

Holger KREFT
Bureau for Sustainable Regional Development
Hattingen (Germany)

MUNICIPAL SUSTAINABILITY MANAGEMENT: MINIMISING THE IMPACT OF STRUCTURAL DEVELOPMENT ON LAND RESOURCES

1. A new and integrated approach to preventing consumption of land resources

A large number of the legal, spatial planning, fiscal-political, awareness-forming, and enlightening approaches used to stem the consumption of land resources in Germany are well known to the professional community. This text will introduce an approach which is capable to integrate the concepts which are available at the local level of mediation. A stringent municipal sustainability management (MSM) program with a defined organizational structure will be presented to the municipalities as a means of more efficiently and effectively organizing the entire framework of activity, and in particular the relationships between the social actors, at the local level. This approach strives not only to provide a sustainable land resources management program, but also a comprehensive sustainable development program within the municipality.

In order to clarify this perhaps unobvious relationship it is necessary to broaden the scope. Attention must be directed towards the other municipal resources in addition to land resources. These include raw materials, energy resources, landscape structure, capital, infrastructure, the citizens and their capabilities, qualifications, perceptions and their motivational structure, their entrepreneurial capabilities and available means of influence, the socio-cultural factors, and market potential [see Maier and Tödting, 2002, 194]. For a sustainable development of the

municipality, the renewable and duplicable resources are of particular importance.¹

At present, however, there is only one widespread form of economic promotion which is defined by the following characteristics: the most important goal is quantitative growth with a one-sided target-system directed towards only a few (by no doubt important) dominant parameters, such as the number of jobs. Contrary to better experiences, mechanistic and linear causal-relationships are often undertaken and, according to the accomplishment of the tasks, a non-systematic approach is used. Instead, the municipalities (and the regions in which they are located) must develop alternative development paths which incorporate increased use of renewable, or as the case may be, duplicable local resources and systematically implement this strategy while seizing upon evolutionary mechanisms. In the process, land resources should be relieved of use pressure or, in particular, development pressure directed towards such resources within the framework of municipal or community structural development. The main goal of this article is an increased promotion of MSM in the municipalities. This in turn would facilitate the formulation and realisation of alternative development paths.

In order to forestall any doubts, one should not be under the impression that MSM is a guaranteed formula. The management concept can be understood as a basic, yet soon to be indispensable, concept which can be introduced gradually and adapted to the structural process and the local conditions in a given town or community. Metaphorically speaking, MSM is not, however, a "custom made suit from the rack," but rather a suggestion for a "pattern" that varies and should be realised with the locally available "material".

Due space limitations, this article can only refer to other complementary approaches which the author is currently following in other projects. Individual potential factors will thus be expanded and developed according to a cluster approach ("strengthening strengths") and with the help of knowledge-management tools in order to provide increasing relief to land resources. The "Klimadorf" initiative, for example, deals with the potential for renewable energy sources and energy saving possibilities in a village and the surrounding municipality [Kreft, 2004a, 2005].

One can expect the non-sustainable use of non-renewable land resources to be pushed back using an MSM program. For example, unrealistic estimations of land requirements on behalf of municipal governments

¹ Particular attention should be paid to the existing awareness in the town or community. The summary at the end of this article will deal more closely with the subject.

and administrations (due to false expectations concerning the future size and function of the town or municipality, for example) can be more easily avoided. Moreover, the concept can help to ensure that land is (again) more greatly appreciated as a resource by the area's inhabitants in the long term. Naturally the potential effectiveness of this approach can be empirically investigated in detail as the city of Rheinberg (in the district of Wesel) has become the first municipality to explicitly adopt an MSM program.

First, the procedure shall be introduced which was initiated and implemented in this example municipality beginning in mid 2002. After describing the introductory process, the initial results, concerning the main features of a management system and a target system which have been used to "feed" the resulting management system since mid 2004, will then be listed and explained. Actions will then be proposed which deal with the continued administration of the MSM program in relation to sustainable land management in respect to Rheinberg's future.

The final summary will evaluate the functioning of an MSM program in a municipality within the framework of economic promotion and structural development – most importantly as it relates to the development of potentials.

2. Municipal Sustainability Management (MSM)

The basis of MSM is a management concept of a continual improvement process which is directed towards the value and target system of sustainability as well as the conditions in the municipality in question. The basis of the continual improvement process is the continually recurring procedural loop "plan – implement – check – evaluate – plan again – etc." [See *plan – do – check – act*; see also Gebhard, 2004].

