

STRUCTURAL FUNDS AND SUSTAINABLE DEVELOPMENT

The SQM approach

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The question of how to achieve greater levels of sustainable development is intrinsically linked with the discussion concerning new forms of governance. Structural funds have become most influential in promoting sustainable development and appropriate forms of governance across the EU. They have been very important in introducing new innovative forms of co-ordination in many countries and have encouraged the mobilization of new political actors. Structural Funds can be considered as a most interesting laboratory for the development of new governance patterns, which are urgently needed for coping with accelerated change and increasing complexity. Multi-level governance in the spirit of subsidiarity will not be possible without flexible objective-oriented management approaches instead of the rigid attribution of competences. This requires new conceptual approaches, procedures, and instruments. 'SQM—Sustainable Quality Management®' is a coherent system for the conception, support, monitoring and evaluation of sustainable development processes. A series of pilot projects in the last five years have shown its potential and utility. The SQM system includes concepts, methods and operational tools that have proved to be applicable and comprehensible in different European cultures. Internet-based SQM software tools support every step in the policy cycle. Sustainable development is conceived as an overarching principle that governs the management of processes and covers all policy principles postulated by the EU. In the use of a common framework over the whole policy cycle and the coherent implementation of basic principles there is the promise of achieving better orientation towards sustainable development and considerable efficiency gains.

Structural Funds and Regional Development

The influence of Structural Funds on regional development tends to be underestimated. Not least because very often the public and even those directly involved do not know when they are receiving subsidies stemming from European funds. The most important and lasting influence is probably not due to the funding itself but rather to the new approaches that the European funds are encouraging in many countries. European Structural Funds involve procedures that often seem complicated and unnecessary to bureaucracies and beneficiaries accustomed to their own administrative traditions. In many cases Structural Fund requirements have led to changes that have been highly innovative for these regions including:

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- the questioning of traditional administrative procedures and practices;
- the review of decision-making procedures and even the establishment of new structures at the regional level;
- the introduction of a systematic programming process, including the formulation of development objectives;
- the introduction of systematic monitoring and evaluation;
- increased transparency in relation to the programming process, the budgets, the funding decisions, and the results;
- increased autonomy of local actors and local and regional governments by providing new sources of funding which are more or less independent from national governments and which requires them to develop their own strategies;
- the consideration of general objectives decided at the European level that are not necessarily discussed at the local level (e.g. gender equity, energy conservation, sustainable development, etc.);
- the consideration of organizational and procedural principles (e.g. transparency, subsidiarity, partnership, participation, equal opportunities, etc.)
- strong influence of these innovations on national and regional policies because of the requirement of co-financing.

Overall, Structural Funds have given an important impetus encouraging a new culture in development and funding policies. However, while numerous and important examples of the above-mentioned points can be found in many countries, there are many well-known cases where Structural Funds are managed in a less than transparent manner, where programmes are merely cosmetic, and where funding is being used primarily to maintain existing power structures and does not really serve the set objectives. The innovative potential of Structural Funds is far from being fully exploited.

In the endeavour to develop innovative regional development policies for a wide variety of political, administrative and juridical structures and traditions, the EU has set out to:

- define general development objectives;
- encourage the elaboration of regional development strategies;
- establish transparent decision-making mechanisms across several levels of policy making;
- ask for the inclusion of all relevant actors;
- insist on a relevant and pertinent evaluation.

It must be recognized that this is a huge task, which corresponds to the development of new governance styles all across Europe. Inevitably this endeavour often meets considerable resistance, and it will take many decades. Many of the actors involved are not really aware that this process will have far-reaching consequences and sometimes challenges established power structures.

Structural Funds, therefore, are a paradigmatic example of the striving for the establishment of new forms of governance in Europe. They show very clearly the challenges, the opportunities, and the difficulties that arise in this process. Compared with other policies, Structural Funds are rather advanced in formulating general objectives in terms of the content and general principles relating to the form of development policies, and in terms of the implementation of corresponding structures across an unprecedented number of cultures and political levels.

In relation to the content of development policies, EU objectives have been developed over many years. The concept of sustainable development is the most advanced approach towards the development of a comprehensive system of objectives, even though until now environmental aspects have dominated the discussion. The obligation of considering this concept in the programming and implementation of Structural Funds has led to many fruitful discussions and developments at the regional level. Increasingly, sustainable development is recognized as an overarching concept, which includes most EU objectives concerning policy contents and also basic governance principles.

In order to promote these endeavours of the EU, especially in the field of Structural Funds, evaluation assumes a central role. This paper presents a system for the objective-oriented multi-level management of sustainable developments. It has been developed mainly in the context of Structural Funds.

Evaluation and the Search for New Forms of Governance in Europe

By demanding regular evaluations of the multi-billion EU funding programmes, the European Commission has succeeded in sending a fresh breeze through the hundreds of regional offices in charge of managing EU Structural Funds. Until recently these evaluations have been qualitatively and methodologically quite diverse. Most of them are only being carried out in order to satisfy the central offices in Brussels. The local public and local media do not usually debate these reports and often they are kept confidential or are difficult and tedious to read. Intermediate political and administrative levels have been very slow to learn that these evaluations could possibly be very valuable instruments for guidance and learning.

However, European institutions have no choice but to insist on evaluations—how else can they ensure that their political objectives are respected in the widespread use of the considerable funds coming from Brussels? How else can they justify the rationality and efficacy of their programmes? Unlike the old nation-states, EU institutions are still developing very dynamically and are under continuous pressure to justify their own existence and to prove the utility of the ongoing expansion of their competencies. They must show that they can achieve progress with regard to the political objectives on which agreement has been achieved after difficult negotiations between different interests and cultures. While still partly imprisoned in the centralist tradition of its founding era, the EU has become one of the most important promoters of new forms of governance. The negotiation of objectives in the context of extremely complex interwoven interests and their efficient pursuit by means of regularly reviewed instruments is more important than personal power or the definition and consequent imposition of strict and general principles. In wide areas of its activities the European Commission has adopted an approach of flexible management—although recently one can detect a revival of the old command-and-control approaches as a reaction to financial scandals.

