Inward Urban Development and Housing in Germany –
A Strategy for Strategy Research

Gérard Hutter
Institute of Ecological and Regional Development (IOER)
Dresden

Paper presented at the
International Conference
“Methodologies in Housing Research”
Stockholm, Sweden, 22-24 September 2003
Arranged by the International Association of People-Environment Studies (IAPS),
the European Network for Housing Research (ENHR) and the Royal Institute of
Technology (KTH)

Content

1 Introduction
2 What is a Research Strategy and Does It Matter?
3 Strategies of Local Governments for Housing in the Context of Inward
   Urban Development
4 The Proposed Strategy for Strategy Research
5 Conclusions

References
“It is very hard to draw inferences about the operations of machines by looking at snapshots of a diverse array of them. It is much more instructive to watch a few machines in motion, seeing how their parts interact while examining their inputs and outputs. We can then distinguish between moving and static parts; active and passive ones. Such knowledge is essential to any designer. Theorists (of organizational development and change, G. H.) do seem to realize this, at least at one level. They are constantly couching their theories in dynamic terms. Unfortunately they tend to examine only cross-sectional data to generate and to test theories.” (Miller & Freisen 1982, pp. 1014-1015, cited in Poole et al. 2000, S. 112)

Acknowledgements
I am grateful to Stefan Siedentop and Thorsten Wiechmann (both Institute of Ecological and Regional Development, Dresden) for bibliographical references and comments on a draft of this paper.

Contact
Diplom-Volkswirt Gérard Hutter
Institute of Ecological and Regional Development (IOER)
Department “Housing and Building Ecology”
Weberplatz 1
01217 Dresden
Germany

Phone:  ++49 351 4679 – 259
Fax:  ++49 351 4679 – 212
Email:  g.hutter@ioer.de
Homepage:  www.ioer.de
1 Introduction

Scholars of strategic change and innovation processes have developed a remarkable set of methodological and practical considerations as well as specific methods of process research to analyze the often untidy character of strategic change and innovation (Pettigrew 1985, 1990, 1997; Pettigrew et al. 2002; Poole et al. 2000). These considerations have been developed mainly on the basis of research-work regarding For-Profit Organizations in the context of globalization, structurally changed consumer needs, new information and communication technologies (ICT) and increased levels of competition (Volberda 1998). This paper argues that strategic change research considerations are useful for housing research as well. Of course, they are only of limited relevance. Of importance is a match between the specific research problem and the chosen methodological considerations of process research.

We will demonstrate the usefulness of process research with regard to the specific strategic problem of local governments in Germany to develop housing sites in the context of inward urban development.1 Such a strategy implies a change process from an expansive to a non-expansive orientation of local government. Hence, new housing demands and increased demands for building sites have to be realized in inner areas to avoid further land consumption. Realizing housing projects in these areas of a municipality is more difficult than in the outer areas because of the vested interests in stock and the need to change this local equilibrium. At the moment, only a few local governments in Germany are developing strategies for inward urban development systematically (Siedentop 2003). Many municipalities claim to follow such a strategy but over time cannot realize it. If we want to understand why local governments want to realize infill development but have problems in doing so we have to consider the features of the strategy process in accordance to the complex theoretical and methodological considerations of process research.

To strengthen this assertion the remainder of this paper contains four sections. In section 2 the aim of this paper is specified as developing a research strategy which combines theoretical and methodological considerations for the purpose of linking research projects over time. In section 3 based on case studies analyzing the inward urban development strategy of Dresden, Leipzig, Muenster and Monhein in Germany (Hutter et al. 2003b) the challenge for local government to develop an inward urban development strategy for housing is explained further. By this we can understand that comparative case investigations are a potentially fruitful research strategy to analyze the process patterns of strategic change. In section 4 the research strategy is developed by describing and linking two research projects. The purpose of this strategy is to develop some orientation for the definition of cases and applied methods. In section 5 conclusions for further research work are drawn and the context of social production of scientific knowledge is considered.

1 Synonyms of „Inward Urban Development“ are for example “Infill Development” or “Urban Intensification” (Williams 2001). Approaches as “Urban Containment Policy” (Dawkins & Nelson 2002) or “smart growth” aim at a spatial regulation of growth potentials in outer areas.
2 What is a Research Strategy and Does It Matter?