The transferral of management systems found within the sphere of business management to local and regional networks of social actors and initiatives stands to reason despite the clear differences in these organizational forms, such as the lack of an integrated hierarchy and a clear collective responsibility assigned to the personnel, for example [see Rheingans-Heinze, 2004].

Various concepts for sustainability management have already been developed and refined for use by businesses on the basis of quality and environmental management concepts, although they have hardly been applied to date. For Schaltegger et al. [2003] this demand is made of the management by the company's stakeholders without explicitly mentioning the continual improvement process. In the mean time an outline already

exists for a VDI (Association of German Engineers) guideline concerning sustainable enterprises which explicitly refers to the continual improvement process [VDI, 2004; described in Gebhard, 2004].

One of several developments led to the introduction of municipal sustainability indicators for sustainability management. Kreft [2001] had cautiously promoted the embedding of indicator development and applications in municipal and regional planning, steering, and development concepts. Liepach, Sixt, and Irrek arrived at the concept of MSM via their investigations into municipal sustainability indicators [2003, 47]. Gehrlein [2003], who also concerned himself with municipal sustainability indicators, arrived at a similar result. This author suggests a wide spectrum of steering instruments for sustainability control.

An MSM program can be implemented in any municipality. Here, a municipality is understood as a network consisting of administration and government, businesses, other non-governmental organizations, and unaffiliated individual citizens within the area of a town or municipality. MSM is to be anchored in the administration of the respective municipality. In this article it is defined as follows:

Definition: Municipal Sustainability Management (MSM)

A system consisting of activities whose goal is to steer the activities in a municipality in order to optimize the ecological, socio-psychological, socio-cultural, and economic impacts. This allows:

- 1) The sustainable development of the municipality in its own region
- 2) The municipality's ability to contribute to sustainable development on a global level

This is mainly achieved – to put it briefly – by intensive development of the town's renewable and duplicable resources. In this manner, the municipal budget can be relieved in the medium term, under certain circumstances even in the short term.

The necessity of such a management program and the demands placed on sustainable urban development are described in detail by Kreft [2005]. The obstacles and success factors relating to the introduction and operation of an MSM program are also described in depth.

3. An example of a dynamic urban development concept – “Rheinberg 2030+”

3.1. The developmental procedure and the implementation of the MSM program

The city of Rheinberg is located in the west of the Lower Rhine in the district of Wesel. It has a population of 32,000 inhabitants and covers

a surface of approximately seventy-five km². The development and implementation of the MSM program are currently in phase three.

Phase 1 – further brainstorming, idea development and structuring: In July 2002, the town of Rheinberg commissioned a team of six advisors – supported by the former director of the Office for the Environment, now known as the Coordinator for Activities for Municipal Sustainability – to accompany the local “Agenda 21” process through six prospect-workshops throughout the first phase. A development concept for the next twenty-five to thirty years and beyond was to be created for the city of Rheinberg as a result of these meetings – “StEK Rheinberg 2030+” [Urban Development Concept [UDC] Rheinberg 2030+]. Five prospect-workshops served to prepare, ascertain, and supplement the existing data resulting from the local “Agenda 21” process, a vague outline for the city, and a collection of objectives [Hoffmeister et al., 2001] in five previously defined spheres of action:

- Social Coexistence within the city,
- Education and Upbringing,
- Planning and Building, Living and Working – Sustainable enterprises,
- Energy and Mobility,
- Nature and Use of the Countryside (particularly leisure).

A further prospect workshop was dedicated to the organization of the process. The results of the first phase were presented to the governmental and administrative boards as part of an informative meeting.

Phase 2 – Consolidation, further structuring, and finalization of the concept: In this phase (September 2003 – May 2004) two advisors were commissioned to support a working group, made up of some original participants of the prospect workshops. The working group condensed the phase-one results and formulated a viable council proposal including concrete tools for the implementing the goals resulting from the selection and voting process.

In addition, two workshops on the further development of the process organization were held on the basis of the results from the preceding prospect workshop. Five workshops were held on the development of the results from the prospect workshops in the five spheres of action from phase one and included further condensation, selection, and substantiation of the project proposals.

Finally, three workshops were formed to compose and edit the document and to decide upon a stringent presentation strategy. The urban development concept was then presented to the Committee for Urban De-

velopment and the Environment. In May 2004 the concept was adopted by the Rheinberg City Council. The workshop participants met privately to summarize the second phase and for further planning in August 2004.

