groups are often organised as communities of knowledge.
- The culture of knowledge and hybrid approaches of ten use elements of the forms of knowledge management mentioned above and spread them throughout the various parties' institutional framework. The aim of these approaches is to abstract from single-targeted actions in order to change attitudes and to question structural and institutional limitations to the use of knowledge. Approaches oriented towards the culture of knowledge are of ten implicit in policies for urban problem areas when public participation and cross-departmental and collaborative strategies and practice are required to secure the use of local knowledge (Mega, 1999).

Although knowledge management was introduced largely to serve the demand for innovation within single organisations, cases of project-oriented knowledge management across organisational boundaries are also numerous, especially in advanced industries that are highly dependent on their relationships with their suppliers (Howaldt et al, 2003). These approaches will be of most interest in an urban context of managing knowledge within complex networks of participants, since city and estate are paradigmatic fields of interrelated actions performed by actors with different agendas and of ten conflicting interests.

Knowledge managers and moderators of networks and communities have been found to be instrumental in contributing to the avoidance of self-referential processes and improving problem-solving capacity. Pardon (2003, p 144) states that communicative performance is the key to success and that any deficiencies frequently lie in institutional structures that discourage communication. In particular, a lack of institutional competence, something which is often missing in traditional administrations and bureaucratic environments, is a barrier to the successful utilisation of knowledge.

Knowledge, housing, and estate development

In one respect, introducing knowledge management into the development of large housing estates differs from most other industrial and administrative practices. The sustainable development of large housing estates incorporates (at least) three often contrasting fields of action, which are in themselves characterised by a multitude of actors and contrasting interests: urban and neighbourhood development in a broader socio-spatial sense, housing, and social policy.

At the neighbourhood and estate level, urban and neighbourhood development, although greatly influenced by economic factors, is generally a highly politicised field. The sharing of knowledge, as well as the inclusion of the residents in the planning process, has been an important aim since the 1970s. In contrast, housing has not been a traditional focus of knowledge-driven innovation from outside the professional and expert realm, although the scope differs widely throughout Europe. Whereas in Central and Eastern Europe actors have only recently become more market-oriented, French and German housing associations, for example, usually have long traditions of moving between the poles of public interest and the market (Donner, 2000; Hall et al, 2003).

For a long time, many actions of the housing industry and local government authorities were routine-driven. In the German rehabilitation programme for the large housing estates, for example, even government evaluators stated that public funds allocated to integrative socio-spatial projects were used mostly by the housing actors within traditional routines, rarely referring to anything other than specialist knowledge. As late as the 1990s, the inclusion of the everyday and local knowledge of residents and other interested parties from business and civil society was judged to be beyond the imagination of most German housing managers (Bundesanstalt für Bauwesen und Raumordnung (BBR), 2004). Modern management methods have only recently infiltrated this sector, since the publicly owned sector responsible for social housing lost its unfettered package of subsidies and at the same time there was a constant undersupply of quality homes at an affordable price.

Above the level of direct customer relationships (contracts, repairs), the managers of large housing estates opted to incorporate residents' everyday knowledge by adopting resident councils and other forms of participation in all the RESTATE cases, of ten as a direct consequence of public debates about disturbing urban problems. Different forms of knowledge other than the associations' expert knowledge were exploited, from theme-centred public debates on what the public thought about projects for rehabilitation to asking residents and other specialists in general terms to share their knowledge in permanent tenant councils, forums, steering group models, community planning, and other processes.

The graph describing the decision-making process of a successful rehabilitation of one of the case-study areas shows the different demands for shared knowledge and cooperation (Figure 16.3). The quasi-nongovernmental housing association established a network of links and shared knowledge, which brought about a mix of expert and everyday knowledge from different agencies, associations, policy makers, and not to be forgotten - the residents. The development of the economy, of employment and of cultural diversity often becomes more important for the sustainability of the estates than the internal processes within the

association. As a result, the external knowledge relationships of the association have become just as important as the expert knowledge within the association for the estates' rehabilitation process.