The term *methodology* is used in the literature in different ways. Methodology is characterized as link between theory and applied methods of a research project. Methodological considerations serve as guidelines for the designing of the project (e.g. choice of the overall design, specification of the research aim, resources, Flick 2000). Alternatively methodology can be defined as a technology for defining knowledge growth and regulating knowledge creation with the global aim of avoiding mistakes and false research design choices (Radnitzky 1992). Especially in the engineering sciences methodologies are developed as general considerations for a class of methods often without any specific link to theory. In this paper methodology is understood as set of recommendations for linking theory and methods and as a set of assertions for matching specific research problems to suitable ways of investigation. A *research strategy* is defined at a lower level of abstraction (see Figure 1):

![Diagram showing the relationship between theory, methodology, and research strategy.](image)

Figure 1: Linking Theory, Methodology and the Research Strategy

A research strategy links at least two projects over time. Planned strategies in general (Mintzberg et al. 1999), research strategies in particular reduce the variety of work. The reduction of variety can be specified with regard to the theme ("Inward Urban Development and housing"), the design ("comparative case study design") and the chosen methods ("document analysis, interviews, methods of process analysis").
Research strategies can be defined on an individual, group, organizational and "industrial" level.

Ideally, research findings should be theoretically grounded and generated with a methodological convincing design of investigation. Unfortunately, only a limited number of findings are developed in accordance with these requirements. In organizational studies a trade-off between "good theoretical" and "methodological good" research-work is observable (Sutton & Staw 1995). Therefore, the research strategy formulated in this paper assumes a development from a project, designed primarily for theoretical considerations to activities concerned with broadening the empirical basis and even testing hypotheses.

It is not clear whether planned strategies for research matter. Planned strategies are explicitly formulated and documented assertions referring to ends and means and expectations regarding the external and internal conditions of research development. They can be questioned in several ways. One could argue that sustainable competitive advantages are based on implicit knowledge, on knowledge how to do things and how to combine existing knowledge to gain new and fresh insights. In this view, planned strategies on the basis of explicit knowledge are only of limited relevance for the research process. This often mentioned argument against planned strategies has been challenged by scholars that stress the functions of codification and dissemination of explicit knowledge (Sanchez 1997) and tight regulation of the strategy process for developing common strategic orientations and sustainable competitive advantages on an organizational level (Welge & Al-Laham 1998, S. 893).

The relevance of a research strategy for knowledge development will depend on a match between the research problem and the need to develop a strategy which combines research projects of different people in different settings over time. This is especially true if longitudinal comparative case studies are needed for knowledge growth. In the next section it is shown that this kind of research work can contribute significantly to a better understanding of inward urban development strategies of local governments for housing.

3 Strategies of Local Governments for Housing in the Context of Inward Urban Development

Urban development, especially of big cities, has always been characterized by the juxtaposition of growth, urban renewal, the gradual exchange of new for old as well as the development of brownfields. But inward urban development has been and still is a contested policy theme in Germany. The statements of the Federal Government on sustainability strategy, "The Prospect for Germany" (Perspektive Deutschland) strengthen the aim to drastically reduce the annual rate of land consumption for residential and transport purposes and stress the need to develop inward urban development strategies as a widely spread practice on local level.
To understand inward urban development as a strategic challenge for local government it is useful to distinguish three fundamentally different understandings (Siedentop 2003, S. 92):

- Inward urban development can be understood as a market-driven process of intensifying attractive building sites in accordance with the existing consumer needs.

- Infill development is being realized in Germany by many local authorities on the basis of one or several projects, e.g. in Germany, the widely known reuse of the former French barracks in Tuebingen ("Französisches Viertel") for housing with high density, little individual traffic and high quality of open spaces especially for children.

- In this paper inward urban development is understood as comprehensive and pro- as well as reactive strategic challenge of local government. A fully developed inward urban development as long-term strategy can require the implementation of projects in contrast to existing market forces to demonstrate the potentials of innovative activities. Strategy implies, as already mentioned to define a research strategy, the development of orientations with relevance for several projects. Of course, residents, local enterprises, interest groups play important roles in the making of an inward urban development strategy. But either pro- or reactively such a strategy has to be developed and/or legitimized by the local authorities to turn single and transient events into a strategy for long-term development (Needham 2000).

Therefore, local authorities must change urban planning strategies from expansive to housing policies in the context of inward urban development ("Innenentwicklung vor Außenentwicklung"). Inward urban development is potentially in the interests of the local authorities themselves, as it can be more efficient from an economical point of view. It can increase the appeal of existing urban housing structures with regard to demographic change (shrinking size of households, aging of residents) as well as with reference to life-style orientations which foster a demographic stabilization of cities as one is beginning to observe in the case of Dresden and Leipzig (Hutter et al. 2003a).

