

REPORT

9

Ruggero Schleicher-Tappeser et al.
Instruments for Sustainable Regional
Development
The INSURED Project – Final Report

INSTRUMENTS FOR SUSTAINABLE REGIONAL DEVELOPMENT
A EUROPEAN RESEARCH PROJECT FUNDED BY DG XII

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INSURED

Instruments for Sustainable Regional
Development

EC Environment and Climate Research Programme

Instruments for Sustainable Regional Development

The INSURED Project – Final Report

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An INSURED Case Study on Sustainable Regional Development

Gerry P. Sweeney et al. (1998), EURES discussion paper dp-66, ISBN 3-89805-000-9 Freiburg i.Br.

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PREFACE

The research project "Instruments for Sustainable Regional Development" (INSURED) has been carried out between April 1996 and June 1998 by five research teams from five European countries. It has been funded by the European Commission in the framework of the research programme "Environment and Climate / Human Dimensions of Environmental Change".

We thank the scientific officers of the Commission for their suggestions, help and support. In particular we want to commemorate Ola Siksiö who participated in the beginnings of the project and died tragically in December 1996. We also want to thank all the contributors of the project, they are listed on the previous pages.

The present volume contains the main final report of the project. Other products of this project include the long version of the regional case studies and further material are available.

The authors

SUMMARY

Organisational framework

The INSURED project was funded by the European Commission – DG XII – within the Programme 'Environment and Climate 1994 – 1998'. Co-funding came from the Federal Government of Austria, the Government of Hessen / Germany and several local governments in Central Hessen, the Federal Government of Switzerland and the Region of Tuscany. The project began in April 1996 and ended in April 1998.

The project partners were: EURES, Freiburg, Germany (Ruggero Schleicher- Tappeser), co-ordinator of the European research team; ÖAR, Vienna, Austria (Robert Lukesch); SIASR, St. Gallen, Switzerland (Alain Thierstein); SICA, Dublin, Ireland (Gerry Sweeney); SRS, Florence, Italy (Filippo Strati). Associated with SICA was the Dublin Institute of Technology (Consultancy and Research Unit for the Built Environment) and St. Patrick's College Maynooth (Centre for Local and Regional Development, CLRD, Co. Kildare). Associated with SRS was the Department of Chemistry of the University of Siena (professors Enzo Tiezzi, Riccardo Basosi and Claudio Rossi).

The project was largely based on case studies in five European regions: Central Hessen – Germany; Lower Styria – Austria; Midwest – Ireland; Tuscany – Italy; St. Gallen /Appenzell – Switzerland. In each of these regions an advisory regional group was created with local experts and representatives of public and private agencies in order to support the research group through discussions and suggestions on the basic aims, orientations, methodologies and findings of the INSURED project.

INSURED objectives and main results

The original objectives of the INSURED project were:

- To develop a common evaluation framework for regional development policies and strategies in terms of sustainability using a set of qualitative indicators
- To draw on the experience gained from successful approaches to sustainable regional development in a variety of European countries
- To identify some "key factors of sustainability" including legal, institutional, cultural, financial and management aspects
- To work out a set of suitable policy tools for the promotion of sustainable regional development policies
- To make Recommendations for the different policy levels with regard to policy tools including improved instruments, appropriate institutions and effective implementation procedures.

The main results of the project include:

- a conceptual framework for sustainable regional development which has proven useful for the regions themselves and in developing a European wide dialogue
- case studies from five European regions which aid in the understanding of the dynamics of SRD and which contain interesting examples of best practice
- a differentiated framework for the evaluation and monitoring of situations, actions and programmes as well as for the development of strategies, called a framework for quality management of SRD

- a series of examples of instruments, *i.e.* of options for action and support which comprise the most interesting lessons from the case studies
- a set of recommendations.

Comparing the results with the original objectives, most objectives have been met. A management framework has been developed which allows the assessment and the development of suitable policy tools adapted to specific situations. The results of this project are not easy-to-use checklists and simple recipes. The results form a conceptual framework for a challenging issue, the description of interesting experiences using a common 'language', and a management framework which should facilitate the work of actors, politicians and administrators at all levels.

These results will be explained in more detail in the following sections.

The course of research

The research basically proceeded in the following steps:

- elaboration of a provisional theoretical framework
- comparative description of the five European regions
- empirical analysis of experiences in the five European regions
- comparison of the experiences, revision of the framework, elaboration of a common practical integrated approach and formulation of recommendations.

The overall methodology was explorative and sufficiently flexible to discover new perspectives and to find new paths through uncharted territory, rather than being strictly oriented towards the verification or falsification of well-defined hypotheses.

Confronting different disciplines and cultures, experimenting with slightly differing approaches, feeding back results to local actors with very different backgrounds, were essential but not always easy elements of the approach.

Elaboration of a provisional theoretical framework

To develop a conceptual framework for this difficult issue, which would be practical and useful in a European context, was a task which needed intuitive creativity combined with a systematic approach. The elaboration of a provisional theoretical framework proved to be more difficult than was expected by most partners. The discussions of the last decades concerning sustainable development (SD) and regional development (RD) have been reviewed and brought together in a first outline of a common concept of sustainable regional development (SRD).

The original hope of agreeing on a rather short list of rather concrete criteria and indicators was not fulfilled. Instead, sustainability proved to be a very broad and fundamental concept which can be structured in several components which in turn must be interpreted in relation to the specific circumstances.

Confronted with different approaches, different interpretations and different emphases and perceptions across Europe, an effort was made to develop a broad framework - a common language that would facilitate mutual understanding and discussion. The formal result was a set of ten components of sustainability designed for a qualitative evaluation of programmes and actions in regional development (see table below). Most helpful in the later stages of the work was the inclusion of four "systemic principles": diversity, subsidiarity, networking and partnership, participation.

Comparative description of the five European regions

The first approach to the regions was a general description using a common framework which allowed for comparison. The ten components of sustainability were not yet used in this context. The description was quite extensive, following a structural model and combining sectoral with territorial approaches as well as analytical with holistic views. The 'snapshot' of the region was made more dynamic by considering the recent past and future trends as well as the relationships with the outside world. Each partner developed

- an appraisal of the state of the human, the man-made and the natural capital
- a collection of interesting innovative actions (bottom up) and supporting missions (top down)
- a regional SWOT analysis.

Empirical analysis of experiences in five European regions

The empirical analysis of regional experiences regarding Sustainable Development was designed as a twofold investigation: a top-down analysis examining selected policies, institutions and instruments provided by European, national and regional levels, and a bottom-up view looking at individual projects and development schemes in the regions analysed.

This two-fold approach was seen to be necessary in order to understand the interactions between policies, instruments and local actions.

The top-down analysis of the supporting missions was based on quite a broad methodological framework. The policy fields to be covered were

- structural and labour market policy
- agricultural and rural development policy
- one supplementary field where appropriate.

The individual policy programmes to be analysed were chosen by the individual research teams, often in collaboration with their regional advisory groups.

The top-down analysis showed very strong differences between the regions and presented difficulties in the direct comparison of policies. Therefore, the methodology was revised following this phase, shifting more towards an analysis of the interrelationships between supporting missions and innovative actions and an investigation of patterns of communication and cooperation. It was only in these areas that meaningful generalisations seemed possible.

The selection of innovative actions was also made by the individual research teams in cooperation with their regional advisory groups. The selection therefore reflects cultural backgrounds, the composition of the regional advisory groups and personal preferences of the researchers. This approach has the advantage of including different interpretations of what is most important and innovative, and corresponds to the explorative character of the INSURED project. On the other hand systematic comparisons of details will be difficult since the samples were not chosen on the basis of well-defined criteria. Similarly, the methodology used for the case studies has been only broadly defined in repeated and intensive discussions. Considerable leeway has been given in detail for exploring new approaches that eventually led to a further refinement of the original framework. The result of the analysis of the local projects confirmed that programmes and actions are highly dependent upon the specific context.

Comparison of the experiences and enlargement of the framework

The common analysis framework for the empirical case studies was based on the ten sustainability components developed in the provisional theoretical framework complemented by some further categories and questions. This framework has proved to be useful for assessing the orientation towards sustainability and for raising the main issues about the key factors for success and the dynamics of change. However, a series of tentative additional concepts have been necessary for describing in detail the social dynamics that increasingly attracted our interest. It seemed desirable to systematically expand the framework.

Having concluded the empirical case studies, the project partners identified approximately 60 key factors for successful sustainable development in a joint 'brainstorming' session. Later, these were reworked, regrouped and systematised into 16 factors capable of expressing the „regional social potential“. The 16 "key regional factors" represent qualities of a regional context which favour sustainable regional development; they are simultaneously *common*, *diverse* and *original*. *Common*, because they are relevant in each local context examined; *diverse*, because they act in different ways depending on the specific context; *original*, because they are combined in different ways by the local actors.

This means that there is no standardised way or model for using them, but that a creative mix of them is dependent upon the capacity for innovation expressed by the social capital of local and regional communities. Therefore, any actor planning a support programme or a local action would have to consider to which extent these potentials are present, on which elements he can rely and which ones would most urgently need to be developed. Behind the concept of "regional potential" lies the idea that some degree of "self-governance" in a territory is necessary in order to move towards sustainable regional development. Many of the key regional factors point in this direction.

Good strategies start off from a broad view but concentrate on a few key issues. During the case studies it emerged that it was not only necessary to look at static "preconditions" for successful SRD but also to consider the dynamics of transformation which often occurred in several phases. Looking at the basic strategies which can be adopted (and combined) in this context one is left with a quite small number. After long discussions the research partners identified six basic "transformation levers".

The INSURED framework for quality management of SRD

The original theoretical framework of ten components of sustainability which essentially represented the ORIENTATION towards sustainability was expanded by adding 16 factors expressing the regional social POTENTIAL and 6 levers (basic strategy elements) which bring about transformation DYNAMICS.

Altogether these three main elements of the INSURED framework contain 32 quite different aspects of Sustainable Regional Development. Within this integrated framework it seems to be possible to structure all kinds of discussions and actions related to SRD.

Instead of developing a specific set of instruments for sustainable development, the INSURED project has thus developed a framework for the Quality Management of Sustainable Regional Development.

Quality is something that is difficult to grasp. It should improve, but for every product different aspects are important in differing combinations, different companies and different customers would not share the same interpretation and even minimum standards will change over time. The approach of quality management therefore starts at a meta-level and does not prescribe fixed standards. It only deals with the methods and procedures with which set quality targets

can be met or exceeded. The task is to ensure optimal and transparent management in the fulfilment of very complex objectives. Setting the objectives is something that can be supported and structured with the help of a differentiated management tool. The decisions themselves, however, are political or strategic ones.

This framework can be used for assessing and developing an endless series of instruments which are adequate to specific situations. Some interesting instruments emerged from the case studies, using this framework, but they are not a complete set for all circumstances. They can only be considered as interesting examples.

Detailed objectives for Sustainable Regional Development will have to be set in a political process based on the sustainability principle. At the European level consensus may grow on some minimum requirements. Nations, regions and local communities will need to specify their own more specific goals. The INSURED framework may be helpful in this context. The INSURED framework is not limited to the perspective of one kind of actor, it can be interpreted from very different points of view. Moreover, the fact that the framework allows for different interpretations is not only useful in the sense that it can be applied in different situations. It also encourages the viewing of an issue from different angles. It offers the opportunity of understanding the different roles and positions of different actors in one situation – an essential condition for good negotiations and “sustainable” solutions. Furthermore the INSURED framework should help different kinds and levels of actors in performance of the following tasks:

1. to assess situations
2. to develop strategies
3. to assess programmes, measures and actions *ex ante*
4. to monitor and to support programmes and actions
5. to evaluate programmes and actions *ex post*
6. to transfer experiences from one context to another

The ORIENTATION and the POTENTIAL part can be used for analysing a situation and for monitoring and evaluating the impact of actions or programmes. The TRANSFORMATION levers in conjunction with a preceding analysis can be used for designing strategies. And the whole combination can be used for assessing the most varied instruments. Local actors involved in a specific project should be able to make use of this tool as well as administrators at the EU level planning a support programme.

Table 1: The INSURED framework for the quality management of SRD

Sustainable Development ORIENTATION	Regional Social POTENTIAL	Transformation DYNAMICS
SD Components	Key Regional Factors	Transformation Levers
Development	Linked to diversity¹	D1. Enhancing problem understanding
O1. Environmental	P1. Perception of a variety of development approaches	D2. Open collective learning
O2. Economic	P2. Creativity and innovation in an entrepreneurial culture which emphasises responsibility to wards the community	D3. Negotiation and co-decision
O3. Socio-cultural	P3. Capacity to cope with complexity and ambiguity and to anticipate change	D4. Creation of a shared vision
Equity	P4. Openness to enrich the own culture and enhance multicultural cohesion	D5. Service orientation
O4. Inter-personal equity	P5. Discovery and re-encoding of territorial specificities & local knowledge	D6. Self-governance
O5. Spatial equity	Linked to subsidiarity¹	<p>¹The links indicated by these headings are not the only possible ones</p>
O6. Inter-temporal equity	P6. Ability of each to reach their optimum level of attainment and fulfilment	
Systemic	P7. Fractal distribution of competence using the counterflow principle	
O7. Diversity	P8. Autonomy of strategic decision making within a facilitating infrastructure	
O8. Subsidiarity	P9. Primary reliance on own resources without compromising the ones of the others	
O9. Networking and partnership	Linked to networking / partnership¹	
O10. Participation	P10. Shared value system taking into account environmental, socio-cultural and economic inter dependencies	
	P11. Social cohesion	
	P12. Opportunities and room for equitable interaction	
	P13. Capacity of creating shared visions	
	P14. Integration of social & technical skills into the innovation process	
	Linked to participation¹	
	P15. Access to information and to the arena of dialogue and debate	
	P16. Multiplicity of interactions, enhanced by local animators	

PART I: THE REASONING

- 1 Introduction
- 2 Sustainable Regional Development
- 3 Synopsis of the Regional Case Studies
- 4 The INSURED framework for the quality management of SRD
- 5 Conclusions and Recommendations

1 Introduction

1.1 The starting point

Since the Rio conference in 1992 the concept of sustainability has become a key element of policies at all levels. When we look back at the discussion of the early nineties, we can distinguish two major shifts in the debate.

- Originally, political promoters of this concept in the highly industrialised countries put the environmental aspect at the centre of their argument whereas representatives of the „less developed“ countries emphasised the importance of economic and social „development“. In the meantime the concept of sustainability has also come to be understood in a broader sense in the highly industrialised countries. Economic and socio-cultural development are accepted as equally important objectives in the framework of sustainable development.
- The endeavour of putting the idea of sustainability into effect has drawn attention to the regional and local levels. The challenge of integrating different dimensions of development requires an integrated view which seems to be easier in a comprehensible territorial context. The local and regional levels play an important role in the present discussion on sustainable development policies.

In this context a revision of theoretical and practical approaches to regional development (RD) in the light of the concept of sustainable development (SD) and the elaboration of appropriate strategies and instruments for sustainable regional development (SRD) seem to be important tasks. Throughout Europe one finds rather different interpretations of the concept of sustainability. It seems that these differences can only be understood by looking at the different backgrounds of European regions.

In the last decade, a new push for internationalisation has considerably shaped many activities, structures and prospects. Globalisation has become a keyword in all fields of business and politics. As a reaction, regional development policies have gained importance. Today they are looked not only at as compensatory policies for less advantaged regions as in the post-war period. They are increasingly considered to be essential for redefining the role of economic, socio-cultural and political entities in a changing continental and global context. Confronted with this challenge, the concept of regional development, which had often been interpreted only in economic terms, has been broadened to include environmental and socio-cultural aspects. Such a broad concept, however, raises the problem for policies at EU level of how to take into consideration the wide diversity of European regions.

Starting from these two broad lines of thinking, the idea of the INSURED project was to go one step further. Looking for a framework which could be useful throughout Europe, the project partners agreed on the following ambitious objectives:

1. To develop a common evaluation framework for regional development policies and strategies in terms of sustainability using a set of qualitative indicators
2. To draw on the experience gained from successful approaches to sustainable regional development in a variety of European countries
3. To identify some “key factors of sustainability” including legal, institutional, cultural, financial and management aspects
4. To work out a set of suitable policy tools for the promotion of sustainable regional development policies

5. To make Recommendations for the different policy levels with regard to policy tools including improved instruments, appropriate institutions and effective implementation procedures.

Drawing on the experience of previous European projects concerned with the integration of environmental aspects into other policies and on regional development, the EURES Institute selected partners who

- had a long experience in regional development projects and were familiar with the theoretical debate
- were experienced in consultancy and research
- had actively participated in the environmental discussion
- shared the view that more integrated approaches were needed
- had experience in European cooperation
- had multidisciplinary but mainly social science backgrounds

Most of them had already worked together with EURES. Such a common background was considered to be important for finding ways through such an unknown and vast territory.

From the beginning, all partners shared the view that the concept of sustainability has the potential not to end as an ephemeral fad in political terminology, but to become the basis of a new model of development to succeed Fordism. Confronted with this challenge, it was clear that no quick answers were to be found. The best achievement would be to agree on a new set of symbols for mapping and to improve and test some instruments for navigation.

1.2 The course of research

The research basically proceeded in three steps

1. elaboration of a provisional theoretical framework
2. empirical analysis of experiences in five European regions
3. comparison of the experiences, revision of the framework, elaboration of a common practical integrated approach and formulation of recommendations.

To develop a conceptual framework for this difficult issue, which would be practically useful in an European context, was a task which needed intuitive creativity combined with a systematic approach. The methodology therefore had to be more exploratory and sufficiently flexible to discover new perspectives and find new paths on uncharted territory, rather than be strictly oriented to the verification or falsification of well-defined hypotheses. In a certain sense the adopted approach has similarities with the „grounded theory“ of Glaser and Strauss (1967) which stresses the importance of inductive theory building. Confronting different disciplines and cultures, experimenting with slightly differing approaches, feeding back results to local actors with very different backgrounds, were essential, but not always easy elements of the approach.

The elaboration of a provisional theoretical framework proved to be more difficult than expected by most partners. The discussions of the last decades concerning sustainable development (SD) and regional development (RD) have been reviewed and brought together in a first outline of a common concept of sustainable regional development (SRD). The original hope to agree on a rather short list of concrete criteria and indicators was not fulfilled. Instead, sustainability proved to be a very broad and fundamental concept which can be structured in several components which in turn must be interpreted in the specific circumstances. The formal result of this step was a set of ten components of sustainability designed for a qualitative evaluation of pro-

grammes and actions in regional development. Chapter 2 summarises these considerations (for details see Schleicher-Tappeser et al. 1997) including also the further development and enlargement of the framework.

The empirical analysis of regional experiences had been designed as a twofold investigation: a top-down analysis examining selected policies, institutions and instruments provided by European, national and regional levels, and a bottom-up view looking at single projects and development schemes in five regions. These regions were: Mid West Region of Ireland, Lower Styria (Austria), Tuscany / Val die Cornia (Italy), Central Hessen (Germany) and Region of St. Gall and Appenzell (Switzerland). This double approach was seen to be necessary in order to understand the interactions between policies, instruments and local actions. In each region an accompanying group composed of local actors was set up, where the analysis and the consequences for the region were discussed. Originally the idea was to compare policies and projects across studied regions. However, the first part of the analysis showed that the differences between the regions were so important, that a direct comparison of policies would not lead to meaningful conclusions. In consequence, the main emphasis was put on the interrelationships between policies and projects and on the dynamics of interaction. Only here did meaningful generalisations seem to be possible. The second part of the analysis, the examination of local projects, confirmed the strong dependence of the interpretation of programmes and actions on the specific context. The five empirical case studies have been summarised in the second part of this report. The long version of them is available separately (see annex).

The common analysis framework for the empirical case studies had been based on the ten sustainability components developed in the provisional theoretical framework, complemented by some further categories and questions. This framework has proved to be useful for assessing the orientation towards sustainability and for raising the main issues about the key factors for success and the dynamics of change. However, a series of tentative additional concepts have been necessary for describing in detail the social dynamics that increasingly attracted our interest in this sense. It seemed desirable to enlarge the framework systematically.

Having concluded the empirical case studies, the project partners identified around 60 key factors for successful sustainable development in a joint brainstorming. These have then been regrouped and restructured. After long discussions the original framework of the ten components of sustainability which basically represented the ORIENTATION towards sustainability has been enlarged adding factors expressing the regional POTENTIAL and basic strategy elements which bring about transformation DYNAMICS. In this way a comprehensive framework for the integrated management of SRD was created, which should be useful for actors on all levels. This tool is briefly described in chapter 4. A more detailed description which also includes interesting „options for action and support“ emerging from the case studies in a standardised format linked to this framework are given in a separate volume (see annex).

1.3 The result

The main results of this project are:

- a conceptual framework for sustainable regional development which has proved to be useful for the regions themselves and for a Europe wide dialogue.
- case studies from five European regions which help to understand the dynamics of SRD and which contain interesting examples of best practice
- a differentiated framework for the evaluation and monitoring of situations, actions and programmes as well as for the development of strategies, which we call a framework for the quality management of SRD.

- a series of examples of instruments, of options for action and support which contain the most interesting lessons from the case studies
- recommendations.

Comparing the results with the original objectives, most objectives have been met although the perspective has shifted somewhat. The envisaged „set of suitable policy tools for the promotion of sustainable regional development policies“ has not been developed as such. Instead, a management framework has been developed which allows assessment and development of such tools adapted to a specific situation. The results of this project are not easy-to-use checklists and simple recipes. The results are a conceptual framework for a challenging issue, a description of interesting experiences in a common language, and a management framework which should facilitate the work of actors, politicians and administrators at all levels.

2 Sustainable Regional Development

2.1 Introduction

The purpose of this chapter is to provide the conceptual framework of the INSURED project. Large parts of it were developed at the beginning of the project (Schleicher-Tappeser et al. 1997) but, later, as a consequence of the regional case studies, the framework was considerably enlarged and reviewed.

The concept of Sustainable Regional Development (SRD) tries to combine two lines of scientific and political/ practical discussion: Regional Development (RD) and Sustainable Development (SD). The present chapter first reviews separately the history of these two concepts before trying to develop a common framework.

In the last three decades there have been extensive debates concerning environmental issues, international development policy questions and regional development approaches. Other than in the public political debate, all three have been discussed mainly in different professional communities. There have however always been fruitful mutual influences and attempts to connect the discussions (see von Gleich/ Lucas/ Schleicher/ Ullrich 1992). The arrival of the concept of sustainability brought a new situation in scientific and in political debate. The emerging concept of Sustainable Development first combined the environmental and the international development debate. For some years there has also been a growing interest in integrating the discussion about Regional Development. The broad claim and the widespread acceptance of the concept of Sustainability, which tries to bring together different aspects which have been discussed separately for decades, urge all kinds of scientific and development debates to refer to it.

Sustainability is predominantly a political term. It has gained importance in a specific historical situation as an answer to specific problems. Its political usefulness consists largely in its novelty and flexibility, in its capacity to gather consensus and at the same time to shift perceptions and values. These characteristics do not correspond to the scientific endeavour for precise meanings. However, it will strongly depend on (mainly social) science whether this term will disappear because of its diffusiveness or whether it will get a more meaningful and reliable shape as the central term of an integrated approach. Research has to distinguish different interpretations, show implications and contradictions, put into evidence linkages to other threads of discussion and register the shifts in perception and values associated with the use of this new concept. Research in this sense is actively taking part in a societal transition process.

In the fifties Thomas S. Kuhn introduced the concept of paradigm changes in science and showed that such a process is slow, contradictory and not necessarily understandable by all actors involved (Kuhn 1967, see also Feyerabend 1975, Jantsch 1979, Watzlawick 1976). We maintain that the concept of sustainability summarises and reinforces a paradigm shift which has been taking place for several decades. Later, Giddens pointed out that self-reflexivity is a central element of modern societies, i.e. that the concepts developed in social sciences are themselves shaping perceptions and value systems and thereby contributing to the transformation processes which they are analysing. We are understanding the present work in this sense. This means that the methodology needs to be open and explorative. This chapter does not build a fixed framework which then has been maintained throughout the research for testing well-defined hypotheses. It describes the elaboration of an initial framework and its further development through the empirical case studies utilising systematically the awareness and intuition of a multidisciplinary and multicultural research team.

2.2 Conversing in Sustainable Development

2.2.1 Sustainability as a concept half old and half new

We didn't inherit the Earth from our parents; we borrowed it from our children. (Kenyan old proverb quoted by Welford 1995)

Many writers (Samson 1995, Robertson 1985, Khan 1995, Welford 1995) underline that sustainable development has been a challenge to humanity since the earliest societies (Sumerian, Mayan, Mediterranean civilisations, old North American Indian, etc.). In the past, millions of persons had cultures (Buddhism, Sufism and Ghandhism) which are markedly different to the dominant culture promoted by Western society during the industrial age; an age which represents only two centuries (Grint, 1991) even though it was embedded in an era (modernity) which, from the seventeenth century onwards, has dominated Europe and has had world-wide influence as a leading way of life (Giddens, 1990). Whereas the former cultures are part of the area of *moderation*, professing frugality as philosophy and way of life, the main threat to the prospects of sustainable development arises from the latter (Kahn, 1995), the culture of *maxima* which professes opulence, wealth, consumption without caring for nature. These two different ways of life are still confronting each other, even within the countries which experimented and promoted industrialisation. Since the sixties, world-wide criticisms of their patterns of development have strongly emerged, contributing to the (re)birth of the notion of sustainability.

2.2.2 Sustainable development

The current notion of sustainability has evolved in the last thirty years, from the Paris Biosphere Conference (1968) to the recent Kyoto Protocol on Climate Change (1997). Year by year and with a world-wide impact, there has been increasing awareness of the necessity to integrate the environmental, economic and socio-culture dimensions in order to determine and foster new patterns of development (Kahn, 1995; Basiago, 1995). In this direction, the most well-known definition of sustainable development (SD) was formulated in 1987 by the Brundtland Commission as:

- *a development that meets the needs of the present without compromising the ability of future generations to meet their own needs;*
- *a process in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony, and enhance both current and future potential to meet human needs and aspirations.*

These concepts imply awareness of the actors, choices and courses of actions through the combination of utilising, maintaining and passing available resources to future generations, giving them the opportunity to govern this heritage (environmental patrimony). They imply the progressive reduction of environmental deficits in such a way that these will not be a burden to posterity.

Many disciplines, sciences and thoughts have contributed to forming the paradigm of sustainability which nowadays influences all human theories. Thus, SD has multiple meanings which are "not only legitimate, but absolutely necessary" to favour conceptual change, evolution and balance, since new strategies, perspectives and visions of quality of life "cannot be attained through the dominance of a single view or by the exclusion of others" (Samson, 1995).

In the following pages, a summarised overview of this exchange of meaning is approached looking only at the contribution provided by some basic disciplines (ecology, political economy, sociology, planning and programming theories) and revealing the ethical and philosophical implications of their mutual influence.

2.2.3 The contribution from ecology

It is only with Ernst Haeckel (1866) that ecology appears as a scientific study of the interaction between organisms, species and their environments. He defined ecology as the economy of nature. For many years ecology developed as a specialist discipline relating to nature and having a marginal role. In any case, as a result of a long process, ecology was incorporated into various disciplines: as human and urban ecology in sociology (e.g. the Chicago School of Sociology, 1930-40); as ecology of mind (Bateson, 1972); as environmental economics (Turner et al., 1994); etc.

Ecology has become a scientific point of reference, especially from 1960, when it rapidly widened its scope to cover environmental problems linked to the patterns of development (Commoner, 1972) and the importance of the limits to growth with respect to human life and economic activity (Meadows, 1972). Concepts and principles have been elaborated by a large number of scientists (Daly, 1973, 1974; World Bank, 1986; Pearce et al., 1990; Serageldin, 1993; WWF, 1993; Jacobs, 1991; Turner et al., 1994; Adriaanse, 1995; Tiwari, 1995; Macgillivray et al., 1995; Karas, 1995) and a set of criteria for sustainability emerges which can be summed up as follows:

- the environment must be maintained as a provider of the conditions that support life and provide resources, as well as a sink for waste and environmental pollutants;
- utilisation of renewable resources must proceed at rates less than or equal to their natural or managed rates of regeneration;
- efficiency must be introduced in the utilisation of non-renewable (exhaustible) resources by means of the optimisation of the rates at which renewable substitutes can be created through technological progress;
- generation of wastes and their discharges to the environment must be limited to rates that are less than or equal to those of a clearly monitored and demonstrated assimilative capacity of the environment;
- life-support services of the environment (e.g. genetic diversity and climate regulation) must be maintained.

2.2.4 The contribution from political economy

Significant evolution in economic theories can be detected, starting in the last century (e.g. Jevons, 1865; Pantaleoni, 1913, Pigou, 1920), of the importance of the environment in the economy and the measures to compensate the damage created by the human activities (e.g. pollution as an external diseconomy passed from the producer to the whole community). Basic concepts evolved (Perman et al., 1996; Turner et al., 1994; Jacobs, 1991):

- from development as growth, economic and quantitative wealth, to development as a broad concept which encompasses economic, social, environmental and cultural welfare; in fact growth can occur but without equity, social and environmental well-being or prosperity;
- from the conventional concept of three principal factors of production "land, labour, capital" to the assumption that all three are capitals "natural, human, man-made"; capital was conceived as any man-made asset (financial or physical) capable of generating income; land and labour were not considered to be "capital", even though they produce capital;
- from the assumption that natural resources are unlimited and (man-made) capital is the principal scarce resource, to the awareness of natural capital as the main limiting factor with respect to its depletion, intergenerational availability and utilisation

Briefly, the current contribution of political economy to sustainability is based on the assumption that development means not merely creation of wealth but conservation of resources and the fair distribution of costs and benefits between generations. According to this assumption (i.e. Macgillivray et al., 1995; Karas, 1995):

- economies and society must respect the full life cycle and carrying capacity of ecosystems and must be aware of all the biological implications of economic activity (environmental limits, efficiency and productivity);
- where there is a threat of serious damage, lack of full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation (precautionary principle);
- the social system has to improve its capacity (resilience) to maintain equity and productivity levels during or after natural or induced stress or shock situations (short or long as they may be).

2.2.5 The contribution from sociology

There are problems in human and social life with no good solutions, twisted trajectories that cannot be straightened up, ambivalences (...), doubts which cannot be legislated out of experience, moral agonies which no reason-dictated recipes can soothe. The post-modern mind does not expect any more to find the all-embracing, total and ultimate formula of life without ambiguity, risk, danger and error, and is deeply suspicious of any voice that promises otherwise. (Bauman, 1993)

The most relevant contribution from sociology to SD comes from the definition of some basic concepts relating to the current social change:

- *equity* (Adriaanse, 1995; Farmer quoted by Basiago, 1995), as the capacity of society to be fair: wealth, benefits and risks coming from the use or transformation of the natural system have to be distributed in relation to the contribution to the development process of the various components of society;
- *progress* (Daudi, 1990), as a fragmented and discontinuous series of events, linked not by necessity but by accidents and coincidences rather than a monotonous and continuous deployment of successive events;
- *culture*, as a complex cohesion of values, beliefs, norms, ways of acting shared by the members of organisational systems and communities; cultures may be described and compared but it is worthless to rank them (Edel, 1995); they express singular, original, local diversity and identity (Morin, 1994);
- *civilisation* (Giddens, 1990), as a process of multidimensional integration between cultures (current, from the past and for the future);
- *change* (Pasmore, 1994), as the basis of social dynamics which occur continuously: slow, gradual, almost imperceptible or fast, shocking, upending, unpredictable, unrelenting, ubiquitous; with short and long term, large and small scale effects, operating at local and global levels,
- *chaos* (Baker, 1993), as order in sensitive (social and other) systems; they are mutable and never return to their previous state; the theory of chaos (Briggs, 1993) relies upon the holistic nature of non-linear dynamics, a character of wholeness in which the parts influence each other and global (whole) and local (part) influence themselves at the same time;

- *social complexity*, as life (Morin, 1994a) which goes hand in hand with change, knowledge, disorder, chaos, perturbation, dissymetries, instability, flows, turbulence, non-linearity, marginality, uncertainty, relativity, dis-harmony, fractalism, imponderability, etc.; complexity can be managed by connecting and respecting what is diverse and divergent, and by understanding the multidimensional facets of different situation and their interdependencies (Drucker, 1993);
- *uncertainty* (Popper, 1996; Giarini and Stahel, 1993; Gelatt, 1991; Giddens, 1990) as the expression of interaction between different options and alternatives, dialogic principles, complementary or antagonistic assumptions (e.g. conservation, revolution, resistance); reality itself is uncertain depending on the human perception of problems and solutions in three simultaneous times: the present of the past, the present of the present and the present of the future (S. Agostino, quoted in Morin, 1994); uncertainty feeds back and forward circularity, complementary, wholeness and holism ("wholism"); positive uncertainty helps creativity, conceiving new ideas and ways of thinking which have important relationships with different disciplines, looking for a plurality of heterogeneous cultures, in which science does not have a privileged place;
- *risk and vulnerability* (Giddens, 1990), as factors which spread outside the individual sphere of control; a wider sphere of control is necessary to prevent and react to these factors, involving people concerned at a local level and improving their global awareness and action;
- *time, space, physical size* (Giddens, 1990; Morin, 1994), as new complex relationships between "micro" (person-to-person), "meso" (ethnic groups, communities) and "macro" (great areas of civilisation and the Planet itself); in fact the intellectual capacity of humanity, supported by information technology, can unite different places of the world, different time (archaic, rural, industrial, post-industrial) and different size (small, medium, large); therefore, virtual and factual realities become a continuous process of disembedding and re-embedding, differentiation and integration with respect to the synchronised mechanism between machine and human beings experienced during the industrial era (Daudi, 1990; Baudrillard, 1995);
- *knowledge* (Daudi, 1990; Giddens, 1990; Bateson, 1995; Drucker, 1993; Morin, 1994, Lyotard, 1984; Baudrillard, 1995, Ritzer, 1996), as a continuous process of *learning and taking action* through de-construction and construction, disembedding and embedding, differentiation and similarity, de-connection and connection; knowledge is not rigid logic but flexibility, various point of views at the same time, tolerance and dialectics, unity of and connection between concepts often taken into account as different and contrasting; nothing is absolute, there is not dichotomy but continuity within an on-going process which has a high level of openness towards other cultures as represented by the rise of multicultural social theory; knowledge is based on holistic and synergetic methods which assume the importance of diversity, unity, limits, connection of all components (as Pascal said: since all things are causes and effects, mediate and immediate, connected and separated at the same time, it is impossible to know a part without knowing the whole, as well as vice versa); the yin-yang symbol can be assumed as the emblem of a new way of thinking which represents contradictions and unity of opposites; it is a new way of thinking in Western society (e.g. fuzzy logic - Kosko, 1994) but, since ancient time, it is the expression of other cultures (e.g. Eastern societies); it is a way of thinking based on pro-active uncertainty and on strong relationships with environmental and human limits, caution, awareness, futurity, recovery and respect of ancient thought and other cultures;
- *human capital* (Anderson & Carter, 1984; Senge et al., 1995; Smith, 1994; Hammer and Champy, 1994; Gouillart and Kelly, 1995; Mullins, 1993; OECD, 1996; Polany, 1958), as the

essential constituent of social systems; human capital is the improvement of ability and capacity based on the combination of technical, entrepreneurial and social skills as they are embedded in the cultural identity of local contexts; sociology introduced a progressive extensive meaning of human capital as a combination of individual and social, tangible and intangible, tacit and codified resources; human capital expresses the capacity to cope with the previously underlined concepts by means of analysing, diagnosing, problem solving, risk taking, conceiving and implementing plans (initiatives), evaluating, diffusing solutions; vital attitudes and capabilities are demanding (i.e. changing one's mind, keeping the mind open, being responsible and improving one's own autonomy; learning to learn; being a creative entrepreneur of oneself); human capital is determined by a continuous social interaction (reciprocal and cyclical) based on the quality of mutuality; since everyone is affected by the others and vice versa, mutuality implies recognition of and respect for and between all the components of a social system; trust becomes one of the key elements of the quality of mutuality and it is determined by conflict, negotiation and co-decision; in other words, each individual as a social entity is simultaneously a part and a whole of a wider holistic (fractal, holonic etc.) living organism; the one cannot exist without the many and vice versa; this (socially determined) interdependence is constituted by the melding of opposites (or dichotomies) such as that between isolation and participation, dependence and auto-nomy.