The EU and its increasing competencies can be understood as a response to growing 'globalization' and complexity (Hey & Schleicher-Tappeser, 1998). European nation-states have shown increasing difficulties in coping with accelerated change, with the growing multiplicity of international interactions, with the self-reflexivity of developments and, therefore, with decreasing predictability. To add an additional European co-ordination level is obviously not sufficient to cope with these challenges as the

increased number of co-ordination levels on their own may lead to increasing complexity. Therefore the EU, while being under continuous pressure to legitimize itself, cannot simply rely on the old approaches, but rather it must develop new methods of governance. The recent White Paper on European Governance (European Commission, 2001) is an expression of the fact that this is beginning to be explicitly acknowledged. The principles put forward by this paper (i.e. openness, participation, accountability, effectiveness and coherence) at first sight seem to be simple common sense. On closer examination, however, one discovers that they are far from being guaranteed by most of the traditional forms of governance. A proper understanding of *subsidiarity*, the underlying principle developed some pages later in the White Paper, seems to be the key for achieving them in a multi-level system.

Not only in politics do the successful approaches of the industrialist era prove to be increasingly problematic vis-à-vis the most pressing problems: classical command-and-control approaches combined with rigid hierarchies of specialists have also resulted in increasing difficulties in most industries. For more than two decades new management approaches have strongly changed the business world: high flexibility in a rapidly changing complex environment requires multi-dimensional thinking, interdisciplinary co-operation, flexible organizational structures, motivating visions and detailed monitoring of accomplishments.

Subsidiarity and Multi-level Governance

From its beginnings the EU faced the difficult task of formulating policies that take into account very different traditions, conditions, and cultures. Founded in the era of undisputed industrialism, the European Community initially relied on standardization, alignment, and centralized steering. But this approach encountered increasing and sometimes insurmountable difficulties, especially in the sphere of agricultural and environmental policies. As a consequence, in many fields the old 'command-and-control' approach has been replaced by more flexible policies (see, for example, Prittwitz, 2000). With the growing influence of European policies and increasing European integration in the numerous diverse areas of private, public and economic life the necessity of respecting and actively taking into account regional specificities is growing. With the upcoming EU enlargement to the East the challenge of diversity has definitely reached a stage where centralized steering has become an illusionary goal. Under these circumstances *subsidiarity* becomes a key concept and, as a consequence, disputes about its interpretation have become intense.

The principle of subsidiarity essentially demands that all kinds of functions be fulfilled at the lowest possible level and at small scales. Outside assistance or imposition of rule shall be allowed to intervene only if it really helps the improvement of the fulfilment of the function and if it does not diminish the autonomy of the subsystem in a dangerous way. The principle of subsidiarity originated in Roman Catholic social teaching in relation to the issues of social responsibility and social security, but it can be applied to all kinds of systems including politics, administration, business, technical systems, material flows in the economy and so on. The principle does not provide clear methodology or guidance—it describes the tension between autonomy and integration into larger systems. A wide range of interpretations have been given to it. Often, clear-cut divisions of competencies are sought between different hierarchic levels and scales in

order to defend the autonomy of lower levels against the top-down interventions of the upper levels. However, rigid competence assignment combined with traditional command-and-control approaches are less and less capable of coping with rapid change and increasing complexity. Under pressure, such structures tend to favour centralistic solutions.

Therefore, multi-level governance in the spirit of subsidiarity requires methods of co-ordination between the various actors other than the traditional one of balancing delimited personal or institutional powers. Basing the co-ordination of actions on the dynamic pursuit of shared objectives instead of on a formal and rigid delimitation of competencies seems to be the only solution. This requires new procedures, skills and instruments, and also the transformation of old power structures. Old concepts of (national) sovereignty will have to be replaced by concepts of multi-level responsibility. Subsidiarity implies the empowerment of individuals and communities to allow them to actively manage and control their own lives. The ability to understand and manage shared and negotiated responsibilities between several levels and scales is not easy to learn.

However, these endeavours are part of a more general paradigm shift. Confronted with similar difficulties in coping with change and complexity using traditional Taylorian command-and-control approaches, industry has been going down a similar path for the last two decades: 'management by objectives', 'total quality management', etc. are approaches which demonstrate the difficulties in the changing of established governance structures and which also demonstrate the considerable potential of such approaches. Public administrations can learn a great deal from these experiences but they cannot simply copy them. Despite all difficulties, the EU is the main engine driving a change of governance styles in this direction in Europe. The continuous pressure for the introduction of transparent objective-oriented management of Structural Funds at all levels forces administrations and applicants all across Europe to familiarize themselves with these new concepts, to learn to formulate objectives, to accept transparency and accountability, and to learn to evaluate.

There is a growing fear that in the increasingly complex and global strands of negotiations, politics is degenerating into a mere marketplace, democratic control is being lost, and powerful specific interests are succeeding in pushing themselves to the fore. In this situation the concept of territory in combination with the concept of subsidiarity could be essential for providing guidance to all actors. Political institutions at all levels essentially represent the political will of the citizens of a particular territory. In this they are particular, and differ from other interest groups, such as companies or NGOs. The spatial unit has always been the most important category for the integration of different dimensions of development and as such it regains its importance today, especially in the context of the discussion on sustainable development. In representing the citizens of a territory, politicians and political institutions have a particular responsibility with regard to all aspects of life and development. However, their democratic legitimacy will increasingly depend on their ability to organize a consensus concerning objectives and to effectively contribute to their attainment.

In the context of objective-oriented governance, the principle of subsidiarity can be most useful in defining the roles of the individual levels within a framework of common shared responsibilities. With five to seven levels of territorial representation in Europe, the system of multi-level governance has become very complex and often lacks the transpar-

ency required for democratic legitimacy. The explicit acknowledgement of the shared responsibility of the different levels and the definition of roles by the contribution they make towards a coherent system of politically defined objectives rather than by exactly defined competencies seems to be the only way of making this multi-layered system more comprehensible and flexible. The specific objectives and resources of each level need to be defined and revised in regular political negotiations and decisions. Therefore, the approach of sharing responsibility in the spirit of subsidiarity can function only if the objectives, the resources, the difficulties and the progress in attaining them are transparent to all actors concerned—in a democratic system this must also include the public.