Phase 3 – Initial implementation: As of June 2004, the current third phase has been marked by the initial implementation of the program: The proposed structures and the planned panels are being established (steering group, project groups). Intensified networking among individual citizens and, respectively, the citizens' organizations as well as suitable groups within the administration is taking place. Work on the cross-sector project outlined in the sustainability report is being prepared. In the beginning, the administration's independently initiated, rather sector-oriented projects, such as in the environmental sphere (ÖkoProfit), will be designated as building blocks in the developing MSM program. New projects stemming from the UDC's suggestions for a new target system will be initiated (an overhaul of the land utilization plan, the senior citizens plan, and the promotion of energy-efficient construction, for example).

3.2. The opted strategy – How the introduction of the MSM plan was made possible

The participants of the prospect workshops and the advisory team did not begin with high pretences of initiating a MSM program in Rheinberg. At first, the participants merely intended to develop an expanded target system with indicators, possible starting points and existing human and structural resources, good examples from the municipal area, and the project proposals from the agenda activists' "big wish-list". All of the participants however expressed their clear concern, particularly after the end of the first phase, that a simple compilation of the partial solutions to the various problems and defined tasks would never be feasible, not to mention politically unacceptable. A package with the expanded target system may be an absolute prerequisite for an urban development proposal, but it is not enough in order to realise the UDC project. Without the selection and preparation of the goals and proposed schemes, the entire package would have been doomed to fail as it was too unwieldy at that time and, therefore, impractical.

Approximately 150 people participated in the process. So the local community did not consider the results of the prospective workshops to be representative of the town due to the low number of participants in respect to the population. Thus, the expanded target system produced under the guidance of the advisors was not sufficiently qualified for direct consultation as a package in the political sphere. The target system, however,

proved to be quite balanced, systematic, and comprehensible due to the intensive development on the behalf of the participants. These qualities led to the political parties smoothing the way in their consultations for the city council's approval.

To ensure success, the concept's developers needed to heed the following:

- A path was to be outlined which could allow the expanded target system to become politically acceptable. The developers of the UDC Rheinberg had to define the planned contributions coming from all of the relevant groups involved as well as their most important future tasks.

- A few rather difficult conflicts were not further developed and others were consciously left to “dangle in the wind” in order to avoid “getting bogged down” in the individual cases.

To illustrate the situation once again: It was the goal of the second phase to package all of the project ideas together and tie them up, address the package for its journey along the route it should travel. Other handling instructions should be included in order to hand the package over to the local government for processing so that the various parts of the package could later be unpacked and viewed at the appropriate time. This process finally allowed for a dynamic concept.

Acceptance grew for this approach and in the first phase the participants of the sixth prospective workshop could assign themselves exactly this task. Priority was given to the formation of a framework for further development of project ideas in the political process before focusing on the prioritization and development of individual projects. This formation was also given priority over the other (completely utopian) alternative which would have meant trying to swiftly and immediately “push through” all of the project proposals “in one fell swoop” and without concrete implementation planning.

Only after following the procedure described above the opportunity was afforded to adopt the continual improvement process as a basic concept for developing the MSM program. Thus the program could be directed towards the value and the sustainability goal system as well as the conditions in Rheinberg.

3.3. Initial results

The concept of MSM was adapted to local conditions with the creation of Rheinberg's now dynamic urban-development project “2030+” [Breyer et al., 2004]. An important step was taken towards consolidating and implementing the outline for sustainable development in the town of Rheinberg. Implementation had already begun with the help of MSM.

The concept consists of two parts: the management system and the current target system. The management system also consists of two parts: the structural organization (*Network*) and the procedural organization (*Continual Improvement Process*). The current target system contains the five mentioned *spheres of activity*: *Social Coexistence within the City – Education and Upbringing – Planning and Building, Living and Working incl. Sustainable Enterprises – Energy and Mobility – Nature and Use of the Countryside (particularly Leisure)*.

The structural organization of the management system is characterized as a network (Fig. 1). In view of the scope, this is obvious for insiders and may seem almost trivial. In the end it is the *type* of relationship that is decisive. The tasks, which the social actors should identify within the framework of MSM, have been consolidated. If the in itself quite “simple” notion of a network with equal social actors can actually be anchored in the consciousness of the social actors with a sort of “benefit net thinking,” as described by Leuninger and Held [2003], then this would be an important step. The illustration takes the following into consideration: the administration, including the coordinator for activities for the Agenda 21 and sustainability, local government, steering group, project group, which can be occupied by social actors from private businesses, and the citizenry as a whole. This simple illustration helps to convey the significance to the public and create a general sense of awareness.