Within this theoretical context, sociology is nowadays aware that social changes affect the natural environment as well as vice versa ("nature *is* society and society is also *nature*"; Beck, 1992), whilst a two-century civilisation (started from the Western cultures) has been based on rationality and on "an instrumental orientation towards the domination of physical nature" (O'Neill, 1995).

This is the result of the influence of ecology on sociology, while the contribution of sociology to SD is based on the understanding of how the social dynamics can foster:

- the sensitive attitudes of local communities to the synergistic and equitable use of endogenous and exogenous resources, promoting the capitalisation and the interaction between different experiences and knowledge;
- the capacity of local communities to conceive and to share a wise vision of, as well as to manage, new patterns of development, combining global and local dimensions;
- the commitment and the capacity of local communities and actors to cope with, anticipate, and manage change, being aware of the new dimension of risk and vulnerability.

Moreover, a specific contribution of sociology has been to put in practice the principles of SD as far as corporate culture and businesses are concerned. Schools, theories and studies (Ansoff, 1987; Mullins, 1993; Drucker, 1993; Pasmore, 1994; Giarini and Stahel, 1993; Gouillart and Kelly, 1995; Hammer and Champy, 1994; Handy, 1994; McHugh et al., 1995; OECD, 1996a; Senge et al., 1995; Smith, 1994; George and Weimerskirch, 1994; Peters, 1994; Garrat, 1994; Welford, 1995; Kaku, 1996; Toffler, 1981) identify new approaches and common orientation towards: customer satisfaction; innovation of the socio-economic context; local development; sustainable development; total quality environmental management (TQEM); social and environmental responsibilities (for the present and future generations) along with equity within worldwide and between local economies (*Kyosei*). The notions of fractal, holon and hologram, which originated in other disciplines (e.g. geography, meteorology, computer science, etc.), are now applied in the analysis of organisational systems (institutions, businesses, political and social organisms) to stimulate their change towards subsidiarity, federalism, shamrock, flexible, lean, non-hierarchical, sometimes informal and virtual organisations (whatever their dimension, function, scope and nature may be).

These approaches consider social systems and contexts as innovative to the extent that they are orientated towards:

- "glocacity"; that is the capacity to think globally and to act locally along with the inverse relation, to act globally and to think locally;
- collective and open sense of identity, by means of active partnership and networking within one's own community (intra-complexity) and with other communities (inter-complexity);
- visions and missions; which are values shared by the people concerned;
- continuous learning and lifelong training;
- stakeholder alliances, where customers, suppliers and producers interact in vital ways, becoming a single image, that of the prosumer (producer + consumer);
- markets in order to manage the global and local interdependencies between economies, societies, cultures and knowledge;
- results, to create a clear image of the development which should be continuously monitored and evaluated, improving appropriate methodological tools.

2.2.6 The contribution from planning and programming theories

Basiago (1995) quotes some writers (Millichap, Carlthorpe, Berkebile, McDonough) in order to clarify what can be sustainable planning methods. The methods analysed refer especially to spatial planning, according to the principles of futurity and global environment, in which "biodiversity would be improved by returning land to natural habitat".

Karas (1995) identifies new dimensions of SD programming and planning: a shift towards addressing their ultimate objectives in the reconciliation between environment and development; an integrated approach, "a more holistic view" between policies in different sectors, in which environmental considerations are given weight in social and economic policies - and vice versa; trade-offs, determined by the principles of sustainability, in targets, timescale, spatial scale, powers, roles, competencies and responsibility.

Welford (1995) underlines local and regional environmental management systems (REMS); regionalism and bioregionalism constitute a combination which changes the horizon of planning and programming, requiring a shift from centralised policies to federalism and subsidiarity, co-operation, networking and partnership, empowerment, democracy, people participation, asking for holistic and synergetic methods which assume the importance of diversity and unity, limits and well-being.

All the above arguments call for a change towards new styles of governance (Osborne and Gaebler, 1992). These styles are based on democracy and, thus, they represent a continuity from old (i.e. Greek) to new cultures and philosophies. Subsidiarity (the etymological origin of which can be found in the Latin word "subsidium" indicating the military supporting troops) has regained importance. Subsidiarity is a moral imperative, depends on trust and mutual confidence between the One and the Many: the individuals (who can be considered as the smaller dimension of organisation) and their communities (which constitute larger dimensions of organisation, from the family to the State). Subsidiarity is empowerment, being based on (Handy, 1994; Pastori, 1997; Attanasio et al., 1997; Papa, 1995):

- capacity building, in which the "subsidium" (support) should be temporary;

- new relationships between private and public sides of society, in which the latter side should not displace and substitute the capacity of the former, but should give to individual or associated citizens possibilities to organise and manage by themselves public functions;
- self-governance in all the organisational systems (formal and informal, social and institutional), in which the major dimension should not overwhelm the minor dimension.

2.2.7 In conclusion: ethical and philosophical implications of sustainability

This we know. The Earth does not belong to man; man belongs to the Earth. This we know. All things are connected. Whatever befalls the Earth, befalls the sons of the Earth. Man did not weave the web of life. He is merely a strand in it. Whatever he does to the web, he does to himself (from Chief Seattle's oration of 1852, recalled by Robertson 1985)

Generally, writers on the environmental and ecological side of current thought, underline the strong role that ethics has to play in sustainability. In this search for a new ethics, many writers try to define a paradigm of sustainability as a kind of philosophical revolution.

Given that "Ethics is a cultural phenomenon; culture is relative; therefore ethics is relative" (Edel, 1995), an ethics of sustainability will be constituted by means of a fusion of universal principles and local moralities and evaluated for its contribution to the growth of knowledge of humankind in its adherence to the other living organisms and to nature as a whole.

Furthermore in other periods, the way of thinking changed when consistent parts of philosophy, religion, science, policy, ethics, etc. reached a critical mass in which old concepts faded and new ones sprang up suddenly to become catalysts of new perspectives and horizons. For instance, the modern era, followed by the industrial revolution, represented a progression with respect to previous periods. Its fundamental vision was based on the unity of three different concepts: freedom, equality and brotherhood; different because, freedom can act against equality and brotherhood as each of them can act against the others. They were united to act in a dialectic combination.

The current period can open an age of wisdom (Morin, 1994); a wisdom closely tied to moral responsibility as the most personal and inalienable human property, which is unconditional and infinite, and acts individually, collectively and globally, determining a strategic change. In this direction, sustainability represents a point of reference for a new vision, creating a shift: *from equality to equity; from freedom to subsidiarity; from brotherhood to solidarity*.

Moreover, sustainability can be understood in a methodological way (Basiago, 1995), the ethical behaviour (mission) to affirm the vision of a "sustainable civilisation", developing:

- the potential of "solidarity" between human beings, all other living beings and nature as a whole, opening and assuring "the greatest possible number of ways of interacting with the environment if we are to maximise the chances of survival, both of our own species and those with which we share the planet" (Milton, 1996);
- the potential of "equity", opening and assuring equal opportunities between individuals and their social communities, between different local communities (inter-regional principle), between present and future individuals and social communities (inter-temporal principle);
- the potential of "subsidiarity", opening and assuring freedom, diversity and autonomy within a process of participatory democracy and social cohesion.

These principles can be seen as basic values of a new civil society's pact within various social dimensions, but only human beings can write their Constitutional pact and this depends on the

actors, on their perception of the new values, on their culture and on the degree in which these values are shared within the (international, national, regional and local) social communities.

2.3 Regional Development - Theory and Policy

2.3.1 Introduction

Long term structural change has a economic, social and political component. The transformation process is made up by various sub-processes which interact and thereby change our lifestyles. Technology, organisations and territories interact - through the 'glue' of the social context - to produce innovation (Mazzonis 1989, Morgan 1997). Innovation occurs through the intersection of new technologies, traditional technologies and tacit skills; regional economic development occurs when there is also institutional or organisational innovation (Storper 1997). Social context emerges from the culture and shared value system, the education and vocational system and the relative autonomy of a specific territory or area.

Although ultimate causes for structural change are hard to isolate, there are two distinctive lines of development that are interlinked and interact permanently: technological and organisational change. They both shape the dual process of internationalisation and politico-economic regionalisation. The continuum of internationalisation and regionalisation opens up a growing variety of behavioural and organisational modes.

2.3.2 Economic theories of regional development

For a long time the main focus of regional development was on economic factors of development and therefore on spatial and regional economic theories. Problems of living conditions were regarded as problems of the individuals and treated by social policies. Up to this moment regional development policies still have a strong economic bias.

2.3.2.1 Significance of spatial and regional economic theory

In spatial and regional economic theory there are two distinctive lines of scientific argumentation, the one coming from geography, the other from economics. While in geography the economic space at least has become a social system, economic theories on the other hand eliminated space, social factors and the physical geography as production factors (Harrison 1992). Today the different theories of spatial economies can be divided in three types:

- theories of location, including both the choice of a single firm or household and the optimal structure of locations,
- theories of spatial mobility, causes and effects of the mobility of production factors, of goods and services and
- theories on regional growth and development, including the socio-economic development of a single region, interregional differences of development and the dynamics of structural change in a region.

Between the two general lines of theoretical reasoning, there are many points of contact and overlap. There are still a lot of differences in how the two approaches explain regional development as an interaction between economy, territory and society. Generally, there are three areas in which a *paradigmatic change* of the main explanatory factors for regional development can be observed (Schleicher-Tappeser et al. 1997):

- theories which shift from exogenous to endogenous explanations,

- theories which shift from a locational focus to a focus of development,
- theories which shift from an approach, oriented towards production factors to an interactive approach, involving institutions and regional actors.

The current picture shows a vast variety of approaches, schools and often contradicting perspectives. In general they all draw from different scientific disciplines, like economics, geography, political science, sociology and psychology. The most interesting conclusions come from 'cutting across' and identifying the following changes in theoretical and practical focus.

2.3.3 Shifts in regional policy and regional planning

Theories of regional development focus not only on the economic perspective. Confronted with the imperfection of markets, political intervention becomes a necessary, though debated principle. Regional policy today is facing a variety of challenges and problems. This has not always been the case. In the late 70s, Richardson (1978) described four challenges for economic policies by summing up different authors and various empirical findings: migration and regional development, efficiency and equity. All in all, it is possible to generate efficiency in regional equity strategies if efficiency is seen as a long-term strategy including social and ecological externalities. Bearing Richardson's account in mind, one can paint an idealised mode of development stages in regional policies since Second World War. These stages can be traced - one way or the other - in all highly industrialised western countries, although some older type policies are still in vigour or are regaining prominence in times of economic recession (Schleicher-Tappeser et al. 1997, Maillat 1998).

In the early 50s, regional policies hardly existed. The main focus in the first stage, the neo-classical *mobility-oriented approach*, was to spur spatial mobility of resources. The next stage centred on a *location-oriented approach*, with emphasis on subsidising physical infrastructures like roads, ports, energy, education or culture in less advantageous regions. The macroeconomic shock, following the First Oil Crisis 1974/1975, shifted public concern towards *employment-oriented regional policy*. But, it became evident that regional development was more than just a recombination of cheap or subsidised production factors. Quality, interaction and interconnectedness were acknowledged as being key factors for a long-term regional future, thus *innovation-oriented regional policy* became the next stage in 'policy-fashion'. 'Limits to growth' finally had an impact on regional policy and gentle initiatives to formulate an '*internalisation-oriented*' regional policy sprang up. Incorporating ecological aspects and various policy instruments ranging from regulation to economic incentives eventually led to a comprehensive view of regional development. *Integrated regional policy* (Thierstein, Egger 1998) thus encompasses not only regional policy in the strict sense, but also other spatially relevant policy fields like regional planning, environment, fiscal policy, innovation and technology policy. Further developments in regional policy take into account the altered relations between urban and local development. Next-generation regional policies focus on coherence between the territorial production system and the system of medium-sized towns that usually structure a region (Maillat 1998). Two polar models of development are thereby distinguished, that of urban resources and the other of places of interaction: a metropolitan modality and a milieu-based modality (Corolleur et al. 1996).

2.3.4 Key topics in the recent discussion on regional development

Regional development is debated along two interconnected scientific lines: an economic and a political focus.

2.3.4.1 The economic focus

Even though the intensity of global trade and investment flows has increased, national specificities in terms of products and services traded and technologies produced have evolved: in certain aspects, territorial integration did not lead to similarity, but to specialisation as a form of regionalisation. The region might be a fundamental basis of economic and social life 'after mass production'. The indicator of such a development is the emergence of new successful forms of production in some regions but not in others. The successful regions seem to involve both institutional and technological localisation as well as regional differences and specificities (e.g. social context). The role of the region, in short, is that of a locus of 'untraded interdependencies' as a kind of cooperation between actors (Storper 1997). The untraded interdependencies generate region-specific material and non-material assets in production way beyond the hard 'productions systems' orientation. These assets are the central form of scarcity in contemporary capitalism, with its fantastic capacity for production of standardised output. They are scarce essentially because they are not standardised. The region is an important factor in underpinning these interdependencies. Approaches like 'flexible specialisation', Marshallian industrial districts or Japanese production systems and culture, all have difficulty in building a picture which represents the multitude of forces which interact in highly complex ways in regional development. The significance of the region today can be illustrated by at least three main 'schools' of thinking.

Institutionalists and the flexible specialisation as a key concept

'The Third Italy' or the industrial system of the Italian Northeast-Centre was made famous by Piore and Sabel (1984), when they proposed the model of 'flexibility plus specialisation'. The 'industrial divide' separated the era of flexible specialisation from that of post-war mass production. The basis was Becattini's elaboration of Alfred Marshall's 'industrial district' in late 19th century England. Economic characteristics - externalities lodged in a division of labour - and socio-cultural supports to inter-firm interaction within an industrial district are at the core of the theoretical approach, which was supported by rich empirical work from Italy and southern Germany. Over time, many additional case studies contributed to a differentiation of the concept (Markusen 1996). Today, 'Third Italy' as a model seems to evolve despite new framework conditions of globalisation.

Industrial organization, transactions and external economies of agglomeration

The 'California school of agglomeration' put forward the argument that flexibility is rooted in the division of labour in production and is linked to agglomeration via the transaction costs associated with inter-firm linkages (Scott, Storper 1986). Agglomeration is an outcome of the minimisation of transaction costs like the costs of noncodifiable or tacit knowledge or where trust is required and full contingent contracting is impossible. Without agglomeration, the advantages of interdependence like flexibility, risk minimisation and specialisation are reduced. Agglomerations do not depend on thick and historical institutional contexts. New industries have 'windows of locational opportunity', they are not attached to old stocks of external economies. The agglomeration model was expanded in the late 80s with the question of institutions and evolution. But still, the deficits of the California School are the same as with the flexible specialisation school. The localisation of input-output relations, i.e. the localisation of traded interdependencies, is inadequate to the task of explaining the link between flexible production and the resurgence of regional economies of today.

Technological change, learning and innovation

A first branch of work links high technology and regional development and sought the sources for growth in Silicon Valley and Route 128 (Saxenian 1990). It stresses the importance of the university-production link for future technology-based industries. A second branch is the 'regional politics' approach. It holds that regional coalitions, like the military-industrial complex, secure resources that push for the transfer of high technology resources (Malecki 1983). The GREMI group in Europe - as an alternative approach - sees the 'innovative milieu' and the network as the essential context for development (Camagni 1991; Ratti et al. 1997). The milieu empowers and guides innovative agents to be able to innovate and to coordinate with other innovation agents. Therefore the milieu is like a territorial version of the 'embeddedness' of social and economic processes. The network links the milieu with the outer world and the necessary resources which are not available in the milieu itself. Thus, the economic process is fundamentally about creation of knowledge and resources.

Technology, path dependency and untraded interdependencies

This line of thinking draws on evolutionary economics, pioneered by Nelson and Winter (1982), and on refinement for technology by Dosi, Arthur, Pavitt or Soete. In essence it is technologies which develop along pathways or trajectories. Technologies are subject to a variety of user-producer and user-user interactions which in turn generate 'common practice' spillovers which are often non-traded technological connections, e.g. in the form of tacit knowledge. With the emergence of new forms of production, technological trajectories were 're-opened' and the industrial world was on the way again towards a 'learning economy'. The regional aspect comes into play when we realise that technological spillovers and their untraded interdependencies are territorialised under certain conditions. The evolutionary approach is not based on transaction-costs and on cost-minimisation by efficient allocation. Technological change is path dependent, because it involves interdependencies between choices made over time, and is often irreversible. These choices have a spatial dimension, which is closely tied to their temporal interdependence and uncertainty (labour markets, conventions, common languages, rules etc.).

Entrepreneurship, innovation, learning process, and proximity

Most dynamic theories of regional development, especially those based on the evolutionary approach, stress the importance of individual, collective and cooperative '*learning processes*' as a driving force for innovations. 'Learning' comes in many shades and colours: Learning by Doing was introduced by Arrow (1962), Learning by Using by Rosenberg (1982) and refined by von Hippel (1988), whereas Learning by Interacting was stressed by the GREMI group (Camagni 1991) and others (Lundvall 1992). Hence, regional development is a complex outcome of interaction between three levels: the micro (firm, entrepreneur, household), the meso (regional institutions and systems of innovation; rules, conventions; localised production systems; networks and innovative milieus) and the macro (national systems of innovation; public policies; legal framework) of an economy at large. To go even further one can say that economic development and innovation arise out of the social context of a particular area or locality and is mainly spurred by dynamic entrepreneurship (Johannisson et al. 1994). 'Interacting' as a process itself is linked with spatial or geographic 'proximity'. The notion of 'proximity' becomes crucial, given that regional innovation is considered as an open learning process, driven by interactions of social context, structures and actors. It is important to distinguish in general *three dimensions of proximity*: spatial, social, and organisational. Although all of the three dimensions are strongly intertwined, proximity helps to picture more explicitly the territorially bound characteristics of close interactions between firms, entrepreneurs and institutions.

Industrial production systems and forms of governance

Regional development today is also about understanding the ways industrial and services activities are arranged within the territory. Where lies the power to influence industrial development: is it the locality, or outside its borders? A central notion therefore is the '*industrial production system*' which contains an *input-output structure* (a set of units of production of different sizes linked together), a *structure of governance* (authority and power) and a *territoriality* (whether dispersed or concentrated). In reality many firms or units may be involved in more than one input-output system. Thus we have inter-network relationships or supersets of production systems, which complicate appropriate public policies. The question of influencing regional development was focused for a long time on the behaviour of large firms and their governance. Originally the 'core-ring image' was used to depict the notion of power of large firms over their usually smaller suppliers. Today this metaphor can be used in a general sense for describing governance structures which in many occasions develop towards increasing self-governance (Cooke et al. 1997). This leads to the question of the extent of self-governance in regional policy when there are areas with different types of production systems.

The economy of a region and sustainable development

Today there is an increasing debate urging on the implementation of sustainable development (SD) at the regional level (Patterson, Theobald 1995). That makes it a necessity to stretch the notion from 'hardware' of production systems to 'software' of social context or social capital (Putnam 1992). 'Learning regions', with 'learning regional economies' (Morgan 1997) can thus become an interesting starting point for implementation of SD. Learning contains all these dimensions of production: design of products, processes, explicit and implicit know-how, evolution of organisational skills. Thus human capital, social capital, knowledge production, transfer and management, knowledge accumulation, adaptive capacity and self-governance become crucial key factors for regional sustainable development.

2.3.4.2 The spatial focus

The fundamental structural change in society not only brings about a paradigmatic change in regional economic theories but a paradigmatic change in regional development policies as well. One can observe five areas in which the political system and its ability to act are challenged (Schleicher-Tappeser et al. 1997).

New scopes of action

The scope of action of territorially-bound policies has shifted in three ways: extension of the organisational structure of society, public interventions and new institutional division of responsibility. The general tendency seems to be the retreat of the state from single decisions and the emergence of many formal and informal institutions with tendency to self-governance.

New fields of action

In recent times, regional planning and development have undergone drastic changes. First, *new ecological necessities* pose new challenges, like problems of the irreversibility of decisions. Second, the need for horizontal cooperation has increased because spaces of public action no longer equal spaces of problems. The resulting negative spillovers necessitate a 'géométrie variable' for public policies. Third, public policy today is urged to provide public goods not only where markets are likely to fail or react more slowly than desired, but to provide public goods which may be specific to technological-economic spaces. It is then the development of these spaces that ultimately generalises their benefits.

New ways of intervention

New scopes and new fields of action, as a consequence, lead to new ways of intervention. First, the mode of intervention changes *from planning to managing*. Regionalisation may have two effects: it leads to an increase in decision-making power and in self-governance on the regional and local level. It could help to decentralise and fragment power when facing situations of in-transparent hierarchies, overlapping competencies and parallel structures of decision-making. Second, the fragmentation of politics into a variety of policies and into a large number of issue-related networks needs a *coordinating framework*; orientation, guidelines and focal goals become more significant in this context. Third, certain *specific resources* are required. Face-to-face-communication as a pre-condition to generate trust is found to be a crucial condition for regional actors to build stable networks and create innovative milieus.

New challenges for the behaviour of planners

The behaviour of planners is determined not only by the uncertainty of assumptions about reality and development but also by what can be described as the 'muddling through' of the political process of decisionmaking (Hall 1988: see Koschitz 1993). Different approaches lead away from finalised planning to modular planning in comprehensible and manageable steps (Ganser 1991: see Koschitz 1993). Planning goals in the sense of 'beacons' or 'rules' facilitate the building of consensus. Challenges in regional or spatial planning not only have to do with problem-solving but also with mechanisms of power and governance. The actor in charge of planning has power because he limits the scope of action while defining a certain kind of future as desirable and possible. This oftentimes puts the planner opposite to tendencies of self-governance in communities and regions.

New perspectives in regional planning

In regional planning, three shifts in goals and instruments can be detected. First, the *primary goals of regional planning* changed in character. Starting with the creation of equal living conditions and 'functionally-balanced' regions, regional planning principles moved on to accept the reality of the functional division of labour. Next, 'endogenous regional development' challenged traditional top-down approaches and allowed for spatially uneven distribution, but 'satisfying' standards of living. Then, the 'spatial networking approach' stressed the differences between regions while trying to maintain a minimal standard of infrastructure; this finally evolved into concepts like 'sustainable regional planning' (Roberts 1994). Second, the *view on spatial dimensions* widened. From the theory of Central Places to the later attention to peripheral, rural and border regions, spatial planning widened its focus gradually to specific spatial-functional interlinkages of cities with their networks. Today the 'European spatial development perspective' (E.S.D.P.) draws a picture of integrating the European, the transnational as well as the regional and local level. The three basic goals are: economic and social cohesion, sustainable development, and balanced competitiveness of the European territory. The concept thus integrates three objectives: a balanced and polycentric urban system, parity of access to infrastructure and knowledge, prudent management and development of the natural and cultural heritage (EC 1997). Third, the *objectives of regional planning* changed from simply improving infrastructure to mobilising endogenous local potentials to integrative approaches which try to strengthen local and regional development. At the same time, as for example within the LEADER programme, regions start to develop networks for exchanging experiences and begin to induce their own learning processes, but all of this with an integrative spatial perspective (EC 1997).

2.4 Sustainable Regional Development

2.4.1 General character of the two discussion threads

2.4.1.1 The scope of SD and RD

Comparison of the terms “regional” and “sustainable” shows that these concepts are not to be understood as being on the same level. “Regional” designates a spatial level, whereas “sustainable” suggests a certain quality.

Chapter 2.2 shows that the concept of Sustainability stands for a vast paradigm shift which has been taking place for decades, a shift to a new way of looking at the development of human societies on this planet. This new approach not only provides new descriptions and explanations, it also implies that we may have to revise our value systems. From the new perspective the old ones do not seem coherent anymore. This normative aspect plays a prominent role in the public discussion, but the longer the discussion lasts, the more evident it becomes that the often requested clear-cut criteria for what is sustainable, simply cannot be given. The focus of the concept is on the relationship between human societies and nature. However, the scope meanwhile also includes all kinds of societal aspects not necessarily connected with non-human nature. There is a widening consensus, that besides environmental, economic and social aspects have also to be included. The concept covers all levels from the global to the individual ones and tries to look far into future. It is evident that when ideological oversimplifications are to be avoided, such a general concept does not allow simple recipes and checklists to be deducted. It opens new perspectives and gives orientations which still have to be explored. All kinds of activities and policies will have to be revised in the light of this new paradigm.

“Regional development”, on the other hand, is also not a singular concept. As described in chapter 2.3, there is a series of theories which help to describe and understand the economic development of societies at the regional level, there are normative concepts and action-oriented theories which state what should be done in this respect, and there are established policies to support regional development at European, national and regional levels. Regional Development deals with regional issues and has not such a global claim as the much newer concept of Sustainable Development. Whilst the economic focus still prevails other aspects such as environment, society and culture play an increasing role. There are other theories concerning regional culture, regional planning, regional policy making which are all influencing this discussion. Although at different levels there are political institutions explicitly dealing with Regional Development (as DG XVI and DG VI for the rural regions on the EU level), for its realisation the concept has to rely on a series of different policies, ranging from infrastructure to agriculture to vocational training.

The concept of sustainability has thus a much broader claim concerning its subject (humans and nature), concerning the scale (from individuals to the globe) and thereby its normative implications (conditions for survival). On the other hand the concept of regional development, by its focus on the regional level, is much more concrete. The longer history of this concept and its shorter scope in time have allowed for experience with models and practical policies.

2.4.1.2 The concepts of RD and SD as an answer to equity problems

The normative impetus of new approaches and paradigms diminishes with their degree of general acceptance. Therefore, it is useful to have a look at the time when the concepts first appeared in the public political debate. It seems that equity considerations have played a major role in the emergence of SD and RD.

Equality had been one of the big promises of the French Revolution whose individualist values were the basis of modern industrialism. During the evolution of modern economies substantial changes in the regulatory framework have been introduced periodically in order to reduce conflicts arising from disparities. During the last century and the first half of the present one, disparities between individuals have been at the centre of the debate. The virulence of the “social question” led to extensive labour legislation and to the installation of redistributive mechanisms within national states. Moreover, since the last century equity between women and men has been another issue which has raised public debate and shaped our societies. Gender equity, just as social equity is a concept basically looking at individuals.

Only after world war II did disparities between countries and regions become a major political concern. With the Marshall Plan for Western Germany and other European countries (e.g. Italy), a huge transfer programme for inducing development, fordist and keynesian principles were actively and successfully applied to whole national economies. The regional development question, which originated in the first half of the last century with utopianist and anarchist writers concerned about social questions, was followed by regionalism and regional geography (around 1900) and developed in the twenties into more systematic regional planning and regional economic development theories (see Weaver 1984, Hahne 1985, Hahne/Stackelberg 1994). But only after 1950 did explicit regional development policies evolve. In many countries special legislation and financial transfer mechanisms were established, motivated by a growing discussion concerning disparities in living conditions and by increasing streams of migration. Similarly, the international development debate and the concept of development itself are rather young. US President Harry S. Truman, by introducing the concept of “underdeveloped countries” into international politics in 1949, established the idea of a universal direction of “development” and called for international programmes to mitigate disparities between national economies (Sachs 1989).

The term Sustainable Development had its appearance on the political stage essentially with the Brundtland Report in 1987. The concept of Sustainability seemed to be suitable as a means of combining and reconciling the endeavours of the environmental debate with the development debate in the UN system. The environmental question had rather suddenly become an issue of public concern in the early seventies, typically marked by the report “Limits to Growth” (Meadows et al. 1972). The concern for “future generations” raised the problem of inter-generational equity. The idea that resources (including the dump capacities of our atmosphere) considered essential for the western and globally strived for lifestyle could be depleted within one or two generations, obviously led to an intricate interrelatedness of equity problems which made it impossible to treat environmental and development issues separately in international negotiations. A comprehensive concept was needed. The Rio Conference in 1992 tried to establish one under the term Sustainable development.

Giddens has described modernity as a consequence of the separation of time and space (Giddens 1990). With the concept of abstract time and abstract space and the development of corresponding institutions it became possible to perceive and to act over ever larger distances in time and space. With this process social systems have been disembedded from their local conditions. In a certain sense one could say that the problem of sustainability is the modern version of the old problem of social equity which has to deal with much larger time and space dimensions. The concept of Regional Development was the answer to the spatial aspects of the disembedding processes. The concept of Sustainable Development has stressed the time aspects.

2.4.1.3 Perception and values

It emerges that the concept of sustainability has two strands:

- sustainability stands for a new way of perceiving the world in which we are living,
- sustainability also stands for a shift or a new set of values and priorities in decision making.

As perception is always conditioned by concepts and values, description and valuation cannot be completely independent. Giddens has pointed out that self-reflexivity is a central element of modern societies, i.e. that the concepts developed in social sciences are themselves shaping perceptions and value systems and thereby are contributing to the transformation processes which they are analysing.

For several decades a more systemic view of our living conditions has gained importance. In many disciplines and policy fields the way of describing and explaining phenomena has increasingly taken into account complex interrelationships between economic, ecological and socio-cultural aspects. As shown in chapter 2 in many instances this has resulted in an abandonment of sectoral and mechanistic approaches.

A need for valuation and for active change emerges based on these descriptions and explanations. The broad consensus around the Brundtland Report's definition of SD is not sufficient to appraise present states and endeavours. Discussions of the last years have shown that while a new consensus on the complex causal interrelationships is growing, an agreement on "what should be sustained" at a European level seems to be approachable in broad terms, but very difficult or impossible in detail.

In the general debate concerning sustainability some still call for a concretisation of this concept so that it will be possible to decide unambiguously whether a state or an action is sustainable or not. This will never be possible in the absolute sense. Homann, who works on business ethics writes: *"Until now there is no sufficient definition of sustainability. It cannot exist, because already the search for it is erroneous. What sustainability is, or, what can be meaningfully understood by this term, we will know somewhat better after a searching, learning and experiencing process that will take decades. But we will never know it in a definitive way. Just as a physician does not need an operational definition of health before beginning a therapy, an operational definition of sustainability is no precondition for politics."* (Homann 1996). Much more than a concrete prescription, sustainability seems to be a "regulative idea" in the sense of Kant, an idea that can give a general orientation such as prosperity or freedom, which have to be interpreted in a specific manner in every concrete situation (Homann 1996, Brand 1997, van den Daele 1993).

For gaining concrete orientations, it seems that we can only develop procedures in which a series of aspects have to be considered and pondered systematically. The difficulty in reaching obliging statements can be guessed if we think of the long period that was needed to develop law systems which allow valid interpretations of what "freedom" or "justice" mean in a concrete situation. Different cultures have developed different interpretations of general values like freedom and different procedures to assess them.

The concept of sustainability can be discussed on very different levels. We can conceive the realm of values and norms as a complex multi-level system which reaches from very general regulative ideas such as "freedom" or "respect for life" down to specified norms such as the maximum allowed NOX emission for cars. In between we find a multitude of intermediate norms which increase in number as the degree of concretion augments towards the lower levels. Lower level norms cannot be easily deduced from the higher ones: conflicting aspects have to be pondered, causal relationships have to be taken into account according to the present state of knowledge. Changing attitudes (such as increasing acceptance of divorce), new circum-

stances (such as the increase in population or in number of cars) and new insights (such as the discovery of the threat to the global climate by the greenhouse effect) continuously lead to a debate and renegotiation of norms in our societies. This multi-level system of norms, corresponds somehow to our view of causal relationships and to the systems (often hierarchies) of institutions which are involved in the negotiation and interpretation of these norms. At each level, at each node of this net, there is scope for interpretation and valuation.

Most changes in attitudes and interpretations of reality may have minor effects on this system of values and norms. The regulative idea of sustainability, however, is so fundamental that it can be considered as an earthquake that calls for a reconsideration and renegotiation of all relationships between values and norms on all levels. It may lead to considerable changes in the specification of norms at the lower levels. Given the enormous complexity of our system of values and norms and the fact that innumerable institutions and individuals are involved in these negotiation processes, this will necessarily take a long time. Considering the different institutions involved in this process of negotiating norms, we discover that applying the principle of subsidiarity (which we think is an essential component of sustainability, see below), will inevitably lead to different interpretations in different regions and different realms.

Therefore it makes no sense to call for a more or less complete and lasting set of indicators of sustainability. Only provisional sets of indicators reflecting the present state of the debate or tentative indicators illustrating a specific (minority) position are conceivable. If their realm of validity is to comprise different cultures, they must necessarily be more general than when they are addressing one specific region.

2.4.2 Components of sustainability

The concepts of SD and RD are obviously too different in character for a comparison which puts them on the same level. As SD has a much broader scope and claim, it makes sense to develop a systematology of the basic elements of sustainability, and then to check whether and to which extent the new developments in RD theory and practice are pointing in this direction.

Looking at the literature we can identify not only many roots but also a large number of different interpretations of the concept of sustainability. Looking for a common systematic framework which is useful in a European context, three requirements seem to be essential:

- to develop a common language
- to develop a conceptual framework which allows the identification and the comparison of different positions
- to identify existing consensus

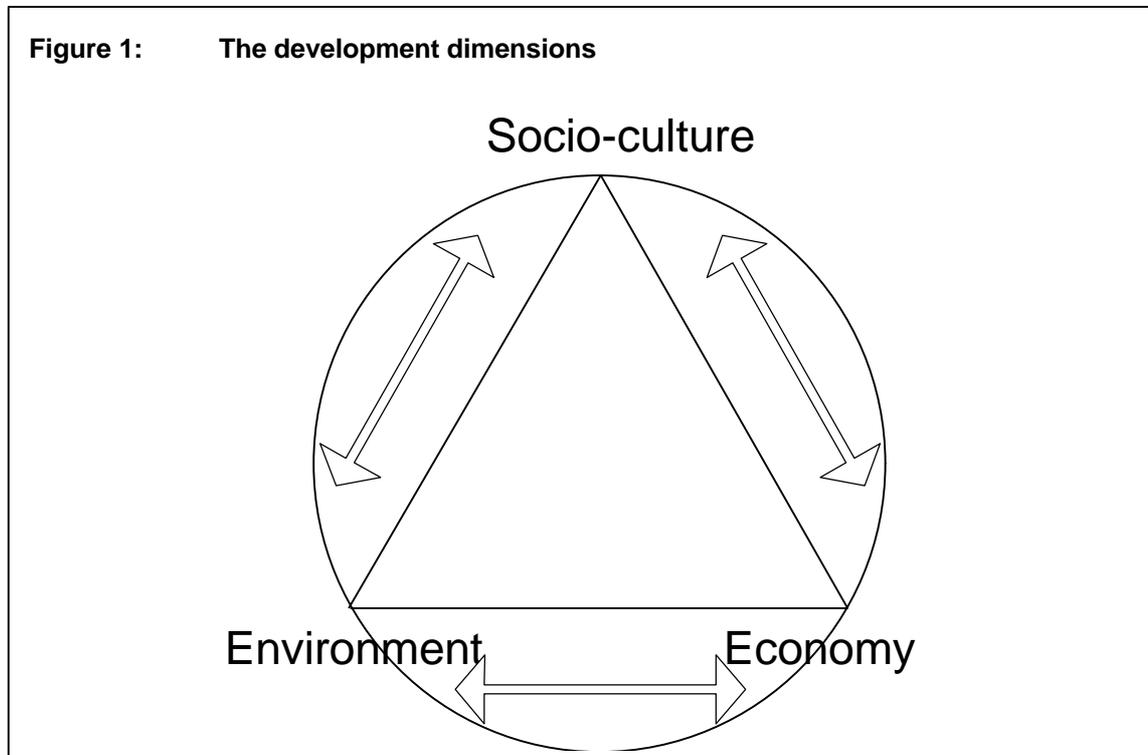
The widest and most accepted interpretation of sustainability has been formulated in the Rio declaration 1992. The argument presented here is based on the understanding of sustainability expressed in this document. The attempt to categorise the 27 principles of the Rio declaration shows that they concern very different dimensions. In the literature we can distinguish three basic approaches to define sustainability. However, none of them on its own covers the complexity of the Rio approach. In essence we can characterise them by the following three questions:

- What do we want to sustain?
- How shall we deal with different interests, needs and opportunities?
- Which systemic approaches can help us to solve these problems?

We will use them as the basis for the development of a systemic framework.