Today we are still far from having this kind of transparency. Evaluation, in conjunction with clear systems of objectives, will have to play an important role in the development of new forms of democratic and efficacious governance in an enlarged EU. Utilized as learning instruments in the spirit of subsidiarity, evaluations will help to enhance self-responsibility at all political levels. New kinds of tools and procedures are needed to implement such a new approach properly.

The Challenge of Sustainable Development

The discussion on sustainable development looks at the problem of governance from another perspective. It originated from the obvious problems generated by conventional forms of governance. It has attracted attention to the disastrous consequences of dealing separately with the economic, environmental and social consequences of development.

Since the Amsterdam Treaty of 1997, the EU has required that all policies and programmes funded by the EU be conceived and implemented in accordance with the principles of sustainable development. The regulations relating to the new generation of European Structural Funds (1999) and, more recently, the EU Strategy for Sustainable Development decided at the Gothenburg Council (2001) have confirmed this commitment. However, until now, operational tools that allow the assessment of the fulfilment of this commitment have been generally lacking.

The reasons for this deficiency are to be found in the root of the fundamental concept of sustainable development. It is an idea that has been publicly discussed for less than two decades. Sustainable development is not only a new concept, it is a new paradigm, and it requires the viewing of many things from a new perspective (Schleicher-Tappeser & Strati, 1999b). To gain an understanding of what that implies takes time and meets resistance (Kuhn, 1962). The whole institutional system is confronted with a serious challenge (Minsch *et al.*, 1997; Jänicke & Jörgens, 2000).

Since the Rio Conference in 1992, the demand for sustainable development has led to many disputes about its interpretation. The growing consensus, which is emerging in the meantime from these discussions, is that sustainability is a general idea, a 'regulative idea' in the Kantian sense, as are, for example, beauty, freedom or health (Homann, 1996). It cannot be assessed or achieved by simple rules—it needs interpretation in a specific context.

The concept of sustainable development was invented because of the obvious shortcomings of conventional development approaches. It presents two basic challenges:

- (1) *Whereas the extraordinary development of technology, industry and large organizations of the modern age was based strongly on an increasingly sophisticated differentiation and specialization, the concept of sustainable development stresses the necessity of an integrated consideration of different dimensions of development.* Considering different dimensions simultaneously in order to avoid counterproductive effects is not an easy task for highly differentiated administrations. More difficult still is the systematic search for synergies and win-win solutions. Different actors, different organizations, and different disciplines will need to co-operate more fully.
- (2) *Sustainable development requires openness towards the future.* In order to have 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED, 1987) we need not only to conserve potentials and resources but also to encourage innovation in the right direction and to improve the ability to learn. Learning may include the shifting of perspectives and priorities. Therefore, the concept of SD and corresponding assessments must also allow for changing objectives and priorities over time. Sustainable development is an open process. 'Sustainability' can never be achieved definitively. Yardsticks change as knowledge increases.

Two additional challenges emerge in formulating sustainable development policies at EU level.

Firstly, across Europe the cultural, political, economic, and environmental contexts of development vary considerably. Nevertheless, European policies need a common framework that is able to deal with this *diversity of contexts*. Assessments will need to take into account differences between contexts and at the same time allow for comparisons. For the transferring of experiences a description and an understanding of these differences is essential.

Secondly, European policies often concern five or six political or administrative levels, ranging from the European level to the local level. Transparency and participation are high priority principles of the EU. A coherent sustainable development policy across the EU requires *multi-level governance*: appropriate systems for ensuring co-ordination and an integrated view of the responsibilities and activities of all levels are needed (Hey & Schleicher-Tappeser, 1998).

Assessing Sustainable Development

These challenges, arising from the concept of sustainable development, lead to considerable difficulties in the assessment of 'Sustainability' when using conventional approaches:

- How does one look simultaneously at different dimensions of development? How does one integrate different disciplines? How does one determine whether development is balanced?
- How does one account for changing views? How does one guide and encourage innovation?
- How does one account for different contexts and priorities in different European regions and cultures?

- How does one ensure transparency and shared responsibility across a hierarchy of political levels? How does one deal with such a wide range of issues and the complexities of their interrelationships over space and time in a dialogue between experts, politicians and the public?

Many attempts have been made to reduce the whole issue of sustainable development to a limited number of easily comprehensible indicators that can be measured and monitored using conventional means. These approaches have been very useful for gaining a quick overview. However, limiting the assessment to the measurement of a standardized set of indicators has not led to a satisfactory response to the above-mentioned challenges. Such a conventional approach easily leads to the reproduction of a sectoral view—one which is not able to deal with views and priorities which change over time, and often which is not felt to be appropriate to the specific local situation. In practice, the wide variety of initiatives that have attempted to assess progress in the direction of sustainable development (such as local agendas, state programmes, companies, etc.) have often devoted considerable efforts to developing very specific and detailed assessment systems, with varying levels of success.

This wide variety of approaches has for a long time given rise to polemics that have argued that the concept of sustainable development was without any precise meaning and therefore useless. However, despite the difficulties in giving precise definitions and assessment rules, the concept has not lost its attractiveness and political effectiveness. A review of the main EU research projects concerning sustainable regional development in 1999 showed that a considerable consensus concerning the main challenges of sustainable development had grown in only a couple of years (Schleicher-Tappeser & Strati, 1999a). Today we can build on the rather large consensus, as can practitioners, that sustainable development is a useful concept that involves an open learning process and that it makes no sense to provide a detailed universal measurement rule for 'sustainability'.