Inward urban development is a challenge to local authorities for several reasons: Firstly, it requires the avoidance of building projects in the outer area even in times of increasing household size; secondly, the implementation of projects increasing the attractiveness of building stock has to be matched to changing consumer needs of limited predictability; thirdly, finding a balance between the interests of local residents in preserving the existing situations, e.g. with regard to the amount and quality of open spaces, and changing this situation to fit developing and future needs, requires flexible capabilities sometimes underdeveloped in German local authorities; fourthly, generating an inward urban development strategy is a multi-dimensional task for local governments which includes at least the following dimensions:

a) Considering the different complexity of spatial levels of urban development (individual building, block, neighbourhood, urban areas and city wide view) as a precondition for assessing the effects of specific instruments; b) distinguishing between strategic and operational decisions especially with regard to the specific
trade-offs of inward urban development, e.g. intensification of sites and preserving open spaces; c) considering the interdependencies of planning instruments, formal and informal / participatory and methods with the aim of developing an integrated strategy of housing; and d) organizing a learning process which allows to link strategic and operational changes and serves as a basis for assessing the merits of inward urban development in the long run.

Therefore, housing in the context of inward urban development is as much a challenge which requires extensive and qualitative different learning capacities as it is a political and cultural challenge where participatory planning processes are essential. These considerations are in line with the general assertion of strategic process research that analytical, cultural, political and innovative strategic processes have to be investigated as a whole to not lose the object of interest (Pettigrew 1990).

Case studies show (Hutter et al. 2003b) that even the cities which can be interpreted as “best practices” of developing an inward urban development strategy for housing have some difficulties in sustaining such a process over time. Infill development strategies for smaller cities are even harder to analyze because their strategies are less documented and perhaps such a strategy is of less importance for their local authorities. On the basis of the existing research findings it is not possible to decide which descriptions of process patterns would foster an inward urban development at local level. This explains partially the normative tone of the spatial planning debate (see e.g. Siedentop 2003) and the difficulties in formulating a realistic assessment of inward urban development as a strategic opportunity for local governments in general.

One reason for this research situation is the lack of comparative case studies in accordance with the findings of strategic process research. In the remainder of this paper we will describe a research strategy which could contribute to assessing the possibilities of municipalities developing a housing strategy on a broader empirical basis.

4 The Proposed Strategy for Strategy Research

To describe the research strategy two projects are combined in time. The purpose of the strategy is to regulate the choice of sites and methods with regard to the available resources of work. It assumes a moderate expansion of research activities over time. After the outline of some general considerations guiding the research work the contours of the two projects will be described. The projects should involve a multi-disciplinary research team including experts of town and country planning, strategic process research, housing and local policy analysis.

General considerations

As mentioned in the introduction, strategy and innovation process research-work has developed a complex set of considerations, which could be used to investigate local
government strategies for housing. Local authorities are, as organizations of the political-administrative system of Germany, relatively robust and multi-functional actors. This simplifies the application of research findings originally developed for business-organizations.

On a local and regional level of investigation, basically a wide range of actors is of general relevance for the development of strategies for inward urban development. Many actors are directly affected by attempts of local government to realize an inward urban development strategy - particularly the present and potential owners, the people who use buildings, as well as representatives of diverse interest groups. Despite these numerous stakeholders the research strategy focuses on the strategy making of local government on an organizational level as a precondition for developing research findings for regional development strategies (Wiechmann 2003).

It is obviously quite difficult to compare research findings because of the different research vocabularies or same vocabularies but different meanings of words. Even scholars concerned with organizational learning and knowledge production and dissemination had some difficulty developing a framework for investigations which simplifies the comparison of studies (see Berthoin Antal 1998 and Berthoin Antal et al. 2001 to register the development of theoretical work on organizational learning in approximately three years on the basis of an internationally research network). Certainly there has to be some “room to breath” (Weick 1995a) for researchers to develop their own understanding. But a framework as developed for comparison of studies investigating the strategy process of business-organizations (Chakravarthy et al. 2003) could be of great use for analyzing the links between strategy-making of local governments and housing research. Research projects considering the possibilities of inward urban development and housing at local and regional level should take this requirement into account, e.g. by evaluating the specific outcomes with regard to their relevance as contribution to an overall framework of urban and regional strategy making.