2.4.2.1 Development dimensions

Concerning the question “What do we want to sustain?” one can note a growing consensus on a general level. The broad approach of the Rio Declaration that besides environmental aspects economic and social aspects have also to be considered, is widely accepted. In one interpretation these three aspects can be associated with the conservation and further development of natural capital, man-made capital and human/ social capital. However, there are further connotations:



- Environmental aspects should include a deep respect for ecological systems which are the basis and precondition for all life. Bearing in mind that our landscapes in Europe have been strongly shaped by human activities in the course of thousands of years, environmental aspects should also include the man-made environment, the care for traditional landscapes and the built cultural heritage.
- The economic dimension includes the way of dealing with any kind of scarce resources. Efficient use of natural, man-made and human capital is the essential principle of economy.
- Social aspects, finally, are the most difficult to grasp as they include 1. the satisfaction of all kinds of social needs such as communication, support and security, love and care, recognition and distinction etc. 2. the respect for the different cultural forms in which societies have organised themselves and 3. the general call for some kind of equity or equal opportunities. As equity concerns will be dealt with separately in this context, we will consider the satisfaction of social needs and the conservation and development of socio-cultural heritage as the main elements of the social dimension of sustainable development.

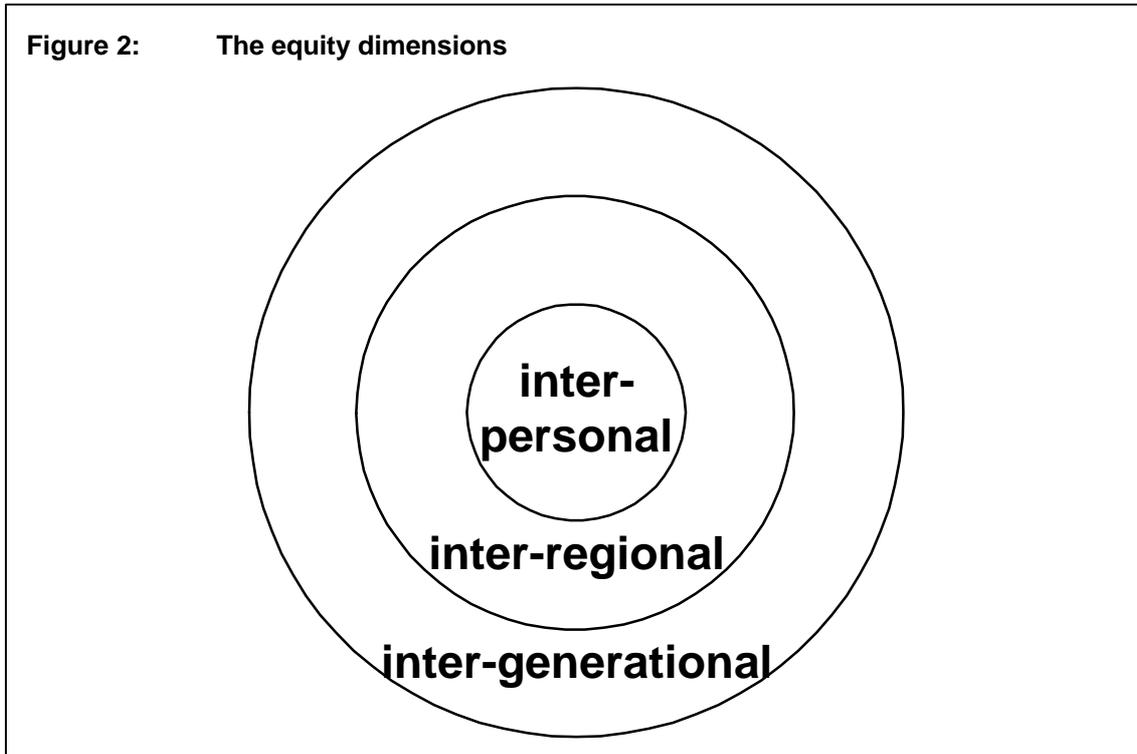
Very generally speaking we can formulate the following elements of sustainability concerning the different development dimensions:

- Respect for ecological integrity and the heritage of man-made environment (environmental dimension),

- Satisfaction of human needs by efficient use of resources (economic dimension),
- Conservation and development of human and social potentials (socio-cultural dimension).

2.4.2.2 Equity dimensions

The question how to deal with different interests, needs and opportunities of individuals or groups, is not only, but mainly a question of equity. Equity questions, as described above, have played an important role in the development of the concepts of RD and SD. Based on the above considerations we propose the following set:



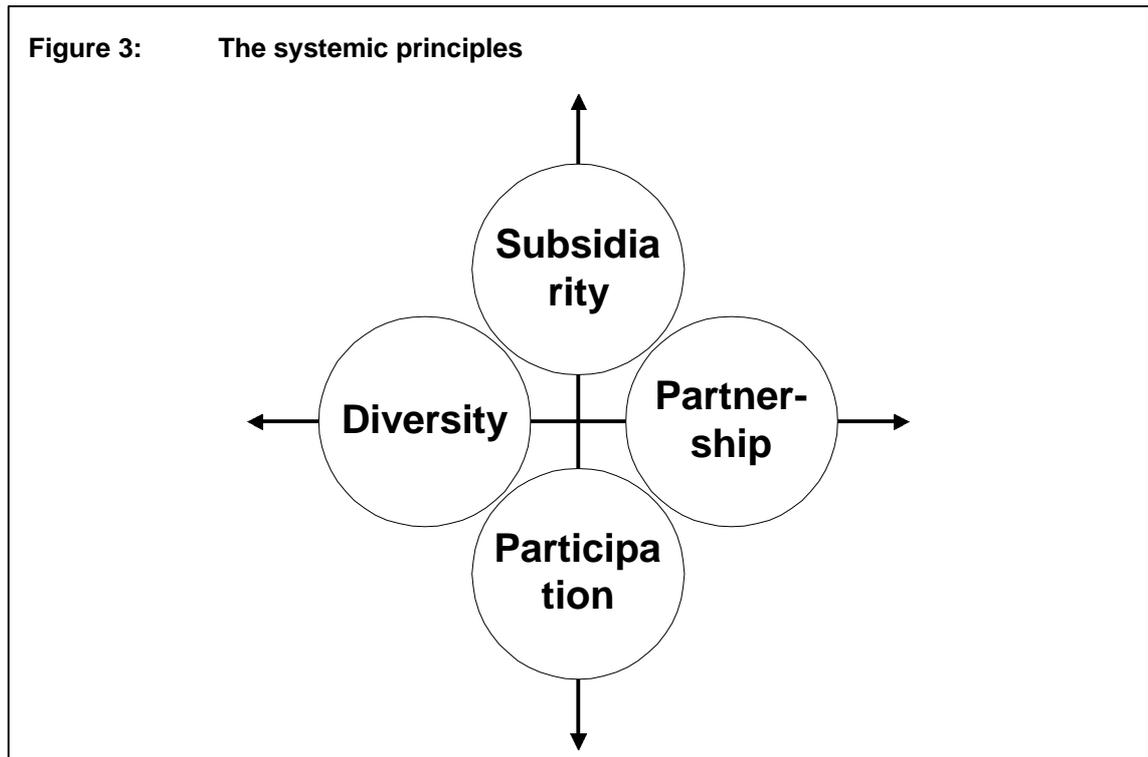
- Inter-individual equity (social and gender),
- inter-spatial equity (inter-regional and inter-national),
- inter-temporal equity (inter-generational).

The inter-spatial and inter-temporal dimensions can be further subdivided according to larger or smaller scopes.

2.4.2.3 Systemic principles

The emerging, more systemic way of looking at our world described in chapter 2.2, not only has sharpened our view of the problems which the dominant development model has created over the last two hundred years. It has also given indications of how to avoid mistakes and cul-de-sacs in situations of uncertainty and limited knowledge. The main shift in the perspective concerns the way of looking at interrelationships and organisational patterns. New concepts have emerged concerning systemic principles which are seen to be essential for vital systems and relationships. Different to the development aspects mentioned above, these principles do not describe specific aspects of our life or specific development problems, rather they constitute general approaches to reality, tools for describing, understanding and structuring. In this sense they constitute important tools of perception and stand at the same time for new values.

Different systematisations of systemic principles have been discussed by various authors. Without referring in detail to the scientific discussion, especially in view of a regional development we propose to consider the following set of systemic principles as essentials.



Diversity is a concept originating from biological ecology. The diversity of subsystems and organisms is essential for ecosystems in order to be able to adapt to changing conditions and to develop new dominant patterns. The evolution of life on earth strongly accelerated when sexual reproduction allowed for greater diversity. Biodiversity is regarded as a most important indicator of the stability of ecosystems. At the Rio Conference a special convention was dedicated to biodiversity. The concept of sustainability maintains that diversity is not only a value in the realm of biology, but also in human societies. Also, in cultural and in economic development diversity is an essential prerequisite of vitality. The more technical term of redundancy can be understood as a special kind of diversity. However, according to the systemic view, diversity cannot be understood as an absolute value. As every system can be understood as subsystem of a larger one, there is always a trade-off between autonomy and integration (Varela 1979). In this sense the concept of diversity is strongly linked to the next principle: subsidiarity, which stresses more explicitly the dialectic tension between autonomy and integration addressing the interrelationship between a series of system levels or dimensions. Whereas the concept of diversity originates from natural sciences, the concept of subsidiarity stems from the social sciences (especially catholic social doctrine). In general terms it calls for a high degree of autonomy and self-governance in the smallest possible units. This applies for policy making, social systems of solidarity and welfare, technical systems or flows of goods and resources. However, no level has to dominate all the others, neither the national nor the regional one. Finding a new balance in this sense seems to be one of the most challenging aspects of sustainability.

The emerging more systemic, holistic view which emphasises co-evolution, complementarity and interdependence instead of fierce competition, exclusiveness, hierarchy and domination, stresses the importance of networks and partnership in human, institutional and also other relations. Networking is not only a social but also a technical and an ecological concept. Partnership has to do with trustful cooperation in a common framework and with mutual respect. Giddens

has shown how much the development of modern society relies on trust. The concept emphasises the common responsibility of all parties involved. Partnership includes the striving for fair and peaceful resolution of conflicts.

Participation, finally, speaks about the relationship between individuals and institutions. It means that the individuals concerned should be involved in decision making about their future. Participation, therefore, concerns more the vertical dimension of societal relationships, the legitimacy of hierarchies. In this sense it is linked to the concept of networking and partnership which generally is perceived as concerning more than horizontal relationships.

2.4.2.4 Proposal for a systematology

The groups of basic components of sustainability developed above represent different perspectives. They are intrinsically interrelated, but none of them is completely included in the others. An analysis of the components shows that no one can be omitted without losing important aspects.

In checking the 27 principles of the Rio Declaration against the ten sustainability components developed here, it was found that only the first principle, which states that sustainability is an anthropocentric approach, is not fully covered explicitly by one of the ten components alone. Also a review of the sustainability principles proposed in the best known statements of international organisations shows that most of the principles proposed there can be included in the ones proposed above (cf. e.g. the overview in Department of Justice Canada 1996, Appendix B). As a consequence the collection of principles developed above seems to be a useful set of core principles of sustainability. A complete list is shown in the following table.

<p>Components of Sustainability</p> <p><i>development dimensions</i></p> <ol style="list-style-type: none">1. Respect for ecological integrity and the heritage of man-made environment (environmental dimension)2. Satisfaction of human needs by efficient use of resources (economic dimension)3. Conservation and development of human and social potentials (socio-cultural dimension) <p><i>equity dimensions</i></p> <ol style="list-style-type: none">4. inter-individual equity (social and gender)5. inter-spatial equity (interregional and international)6. inter-temporal equity <p><i>systemic principles</i></p> <ol style="list-style-type: none">7. diversity8. subsidiarity9. partnership/ networking10. participation

The main challenge of the concept of sustainability does not lie in elaborating measures which enable us to consider every single one of the components developed above. The first five of them are not new. Special policies and institutions have been established for them for a relatively long time. The main challenge seems to lie in the way to deal with these components, a

new way which is mainly expressed by the four systemic principles. In a simple formula the challenges could be summarised as follows:

- **INTEGRATION:** combining the components into an integrated systemic approach
- **ABILITY TO LEARN:** Widening the openness towards the future and improving the capability to innovate

These challenges are obviously present in many other fields and activities. However, trying to meet them in connection with the set of components developed above, is not an easy task.

2.4.3 Regional development paradigm shifts and sustainability

Adopting the view outlined above, the discussion concerning regional development is an element of a much broader discussion which eventually led to the concept of SD. Of interest is the question whether the trends which have been identified across the regional development approaches in the last decades are really in compliance with an orientation towards sustainable development. An answer can be given by analysing the extent to which the three paradigmatic shifts described in 2.3.3. are supporting the elements of sustainability developed above.

The result of this analysis is that all paradigm shifts contribute to a stronger orientation towards all 10 components of sustainability, with some uncertainties concerning inter-regional equity (for details see Schleicher-Tappeser et. al. 1997). Therefore, it can be stated that the paradigm shifts in RD are in compliance with the basic elements of sustainability. This means that the overall direction of the evolution of RD approaches is compatible with SD. However, whether single approaches really consider all necessary elements, must be assessed in detail.

2.4.4 Sustainability as orientation for Regional Development

In order to get a more detailed tool for assessment of policies and actions, several ways were tried to combine the components developed above. None of the combinations proved to be meaningful, so we ended up with very long lists of issues which in large part have been the object of lively public discussions in the last years (see Schleicher-Tappeser et al. 1997). However, for the further development of a general framework it did not seem useful to elaborate on long lists which have been developed in detail elsewhere. Undoubtedly, for specific assessments of all kinds of situations, policies or actions, more specific criteria will have to be developed. However, they will have to be specified according to the concrete issue, situation and context. In order to reduce complexity, instead of starting from a general perspective, a more promising approach seems to be to reinterpret the general principles starting from single problem fields or policy areas.

The INSURED approach of ten components of sustainability has been successfully utilised on different occasions. One of the most interesting experiences has been a dialogue project of seven European regions in the framework of the PACTE programme¹. Representatives of the regional environmental administrations had gathered to exchange experiences in projects concerning sustainable regional development. After a very difficult initial phase with serious problems to find some common language and to agree on concepts, the EURES Institute joined the project as consultant and introduced the INSURED approach. The framework of the ten sustainability components and a corresponding assessment procedure allowed a common language and mutual understanding to be developed, in order to elaborate a common view on the meaning of the projects, and to agree on conclusions which the participants considered to be

¹ The participating regions were Midi-Pyrénées (coordination), Baden-Württemberg, Emilia-Romagna, Göteborg-Bohus, Rhône-Alpes, Vorarlberg, Wallonie.

useful. A more detailed framework would have been difficult to handle in this context. One of the recommendations in the final report was to utilise the approach on a broad basis (see ARPE 1997). One of the main findings was the significance of understanding and carefully considering the local context. Most participants at first had difficulties in handling the systemic principles, but at the end they were considered to be an essential strength of the adopted approach.

The most extended test of the set of ten sustainability components were the regional case studies which are reported in the next chapters. As a tool for assessing and discussing the orientation towards sustainability of policy programmes and of concrete local actions, the set of ten sustainability components proved to be useful and adequate. The single components had to be further interpreted in the single contexts but proved to be essential for asking the basic questions in a first overview. The framework of the ten sustainability components was not however sufficient for understanding the specific dynamics of regional development and the key issues for successful action in the direction of sustainability.

2.4.5 Enlarging the framework

2.4.5.1 Lessons from the case studies

The regional case studies (see the following chapters) have considerably enriched the perspective developed previously. Using an explorative approach, the investigation methodology was not rigid but allowed for a flexible integration of new elements. The different context in countries and regions shaped the experiences very strongly and needed to be considered in detail. It was acknowledged that the implementation of the reorientation of local development in the direction of sustainability is intrinsically a social process.

The provisional framework consisting of the 10 components of sustainability developed above was maintained throughout all case studies. It proved to be useful, pertinent and understandable for analysing the orientation towards sustainability. But it was not sufficient for describing the preconditions of successful innovative actions. As the case studies showed that the social context was of outstanding importance and that it was difficult to propose a set of generally applicable instruments, it was decided to put the emphasis on the construction of an enlarged framework that would allow a more precise and comparable analysis of specific situations. This enlargement of the framework was based on the practical experience with the adopted approaches as well as on the synopsis of the actual results in the different regions (see chapter 3).

In the case studies three points emerged which were considered to be essential for understanding the key issues:

- the interrelationships between different levels of action and policymaking
- the local or regional social dynamics and communication patterns
- the basic strategies adopted over time

The case studies showed that successful experiences developed over a long time, carefully using and reinforcing something that could be called „social capital“ or „social potential“ for sustainable development. The four systemic principles were useful but not sufficient for describing this multiform potential.

Moreover, it appeared that the issue of sustainability calls for deep cultural transformations which include perception, action and behaviour patterns and visions and values. Successful experiences had developed specific strategies for facilitating transformations in these three dimensions.

During the carrying out of the case studies the research team step by step modified the originally envisaged approach of a rather separated analysis and comparison of policies (supporting missions) and innovative actions and increasingly emphasised the importance of interrelationships. The team agreed on the broad lines of an extended analysis framework, but left considerable leeway to each team in the specific regional investigation. Four general questions were used to analyse the regional communication patterns:

- How do policies support the innovative action?
- How does the innovative action influence policies?
- How does the innovative action influence the broad public?
- How do policies interact?

The case studies used these questions in different ways. A common conclusion was, that a more differentiated analysis tool would be useful.

After the conclusion of the case studies the research partners joined in a brainstorming and identified about 60 key factors for successful sustainable regional development. Later, these have been reworked, regrouped and systematised in 16 factors capable of expressing the „regional social potential“. For handling this potential more successfully, 6 additional principles for creating innovative change were identified under the heading of „transformation dynamics“. Long discussions and a creative process including the consideration and rejection of several alternatives of grouping elements, emphasising dynamics and building models were needed to conceive the enlarged framework. On the remaining pages of this chapter it will be only presented shortly for concluding the arch of the reasoning that lead to this conclusion. Later, in chapters 4 and 5, the framework will be explained in more detail and more in view of its practical use.

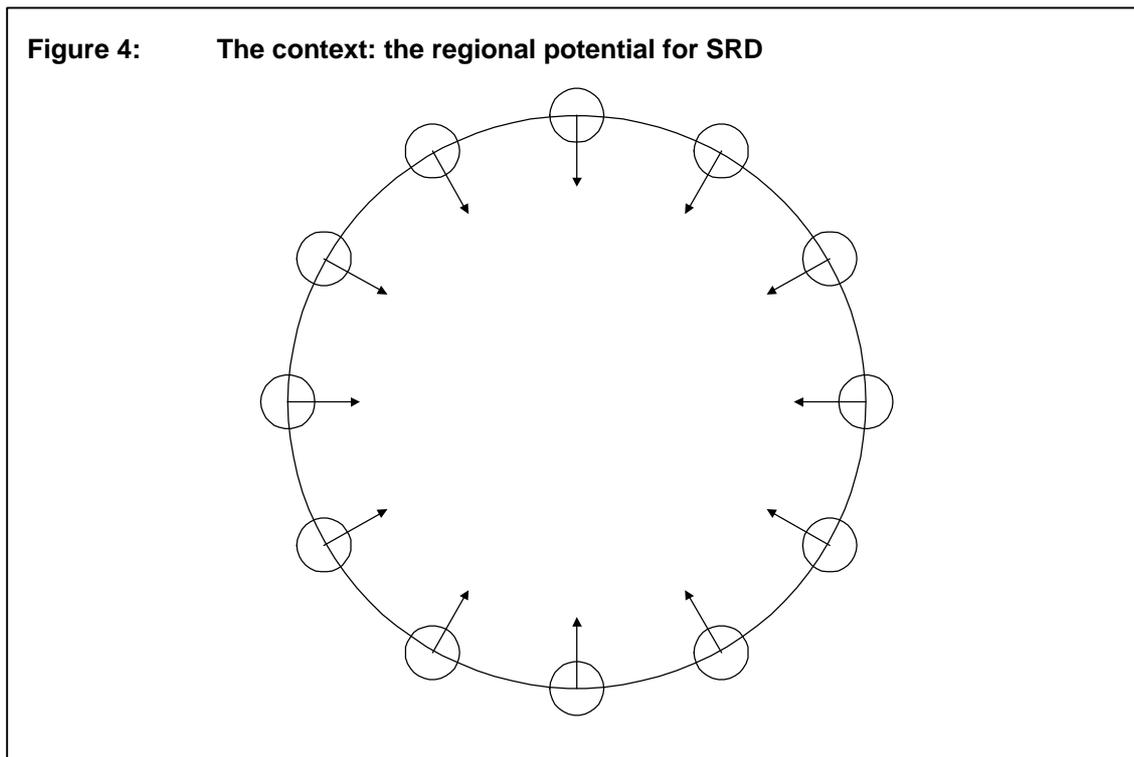
2.4.5.2 Considering the Context: the regional potential for SRD

The 16 „key regional factors“ represent qualities of a regional context that favour sustainable regional development; they are simultaneously *common*, *diverse* and *original*. *Common*, because they are relevant in each local context examined; *diverse*, because they act in different way according to the specific context; *original*, because they are combined differently by the local actors.

This means that there is no standardised way or model to utilise them, but that a creative mix of them depends on the capacity for innovation expressed by the social capital of local and regional communities. Therefore any actor planning a support programme or a local action would have to consider to which extent these potentials are present, on which elements he can rely and which ones would most urgently need to be developed. The key regional factors can be grouped with the help of the four systemic principles, but none of these factors, such as e.g. „capacity of creating shared visions“, can be attributed only to one of the principles.

The concept of „region“ in this context is a rather wide one, the region in question can be large or small. However, behind the concept of „regional potential“ lies the idea that some degree of „self-governance“ in a territory is necessary in order to move towards sustainable regional development. Many of the key regional factors point in this direction. The way in which they are expressed will depend on the size of the region considered. Our case studies indicate that above a certain number of population (which may also depend on the density) the kind of interaction changes, and more indirect, formalised and specialised forms of interaction prevail. This tends to hamper an integrated approach.

The full list of the 16 key regional factors is given in the synoptic table below.



2.4.5.3 Transformation dynamics for SRD

Good strategies start from a broad view but concentrate on a few key issues. During the case studies the necessity emerged not only to look at static „preconditions“ for successful SRD but also to consider the dynamics of transformation which often went through several phases. Looking at the basic strategies which can be adopted (and combined) in this context one ends up with a quite small number. After long discussions the research partners identified six basic „transformation levers“. They are all connected with the three dimensions of transformation already mentioned (perception; action and behaviour patterns; visions and values) and often refer to the one or the other key regional factor. Strategies, policies and courses of action oriented towards sustainable development must consider the existing potentials in order to utilise them to improve local capability and to empower local communities in managing their own affairs, to solve their problems, to anticipate and create change.

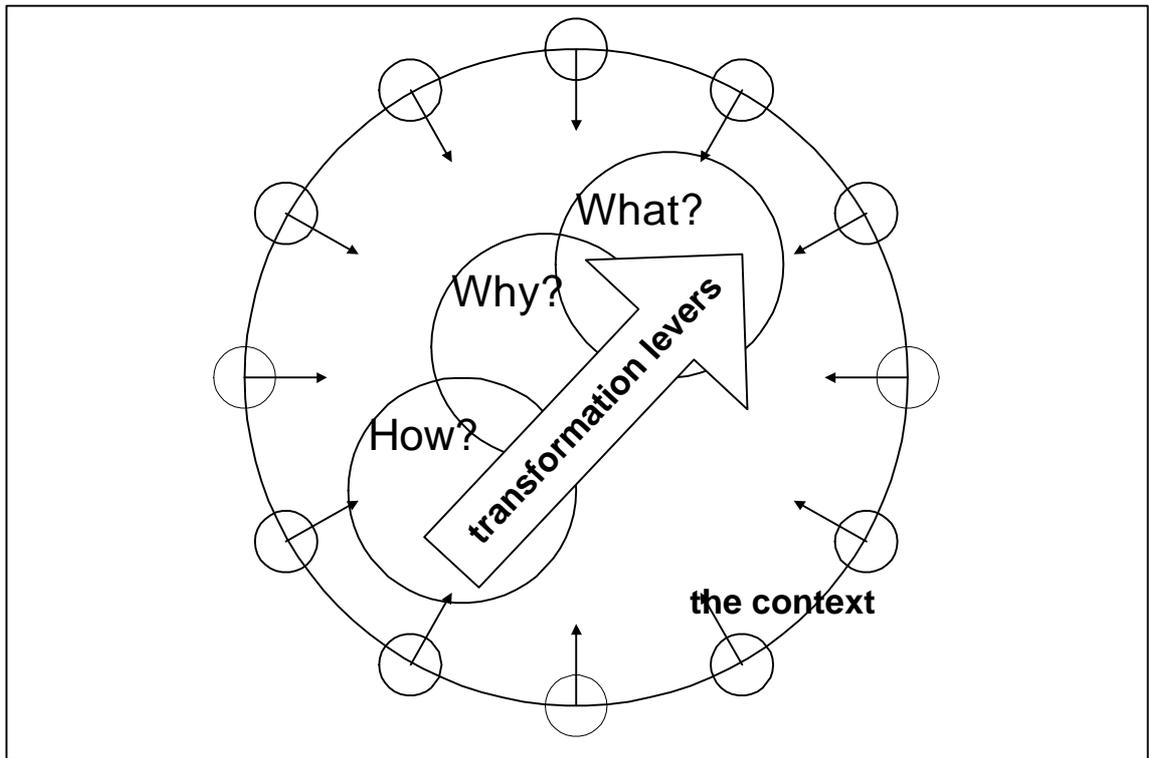
The list of the 6 transformation levers is given in the synoptic table below.

2.4.6 Quality Management of SRD

The enlarged framework eventually consisted of three categories of elements:

- the ORIENTATION towards sustainability given by the 10 sustainability components
- the regional social POTENTIAL given by the 16 key regional factors
- the transformation DYNAMICS given by the 6 transformation levers

A summary is given in the synoptic table below, more detailed comments concerning each element are given in chapter 7 where the use of this framework is explained in a more practice-oriented way.



As has been pointed out earlier, the conclusion was reached that sustainability cannot be achieved by a tayloristic approach subdividing the whole issue in many subproblems and separately developing measures for single aspects. Checklists alone will not solve the problem. With the emergence of a more systemic view of the world in the last decades, new approaches have been developed in different fields which allow for an integrated view of different dimensions without simply mixing all together and only relying on intuition. One of the most interesting approaches has been developed in industrial quality management. Quality is something difficult to grasp. It should improve, but for every product different aspects are important in differing combinations, different companies and different customers would not have the same interpretation and even minimum standards will change over time. The approach of quality management therefore starts on a meta-level and does not prescribe fixed standards. It only deals with the methods and procedures with which quality targets that have been set, can be attained or exceeded. The eco-audit has been conceived along the same basic approach. The task is to ensure an optimal and transparent management in the fulfilment of very complex objectives. Setting the objectives is something that can be supported and structured with the help of a differentiated management tool. The decisions themselves, however, are political or strategic ones.

In a similar sense we would like to understand our framework. It can be used as a management framework for improving regional development in direction of sustainability. As such it can be utilised by very different actors for different tasks. The ORIENTATION and the POTENTIAL part can be used for analysing a situation and for monitoring and evaluating the impact of actions or programmes. The TRANSFORMATION levers in conjunction with a previous analysis can be used for designing strategies. And the whole combination can be used for assessing the most varied instruments. Local actors involved in a specific project should be able to make use of this tool as well as administrators at the EU level planning a support programme.

Instead of developing a specific set of instruments for sustainable development, the INSURED project has hereby developed a framework for the Quality management of Sustainable Regional Development. This framework can be used for assessing and developing an endless series of instruments which are adequate to specific situations. The most interesting instruments which emerged in the experiences of the case studies are presented in a separate volume using this framework. But they are no complete set for all circumstances. They are only to be considered as interesting examples.

Objectives for Sustainable regional development will have to be set in detail in a political process according to the sustainability principle. At European level consensus may grow on some minimum requirements. Nations, regions and local communities will need to specify their own more specific goals. The INSURED framework may be helpful in this context.

Table 2: The INSURED framework for the quality management of SRD

Sustainable Development ORIENTATION	Regional Social POTENTIAL	Transformation DYNAMICS
SD Components	Key Regional Factors	Transformation Levers
<i>Development</i>	<i>linked to diversity</i> ¹	D1. Enhancing problem understanding
O1. Environmental	P1. Perception of a variety of development approaches	D2. Open collective learning
O2. Economic	P2. Creativity and innovation in an entrepreneurial culture which emphasises responsibility towards the community	D3. Negotiation and co-decision
O3. Socio-cultural	P3. Capacity to cope with complexity and ambiguity and to anticipate change	D4. Creation of a shared vision
<i>Equity</i>	P4. Openness to enrich the own culture and enhance multicultural cohesion	D5. Service orientation
O4. Inter-personal equity	P5. Discovery and re-encoding of territorial specificities & local knowledge	D6. Self-governance
O5. Spatial equity	<i>Linked to subsidiarity</i> ¹	¹ The links indicated by these headings are not the only possible ones
O6. Inter-temporal equity	P6. Ability of each to reach their optimum level of attainment and fulfilment	
<i>Systemic</i>	P7. Fractal distribution of competence using the counterflow principle	
O7. Diversity	P8. Autonomy of strategic decision making within a facilitating infrastructure	
O8. Subsidiarity	P9. Primary reliance on own resources without compromising the ones of the others	
O9. Networking and partnership	<i>Linked to networking / partnership</i> ¹	
O10. Participation	P10. Shared value system taking into account environmental, socio-cultural and economic inter dependencies	
	P11. Social cohesion	
	P12. Opportunities and room for equitable interaction	
	P13. Capacity of creating shared visions	
	P14. Integration of social & technical skills into the innovation process	
	<i>Linked to participation</i> ¹	
	P15. Access to information and to the arena of dialogue and debate	
	P16. Multiplicity of interactions, enhanced by local animators	

3 Synopsis of the Regional Case Studies

The regional case Studies which form the large empirical part of the research are each summarised in the second part of this volume. Here we will concentrate on their common features. In the preceding chapter it was explained how, on the basis of the case studies, the original analysis framework has been enlarged leading to the INSURED SRD Management Framework. This final step of the project was based on the most interesting common aspects of the case studies, as they have been identified by the European research team jointly looking back at the different experiences in the five regions. In fact, discovering commonalities has been the main emphasis in the synopsis of the case studies. The agreement on the formulation of differences for the public in all regions proved to be much more difficult.

As explained more in detail in chapter 6, the supporting missions and innovative actions analysed in the case studies have been chosen by each research group on the basis of rather broad guidelines. Some leeway was allowed to each group in application of the investigation methodology. There was thus scope to broaden the original perspective, to discover new approaches and aspects, to adapt the methodology to different backgrounds and to develop consistent images of the regions which are more or less accepted and shared by the regional advisory groups. On the other hand this explorative approach limits the possibility of systematic detailed comparisons between the different case studies on the basis of an analytical framework agreed upon in advance. The rich material of the case studies surely would allow interesting additional comparative studies. These, however, would require more precise additional criteria.

In the following sections some important aspects which arise from a synopsis of the different case studies are highlighted. They form the background of the INSURED SRD management framework explained in more detail in the next chapter.

3.1 Social dynamics

The importance of the social context

The main finding which also strongly shaped the further development of the framework was, that the social interactions in some kind of “community” were of the utmost importance for the success of innovative actions in direction of Sustainable Regional Development. The social context strongly influenced and conditioned the actions.

The analysis shows the importance of soft factors like trust and social competence. The capability of networking and negotiating was found to be essential. A good balance between the social cohesion of a community and its openness towards new influences and ideas has been important in most of the investigated cases. In some cases also ‘communities of experts’ played an important role, networks of specialists in a larger area. Innovative actions within established expert networks were triggered by new types of cooperation (e.g. between universities, public administration and private companies) and the integration of new external impulses.

Most of the key factors for sustainable regional development mentioned in the case studies were related to these social interrelationships. In a workshop following the case studies the European research team identified 60 key factors for SRD. Most of them concerned the social context and the dynamics of social interaction. Later, these have been condensed to the 16 Key Regional Factors which make up the Regional POTENTIAL in the INSURED framework (see Table 2).

Taking care of the Social Capital

Another term for describing this Potential - which among other elements includes tacit knowledge, entrepreneurial dynamics, a shared system of values as well as the social cohesion within a region – would be 'Regional Social Capital'. The concept of capital stresses the idea that constant investment is needed for maintaining and improving the quality of the capital stock. The social capital of a region cannot just be taken for granted. The investigated examples show that it can deteriorate and that it also can be systematically improved. Therefore, policy instruments for building up social capital are of great importance.

Citizens and Institutions

As a consequence of different histories and cultures, the relationship between citizens and institutions differs quite strongly between the different countries and regions analysed in this research. This relationship shapes the interrelationships between policies and projects, between public and private actions and between the different administrative and political levels. It also shapes the kind of development approaches and policies preferred in the different regions. A short characterisation of the situation in each region has been given in the regional case studies. A systematic comparison, however, has not been possible in this research project.

The role of leadership

An interesting issue which emerged from the case studies is the role of leadership. Many of the innovative actions are based on the involvement and the capacity of single actors. They have social skills to a great extent, combined with the ability to cope with, to create and to manage change. They are the moving force of local animation by motivating and mobilising people to care for local interaction and thus for their own development.

Such leadership does not mean hierarchy. The different projects produce different types of leaders, ranging from the involved member of the regional administration to the individual citizen who initiated an association that helps to materialise his/her own vision.

The case studies make it possible to identify some attributes of local animators, like the ability to mediate conflicts or to "speak" the language of different groups of actors. But it does not seem possible to create intentionally this kind of leadership with the help of policy instruments, only the ground can be prepared by offering adequate support. Indeed, by providing adequate training, people can acquire useful know-how and can improve their abilities and social skills as "sustainable development and change agents"

3.2 The spatial dimension

In most regions the analysis started from a level below the one which is usually considered as "Regions" in an European context (Régions, Regioni, Bundesländer). We could call this a sub-regional level but in our case-studies we generally talk about regions.

Looking at the supporting missions (political programmes) the inquiry had to deal mainly with the level of the European Regions. Looking at the innovative actions the focus often narrowed to a more local level. The interesting question arises, at which level do most integrative dynamics appear? However, the answer is not simple. Comparing the case studies, three main factors can be identified:

- the size in terms of number of inhabitants
- the legal constitution
- the historical identity

Dynamic innovative actions in terms of SRD seem to require intensive personal networking within a limited area. Personal contacts between a variety of actors on the basis of face-to-face communication are a precondition of most of the analysed innovative actions. Omitting large agglomerations, only in a few of the analysed cases did the intensive dynamics extend over areas with much more than 100.000 inhabitants.

On the other hand the political-administrative constitution has a strong influence on the degree of self-governance at the regional level. Appenzell-Ausserrhoden for example, with 54000 inhabitants, a very small region by European standards, as a Swiss Canton has far-reaching legislative competencies of its own, which were used extensively for high-profile innovations in agricultural policy. Central Hessen, on the other side, with a population of one million, is a merely administrative part of the State of Hessen and has difficulties to formulate its own policies. Interestingly, among the regions investigated, in the most decentralised Swiss and the most centralised Irish structures one could observe the most committed struggle for local autonomy and self-governance.

Historical identity, finally, is strongly, but not completely linked to the two previous factors. The Val di Cornia, which was the focus of the case study in Tuscany, is an area with a rooted historical identity which collaborates intensely despite the fact that it is crossed by several administrative borders. The Mid West Region of Ireland on the other hand, the creation of which can be attributed to a large extent to demands from the European Union, has recently begun to develop its own distinctive identity. In Mittelhessen, old rivalries still hinder the cooperation in some of the districts which have been introduced at the beginning of the seventies.

The table below gives an idea of the spatial dimension of the areas investigated and the typical range of integrative innovative actions.

