Assessing Sustainable Development – The SQM approach

Ruggero Schleicher-Tappeser

EURES – Institute for Regional Studies in Europe, Basler Str. 19, D-79100 Freiburg, Germany
Tel. +49-761-70441-15, r.schleicher@eures.de, www.eures.de, www.sqm-praxis.net

Abstract

The development of improved forms of multi-level governance in Europe requires new mechanisms of collective learning. New concepts and tools for defining coherent systems of policy objectives and for evaluating actions and programmes are essential in this context. The concept of Sustainable Development (SD) points into the same direction. The commitment of the EU to conceive and implement all policies and programmes in accordance with the principles of SD makes it urgent to develop corresponding operational frameworks and tools.

Sustainable Quality Management® (SQM) is a coherent system for the conception, management and evaluation of sustainable development processes which was developed in the course of a series of European research and consultancy projects. The SQM system includes concepts, methods and Internet-based tools which have proved to be applicable and comprehensible in different European cultures. A "common language" facilitates the exchange of experiences and views. Experiences to be presented include programming and evaluation of Structural Funds programmes. They show that it is not always easy to introduce such new management thinking in established administrative structures. However, SQM demonstrates that it is possible to successfully implement powerful tools which maintain the innovative and challenging character of the concept of Sustainable Development.

Evaluation and the long road to new forms of governance in Europe

By demanding a regular evaluation 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 funded subsidy programmes. Until recently these evaluations have been qualitatively and methodologically quite diverse. Most of them are only being elaborated in order to satisfy the central offices in Brussels. The local public and local media do not usually debate these reports; often they are kept confidential or are difficult and tedious to read. Intermediate political and administrative levels discover only very slowly that these evaluations could possibly be most valuable instruments for guidance and learning.

However, the European Institutions have no choice but to insist on evaluations – how else can they ensure that their political objectives in the European wide use of the considerable funds coming from Brussels are respected? How else can they justify the rationality and the efficacy of their programmes? Unlike the old nation states, the EU institutions are still developing very dynamically and are under continuous pressure to justify their own existence and to prove the utility of the continuous 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 could

observe a revival of the old command-and-control approaches as a reaction to financial scandals.

The present discussions concerning the reform of European Institutions show again that we are experiencing a long and difficult transition towards new forms of political guidance in Europe, of new forms of governance in which the interaction of responsibilities at different levels, the participation opportunities for citizens, and the transparency of negotiation processes are being newly defined. The development of increasingly complex globally networked structures and interactions calls for the development of new approaches which facilitate orientation and open new opportunities. The recent White Paper on European Governance by the EU Commission proposes that the principles of *openness, participation, accountability , effectiveness and coherence* should guide the necessary reforms (European Commission 2001). Systematic evaluation procedures and their public use will have to play a decisive role in this context.

From its beginnings the European Union faced the difficult task of formulating policies which take into account very different traditions, conditions, and cultures. Founded in the era of undisputed industrialism, the European Community initially relied on standardisation, alignment, and centralised 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 e.g. Prittwitz 2000). With the growing influence of European policies and increasing European integration in the most 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 towards the East, the challenge of diversity has definitely reached a dimension where centralistic steering becomes illusionary. Under these circumstances *subsidiarity* becomes a key concept – and consequently the disputes about its interpretation have become intense.

There is an increasing 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 succeed 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, political institutions have a particular democratic legitimacy and also a particular responsibility with regard to all aspects of life and development.

The principle of subsidiarity is increasingly recognised as being essential for structuring the increasingly complex relationships between different political and administrative levels – it can be helpful in defining the roles of the individual levels within the 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 transparency required for democratic legitimacy. However, the repeated attempts to assign the full responsibility for specific subjects, policy fields or tasks to specific levels are not appropriate to the complexity of our societies and there is a tendency to fall back to centralistic approaches. Another approach is to acknowledge explicitly the shared responsibility of the different levels and to structure the responsibility using the principle of subsidiarity which states that the intervention of higher levels is useful only where lower levels are not capable of resolving a problem. The idea of a rather comprehensive and exclusive competence in an

area is replaced by the taking of responsibility for contributing to the attainment of common objectives. The specific objectives and means of each level need to be defined and revised in regular negotiations. Therefore, the approach of sharing responsibility in the spirit of subsidiarity can only function if the objectives, the means, 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 away from having this kind of transparency.