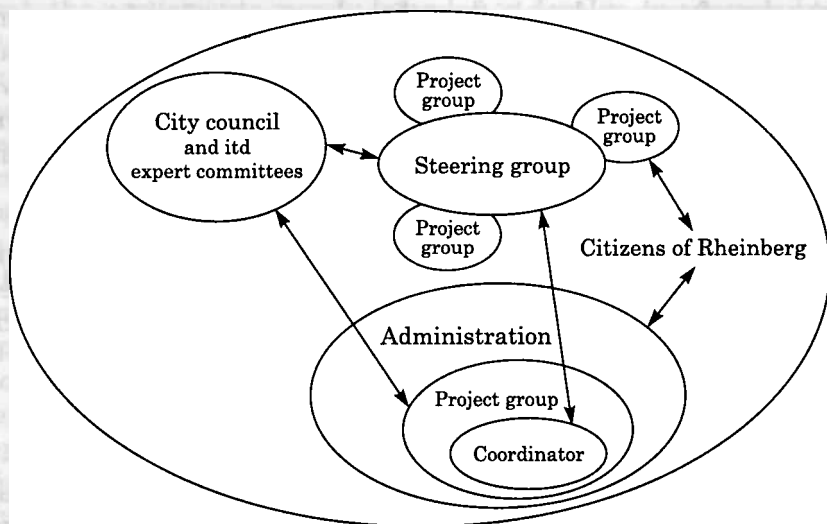


Fig. 1. The structural organization – the social actors network (see comments for definitions of the social actors' responsibilities)

Source: Author's own elaboration.

The procedural organization (Fig. 2) is based on the cyclical-iterative continual improvement process and has been adapted to the conditions of a midsized city and to the basic decision-making structures typical of municipalities (which are often stipulated in the municipal constitution). This means that the city council can pass statutes, for example, and the administration can implement the local government's guidelines with a certain amount of leeway typical for the area.

The expanded target system is handed over as a package to the management system where it is then implemented and enhanced. "Products" resp. results flow more or less continuously from the management system as implementations of the target system, usually decisions in the form of projects and actions, as well as new and updated target systems in periodical intervals. Therefore, each municipal target system can be understood as a snapshot, which is continuously altered by further passes through the management system. At the same time, the target system can optimize the management system and adapt it to the changing general framework.

Comments for Figure 1: **Steering group** – The steering group assures the project is anchored within the citizenry. It supports and coordinates

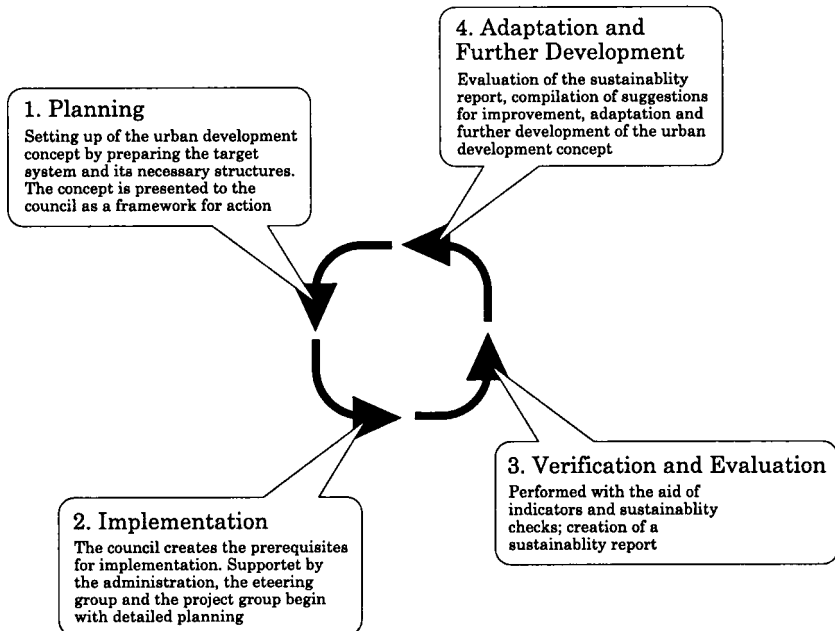


Fig. 2. The procedural organization – an introduction to the continual improvement process

Source: Author's own elaboration.

further development and adaptation; **Project groups** – Spurred on by expectations of usage, the project groups plan and implement the individual projects on a voluntary basis; **City council and its expert committees** – The city council and its expert committees form and promote the process in the political sphere. They are responsible for a fair balance of interests; **“Sustainability management” project group within the departments** – This project group anchors urban development planning in a multidisciplinary manner in the departments; **Coordinator of the sustainability management project group** – This person supports the process from within the administration by coordinating the sustainability management project group in its working on for example sustainability reports and sustainability checks; **Citizens of Rheinberg** – Dedicated citizens participate in the project groups, reporting, the evaluation of the reports, and the reformulation of the target system.