Table 3: Spatial dimensions

	Austria	Germany	Ireland	Italy	Switzerland
	pop.: 8.047.000 surf.: 84.000	pop.:81.662.000 Surf.: 357.000	pop.: 3.580.000 surf.: 70.000	pop.: 57.283.000 surf.: 301.000	pop.: 7.081.000 surf.: 41.000
European Region	Styria pop.: 1.210.000 surf.: 16.388	Hessen pop.: 6.010.000 surf.: 21.114	Mid-West pop.: 300.000 surf.: 7.000	Toscana pop.: 3.500.000 surf.: 23.000	Eastern Switzerland pop.: 964.000 surf.:11.200
Analysed Area (region)	Lower Styria pop.: 800.000 surf.: 6.800	Mittelhessen pop.: 1.000.000 surf.: 3.700	Mid-West pop.: 300.000 surf.: 7.000	Val di Cornia pop.: 60.000 surf.: 301.000	St. Gallen – Appenzell pop.:512.000 surf.: 2.440
Examples of areas covered by innovative actions					
Sub-regional level	Straden	Burgwald	Ballyhoura	Alta Maremma	Appenzell AR
Local level	Graz	Giessen	Scarriff	Piombino	-

3.3 The time dimension

Sustainability calls for deep cultural transformations

For a large number of the actors encountered, sustainable development is just an additional requirement which has to be integrated into daily planning and policy activities. They call for simple rules and guidelines on how to comply with the requirements of sustainability. A growing group of actors, however, in all regions acknowledge that the discussion about sustainable development is a discussion about a major transformation in our societies. The main question of sustainable development therefore is how to manage a process of profound transformation which takes its time and will not be accomplished within a couple of years.

Three dimensions of change

Looking at the history of the programmes and projects which were analysed in the empirical studies three basic dimensions of change could be observed:

- perception
- action and behaviour patterns
- visions and values

All three dimensions are intrinsically interrelated. The dynamics of change may for a certain period of time be more intense in one dimension than in another, but no fixed sequence of phases could be observed. The actors who are important for bringing about change may not be the same for the different dimensions. As already mentioned, different patterns could be observed in the different regions as to whether these actors originate from public institutions, from private companies or from civil society.

The transformation process takes many years

The histories of the analysed supporting missions and innovative actions reveal a long-lasting and often painstaking process of trial and error.

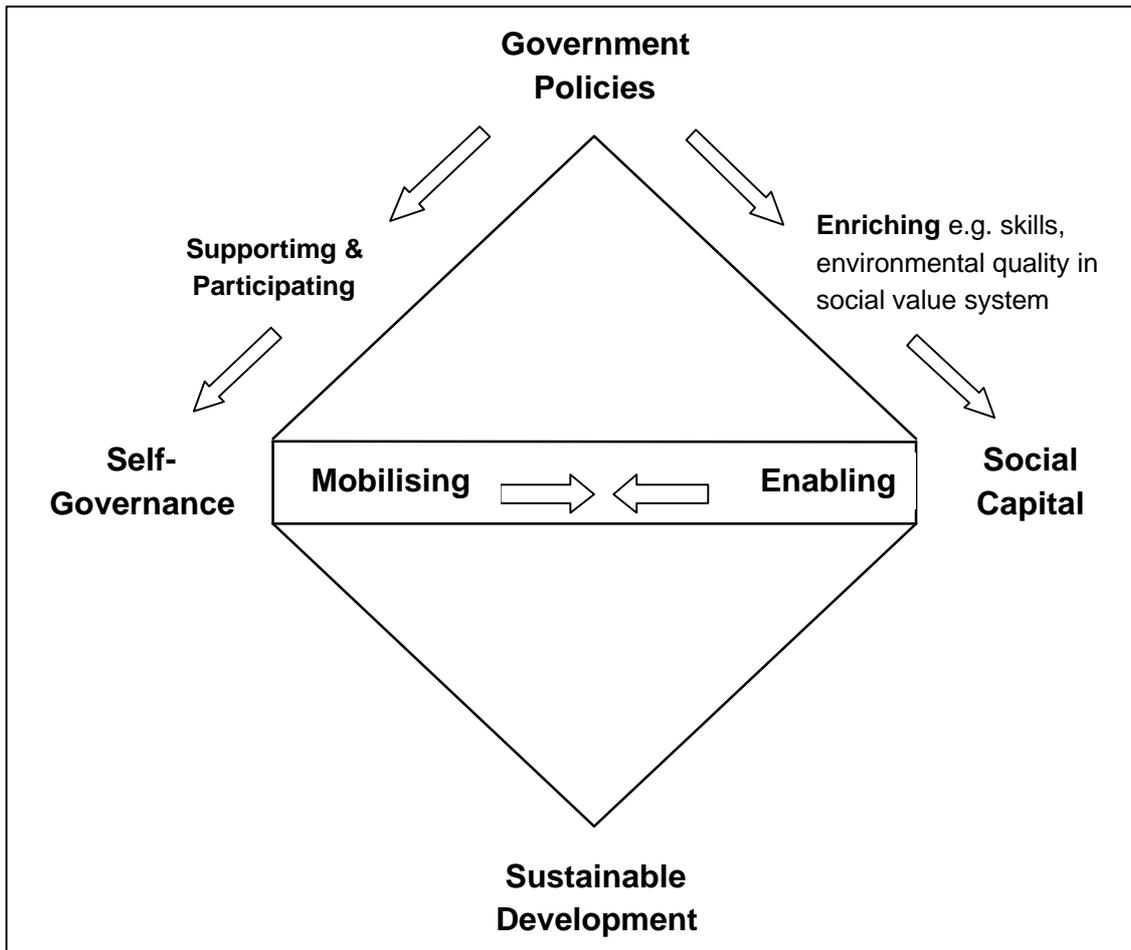
- In Val di Cornia (Tuscany) the transformation process started about 16 years ago from a situation where the old industry-dominated development model was dominating. Today a shared vision of a sustainable development of the area emerges and is beginning to become “operational”
- In Appenzell Ausserrhoden (Switzerland) a public discussion about the regional development concept and the new constitution was an important milestone in 1990; many years of preparation had preceded this public process of formulating a shared vision. Today, eight years later, the first projects outlined in the development concept are becoming operational.
- Looking at single projects, similar time-spans can be observed: The ZAUG project in Gießen (Hessen) took about 15 years from its origins to the present state where it gains considerable influence and recognition in the region. The first phase of Ballyhoura Development (Mid-West Ireland) even started in 1964 when a small group of regional actors got together to establish a Development Association.

3.4 Self-Governance

The case studies highlighted the growing phenomenon of self-governance in Europe and illustrated the diversity of the phenomenon and its pervasiveness of different systems of government. Most western societies are in a process of shifting from a long period of decisive govern-

ment determination of policy and bureaucratic implementation to an era in which government is a partner with individual and collective actors, usually local, in delivery of public services and performance of public functions. On the one hand, implementation of policy has acquired a more negotiated and collaborative style and within this there is a feedback which is increasingly influencing if not determining policy. On the other hand, the initiative to address social and economic problems and needs is being taken more and more often by private individuals and organisations.

Figure 5 Policy Instruments, Social Capital and Self-Governance



Local communities, even in highly centralised economies, are reaching out to take greater control of their own destinies. Social groups, private-non-profit organisations, business firms and individuals have been taking initiatives to address local social and economic problems and issues by creating new forms of organisation. Communities and social groups within communities have organised themselves to undertake what would formerly have been considered to be public functions, functions of the political and administrative system. Governments have been collaborating, sometimes overtly and sometimes in a quietly pragmatic manner, with the phenomenon, devolving responsibility to community groups to deal with poverty, unemployment and social exclusion at their local level, entering into partnership with community and other local groups, jointly working with them, supporting them by funding or engaging them to provide public services as more effective vehicles of delivery. There are many different kinds of partnerships and collaborations, between industrial firms, universities, private individuals, government agencies, community groups, local community councils elected outside the political system and so on. The European Commission, in pursuing the principle of subsidiarity, has devised programmes directly accessible by local communities and groups and has thus given them opportunity, as well as reinforcing their capability, to take initiatives and achieve self-governance.

The end result is a growing phenomenon of local self-governance which is rooted in the social cohesion of local communities and is engaged to establish consensual collaboration in order to tackle issues of mutual concern or benefit. Leadership is being given by social entrepreneurs and groups, concerned to address local social, economic and environmental issues and willing to implement their ideas in innovative actions and to mobilise their community. Some are rebuilding the social cohesion as the first step to achievement of a vision of the future of a marginalised or disintegrating community. There are also the inevitable tensions as politicians and administrations attempt to control the emerging modes of self-governance of local groups or to constrain their activities. The pattern of the social and organisational innovation taking place is very diverse, shaped by the initiators and emerging from, or adapted to, the local objectives and local circumstances of the action undertaken. The many different shapes defy categorisation by bureaucratic norms and procedures. In other words, a diverse mass of social and organisational innovation is quietly taking place but gradually gaining a momentum which might eventually challenge the momentum of the deterministic modes of government which have characterised the past.

What has been observed in the INSURED project and merits further study, is the interaction between the social capital of a community and locality and government policies and instruments of policy. This can be expressed in a figure which shows on the one hand that social capital can be enriched by government policy - and also of course degraded - but which demonstrates that the route to sustainable, social, economic and environmental development is essentially through the interaction of the social capital of a place with government instruments. What are the characteristics of the social capital which enable a place to enter on a process of sustainable development and what are the characteristics of policy instruments which enable the social capital to be efficient and effective in developing sustainably?

3.5 Consequences

The concept of SRD is a broad one. Its implementation and concrete interpretation strongly depend on the regional context. Most important components of this context are the social inter-relationships, communication patterns and institutional settings which strongly differ from one region to another. In order to facilitate the transfer of experiences from one region to another, an adequate description of these contexts is necessary.

Despite all the differences and all the difficulties of generalisation, it is possible to identify key factors and basic dynamics of Sustainable Regional Development which are common to all the actions investigated. It seems possible therefore to devise a general framework with which to analyse and describe contexts in a common language. Such a common language would enable actors throughout Europe to compare specific situations and to identify which elements of an action may be successfully transferred.

In particular, the social context which is mostly unquestioned and natural for those who live in it, needs adequate categories of description if it is to be comprehensible elsewhere. The translation of seemingly common terms between different European languages also poses problems for transfer of experience.

The conceptual framework for the analysis evolved over time. The INSURED SRD management framework with its 32 aspects as already shortly presented in section 2.4.5 and 2.4.6 is a result of comparing and reconsidering the case studies. Only parts of it were defined when the case studies started and have been applied therein. Without question, a series of interesting insights and meaningful comparisons could be gained, revisiting these case studies with the help of the framework as it has been further developed after their conclusion.

The next chapter will present this framework - the main result of the research - for general use.

4 The INSURED framework for the quality management of SRD

At the end of chapter 2 the development of a framework for the quality management of Sustainable Regional Development has already been described in the context of the overall approach of this project. It was based on the regional case studies summarised in the second part of this report and on the considerations in chapter 3.

The purpose of the present chapter is to present the INSURED framework in more detail, with a view to its practical use.

The first section is about the limitations of assessment tools in this context. The next shows the overall structure of the management framework. The last section gives a short explanation for every aspect as a guidance to practical work. More detailed explanations of the use of the framework are given in the recommendations (section 5.2).

4.1 Information and Knowledge

Looking at this still largely unmapped territory of instruments and methods for self governance we face the question of how these instruments and methods can be recognised as such. What are the ingredients of enriching the social capital and how can we monitor such a process?

This brings us back to the question, as to whether a "rapid" assessment of policies and instruments is possible and reasonable in our search for sustainable orientation. Practitioners in administration, politics and business ask for easily applicable and data based assessment tools.

Assessing the state and development of the "capitals", the human (social, cultural), the human-made (economic, technological) and the natural capital (environment and natural resources) can be a huge task, costly, and taking a lot of time. Most of the data available are some years old and when conclusions can be drawn, important decisions have already been irreversibly taken. Whereas these "capitals" are inherent to the three first components of sustainability orientation, the three "equity" postulates:

- "interpersonal", which means social, racial, gender and individual-related equity
- "spatial", which means interregional, North-South and any territory-related equity
- "intertemporal", which means the heritage left from one generation to the next (which sums in the "Brundtland criterion" of sustainability)

are also difficult to assess within a short time frame. Nevertheless we have better access to social data than to spatial comparisons, to say nothing about intertemporal statements. The latter often remain speculative and disputable at least in a concrete quantitative sense. As "warning shots", however, they may be very important.

Of a different character are the systemic dimensions within the ten components of sustainability orientation. They concern patterns, also of human behaviour, and require a more intuitive approach to

- HOW problems are perceived,
- HOW processes are shaped,
- HOW policies are designed,
- HOW people (innovators and facilitators) interact to generate better solutions,

- HOW innovative actions differentiate themselves from mainstream influences,
- HOW innovative actions integrate into a greater whole?

Intuitiveness and precision are not contradictory; it will not be statistics, econometrics or biology on which we will depend in our striving for more understanding. We will rely more and more on approaches utilised in geography and anthropology, which for some time went out of fashion because of their liking for qualitative factors and cultural singularities.

So we find ourselves in a dilemma: If we want to use our four "systemic components" of diversity, subsidiarity, partnership/ networking and participation as a means for a rapid and sharp appraisal of decision making processes, we have to systematise them, their interrelationships and their expressions in social interaction. The more we systematise them, the more we risk ignoring local and cultural specificities, and becoming rigid in our thinking. Policies and instruments for sustainable regional development cannot be assessed in what they are, but only in what they do, and part of their doing is their effect on collective learning and collective behaviour. In other words, we have to understand far more about the "grammatics" of human interaction. We all know lots about them, but most of this knowledge is not codified, for it is unconscious.

This challenge can be expressed with some words of Sufi Sayed Najamuddin: "Knowledge is generally confused with information. Because people are looking for information and experience, not knowledge, they do not find knowledge. You cannot avoid giving knowledge to one fitted for it. You cannot give knowledge to the unfit; that is impossible. You can, if you have it, and if he is capable, fit a man for receiving knowledge."

No assessment tool can therefore replace a more profound knowledge about SRD. The management framework developed here, requires differentiated qualitative considerations and helps to systematise them. Further developments may sharpen the systemic approaches.

4.2 The overall structure of the INSURED framework

The framework has been summarised in Table 2 on page 34. The headings of its three columns, ORIENTATION, POTENTIAL and DYNAMICS already show its basic structure. It may be useful to remind of the meanings of these three columns on which a good management of SRD should be based:

- **Sustainable Development ORIENTATION / 10 SD Components**

Sustainability is a general, „regulative“ idea, each of its components has a meaning of a value that should be conserved or strived for. At the same time each component represents a more methodological dimension, a way of looking at things. The concept of sustainability gives the general orientation. All activities should be checked against its components.

- **Regional Social POTENTIAL / 16 Key regional factors**

Sustainable Regional Development relies on social action in the region. The capability or potential of a region to act adequately in this direction is the key to SRD. The key regional factors are socio-cultural and institutional characteristics of a region or community that are essential in this sense. SRD policies will primarily have to enhance these factors. The 16 key regional factors are an interpretation of sustainability from a regional development policy point of view.

- **Transformation DYNAMICS / 6 Transformation levers**

Sustainable development requires innovation and learning processes. A good strategy has to focus on a few driving forces and key aspects of transformation. It cannot cover all as-

pects of a problem or situation at once. The transformation levers represent the basic types of strategies that can be adopted.

Altogether these three main elements of the INSURED framework contain 32 quite different aspects of Sustainable Regional Development. With this framework it seems to be possible to structure all kinds of discussions and actions related to SRD. The INSURED framework is not limited to the perspective of one kind of actor. It can be interpreted from very different points of view.

We can imagine very different situations: an officer at the EU commission designing a programme for supporting SMEs, a consultant assessing the impact of a regional financial support instrument for environmentally oriented innovations in agriculture, a local entrepreneur trying to set up a new waste treatment business. They all should consider a general orientation towards sustainability, they will have to take into account the regional communities which are concerned by their actions and they will have to respect essential aspects of transformation and learning processes. They all could make use of an instrument, of an SRD management framework which helps them to investigate these aspects in more detail and which gives some hints about which options for action or support worked well in similar situations.

Moreover, the fact that the framework allows different interpretations to be made is not only useful in the sense that it can be applied to different situations. It also encourages an actor using it to look at an issue from different points of view. It offers the opportunity to understand the different roles and positions of different actors in one situation – an essential condition for good negotiations and “sustainable” solutions.

Furthermore the INSURED framework should help different kinds and levels of actors in performance of the following tasks:

1. to assess situations
2. to develop strategies
3. to assess programs, measures and actions ex ante
4. to monitor and to support programs and actions
5. to evaluate programs and actions ex post
6. to transfer experiences from one context to another

More details on how to accomplish these task with the help of the INSURED framework are given in section 5.2.2.

4.3 Short explanations of the single SRD aspects

The 32 elements of the INSURED management framework which are grouped in the categories ORIENTATION, POTENTIAL and DYNAMICS constitute different aspects of Sustainable Regional Development. The aspects themselves may be interpreted, subdivided, used in many different ways. However, they constitute basic issues which need to be considered in dealing with SRD. In the following table a short explanation is given for each single aspect which may be used as a practical guideline for discussions.

4.3.1 ORIENTATION: The Sustainable Development Components

The development dimensions		
O1	The environmental component	The environmental component of Sustainability on the one hand demands conservation of the richness and the potentiality of our environment. On the other hand, it calls on us to respect the environmental and ecological principles, to respect and to sustain the functioning of ecological systems of which man is a part. Man has strongly shaped the environment, and therefore the term environment also encompasses the man-made environment.
O2	The economic component	The economic component of sustainability on the one side means the satisfaction of human needs, the conservation and improvement of (mainly material) well-being. On the other hand it also means respect for economic principles: efficient use of all kinds of resources is an essential aspect of sustainability.
O3	The socio-cultural component	The conservation and development of human and social potentials is one side of this component. These potentials comprise all aspects of skills, knowledge, habits, beliefs, culture, institutions of human societies and also their individual members. The cultivation of these potentials on the other hand requires respect for the principles which are considered to be essential for the good functioning of our societies, such as the guarantee of human rights, democracy etc.
The equity dimensions		
O4	Inter-personal equity	Equity between individuals, which encompasses equity between all humans regardless of their social situation, their gender or their ethnic or cultural background is an essential demand since the French revolution and has been a core issue in the development of western societies since the middle of the last century. It remains a central issue in the concept sustainable development. Equity is not equality (the original quest of the French revolution), the aim is not to abolish all differences, but opportunities should be equitably distributed. Solidarity is essential for improving equity.
O5	Spatial equity	Equity between different regions and countries is a more recent concept. In a world in which interrelationships between different countries are continuously intensifying, the importance of this concept is growing. Equity for all humans becomes indivisible.
O6	Intertemporal equity	The concern about future generations has been at the origin of the concept of sustainability. Equity between present and future generations, the principle of maintaining and increasing overall opportunities and options, is an aspect to be considered in all actions. However, there is no simple rule how changes in opportunities may be valued. The other SD components are needed for assessing developments in this sense.

The systemic principles		
O7	Diversity	<p>Diversity is an essential precondition for further development in all kinds of evolving systems. Biodiversity, economic diversity, diversity of cultures all stand for the ability of a system to maintain dynamic stability. Innovation and adaptation to new conditions is possible where different approaches and solutions can be combined to form new ones. Diversification therefore often is a strategy to increase long-term stability.</p>
O8	Subsidiarity	<p>The principle of Subsidiarity basically demands that all kinds of functions be fulfilled at the lowest possible level and within small dimensions. Help or ruling from outside shall only intervene if this really helps to improve the fulfilment of the function and if this does not diminish the autonomy of the subsystem in a dangerous way. The principle of Subsidiarity originated in the catholic social teaching concerning the issue of social responsibility and social security, but it can be applied to all kinds of systems, such as politics, administration, business, technical systems, material flows in the economy etc.</p> <p>The principle does not give clear indications, it describes the tension between autonomy and integration into larger systems. Very different answers have been given to it. Often, clear-cut divisions of competencies are sought between different hierarchic levels and dimensions. However, in a world of rapidly growing complexity it is increasingly important to be able to understand and manage shared and negotiated responsibilities between several levels and dimensions. Old concepts of (national) sovereignty will have to be replaced by concepts of multi-level governance.</p> <p>Subsidiarity implies empowerment of individuals and communities to actively manage and control their own life. Subsidiarity nourishes democracy, by means of governance styles which allow citizens to determine every dimension of their common life and to improve their abilities to manage equitable social interactions</p> <p>Understanding subsidiarity seems to be one of the main challenges of the emerging concept of sustainable development. In transition times standards and margins have to be newly defined. Subsidiarity is not only an issue for political and social systems. Trends towards globalisation of economic flows and technological systems risk undermining the margins of autonomous political and economic decisionmaking at all levels. Only differentiated subsidiarity in all fields can be an answer to these problems.</p>
O9	Networking and Partnership	<p>The concept of networking stresses the importance of horizontal non-hierarchical relationships. A network is based on mutually agreed objectives and rules and is basically open: members can enter and leave. Networks ensure the exchange of experiences and information, organise mutual support, stabilise systems and evolve. Networks are subject to competition: members may change to other, more attractive networks. Flexibility and orientation towards the needs of the members is therefore essential for networks to survive.</p> <p>The concept of networking is not only relevant in social systems but also in biological and technical ones. The enormous success of the use of the networking concept in Information Technology parallel to its growing acceptance in all kinds of organisations is leading to a deep transformation of our societies.</p>

O10	Participation	<p>All stakeholders concerned by an issue should have the opportunity to be involved in the relevant process of decisionmaking. In the early stages of the formulation of a problem and the identification of alternative solutions such an involvement is particularly important. Participation corresponds to basic ideas of democracy, favours a diversity of approaches and may contribute to avoidance of conflicts. Participation strengthens the sense of responsibility, motivates people to make contribution and increases compliance with decisions taken. Participation on the other hand requires time and motivation among the participants, openness of the institutions involved and often more time and funding than exclusive hierarchical decisionmaking. Depending on the adopted procedures it also risks decisions being taken which contradict experts views.</p> <p>Participation concerns the way of decisionmaking in all kinds of social systems including business. It requires respect for different kinds of interests and points of view. Therefore it also favours in approach which integrates the different dimensions of Sustainable Development.</p>
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4.3.2 POTENTIAL: The key regional factors

P1	Perception of a variety of development approaches	<p>In a dynamically changing and unpredictable environment the existence and perception of various approaches increases the capability to cope with change. With a multitude of approaches there is a greater chance that one of them prove to be particularly appropriate. Furthermore competing approaches may challenge and fertilise each other and thereby provide a more innovative environment. Important prerequisites are:</p> <ul style="list-style-type: none"> • openness towards different kinds of actors • cooperative competition which facilitates the emergence of new models of governance and self governance
P2	Creativity and innovation in an entrepreneurial culture which emphasises responsibility towards the community	<p>An essential feature of local development is a pervasive entrepreneurial culture in which people are used taking responsibility for their own destiny in a creative and proactive way. Innovations created in such an environment will be most successful and get most support if they contribute to the development of the community. Responsibility towards the community is therefore an essential element of an entrepreneurial culture which relies on local and regional potentials.</p>
P3	Capacity to cope with complexity and ambiguity and to anticipate change	<p>As inter-regional and international interrelationships grow, successful self-governed development of local or regional communities requires an increasing capability to cope with complexity and ambiguity. Anticipation of change becomes more and more important in such an environment. The coexistence of different reference systems in a community between which individuals may alternate according to the situation, can be particularly helpful in coping with these challenges.</p>
P4	Openness to enrich the own culture and enhance multicultural cohesion	<p>Openness to other views and new solutions and the capability to adapt them is an essential feature of dynamically developing regions.</p> <p>Cohabitation of different cultures and their mutual learning stimulates innovation and creativity. Rooted identities are an important precondition for such openness.</p>
P5	Discovery and re-encoding of territorial specificities & local knowledge	<p>Local knowledge and territorial specificities are often taken for granted and therefore neglected by the inhabitants of an area. In order to make a conscious and careful use of them they have to be rediscovered and re-interpreted in terms of present issues and in the context of Sustainable Regional Development.</p>

P6	Ability of each to reach their optimum level of attainment and fulfilment	A major strength of a region is the ability to develop fully the innate talents and capabilities of its inhabitants. Helping each to reach the optimum level not only of attainment but also of fulfilment means applying the principle of subsidiarity to the relationship between community and the individual. This may release considerable creative innovation contributing to regional development. A most important aspect of this is women's empowerment. Life long learning including of tacit skills is an essential prerequisite.
P7	Fractal distribution of competence using the counterflow principle	According to the principle of subsidiarity responsibilities for all kinds of issues should be assigned to the lowest possible level. However, a strict separation of competencies often has proved to cause communication problems, irresponsible behaviour or unnecessary centralisation. More adequate is a differentiated system of multi-level governance. Every level should have some responsibility for every type of issue. Analogous to fractal structures in nature we can speak of a fractal distribution of competencies where every level has to deal with every category of problem but in a different order of magnitude and detail. Appropriate systems of setting rules (top-down), balanced by a counterflow of information and decision making (bottom-up) must be established and regularly reviewed by negotiation. Important aspects are: <ul style="list-style-type: none"> • early involvement of several administrative levels and dimensions • ability to think simultaneously at different levels and dimensions • multiple links between different levels and dimensions
P8	Autonomy of strategic decision making within a facilitating infrastructure	Responsibility for one's own destiny and dynamic development can only grow where opportunity for autonomous decisionmaking is present. A facilitating infrastructure which does not rule but supports, may help considerably. This factor also includes: <ul style="list-style-type: none"> • opportunity for concrete and visible individual and social action. • presence of local margins of action • open and flexible organisation • ability to change structures
P9	Primary reliance on own resources without compromising the ones of the others	Relying primarily on own resources strengthens identity, avoids equity problems, strengthens responsibility for the future and enhances self-governance. The synergetic use of human, natural and man-made indigenous resources is essential. On this basis each distinctive area may develop its own economy, culture and environment.
P10	Shared value system taking into account environmental, socio-cultural and economic interdependencies	A value system more or less shared by all members of a community is essential for coherent development. Explicitly or tacitly shared values facilitate decisionmaking, avoid conflicts and may help to gather forces for a common goal. Sustainable Development cannot be imposed by external rules. It requires that environmental, socio-cultural and economic interdependencies and qualities be integrated in a shared value system. E.g. in a community where „environmental quality“ is integrated into the social value system, people's everyday decisions will be guided towards care of the environment, they will support actions in this direction and criticise what goes against. The social perception of ecological limits is an important element of caring for the environment.

P11	Social cohesion	Local or regional development strongly relies on non-traded interactions and relationships. Trust and mutual support are essential elements which favour entrepreneurial dynamics. Social cohesion facilitates taking and absorbing risks, motivates and makes possible common action. Attachment and pride in place, public discussion on values and the capacity to develop a shared vision are essential aspects of this factor.
P12	Opportunities and room for equitable interaction	Partnership and participation in a social system require adequate opportunities and procedures at the community level, a culture of mutual respect as well as individual capabilities. This factor includes: <ul style="list-style-type: none"> • mutual learning, (moderation, negotiation) and acceptance • autonomy of partners and negotiated responsibilities • development of a negotiation culture
P13	Capacity of creating shared visions	The capability of a community to develop and share coherent long term visions is essential for self-governance and coherent collective action. If visions are not shared or not coherent, courses of action will be contradictory, dissipate forces and invite external ruling to improve effectiveness. This factor requires <ul style="list-style-type: none"> • the capability of long term strategic thinking • the development of transdisciplinary cooperation and approaches • the possibility for the public to participate in goal setting processes • the support of competing and alternative development projects/approaches
P14	Integration of social & technical skills into the innovation process	Innovations always have social and technical aspects which, however, are often considered separately. Conscious integration of social and technical learning and skills into the innovation process at all stages can considerably improve the appropriateness and success of innovations. Such an integration may minimise frictions, conflicts and failures associated with change.
P15	Access to information and to the arena of dialogue and debate	In order to make possible the participation of all stakeholders in collective decisionmaking processes, adequate access to the arena must be ensured. An essential precondition is the transparency of decisions and open access to information. In order to motivate people to raise their voice and to avoid deception it is important to make clear what really can be influenced. Finally, control of opportunistic behaviour is necessary for avoiding abuse and deterioration of opportunities for participation.
P16	Multiplicity of interactions, enhanced by local animators	Liveliness, diversity and opportunities for participation in a community grow on the basis of a multiplicity of different kinds of interactions. Animators who help growing local initiatives and developing networks, and who know how to organise external support, are extremely helpful in this respect. Animation and motivation can release unexpected creativity and skills. It is important that these animators be embedded in the local interaction and act as development and change agents.

4.3.3 DYNAMICS: The Transformation Levers

D1	Enhancing problem understanding	Focusing on an improvement of problem understanding is often a prerequisite for further action which leads to actual changes. Such a strategy can include a wide range of actions from "awareness raising" to research. However, problem perception depends on a person's role and is somehow culturally shaped.
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D2	Open collective learning	<p>Learning is personal and a social process which can be facilitated. Learning may range from simple imitation over creative adaptation to very innovative recombination of different skills and experiences. Openness to experiences of other individuals, other regions and other cultures can be very helpful and speed up the finding of solutions for recognised problems. Such openness combined with self-reflection and confidence in one's own identity is an important source of innovation. Elements of a strategy of encouraging open collective learning could include: strengthening the identity by identifying the own specificities, exchanging experiences, learning how to manage creative adaptation, making accessible interesting examples.</p>
D3	Negotiation and co-decision	<p>Self-governance of communities relies on their capability to reach reliable agreements. Negotiations including all stakeholders concerned are essential for gaining large support, durable decisions and equitable solutions. Adequate procedures and skills are needed for negotiating, a negotiation strategy has to cultivate these prerequisites. Negotiation is an essential strategy element for making possible Participation, Partnership and Subsidiarity. Proposing negotiation means accepting that there are different views and interests that have some stake and that should be integrated in a decisionmaking process. Negotiation makes sense only if at the end there stands some kind of co-decision.</p>
D4	Creation of a shared vision	<p>Development is shaped by an endless stream of mini-decisions which are largely determined by the visions of the decision-makers. Without some kind of shared vision no coherent objectives and strategy can be formulated and implemented. A shared vision can be created in many ways. Depending on the issue and the group/community it may take days or years. Visions may have very different degrees of concreteness. Appropriate methods for creating visions include scenario building, discussion on best practices and public debates.</p>
D5	Service orientation	<p>Service orientation implies a consequent orientation towards clients, results and effects</p> <p>In a general sense of client orientation all strategies should consider carefully the interests, the needs and the capabilities of their target group. In a more narrow sense, a client-oriented strategy may directly start from the requests of the target group and involve it directly in the formulation of the action.</p> <p>For learning, and for making responsibility more operational, transparency, self-reflection and feedback concerning objectives, actions and achievements are important. Systematic approaches can be helpful:</p> <ul style="list-style-type: none"> • to get close to the customer and to involve the clients in the process • to formulate objectives in terms of concrete results and effects and to revise them when necessary • to monitor achievements and difficulties • to evaluate results and effects. <p>Self-reflection is essential for learning. Transparency on objectives and achievements is essential for participation.</p>
D6	Self-governance	<p>On the one hand self-governance of a community in a large sense is a result of all other aspects of SRD mentioned here. It implies the external possibility and the internal capability of the community to control its own destiny.</p> <p>On the other, self-governance can be understood as the conscious use of this capability by a community in order to further develop its own potentials for SRD and its own autonomy.</p>

5 Conclusions and Recommendations

5.1 Conclusions

“Sustainable Development” as a general approach can only be conceived as a “regulative idea”. No stringent rules for behaviour can be deduced rigorously stringently from this general idea without further assumptions. More concrete guidelines and specific norms will have to be developed in a societal discussion and decision making process for the specific contexts shaped by the cultural, economic, environmental and political-administrative conditions. Subsidiarity, which can be regarded as one of the main principles of sustainability, must be applied to this process itself. Therefore, sustainability will always have to be interpreted and reinterpreted in different national, regional, local or other more problem-oriented contexts.

The discussion about sustainability has proven to be a particularly difficult one. Early hopes for unambiguous answers to urgent problems have been disappointed. One main difficulty of this discussion process is that it is a self-reflexive process. The idea of sustainability is so comprehensive that results of this discussion process considerably influence the framing of the discussion itself (Norgaard 1994: “The real challenge of sustainability is to reframe the challenge”). The challenge, therefore, is not to find a generally valuable definition or ultimate checklist for sustainable development, but to develop differentiated management frameworks within which improvements in sustainability can be achieved and assessed. To develop these frameworks and procedures will be a task for the years to come. The magnitude of the dimensions of this challenge can be projected if one thinks about the effort needed to develop frameworks for the more or less successful concretisation of other regulative ideas such as health or freedom. Our expectations concerning individual contributions to this process must, therefore, be modest.

In this view the regional level has to play an increasingly important role. The emerging concepts for a shift towards a more sustainable development stress the importance of regional policies. Consensus grows that these policies will have to play a leading role in implementing the general idea of sustainability. On the other hand an analysis of the paradigm shifts which can be observed in regional development theory and practice over the last two decades show that they are compatible with the emerging concept of sustainability. The reorientation of regional development in the direction of sustainability is an intrinsically social process. An adequate management framework therefore not only has to give an orientation towards sustainability but also needs to link this general orientation to the actual social potential and dynamic in the region concerned.

In the INSURED project which has been conceived as an intercultural project involving five European countries, an attempt has been made to develop a framework for the Quality Management of Sustainable Regional Development which should be useful across the different cultures and regions of Europe as a contribution to a common language, to strengthening of consensus and to management of the difficult transformation process towards another pattern of development.

Against the background of these considerations and of the regional case studies the following conclusions can be drawn:

Sustainable Regional Development is a valuable concept

Combining the concepts of Sustainable Development (SD) and Regional Development (RD) makes sense. The regional and local levels play an important role in the actual implementation of sustainability. The trends in the discussion concerning regional development are compatible with the concept of Sustainable Development. A framework for Sustainable Regional Develop-

ment (SRD) can be useful for actors at all levels practically involved in regional development issues.

The regional context strongly shapes the interpretation of what Sustainability actually means

Sustainability is a general concept with many dimensions. Throughout Europe we find different interpretations corresponding to the specific situations. The challenge is to find a meaningful framework which gives useful guidance in a wide variety of situations.

The proposed 10 Components of SD form a valuable framework for assessing the orientation towards Sustainability

The system of ten Components of Sustainability developed at an early stage of the INSURED project has proven to be useful for assessing the orientation towards sustainability of situations, actions and programmes in very different European regions. It also provides a common language for discussing different emphases and interpretations.

Subsidiarity also applies to the setting of development objectives

Concrete objectives for sustainable development must be formulated at different levels. The principle of subsidiarity must be taken seriously. The European level should only formulate minimum requirements and general orientations but can on the other hand give very valuable support to all lower levels which will have to develop their own visions and goals. Sustainability should not be understood as a defensive concept for avoiding problems, but as a new and creative way to conceive our future.

Considering the Social Potential and Social Dynamics is essential for successful SRD

As has been argued and experienced, in many respects the local and regional dimensions offer the advantage of a more comprehensive view on economic, social and environmental dimensions of development. A main reason for this seems to be that the social contexts in which the main dynamics of development take place, are of rather limited dimensions. Development is intrinsically a social process. Conditions for development are deeply shaped by culture, history and communication patterns. Therefore, in order to develop successful SRD strategies, it is essential to look carefully at the specific social potential of an area. Often these aspects are just taken for granted and not further analysed by the insiders. A framework which helps to look at key issues and a confrontation with experiences elsewhere, may help to discover opportunities and difficulties not noted before.

The usefulness of instruments depends on the context

Hundreds of different instruments can be helpful in Sustainable Regional Development. Whether a particular instrument is useful in a specific situation and how it may be applied strongly depends on the context. Descriptions of instruments therefore should be accompanied by tools for analysing this context and by examples for successful use.

SRD requires a flexible management approach

Sustainability is a "regulative" idea which requires permanent awareness, repeated reinterpretation of the general idea in specific situations and continuous efforts in the process of development. As the specific issues may change, a general framework for Sustainable Regional Development

opment therefore has to focus on the procedural aspects. The challenge lies in developing guidelines and tools for a continuous and flexible management of the quality of SRD.

Regions can learn much from each other when they have a common framework

All experiences indicate that European regions could learn very much from each other. However, mutual learning often has also been tedious and disappointing because of the difficulties to transfer experiences from one context to the other, because of the lack of a common language and terminology and because of easily arising resistances to seriously consider experiences of others. A common conceptual framework and language are often more easily available for technical issues than for social dynamics. A common framework for SRD in which the most relevant differences and commonalities can be expressed and discussed can considerably help in transferring experiences.

The INSURED management framework for SRD has been constructed in order to respond to these findings. The following recommendations focus on how to use it.