Evaluation, in conjuction with clear systems of objectives, will therefore have to play an important role in the development of new forms of democratic and efficacious governance in an enlarged European Union. Utilised as learning instruments in the spirit of subsidiarity, evaluations will help to enhance the self-responsibility at all political levels – and the reports will no longer be written to end up in a pile in an office in Brussels.

The challenge of sustainable development

Since the Amsterdam Treaty of 1997, the European Union has required that all policies and programmes funded by the EU be conceived and implemented in accordance with to the principles of Sustainable Development. The regulations for the new generation of the 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 are largely lacking.

The reasons for this deficiency are to be found in the essence 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 viewing many things from a new perspective. To understand what that implies takes time and meets with resistance. The whole institutional system is confronted with a serious challenge (Minsch et al. 1997, Jänicke / Jörgens 2000)

Since the Rio Conference in 1992, the call for Sustainable Development has led to many disputes about its interpretation. The growing consensus, which emerges meanwhile 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:

Whereas the extraordinary development of technology, industry and large organisations of the modern age were strongly based on an increasingly sophisticated differentiation and specialisation, the concept of sustainable development stresses the necessity of an *integrated consideration of different dimensions of development*. Considering simultaneously different dimensions in order to avoid counter-productive effects is not an easy task for highly differentiated administrations. More difficult still is to systematically look for synergies and win-win solutions. Different actors, different organisations, different disciplines will need to cooperate more fully.

Sustainable development (SD) requires *openness towards the future* – for "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 your knowledge increases.

Two additional challenges emerge in formulating Sustainable Development policies at the European Union level:

Across Europe the cultural, the political, the economic and the 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 transferring experiences, a description and an understanding of these differences is necessary.

European policies often concern five or six political or administrative levels, 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 Union 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 measure a balanced development?

- 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 standardised set of indicators has not led to a satisfactory response to the abovementioned challenges. Such a conventional approach easily leads to the reproduction of a sectoral view– it is not able to deal with views and priorities which change over time, and often it is not felt to be adequate 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 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 1999). Today, we can build on a rather large consensus, as can practitioners, that SD is a useful concept that involves an open learning process, and that it makes no sense to give 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 policies, where – mainly as a result of continued efforts of the European Commission – the concept of evaluation has made considerable progress in recent years, yet it is far from being generally understood (Schubert et al. 2001, Meyer / Martinuzzi 2000, Toulemonde 2000). In the business world, the necessity of dealing with complexity and continuous change has led to several concepts that may be most useful in this context: "change management", "quality management", "learning organisations", are all concepts that have abandoned the old "command and control" approach and try to make use of systematic self-reflexive learning processes. Our democratic systems indeed rely more or less systematically on these kinds of feedback mechanisms – many administrations however, still operate on the basis of a rather conventional 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 on both levels.

They can help in learning what should be done:

- by analysing a situation

- by identifying alternative developments and actions

- by specifying and revising objectives

And they can help in learning how to do better:

- by monitoring progress towards set objectives and refocusing actions

- by reminding that the different dimensions of development need consideration

- by comparing different approaches

- by exchanging experiences between different contexts.