Each of the circles in Figure 16.1 stands for a complex network in itself. Ways need to be found to include different parties' knowledge across organisational and competition boundaries, while at the same time respecting their position as competitors and their different vested interests in the running of an estate. The aim must be to find a common space of overlapping interests and match it pro-actively with methods that respect conflicting interests.

A knowledge-milieu and capacity-oriented approach to knowledge management

Starting from the notion that knowledge is best developed, processed, and reflexively adapted in a milieu context (Matthiesen, 2004), a milieu oriented approach to knowledge management for the sustainability of large housing estates is proposed. By knowledge milieu we mean the parties' special socio-spatial relationships, which allow communication above the single discipline and single agency level that is rooted in a common culture and the acceptance of a certain set of joint topics (Matthiesen, 2004). As in Markusen's concept of 'sticky places' (Markusen, 1996) that attract innovatory economic actors, the 'stickiness' of the environment for communication is a main element, making a knowledge milieu productive as an open and interesting environment for life and work. On the one hand, the joint understanding within a milieu encourages parties to become and remain involved, while on the other, the institutional scope is opened up for the inclusion of the different types of knowledge especially in its more tacit forms.

Thus, a knowledge milieu can become a space for the development of a new capacity to act in a socially embedded manner, based on reflexive knowledge. However, a milieu, which at its best can drive development, can also produce inflexible forms of communication.

Since knowledge management as such has yet to become an explicit type of action in the housing environment, forms of action found within the RESTATE project's case studies have been analysed for their openness towards an implicit use of knowledge.

Between planning and project

In the 1980s and 1990s, the trend towards rigid planning concepts for estate development turned to more targeted projects that were achievable in a given time and with set means. A project orientation makes it easier to include the knowledge needed for a project's short-term 'technical' success, but can also lead to the neglect of the context knowledge that is necessary for long-term sustainability in a given context. East Germany's experience of rehabilitating its large housing estates is an appropriate example; although excellence was achieved on a project level through the inclusion of expert technical knowledge, the demographic and economic context was ignored, since the everyday knowledge of the residents and their wishes were neglected. In consequence, tens of thousands of the 1.3 million empty flats in East Germany are on freshly rehabilitated panel construction estates.

Keeping the balance, through appropriate management, between avoiding information overload and neglecting knowledge could have saved billions of euros.

Targeted planning and action groups

The establishment of thematically oriented groups has become almost everyday practice in the development of large housing estates. These groups usually include representatives from different areas, uniting specialist technical, economic, and housing knowledge. Since the problems have been generally understood to be of a dynamic and non-linear type, collaboration and contributions of different forms of knowledge by different parties over a longer time period are called for. Thus, the context of a project usually becomes clearer as different professional views enrich each other and knowledge gaps between interested parties are acknowledged. A collaborative work form that does not externalise context questions ('we have extra

specialists for that') and still manages the process according to targets, has proved essential for a successful rehabilitation process. Building trust and allowing open communication seem to have unleashed new opportunities. However, the exclusion of residents from work- and action-teams with an outwardly technical theme still frequently leaves out the perspective of the end-user, who will finally determine the sustainability of the estate. Iterative workshops are often used as an element stabilising the development of knowledge across actor boundaries. This apparent need for the professional management of groups - knowledge networks, communities of knowledge or other forms - shows that, even in this field, expert knowledge is in demand.

Action planning

Community action planning, planning cells (Dienel, 2002) and planning for real (Neighbourhood Initiatives Foundation, 1995) exercises have been successfully introduced as a means of opening up professional planning to include the everyday knowledge of residents. As part of the conceptual planning processes for longer-term physical and social development, the exercises provide an infrastructure and space for a social process of joint cognition professionally translated into concepts and plans. Of ten an initial stage for more prolonged forms of sharing knowledge between experts and lay people, the major problem with these short-term time capsules of knowledge production is keeping the momentum going after the show is over.