5.2 Recommendations

The INSURED project has developed a management framework for Sustainable Regional Development relying strongly on the analysis of selected programs and actions in five European regions. European policies have not been analysed systematically. The following recommendations therefore focus on the use of the proposed management framework. Surely, the INSURED framework is not the only imaginable one, but the recommendations based on it will show which characteristics are important in practice.

Specific recommendations concerning policies and actions in the five regions are given in the long versions of the regional case studies, where appropriate.

5.2.1 How to use the INSURED framework

A risky analogy

The use of the INSURED framework can be exemplified by an analogy to health care, which, however, should not be pushed to far. A physician who wants to support or heal an organism in a phase of illness and transition, will at first make a diagnosis. As a general orientation he will use a general concept of health and will look at his patient considering different health aspects. Is something missing, causing pain or problems? Are all aspects in equilibrium? Are there signs of problems still to come? The concept of health, here, corresponds to our concept of sustainability. Before proposing a therapy or a change in lifestyle, the physician will have to consider the character, the constitution, the age and the self-healing capacity of the patient. Is he strong? What are his nutrition habits? Is there a tendency towards depression? Does he have a strong immune system? These aspects would correspond to the social potential in the case of a region. After the diagnosis the physician needs to focus on a therapy: he can talk to the patient and strengthen his will to get healthy, he can propose to concretely support the function of an organ with a specific drug, he can suggest to strengthen the immune system by changing food habits or he can simply soothe the patient's pains. If the diagnosis and the main focuses of the therapy are established, the doctor needs to identify the appropriate therapeutics. However, with every medication it is necessary to assess in the particular case whether indications and counter-indications fit to the specific situation.

In this sense the Sustainable Development components and the Key regional factors are a diagnostic tool. The Transformation Levers help to identify the main focuses of a therapy. The

„options for action and support“ finally are something like the inventory of a pharmacy. A structured knowledge about health is not only important for medical doctors. Every person who wants to stay healthy needs it, or the drug companies. The health insurance - which could be compared to the EU structural funds - must not exactly know how the single patient is doing, but it will refund care expenses only when an authorised doctor has prescribed them. Many different actors in the health system therefore make use in very different ways of the same structured medical knowledge.

As with all analogies, not all aspects really fit, but the parallels may give some innovative hints.

Two examples

The INSURED framework can be used by a wide variety of actors in a wide variety of situations. Two of these could be for example:

- An EU officer in the Directorate General for Regional Policies has to check the draft of the Operational Programme for the Regional Fund in a specific region before approving it. He could use the INSURED framework in the following way: He would require that preparatory assessment studies have analysed the present situation in this region in terms of the sustainable development components and would check what the main findings are. Similarly he would have a look at the regional social potential and would compare the results with other regions with which he has been dealing recently. He would then have a close look at the proposed development strategy and check whether all six focuses have been seriously considered. Finally, he would look at the measures proposed and assess their adequacy to the problems identified before and check whether they will fit into the social potential encountered. Having identified the main strengths, weaknesses, opportunities and threats according to the assessment grid, the „best practices database“ structured along these items could help him to make quick comparisons.
- The head of a local professional training institution wants to set up a special initiative for unemployed young people using public funding. She has some initial ideas for core activities and checks them using the list of sustainable development components, each time asking herself what the local community really could need in this respect. She then analyses the political and social context of her initiative using the key regional factors: Where will resistance come from? Who needs to be convinced? Which elements will be most important? How can the local community support her? Then she will try to identify the most important dynamics, which she will have to address in order to get the project off the ground. Raising awareness about the youth unemployment problem? Initiating a negotiation with local companies? Creating a common vision about youth employment in her area? At the same time she will sort out her basic options for action, look for support and funding and try to learn from experiences of others. Here the best practices database will be useful.

As we see from the examples, the different actors in their specific situations need to develop more specific questions out of the different components and factors. Hundreds of such specific questions are conceivable and cannot be listed in advance. The assessment grid gives a systematic starting point. On the other hand we see that building up the „best practices database“ is an endless task. Each actor will look for a specific kind of experience and will have his preferred approaches and examples. All users could contribute themselves to this database. It would be useful to establish appropriate mechanisms.

5.2.2 An overview on possible uses

The list of possible tasks for which the framework may be used, given in section 4.2 covers a wide variety of activities in many different institutions, organisations and companies on many

different levels. Instead of trying to develop specific instruments for each of these situations and roles, the INSURED project has concentrated on developing a general framework which may be of use in most of these situations. The above list of tasks does not claim to be complete or to be the only way to structure these activities, but it may serve as a useful list of typical uses of the INSURED framework in politics, administration and among local actors. The following sections shortly describe how these tasks can be accomplished with the help of the INSURED framework. These descriptions show that starting from the INSURED SRD management framework much can be done to develop further guidelines and detailed procedures, to adapt existing methods, to agree on specific criteria and to elaborate facilitating tools. Maybe the most important use of the framework could lie in giving an orientation to such further developments.

task 1: assessment of the situation in a region or locality

The state and the trends in a region can be assessed in terms of the ORIENTATION and in terms of the POTENTIAL. A detailed assessment should check all 10 SD components and all 16 key regional factors involved. The aspects given in the INSURED framework only outline the issues to be looked at. For a qualitative assessment it may be sufficient to discuss the different aspects with the help of the methodologies and information at hand. For the critical issues it will be necessary to go more into detail.

For each of the single aspects a series of more detailed indicators can be developed in order to get a more formal description. In some instances indicators could be quantitative, other aspects are difficult to quantify. In order to associate easily comparable value judgements with the different aspects or with detailed indicators, specific criteria could be established explicitly.

A wide variety of specific methods is conceivable which can help to carry out such assessments taking account of the 26 pertinent SRD aspects (Orientation and Potential) mentioned above. The framework should be used in a flexible way. In some instances as a first step it may be even useful to focus on a qualitative discussion of the first three SD components and to have only a short glance at the other aspects.

It is also important to discover what “change” means in the specific local system. Therefore, in order to describe a current situation, it is useful to identify the basic dynamics of change and the transformation levers being used. A more thorough investigation of an action in these terms would correspond to task 5. Anyhow, these tasks are not to be understood as a fixed sequence, but can occur in different orders.

task 2: development of a strategy

An analysis of the situation corresponding to task 1 can show the fields where action is most needed or most promising. On this basis it is possible to set priorities for intervention. They can be described in terms of the components of SD ORIENTATION and of the regional POTENTIAL.

Subsequently the DYNAMICS element of the framework can be used for designing an appropriate strategy. Strategies can be generally described in terms of Transformation Levers acting on Regional Key Factors with an orientation towards SD Components. A more specific description of a strategy would include the expected effects on the different aspects of the SD Orientation and the regional POTENTIAL.

task 3: ex-ante evaluation of a policy for a region or an action in the region

The INSURED framework can be applied in the same way to policies at all levels and to local actions. Interestingly, no difference depending on the level of intervention appears in designing the basic procedures.

Policies or local actions may or may not be based on a detailed strategy. Anyhow, the assessment may include:

- an assessment of the situation corresponding to task 1
- an assessment of the appropriateness of the Transformation Levers used
- an identification and discussion of the Regional Key Factors on which the action mainly relies and acts
- an assessment of the effects that are to be expected in terms of the components of SD ORIENTATION and regional POTENTIAL

task 4: monitoring and support of actions and programmes

The task of monitoring and supporting actions and programmes is often underestimated. It would encompass a continuous or regular monitoring of all aspects of the INSURED quality management framework for SRD:

- monitoring the state and the trends of SD Components and Key Regional Factors
- monitoring the effects of the action on the SD Components and Key Regional Factors
- monitoring the specific use made of Key Regional Factors (the POTENTIAL)
- monitoring the development of the specific use of the Transformation Levers

task 5: ex-post evaluation of a policy or an action

The ex-post evaluation of a policy or an action makes an use of the framework similar to the ex-ante evaluation (task 3). It would compare original states and expectations with the achievements and would put a special focus on the efficiency of the action. Ex-post evaluations, especially when based on good monitoring, can exploit the wealth of an experience with the dynamics of the region. They can therefore make an important contribution to an improved assessment of the regional POTENTIAL.

task 6: transfer experiences from one context to another

Mutual learning, transferring experiences from one context to another is one of the most challenging tasks in Sustainable Regional Development. The difficulty lies in analysing the way in which an experience is embedded in its context, in comparing the contexts and in identifying the elements that can be transferred. The INSURED framework provides a structured and tested set of key elements for the analysis of experiences and for the description and comparison of contexts.

Actors looking for transferable good practices elsewhere, could first analyse their own situation according to task 1, develop the broad outlines of a strategy according to task 2 and then look for experiences which match their main characteristics. A database collecting descriptions of good practices systematised according to the INSURED framework and built up with contributions of users of this framework, could be an increasingly valuable tool for very different kinds of actors all over Europe.

5.2.3 Specific Recommendations to the EU

Use the INSURED management framework for an orientation of the Structural Funds towards Sustainability

The Structural Funds are the main instrument of the EU for regional Policies. Their orientation towards Sustainability is of outstanding importance for Sustainable Development. The Insured management framework can provide a useful tool for introducing an SRD orientation throughout all steps of programming, implementation and evaluation of the Structural Funds activities. The six basic tasks for which the framework can be used (see section 5.2.2) cover all important steps.

Use the framework for interregional cooperation

The INSURED framework provides a common conceptual framework and terminology for discussing issues of Sustainable Regional Development throughout Europe, allowing for different approaches and interpretations. Large parts of it have been used experimentally in different kinds of cooperation projects and have proven to be very useful for structuring and facilitating discussions across different cultures.

Use the framework for supporting the exchange of experiences

Fruitful exchange of experiences requires the ability to identify elements of strategies which are transferable from one specific context to another. The INSURED management framework enables contexts and experiences to be analysed and categorised in such a way that on the basis of an analysis of a specific situation, transferable experiences from other situations can be searched systematically. A database of experiences described in terms of this framework could be a very helpful guide.

Use the framework for comparing different approaches to Sustainable Regional Development

The INSURED framework tries to encompass a large number of elements and approaches concerning Sustainable and Regional Development which have been discussed in recent years. Although every such framework proposes its own combination of perspectives, the broad view of the INSURED framework may be useful for comparing and systemising different existing approaches to SRD in order to make best use of them.

Use the framework for the formation of development agents

The INSURED management framework has been conceived for practical use on all levels and can be further developed in this direction. Its use however requires some training and experience. In order to spread its use it would be helpful to include it in the formation of development agents of all kinds.

Use the framework for public promotion of the idea of sustainability

It seems important to stress that the concept of sustainability is not only a defensive concept for avoiding negative developments. Sustainable Development can be understood as a new orientation for building a desirable future, as a new way of combining opportunities. The INSURED framework could help to emphasise this idea in a larger European debate.

5.2.4 A database of good practices

Instruments and strategies for Sustainable Regional Development can be of very different character according to the wide range of different situations, issues and actors. An instrument can be such different things as the LEADER programme provided by the EU, alliances between producers and clients, a special facilitation method used in a workshop with local businesspeople or the best practice databases of ICLEI to be found in the Internet. This project provides a framework for assessing such instruments in specific situations.

Applying this framework in the analysis of practical experiences would result in an endlessly growing list of interesting instruments and good practices.

A database of good practices systematised with the help of the INSURED framework would go far beyond the traditional collections of good practices. It could combine a practical management framework as described above, which helps the user to analyse his/her own situation, with the possibility of selecting experiences which may be helpful and are described in the same language.

The development of such an interactive management tool which would draw on a growing stock of experiences described in the categories of the framework is a task beyond the scope of this research project.

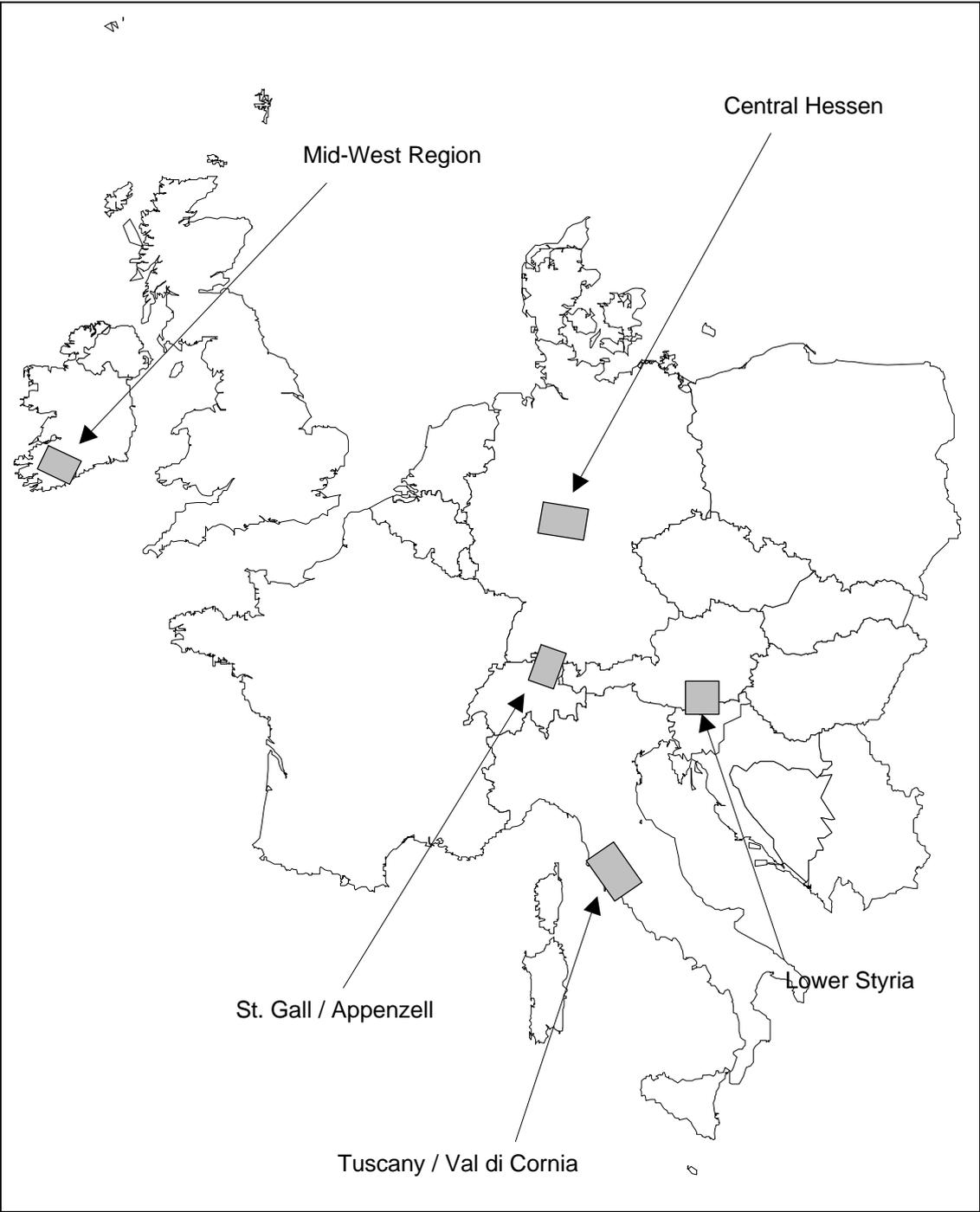
5.2.5 Development of further tools

The approach proposed by the INSURED project can be further developed in a series of directions. The most interesting next steps seem to be:

- the development of an Internet-based database of experiences using the INSURED management framework.
- the further development of simple and easily understandable appraisal methods, including the development of more specific indicators and criteria for some of the 32 aspects of SRD.
- a practical guide for users, translated in different administrative cultures and languages
- the setting up of active networks for exchange of experiences
- the development of special applications of the INSURED framework for the management of the structural funds.

PART II: THE REGIONAL CASE STUDIES

- 6 Introduction to the Empirical Case Studies
- 7 The Mid West Region of Ireland
- 8 Hessen / Central Hessen
- 9 St. Gallen and Appenzell
- 10 Lower Styria
- 11 Toscana / Val di Cornia



6 Introduction to the Empirical Case Studies

The following case studies were carried out by five different research teams in five European regions. The regions had already been selected during the preparation of the research proposal: all of them can be considered as quite advanced in their national context as regards innovative approaches to sustainable development. In the European context they are known as to be among the most interesting regions concerning this issue.

The case studies had the following purposes:

- to discover interesting experiences
- to identify key factors for success
- to test and further develop a common methodological framework

The overall course of the research and the function of the case studies in the project design has already been described in section 3.2.

In parallel with the development of the theoretical framework, a rather conventional analysis of the regions was carried out. Results of this preliminary investigation are summarised in a separate discussion paper (see Annex). In parallel to this preliminary analysis a regional advisory group was set up in each region. Their composition and their function slightly differed.

The next major step consisted in the top-down analysis of the supporting missions in selected policy fields provided by European, national and regional governments and institutions. This analysis was based on a quite broad general methodological framework. The policy fields to be covered were

- structural and labour market policy
- agricultural and rural development policy
- one supplementary field where appropriate

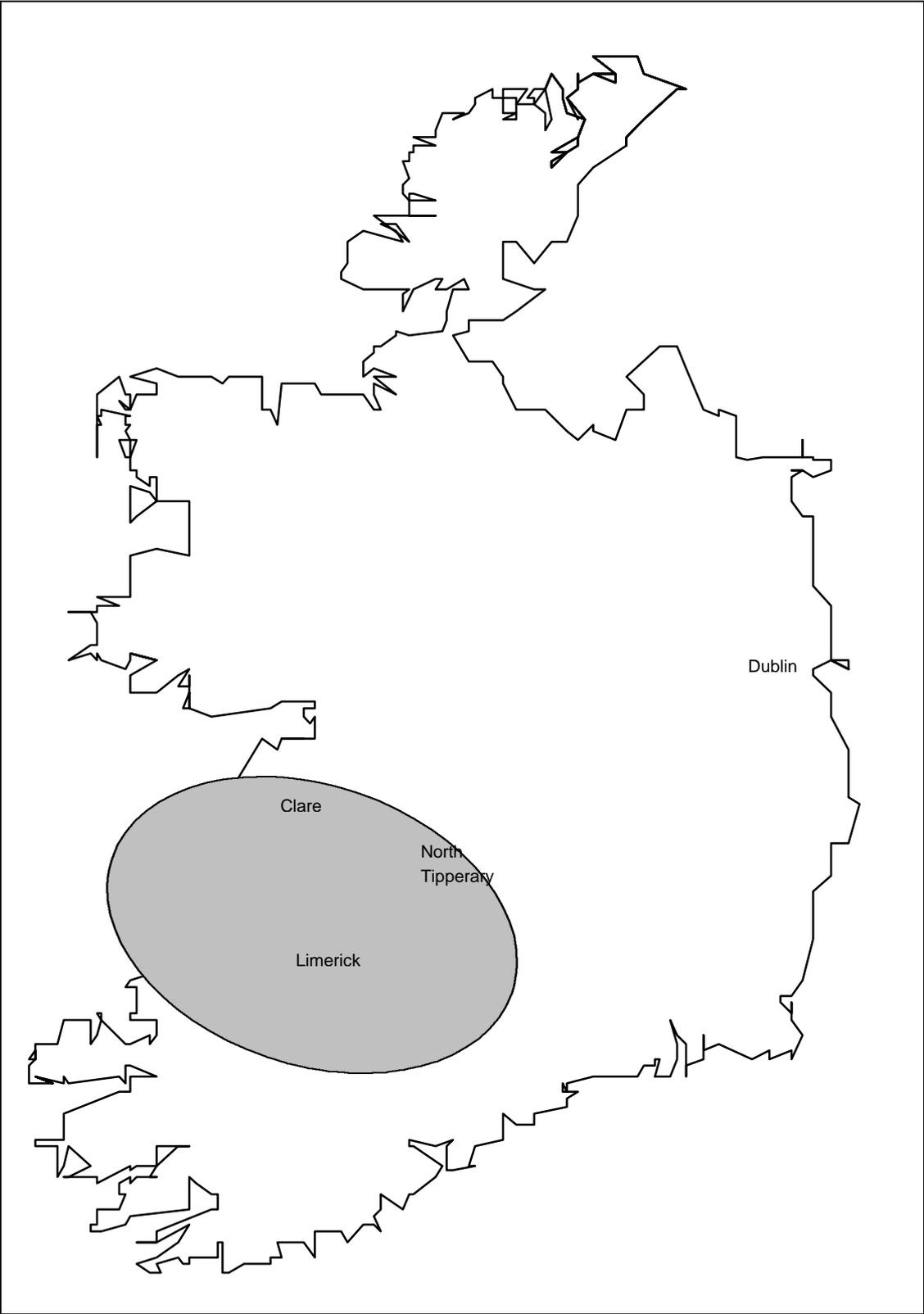
The policy programs to be analysed were chosen by each research team, often in collaboration with their regional advisory groups.

As described in section 2.4.5, the top-down analysis showed very strong differences between the regions and created difficulties for a direct comparison of policies. Therefore, the methodology was revised after this phase, shifting more towards an analysis of the interrelationships between supporting missions and innovative actions and an investigation of patterns of communication and cooperation.

The selection of innovative actions, again, was made by each research team in cooperation with its regional advisory group. The selection therefore reflects cultural backgrounds, the composition of the regional advisory groups and personal preferences of the researchers. This approach has the advantage of including different interpretations of what is most important and innovative, and corresponds to the explorative character of the INSURED project. On the other hand systematic comparisons of details will be difficult since the samples were not chosen according to precisely defined criteria.

Similarly, the methodology used for the case studies was only broadly defined in repeated and intensive discussions. Considerable leeway was given for exploring new approaches which eventually have led to a further elaboration of the original framework.

The following sections give a summary of all five case studies. The long version of the studies is contained in separate discussion papers (see Annex).



7 The Mid West Region of Ireland

7.1 The region

The Regions of Ireland are an administrative and not an historical construct. The Mid West was one of nine regions established in 1963 for the purposes of national planning, but there was no regional administrative or coordinating body as such created in the regions. Ireland has a highly centralised system of administration and government and this is reflected in the very limited responsibilities of local authorities. More recently, in 1994, eight Regional Authorities were established to monitor the EU CSF funded Operational Programmes and to promote the coordination of the public services provided by the local authorities and others within their area. Each has a small directorate and a council drawn from the elected members of the local authorities of their regions.

The Mid West Region consists of the Counties of Clare, Limerick and Tipperary North and the City of Limerick. The population and area of the region are approximately one tenth of those of the Republic of Ireland, 317,000 people in an area of 7,000 square kilometres. There has been growth in the population living within the triangle of Limerick City - Ennis - Shannon but otherwise there has tended to be a continuing decline in the rural population. Nevertheless, the Mid West region has developed a distinctive profile or regional identity to a much greater degree than other regions.

A major influence has been Shannon Development, which, founded as the Shannon Free Airport Development Co., has played a central role in the economic development of the region. In 1957, the threat that trans-Atlantic flights could now overfly Shannon Airport, led to the foundation of SFADCo. with the objective of optimising the use of the airport. Tourism in the surrounding region was promoted and an industrial duty free zone established within the airport. In a country with a high level of centralisation, SFADCo or Shannon Development, a national state organisation, was given the remit to develop a specific region. Many initiatives have been undertaken in promoting inward investment, the development of indigenous industry, tourism and infrastructure as part of its remit and also as pilot programmes. It has brought together the different sectors of society and created a unique regional cohesiveness and environment. A Regional Development Organisation was set up in 1966 which brought together the local authorities and Shannon to coordinate their planning. In the early 1970s, the University of Limerick was founded as a new type of business and technological university as a result of local action but the vocational training system, a national responsibility, is weak. The National Technology Park was established adjacent to the university campus in the early 1980s. There have been a number of community and social initiatives, some of which are reported as case studies later. Foreign companies employ over 50% of the manufacturing workforce, but development of indigenous industry has been slow. Especially in the City of Limerick traditional industries such as food and clothing have declined substantially. There is a high level of unemployment and social disintegration in the public housing areas of the city.

The region is essentially a rural one. Generally, the quality of the environment is good, with the main problems arising from agricultural run-off, pressure to 'improve' the land, tourism development pressures in ecologically sensitive areas and emissions from the coal fired Moneypoint power station. The Region therefore presents a picture which in many respects matches that of the rest of the West of Ireland but one which is tempered to a degree by a unique regional identity and mode of development.

7.2 Policies and instruments

Six instruments or programmes were studied in three policy areas as a first step in examining the interactions between policy and actions undertaken with policy support.

7.2.1 Agriculture and Rural Development Policy in Ireland

The context

Agriculture and rural development in Ireland are influenced largely by two sets of policy instruments, the CAP and the Structural Funds, discussed later. Agriculture accounts for approximately eight percent of GDP at factor cost and for some 12.6% of employment in Ireland. Food processing industries provide approximately another 4% of all employment and about 7% of GDP. In the Mid West agriculture and forestry account for 14.4% of total employment. The average farm size is slightly larger in the Midwest at 28 hectares than the national average 26 hectares. Approximately 80% of gross agricultural output (GAO) is derived from grassland based enterprises with the remainder derived in almost equal proportions from crops and horticulture (11%) and farm yard enterprises (pigs and poultry) which account for 9.5%. The corresponding proportions in the early 1970s were 63.6%, 19.2% and 17.5%. The changes are associated with the demise of mixed farming production systems on small farms. The dominant livestock enterprises are dairying and cattle rearing for production of beef - these two sectors contribute 33% and 39% of GAO respectively. Sheep rearing is very widespread and particularly important in upland areas but it accounts for only five percent of GAO.

In the Midwest the dependence on grassland-based enterprises is even greater. 40% of all farms are classified as specialist dairying (24% in the State) and 45% are specialising in beef production (42% in the State). A little under one percent of farms in the region specialise in tillage and only 1.7% in sheep rearing in contrast to 2.9% and 8.8 % in the State. Environmentally, the areas of greatest concern are probably the impacts of agricultural activity on watercourses as a result of poor waste management practices; excessive use of fertilisers; and overgrazing in some areas which can be related to unrestricted availability of premia payments for sheep and cattle.

Agriculture in Ireland under the Common Agricultural Policy

The modernisation of agricultural production in Ireland commenced at a later date than in most other parts of north-west Europe. Throughout the 1960s significant increases in the volume of agricultural output were achieved through mechanisation, increased use of fertilisers, high levels of price supports especially for cereals and dairying, and through innovation and diffusion of efficiency-oriented agricultural practices by the State-funded research and advisory bodies. Over the same period it became increasingly apparent that the impacts of the modernisation model were uneven between farms and across regions. Already, it had been necessary to introduce a means of direct income support and to introduce strategies to facilitate rural industrialisation that would lead to off-farm employment opportunities in rural areas.

The single most important policy influence on agriculture and rural development since the early 1970s has been the EU Common Agricultural Policy. Its system of price supports provided the resources for sustaining the modernisation policies that had been introduced in a series of economic development plans after 1958. The modernisation processes of intensification, specialisation and concentration were accelerated under the CAP leading to a rapid growth in output and incomes in the period up to 1979. Subsequently, there has been more volatility in the pattern of adjustments in incomes as agricultural policy from the mid 1980s gradually favoured measures aimed at reducing output, fostering diversification and more careful management of

the natural environmental resource base. These adjustments are part of the transition to a post-productivist era.

A significant shift has occurred towards grassland-based enterprises in which Ireland has a distinct comparative advantage. There have also been some major changes in the organisation of production. For example, the number of farms growing cereals declined from 99,200 in 1975 to 23,200 in 1991. Pig rearing was widespread on small dairy farms up to the 1970s with some animals kept on 26,400 farms in 1975. By 1991 pig rearing occurred on only 2,900 farms with 97% of all production concentrated on 0.9% of all farms. The number of farms with dairy cows has declined by 61.5% to 49,100 in 1991 representing 29% of all farms - further decline occurred after the 1992 CAP reforms. Large herds are becoming more the norm so that 84% of all dairy cows are kept on 16.4% of all farms.

The beef cattle sector has not been subject to the same degree of rationalisation. Over half of the suckler cow herd is on farms of less than eight hectares and these account for one-third of all farms. Finally, unlike the pattern of concentration in most other sectors there has been an expansion in the proportion of farms with sheep from 23.5% in 1975 to 32.2% in 1991, though again large flocks tend to dominate so that just over half of all sheep are kept on about nine percent of all farms.

Only a minority of farms are managing to remain economically viable. In 1994 only 29% of farms were judged to be viable. The bulk of these (70%) have dairying as their main enterprise. Following the 1992 CAP reforms there has been an increasing reliance on direct payments which now account for most of the family farm income generated on the majority of farms specialising in either sheep or cattle rearing or in cereals production.

Assessment of CAP in Ireland against sustainability criteria

The orientation of CAP to more efficient and specialised farming has produced some significantly negative environmental impacts especially in environmentally sensitive areas such as the Burren in the north of the Mid West region. Habitats especially wetlands have been destroyed and the decline in mixed farming has been instrumental in the decline in numbers of many species of birds and flora. A voluntary Rural Environment Protection Scheme (REPS) was introduced in 1994. Participants who obtain income support are required to comply with the principle of cross-compliance and adopt approved management plans. There is a high incidence of often hidden rural poverty, emigration and depopulation in rural areas. In areas close to urban centres there is in-migration as well as some alternative employment available and an increase in off-farm employment and pluri-activity. Disparities between rich and poor farm households and between regions have been widened by CAP price support mechanisms. These factors have weakened social cohesion and informal community support structures.

7.2.2 Structural Funds support for Agriculture and Rural Development

Assistance for agriculture and rural development in Ireland from the EU Structural Funds is made available through a series of Operational Programmes (OPs). There is a separate Operational Programme for Agriculture, Rural Development and Forestry (OPARDF). A number of other Ops also contribute to rural development, e.g., the OPs for Industrial Development, Tourism, Environmental Services, Transport, Human Resources, and Local Development. Additionally, the LEADER Programme is implemented across all rural parts of the State. LEADER represents an alternative to the traditional sectoral and top-down approach.

The objectives that have been set for the OPARDF are (a) improved efficiency of production, (b) promotion of farming in harmony with the environment, (c) diversification of on-farm production, (d) development of the non-farm rural sectors, (e) improved processing and marketing of agri-

cultural produce, (f) development of the forestry sector, and (g) income maintenance in less favoured areas. The OPARDF budget is approximately £1,143 million, though over half (57%) is for compensatory headage allowances to maintain incomes in less favoured areas.

A key objective of the EU LEADER programme launched in 1991 is to find innovative solutions to rural problems by encouraging and assisting rural communities to develop their own areas in accordance with their own priorities. During the pilot phase, 1991-1994, seventeen Local Action Groups in Ireland participated including three in the Midwest. Thirty four Groups representing the total rural population are participating in LEADER II over the period 1994-99. Under the programme which has a budget of approximately £110 million assistance is provided for the acquisition of skills and for technical support, and also for innovation programmes related to rural tourism; small firms, craft enterprises and local services; natural resources; and the preservation and improvement of the environment and living conditions.

The experience to date shows some variation between Groups in regard to their capacity to form effective partnerships, their ability to engage in strategic planning and their commitment to supporting the processes that underpin effective application of soft supports. There has been a very heavy reliance on rural tourism even though new SME projects have been found to have a stronger employment potential.

Assessment against sustainability criteria

The overriding emphasis of the CSF and of OPARDF within the CSF is on increasing the productive capacity of the economy as a whole by increasing output, economic potential and long-term jobs and this means that the policy framework is inadequate to address the considerable problems of regional disparity which remain. The OPARDF is a national programme characterised by very limited subsidiarity and as in other Operational Programmes the opportunities for participation by community and other groups including through public/private partnerships are limited. As currently structured the OPARDF policy instruments are unlikely to contribute towards achievement of social equity and solution of problems of social exclusion and poverty in rural areas and on small farms. For example, compensatory payments in Less Favoured Areas are structured on the basis of headage payments, thus favouring those with most livestock rather than addressing needs.

Within LEADER there is a strong emphasis on facilitating participation of a wide range of interests in the delivery of the programme and also on ensuring through the animation activities that as many individuals and groups as possible are encouraged to participate. Under the LEADER I programme assistance was provided to almost 3,000 projects of which almost two thirds were promoted by private entrepreneurs. The LEADER II programme places more emphasis on providing an infrastructure of soft supports, and also on rural innovation programmes that complement the measures supported under other Operational Programmes. The partnership model involving coalitions of representatives of public/statutory bodies, private business interests, and local communities is not well developed in relation to the OPARDF. By contrast, the local Groups with responsibility for implementing LEADER are structured as partnerships - this has been identified as a major strength of the programme. Each participating Group is allocated a budget to implement its own strategic action plan, prepared in accordance with Department of Agriculture guidelines.

Many Groups have, however, yet to develop the partnership process to the point where there is genuine equality, trust and co-operation between the partners. Some of the Local Action Groups implementing the LEADER programme also have responsibility for administering a programme specifically targeted towards the disadvantaged and providing solutions to the problems of social exclusion.

From an environmental point of view, the OPARDF strategy involves inter alia, "supporting the achievement of the highest environmental standards in all programmes which promote agriculture, food, rural development and forestry" but without further explicit environmental objectives.

LEADER II includes a specific measure for the improvement of the environment and living conditions and in particular it supports environmental projects that will help to maintain the diversity of rural landscapes.

Economic diversity is encouraged and supported by both programmes. Support for rural tourism and for some alternatives to farming provided by the OPARDF and LEADER are a practical response to the need for an alternative source of income, and also an acknowledgement of the importance of maintaining a rural way of life and retaining cultural continuity.

The current policy framework will do little to achieve sustainable development unless greater emphasis is given to integration of the environment with other sectors, and to conservation of natural resources.

7.2.3 Active Labour Market Policy

The Context

The context is one in which there has been since the late 1970s, increasing unemployment, high emigration of mainly young people in the 1980s, a high proportion particularly of the long term young and older unemployed having low levels of formal education and skills, the existence of distinctly disadvantaged areas, and a continuing criticism of the education system as academic and elitist. There is a high degree of functional illiteracy, calculated to be 25% of the post-school population. The current high level of economic growth has ameliorated some of these problems. In the Mid West industrial policy, for the most part executed by Shannon Development as a regional element of national policy, is directed towards attraction of foreign companies, mainly US, an employment rather than an industrial policy. In the Mid West the emphasis has been on attracting firms in the electronics/computer industries and over 50% of employment is in foreign owned branch plants. Indigenous industry in decline for a long time has shown growth in the last five years. There are too few people with the skills to found new manufacturing firms. Vocational training and apprenticeship have low social status. Access to the employment being created has become increasingly difficult for people with low skills and educational attainment.

The National Economic and Social Forum (NESF) can be credited with bringing increased recognition of the problems of social exclusion. A relatively large number of programmes have been devised both by the Department of Enterprise, Trade and Employment through FÁS and directly by the Department of Education. Centrally controlled education and training policies, however, show little response to the need for economic development, other than in supply of labour to MNCs. FÁS, the industrial training authority, has become increasingly oriented to the unemployed and to creation of short term employment schemes with a training element. On the other hand one of the programmes, the Community Employment Programme, has become of significance in local development. The Department of Education in bringing change to formal education has created new avenues for the unemployed and those without a strong innate academic capability.

Leaving Certificate extensions

The Leaving Certificate Vocational Programme (LCVP) is the normal Leaving Certificate Programme with a concentration on technical subjects and some other additions, introduced in 1989 and expanded in 1994. Pupils taking the LCVP take: 1) five Leaving Certificate subjects,

including two subjects to be chosen from a set of vocational subjects, 2) a recognised course in a modern European language, 3) the three mandatory Link Modules, Enterprise Education, Preparation for Work and Work Experience

The Leaving Certificate Applied is a self-contained two year person-centred programme involving a cross-curricular approach rather than a subject based structure. It has as its primary objective the preparation of participants for adult and working life through relevant learning experiences. The framework of the Leaving Certificate Applied consists of a number of modules grouped under three general headings: 1) General Education (at least 30% of the time), 2) Vocational Education (at least 30% of the time), 3) Vocational Preparation (at least 25% of the time). It is not a qualification for direct entry to third-level courses but will be fully integrated into the system for a certification of educational and training qualifications being developed by TEASTAS - the Irish National Certification Authority.