To consider 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 recognise the long tradition of command and control and the limited openness to new approaches 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 1999). Its widespread use in industry facilitates acceptance and understanding. Also, we intuitively accept that quality is always relative, it 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 forever, they 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: the introduction of environmental quality management systems has brought about a quantum leap in the efforts towards improved environmental performance. It has also shown how much still is to be learned. However, many examples demonstrate that minimum standards and their enforcement by public authorities do not by any means become obsolete. The same holds true for Sustainable

Development: the concept of SD 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 two hundred years. But note that the concept of SD 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, which guarantees that nobody can blame them for supporting "unsustainable" activities. They would be happy with additional checklists leading to a final stamp which confirms that all is well. However, they are aware that final users would be reluctant to fill in another series of control forms in order to get 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 improved), they would create supplementary complications in the name of sustainable development and would provoke resistance and de-motivation in the public. A less defensive and more constructive approach would need to involve the encouragement of learning and innovation.

Sustainable Quality Management

In order to respond to these challenges and to operationalise the concept of Sustainable Development without loosing its innovative and constructive characteristics, we have developed the system "*SQM – Sustainable Quality Management ®*" over recent years. Since 2001 it is being commercialised by the *SQM-praxis* company.

"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 in 1996-1998 in the INSURED ("Instruments for Sustainable Regional Development") EU research project funded by the ENVIRONMENT programme (Schleicher-Tappeser et al. 1997; Schleicher-Tappeser et al. 1998). Since then it has been further developed in a series of research and pilot application projects in different European Countries.
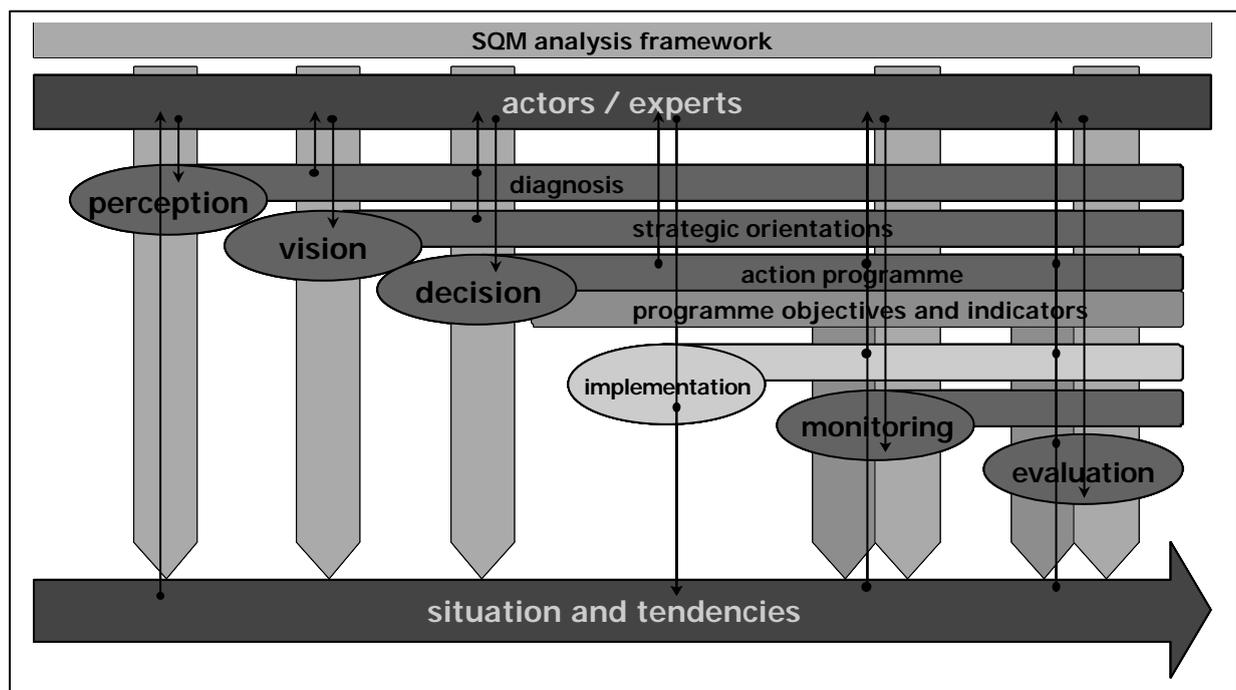

Figure 1: Use of SQM appraisals over the whole policy cycle

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 *tools*.