Forums

Inviting the public to a civic discourse allows the holders of expert and professional knowledge to be confronted with knowledge existing outside their own milieu, namely forms of everyday and local knowledge. If these forums become specific communities of knowledge planning (as in the case of the Forum Marzahn, see Droste and Knorr-Siedow (2005)) and open spaces for debate, they provide easy access to the trends and constant feedback from the everyday life of the estates. The meetings can be very informal, although theme-based, and held regularly in a public place, or they can be highly structured with regular plenary sessions and workgroups linked to the planning and running of the estate's affairs. The advantage of such forums is that they activate different forms of knowledge, since newly appearing problems can be introduced into the debates at an appropriate time. In contrast with the methods mentioned above, which have a background in professional planning practice, forums need a higher degree of content- and process-management, including knowledge management; special roles need to be defined in order to identify relevant topics that arouse the interest of non-professionals and lead to their knowledge being brought into the open.

An outstanding example of a comprehensive form of a knowledge-oriented forum is the Platform Marzahn in Berlin (see Figure 16.3). It has proved to be a focal point for professional debate and at the same time a link to the residents' more tacit knowledge for more than a decade. The regular exchange of knowledge in an inner professional circle and a wider debate with residents has enabled a new culture of communication to develop. The experts were provided with unexpected information from a previously unknown realm, and the residents were enabled to follow and even criticise actions on the basis of a new proximity to expert knowledge, which would have been closed to them without this forum.

Integrated policies, programmes, and projects

Integrated policies, programmes, and projects are a response to the difficulty of matching action within individual disciplines with the complexity of the urban problems faced by the estates. In all EU countries, elements of integrated measures were found that allowed action to be targeted to problems by combining social, economic, and cultural action with spatial change. However, a high degree of process and knowledge management seems to be essential for producing optimal links between the different actors and their actions. Codified professional knowledge as well as tacit knowledge must be activated to override sector-based routines, hermetically sealed professional cultures, and of ten the simple fear of losing authority as others take a look over the professional fence. Besides managing different forms of knowledge - that is, the logics

of engineering and social work - the interdependencies of different actors and actions need to be understood in order to avoid obstructions.

Single rehabilitation budget or neighbourhood budgeting

Current discussions in many European countries seek to formulate an answer to the withdrawal of the state from direct policy intervention and enable local participation by turning round the old logic of top-down budgeting to bottom-up steering of local affairs based on the utilisation of local knowledge. Examples both from developing countries (Brazilian Porto Alegre, for example) and Europe (the Berlin district of Lichtenberg, for example), community-centred British neighbourhood development, French urban policy, and the German social city programme seem to demonstrate that single-budget strategies provide accountable solutions to problems, motivate citizens to take responsibility for their affairs, and save money, since less extra work for action is needed. However, neighbourhood budgeting is highly dependent on knowledge exchanges between all the relevant parties, a strong local civil society and local democracy.

Capacity building as an outcome and prerequisite for utilising knowledge

Central to the establishment of a knowledge-driven development is a joint institutional capacity (Fichter et al, 2004) among the parties concerned with the sustainable improvement of large estates. Lack of awareness of the importance of joint knowledge was as frequently reported as institutional inhibitions, also implying the need for institutional change and the introduction of specific individuals as agents for change.

An independent party or contractor can work at some distance from the process, which probably allows an easier inclusion of participants other than those routinely involved, since the process involvement is on a professional basis rather than based on loyalty to one party, be it the housing association or the local government authority. The personal and institutional elements of knowledge management - balancing the openness required and targeting the action - can be facilitated through these informing and enabling people, who often come from local civil society. These people can also establish links to the technology-driven parts of the exercise and provide access to databanks and other forms of codified knowledge. Such tasks within planning processes, at present often undertaken by professional planners, are likely to change the planning professions as much as association management and social intervention in spatial issues has changed urban management in the last few decades.