These vocational programmes seek, in time, to guarantee that all leaving the compulsory education system will have the opportunity to obtain an appropriate basic vocational qualification. These shifts in conventional education policy represent a move towards coherence between traditional education and labour market policy. Adoption of these programmes is dependent on the initiative of the individual school and perhaps even more on the culture created by teachers within each class. Change can only begin in the classroom.

The Community Employment Programme

A feature of more recent policy has been a move to decentralise direct, but not overall, control of Active Labour Market programmes, through the setting up of Area Based Partnerships, the Community Employment programme and other measures.

The Community Employment (CE) Programme, commenced in April 1994, is by far the largest and most important development in ALMPs in Ireland in the last decade. The CE programme replaced three previously-existing temporary employment programmes and differs from them by including a training component as a central feature. Its entitlement conditions are more generous for participants. It incorporates, in designated areas of socio-economic disadvantage overseen by Area Based Partnerships, a local development element. The capacity of CE is more than double that of the combined capacity of the earlier programmes. In 1995, over 54,000 persons participated and the programme has a capacity, at any time, of nearly 40,000 places.

The programme is delivered by voluntary and community organisations, local authorities and schools, over 3,000 in 1995, with three quarters of participants engaged on projects in the voluntary/community sector. FÁS pays weekly grants to sponsors in respect of participants, funds CE supervisor posts, and provides a contribution to materials and staff development costs. The role of CE supervisors involves overseeing the administrative, technical and training/worker development component of the programme. Local development was one of the priorities agreed in the (European) Community Support Frameworks for Ireland and the CE programme is a major source of funding for the Area Based Partnerships set up to tackle problems of disadvantage of rural and urban areas.

Assessment against sustainability criteria

The changes to the academically oriented Leaving Certificate have a long term perspective in changing the prospects for the next generation and in creating an ethos in which vocational and apprentice training has status. They may, however, result in a further 'ghettoising' of vocational education, especially since there is little substantive opportunity for vocational training after secondary education.

The Community Employment Programme has had a wide impact, enabling local groups to develop administrative support structures for other activities in animation of local communities and in activities such as tourism development. Many projects are in the broad areas of improvement and restoration of environmental features, predominantly man-made heritage, and of recording of the cultural heritage. Whilst the changes to operational ALMP programmes have sought to lessen the 'poverty trap' effects of the interaction between Social Welfare rights, participation in the programmes and progression into (lower paid and often temporary) employment, they have not addressed the fundamental need to create a well-skilled vocationally trained workforce and thus to lay the foundation for an indigenous sector.

The CEP, particularly when operating within Area Development programmes, has supported the concept of partnership, but in practice the prescriptive nature of the programme is inhibiting of customisation and subsidiarity.

7.2.4 Technology policy

Technology policy in Ireland originated with the *'First programme for economic expansion, 1958-1963'* and brought about the establishment of a potentially strongly applied technological infrastructure. There has been a significant weakening of this infrastructure with further emphasis being put on grant aids and on the academic sector, which has a weak technological orientation. The focus is on development of a high tech sector rather than on application of new tech in all sectors. Inward investment has brought little technology transfer. Indigenous industry carries out relatively little research and the foreign owned sector concentrates largely on process improvement. The technological development of indigenous industry is weak.

Programmes in Advanced Technology

These were established as a national programme to develop research capability in third level colleges considered to have expertise, to deliver technologies considered to be of strategic importance and to attract overseas investment in high technologies. They represent a move away from provision of technical services to a university based source of expertise. There are seven PATs located in 36 separate centres. Five have centres in the Mid West, Advanced Manufacturing Technology (AMT) Ireland, Materials Ireland, Software Ireland, Power Electronics Ireland and Teltec Ireland, and of these the AMT centre specialises in electronics manufacturing and the Materials Ireland centre provides a broadly based consultancy and laboratory service. In 1996, expenditure was almost £20m., £11m. from industry, EU contract research under the Framework Programme, and semi-state bodies and the balance of £8.26m. from state and EU Structural Funds.

Each PAT and centre has a national focus, diffusing any potential regional impact. In the Mid West, 60% of AMT Ireland's clients are MNCs generating 80% of income from industry. AMT Ireland provides a training programme for small firms, the Competitive Manufacturing Programme, one third funded by Shannon Development and one third by FÁS, and plays an intermediary role between small firms and EU programmes. Materials Ireland has made effective use of the Applied Research Grant which supports 50% of university costs in research by universities for industry. The director of the PATs is the Dean of Research in the University of Limerick.

Being under pressure to become more commercially self-supporting and with state funding being incrementally cut back, a regional focus and work with small indigenous companies are difficult. AMT Ireland is totally commercially oriented, with clients in the UK as well as nationally. Whilst they have a large degree of freedom, administrative decisions must be approved by Forbairt, resulting in a rather bureaucratic process. Commercialisation is reducing the ability to

carry out basic research, a factor creating unease amongst the academic staff. The question is whether they are to focus on high tech through more basic research, the academic ambition, or on new tech, the application of technology in smaller indigenous firms. Building centres of excellence when resources are spread between 36 centres and seven programmes is difficult.

Techstart

This programme began in 1978 as a joint initiative of Shannon Development and the Institute for Industrial Research and Standards in the Mid West and was conceived in discussions of the IIRS Mid West Consultative Committee, which then existed. In 1983, the programme became a national one, and acquired the name Techstart in 1986. The objectives are to enable a small firm to employ a graduate on non-routine duties, to give the graduate industrial experience and to introduce the firms to the full range of Forbairt, formerly IIRS, services. In 1996, the programme was expanded to allow an increase in placements from 210 to 300. Forbairt provides a subsidy of £5,000 for a graduate and £4,500 for a diploma holder, sums which have remained unchanged since 1986. £2,000 for associated consultancy or technical training is also provided. 75% is provided from EU Structural funds. The graduates are brought together four times a year for seminars. Small firms often need assistance in integrating the graduate into their structure and work but the increase in numbers has made monitoring more difficult. Since 1994 small foreign owned firms have been excluded from the programme and in 1997 it was restricted to small firms with more than five employees. The approval procedure has become more bureaucratic. Decisions are now made by a central Forbairt committee.

46 graduates were placed in the Mid West in 1996 and 50 in 1997. The high awareness of the programme in the Mid West is due to close inter-relationships with Mid West industry of the Forbairt regional manager of the programme. 40-50 firms seek a Techstart graduate each year. About 50% of placements are repeat business, but graduates are not placed with companies which have dispensed with the graduate after one year and are attempting to employ another to benefit from the grant available. 77% of graduates are retained by firms, with a further 12% of graduates declining the offer of continuing employment. Only 12% are not offered further employment. Four Techstart graduates have set up their own companies in the last eight years.

Assessment against sustainability criteria

Both programmes are oriented to technology transfer. There has been a strong orientation to indigenous regional development in the Techstart programme, both in its Mid West origins and later, since the regional liaison officers hold primary responsibility for its operation. It has achieved a particularly high level of success in the Mid West in raising the technical performance of small firms and the numbers of graduates employed, a success stemming from the integration of the regional liaison officer in the regional community. On the other hand, the target group is being restricted and final decision centralised for bureaucratic reasons.

Participation by users and actors does not occur in technology policy formulation. It is supply side and top down driven and increasingly based in third level institutions. The PAT programme was conceived as a top down measure within the framework of a greater focus on academic research and a run-down of technical service provision. The diffusion in a large number of centres and the focus on commercial success are inhibiting the emergence of centres of excellence with a strong regional focus.

7.3 Innovative actions

7.3.1 Ballyhoura Development Ltd.

Introduction

Ballyhoura Development Ltd (BDL) is a local development company serving a rural population of approximately 55,000 persons spread over about 500 sq. miles in a relatively inaccessible part of the Midwest of Ireland. Like several other rural communities in Ireland it has suffered from serious rural decline - a shrinking agricultural economy, restricted farm incomes, high out-migration leading to population decline, and consequently a withdrawal of essential services such as shops, post offices and schools and in their place an increasing level of village dereliction.

The problems in the area have been compounded by a lack of diversity in the rural economy where more than 40 percent of the population are directly dependent on agriculture. The main industrial employers are the central processing facilities of two of the largest dairy co-operatives in the State. Other major manufacturing employers include three branch plants of multinational companies providing relatively low skilled employment. A diverse range of small indigenous firms are dispersed throughout the area. These include an engineering company and a furniture manufacturer.

Unlike many other rural regions, the area catered for by BDL has had a long history of community and statutory bodies participating and co-operating in economic development and has grown as a company that seeks to find innovative solutions to the many problems confronting rural areas. The achievement of BDL has been to develop a co-operative structure through which the local communities, representatives of private businesses and the statutory bodies can work together for the benefit of the entire local community, and also to initiate and resource a range of capacity building activities.

Ballyhoura Development Ltd was set up as a company limited by guarantee in 1992 to administer the LEADER I programme. Its objectives are to diversify the economic base and to work with local communities in helping to improve the quality of life for people living in the area. Currently the company runs LEADER II as well as a separate programme specifically aimed at tackling social disadvantage. It works in partnership with other agencies having responsibility for development in the area. The membership of the Board of BDL includes representatives of statutory bodies, local private sector interests and representatives of the local Community Consultative Committee acting on behalf of 45 communities throughout the Ballyhoura region.

Evolution of Ballyhoura Development Ltd.

The origins of BDL go back to 1964 when a small group from the parish of Kilfinane in south-east county Limerick came together to form a Development Association. With assistance from Limerick County Council and Shannon Development the first initiative was in rural tourism. It was very much product focused with very little local community involvement and very limited explicit environmental awareness. A review in 1985 of the activities of Kilfinane Development Association revealed that despite significant activity very little progress had been made since 1964. The Association identified the level of reliance on volunteers with very little practical support from most of the statutory agencies as a key weakness in its operations.

A tourism co-operative, Ballyhoura Failte Society (BFS) Ltd, representing three parishes was established in 1986. It had very close links with the farming population. The first two years were a critical learning phase during which it became apparent that the area was too small to grow a commercial tourism industry, that tourism development could not take place without substantial

investment in infrastructure, and that tourism development on its own would not regenerate a declining rural region.

In 1988, BFS was reorganised and an integrated rural development plan for the area was prepared by a sub-committee consisting of representatives from the main statutory bodies. The objectives of the plan for the period 1988-93 were to create additional wealth, increase employment, maintain the rural population and improve the quality of life through tourism and other sectoral initiatives. Tourism development was identified as the main strategy but with the focus on the particular niche of agri-educational training so that it could avail of local facilities and also complement plans for agriculture, forestry, rural enterprise, education, industry and infrastructure.

Following further analyses and experimentation BFS had by 1991 identified the essential ingredients of a successful local development model, i.e.: (a) market led, (b) focused on high quality, (c) driven by a partnership, and (d) locally co-ordinated. By this stage BFS had acquired the know-how to support local development. However, it still lacked a financial resource base. This was overcome through access to the EU LEADER I programme launched in March 1991. A revised business plan containing multi-sectoral objectives was prepared in order to qualify for LEADER assistance and in 1992 BDL was established as a legal entity.

The availability of financial resources enabled BDL to undertake a wide range of initiatives which have led to substantial increases in tourism revenue, in the overall level of employment in the area, the formation of task oriented partnerships and the provision of a variety of soft supports for local SMEs. For the period 1994-99 ten rural innovation programmes involving both soft and hard supports have been launched with support from LEADER II covering activities in the following areas: (a) co-ordination/facilitation, (b) animation, (c) marketing, (d) quality, (e) rural renewal, (f) industry/services, (g) natural resources, (h) food, (i) rural tourism and (j) town/village renewal. The programmes are not static and are subject to adaptation through the ongoing evaluation/strategic planning process.

The activities supported under the LEADER II programme to date have been strongly focused on community and enterprise animation. The factors that have been identified as contributing to successful enterprise promotion include carefully selected soft supports, facilitation of a co-operative culture, and the supportive role of BDL in establishing and sustaining appropriate partnerships while complementing rather than competing with the activities of other support agencies. In this respect BDL has now progressed to a stage where an embryonic 'learning region' is being nurtured by the Group.

In 1995 Ballyhoura Development Ltd. in association with new partners prepared a separate strategy to assist those who are long-term unemployed or at risk of becoming so, individuals and households on low incomes, disadvantaged women, disadvantaged elderly, travellers and other minority groups, young people at risk and those with special needs.

The BDL experience has confirmed that partnerships and effective participation are critical influences on the design and implementation of local development strategies. Sustainable initiatives must be market led, quality focused and partner driven; key development objectives can be achieved by following a continuous process of evaluation, strategic planning, programme adaptation and action; the best results (in terms of employment, revenue, investment, participation) came from integrated programmes rather than from sectoral projects; soft supports (community animation, enterprise animation, training, technical support, marketing support) can work very well in local development programmes, especially when the programmes consist of integrated components.

Prospects for BDL

BDL is a learning organisation that has become more aware of the need for ongoing monitoring and evaluation of both its external and internal operations. The Group suffers from the uncertainty that arises from the manner in which some of its staff have been funded and the high level of voluntary commitment required of board members. Uncertainty in regard to continuity of funding has resulted in some loss of expertise and undoubtedly impacts on the ability of the organisation to adhere rigidly to its corporate strategy which is larger than any of the individual programmes which it supports.

SRD Analysis

Sectoral Dimensions

Environment: BDL has sought to take advantage of local environmental resources but without, at least in the earlier years, an explicit environmental policy. More recently the emphasis has shifted to softer supports for tourism and recognition and appreciation of the cultural and natural heritage of the area.

Economy: BDL has attempted to diversify the economic base of the area by promoting tourism, small scale manufacturing and alternative farming practices. BDL have placed a strong emphasis on soft supports and sought to foster co-operation between enterprises, and to encourage targeting of niche opportunities. The BDL strategy to tackle economic and social exclusion includes an enterprise component which will seek to address directly the needs of those who are marginalised.

Socio-cultural dimension: The development initiative in Ballyhoura has been greatly assisted by the co-operative tradition which has prevailed in the area for over a century. Much of the activity undertaken by BDL is aimed at strengthening local social cohesion and seeking to counteract processes that lead to social disintegration.

Systemic Dimensions

Diversity: BDL's objectives from its beginnings have been to diversify the local economy. The need to maintain biological diversity has not been fully appreciated.

Subsidiarity: BDL has evolved as an organisational model that seeks to empower the local population. The reform of local government may restrict the application of subsidiarity to the level of Local Authorities.

Participation: BDL through its Community Consultative Committee has provided a strategy for local community participation in the design and delivery of local development initiatives.

Partnership: Central to the success of BDL has been the formation of partnerships with a commitment to establishing trust, sharing expertise and working towards consensus. The voluntary contribution of time and expertise required of those representing the local communities may threaten the long term sustainability of a dynamic local structure.

Equity Dimensions

Social: BDL has sought to promote social equity through its animation activities and more recently by introducing measures that are specifically targeted at those who are excluded or at risk of being excluded.

Interregional: BDL has been instrumental in ameliorating the severity of the problems encountered in the south-east periphery of the Midwest region.

Intertemporal: While priority has been given to addressing contemporary problems the Group has had a commitment to long term strategic planning which has identified objectives for social and economic development.

7.3.2 Scarriff Community Council

Scarriff Community Council was initiated in early 1993 by an ad-hoc group of local people who collectively decided that urgent action was necessary to halt the environmental decline of the Parish of Scarriff. The idea of an elected Council was publicised, and elections took place in March 1993. A 70% poll demonstrated the community's will for change. 15 people were elected from three different areas of the Parish to serve for a three-year term. In the second election the turnout was 74% and 12 members continued in membership.

The first six months were spent developing a first plan of action, with the clear objective to bring visible results of benefit to the community. A policy was initiated of having members forge direct personal links with key people within the organisations with which the Council would have to work and in the area for which Members had designated responsibility within the council. The ensuing strong and continuing personal relationships have been critical to their work.

In broad terms the aim of SCC is the 'betterment of the Parish of Scarriff'. Its functions have developed along three lines:

- Environmental/infrastructural improvement of the Parish: initially the primary aims of SCC.
- Social - improvement of communication and social interaction within the Parish which were poor.
- As a representative body to provide a focus for people in need of assistance and to undertake representation to the appropriate statutory bodies.

The first plan of action concentrated on environmental improvements but the second has widened to include social and economic objectives. SCC is funded by a weekly contribution of £1.00 from each household, collected monthly. It has achieved its objectives through a process of information openness and consensus forming. The result is a broad trust in the work which SCC undertakes.

Supporting Measures

County Council: SCC has developed a very strong working relationship with an initially very cautious Clare County Council by having set up a structure which could deliver and deliver on time. As a result work in the Scarriff area receives a high priority and is carried out according to local priorities and the Co Council can initiate action such as a Waste Transfer Station in cooperation with the SCC to meet its own priorities.

LEADER I and II: Much has been achieved through LEADER which would not otherwise have been the case, but the delay in transition from LEADER I to II and mode of working of LEADER II have been such that financial difficulties have been unnecessarily created. There have been inconsistencies in the relationship with the LEADER Group in the County, which has only one community representative.

FÁS Community Employment Programme: SCC operates with 17-18 local people employed on various FÁS funded projects designed to improve the local environment. The lack of clear set of terms of reference for interaction with FAS has led to some problems. While a good working

relationship has developed between SCC and FÁS staff, the FÁS procedural requirements have proven to be inflexible in dealing with specific community projects.

If Government and EU Programmes are to play a more effective role in community development, they must take account of the specifics of each particular situation.

SRD Analysis

Sectoral Dimensions

Environment: The local man-made environment has been significantly improved, environmental amenity areas have been purchased, there is improved waste management and action has been taken to reduce industrial pollution

Economy: The improved environment has increased tourism spend in the town, there is cost-effective maintenance, improvement and development of man-made amenities and environment. A core fund for independent action and jointly funded activities has been established, and there are plans for wider economic activities and employment creation.

Socio-Cultural Dimension: Social cohesion and pride in place have been strengthened, and immigrants of different culture are encouraged to integrate.

Systemic Principles

Diversity: There is a diversity of objectives and actions.

Subsidiarity: The SCC has generated greater community self-governance based on extensive participation; the initiative emerged from within, and is maintained by, the community.

Partnership and Networking: The Plans are based on developing close partnership and personal networking with organisations with which it must work. It acts with the County Council as a respected and representative voice, having its own funds and capable of project management. Elsewhere partnership is inhibited by bureaucratic procedures.

Participation: Each adult member of the Parish is a member, participates formally through voting and subscribing and informally through communication patterns.

Equity Dimensions

Social and Gender: There is no differentiation on any basis and there is positive action to include immigrants of other cultures.

Interspatial: Equity between areas of the Parish is guaranteed by structure and policy and equity with other areas is visible in the action with the Co Council to facilitate waste management for the larger area and in efforts to achieve reduction of industrial pollution.

Intertemporal: maintaining and developing the man-made and natural capitals and the cultural heritage and commencing to improve the human capital are steps to ensure the passing on of resources.

7.3.3 Limerick Youth Services

The context

Public housing areas in Limerick City have, on average, twice the levels of unemployment, lone parenthood and early school leaving as the city norm and up to four times the rates pertaining in the suburbs. Under the current economic boom and growth in employment, unskilled and poorly

educated young people from disadvantaged backgrounds are becoming even further marginalised from the jobs market, lacking not only technical skills but often the most basic, reading and writing. They are a further generation without regular employment, members of a welfare dependent society.

The action

In the early 1970s, a nun, teacher and voluntary youth worker, became alarmed at the increasing numbers of young people dropping out of the school system. She assembled a group of largely professional middle class people and with their support launched Limerick Youth Services to build on the existing base of work for youth such as the network of youth clubs. Supported by significant funding raised by a voluntary committee and others, a Youth Office and Drop-In Centre were opened and then a large building was purchased in the city centre. Training commenced but was piecemeal - some crafts, cooking, budgeting, etc. Eventually LYS could not cope with the sheer numbers of young people. The building was demolished and a purpose-built training centre was opened to house the Community Training Workshop, the outcome of a pilot project supported by funds from the European Social Fund, Shannon Development and LYS. The concept, developed with the assistance of FÁS, was to train 25 youths over a two-year period. The feasibility of the concept was demonstrated. LYS approached FÁS and gained financial backing for a permanent programme, which was a significant, but local, change in the approach of FÁS. From an initial 50-60 young people, there are now 100 in full-time training with others who come and go on a weekly basis.

LYS has introduced further programmes, often taking the initiative, using its own funds for a pilot programme before gaining state support, or, taking advantage of EU and other programmes to carry out activities which support, and are integrated with, the overall strategy.

The work has evolved into four main areas of activity:

Main line youth work: Supported by grant from the Department of Education through the National Youth Federation, upwards of 50 Youth Clubs and Groups throughout Limerick City and County are affiliated to, and serviced by, the Limerick Youth Service. Local volunteers, trained and supported by full-time Youth Work Staff from LYS, are in charge of each Youth Club/Group but the young people participate in the running of the clubs so that they learn to take on responsibility and gain organisational skills.

Work with disadvantaged young people: The Community Training Workshop is the central activity. The objective is to provide training in various specific skills but with a strong emphasis on educational attainment. There is a major focus, unique to LYS, on integrating the trainees in society by bringing them into continuing contact with the public as customers. The workshops are located in the city centre and are thus easily accessible to the purchasing public. Certification on completion of a course, difficult initially, is provided through a certification programme developed with FÁS and based on integrated assessment. The educational element of this programme requires the trainees to undertake two core modules, Communication & English and Mathematics, and five electives and also to undertake computer training.

Currently, a course is being established to enable those with the potential, given a proper environment and a well designed programme, to undertake the Leaving Certificate Applied. Those who undertake it may be able to enrol for further training in mainstream education. Catering initially for 20 young people, the project is not eligible for funding by the Department of Education, since LYS is outside the formal education system. LYS, jointly with Clare Youth Services and supported by Shannon Development, will run it as a pilot programme to demonstrate its feasibility.

A number of other programmes have been undertaken, at the initiative of LYS or at the request of state agencies, such as the Mid-West Health Board or Department of Education. They are aimed to assist the marginalised and disadvantaged, such as early school leavers, single parents and young offenders or young people in disadvantaged areas.

The other two main activities are a wide ranging and free Youth Information Service and residential and outdoor programmes at a former farmhouse in Co Kerry with extensive facilities.

SRD analysis

Sectoral dimensions

Environment: There is no specific environmental dimension

Economic: The focus of LYS is to enable disadvantaged young people to engage in economic activity and to participate fully in society. LYS generates independent funds to support many activities and pilot projects.

Socio-cultural: LYS caters for a wide cross section of young people and in particular brings disadvantaged youths on the margins back into the mainstream of society. There is a strong emphasis on improving social skills in all its training programmes and on building the self-esteem of young people. Significant also has been the creation of an extensive voluntary and full-time workforce, trained to work with young people, and support groups.

Systemic principles

Diversity: A diversity of skills are provided and the programme as a whole provides for a great diversity of young people through a diversity of programmes and projects undertaken in a systemic and cohesive fashion.

Subsidiarity: LYS is a self-governing organisation working on equal terms with local and national agencies and able to interact directly with them.

Partnership and networking: Its activities are based on partnership and inter-linkages in all sectors of Limerick society and it has links with all bodies relevant to youth affairs in the Mid West, nationally and at a EU level. It has induced state agencies to work in close partnership, responding more flexibly to needs and depending on it to provide services to young people

Participation: LYS is an organisation based on voluntary participation by a wide range of people. Participation in projects by different interest groups is a conscious strategy.

Equity dimensions

Social and gender equity: It caters at different levels for all young people, but is particularly concerned to integrate disadvantaged young people into mainstream society and its major objective could be described as the promotion of social equity.

Inter-spatial equity: Intra- and inter-spatial equity are an explicit aim in the sense of enabling young people from disadvantaged areas to begin to enter the mainstream and attain a quality of life and work nearer to that of the young people of other areas and thus to raise the quality of life of their own areas. It is a force in returning pride in place and community.

Inter-temporal equity: LYS aims to break the intergenerational cycle of unemployment and disadvantage by providing technical and social skills to young people, who have fallen in a void created by the education and industrial development policies pursued.

7.3.4 The Vitalograph virtual business centre

The context

In the Mid West there is weak indigenous development. Vitalograph is the world leader in pulmonary function test equipment, originally set up in England by a German post-war émigré the business was gradually transferred to Ennis. It now manufactures four lines of products: spirometry, respiratory monitoring, emergency resuscitation and disposable pulmonary function test equipment. Subsidiaries in Germany and the US and agents in 60 countries ensure distribution and service to customers in 100 countries.

Certified to international quality assurance standards, total quality assurance extends through all in-house functions of design, production and distribution, to suppliers of goods. It has received a number of R&D grants from Shannon Development and recently a three year plan containing a number of projects was approved for rolling grant support. Active use has been made of the Cooperative programme of the University of Limerick, under which students spend part of the second year working in a company or other organisation. The R&D director was originally recruited with the aid of the Techman programme and there has been use of the Techstart programme in developing the R&D Department.

The action

Some ten years ago, the paint shop became an independent operation, carrying out work for Vitalograph and other customers but continuing to be located in the Vitalograph premises. Against this role model, the vision is now of a growing cluster of companies closely collaborating and interacting, each maintaining its own innovativeness by working on different but related projects for clients of whom Vitalograph would be a significant one. This vision is to be achieved by spawning new businesses out of Vitalograph and thus creating a virtual business centre. Believing that people setting up need resources, collaborators rather than competitors, the plan is to provide in a systematic and caring way time, space and security in which staff can work on developing their own business but within an ethos of trust, sharing and collaboration. Participants spend approximately a year developing their business whilst continuing and completing the project which they are managing, and then are guaranteed approximately 60% of their previous salary in contract work for Vitalograph during a first period of independence of up to two years. The concept caters for the needs of each entrepreneur. The company's equipment and offices are available at all times for development of the business, and advice on business and financial matters is readily accessible.

The concept was initiated by the R&D Director in January 1995, agreed with his peers, the Directors of production and quality, and gained the enthusiastic agreement of the managing director. There are now three people who are independent - the original paint shop operation, an injection moulding business and a software systems company. Four others, mainly software engineers, are in the transition phase, with another in the existing spin-off software company. The scheme has been extended to include a husband and wife team. The wife is employed on a part time basis, assisting her to re-enter employment by up-grading her skills, and the husband, learning of the scheme, is now developing his own business within Vitalograph.

SRD analysis

Sectoral dimensions

Environment: Environmental quality is integrated in total quality management

Economy: To ensure the long term survival of the core firm as an innovative firm, an informal business organisation is being created by stimulating the foundation of new firms and thus cause a long term chain reactions in creation of yet further firms.

Socio-cultural: A culture of trust, collaboration and sharing and of entrepreneurship is being generated and diffused to co-op students, graduate recruits and others.

Systemic principles

Diversity: There is opportunity for a wide range of entrepreneurial actions which are increasing the diversity of the local/regional technological and production capacity and firm structure.

Subsidiarity: From a company with a devolved managerial and operational structure, development and production functions are being devolved to independent but closely inter-connected companies.

Partnership and networking: The informal structure being created is based on cooperation and networking and is stimulating further cooperation between the emerging entrepreneurs. Active networking by the representative of one agency has ensured a more optimum use of programmes within constraints of increased centralisation and centralised structuring of programmes. The company is embedded in local development partnerships, e.g. Ennis Information Age town.

Participation: Within the company and the emerging virtual business centre, there is strong participation.

Equity dimensions

Social equity

Stimulation and support to potential entrepreneurs are made and given regardless of gender or professional background. The action is increasing opportunity for employment creation in the home region.

Inter-spatial equity: The action can play its role in raising the region to a level of economic and social prosperity more equal to that of regions with strong indigenous development. Waste and other environmental impact is minimised through total quality management.

Inter-temporal equity: Through training, enhancement of technical, social and entrepreneurial skills of all employed within the firm, the human capital stock is increased. Similarly, through investments being made by Vitalograph, the entrepreneurs, supporting agencies and others, the man-made capital stock is increased. By creating entrepreneurial opportunity, the company enhances attachment to place and thus the local/regional culture is strengthened.

7.4 Interrelationships

The policies impacting on rural areas have not until recently been supportive of the type of innovative action represented by BDL. The LEADER Programme has provided opportunities and resources to experiment with new models that may contribute to more sustainable approaches to rural development. The emphasis in LEADER on local participative structures, animation and capacity building, and strategic planning coincided with the model that was evolving in Ballyhoura. LEADER provided the financial resources that made it possible for the BDL aspirations to become a reality. The pervasive emphasis on innovation throughout LEADER II has helped BDL to define its niche in the network of support organisations/agencies for rural development. LEADER has been important also to Scarriff but the inconsistencies in the implementation of LEADER were more apparent and the differences in management style highlighted, Scarriff being a small community within a LEADER area.

The FÁS Community Employment Programme has been a major support measure to Ballyhoura DL, Scarriff CC and Limerick YS and has been significant in their success. Each has demonstrated that policy measures achieve success when the implementation is through local actors who have achieved independent self-governance and credibility and when the measure is adapted to local circumstances. All have demonstrated that the success of an innovative action is dependent on the actors taking the initiative in reaching out to optimise their use of multiple means of government aid.

The Techstart and Techman programmes have had a significant but unforeseen influence on the emergence of the Vitalograph initiative, demonstrating that integration into the local culture and interactions is another part of the recipe for success.

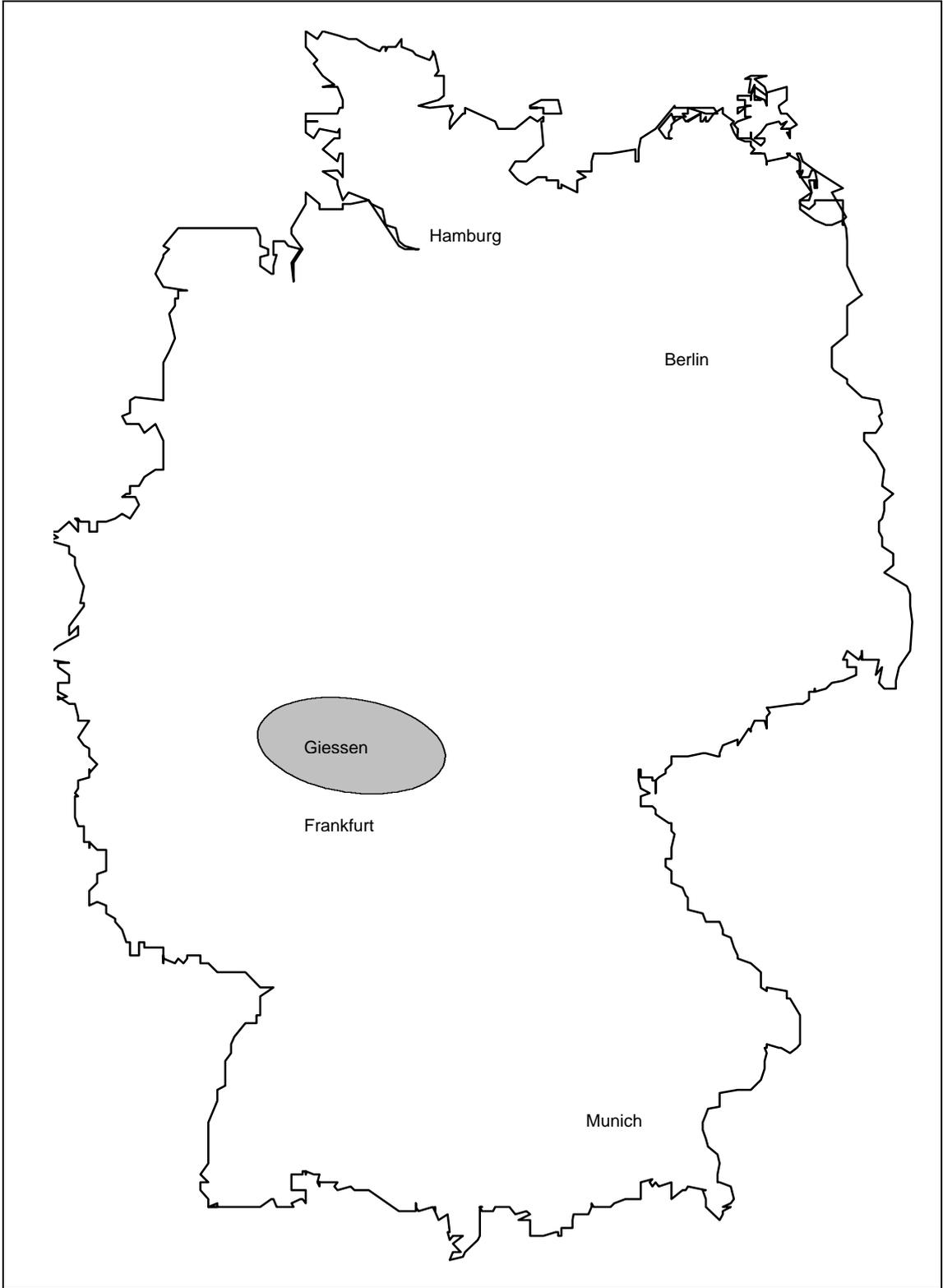
BDL has been able to influence new policies because it has acquired a high level of credibility based on a very firm commitment to strategic planning guided by a small number of principles and through the extensive network of personal contacts built up over many years by key personnel in the company. It demonstrated that there is a strong need for an integrated area-based approach to rural development. BDL has developed a model which contains many elements that are transferable. However, the BDL experience also shows that the adoption and effective implementation of new strategies is a very gradual process. This fact along with the serious imbalance in the allocation of resources between top-down and bottom-up approaches suggests that the move towards a more sustainable rural development paradigm will be a protracted one.

Innovative actions have to overcome attitudinal difficulties amongst the public and representatives of the institutional framework in order to gain acceptance. Deliberate and intensive effort and a focus on innovative actions have been required of Ballyhoura DL, Scarriff CC and Limerick YS in order to generate not only support but also consensus within their communities. Influence on the institutional framework responsible for the various measures and policies has been developed by close interaction at a personal level and credibility of performance by the actors, but even within a framework of good relationships, the top-down character of the measures and their inflexible procedures have made change in policy difficult and virtually impossible for the two smaller actors. On the other hand, when an innovative action has acquired status it has become the means selected by public bodies to deliver specific programmes and to be used as an example of effective and innovative delivery of programmes. The Vitalograph action lies outside the field of perception of those designing the policy measures. Because it is innovative it is unforeseen and therefore cannot be supported as such. The more general point to be made is that actions must fit the measures rather than the measures fitting the actions. On the other hand where there is local subsidiarity, local customisation becomes feasible, as in the interaction between Scarriff and the County Council or in the networking undertaken by the regional liaison officer of one agency.

Agricultural and rural development policies are intended to complement each other, but there are contradictions. Agricultural policy is increasingly deregulated to allow free market competition internationally in agricultural products. An agriculture competitive in free markets will tend to increase inequalities within and between regions and be incompatible with the social and environmental dimensions of sustainable rural development.

At a wider level, there is little interaction between programmes themselves. The scope of mechanisms established and the top-down definition of responsibilities, programmes and procedures add frustration to the confusion in redefinition of agency responsibilities and creation of new agencies. Whilst a measure may be conceptually good in itself, in practice it does not match the realities of innovative actions. Each innovative action has integrated various measures within its own strategy and the success of a measure is dependent on the manner in which an innovative actor can adapt the measure to the local circumstances and its own strategy. The

LYS, for example, has reached out to avail of all opportunities which could be used and integrated in its work for young and disadvantaged young people. It has thus made policies and programmes work to its own benefit, virtually in spite of themselves.



8 Hessen / Central Hessen

8.1 The Regional Context

The Land (or state) of Hessen in its present form is a relatively recent structure. It has been created in 1945 by the American Military Government by combining coherent parts of the territory of Hessen-Darmstadt with parts of Prussia which had belonged to six different territories before Bismarck's unification wars. The present district of Central Hessen has only been formed in 1981, at the same time also the counties have been newly defined. As a result of these changes, historical identities only very vaguely correspond to the political- administrative units, social and economic networks are extending across administrative borders and still important emotional borders are dividing present counties and districts.