The SQM system has been constructed around basic appreciation procedures in order to provide support at every step through the whole policy cycle (see Fig. 1). Special attention is being given to developing a complete set of methods and tools for the management of Structural Funds programmes. However, the application of SQM shall 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. In effect, this approach to providing a common framework of dimensions to be considered has proven to be most useful for intercultural communication.

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, inquiries by questionnaires, the integration of given indicator systems, the development of strategies and programmes, teaching, and the exchange of experiences.

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

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	**Methods**	**Tools**
the SQM analysis framework		Internet-based online-tools
• ORIENTATION: 10 Components of Sustainability	• diagnosis of situations	• *SQM.guide*: public guide to funding programmes
• SOCIAL POTENTIAL: 16 Regional Key Factors	• strategy and programme development	• *SQM.progman*: tool for managing funding programmes
• ACTION DYNAMICS: 6 Basic Transformation Levers	• monitoring and evaluation of programmes and projects	• *SQM.project*: versatile expert tool for SQM-related projects
	• SQM-appraisal combining qualitative and quantitative analysis	• *SQM.experience*: experience exchange
	• participative facilitation	
	• synthesis and visualisation	
	• training	

Table 1: The SQM system

The SQM analysis framework

In order to provide a better understanding of SQM a short explanation of the SQM analysis framework and the actual assessment procedure are necessary.

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

- Which are the societal forces and the capacities for co-operation?
  → The local key factors for a sustainable development: SOCIAL POTENTIAL

- Which levers could be used for reorienting development?
  → The transformation levers: ACTION DYNAMICS

The ten 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:

SQM analysis framework

The ten elements of ORIENTATION towards Sustainable Development

What do we want to sustain?	**The Development Dimensions**	
	Environmental dimension	
	Economic dimension	
	Socio-cultural dimension	
Which conflicts of interest are driving the debate?	**The Equity Dimensions**	
	Social and gender equity (inter-personal)	
	Equity between regions (spatial)	
	Equity between generations (temporal)	
Which basic approaches can help us?	**The Systemic Principles**	
	Diversity	
	Subsidiarity	
	Networking / Partnership	
	Participation	
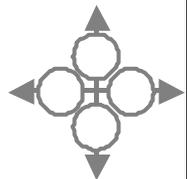
Table 2: The SQM analysis framework

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 merely the usual "social" aspects. These are looked at in more detail in the second group which has proved to be very useful for discussing 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 usually not seen as core elements of the concept of Sustainable Development. To include these kinds of more basic orientations in practice requires some additional initial explanations, but it has proven to be extremely helpful in discussing essential relationships and in elaborating strategies.

The second major group of aspects in the SQM analysis framework concerns the *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 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.

The SQM assessment procedure

Depending on the specific appraisal task and the specific circumstances, an appropriate selection of these 32 rather general aspects is used in carrying out an SQM appraisal, e.g.

- for analysing the situation and the trends in a territory

- for analysing the intentions of a policy or a programme

- for evaluation proposals

- for evaluating projects and programmes

etc.

The standard SQM appraisal consists of the following steps:

1. select the aspects to be considered

2. collect some key quantitative data concerning each aspect

3. carry out a qualitative SWOT analysis concerning each aspect (Strengths, Weaknesses, Opportunities, Threats)

4. attribute an importance to each single mention in the SWOT analyses (0 to 5 points)

5. attribute an importance to the Strengths, Weaknesses, Opportunities and Threats of each aspect

6. synthesise these latter importances to a graphical profile that allows to identify the "hot spots"

7. compile the most important single mentions concerning Opportunities and Threats for the identification of where more detailed analysis is necessary or for planning concrete actions

8. define sub-aspects for a more detailed appraisal where appropriate

9. identify indicators for detailed monitoring where appropriate.