We therefore need new approaches in assessing sustainable development. This is particularly true in the domain of public policy where, primarily as a result of the continued efforts of the European Commission, the concept of evaluation has made considerable progress in recent years, and yet it is far from being generally understood (Meyer & Martinuzzi, 2000; Toulemonde, 2000; Schubert *et al.*, 2001). In the business world, the necessity of dealing with complexity and continuous change has led to the development of several concepts that may be most useful in this context. These include 'change management', 'quality management', and 'learning organizations', all of which are concepts that have abandoned the old 'command-and-control' approach and try to make use of systematic self-reflexive learning processes. Indeed, our democratic systems rely more or less systematically on these kinds of feedback mechanisms—many administrations, however, still operate on the basis of a rather conventional form of top-down logic and have difficulties in conceiving of assessments and evaluations as occasions for learning.

Understanding sustainable development as a collective learning process is the key to developing adequate assessment systems. Learning continuously changes the perspective concerning what could and should be done (the objectives) and how it could and should be done (means and methods). Assessments can help at both levels. They can help in learning what should be done by:

- analysing a situation;
- identifying alternative developments and actions;
- specifying and revising objectives.

And they can help in learning how to do better by:

- monitoring progress towards set objectives and refocusing actions;
- reminding those concerned that the different dimensions of development need consideration;
- comparing different approaches;
- exchanging experiences between different contexts.

The consideration of assessments as tools for learning implies that those who are involved in assessments should be interested in learning. On the one hand it is, therefore, important to motivate and to enable people to learn from these assessments. On the other hand we must recognize the long tradition of command and control and the limited openness to new approaches that exists in many cases. Hence it is advisable to provide very simple assessment tools for simple cases.

The aforementioned concept of *quality management* seems to be particularly appropriate for developing a new assessment approach (Strati & Schleicher-Tappeser, 1999b). Its widespread use in industry facilitates its acceptance and understanding. Also, we intuitively accept that quality is always relative and can never be reached absolutely. Quality management means that permanent attention to quality is important at every stage of 'production'; everybody at all levels shares the collective responsibility. The emphasis of a quality management system lies on the procedures. Objectives and criteria are not fixed permanently but are re-examined on a regular basis. The transparency of objectives, continuous monitoring and regular evaluation are constitutive elements of such a learning system.

In the case of industrial environmental policies a paradigm shift from 'command and control' towards 'quality management' has already taken place, and the introduction of environmental quality management systems has brought about a quantum leap in the efforts towards improving environmental performance. It has also shown how much there is still to be learned. However, many examples demonstrate that minimum standards and their enforcement by public authorities by no means become obsolete. The same holds true for sustainable development—the concept of sustainable development and the best assessment systems will never replace the highly differentiated system of regulations developed as a result of environmental, economic and social policies over the last 200 years. But it should be noted that the concept of sustainable development is something different; it amounts to more than the sum of these regulations and standards.

It is helpful to distinguish between a '*defensive*' and a '*constructive*' approach to sustainable development. There are many administrators who would like to have an assessment tool that tells them that they do no major harm and which guarantees that nobody can blame them for supporting 'unsustainable' activities. They would be happy with additional checklists leading to a final 'seal of approval' which confirms that all is well. However, they are well aware that final users would be reluctant to fill in another series of control forms in order to obtain public aid or service. Indeed, procedures of this kind could easily be integrated into conventional administrative practices, but they would not really add new elements to existing legal requirements (which surely could be

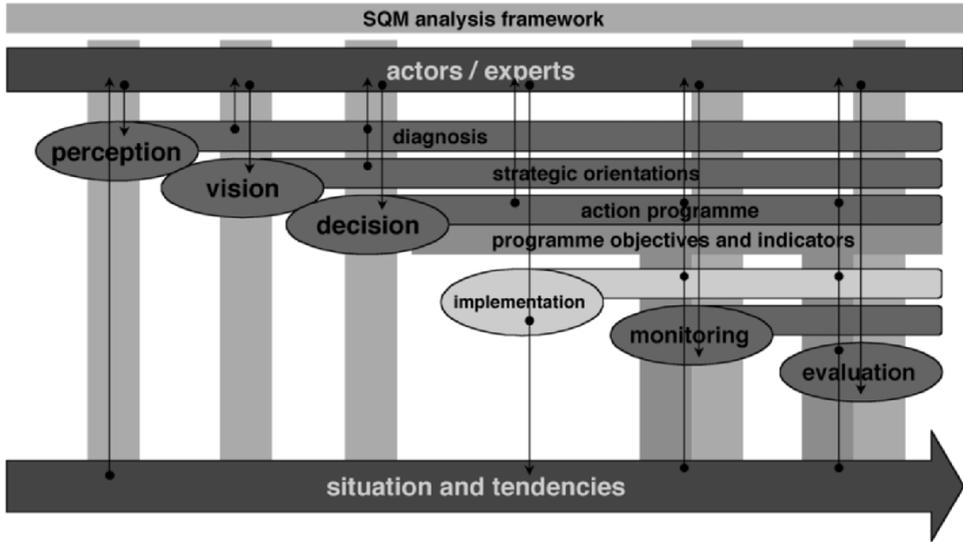


FIGURE 1

Use of SQM appraisals over the whole policy cycle

improved) and they would create supplementary complications in the name of sustainable development which would provoke the resistance and de-motivation of the public. A less defensive and more constructive approach should involve the encouragement of learning and innovation.

Sustainable Quality Management

In order to respond to these challenges and to operationalize the concept of sustainable development without losing its innovative and constructive characteristics, we have developed the ‘SQM—Sustainable Quality Management®’ system in recent years. Since 2001 it has been promoted commercially by the company SQM-praxis GmbH.

‘SQM—Sustainable Quality Management®’ is a versatile system for the assessment and management of all kinds of sustainable development processes. Its basic concepts were developed during 1996–98 in the INSURED (‘Instruments for Sustainable Regional Development’) EU research project funded by the ENVIRONMENT programme (Schleicher-Tappeser *et al.* 1997, 1998). Since then it has been further developed in a series of research and pilot application projects in different European countries.

SQM is a modular system that can be adapted to a wide variety of different users and tasks. It consists of *concepts* (including the general analysis framework), a wide variety of application *methods*, and Internet-based software *instruments*.