	Hessen	Central Hessen
Political structure	Land / State State Government	District (Regierungsbezirk) District President (nominated by the State government)
levels below	3 districts	5 counties, 2 independent cities. Each of them has an elected council. The counties are composed by municipalities with own local councils and governments
inhabitants	6.027.000	ca. 1.000.000
surface	21.114 km ²	5.381 km ²
largest cities	Frankfurt (651.000) Wiesbaden (266.000)	Giessen (73 008) Marburg (77 050) Wetzlar (53 459)

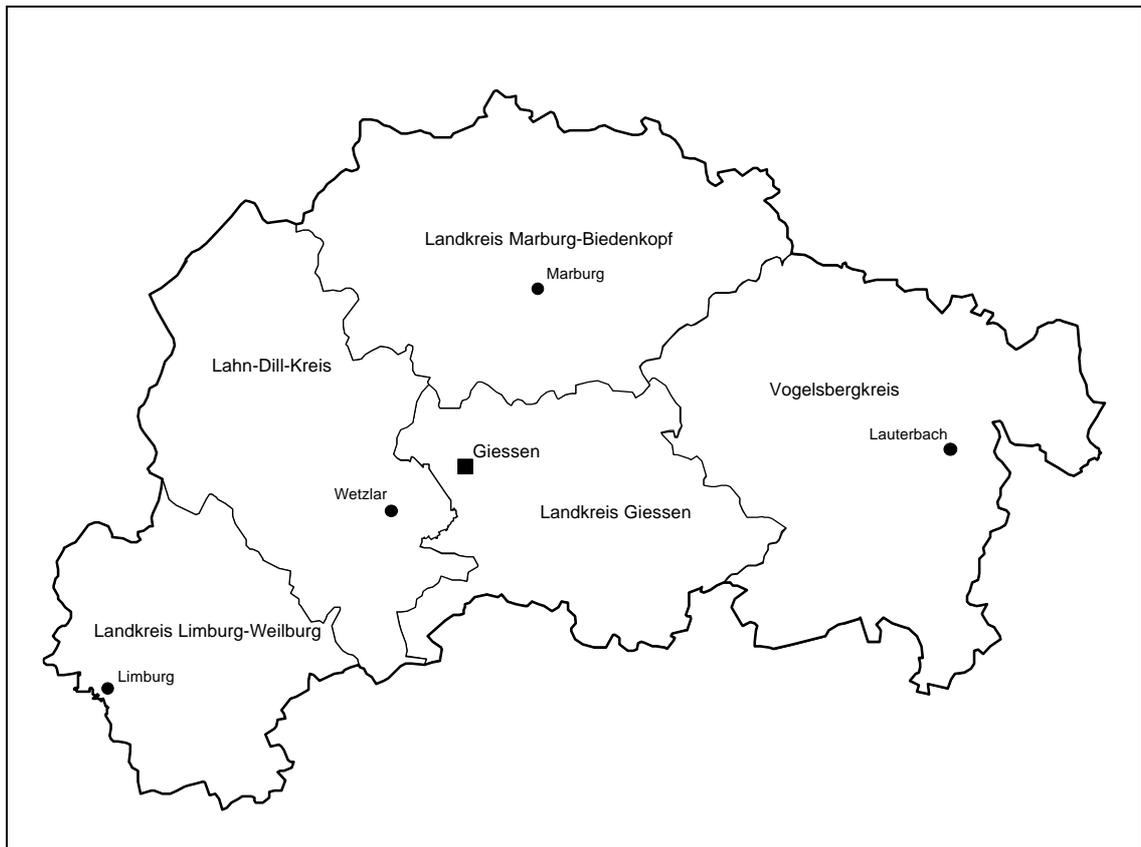
Central Hessen is situated in the middle of Germany, just north of the metropolitan area of Frankfurt. It is surrounded by a series of low mountain ranges, settlements follow the river system of the Lahn. Forests cover 39% of the surface, agriculture 45%. Tourism is only important in some areas and has severely declined in past years.

With 195 inhabitants/ km² the population density is below the Hessen average (283) but well above the densities of the other regions investigated (Mid West Ireland:43, St. Gall/ Appenzell: 167). With the exception of the Vogelsberg county (81 i/km²) the region is classified as predominantly urbanised by OECD criteria. Population is growing (1987-1994: +9,8%), even faster than in the German economic boom-state Hessen altogether (+8,3), this growth is forecasted to end by the year 2000. Foreign population accounts for 9% compared with 13% in overall Hessen.

The district of Central Hessen – also called district of Giessen - is strongly influenced by the much richer area of southern Hessen which comprises the metropolitan area of Frankfurt. Many are commuting to this agglomeration. Always comparing themselves to the Frankfurt area which is one of the richest in Europe, the people of Mittelhessen often consider their region as being somewhat inferior and backward.

The economic structure of Central Hessen is traditionally oriented towards manufacturing. In 1994 manufacturing accounted for 39% of the working places (Hessen 33%, Germany 35%),

the private service sector only for 36% (Hessen 46%, Germany 41%). Public services however play an important role. In 1994, 22% of total turnovers originated from export. The unemployment rate of 9,9% in 1996 was above the state level (9,3%) and indicates a need for structural change. After the decline of coal and steel industries SME's in metal processing, machine industry, precision engineering and optics play an important role today. Pharmaceutical, electro-technical and environmental technology industries have grown in importance. With the universities in Marburg and Giessen and a joint Technology Transfer Centre, research and development are comparatively strong. Education levels in Central Hessen are considered to be rather high. Two well-known universities provide an above-average output of academics. However, professional further education opportunities are below the state average.



Agriculture, forestry and fishing in Central Hessen contribute only 1,1% to the regional GDP. 30% of the farms have less than 5 hectares, 10% comprise more than 50. Field crops are dominating, only in some areas pastures make up for half of the agricultural surface.

8.2 Regional Policies

The state level, i.e. the government of Hessen, has a rather strong position in the federal political system of Germany. Nearly all federal laws are enacted by the state administration. The state government has own departments (ministries) for most policy fields. Since the early eighties Hessen has played a particular role in Germany: while at the federal level since 1982 there has been a conservative majority, Hessen has had a red-green coalition (Social Democrats + Green Party) as early as 1985 - 1987 and then since 1991. Therefore in many fields, regional (state) policies have tried to gain a specific profile on the background of more conservative federal politics. Issues of sustainable development have been a major concern of the red-green governments. Different lines of thinking and corresponding approaches have coexisted and are reflected in the politics of different departments. In 1995 the government has been restructured and rural development policies have been transferred to the economic department.

Regional and local development policies are influenced by

- the European Union (e.g. structural funds)
- the national level (e.g. transport infrastructure planning)
- national and state level in common action (main financial instruments for structural policies)
- the state level (broad range of programmes)
- the district level (e.g. regional planning framework)
- the county level (special programmes)
- the municipal level (e.g. zoning plans)

In 1991 more than 50 EU programmes as well as more than 100 federal and state programmes were available for the support of entrepreneurial initiatives in the region.

Within the INSURED project, among the many programmes a small number in two main policy areas has been selected for further analysis.

- Structural and Employment policies:
 - Conversion Programme
 - Structural development Programme
 - Welfare to Work Programme
- Agricultural and Rural Development policies:
 - Village Renewal Programme
 - Rural Regional Programme

8.2.1 Structural and Employment Policies

In the field of structural and employment policies the following programmes have been selected:

- Structural Development Programme
- Conversion Programme
- Welfare to Work Programme

The Structural Development Programme is an instrument for giving financial aid to single companies and is aimed at the improvement of the regional economic structure. Its use is limited to clearly delimited areas. It has been selected because it is the most important instrument for supporting investments in view of regional development. 1993-1996 in Central Hessen 1,2 million ECU were granted in combination with a total investment of 23 million.

The Conversion Programme is used for giving aid to local governments for the transformation of former military into commercial areas. It is aimed at the improvement of the economy-oriented infrastructure. It has been selected because it is known as an innovative integrated approach. 1993-1996 24 million ECU were spent in Hessen, of which 9 million loans. 2.5 million were dedicated to planning measures.

Finally, the Welfare to Work programme since 1992 gives financial aid to single projects with social targets. Its main objective is to reduce the number of long-term unemployed receiving welfare aid by reintegrating them into the labour market. It is the largest program in Hessen with social targets. In 1997 20 million ECU were supposed to provide funding for 1000 jobs.

In the following table the objectives of these programmes are analysed in terms of the ten components of sustainability developed in the INSURED project.

Table 4: SRD analysis of structural and employment policies in Hessen

	Structural Development Programme	Conversion Programme	Welfare to Work Programme
Environment	The program itself does not refer to environmental issues. The comprehensive guideline of which it is a part, contains environmental considerations and includes other specifically environment-oriented sub-programmes	Fundable investments include: energy and water supply, elimination of sewage and waste, planting of trees and grass in public areas, reducing share of sealed surface	Not explicitly addressed
Economy	Subsidies mainly for SMEs In specified target areas: for young entrepreneurs (-) Orientation to supra-regional market for goods and services required	Central objectives are to solve economic and labour market problems in the concerned areas Fundable investments include: road and other infrastructure, research and development facilities, infrastructure for environmentally sound tourism	Subsidies if jobs are created according to the guideline (two-year period) Cooperation with local trade and chamber of industry and commerce
Socio-culture	Investments have to create or secure jobs Subsidies for training	Improvement of opportunities on the labour market	Creation of jobs required Individual plans for reintegration Consideration of the family situation Funding of professionals for technical instruction, social support and child day care
Social and gender equity	Social integration by integration into the labour market	Not explicitly addressed	Clear focus on social projects which shall employ unemployed people who get welfare aid
Interregional equity	Only in selected areas with deficient economic structure Link to objective 2 and objective 5b areas	Focus on areas with conversion problems Exact delimitation of eligible areas Also smaller cities have been considered	Not explicitly addressed Applies automatically to areas with most problems
Inter-generational equity	Not explicitly addressed	Not explicitly addressed	Not explicitly addressed
Diversity	Focus on SMEs which improve economic diversity Variety of possible measures	Variety of targets, variety of possible measures Helps to improve economic, social and ecological diversity in areas of former military-oriented mono-structures (-) Relatively narrow focus on conversion areas	Wide variety of activities possible Comprehensive consideration of individual situations (-) Versatility limited

	Structural Development Programme	Conversion Programme	Welfare to Work Programme
Subsidiarity	(-) Only indirect/ hidden influence of municipalities, decisionmaking at the Land level	Gives support for local governments and initiatives Main choices are made at local level Project assessment by regional council and ministry Use of EU funds	Local initiatives and municipalities develop projects, coordination and pre-choice at the district level, final decision at state level Municipalities are the main level of action Helps to get access to funds of the federal labour administration Use of ESF funds
Networking and Partnership	Coordination between different ministries in the decision-making, coordination role of an intermediate agency (HLT) (-) Weak role of environmental ministry (-) Partnership and networking between companies not encouraged (-) Required confidentiality hinders cooperation	Public-Private-Partnerships promoted Linkages to other policy fields + other ministries	Regular coordination between different public bodies at the local level is required Coordination with chambers of commerce is required
Participation	(-) Decision making process remains intransparent (-) No formal provisions for participation of other protagonists	(-) Decision making process is not well-defined (-) No formal provisions for participation of other protagonists	General budget allocated to bodies of local welfare aid Important role of local project initiatives

In these programmes the integration of different development dimensions has been achieved only to a limited extent. Where different objectives are mentioned, they seem to be rather complementary. Generally, objectives are not formulated with concrete targets and indicators that would allow for an easy evaluation. However, there are some elements in this direction, especially concerning the creation or stabilisation of employment.

8.2.2 Agricultural and Rural Development Policies

In this field only two programmes have been selected:

- Village Renewal Programme
- Rural Regional Programme

The Village Renewal Programme has been set up for helping villages in rural areas to fulfil complex social and political functions. The guideline states: "The Village Renewal Programme strives to maintain and develop the diversity of village lifestyles in rural areas with a secure economic basis and a high environmental quality". It provides financial support to public and private bodies and is one of the most important instruments of the structure programmes. 1994 32 million ECU were available for 240 priorities in Hessen.

The Rural Regional Programme aims at balancing economic disparities in Hessen and at securing the diversity of regional characteristics. It provides financial support to public and private bodies and to regional development groups. This programme can be considered as the experi-

mental implementation of a regional development concept with a complex target system consequently supporting bottom-up initiatives. In 1994 the available budget was 1,7 million ECU

Table 5: SRD analysis of agricultural and rural development policies

	<i>Village Renewal Programme</i>	<i>Rural Regional Programme</i>
Ecology	Objectives concern mainly the settlements Nature and landscape shall be considered in village development	Main objective: improving regional economic and cultural development in an environmentally benign manner Ecological compatibility has to be guaranteed by all projects
Economy	Improve operating conditions for agricultural, skilled craft and little commercial enterprises Creation of jobs Demand-oriented basic supply of goods and services	Maintenance and development of economic diversity Focus is not on attracting business but on using the endogenous economic potential Development of new sources of income with the help of innovative projects as well as the safeguarding of the provision of basic goods and services in the rural villages
Socio-culture	Maintenance of the rural lifestyle and its associated socio-cultural context is an important aim of the programme Maintaining the individual character of the villages involved Supporting cultural self-help initiatives	Maintenance and development of cultural diversity is a main objective Blend of local traditions and values with the achievements of urban culture
Social equity	Not explicitly addressed	Improvement of the situation of women and to reduce discrimination. Improvement of living conditions, reduction of discrimination
Interregional equity	Vitalisation of villages and strengthening of main villages can also contribute to alleviate problems of agglomerations	Focus on structurally weak parts of rural areas
Inter-generational equity	Not explicitly addressed	Not explicitly addressed
Diversity	Maintenance of the diversity of rural areas is explicitly a main objective Maintenance and development of the diversity of village life-styles Maintenance and improvement of the multiple uses of the village environment	Preservation of the identity of the regions with their various social and cultural facets Use of the individual regional development strategies which are drawn up with the involvement of important regional players
Subsidiarity	High degree of subsidiarity: Principal players are municipalities Support for local decisionmaking provided Compatibility with program objectives and more general planning required Selection of model villages at the state level	central role of the Regional Development Groups in the planning process. Regional Development Groups have to receive accreditation from the Ministry The decentralised Offices for Regional Development, Landscape Management and Agriculture decide on the funding of the projects proposed by the Regional Development Groups

	<i>Village Renewal Programme</i>	<i>Rural Regional Programme</i>
Networking and Partnership	<p>Extensive co-ordination required in drawing up the village renewal plans: municipalities are assisted by the decentralised Offices for Regional Development, Landscape Management and Agriculture</p> <p>Co-ordination and co-operation with different authorities and local interest groups in planning and carrying out the single measures</p>	<p>Co-operation of a wide variety of local actors is an important characteristic of the programme</p> <p>The Regional Development Groups have to include a wide variety of actors, one of their main tasks is to promote networking</p> <p>Priority is given to strategically networked projects and to community initiatives as well as associations</p> <p>The integrated development approach favours co-operation between different economic sectors</p>
Participation	<p>Local inhabitants are explicitly involved in the development and implementation process of the strategy for village renewal</p> <p>Important role of the Village Renewal Working Group in drawing up the village renewal plan</p> <p>Public discussion of plans required</p> <p>Transparency through annual accounting meetings</p>	<p>Participation has an important role in the formulation of strategies and in their implementation</p> <p>The Regional Development Groups have to include a wide variety of local actors</p> <p>Opportunities for participation of different interest groups are required</p>

The Village Renewal Programme has a complex target system and attempts to integrate different development dimensions. There are no obvious conflicting objectives. The same holds for the Rural Structural Programme. Here, special emphasis is given to manage the interdependencies between the environmental, economic and socio-cultural dimensions.

In both programmes no concrete targets are given. But precise guidelines try to ensure transparent decision-making procedures.

8.3 Innovative actions

The selection of the innovative projects to be examined was co-ordinated with the regional advisory group. The selection was made on the basis of the following criteria:

- innovative character of the projects
- positive preliminary assessment in terms of the ten components of sustainability which form the basis of this project
- relationship to the examined policy areas or relationship to the selected programmes
- allowing for a broad overview on the different sub-regions of the study regions
- availability of information and interview partners

The selected projects in Central Hessen are all more or less linked to the regional administrative bodies, *i.e.* they were initiated or decided upon either by a state ministry or at the regional administrative level or their initiation at the level of the towns and districts was supported by the public sector. This is mainly due to the perspective of the members of the regional advisory group.

8.3.1 ZAUG – Giessen Centre for Employment and Environment

8.3.1.1 The action

In 1997 the unemployment rate in Giessen was about 16%. Since years the number of long-term unemployed is growing. After some years of unemployment the national unemployment insurance payments come to an end and the unemployed have to rely on the welfare system which is in the responsibility of local authorities. This has led to an unprecedented burden for local government budgets. Therefore, local governments since some years began to develop own labour market policies. Local Employment Partnerships try to integrate policy fields which have been separated until now: economic development, employment policies, education, urban development and environment. An outstanding and well-known example of such initiatives – which in Germany have been growing in number since the late eighties – is the ZAUG in Giessen.

The ‘Giessen Centre for Employment and Environment Ltd.’ is a society for vocational training and education with charitable status. It has two main areas of activity:

- advice, career aids, training and education: apprenticeships in own workshops and other facilities in twelve occupational fields, preparatory courses, career guidance and a number of educational schemes, drawing up of promotional plans for women, special qualification and training courses for women.
- business activities: mainly in the area of recycling and environmental technology. In the fields of collecting, disassembling, recycling, repairing mainly technical waste, ZAUG has become a major player in the region and has developed advanced technologies for the disassembling of TV sets.

In 1986 the maximum number of employed in the different branches of ZAUG was 620.

Shareholders of ZAUG are the county of Giessen and a series of municipalities. An important source of funding comes from these authorities, also in the framework of the programme “Welfare to work” described above. Overall calculations show that through the activities of ZAUG local governments save much more on welfare and similar spending than they contribute to the centre.

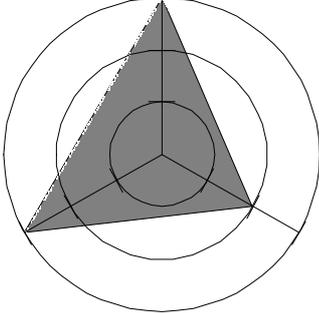
The establishment of ZAUG was preceded by lengthy political discussions during which many opposed this unconventional form of labour market policy. The origins of the initiative go back to the early eighties. Several local political decision-makers and personalities stemming from the university have been fighting for this project through many years. Intensive networking with a wide variety of regional institutions and key actors and systematic use of political contacts at the regional, the state, the federal and the EU level have been essential for this success.

Nine years after the formal establishment of the centre some reservations about its activity persist: the combination of publicly funded assistance and training activities and self-supporting enterprises in the framework of the same centre cause anxieties about fair competition. Meanwhile, however, ZAUG has become an important customer for many local companies..

8.3.1.2 ZAUG - SRD Analysis

1. Environmental Dimension	2. Economic Dimension	3. Socio-Cultural Dimension
<p>Innovations in different environmental fields, such as waste management, recycling, waste water management etc.</p> <p>"Recycling and Environmental Technology" is one of the three portfolios</p> <p>Explicit pursuit of the objective of "strengthening regional material cycles through planning, production, repair, recycling and waste management of goods within the region"</p> <p>Managing a certified organic farm</p>	<p>Reducing the burden of social welfare payments on the exchequer by creating or mediating insured employment</p> <p>Most important instrument of municipal employment, structural and economic policy</p> <p>Strengthening existing potential to safeguard regional jobs</p> <p>Positive financial balance for district and town; striving for a continuous increase of the degree of proprietorial financing</p> <p>Reviving traditional economic activities, e.g. leech breeding or mushroom cultivation</p>	<p>Advice, training and education, <i>i.a.</i> in internal workshops and training facilities</p> <p>Opportunities for employment and qualification in various economic sectors</p> <p>Contribution to the drafting of social and employment policies beyond the centre</p> <p>New outlook for persons in difficult situations with regard to employment opportunities</p> <p>Advice for specific target groups; specific advisors for the severely handicapped and for women</p>
4. Inter-personal Equity	5. Inter-regional Equity	6. Inter-temporal Equity
<p>Improving the opportunities for social groups in difficult situations: unemployed young adults, social welfare recipients and the long-term unemployed</p> <p>Special support for women for qualification and reintegration into paid employment</p>	<p>Solving local problems locally, <i>i.e.</i> a unique contribution to improving the economic situation and to inter-regional equity</p> <p>Additionally solving of 'imported' problems (car recycling, scrap electronic equipment); model solutions also useful to other regions</p>	<p>Strengthening human resources through the provision of qualifications and employment as a long-term basis for autonomous regional development, prosperity and quality of life</p> <p>Development of new local and regional markets which contribute to strengthening the regional economy</p> <p>Demonstrating alternative paths of development</p>
7. Diversity		8. Subsidiarity
<p>Activities in the primary, secondary and tertiary sectors</p> <p>Diverse target groups: academics, craftspeople, unskilled workers</p> <p>Diverse product range / market segments</p> <p>Broad spectrum of personal services: advice, qualification, employment</p> <p>Utilising diverse funding mechanisms</p>		<p>Innovative instrument of municipal employment and structural policy which provides new scope for action at the local level</p> <p>Initiators: local networks and initiatives, local political decision-makers</p> <p>Early and close cooperation with the local, regional, state, federal and EU levels</p> <p>Higher administrative levels draw up basic conditions and provide funding, but leave major scope for action at the local level</p>
9. Networks / Partnership	10. Participation	
<p>Cooperation of town and district in developing and financing the ZAUG</p> <p>Negotiations between numerous partners from the town and district on developing and devising the centre's work based on partnership approach</p> <p>Operation of the centre often includes cooperation with private enterprises in associated companies and co-operations</p> <p>The present company ZAUG is an important partner in devising local policies</p>	<p><i>Relatively high level of indirect participation:</i></p> <p>Involvement in local and regional initiatives, societies and organisations in developing and devising the centre's work</p> <p>Internally: works committee, advisory board</p>	

8.3.1.3 ZAUG - Response to the challenges

Integration	Innovation / Ability to Learn
++ Integration of economic, environmental and social objectives "under one roof" and in individual activities ++ Integration and co-ordination of diverse endeavours in the region; increasing role as an innovative, integrating force in regional development	+ Experience with new instruments of municipal employment and structural policies + New forms of cooperation at the local level between representatives of various interests + Public-sector tasks are taken over by private-sector structures + Developing new market segments and thus new qualifications in the region + Important contributions to environmental product and process innovations
Contribution to problem-solving	<div style="text-align: center;">  </div>
+++ Environment: Consideration of environmental aspects and special support for environmental technologies ++ Economy: New employment and qualifications as well as positive impact on the municipal budget +++ Socio-culture: Improved outlook for social groups in difficult situations	

8.3.2 Steuben Barracks

8.3.2.1 The action

In the Steuben Barracks project in Giessen, a former barracks site is being redesigned and fully developed to serve as an industrial park.

With the end of the cold war, troops stationed in Germany have been dramatically reduced. For numerous places this meant at the same time a loss of employment and new opportunities for a civilian use of large sites which had been used for military purposes. As in the case of the Steuben Barracks in Giessen, these were often located in attractive urban areas. Support programmes from the EU and the state level have helped to facilitate the transition to civilian use.

The project in Giessen started in 1991 before the troops left with the establishment of a working group in the town administration. The planning was concluded in 1995 and the contracts for buying the whole area from the federal administration were finally signed in 1997. Major difficulties and achievements were: the cooperation between different parts of the local and regional administration, the negotiations with the Federal Treasury about the price to be paid, and the finding of appropriate users and investors.

Besides the usual planning procedures which require the involvement of different parts of the administration and of the public in the case of large projects, new regulations (i.a. the "urban development contract") were used in an innovative manner for a more flexible planning process which involved external consultants and eased financial management. Participation of the public

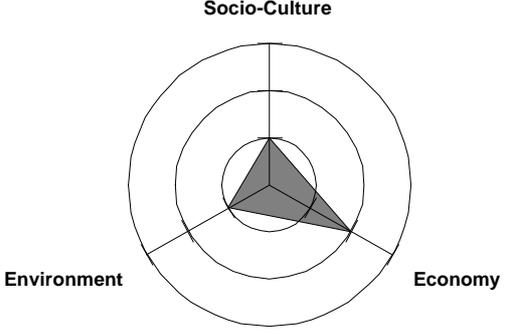
did not play an unusual role. Rather high investments were made for restructuring the area considering environmental criteria, critics claim that the funds could have been spent better.

Extended networking and negotiations between different political levels were necessary to realise the project. 85% of the unprofitable project expenses of about 7 million ECU were covered by the Hessian Conversion Programme and the EU KONVER Programme.

8.3.2.2 Steuben Barracks - SRD Analysis

1. Environmental Dimension	2. Economic Dimension	3. Socio-Cultural Dimension
<p>Re-use of sites instead of claiming new sites</p> <p>Increased recharging of groundwater aquifer by partial 'de-sealing' of surfaces</p> <p>Detailed environmental investigations</p> <p>Railroad development contributes to shifting goods transport from road to railway</p> <p>(-) Works siding routed through forest</p> <p>(-) Logistics centre increases traffic volume and consumption of land area</p>	<p>Creation of permanent jobs in the urban centre, i.e. at a central location within an existing catchment area</p> <p>Elimination of the 'bottleneck' in the availability of sites for industrial development and creation of new development potential</p> <p>Increased tax receipts for the municipality Giessen</p> <p>(-) Logistics centre provides for less jobs per unit area than other enterprises</p>	<p>Enhanced motivation and prospects</p> <p>Integration of employees with little qualification</p> <p>Orientation towards innovation</p>
4. Inter-personal Equity	5. Inter-regional Equity	6. Inter-temporal Equity
<p>Workplaces close to residential areas for Giessen's citizens</p> <p>Job creation, including jobs in less qualified occupations</p>	<p>Development in an area which is relatively economically weak</p> <p>(-) Partial transfer of jobs to Giessen from workplaces existing elsewhere</p>	<p>Creation of scope for future industrial development</p> <p>Strengthening of the function and attractiveness of Giessen as a home and workplace</p> <p>Optimum use of lands</p>
7. Diversity		8. Subsidiarity
<p>Diversification of Giessen's economic structure</p> <p>Variety of future-oriented enterprises</p>		<p>Initiator was Lord Mayor of the town of Giessen</p> <p>Work on the project at the local level in close cooperation between the town administration and investors</p> <p>Land and EU enabled the project to go ahead; their programmes increased the scope for action at the local level</p> <p>The Land provided useful support in the context of the Conversion Programme</p> <p>Legal conditions checked by the regional council in line with urban development regulations</p>
9. Networks / Partnership		10. Participation
<p><i>Little evidence of partnership approaches:</i></p> <p>Exchange of know-how in partnership cooperation at the local level</p> <p>Federal Ministry of the Interior part of the network</p> <p>Competition encourages action (Marburg/Wetzlar)</p>		<p>Consultation procedures took place to the extent that is customary as part of the planning and building laws and regulations</p>

8.3.2.3 Steuben Barracks - Response to the challenges

Integration	Innovation / Ability to Learn
<p>explicitly: Integration of economic development objectives and environmental protection objectives. Economic objectives also aim to contribute to the social objective of job creation</p> <p>The committed initiative of members of the town administration allowed for the simultaneous consideration of different dimensions</p>	<p>Experience with new instruments as part of planning and building laws; integrated approach</p> <p>Pioneering project under the Conversion Programme. Determination of the market value of a previously used site</p> <p>Comprehensive conversion project instead of zoning of new lands for industrial development</p>
Contribution to problem-solving	
<p>+ Environment: Environmental aspects considered consistently</p> <p>++ Economy: Contribution to the overall economic development of Giessen</p> <p>+ Socio-culture: Improvement of the employment situation in the region</p>	

8.3.3 Vogelsberg Regional Development Company

8.3.3.1 The action

The Vogelsberg county is the largest and the most rural (82 inh/ km²) in the district of Central Hessen. It receives support under the Hessian Rural Regional Programme and under the EU LEADER II programme.

The Vogelsberg LEADER Group was established in 1994 as "Regional Development Company Ltd", i.e. as a regional development agency. Apart from initiating, supporting and steering projects the aim of the company is to facilitate dialogue between regional actors. The company's activities are co-ordinated and implemented by its managing director and three employees as well as by the eighteen members of the supervisory board. This board is composed by regional personalities from the most diverse professional and organisational backgrounds. It plays a central role for networking and for ensuring a large participation in the activities promoted by the development agency. The supervisory board is recognised as a regional development group by the state government (see above: Rural Regional Programme). Its "guidelines for action in regional structural policy" have a special function as a regional development strategy in this context.

Drawing on much older endeavours and discussions in the area, in 1991 employees in the 'Employment and Environment' section of the county administration took initiative to apply for assistance under the LEADER I programme together with a local Innovation Centre. With the transition from LEADER I to LEADER II the originally more narrow LEADER group was enlarged and an own office set up.

The development company places great emphasis on the development of personal contacts and on networking. Its office has become a focal point for communication and cooperation in the

region. Different kinds of networking events are organised regularly. The LEADER group has initiated and partly carried out a wide variety of projects ranging from cultural events (Vogelsberg Rock CD) over the improvement of the choice of services provided in the region to a project on rural telecommunication structures. It has gained an important function for the development of the region by functioning as an information relay, encouraging most different co-operations and providing management consultancy.

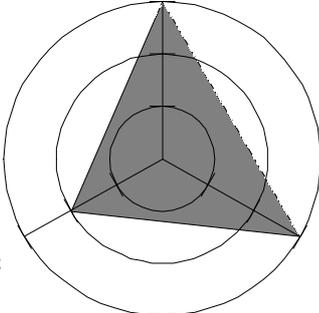
One important task of the group is also to establish and maintain contacts to a wide variety of state and federal institutions and funding sources. The co-operation with the decentralised "Office for Regional Development, Landscape Management and Agriculture" which has to make final decisions on the funding of most projects is intense and productive.

8.3.3.2 LEADER Group Vogelsberg - SRD Analysis

1. Environmental Dimension	2. Economic Dimension	3. Socio-Cultural Dimension
<p>Consideration of environmental aspects by specifying that projects have to be environmentally benign</p> <p>Ecological orientation, e.g.: in the fields of:</p> <ul style="list-style-type: none"> Tourism (Centre for Nature Conservation), Building and construction industry (industrial park), Mobility (Plan for system of cycling tracks), Energy (use of wood for power generation) 	<p>Projects for the economic development of the Vogelsberg District</p> <p>Consideration of economic aspects is ensured <i>i.a.</i> by having business interests represented on the group's supervisory board</p> <p>Improvement of the regional provision of goods and services and value-added e.g. with the 'Regional Shops', introduction of mobile slaughtering facilities and advice and aid for start-up businesses</p> <p>Support for the provision of training and education</p>	<p>Orientation of the development group towards the needs of the local people</p> <p>Cultural initiatives, women's initiatives and initiatives concerned with providing qualifications and employment represented on the supervisory board</p> <p>Emphasis on regional identity</p> <p>Cultural activities part of regional development</p>
4. Inter-personal Equity	5. Inter-regional Equity	6. Inter-temporal Equity
<p>Building projects considerate of the needs of the elderly and the handicapped</p> <p>Building projects based on social and ecological principles</p> <p>Training alliance (State Programme for the disadvantaged)</p> <p>Care facilities for physically ill single mothers and their children</p>	<p>Contribution to regional development which builds on the particular strengths of the region (compared to other regions in the state)</p> <p>Active and innovative utilisation of programmes targeted at activities in the rural regions (LEADER)</p>	<p>'Building blocks' for a regional identity as a basis for self-governance</p> <p>Raising consciousness for natural characteristics of the region which are to be maintained for future generations</p> <p>Development of a viable economic structure</p> <p>New qualifications: long-term enhancement of human resources</p>

7. Diversity	8. Subsidiarity
<p>Utilising different financing programmes</p> <p>Broad spectrum of interests represented on the supervisory board</p> <p>Both private and public bodies responsible for projects</p> <p>Variety of projects in the social, cultural, economic, environmental fields cover different dimensions of sustainability</p> <p>Regional activities which at the same time are connected to the supra-regional, national and international level, e.g. Vogelsberg on-line, "EuroPoliier"; LEADER international , working group of Hessian development groups, supra-regional network of cycling routes</p>	<p>Strategies are developed locally by individuals, businesses, initiatives, associations</p> <p>Decision-making body consists primarily of local actors</p> <p>Systematic involvement of different political / administrative levels: municipalities, district, state, EU. Good cooperation between the state Office for Regional Development and the local level</p> <p>Systematic utilisation of local scope for action and decision-making powers, <i>i.a.</i> in the context of the Rural Development Programme</p> <p>Innovative organisational structure which brings together various financing opportunities</p>
9. Networks / Partnership	10. Participation
<p>Strong emphasis placed on networking</p> <p>Cooperation in partnership between different interest groups</p> <p>Mixed public/private responsibility for projects</p> <p>Vogelsberg On-line (website)</p> <p>Cooperation with other LEADER groups</p> <p>Working group of Hessian development groups</p>	<p>Direct involvement of associations, organisations and individuals in projects</p> <p>Many voluntary/honorary contributions</p> <p>Strong presence in the public discussion</p>

8.3.3.3 LEADER Group Vogelsberg - Response to the challenges

Integration	Innovation / Ability to Learn
<p>+ Economic and social objectives explicitly integrated</p> <p>+ Environmental aspects are integrated via the requirement of projects to be environmentally benign but they are not necessarily a primary objective</p>	<p>+ Co-operation and co-ordination of partners from different fields and with different interests</p> <p>+ Creation of awareness of opportunities (including promotional programmes)</p> <p>+ Concentrating knowledge and making it accessible (academic knowledge, subsidies, funding mechanisms)</p>
<p>Contribution to problem-solving</p> <p>++ Environment Consideration of environmental aspects</p> <p>+++ Economy Innovative form of support for economic development in a peripheral region threatened by emigration</p> <p>+++ Socio-Culture Important contribution to the regional potential and to regional identity</p>	<p style="text-align: center;">Socio-Culture</p>  <p style="text-align: center;">Environment Economy</p>

8.3.4 Development Group Burgwald-Region

8.3.4.1 The action

The Burgwald Forest is one of the largest unfragmented forests in Germany. More than 50'000 people live in this region of about 480 km² which extends across two counties in two districts. Problems include the decline of farming, a lack of infrastructure and employment opportunities, and the emigration of young people. The region is distant from larger agglomerations and has the disadvantage of being divided by administrative borders.

The Development Group Burgwald-Region is an association recognised as a local action group under the LEADER II programme. However, it has not yet been recognised as Development Group of the State of Hessen – as has been the Vogelsberg Group described above. Towns, municipalities, organisations, associations, businesses and private individuals have gathered in this group for initiating and supporting integrated development. The group has an own office with a full-time managing director and meanwhile three part-time additional staff. The 11 members of the executive board represent the various interest groups in the region. Defining regional development strategies, initiating projects and networking are the most important tasks. Considerable work is being carried out by panels on 'Tourism', 'Nature Conservation', 'Culture', 'Economy' and 'Energy and Climate Protection'. Activities are strongly linked to local landscape, culture and crafts.

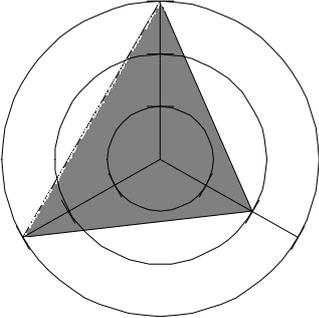
Since 1992 different initiatives, mainly in the tourism sector, pushed for a more integrated development. External consultants played an important role. In 1995 the group was accepted in the LEADER programme. Since then the office has been able to function on a permanent and professional basis and fulfil an important networking function. Among the broad variety of different projects supported by the group, the most important are: a regional fair, an autumn cultural event to be held bi-annually in alternation with the fair, a tourism strategy, 'Yellow Pages for the Burgwald Region' distributed to all households free of charge containing comprehensive information on the region, its businesses and public services.

The development group has brought about new activities and a new development dynamic. Through the LEADER programmes additional funds could be directed into the region. The division of the region by administrative district borders however remains a problem for developing long-term common development strategies.