The central element of this procedure is the SWOT analysis. Its advantages in this context are that it allows in particular

- the inclusion of qualitative appraisals by experts and laymen and the refinement of the analysis step by step as appropriate

- the discussion of the dynamics of a situation and the discovery of new opportunities by examining the Weaknesses and the interrelationships between different aspects

- the structured collection of concrete ideas for action

- the provision of a framework which is equally useful for group discussions and individual questionnaires, and for the inclusion of highly precise expert information and for the representation of the more general perceptions and priorities of local actors

For involving less experienced participants it is advisable to translate the general aspects into questions which are more pertinent to the actual task and situation.

Every SQM appraisal can be characterised by

- the object (territory, document, project, programme …)

- the perspective (present situation, intentions, results, procedures…)

- the aspects (elements of the SQM analysis framework)

- the judging subject (local actor, external evaluator …)

Therefore, the SQM assessment can be used for a wide variety of tasks in different ways. E.g. in evaluating policies and programmes, it allows to combine judgements of external experts with participative evaluations conceived as a collective learning process of the actors involved.

ORIENTATION		S	W	O	T
O1	Environment	●●●●	●●●	●●	●●
O2	Economy	●●●	●●●●●	●●●●	●●●●
O3	Socio-Culture	●●●	●●	●●●	●
O4	Equity between individuals	●●●	●●●	●●●	●●
O5	Equity between territories	●●●●	●●●●	●●	●●●
O6	Equity between generations	●●●	●●	●●●●	●●●
O7	Diversity	●●●	●●●●	●●●●●	●
O8	Subsidiarity	●●●●	●●	●●●	●●
O9	Partnership / Networks	●	●●●●●	●●●	●●●
O10	Participation	●●	●●●	●●●●	●●●●

Table 3: Example of an SQM profile

Experiences in using the SQM system

An early successful experience with parts of the SQM framework involved a dialogue project between seven European regions. Representatives of the environmental administrations of Emilia-Romagna, Rhône-Alpes, Midi-Pyrénées, Vorarlberg, Baden-Württemberg, Wallonie and the Province of Gothenburg had come together in a series of workshops to draw common conclusions from their experiences with sustainable development projects. However, they had serious difficulties in agreeing on a common terminology and on a framework for evaluating their projects. The later introduction of the SQM framework allowed the formulation of the

differing priorities in the interpretation of SD, the considerable improvement in the mutual understanding of those of very different backgrounds, the evaluation of the projects within a common framework, the discussion of the transferability of experiences and the formulation of a series of pertinent conclusions and recommendations concerning SD 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 SD, that the basic categories could be understood in different cultures, and that assessments using this framework were very suitable for a collective learning process (ARPE / Schleicher-Tappeser / Faerber 1997).

An important occasion for testing and promoting the SQM approach was a series of twelve pilot projects funded by DG Regio concerning the integration of the concept of Sustainable Development into the Structural Funds. The project, carried out in Midi-Pyrénées, was based 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-burdened 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 synthesised the results of workshops and questionnaires. 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 hand. Feedback from the local actors and the results were very positive although some lessons had to be learned concerning a simplification of the procedures (ARPE / Schleicher-Tappeser 1999). In the evaluation of the twelve 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).

Subsequent projects in Midi-Pyrénées also showed that with simplified procedures an 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 only be used with people with a certain experience in systematic development discussions: for local actors at the village level without other representative experiences, workshops seem to be the only adequate method of involving them into SQM-based discussions on community development. Participatory processes at the local level therefore do not allow to utilise the full range of differentiated concepts of the SQM framework. To become acquainted with the concept of Sustainable Development and with the SQM framework inevitably takes some time. The complexity of the approach must be carefully adapted to the capabilities and the motivation to learn of the actors involved. Whereas programme development is a creative process which requires experienced guidance with sensibility and flexibility, subsequent tasks in the management of the programme can be structured in a more formalised way. For the current Structural Funds programmes in Midi-Pyrénées the EURES-Institute and SQM-praxis are now implementing a public website consisting of a public guide to the complex programme including the opportunity for project proposers to pre-evaluate for themselves their project proposals in terms of Sustainable Development and the objectives of the programme. A series of difficult questions had to be solved in transferring adequately the experiences of direct consultation to the anonymous format of the internet (see www.sqm-praxis.net).