A comparative case study design is not absolutely necessary as well-known strategy research work designed as longitudinal study of one organization has shown. Pettigrew investigated the change of strategic process patterns of Imperial Chemical Industries (ICI) in Great Britain with a real-time process analysis of ten years and a retrospective analysis of over twenty years. Further, even in the case of only one research sites there is the possibility of developing interpretations containing “hypothetical histories” (March et al. 1991/1996, S. 7f).

Especially case studies with a retrospective research design are in danger of interpreting the strategy-making in accordance with documented and personally communicated statements as more tidy than necessary. Evaluated outcomes are treated as anchors for interpreting the process of its development in reverse (“hindsight bias”, Weick 1995a). To avoid this bias in empirical research retrospective generated information should be compared with real-time analysis data and possible stories (Poole et al. 2000). As it is not always possible to develop a research design for one project that fits this requirements, a research strategy for two projects could be the solution over time.
**Project No. 1: Comparative-static analysis of two cases**

At the moment several research projects in Germany are under way with the aim of describing the possibilities of realizing an inward urban development for housing at local level with regard to the content dimension of strategic processes. These research activities try to describe (without a closer look at process) what types of urban structures for housing can be realized in the building stock or should be taken away because of shrinking household size with regard to the specific conditions of typical situations (e.g., quality of environment and infrastructure, traffic situation). Of special interest is the question of developing the building stock with regard to the challenges of managing “Mature Developed Cities” (Hall & Pfeiffer 2000, S. 49 ff.). Project no. 1 takes these research activities into account but focuses on the strategic process patterns that lead to changes in building stock.

Two cases with a similar outer context of urban development are chosen. The outer context of local governments refers to the socioeconomic and environmental conditions on higher levels of urban development (e.g., regional conditions). The conditions of outer context can be altered by local governments but not immediately. This design decision simplifies a process analysis because differences in process patterns of local governments can be explained with reference to differences of inner contexts. The inner context reflects the history of structural and cultural development of local government. As organizations of the political system, political context conditions play an important role in explaining the relevance and effects of process patterns. At the moment a research project investigating the strategic planning approaches of Dresden and Leipzig for developing building sites with appropriate density is being realized (Hutter & Wiechmann 2003).

The project will describe the patterns connecting the “what”, “how” and “why” of local strategies of housing interpreted as approximations towards a fully-developed attempt for inward urban development. The leading research questions are (Mastop & Faludi 1997): What are the main purposes of the two local governments with regard to the development of the building stock? How are these purposes justified? How were the ends and means developed? What causes can be identified to explain the purposes of local government and the patterns of developing these purposes and their implementation? To answer these questions the project concentrates on the investigation of decision-making modes (Tonn et al. 2000). Decision-making modes mediate between short-term changeable actions and the context, which can only be changed in the medium or long term. Basically six different types of decision-making modes are identified: (1) emergency action, (2) routines, (3) analysis, (4) elite corps, (5) conflict management and (6) collaborative learning. In real decision-making processes, as a rule, these modes are not encountered alone and clear-cut but in complex, combined forms, and indeed in combinations changing over time in response to specific environmental problems.

Two methods are used to answer the questions mentioned above: An analysis of documents, especially of planning documents as strategic plans like the “Stadtentwicklungsplan Wohnungsbau und Stadterneuerung” of the city of Leipzig (Stadt Leipzig 2000), and the method of interviewing members of local governments with special regard to members who are responsible for the strategic and operational
planning of density development. These design decisions allow a comparison of the espoused understanding (or “subjective theory”, see Weick 1995a, S. 121 ff.) of local government how to plan strategically for an appropriate local density development with the espoused understanding of the individual members of government. On the basis of this comparison and with relation to general considerations concerning the match of problem formulation and the application of decision-making modes (Tonn et al. 2000) hypotheses considering the “how” and “why” of strategic process are developed. It is crucial to be aware of the fact that the formulated research problem implies the theoretical investigation of process patterns without analyzing these patterns empirically on the basis of real-time observations. As in most organizational and strategic change studies change processes are being analyzed retrospective. The investigation starts with outcomes at hand (statements in documents), tries to connect them to other documented statements and personally communicated assertions of local actors. Therefore, the project refers to processes but analyzes them only retrospective in a comparative-static fashion (Poole et al. 2000, S. 118 ff.).