Conclusions

The question raised in this chapter was whether knowledge management could be fashioned into a tool for the development of large housing estates. It has been found that balancing the collecting, processing, and evaluation of information in order to make it usable cannot be achieved by applying a single tool. Knowledge management should be understood as a process leading towards a culture of openness to information that constantly needs to be reconsidered with respect to its aims and means. Information can only be transformed into the generation of new knowledge if it is integrated into the actor-network structures of the development and management of an estate as a reflexive structural element of running the estate. A process of constantly gathering information, developing it into knowledge-based action, and checking the outcome of actions in order to fine-tune the next steps is required. In order to make use of the relevant information, knowledge management should be context related and should therefore stretch across the boundaries of the estates; knowledge management needs to be inclusive in order to avoid overlooking important items.

This leads us to the conclusion that utilising knowledge in an estate context has, as a prerequisite, democratisation at the local level and the enabling of players to participate in the sustainability of large housing estates.

Knowledge management is a relatively new phenomenon, one not yet regularly discussed in the planning and housing literature. The practical application of the results achieved within this approach so far is especially important in the cities of Central and Eastern Europe, where the phenomenon is not only less well known (because of language barriers), but also the conditions for its application are not so well developed. Important actors within the knowledge management process are lacking power (the civil organisations) or not yet interested (politicians and housing managers). Knowledge management in these countries could be important not only in regard to the substantive issues, such as the improvement of large housing estates, but also because of the partial replacement of the public authorities which have been pro-active in the urban development field, and which is largely missing at the moment.

For all these reasons, helping to improve knowledge management skills in these societies is of prime importance, not only for enabling sorely needed knowledge transfer, but also for the improvement of the institutional structures and policy making. In addition to bilateral technical assistance programmes, the EU could also play an important part here with the introduction of the 'Open Method of Coordination' for social policy with specific attention to urban development.

Finally, if knowledge management can become an important asset to the sustainable rehabilitation of large housing estates, it will ease the way into collaborative forms of development action and open up the scope for more democratic forms of action by putting the parties involved on a more equal level with regard to information and enhancing capacity. Also, especially in urban and estate development, a conscious form of introducing knowledge management can be interpreted as a sign that this sector is finally entering the knowledge society. But, since knowledge cannot be conscripted, the power balance and the cultural framework encouraging or discouraging the utilisation of knowledge finally remains decisive for the opportunities it opens up.

References

- BBR (2004) (Bundesanstalt für Bauwesen und Raumordnung) Nachbesserung von Großsiedlungen der 50er bis 70er Jahre, (www.bbr.bund.de/). last accessed 15 June 2004.
- Brödner, P., Hamburg, I. and Schmidke, T. (1999a) Strategische Wissensnetze: Wie Unternehmen die Ressource Wissen Nutzen, Gelsenkirchen: Informationsdienst Wissenschaft, (idw-online.de).
- Brödner, P., Helmstadter, E. and Widmaier, B. (1999b) Wissensteilung. Zur Dynamik von Innovation und Kollektivem lernen, München: Mering.
- Dienel, P. (2002) Die Planungszeit. Der Bürger als Chance, Wiesbaden: Verlag für Sozialwissenschaften.
- Difu (ed) (2002) Die Soziale Stadt, Eine erste Bilanz, Berlin: Difu.
- Donner, C. (2000) Wohnungspolitik in der Europäischen Union, Theorie und Praxis, Wien: Donner.
- Droste, C. and Knorr-Siedow, T. (2004) Large housing estates in Germany: policies and practices, Utrecht: Urban and Regional research centre Utrecht, Faculty of Geosciences, Utrecht University.
- Droste, C. and Knorr-Siedow, T. (2005) Large housing estates in Germany, Berlin: opinions of residents on recent developments, Utrecht: Urban and Regional research centre Utrecht, Faculty of Geosciences, Utrecht University.
- Fichter, H., Jahnke, P. and Knorr-Siedow, T. (2004) 'Governance capacity für eine wissensbasierte Stadtentwicklung', in U. Matthiesen (ed) Stadtregion und Wissen. Analysen und Pladoyers für eine wissensbasierte Stadtentwicklung, Wiesbaden: Leske und Budrich, pp 309-36.
- Gibbins, o. (1988) Grosssiedlungen, München: Callwey.
- Grünberg, u. and Hermann, T. (2003) 'Wissensmanagement in der Praxis', in O. Katenkamp and G. Peter (2003) Die Praxis des Wissensmanagements. Aktuelle Konzepte und Befunde in Wirtschaft und Wissenschaft, Münster: LitVerlag, pp 72-82.