SQM – Examples of projects
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)
2000-01:KARMIS: Cross-border landscape development scheme Marckolsheim-Sasbach-Endingen (FR/DE).
2001-02: 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 3 Regional Natural Parks in Midi-Pyrénées (FR)
2002-04: INNESTO: EU research project concerning "Sustainable District Logistics" (IT, DK, DE, SP, NL)

Table 4: Examples of projects using the SQM system

SQM online tools

On the basis of these experiences *SQM-praxis* is now creating a third generation of software tools which will be 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 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 finally also reduced costs should result.

The first SQM online tool to be ready is SQM.guide. It has been designed for programme managers who want to considerably improve their relation to the public and the quality of funding proposals. SQM.guide allows all potential project proposers to find within very short time even in large and complicated programmes the programme elements (actions, sub-measures etc.) which might be applicable to their ideas. Once they have identified an appropriate funding source, they are invited to make a own evaluation of their proposal with regard to the objectives of the choosen programme element and to a number of dimensions of sustainable development.

The next tool to be available on the Internet is SQM.project. It has been designed for experts who want to develop or to evaluate programmes. A combination of well-tested instruments for data collection, qualitative appraisal, synthesis, task management, cooperation of large teams and presentation allows to support a wide range of programming and evaluation taks, especially with SQM methodologies.
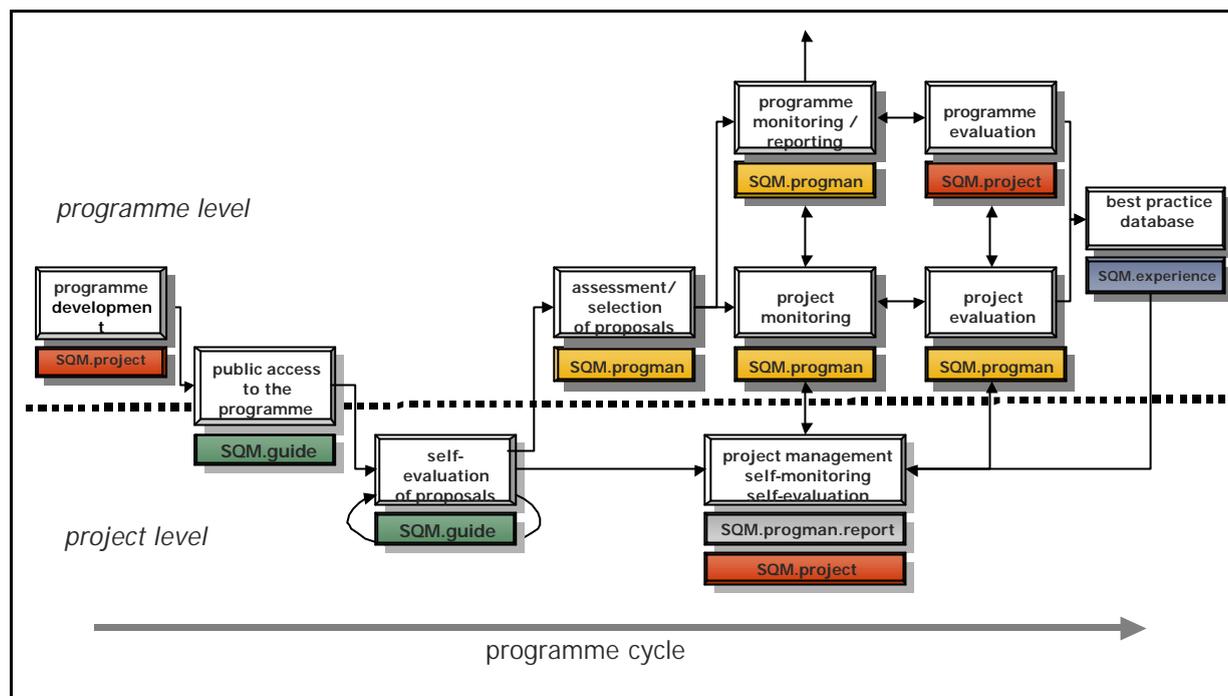
Fig. 2:   **Use of SQM online tools in the context of public funding programmes**