The SQM system has been constructed around basic appreciation procedures in order to provide support at every step through the whole policy cycle (see Figure 1). Special attention is given to developing a complete set of methods and tools for the management of Structural Fund programmes. However, the application of SQM should not be limited to Structural Funds; it is a general approach for the management of sustainable development processes in the most varied circumstances.

The *SQM analysis framework* consists of 32 rather general aspects that can be applied to and refined in different contexts. It can be regarded as a kind of 'language' in which different points of view, priorities and contexts can be expressed. From the beginning, SQM has been designed to allow for intercultural exchange and discussion in Europe.

SQM methods are designed to support learning processes and to facilitate the involvement of a large variety of actors: experts, administrators, politicians, local actors, etc. They concern the appreciation technique itself, the facilitation of workshops, enquiries by questionnaires, the integration of given indicator systems, the development of strategies and programmes, teaching, and the exchange of experiences.

The *SQM online instruments* combine these elements and provide efficient support for different users and tasks over the Internet.

Table 1 summarizes the various attributes of the SQM system.

Experiences in Using the SQM System

The Beginnings: the INSURED Project

In the above-mentioned INSURED EU research project (1996–98) we tried to compare about 50 successful sustainable local development projects and regional policies in five European regions in order to identify the most helpful policy instruments for sustainable regional development (Schleicher-Tappeser *et al.*, 1998). In order to have a common comparison framework that would take into account the different approaches in the different cultures, we first undertook a broad review of the discussions about sustainable development and regional development and developed a comprehensive framework of 10 rather general 'orientations' for sustainable regional development. This allowed us to develop a mutual understanding of different approaches to sustainable development and to understand and compare local projects. However, comparison of different regional policies was much more difficult than expected because of the importance of the differences between the cultural, structural, political and institutional contexts in the regions. On the background of the long experience of all project partners in local and regional development all across Europe, we decided to try to analyse the underlying communication and relation patterns between projects and their contexts. This was not easy, since a suitable analysis framework for this was not readily available. At the end of the project this led to the development of two further chapters of the INSURED framework dealing with 'Regional Social Potential' and 'Transformation Dynamics'. These results of the INSURED project then became the basis for the development of the SQM system.

A Common Language between Different Cultures: the PACTE Project

An early successful experience with parts of the SQM framework involved a dialogue project between seven other European regions. Representatives of regional environmental administrations in France, Italy, Germany, Austria, Sweden and Belgium had come together in a series of workshops to draw common conclusions from their experiences with sustainable development projects. However, they had serious difficulties

TABLE 1

SQM—Sustainable Quality Management®—a modular system for the management of sustainable development processes

Concepts

- Sustainable development as regulative idea and dynamic process ...
- Quality management of development processes, evaluation ...
- Subsidiarity as a central concept of governance ...

Framework

the SQM analysis framework

- **ORIENTATION:**
10 components of sustainability
- **SOCIAL POTENTIAL:**
16 regional key factors
- **ACTION DYNAMICS:**
6 basic transformation levers

Methods

- diagnosis of situations
- strategy and programme development
- monitoring and evaluation of programmes and projects
- SQM appraisal combining qualitative and quantitative analysis
- participative facilitation
- synthesis and visualization
- training

Online tools

- *SQM.guide*: public guide to funding programmes
- *SQM.prog*: programme development
- *SQM.progman*: funding programme management
- *SQM.project*: project management
- *SQM.eval*: programme evaluation
- *SQM.flex*: versatile expert tool for SQM-related projects
- *SQM.experience*: experience exchange

in agreeing on a common terminology and on a framework for evaluating their projects. The introduction of the SQM framework to the workshops allowed the formulation of the differing priorities in the interpretation of sustainable development, considerable improvement in the mutual understanding of those of very different backgrounds, evaluation of the projects within a common framework, discussion of the transferability of experiences, and the formulation of a series of pertinent conclusions and recommendations concerning sustainable development policies at the regional level. Particular advantages of the framework were shown to be that it allowed the formulation of different points of view and priorities within the larger debate concerning sustainable development, that the basic categories could be understood in different cultures, and that assessments using this framework were very suitable for use in a collective learning process (ARPE *et al.*, 1997).

SQM for Developing Structural Programmes: the DG Regio Pilot Project in Midi-Pyrénées

An important opportunity for testing the SQM approach (which in the meantime had been further developed) was provided in 1999 by a series of 12 pilot projects funded by the DG Regio of the EU Commission concerning the integration of the concept of sustainable development into the Structural Funds. One of these projects, carried out in Midi-Pyrénées, was based entirely on SQM and consisted of a participatory programme development in two small Objective 2 areas. In each of these areas a working group of local actors went through an intensive learning process, developing a common perception of the difficult and conflict-laden territories, analysing previous interventions, identifying the main challenges, formulating key strategies, and defining the basic structure of a programme. A project team facilitated the workshops, conducted supplementary interviews, and synthesized the results of workshops and questionnaires. The SQM programme development approach consisted in using the 'SQM appraisal' as a standard tool in the different steps of a well-defined procedure. The 'SQM appraisal' combines a number of elements of the (slightly modified) INSURED framework with a

specific SWOT analysis technique. The 'language' of the analysis framework was introduced stepwise and the number of analysis dimensions being used for a specific appraisal was adapted to the specific task and to the people involved. The second generation of supporting SQM software was developed in parallel with the project. In both territories, the SQM approach proved to be very useful in helping to examine the local situation from an unusual perspective. This allowed local actors to overcome old disputes and to develop genuinely new common visions. However, it was clear that competent facilitation was necessary in order to find the right balance between breaking up old stalemates and ritual discussions on the one hand and providing the security that a useful result would emerge on the other. Whereas most actors learned to work very productively with the 10 'orientations' for sustainable development (a description of them follows in the next section), many of them had more difficulties in dealing with the framework elements of the 'social potential'. But when enough time was available, raising these delicate issues gave participants the opportunity to point at concrete problems in the communication habits of the community. In most cases this led to very productive discussions. Overall, both the feedback from the local actors and the results were very positive, although some lessons had to be learned concerning simplification of the procedures (ARPE & Schleicher-Tappeser, 1999).