The expanded target system is composed of five categories:

- overall aims;
- objectives;
- indicators;
- possible starting points (examples of current projects as well as existing human and structural resources);
- suggestions for projects and other actions.

The overall aims were largely taken from the documentation of the preceding agenda 21 process. The contents and language are then revised, amended, and selected by the participants of the prospect work groups. The objectives may require more consideration than the overall aims in order to simplify and reduce the target system. Most importantly, the indicators had to be revised and amended in the second phase.

It was important for all of the participants to list examples of existing projects. This illustrates that the program does not have to start from “scratch,” but that it is possible to incorporate existing projects. Sustainable development thus receives a tangible “face” within the municipality and is more easily grasped by the citizens. This is an important factor in conveying the projects to those who find the concept of sustainable development too abstract.

In order to make the target system feasible, ideas for projects and actions were suggested by the participants of the prospect workshops. These suggestions were taken up by the participants in the phase two workshops. The contents were again slightly revised and reduced in number to make the target system more manageable and easier to convey.

The currently ongoing implementations of the third phase (introduction of the steering group, introduction of round tables concerning various areas of action, “plugging in” existing municipal administration projects,

and preparation for the implementation of further MSM instruments) can be seen as further results of the process.

3.4. Contributions to the relief of non-renewable and non-duplicable resources

Why can MSM now be considered to be a viable tool in the protection of land resources in Rheinberg? Furthermore, why can one consider MSM to be a viable tool in the protection of land resources in any town or community?

We should distinguish two strategies: a. the mediate strategy of disengaging the structural development of a city from the use of non-renewable and non-duplicable resources such as land by developing the renewable and duplicable resources and b. the immediate strategy of well-established (nevertheless often ineffective) methods of land resource protection.

Contributions to the relief of non-renewable and non-duplicable resources shall be made clear using the examples of two spheres of action: "Energy and Mobility" and "Education and Upbringing."

Sphere of action "Energy and Mobility": After several published studies, program evaluations, and individual experiences concerning the promotion of energy infrastructure refurbishment, the introduction of energy-efficient technology [for example: Stadt Münster 2003], and the substitution of renewable energy sources for nuclear and fossil fuel energy sources [for example: Heck and Hoffmann, 2004], one can assume that the need for modernization formulated here can stimulate the domestic economy and, thus, create additional employment. This assumes some form of initial funding (or partial subsidization such as the energy supply compensation program taking place as part of the German Renewable Energy Law), in order to dismantle hurdles and other "starting blockages" [see Ortmann, 1997; Kreft 2004b]. This would provide chances for existing businesses, mainly in the construction sector, to expand their business activities, encourage the development of additional new business ideas, and promote the establishment of additional new businesses. Positive effects in the short and middle term can be expected as a result of this process.

Sphere of action "Education and Upbringing": At the beginning of the twenty-first century, knowledge (a duplicable resource) is considered to be *the* raw material for any form of further individual and social development. The objective was therefore directed towards increased acquirement of expertise in independent activity in all phases of education

and upbringing (people in every age-group and in various walks of life, for example), greater transparency in education, improved access to education, and an improved quality of job training, education, and upbringing. With the target system, including the initial suggestions for actions, the developers wish to bring about the improved utilisation of society's existing potentials, the recognition of the finiteness of certain resources, and the ability to more easily formulate and implement business ideas. For a sustainable approach to non-renewable and non-duplicable resources, positive effects in the medium to long term can be expected in this sphere of action.

The founders of the "StEK Rheinberg 2030+" (the Urban Development Concept work group) assume that both of these examples illustrated here offer opportunities to disengage the structural development of the city of Rheinberg from the use of non-renewable and non-duplicable resources such as land. It can be expected that an increase in local added value and a volume of employment supported by the demands of the market can be initiated using an intelligent approach to the existing supply of non-renewable or non-duplicable resources while developing the renewable and duplicable resources and at the same time better satisfying the needs of the people who live there.

3.5. Aspects of the MSM target system directly related to the protection of land resources

Alongside the strategy of an immediate relief of land resources from development pressure, the current target system of the Rheinberg MSM program contains immediate strategies for the relief of resources which are already well-established methods of land resource protection.

The following excerpt of such immediate strategies has been taken from the expanded target system "Living and Working". Strategic elements which are more strongly directed towards other protected resources or targets have been omitted.