- Hall, S., Lee, P., Murie, A., Rowlands, R. and Sankey, S. (2003) Large housing estates in United Kingdom: overview of developments and problems in London and Birmingham, Utrecht: Urban and Regional research centre Utrecht, Faculty of Geosciences, Utrecht University.
- Healey, P. (1997) Collaborative planning: shaping places in fragmented societies, London: Macmillan.
- Howaldt, J., Klatt, J. and Kopp, R. (2003) 'Interorganisatorisches Wissensmanagement im Kontext wissensorientierter Dienstleistungen', in o. Katenkamp and G. Peter (2003) Die Praxis des Wissensmanagements. Aktuelle Konzepte und Befunde in Wirtschaft und Wissenschaft, Münster: LitVerlag, pp 169-95.
- Katenkamp, O. and Peter, G. (2003) Die Praxis des Wissensmanagements. Aktuelle Konzepte und Befunde in Wirtschaft und Wissenschaft, Münster: LitVerlag.
- Kipta, E. (1989) Manuscript transJorming housing in post-socialist Poland, Karlskrona: The Swedish Urban Environment Council.
- Knorr-Siedow, T. and Gandelonas, C. (2004) 'Lokales Wissen in Stadt und Quartiersentwicklung', in U. Matthiesen (ed) (2004) Stadtregion und Wissen. Analysen und Pladoyers für eine wissensbasierte Stadtentwicklung, Wiesbaden: Leske und Budrich, pp 309-36.
- Markusen, A. (1996) 'Sticky places in slippery spaces: a typology of industrial districts', Economic Geography, vol 72, no 3, pp 293-314. Matthiesen, U. (2004) Stadtregion und Wissen. Analysen und Pladoyers für eine wissensbasierte Stadtentwicklung, Wiesbaden: Leske und Budrich.
- Mega, V (1999) The participatory city - innovations in the European Union, Management of Social Transformations (MOST) Programme, discussion paper no 32, Paris: UNESCO House.
- Neighbourhood Initiatives Foundation (1995) A practical handbook for 'Planning for Real' consultation exercise, London: Neighbourhood Initiatives Foundation.
- Neighbourhood Renewal Unit (NRU) (2003) New deal for communities, Research report 7, London: NRU.
- Pardon, B. (2003) 'Kommunikationsorientiertes Wissensmanagement: Konsequenzen für die Gestaltung von Wissensprozessen' in O. Katenkamp and G. Peter (eds) (2003) Die Praxis des Wissensmanagements. Aktuelle Konzepte und Befunde in Wirtschaft und Wissenschaft, Münster: LitVerlag, pp 143-68.
- Peter, G. (2003) 'Wissen managen, Von der Wahrheitsfindung zur Ressourcenorientierung?', in o. Katenkamp and G. Peter (2003) Die Praxis des Wissensmanagements. Aktuelle Konzepte und Befunde in Wirtschaft und Wissenschaft, Münster: LitVerlag, pp 5-15.
- Snowden, D. (2002) 'Complex acts of knowing: paradox and descriptive self-awareness', Journal of Knowledge Management, vol 6, no 2, pp 114.
- STERN Ltd. (2003) Grosssiedlung Hellersdoif - Kaulsdoif Nord, ein Quartier entwickelt sich, Berlin: STERN GmbH.
- Willke, H. (1998) Systemisches Wissensmanagement, Stuttgart: UTB/ Lucius & Lucius.