While this project was promoted by the regional administration (which at that time in Midi-Pyrénées was in a particularly robust rivalry with the national administration), representatives of the national administration at the regional level, who effectively were in charge of the Structural Fund programmes, initially remained very reserved. However, after some sessions the *sous-préfets*—the official representatives of the national state at the local level—were fully involved in the process and gave such positive feedback to their superiors that some months later the Structural Fund managers asked us to introduce the SQM approach into the project selection process. In the evaluation of the 12 pilot projects carried out on behalf of the EU Commission, SQM was considered to be the most advanced system in this context (Moss *et al.*, 2000).

Main Lessons from These and Other Experiences

The DG Regio pilot and other subsequent projects in Midi-Pyrénées showed that, together with simplified procedures, SQM-based participatory programme development inevitably takes a longer time than the more usual top-down programming. A Franco-German cross-border development project in a small rural area on the Rhine confirmed later that larger SQM appraisal questionnaires can be used only with people with a certain level of experience in systematic development discussions—for local actors at the village level without other representative experience, workshops seem to be the only adequate method of involving them in SQM-based discussions on community development. Participatory processes at the local level therefore do not allow the utilization of the full range of differentiated concepts of the SQM framework. Becoming familiar with the concept of sustainable development and with the SQM framework inevitably takes some time. Also, various projects in Italy showed that the SQM analysis framework should not be introduced as a whole right from the beginning—better results are obtained when the differentiation of the analysis can grow step by step (Strati & Franci, 2002). The complexity of the approach must be carefully adapted to the capabilities and the levels of motivation to learn of the actors involved.

A challenge to the further development of the SQM system therefore is to develop a whole range of easy-to-handle methodological modules designed for different tasks and contexts in order to combine the advantages of formalized procedures with the need for flexibility in an ongoing learning process.

A more fundamental problem in using the SQM approach has been the fact that it explicitly calls for a new form of governance, for transparency and for clearly stated objectives and responsibilities. When developing programmes at the local level, in some cases we encountered the strong resistance of local 'kings', where they felt its transparent objectives and procedures threatened their established power to distribute funds as they personally wanted.

SQM.guide for Midi-Pyrénées

Whereas programme development is a creative process that requires experienced, sensible and flexible guidance, subsequent tasks in the management of the programme can be structured in a more formalized way. For the current Structural Fund programmes in Midi-Pyrénées we have implemented a public website consisting of a public guide to the complex programme, including the provision of opportunities for project proposers to make their own *ex ante* evaluation of their project proposals in terms of sustainable development, and regarding the objectives of the programme. This Internet-based instrument is supposed to become an important instrument for development agents and for all institutions involved in the facilitation of regional development. Public bodies have started appropriate training programmes. The specific website for the programmes in Midi-Pyrénées has been set up using the *SQM.guide*, which can be customized for any other funding programme in any language (www.sqm-guide.net/instruments/guide).

Examples of SQM projects are given in Table 2.

The SQM Analysis Framework

In order to provide a better understanding of the comprehensiveness of the SQM approach, a short explanation of the SQM analysis framework and the actual assessment procedure may be helpful in this context.

The three groups of aspects contained in the *SQM analysis framework* are the answers to three simple questions:

- Which direction do we choose for our future?
→ The principles of sustainable development: ORIENTATION
- What are the societal forces and the capacities for co-operation?
→ The local key factors for sustainable development: SOCIAL POTENTIAL
- Which levers could be used for reorienting development?
→ The transformation levers: ACTION DYNAMICS

The 10 components of the *ORIENTATION towards sustainable development* have been developed by comparing a very wide range of systems and definitions of sustainable development. It is possible to establish a full correspondence with the less systematic 21 principles of the Rio Declaration. The components of the ORIENTATION towards sustainable development are also based on three questions, as shown in Table 3.

The first three elements are the common three basic dimensions of sustainable development, with the third one encompassing what some other systems call 'society' rather than the usual 'social' aspects. These are looked at in more detail in the second

group, which has proved to be very useful in the discussion of the 'future generations' issue in relation to other equity conflicts that have driven policies historically. The most innovative part is the 'Systemic Principles': they are a systematic synthesis of various underlying principles often mentioned in this context but not usually seen as core elements of the concept of sustainable development. The inclusion of these kinds of more basic orientations in practice requires some additional initial explanations, but they have proved to be extremely helpful in discussing essential relationships and in elaborating strategies.

The second major group of aspects in the SQM analysis framework concerns *SOCIAL POTENTIAL*. Sixteen key factors for local sustainable development have been identified in order to describe the co-operation and communication structure in a given community. In fact, these elements allow for the identification of the obstacles to, and the particular potentials for, promoting sustainable development in a given local or regional context. For the comparison of experiences in different contexts and cultures and for evaluating their transferability, a description of the contexts in these terms has been shown to be essential.

Finally, for analysing and designing actions, policies and programmes, the third group of the SQM analysis framework proposes the six basic 'transformation levers' that describe the *ACTION DYNAMICS*.

Usually, the SQM analysis framework will not be used as such. It provides an overall framework of the questions to be considered. Depending on the circumstances, on the one hand it may not be possible to treat all its dimensions one by one, on the other it may be necessary to go into much more detail in relation to some aspects. The minimum set of dimensions which should be considered by all people involved in some way in an SQM-based project is the three development dimensions. At least the core group of any project should seriously consider all 10 orientations. The use of 'social potentials' and 'transformation dynamics' will depend on the kind of application. Systems of sub-aspects have already been developed for many of these elements, but they may differ according to the character of the project or the systematics of available statistics.

The SQM Assessment Procedure

Depending on the specific appraisal task and the specific circumstances, an appropriate selection of the 32 rather general aspects contained in the SQM analysis framework are used in carrying out an SQM appraisal, for example for:

- analysing the situation and the trends in a territory;
- analysing the intentions of a policy or a programme;
- evaluating proposals;
- evaluating projects and programmes; and so on.