As overall aims the target system contains: *„Rheinberg is an attractive, scientific research area with a high rate of employment. It focuses on the challenges of sustainable development. Further demands on land resources are reduced to a minimum”*

These aims are concretized by some objectives, formulated as if the objectives would already have been fulfilled: *“1. A systematic integration of economic promotion, local marketing, incentive systems, and land management ensures that a sufficient number of innovative jobs are available in all parts of the town. 2. The open areas between the various parts of town were maintained. 3. The town can get by with the current effective*

land resources. Careful revitalisation has precedence over further land demands in the outlying areas. Only if the revitalisation and new utilisation of idle areas does not provide sufficient space for development, then a (controlled) urban development program can be planned and steered. Citizen participation in the planning and development process remains a high priority."

As an indicator to be used for controlling land resource consumption the participants suggested the *"Increase in development and traffic construction in m² per year"*. As examples of the current projects are mentioned: *"1. Determination of the potential for revitalization of idle industrial areas and of inner-city areas for further urban development. 2. Determination of a ranking order for construction plans"*.

In the future, the objective is to be fulfilled by further projects with respect to land resource management: *"1. Management of previously used and idle industrial areas. 2. Increased land management in the inner-city area. 3. Setting up of a concept for urban development. 4. Reorganisation of the land utilisation plan with the extensive participation of the citizenry. 5. Planned development of mixed areas in the inner-city area."*

3.6. Perspectives for Rheinberg

Due to the novelty of MSM, a whole series of experiences in the municipal area must be collected. After the necessary structures have been put in place, it is time for the first cycle in the MSM program. The steering group will formulate an initial program. The citizens and the administration must be encouraged to participate in the increased organization of horizontal and vertical cooperation in the projects and the individual activities. Instruments and activities should be put to use as soon as possible in order to promote the goals of the MSM program and the concrete steps in its implementation. To realise this goal the steering group will have to prioritize plans and make suggestions in order to tap into and allocate sufficient resources. The steering group will have to attempt to win the further participation of competent social actors, key figures, and multipliers. New projects will have to be instigated and existing projects must be brought into the process. The sustainability checks will have to be carried out within the administration for the first time, the sustainability reports will have to be formulated and published, and the resulting suggestions must be collected and evaluated. Then the first successes can be registered and evaluated. The target system must be reviewed and, if necessary, revised and all of the measures must be coordinated. Finally the new cycle of the MSM program can be started. After the first cycle the program will be in need of quite a bit of improvement. Perhaps one or

more of the well intended suggestions will prove to be not (immediately) realizable.

The accompanying effectiveness and efficiency evaluation of the MSM program in Rheinberg in respect to the various (protective) targets, including the protection of land resources, will be needed in the coming years. Only after long-term, systematic observation can one judge if the path from bundled projects to long-term and, moreover, sustainable structural developments can be facilitated with the introduction of a functioning MSM program.

Further development of the Rheinberg MSM program via the integration of various administrative modernization tools, citizens orientation, and sustainability management at an operational level (and, in general, its management of knowledge and transformation) is obviously necessary – the currently planned instrument of the citizens' budget, for example. One can conceive of a kind of "municipal sustainability balanced score card",² which is suggested here in combination with the increased use of sustainability indicators.

There is a resulting need for skilled personnel among all of the social actors (in project management, teamwork, facilitating and moderation, personnel management, etc.) which must be covered by a program directed toward the achieving of individual competencies in the city of Rheinberg [concerning the administration, see Pippke, 2003].

4. Summary

The concrete development and introduction of the MSM program in the city of Rheinberg can be described as a "necessary experiment." It seems almost unavoidable when one observes the developments in the area of organizational management.

With the urban development concept "Rheinberg 2030+," a management concept is being introduced into a German municipality which allows for sustainable development on the local level to be made practical among the

² A "municipal sustainability balanced score card" could be used as a management tool in which the entire municipality, much in the same manner as a business, creates a "balanced score card" which further focuses on the principles of sustainability. Such a "municipal sustainability balanced score card" would formulate, alongside the financial data, the key data for the internal processes, external relationships, the status of municipal resources, including the natural resources, and for the acquisition of skills and development resources within the organisation. When directed towards the municipality, it would serve to clarify and consolidate the bundle of goals (as well as clarify the relationship of the goals to one another) in the relevant municipality.

administration, businesses, NGOs, and the citizenry within the political decision-making and the implementation processes.

As an MSM program prototype, the urban development concept "Rheinberg 2030+" is a concept which corresponds not only to the spatial structures such as location and land usage structures, but (with its cyclical development process adapted from the continual improvement process) also to the intrinsic relationships between the social actors in the municipality. Therefore it is a management concept for the entire network of all social actors in the municipality of Rheinberg. It is anchored in the municipal administration.