The project design allows a systematic comparison of strategic planning approaches of local government for housing in the context of inward urban development. The “what” and the “how” are made plausible with special regard to inner context conditions without the possibility of showing alternatives in the process of strategy making or the possibility of evaluating the actual strategies of local government. Hence, the potential of generalization is restricted to the development of a theoretically informed understanding of the actual strategies of local government. The output of the comparative case study research will resemble the “Interpretative/Theoretical Case(s)” mentioned by Andrew Pettigrew. “Interpretative theoretical cases move the analysis and writing beyond the analytical chronologies. There is now both a more explicit attempt to interpret the narrative but also to link emerging conceptual and theoretical ideas inductively derived from the case both to stronger analytical themes within the case and wider theoretical debates in the literature.” (Pettigrew 1990, S. 280) A systematic comparison of strategic patterns with reference to theoretical derived categories of observation is a starting point for the development of comparative-dynamic case studies which aim at observing the making of strategies in action.

**Project No. 2: Comparative-dynamic analysis of a wide range of cases**

If you are interested in the links between the capability of organizations to manage strategic and operational change and their relative performance, then the investigation should include cases which illustrate high and low performance (Pettigrew 1990, S. 274 ff.). Especially in case of local governments performance analysis is not a straightforward matter. Therefore, the performance criteria have to be defined in accordance with the research question in mind. In the case of inward urban development and housing the performance analysis could contain criteria as “High proportion of new building sites realized in the inner area” or “Stabilization of housing prices as a condition of a socially acceptable inward urban development strategy”. Output-criteria should be supplemented by process-criteria, e.g. linking experiences of inward urban development and strategic considerations documented...
in plans or other types of documents as in the case of Muenster (see Hutter et al. 2003b). To identify polar types of high and low performance is not easy because very different performances under similar context conditions should not be expected. Especially in the case of similar resource conditions (e.g. financial, political) a convergence in process patterns and their outcomes should be taken in considerations as Holtmann and Schaefer on the basis of a case study concerning the housing policy of Nuernberg argue (1996). Therefore, for the purpose of an integrated research strategy combining the question of “what”, “how”, “why” and “alternatives” at least four case studies should be considered. This research design allows one to analyze two cases with similar outer and two cases with similar inner context conditions of strategic development.

Project no. 1 suggests patterns of content and decision modes in relation to context, but has to be tentative in comparing these patterns with alternatives for a better understanding of their features. A simple comparison of the actual strategy of local government with an idealized strategy of inward urban development would not be of much use. Research-work has to question which potential for an inward urban development is actually under way and can be interpreted either as “interim struggle towards a fully-developed strategy of inward urban development” or as “failure to realize a strategy of inward urban development”. Hence, research work has to develop a better and nuanced approach to observe the relations between a) the espoused theory of local government as communicated by means of statements in planning documents, b) the espoused theory of members of local government and the c) the emergence of new patterns of behaviour and strategy-making in line with a perspective of inward urban development in particular for an assessment of context forces which shape urban development. Project no. 2 takes the investigation of the “what, “how” and “why” of strategic process one step further in this direction. The theoretical orientation and research design is characterized through the explicit questioning of alternative patterns of strategic development and the analysis of path dependencies in particular the influence of critical events against the background of dominant logics and routines (Pettigrew 1990, Poole et al. 2000).

Document analysis and interviews form the basis for the application of specific methods for the analysis of change processes. Of special interest is the application of specific process methods for strategic change and innovation as developed by Poole and van de Ven. Their process approach to organizational change and development attempts to account for how change unfolds over time with regard to path dependencies and the impact of critical events on subsequent process patterns. Poole et al. (2000) describe in detail methodological considerations and methods to foster investigations on the basis of real-time observations as a precondition of “catching reality in flight” (Pettigrew 1990, S. 268). Theoretically, this kind of process research work aims at investigating the dynamic nexus between context and action. Actions are shaped by context and at the same time stabilize or destabilize the context. For this reason research findings identifying patterns of context, content and decision-modes (as generated on the basis of the above mentioned project no 1) should be used as a starting point for the investigation of a process either stabilizing or destabilizing these patterns. These alternative options of local government development can only be analyzed properly on the basis of observations relatively autonomous of the subjective understandings of local actors. Therefore, comparative-
dynamic case studies require the gathering of real-time data for example with methods as “Event History Analysis” which is appropriate for a design with many cases and few events to consider per case (Poole et al. 2000, S. 126). In case of a longitudinal comparative case approach there exists the possibility of systematically organizing “action workshops” (Pettigrew 1990) for a discussion between members of local governments and further stakeholders on the one hand side and research workers on the other hand side. Workshops of this sort incorporate the opportunity of comparing our “interim struggles” (Weick 1995b) to understand the strategy process of local actors with their espoused understandings of strategic challenges.