SQM assessments or evaluations can be designed by defining a number of elementary SQM appraisals, which are defined by the subject, the object, the aspect and the question. This modular architecture allows use of the SQM system for a wide variety of tasks and the building up of a growing collection of specific applications by developing appropriate series of questions. Different ways of carrying out the appraisals (workshops, questionnaires, interviews) and different degrees of detail in terms of the questioning make it equally as useful for the involvement of local actors in the participative development of local development strategies as it is for highly specialized evaluations by experts.

TABLE 2

*Examples of projects using the SQM system

1998:	Towards Sustainable Development: Experiences and Recommendations of Seven European Regions. PACTE programme (FR, IT, BE, SE, DE, AT)
1998:	Development of procedures for the consideration of SD criteria in the awarding of Structural Funds. Saxony (DE)
1999:	D2MiP: a DG Regio pilot project in Midi-Pyrénées (FR) concerning the participatory elaboration of local Objective 2 programmes. Evaluation by DG Research
2000:	Proposal of a charter for the Local Agenda 21 in Florence (IT)
2000:	PROMETEO: CD-ROM for supporting project development respecting the principles of SD for the Engineers' Association of Cosenza (IT)
2000:	Feasibility study and assistance on the management of a local archaeological and natural park in Gavorrano (Grosseto) (IT)
2000-01:	KARMIS: Cross-border landscape development scheme, Marckolsheim-Sasbach-Endingen (FR/DE)
2000-01:	ILO 2000—Le Piaggio, guidelines to implement and monitor local sustainable development initiatives in a neighbourhood of the city of Florence (IT)
2001-03:	SQM-guide MiP: Internet-based programme guide for the Midi-Pyrénées Structural Funds with auto-evaluation facility for project proposals (FR)
2001-02:	D2ParcsMiP: Programme development for three Regional Natural Parks in Midi-Pyrénées (FR)
2002:	Practical manual on local action plans for sustainable employment and development, on behalf of Italia Lavoro (IT)
2002:	Elaboration of water basin development plans in Midi-Pyrénées (FR)
2002-03:	Elaboration of sustainable employment and development Local Action Plans in the region of Molise, on behalf of Italia Lavoro (IT)
2002-04:	INNESTO: EU research project concerning 'Sustainable District Logistics' (IT, DK, DE, SP, NL)

*see Strati (2003)

TABLE 3
The SQM analysis framework: the 10 elements of ORIENTATION towards sustainable development

What do we want to sustain?	The development dimensions 1. Environmental dimension 2. Economic dimension 3. Socio-cultural dimension	
Why do we care? Which conflicts of interest are involved?	The equity dimensions 4. Equity between individuals (social and gender) 5. Equity between regions (spatial) 6. Equity between generations (temporal)	
How can we bring all that together? Which basic approaches can help us?	The systemic principles 7. Diversity 8. Subsidiarity 9. Networking/partnership 10. Participation	

SQM Online Instruments

On the basis of the experiences reported above, SQM-praxis is creating a third generation of software instruments, which are available online via the Internet. This allows the provision of an integrated modular system of tools for all tasks that occur in managing public funding programmes. The above-mentioned *SQM.guide* is one of the seven instruments envisaged at the moment. The coherent, and at the same time flexible, structure based on the SQM concepts allows the implementation of complex management systems with differentiated access rights for all those working in such a programme, ensuring transparency, ease of communication, and coherent monitoring and evaluation. Better projects, more transparent programmes, more focused activities, more meaningful evaluations and reduced costs should also result. The www.sqm-praxis.net website provides access to these instruments as well as background information.

Outlook

The SQM system has many faces, ranging from overall sustainable governance concepts down to specific software tools. In the difficult and contradictory process of introducing new governance patterns, maintaining the coherence of the approach will be most important for ensuring quality and avoiding deception. In order to develop the practical side while still ensuring coherence we have founded the company SQM-praxis, which provides training and software support. However, we think that the concept of Sustainable Quality Management has a much more important potential than a single commercial initiative. In order to convince public institutions to introduce it and use it widely, an independent foundation may be required to provide support for the approach, and there may also be a need for competing suppliers of practical tools.

There are different kinds of software tools from other suppliers which might be useful in the context of the general SQM approach. On the other hand there are some other general systems which show clear correspondence with the SQM categories. However, we do not know of any other system which simultaneously provides coherent broad concepts and detailed instruments for supporting the whole policy cycle. To provide a review which compares the characteristics and limitations of different systems and approaches in relation to all the different functions covered by SQM or requested for the sustainable management of Structural Funds would go beyond the scope of this article and remains a challenge for further work.

Conclusions

- (1) European Structural Funds are a most important laboratory for exploring the new challenges, opportunities, and difficulties with regard to new concepts of governance and sustainable development.
- (2) Accelerated change, the growing multiplicity of international interactions, self-reflexivity of developments, and consequent decreasing predictability have led to increased difficulties with the command-and-control approaches of the industrial era. The emergence of more appropriate forms of governance necessitates a profound change in methods of handling power, and will take time.
- (3) Multi-level governance in the spirit of subsidiarity will have to be based on flexible and transparent objective-oriented management instead of the traditional rigid delimitation of competencies and powers.

- (4) Sustainable development must be considered as a learning process. New forms of governance are needed in order to facilitate such a process. Governance questions cannot be dissociated from the concept of sustainable development—they must be considered as an integral part of it.
- (5) Sustainable development is a new paradigm with far-reaching consequences. It is not a new discipline. The understanding of the full range of implications of this new concept, and its dissemination, will take a long time. In particular, sustainable development will have significant consequences for the nature of co-operation between disciplines and for the relationships in the triangle between policy makers, researchers and consultants, and the public.
- (6) Evaluations are essential elements of learning processes. Therefore, evaluation has to play an important role in sustainable development. The endeavours of the European Commission to develop an adequate evaluation culture for the Structural Funds are most important in this context.
- (7) On occasions, the concept of sustainable development encounters considerable resistance. Sometimes this is the result of the term being misused in the reselling of old approaches. But more frequently it is because it challenges conventional procedures and power structures. Changes of governance patterns may take a long time and will require good promoters. Careful analysis of the social potential of communities may be extremely helpful in these cases.
- (8) The experiences with SQM have shown that it is possible to realize the concept of sustainable development in the form of operational tools without losing the innovative and challenging character of the original concept. However, the best tools can be useless if powerful actors are not ready for change.
- (9) Intercultural co-operation and confrontation is essential for understanding the role and the potential of the concept of sustainable development. As a paradigm shift involves the difficult questioning of assumptions and perspectives previously taken for granted, confrontation with the views of other cultures can be as fruitful as confrontation with other disciplines. Europe has a unique opportunity in this sense.