The structures and processes can be universalized: The active introduction of the MSM program represents a transformative process within the organizational structures of the social actors' network in a community or town and is therefore an element of transformation or change management. Likewise it represents an essential innovation within the system. Precisely because it is a transformation process, the strategic political dimension must be taken into appropriate consideration alongside the numerous other aspects of the process. Several key individuals have to be won over for the introductory process. In the long term, the motivational work provided by the heads of local government and the administration, such as the special promoters of MSM (we can also call them supervisors or management representatives), is of the utmost importance. Other municipalities started to adopt the concept of MSM in 2005 first restricting it on land resource management [Reuter et al., 2006].

By bundling the spheres of action, the essential dimensions of sustainable development (social justice, long-term safeguarding of resources, operational added value, and self-determined cultural development) are intertwined. Active involvement on the behalf of the citizens is ensured by the voluntary project groups and the ability to respond to the sustainability report. This involvement means an increasing participation in the decision making process and the appropriation of advantages, but also the obligation to take on responsibility and participate in the implementation of projects.

Most importantly, the channelled participation of the citizens will provide a concrete, detailed contribution to the integration of sustainability goals. As this management system has the capability to transform all of the social actors into participants, a substantial increase in financial resources, know-how, creativity, and capacity can be developed. MSM can ensure a better equilibrium of rights, obligations, opportunities, and risks among all of the social actors in the municipality, assuming the participants have adequate faith in the process. With the introduction

of an MSM program, the preservation of value and the overall concept for sustainable development on the local level can be consolidated step by step and its implementation can be initiated. Other available tools and techniques from the area of administration modernization and operational sustainability management can be incorporated into this basic structure. Thus, the management system methods can be individually or modularly enhanced and optimized, thereby producing continuously improving results.

The current scope for transformations *to encourage sustainable development in the community* is very limited. On the one hand this is due to financial shortages in the municipal budget, on the other it is due to global and EU-wide conditions which strongly distort the true costs of goods and services, thus allowing a large portion of non-sustainable enterprise to be externalized.

It is to be expected, however, that the local social actors' network can make a substantial contribution to the internalization of external effects and, in particular, help to ensure that sustainable development can be introduced into a sphere which has not yet adapted sustainable development. The protection of land resources is mainly driven by a form of development which is strongly aware of its assets and utilizes renewable and duplicable resources. MSM generates "sustainability awareness" whose existence (codified, non-codified or even as mute awareness among the inhabitants) will soon represent an advantage for the area. If the MSM program functions without any great difficulties, the expertise gained from the program can be seen as a vital component of the locally anchored "sustainability awareness and knowledge".

As soon as it is introduced, MSM strengthens the towns and communities in their self administration and, particularly in these difficult times for municipal budgets, through an increase in effectiveness and efficiency in the provision of services or in satisfying the needs of all of the citizens. A structured procedure allows the available resources within the municipality to be more efficiently utilized.

Even though it may so appear to the unprepared observer, the introduction of an MSM program does not represent a reinvention of the municipal political system, regardless of the innovations. In no way shall the basic framework of our constitution be shaken. No parallel organization to the democratically constituted structures and procedures shall be established. On the contrary, MSM assists in the integrating optimization of available structures and procedures in the municipalities' transformation from a logistic entity and service provider into a participatory community!