Evaluating with the SQM system

Using the SQM system for standard evaluation tasks such as mid-term or ex-post evaluations of Structural Fund programmes promises considerable gains in efficiency and in quality:

- The SQM approach to Sustainable Development is so comprehensive that it encompasses all basic objectives and horizontal principles of European Policies. All specific assessments and evaluation questions required by the EU commission can be integrated in the SQM evaluation approach. The coherent logic of the framework allows to optimise the procedures. Systematically combining the results of a set of basic assessments allows to answer a wide range of evaluation questions very efficiently.

- The comprehensive overview provided by evaluations with the (scaleable) SQM framework often constitutes a noticeable added value compared to usual terms of reference. The systematic way of using qualitative appraisals leads to a high degree of reliability since in many cases officially required quantitative data are missing. However, there are no limits to transparently embedding hard data in more comprehensive expert judgements.

- The SQM approach has been developed and tested in a number of EU countries. The SQM terminology has been developed in four languages, others are to follow. In multinational evaluations this can considerably facilitate communication.

- The SQM analysis framework can be used for monitoring and evaluation throughout the whole life-cycle of a programme. Once it has been introduced, additional efficiency gains can be expected in subsequent steps.

- Quite independently from the SQM approach, the SQM internet tool SQM.project allows for an efficient and transparent definition, management and presentation of the evaluation process. Easy and transparent handling of large numbers of judgements allows to involve large numbers of actors and experts in such a process. Workshops, questionnaires, presentation of partial results and confrontations of different

judgements are well supported by SQM.project. The flexible configuration of the tool allows to combine different evaluation approaches.

Therefore, as originally intended, evaluations with SQM can be really conceived as learning processes which provide an added value for all involved. Previous positive experiences with participative evaluations (Schleicher-Tappeser / Schröder 1998) have shown that a coherent framwork is important for keeping additional efforts low. In this way evaluation can become an motvating experience for all involved which which costs less and brings much more than traditional control-oriented approaches.

Conclusions

1. European Structural Funds are a most important laboratory for exploring the new challenges, opportunities and difficulties in view of new concepts of governance and sustainable development.

2. Sustainable Development must be conceived as a learning process. In order to facilitate such a process, new forms of governance are needed. Governance questions cannot be dissociated from the concept of Sustainable Development – they must be considered as an integral part of it.

3. 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.

4. Evaluation is an essential element 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

5. The concept of SD sometimes encounters considerable resistance because it challenges conventional power structures. Changes of governance patterns may take a long time and require good promoters. A careful analysis of the social potential of a community may be extremely helpful in these cases.

6. The experiences with SQM have shown that it is possible to realise the concept of SD into the form of operational tools without loosing the innovative and challenging character of the original concept. However, the best tools can be useless if powerful actors are nor ready for change.

7. Intercultural co-operation and confrontation is essential for understanding the role and the potential of the concept of SD. 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.

References

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

ARPE, Agence Régionale pour l'environnement de Midi Pyrénées/ Schleicher-Tappeser, Ruggero, (1999): D2MiP: Développement Durable en Midi-Pyrénées - programmation pilote des Fonds Structurels. Rapport Final. Toulouse: ARPE.

ARPE, Agence Régionale pour l'environnement de Midi Pyrénées/ Schleicher-Tappeser, Ruggero/ Faerber, Johanna, (1997): Towards Sustainable Development. Experiences and Recommendations of seven European Regions. Toulouse: ARPE.