More detailed information and literature concerning SQM can be found on the www.sqm-praxis.net website. Most of the references quoted here are available for download.

REFERENCES

- ARPE (Agence Régionale pour l'environnement de Midi Pyrénées) & Schleicher-Tappeser, R. (1999) *D2MiP: Développement Durable en Midi-Pyrénées—programmation pilote des Fonds Structurels, Final Report*, ARPE, Toulouse.
- ARPE (Agence Régionale pour l'environnement de Midi Pyrénées), Schleicher-Tappeser, R. & Faerber, J. (1997) *Towards Sustainable Development. Experiences and Recommendations of Seven European Regions*, ARPE, Toulouse.
- EUROPEAN COMMISSION (2001) *European Governance*, White Paper (COM(2001), 428), European Commission, Brussels.
- HEY, C. & SCHLEICHER-TAPPESE, R. (1998) *Nachhaltigkeit trotz Globalisierung. Handlungsspielräume auf regionaler, nationaler und europäischer Ebene, Konzept Nachhaltigkeit Studienprogramm*, Springer, Heidelberg.
- HOMANN, K. (1996) 'Sustainability: Politikvorgabe oder regulative Idee?', in *Ordnungspolitische Grundfragen einer Politik der Nachhaltigkeit*, ed. L. Gerken, Nomos, Baden-Baden, pp. 33–47.
- JÄNICKE, M. & JÖRGENS, H. (eds) (2000) *Umweltplanung im internationalen Vergleich. Strategien der Nachhaltigkeit*, Springer, Berlin.

- KUHN, T. S. (1962) *The Structure of Scientific Revolutions*, University of Chicago Press, Chicago.
- MEYER, W. & MARTINUZZI, A. (2000) 'Evaluation im Umweltbereich', *Vierteljahreshefte zur Wirtschaftsforschung*, Vol. 3, pp. 453–467.
- MINSCH, J., FEINDT, P.-H., MEISTER, H.-P., SCHNEIDEWIND, U. & SCHULZ, T. (1997) *Institutionelle Reformen für eine Politik der Nachhaltigkeit*, Springer, Berlin.
- MOSS, T., FICHTER, H., GLIMM, D. & KRAEMER, C. (2000) *Regional Pathways to Sustainability. Experiences of Promoting Sustainable Development in Structural Funds Programmes in 12 Pilot Regions*, Office for Official Publications of the European Communities, Luxembourg.
- PRITTWITZ, V. VON (ed.) (2000) *Institutionelle Arrangements in der Umweltpolitik. Zukunftsfähigkeit durch innovative Verfahrenskombination?* Leske & Budrich, Opladen.
- SCHLEICHER-TAPPESETER, R., LUKESCH, R., STRATI, F., SWEENEY, G. & THIERSTEIN, A. (1998) *Instruments for Sustainable Regional Development. The INSURED Project*, Final Report, EURES-Reports, REP-9, EURES-Service, Freiburg.
- SCHLEICHER-TAPPESETER, R. & STRATI, F. (1999a) *Progress towards Sustainable Regional Development. A Review of Results from the EU Research Programme on Human Dimensions of Environmental Change*, Office for Official Publications of the European Communities, Luxembourg.
- SCHLEICHER-TAPPESETER, R. & STRATI, F. (1999b) 'Sustainability—a new paradigm for research?', in *From Ecosystem Research to Sustainable Development. Towards a New Paradigm for Ecosystem Research*, ed. M. Catizzone, Ecosystem Research Reports no. 26, European Commission, Luxembourg, pp. 45–58.
- SCHLEICHER-TAPPESETER, R., STRATI, F., THIERSTEIN, A. & WALSER, M. (1997) *Sustainable Regional Development. A Comprehensive Approach*, Discussion Paper 60, EURES-Service, Freiburg.
- SCHUBERT, U., MARTINUZZI, A., HUCHLER, E., LANGER, M. E. & OBERMAYR, B. (2001) Evaluation Nachhaltiger Entwicklung. Herausforderung für Methodenentwicklung und Evaluationspraxis, Vienna. In: Härtel, M. Stockmann (eds.): Berufliche Umweltbildung und Umweltberatung. Grundlagen, konzepte und wirkungsmessung. Buchreihe des Bundesinstitute für Berufsbildung (BIBB), Bertelsmann.
- STRATI, F. (2003) I Servizi pubblici per l'impiego e lo Sviluppo occupazionale, Italia Lavoro, Rome.
- STRATI, F. & FRANCI, M. (2002) 'Imprendere 21' (paths, methods, tools and manuals for enterprise and employment creation according to sustainable development), Available at: www.provincia.aretzo.it/impredere21/index.html
- STRATI, F. & SCHLEICHER-TAPPESETER, R. (1999) 'A flexible tool for valuating and evaluating the sustainable development', in *From Ecosystem Research to Sustainable Development. Towards a New Paradigm for Ecosystem Research*, ed. M. Catizzone, Ecosystem Research Reports no. 26, European Commission, Luxembourg, pp. 59–74.
- TOULEMONDE, J. (2000) 'Evaluation culture(s) in Europe', *Vierteljahreshefte zur Wirtschaftsforschung*, Vol. 3, pp. 350–357.
- WCED (World Commission on Environment and Development) (1987) *Our Common Future*, Oxford University Press, Oxford.