Literature

- Breyer, K., Harnack, J., Kreft, H., *Stadtentwicklungskonzept (StEK) Rheinberg 2030+*, Anlage zur Beschlussvorlage des Stadtrates zur Sitzung am 18. May 2004.
- Gebhard, D., „Impulse für Denken und Handeln“, *Umweltmagazin*, 1/2, pp. 24–35, 2004, 24–25.
- Gehrlein, U., „Von Nachhaltigkeitsindikatoren zum kommunalen Nachhaltigkeitscontrolling“, *UVP-Report*, 17(5), pp. 216–221, 2003.
- Heck, P., Hoffmann, D., „Stand der Biomasse-Potenzialstudie Rheinland-Pfalz“, in: Heck, P., Wern, B. (eds.), *Biomasse-Potenzialstudie Rheinland-Pfalz. Dokumentation zur 3. Biomassetagung am Umwelt-Campus Birkenfeld*, pp. 12–21. Berlin: P+H-Verlag, 2004.
- Hoffmeister, M., Königs, H., Löpmann, W., Ufermann, A., „Wir-Gefühl“ in Rheinberg. *Auswertung eines Fragebogens zum Wir-Gefühl durch das Fachforum Stadt/Land in der Lokalen Agenda 21 für Rheinberg*. Rheinberg, 2001.
- Kreft, H., „Ein Weg aus dem Dickicht heraus. Fazit der Tagung vom 7. September 2001 an der Universität Köln „NRW im Dickicht der Nachhaltigkeitsindikatoren““, in: Koitka, H., Kreft, H., Szerenyi, T. (eds.), *NRW im Dickicht der Nachhaltigkeitsindikatoren. Schriftenreihe des Sonderforschungsbereichs 419 der Universität Köln*, pp. 89–100. Köln: Universität Köln, 2001.
- Kreft, H., „Developing Regional Markets to Promote Global Sustainability. Report on renewable energy projects in North Rhine-Westphalia“, in: Sagan, I., Czepczynski, M. (eds.), *Featuring the Quality of Urban Life in Contemporary Cities of Eastern and Western Europe*. pp. 97–113. Gdańsk-Poznań: Bogucki Wydawnictwo Naukowe, 2004a.
- Kreft, H., *Wenn das Dorf wüsste, was das Dorf alles weiß. Wissensmanagement für eine nachhaltige Entwicklung, für die Dokumentation d. Kongresses der Akademie für nachhaltige Entwicklung Mecklenburg-Vorpommern*. November 2004b, unpublished.
- Kreft, H., „Kommunales Nachhaltigkeitsmanagement: Teil einer Strategie zur Entlastung des Bodens vom Besiedlungsdruck im Rahmen kommunaler Strukturentwicklung“, in: Tomerius, St., Löhr, D. (eds.), *Jahrbuch für Bodenpolitik 2005*, pp. 105–122. Berlin: Verlag für Wissenschaft und Forschung, 2005.
- Leuninger, S., Held, H., „Kommunale Wirtschaftsförderung im Umbruch. Kundenmanagement in Bestandsentwicklung und im Standortmarketing praxisorientiert umsetzen“, *Standort (Z.f. Angew. Geogr.)*, 4(27), pp. 161–166, December 2003.
- Liepach, K., Sixt, J., Irrek, W., *Kommunale Nachhaltigkeitsindikatoren. Vom Datenfriedhof zur zentralen Steuerungsinformation*, Wuppertal Papers, 138, December 2003.
- Maier, G., Tödting, F., *Regionalökonomik 2. Regionalentwicklung und Regionalpolitik, 2. Aufl.* Wien, New York: Springer, 2002.
- Ortmann, G., „Das Kleist-Theorem. Über Ökologie, Organisation und Rekursivität“, in: Birke, M. (ed.): *Handbuch Umweltschutz und Organisation. Ökologisierung, Organisationswandel, Mikropolitik*, pp. 23–91. Wien: Oldenbourg, 1997.
- Pippke, W., *Aspekte der Nachhaltigkeit in der Ausbildung des allgemeinen gehobenen Verwaltungsdienstes. Grüne Reihe, Schriftenreihe der Fachhochschule für öffentliche Verwaltung NRW*, 23, Gelsenkirchen, 2003.
- Reuter, K., Breyer, K., Flacke, J., Mielke, B., Pippke, W., Kreft, H., Raeithel, H., Eickhoff, M., *Raum zum Leben gemeinsam entwickeln und gestalten. Flächenmanagement als partizipativer Prozess einer nachhaltigen Stadtentwicklung*. Documentation of Phase I and II. Iserlohn, 2006.
- Rheingans-Heintze, A., *Lokale Akteursnetzwerke als lernende Organisationen. Analysen am Beispiel von „Lokale Agenda 21“-Prozessen*. 2. Aufl. München: Ökom, 2004.
- Schaltegger, S., Kleiber, O., Müller, J., „Die „Werkzeuge des Nachhaltigkeitsmanagements“. Konzepte und Instrumente zur Umsetzung unternehmerischer Nachhaltigkeit“,

in: Linne, G., Schwarz, M. (eds.): *Handbuch Nachhaltige Entwicklung. Wie ist nachhaltige Wirtschaften machbar?* pp. 331–342. Opladen: Leske & Budrich, 2003.

Stadt Münster (ed.), *Evaluation des Förderprogramms Altbausanierung der Stadt Münster*. Project leader: Hildebrandt, O. (Werkstattberichte zum Umweltschutz 3/2003). Münster: Stadt Münster, 2003.

VDI, *Richtlinie 4070 Blatt 1, Entwurf, Nachhaltiges Wirtschaften, Anleitung zum Nachhaltigen Wirtschaften*. Berlin: VDI, 2004.

Website

bzr – büro für zukunftsfähige regionalentwicklung (2004): www.klimadorf.de