European Commission (2001): European Governance. A White Paper. (= COM(2001), 428). Brussels.

Hey, Christian/ Schleicher-Tappeser, Ruggero, (1998): Nachhaltigkeit trotz Globalisierung. Handlungsspielräume auf regionaler, nationaler und europäischer Ebene. (= Konzept Nachhaltigkeit Studienprogramm. Heidelberg / Berlin / New York: Springer Verlag.

Homann, Karl, (1996): Sustainability: Politikvorgabe oder regulative Idee? In: Gerken, L.: Ordnungspolitische Grundfragen einer Politik der Nachhaltigkeit p. 33-47. Baden-Baden: Nomos.

Jänicke, Martin/ Jörgens, Helge, (Ed.)(2000): Umweltplanung im internationalen Vergleich.Strategien der Nachhaltigkeit. Berlin, Heidelberg: Springer.

Kuhn, Thomas S. (1962): The structure of scientific revolutions. Chicago.

Meyer, Wolfgang/ Martinuzzi, André, (2000): Evaluation im Umweltbereich. In: Vierteljahreshefte zur Wirtschaftsforschung 3. p. 453-467.

Minsch, Jürg/ Feindt, Peter-Henning/ Meister, Hans-Peter/ Schneidewind, Uwe/ Schulz, Tobias, (1997): Institutionelle Reformen für eine Politik der Nachhaltigkeit. Berlin, Heidelberg: Springer.

Moss, Timothy/ Fichter, Heidi/ Glimm, Daniela/ Kraemer, Claudia, (2000): Regional Pathways to Sustainability. Experiences of Promoting Sustainable Development in Structural Funds Programmes in 12 Pilot Regions. Luxembourg: Office for Official Publications of the European Communities.

Prittwitz, Volker von (Ed.)(2000): Institutionelle Arrangements in der Umweltpolitik. Zukunftsfähigkeit durch innovative Verfahrenskombination? ISBN 3-8100-2641-7.

Schleicher-Tappeser, Ruggero/ Lukesch, Robert/ Strati, Filippo/ Sweeney, Gerry/ Thierstein, Alain, (1998): Instruments for Sustainable Regional Development. The INSURED Project - Final Report. (= EURES-Reports, REP-9). Freiburg: EURES-Service.

Schleicher-Tappeser, Ruggero/ Schröder, Conrad, (1998): Participative intermediate evaluation of INTERREG Programmes on the Upper Rhine. European Conference on Evaluation Practice in the Field of Structural Policies, Sevilla 16-17 March 1998.

Schleicher-Tappeser, Ruggero/ Strati, Filippo, (1999): Progress towards Sustainable Regional Development. A review of results from the EU Research Programme on Human Dimensions of Environmental Change. Luxembourg: Office for Official Publications of the European Communities.

Schleicher-Tappeser, Ruggero/ Strati, Filippo/ Thierstein, Alain/ Walser, Manfred, (1997): Sustainable Regional Development. A comprehensive approach. (= discussion paper, 60). Freiburg: EURES-Service.

Schubert, Uwe/ Martinuzzi, André/ Huchler, Elisabeth/ Langer, Markus E./ Obermayr, Bernhard, (2001): Evaluation Nachhaltiger Entwicklung. Herausforderung für Methodenentwicklung und Evaluationspraxis. Wien.

Strati, Filippo/ Schleicher-Tappeser, Ruggero, (1999): A Flexible Tool for Valuating and Evaluating the Sustainable Development. In: Catizzone, M.: From Ecosystem Research to Sustainable Development. Towards a New Paradigma for Ecosystem Research (= Ecosystem Research Reports N° 26, p. 59-74. Luxembourg: European Commission. ISBN 92-828-6425-1.

Toulemonde, Jacques, (2000): Evaluation Culture(s) in Europe. In: Vierteljahreshefte zur Wirtschaftsforschung 3. p. 350-357.

WCED, World Commission on Environment and Development (1987): Our Common Future. Oxford: Oxford University Press.