In accordance with the practical as well as methodological considerations of Pettigrew one should expect a “Meta Level Analysis across Cases” at the end of the project (Pettigrew 1990). The goal is broad thematic presentation, linking the theoretical and empirical findings to wider bodies of literature. A challenge for research is the description of process patterns for inward urban development and housing and the possibility of understanding these patterns as complex causal chains or loops depending on internal context conditions (Weick & Bougon 1986/2001). Research work aims at identifying path dependencies and possibilities of changing them over time in line with general considerations concerning a local housing strategy for inward urban development. Patterns for high and low performance and their connections over time have been investigated for For-Profit Organizations (Pettigrew & Whipp 1993, see Mueller-Stewens & Lechner 2001, S. 489, as an example for the dissemination of these findings across Europe). Research findings of this type cannot serve as a basis for a simple recipe of realizing a local strategy for housing but could highlight the general patterns and their complex interdependencies which allow the development of such a strategy over time.

A research strategy as described above is obviously resource-intensive. Therefore, to anticipate some benefits and costs of such a strategy it should be formulated and modified on the basis of interactions with possible users of research findings (e.g. members of local governments, see Hutter 2003b, real estate owners) and a wide range of researchers.

5 Conclusions

Most research on the development of strategies and strategic planning in the last 30 years is to be found in English-language economics, in particular in management theory (March 1999, Mintzberg 1994, Weick 1987/2001, Chakravarthy et al. 2003). The regional science and housing research contribution to this debate is limited to relatively few publications in English (e.g. Mastop & Faludi 1997). Closer links between strategic management and innovation research on the one hand, and housing research and urban and regional science on the other hand, could be the opportunity for mutual knowledge development. Strategic Management could contribute its complex set of abstract theoretical and methodological considerations for investigating the strategies of organized actors on the basis of longitudinal comparative case studies. Housing research and regional science could define the problems and evaluate the research findings against the background of an overall framework of sustainable urban and regional development. It is unclear which
institutions could foster such a research strategy. Centres as the well-known Centre of Corporate Strategy and Change (CCSC), University of Warwick have been developed for the investigation of strategic change of business-organizations (Pettigrew 1997). Considering the relatively low-institutionalized state of housing research in Germany it will be of special importance to formulate strategies with the potential of dissemination in networks.

References


Hutter, Gerard; Iwanow, Irene; Müller, Bernhard (eds.) (2003a): Demographischer Wandel und Strategien der Bestandsentwicklung in Städten und Regionen. Dresden (Forthcoming).

Hutter, Gerard; Westphal, Christiane; Siedentop, Stefan; Janssen, Gerold; Müller, Bernhard; Vormann, Michael; Ewingmann, Dieter (2003b): Handlungsansätze zur Berücksichtigung der Umwelt-, Aufenthalts- und Lebensqualität im Rahmen der Innenentwicklung von Städten und Gemeinden – Fallstudien. Berlin (Forthcoming).


Siedentop, Stefan (2003): Innenentwicklung als Leitbild einer nachhaltigen
stadtebaulichen Entwicklung? In: Flächenmanagement und Bodenordnung (FuB).
Zeitschrift für Liegenschaftswesen, Planung und Vermessung, H. 3, S. 89-98.

Leipzig


Tonn, Bruce; English, Mary, Travis, Cheryl (2000): A Framework for Understanding
and Improving Environmental Decision Making. In: Journal of Environmental
Planning and Management. 43(2), S. 163-183.

Oxford/UK.


Ergebnisse einer explorativen empirischen Studie. In: Zeitschrift für
Betriebswirtschaft (ZfB), 68. Jg., H. 8, S. 871-897.

the conference “Evaluation for Regional Sustainable Development”, 3rd
Workshop of the EU Thematic Network project REGIONET organized by the
Centre of Urban and Regional Ecology (CURE), University of Manchester/UK
on 11-13 June 2003.

Williams, Katie (2001): Does Intensifying Cities Make them More Sustainable? In:
Williams, Katie; Burton, Elizabeth; Jenks, Mike (eds.): Achieving Sustainable