8.3.4.2 Burgwald - SRD Analysis

1. Environmental Dimension	2. Economic Dimension	3. Socio-Cultural Dimension
<p>Nature conservation and experiencing nature play an important role in the group's strategies and work</p> <p>Environmental Panels: 'Nature Conservation' and 'Energy and Climate Protection'</p> <p>Promotion of environmentally benign tourism</p> <p>Advice and information on environmentally friendly corporate management</p> <p>Utilisation of wood as a renewable building material and energy source</p>	<p>Urgently necessary contribution to the economic development of the Burgwald region</p> <p>Consideration of economic aspects through representatives of commerce and trade on the executive board of the development group</p> <p>Improvement of the provision of goods and services as well as value-added due to the publication of the Burgwald Yellow Pages, the establishment of a Timber Association, the organisation of the fair and a regional market etc.</p>	<p>Group's orientation towards the needs of the local people</p> <p>Culture and regional identity play an important role in the projects ('Kulturherbst', Burgwald Fair, selection criteria for the projects)</p> <p>Consideration of socio-cultural aspects; corresponding panels</p> <p>Provision of qualifications in the field of rural tourism</p>
4. Inter-personal Equity	5. Inter-regional Equity	6. Inter-temporal Equity
<p>Qualifications for women in the field of rural tourism</p> <p>Regional youth work</p> <p>'Experiencing nature at the Erlensee' – designed for the blind</p>	<p>Strengthening the regional economy on the basis of the endogenous potential; own contribution to the reduction of regional disparities</p> <p>Co-operation across administrative borders based on functional cohesion within the region and oriented towards real existing need for support</p>	<p>'Building blocks' for regional identity</p> <p>Increased respect for and maintenance of the natural resources</p> <p>Development of new markets and sources of income</p> <p>New qualifications as part of the regional human resources</p>
7. Diversity	8. Subsidiarity	
<p>Broad spectrum of development measures</p> <p>Selection of projects by heterogeneous committee (group's executive board)</p> <p>Utilisation of different support programmes</p> <p>Private and public bodies in charge of projects</p> <p>Promotion of economic, cultural and landscape diversity</p> <p>Regional projects which are, however, involved at the supra-regional, national and international level.</p>	<p>Strategies are developed locally by individuals, businesses, initiatives, associations - no externally defined blueprint for development</p> <p>Systematic utilisation of local and regional scope for action and decision-making powers</p> <p>Institutional involvement of different political / administrative levels</p> <p>Utilisation of local resources a priority</p>	
9. Networking / Partnership	10. Participation	
<p>Cooperation of 10 municipalities in the establishment and financing of the Development Group 'Burgwald-Region e.V.'; innovative organisational form for the enhancement of partnership cooperation</p> <p>Strong emphasis on regional management and the establishment of regional networks</p> <p>Innovative methods (Yellow Pages, electronic information system)</p> <p>Cooperation of public institutions, businesses, organisations and associations</p> <p>Striving for a consensus on the 'guiding image' for development</p>	<p>Numerous options for direct or indirect involvement and intensive participation in the group's committees</p> <p>Transparency of activities and decision-making processes, PR work, public discussion</p> <p>direct involvement of associations, organisations and individuals in projects</p>	

8.3.4.3 Burgwald - Response to the challenges

Integration	Innovation / Ability to Learn
<ul style="list-style-type: none"> + Economic objectives are integrated with environmental and social objectives in the individual projects + The integration of all three dimensions of the objectives already takes place in the organisation of the development group and its offices. 	<ul style="list-style-type: none"> + Co-operation and co-ordination and its professional mediation Building an awareness for opportunities - including those offered by support programmes Concentration and provision of interdisciplinary expertise
Contribution to problem-solving	<div style="text-align: center;">  <p style="text-align: center;">Socio-Culture</p> <p>Environment Economy</p> </div>
<ul style="list-style-type: none"> +++ Environment Consistent use and maintenance of the environmental qualities of the Burgwald region ++ Economy Innovative approaches to supporting the economy in a peripheral region suffering from unemployment and emigration. Developing new ways of generating income against the background of the decline in farming +++ Socio-Culture Strengthening the regional identity and cultural activities in a region which suffers from emigration, particularly of young people. 	

8.4 Interrelationships

The distinction between programmes and projects has not proved to be as clear-cut as initially envisaged, and this is the case not only in Hessen. Three of the four projects studied, concern 'intermediary organisations', *i.e.* mixed private and public structures which have been 'inserted' at the local or regional level to mediate between the state and the single projects. These structures combine funds and then make them available to a greater number of local projects or activities. In order to examine the interrelationships in this field it is thus necessary to examine more than two levels.

8.4.1 How do policies support innovative actions?

The programme guidelines generally leave a relatively large scope for interpretation. Therefore the procedures of decision-making are mostly more important than the guidelines themselves. However, not always these procedures are transparent to the public.

Two basic models of governance emerge from the analysis. Looking at the programmes, the "top-down" model is most clearly represented by the Structural Development Programme, the regionalised model is represented by the Rural Regional Programme. Single projects funded by the first one have not been analysed in detail, decisionmaking is centralised, local synergies are not explicitly intended and information on them is not available. In the "regionalised" model decisionmaking is the result of a combination of bottom-up activities at the local level and state support. New kinds of intermediary organisations at the local/regional level – with public functions but private-sector organisational structures – have a key function in conceiving integrated development policies, they negotiate with decentralised state agencies about public funding and are often able to attract additional support from elsewhere. Intensive regional and Europe wide

networking, coordination with multiple levels of government and efforts for getting the support of the public are characteristic for their way of working. Both models have their specific advantages (efficiency of sectoral interventions / integrated approach according to local needs) and are presently somehow in competition. The state government has declared that the “regionalisation of structural policies” is a major task for the years to come. How far this concept will go, is difficult to tell at present.

The programme level sets the framework conditions for the local and regional projects leaving a good deal of room for interpretation in relation to the implementation of individual projects. In this way numerous options are provided including the integration of different objectives. However, no real incentive is given to integrate development objectives leading to sustainability. As a consequence of its structure and its distance from local circumstances the state level is often not in a position to guarantee the desired integration of development dimensions. Whether or not the programmes are implemented in the spirit of sustainable development in the end depends primarily on two factors:

- the procedures used for the allocation of funds;
- the political will at the local and regional level.

The provision of financial support for projects via intermediary organisations is obviously more likely to yield integrated and comprehensive approaches and allows for a more flexible response to the specific needs of a region. However, to date the sectoral control via the direct allocation of state funds clearly predominates.

8.4.2 How do the innovative actions influence policies?

The analysis of this influence encounters a series of difficulties: Evaluation for programmes and for projects is widely missing. As the room for interpretation of the guidelines is large, changes first appear as a shift in the choices made. Without evaluation such shifts are difficult to detect. Also, a systematic learning process through evaluation is widely missing (with some exceptions). The influence of projects is mainly informal and depends on personal contacts.

However, some influences could be identified:

- The ZAUG project had a direct influence on the formulation of the Work for Welfare programme.
- The new state initiative for the Regionalisation of Structural Policies can be seen as a response to the success of the local development groups.
- The decentralised structure of the Offices for Regional Development ensures an important feed-back to its central structure. However, most government services have a different organisational culture and have no such own instrument.

Overall it can reasonably be assumed that there is not enough feedback from the project to the programme level. It is not obvious in which way systematic evaluations are used to provide any kind of feedback from the local or regional level to the state level.

8.4.3 How does the innovative action influence the broad public?

The impact the projects can have on the public is strongly influenced by the type of PR work carried out in connection with these projects. The intermediary organisations, in particular, attract a lot of public attention. Since they are a novel type of regional or urban institution there are regular reports about them and their activities. Sometimes they are politically controversial (such as, for example, the ZAUG in its establishment phase) and therefore attract media atten-

tion. The public interest in projects which are directly funded by state programmes is usually smaller. This may be due to the fact that there are fewer actors involved and that they are usually less complex and controversial. However, this also depends on the size of the individual project.

The experience gained with the projects examined in this study indicates that intensive PR work has been a principal key to success, particularly for the novel intermediary organisations. In this way it has been possible to mobilise political support for these 'newcomers' which were working 'crossways' to the existing institutions. The controversy about different approaches and objectives became - sometimes more so than previously - a public affair and thus created greater opportunities for participation. The competition between different models contributes to the enhancement of political discussion and to democratisation. Through their PR work innovative projects have also led to others taking up their approaches. Some of the projects examined in this study have become well known well beyond Hessen's borders.

8.4.4 How do policies interact?

If we are to ignore the fact that there is very limited scope for the combination of state programmes it can be said that the programmes examined in this study *scarcely define their interfaces* to other programmes. However, there are possibilities for funding at other levels which can be combined with the state programmes as has been demonstrated in the examples from Central Hessen. Apparently this combining of different resources is a difficult task. Often the actors at the local and regional level are not sufficiently informed about their scope for action. In this context the HLT has an important advisory function at the state level. The regional intermediary organisations as partnerships of diverse actors and interests represent an interesting opportunity for the local combining of public and private resources and for the development of synergistic effects.

In the funding of industry, in particular, the programmes focus on individual objectives and make integrated approaches more difficult. While the inter-ministerial credit committee makes an important contribution in this respect, its mode of operation is non-transparent and environmental interests are not sufficiently represented. In the area of rural development the programmes consider a broader spectrum of objectives which makes it easier to follow an integrated approach.

There is *some overlap in the objectives* of political programmes. In Central Hessen this can be seen in the fields of structural and employment policies. A number of programmes aim to create employment and to improve the situation of specific socio-economic groups. However, the starting-points of the individual programmes differ. While a certain redundancy of programmes and opportunities for action may be advantageous in the face of urgent problems, the lack of comprehensive evaluations which would analyse the combined impact - including the spatial dimension - of the programmes makes it impossible to assess whether the approaches are sufficiently co-ordinated. Basic approaches to funding in Central Hessen compete with each other to some extent. This is particularly true for the way in which the different 'control models' are being dealt with in relation to the future allocation of funding. This competition can be fruitful.

It seems that at the state level in Hessen the opportunities for the integration of different development dimensions are limited. This may partly have to do with the complexity of tasks at this level and can also be observed in other regions. However, the often encountered difficulties in co-operation within the German administrative system may also be a specific cultural phenomenon. The emergence of privately organised intermediate organisations with integrative functions may be a response to this problem.

8.5 The image of the region

8.5.1 Comprehensive SWOT Analysis for Central Hessen

Strengths	Weaknesses
<ul style="list-style-type: none"> • Many years experience with approaches in autonomous regional development • Long-standing tradition of committed environmental policy • Widespread political support for an orientation towards sustainability • Attractive landscape, environmental degradation not as advanced as in other regions • Relatively prosperous federal state • Many successful projects working towards sustainability which are remarkable on a European scale • Many years of experience with elements of regionalised structural policy in rural areas • Successful experiments with new structures for integrated regional development, regional development groups with scope for expansion 	<ul style="list-style-type: none"> • Well differentiated and fixed responsibilities and little flexibility in public administration • Not very distinct small-scale regional identities; strong competitive spirit • Artificial delimitation of the administrative district, no regional identity in Central Hessen • Little value assigned to inherent strengths, continuous comparison to the more prosperous Greater Frankfurt Area • Not very distinct ideas for the development of the area of Central Hessen which could give rise to creating an identity • Giessen as the centre of the region offers few links for positive identification
Opportunities	Threats
<ul style="list-style-type: none"> • Administrations establish more flexible 'subsidiaries' • Regionalisation of structural policy by the state government • Learning from good examples in Central Hessen as well as in the whole of Europe • Experienced and capable executives who are familiar with the dynamics of regional development and who want to promote sustainable development • Increasing demands for evaluation by the EU • New pressures to prioritise in times of scarce exchequer funds • European-wide discussion on sustainable regional development • Making its mark in Europe as a region which is much advanced in the field of sustainable development 	<ul style="list-style-type: none"> • Cuts in EU funding for regional policy • Attempts to standardise state support policies • Neglecting environmental objectives in times of economic difficulties • Increasing polarisation in society can impair willingness to co-operate

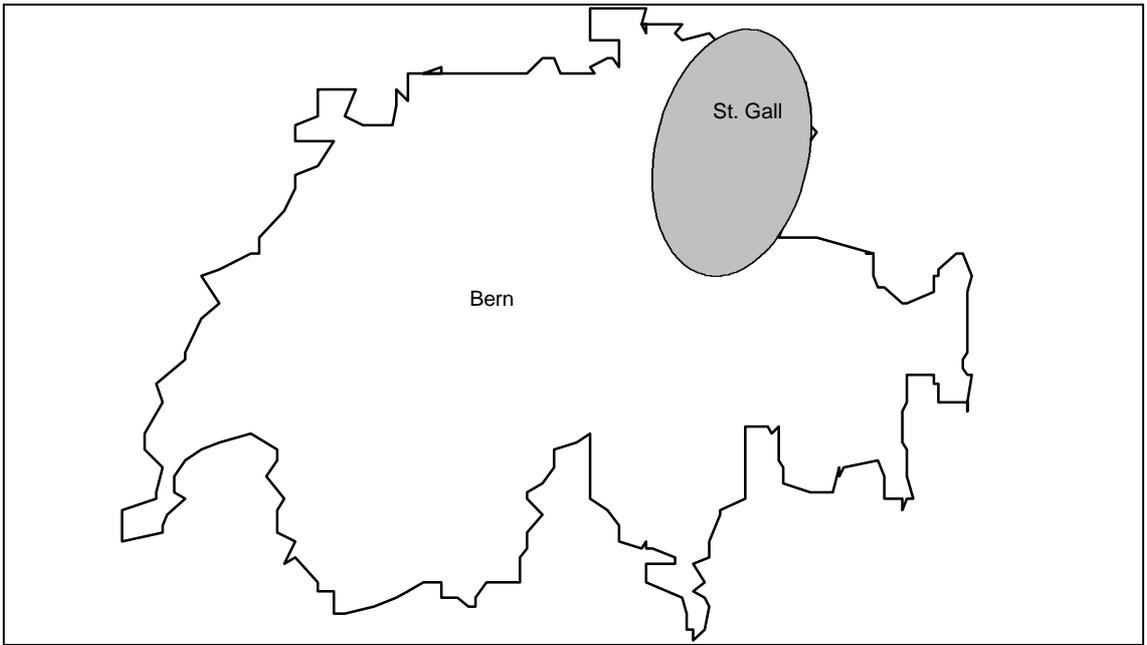
8.5.2 Subsidiarity and the establishment of networks

Two components of sustainability keep turning up in all the examples and assessments and they would appear to be of primary importance in Central Hessen: subsidiarity and networking.

A principal element of a policy of sustainability would appear to be the development of new forms of relationships between the different political-administrative levels. A consistent implementation of the principle of sustainability seems to be of great importance in order to allow the integration of different development dimensions. This does not entail an indiscriminate transfer of responsibilities to the local or regional level or new precise demarcations of responsibilities

but it means the development of a new quality of co-operation between the different tiers of government.

The principle of networking has proved to be extremely important in all the programmes and projects examined. As yet, successes are often based on the personal abilities of individual initiators. Slowly a body of expertise is being generated in the area of appropriate organisational and technical aids. Despite this outstanding importance, funds allocated to such activities are still very small compared to other budgets. Giving higher priority to investments in social and human capital could lead to more efficient public spending in regional development.



9 St. Gallen and Appenzell

9.1 What makes the region a region?

General characteristics

The examined region encompasses three Swiss cantons: St. Gall (SG) with 440.000 inhabitants, Appenzell Ausserrhoden (AR) with 54.000 inhabitants and Appenzell Innerrhoden (AI) with 15.000 inhabitants. The term canton designates the political unit between the federal and the communal level. The unit 'canton' refers approximately to the European unit NUTS III but has the political competencies of NUTS I.

The focus region has a size of 2.366 square kilometres and is populated by half a million people. The population density varies from 224 persons per square kilometres in SG to only 85 persons per square kilometres in the mountain area of AI. The region combines on the one hand densely populated industrial and service districts as around St. Gall, the capital city of the canton, and its close-by communes of AR, or in the lower Rhine valley of SG. Parts of AR and AI on the other hand are characterised by dispersed settlement patterns, intense agriculture, summer and winter tourism as well as larger areas of mountains or alpine pastures with cattle grazing and dairy production. Due to geographical differences, income per capita varies accordingly. The region is a border-region located at the Lake of Constance with borders to Germany, Austria and Liechtenstein. Parts of AR and AI have very peripheral location referring to the next agglomerations and are therefore confronted with high transport costs and long commuting distances.

A short history

The town of St. Gall saw a spiritual- cultural climax in the 9th and 10th century. The Gallus- Monastery and its famous library meanwhile have been declared as a cultural heritage by the UNESCO. In pre-industrial times with less inter-regional competition the agriculture in the mountain areas has been very prosperous as it could achieve high prices for regional specialities e.g. cheese and meat. The region belongs to those European regions which have seen a very early industrialisation. In the 16th century the tradition of textile industry was founded, in the 18th century the region achieved remarkable wealth due to its cotton weaving and embroidery. Parallel to the resulting industry of textile machines, a general machine industry evolved. The international textile trade also was the basis for the development of the banking sector, with the earliest private bank in Switzerland founded in St. Gall.

Political structures and boundaries

Concerning its political boundaries, the region is a coincidental phenomenon. The Appenzell County is divided in two independent 'half-cantons', a catholic part Innerrhoden and a protestant part Ausserrhoden since 1597. The division was caused by confessional as well as economical reasons and also military reasons with regard to foreign policy. In the 18th century the region became assimilated in status to the most traditional regions of inner Switzerland. In 1803 the canton SG was formed out of several parts to be a ring-like area around Appenzell. Until today the partition of the Appenzell county - although handled in a pragmatic way - and the artificial ring-construction of the canton SG show effects on the co-operation within the region.

The Swiss federalism is characterised by extended autonomy and a far-reaching authority of the cantonal level. The canton's influence on federal policy is high, every canton - even the small and peripheral ones - has two votes in the 'Ständerat' as one half of the federal government. Cantons and communes get nearly 50 per cent of all direct taxes. In most policy fields there is a dual responsibility, the so-called 'executorial federalism'. Therefore federal measures to deal with regional different development are restricted on designing the legal framework and on transfer payments according to different types of regionalisation. In the legal framework exists - as an European pioneer activity - the Swiss policy on development the mountain regions to support the peripheral areas.

In Switzerland the 'democracy of concordance' means that all important parties have seats in the federal and most cantonal parliaments according to a 'magic spell' of distribution. The electorate is the sovereign and act with plebiscites as the opposition against the all-parties-government. This type of direct democracy causes a culture of co-operation with a lot of informal rules.

The economic situation

The economic centres are the Upper Rhine Valley, the city of St. Gall and the Southwest of the region (Rapperswil/Jona) which is oriented towards the agglomeration of Zurich. There is a high rate of commuting which is easily possible only in parts of the region. In this parts the pressure of settlement on the countryside increases. The unemployment rate of the region is below Swiss average (4,7% in 1994): 1,2% in AI, 2,6% in AR and 3,3% in SG.

Agriculture and forestry are an important part of the regional economy either compared with the area or compared with the share of the population fully or partly working in the first sector. The quality of the soils and the topography and climate within the mountain part of the region causes a lot of meadows and an emphasis on livestock farming including the production of milk and cheese. Federal direct payments are given for running steep locations and (summer-) farming in alpine and mountain areas. The so-called 'biological agriculture' without pesticides and fertiliser increases and is promoted by the cantons. Forestry could be an important part of the regional value creation and the farmer's income but the prices on wood are low. In the region approximately 30 per cent of the whole area are covered with forests and most of them are private owned: 38% in SG, 60% in AI and 78% in AR.

In the region the industrial structure shows a high degree of industries with a value creation below average. The region is below average in productivity and competitiveness if the GDP per working-place or per inhabitant is taken as an indicator. But on the other hand exist a lot of innovative actions. The institutes of the University of St. Gall and different other institutions support R&D activities of private firms and activities of further education especially stressing the transborder co-operation.

The Alpine tourism strongly developed after the middle of the 19th century. An increase in population in highly developed tourist regions or communes is opposed to a decrease in peripheral areas. This insinuates small-scale disparities which are yet getting stronger. It also means that the competition between tourist areas increases up to a degree where one place drives others out of the market. A great share in the tourism sector is the day and weekend tourism in summertime which is confronted with other kinds of land-use in the better developed areas of the region. One of the main orientation of the mountain region in tourism is the sector of well-

ness and health. AR evolved with a very liberal legal framework and a strong tradition a regional cluster for alternative or complementary approaches in medical treatment. Other services do not play an important role with the exception of the highly industrialised areas of the city of St. Gall and the upper Rhine Valley.

The ecological situation

The development of infrastructure depends on the topographic conditions of the region. A lot of commuting by individual traffic and decentralised heating systems in the mountain area affect the air quality as a potential for climatic health resorts. Also public traffic by busses and trains is well organised but confronted with the traditional very disperse patterns of settlement according to the cycle of summer and winter farming of the mountain region.

The energy supply is done by a private company but most of the energy is delivered by a big energy provider, the Eastern Switzerland Power Plant AG. Therefore the supply is a mix of different sources of energy from nuclear to water-produced energy. Nowadays an important increase in endeavour towards the use of renewable energies can be stated in the region, affected by the efforts of an private organisation. The canton AR has the highest degree in the thermal use of solar energy to supply private households in whole Switzerland.

Most areas of ecological importance in the region are protected by law but conflicting interests on land-use can be stated especially in the Upper Rhine Valley. The mountain area of the region is characterised by a landscape with very different structural and topographical elements. With its countryside it is an important area of recreation in short distance for St. Gall and within the tourist landscape round the Lake of Constance. The beauty of the natural state of landscape today is more and more threatened by a tendency of urbanisation, the density of technical infrastructure and the intense agriculture. Especially new types of sports can disturb the ecological balance of some wooded areas.

Social fabric

The city of St. Gall is a traditional scientific region since the foundation of the monastery. There exist different types of schools and high schools and a lot of co-ordinating institutions between the cantons of Eastern Switzerland and within the transborder co-operation. The regional development concept of the canton AR especially has a strong emphasis on learning issues. Also the cultural life within the region is very wide-ranging with the city of St. Gall as the centre for modern 'culture' and a very lively traditional culture in the countryside.

On the whole the villages' characters are well-kept but there are only few shops and enterprises. Villages in commuting distance to the agglomerations of St. Gall or the Upper Rhine Valley slowly become 'municipalities to sleep' where people live but do not work anymore. On the other hand some districts of the inner city of St. Gall shows tendencies towards deurbanisation with a high rate of socially excluded people living there.

In the mountainous inner region the rural and backward impression is strengthened by two medical facts: the highest infant mortality between the second and the fourth week in Switzerland and a statistically significantly high rate of suicides. It is a typical phenomenon of topographically peripheral locations with closed patterns of society but there are a lot of activities of public and private actors to introduce an innovative and forward oriented mood within the community.

Regional identity and quality of life

The quality of life in Swiss regions was analysed with two surveys among military recruits (1978 and 1987). During this time the canton SG improved for example in the assessment of the economic development. Both Appenzells fall back as likeable (e.g. beauty and cosy) but backward and boring cantons. The assessment changes over time due to a general change in values towards ecology and regionalism. There are more and more discussions about the strength and weaknesses of a cultural defined region. The clichés of a rural, traditional county has a touch of 'backwoods'; this may be positive in the sense of tourism development but it affects the image of a modern working-region which is also striven for. The discussion shows exactly two trends of development affecting the whole region with its different parts.

Another regional identity which strongly influences the regional development is the region's identity as an European crossborder region. Multifunctional interweavings can be stated in different policy fields e.g. labour market, transport and supply, and according to a lot of projects within the European structural funds- programme INTERREG II. But all in all there exists no distinct regional identity beyond the network of actors from politics, administration and organised interests directly involved in crossborder co-operation. People turn their eyes towards Germany, Austria or Switzerland and turn their back on the Lake of Constance.

9.2 The Swiss policies

In the case-study of St. Gallen - Appenzell only two of the three policy fields has been analysed: the agricultural policy and the technology policy. Active labour market policy is a very new phenomenon in Switzerland because of the long period without serious problems of unemployment. Until recently the unemployed people only became administratively provided for until they are in work again. Now we can identify a small number of innovative actions on the one hand and on the other hand a very new and ambitious federal policy. The implementation of this policy throughout Switzerland began two years ago. Therefore an analysis of the interaction between policy and action is not yet useful.

9.2.1 Agricultural policy

The international and Swiss context

Agricultural policy in Switzerland to a great extent is a federal responsibility. Most of the region is below the Swiss average regarding the quality of soils and the climatic conditions and hence receives direct federal direct payments. Additionally many single financial measures in agricultural policy are introduced by the cantons. In the small cantons AR and AI, those employed in the agricultural sector together with a financial weakness call for problems in re-designing the cantonal agricultural policy.

The GATT treaties influence Switzerland's policy very much. With the reforms following the treaties one of the basic elements of Swiss agricultural policy is to be phased out: the product-price oriented subsidies on milk and other farm products. Direct payments now aim at ecological compensation ('green payments') or as a subsidy for alternative use of the area.

Among the farmers a slightly new orientation towards ecological measures within political programs can be stated. But the 'eco-labelling' of products in agriculture and forestry is very complicated not only because of a lack of legal regulations but also because of a lack of innovation

among the producers.

The agricultural policy on the federal level

According to its geographical structure (altitude, climate, quality of soils) most of the agricultural area in Switzerland is not competitive in a global context. On the other hand there is a need to cultivate the mountainside of the Swiss landscape to maintain a rich and specific biosphere and to protect the settlements and transportation lines from natural disasters. Therefore other models of alternative payment for the farmers increase: payment for ecological compensation, maintenance of the biodiversity, investment in niche productions, sustaining the landscape for recreation and tourism and so on. This orientation causes a paradigmatic change in the strategic orientation of Swiss agricultural policy. This necessity to change is a result of a development which is shaped by two causes: the political decisions after the World War II and technological change.

1) The political decisions are based on the Swiss neutrality as an overall political goal. The goal includes different measures to maintain the security of supply in times of crisis. Agricultural policy was strongly affected by measures like the securing of an adequate area of cultivated land with rich soils.

2) On the other hand technological progress has increased the productivity and caused the workforce to be substituted by capital. The technological development connected with these goals lead straight to a very protectionist agricultural policy in Switzerland: the total amount of the whole protective measures and support in agriculture has been 78 per cent of the whole of agricultural production in 1993 (OECD: 42%, EU: 46%).

The following change in goals can be shown in Swiss agricultural policy

Traditional agricultural goals (up to the last decade)	Four new overall goals (7th Report on Swiss agriculture and federal agricultural policy')	Goals of cultivating the 'non-settlement-area' (Swiss Landscape Concept)
the protection of agricultural income	production of food of an adequate quantity and price	ecological sound methods of production in the whole area
the increase of agricultural production to maintain supply even in times of crisis	care for the natural bases of human life	linking isolated biotopes to areas of ecological compensation
the protection of domestic farm production	care for the traditional landscape	promotion of ecologically or culturally valuable ways of agricultural production
the protection of as many farms as possible	contribution to the viability of the rural area	optimisation of the quality of soils and areas by melioration
		maintaining genetic resources in agriculture

The regional context

The region is strongly characterised by agriculture. Most of the farms are small and 80 per cent of them are specialised in producing animal feed. Approximately half of the regions area is comprised of as meadows, fields and alpine pastures. The agriculture shapes the landscape, the economic structure, the skills of the population and the local traditions in a great part of the region, especially the mountain zone. Therefore the agricultural sector has far reaching influences not only in terms of GDP.

Forestry could be an additional income for farmers who own more than half of the forests in the mountain region. Problems are connected with the topography (i.e., the many steep valleys) and with the quality of the harvested wood: there is a lack of cooperation or even consultation between farmers, manufacturing and architects about possible supply and market demands.

The agricultural policy on cantonal level

Amongst the cantonal laws on agriculture the main strategic oriented policy documents are the development concepts based on the federal 'Law on Investment Aids for the Promotion of the Mountain Areas'. As it was told above the development concept of the canton AR is the most advanced one. The analysis of the agricultural situation and policy is rather oriented towards social issues e.g. societal needs. The juxtaposition of the different sectoral views is avoided in favour of an integrated view.

The objectives in AI's cantonal development concept seems to be a typical sectoral policy with few interlinkages to other policy fields. There is a very weak integral orientation on problems but on the other hand - this shows the advantages of a small political unit with less than 20.000 inhabitants - all actual needs of the farmers are integrated. The canton of St. Gallen published its Report on the Actual State of Agriculture in 1993 in the midst of the reforms of the federal agricultural policy. Therefore the main part of the Report describes the actual lines of development in the primary sector and the response of the federal agricultural policy. Throughout the paper the canton attaches great value to the economic orientation of agricultural policy. The cantonal scope for action is said to be very narrow corresponding to the federal responsibility and must be adapted later on according to the inputs from the federal level.

Assessment against the criteria of sustainability

The new orientation in policy leads to three topics which are closely connected: the cooperation between agriculture, tourism and culture, the importance of marketing and labelling and the importance of quality according to ecological standards and economical niches. The combination of the three issues is stressed on all levels of agricultural policy. Within the federal strategy the new orientation covers all the three development dimensions to a great extend.

The implementation on the cantonal level seems to be on a different state according to the specific situation of geographical and climatic factors as well as 'human factors' of learning and consciousness. The new orientation includes a paradigmatic change which needs not only time but also increasing support. It needs public awareness on quality and regionality as well as the farmer's capacity to deal with innovative products and their commercialisation. The federal strategy is oriented towards co-operation and co-ordination and the intense federalism in Switzerland allows the cantons to deal with this strategy in different ways. According to the systemic

principles of our analytic framework, the Swiss agricultural policy shows some tendencies towards sustainability.

The three equity dimensions also are taken into account with the new orientation in agricultural policy. A decrease in economic pressure on the global market of agricultural goods can be reached with the strategy towards the ecological cultivation of the area instead of the old product-price bounded subsidies.

Two documents especially stand out in terms of sustainability:

1) The 'Swiss Landscape Concept' tries to work on the basis of sustainability not only through its goals and measures but especially through its concentration on partnership and dialogue. The state of the art of scientific know-how has been integrated and the first draft was mentioned as a presentable model' by the third European Ministerial Conference Nature in Europe' (October 1995 in Sofia).

2) Appenzell Ausserrhoden's orientation in agricultural policy corresponds with the main dimensions of sustainability. The part of agriculture in the context of the whole concept can be seen as a regional framework for sustainability.

9.2.2 Technology policy

The international and Swiss context

There is no direct influence of European R&D policy on Switzerland. The Swiss federal administration supports measures to co-operate in R&D programs of the EU, for example EUREKA. To participate in European R&D programs it is possible to get the co-financing from the federal level. Furthermore there exists a Swiss Information Network' to promote the European co-operation in research activities.

The region analysed in this study is part of the INTERREG II- region 'Hochrhein-Bodensee-Alpenrhein'. Some projects like the Electronic Mall Bodensee' or the technological fair 'Intertech' have been build up created with the help of the mechanisms according to this cross-border co-operation.

Technology policy on the federal level

A coherent technology policy does hardly exists in Switzerland, both at the federal and at the cantonal or regional level. If any, regional technological policy is organised in larger than cantonal units. In this regard the region of Eastern Switzerland encompasses three other cantons.

The single document on federal technology policy in Switzerland is a Report on Federal Technology Policy which was finished in 1992. The report was written by a working group to point out whether deficits in a federal strategy can be seen. The analysis of the situation shows no general deficit in innovative capacities but a few weak spots point the necessity for public support. These weak spots mainly concern the economical competitiveness and some structural aspects in economy and administration. Above all, the Swiss technology policy is oriented towards the diffusion of innovation within an enabling federal framework. Training and further education plays an important role in the federal orientation on technology policy as well as other prerequisites like favourable taxes and laws and the support of co-operation.

As an important part of the federal technology policy there are a lot of institutions run by public or private organisations with public subsidies. Four Microswiss' centres promote the application of microelectronics; they focus on measures of education and qualification, technological transfer and the support of SMEs. They co-operate with several educational institutions from all over the country. Seven CIM-centres promote the application of Computer Integrated Manufacturing by expertise and co-operation focused on SMEs.

Single projects in development, use and diffusion of technologies are supported by different federal institutions, for example: Basic research is funded by the Swiss Science Foundation (Schweizerischer Nationalfonds) with special Focus Programs'. Technology projects are supported by the Commission for Technology and Innovation (KTI). In addition there is considerable in-house research by the federal departments. These are accompanied by National Research Programs' on application-oriented research.

The regional context

The intensity of private research and development in the analysed region is considerably below average. In a polling of firms in the region, the quality of national programs to promote R&D is not seen as very good. Despite this, the region enjoys a cluster of institutions focussing on research and technological transfer as well as many institutions for continuing education in the technical fields run by private firms and job-organisations.

The University of St. Gallen and its affiliated institutes have a special significance for the region. In the canton SG the CIM-centre is organised as CIM-CVO - which stands for an association of various engineering schools, firms, interest groups and occupational associations as well as public administrations in Eastern Switzerland. The 'Eidgenössische Materialprüfungsanstalt (EMPA)' is a federal research institute for testing materials and also located in the city of St. Gallen. The Technological Centre of St. Gallen (TEBO) offers tenancies and advice for young entrepreneurs and lends diverse technical infrastructures such as laboratory equipment for private individuals and firms alike.

Technology policy on the regional level

The regional technology policy has no coherent concept; according to the different institutions there exists different ideas and meanings. This can be seen for example in the discussion about how to fulfil the tasks of the CIM-CVO. The initial funding run six years for the start-up of the CIM-Centres and is now being phased out. The region is not yet clear about the future concept. There is one proposal to create a regional structure round the Lake of Constance together with Vorarlberg (Austria) and the South of Germany under the roof of the Electronic Mall Bodensee (EMB), a regional electronic marketplace.

Corresponding to the lack of coherence and the existence of hidden political agendas, the private firms and entrepreneurs assess the technology policy in the following way: on the one hand they profit from single measures and institutions, on the other hand they don't see the use of technology policy. Therefore they are also not willing to finance the further work of the CIM-CVO despite its success.

In the regional development concepts, technology policy is not discussed separately. The orientation is on structural and individual preconditions for technological development and innovation. Most of the technological issues are discussed indirectly by stressing personal and struc-

tural preconditions of technological change for example education and networking. Especially the development concept of the canton AR stresses all kind of concern towards primary and secondary education as well as training on the job. The goals and measures within the policy fields are based on the philosophy of lifelong learning. Thus the concept can be seen as a step towards an enhanced understanding of innovation.

Assessment against the criteria of sustainability

The main goal of technology policy is said to promote the economies competitiveness on the one hand and on the other hand to maintain the basis of living of the population; there is hardly any hint of an ecological orientation. The report states the challenge of a revival of the 'Platonic understanding of science'; this statement is restricted by the fact of moderate interventions in the natural space and the upcome of a biological-systemic way of thinking in science. The report also includes a chapter on ecology and energy but only from a strictly technological view including solutions to ecological problems; ecological and energy policy which should not disturb the promotion of innovation. On the other hand solving conflicts between society and technological development is said to be part of the process of formulating political objectives.

The Report on Federal Technology Policy is a typical case of a pure' sectoral policy. Within the limits of this sectoral view some far-looking approaches can be identified, especially in the orientation towards diffusion which gives priority to measures of education, networking and so on. Other approaches, for example the assessment of technological risks, get faded out and become transformed to another political level (i.e. another political systemic view' which separates democratic politics from administrative framing). The report is based on an isolated idea of technology which is completely independent from values and political preferences.

9.2.3 Conclusion

In summary, Swiss policy is characterised by subsidiarity and consensus building. The federal level has limited power in decision-making and an even more restricted power in implementing. If it is not possible to connect federal subsidies with conceptual conditions, the federal possibilities to act are restricted on persuasion and negotiations. The lack of power on the federal level could easily lead to a struggle on the sub-national level for leadership in certain strategic issues. Focussing on the agricultural policy, Swiss federal politics nevertheless show a considerable amount of innovative thinking and strategic leadership towards substantial reforms.

On the regional level, a lack of fixed concepts can be evidenced. Despite this, there is an intense readiness for discussions which allows to deal with guidelines and basic ideas without fixing them in documents. The danger of proceeding in such a way is the possible neglecting of problems of minorities and controversial issues and the exclusion of people who are not part of an inner circle' of actors. The small size of the cantons in terms of inhabitants and square kilometres and the political culture of participation in Switzerland can be seen as prophylactic.

To involve people in the decision making process can be well organised as the canton AR demonstrated with the development concept in a very exemplary manner:

First a screenplay' was published. It contains the why, when, how, the timetable and the financing of the creation phase of the concept. A pre-report was worked out and presented to all citizens of AR. Nearly 1300 remarks and recommendations have been analysed, annotated and published, therefore everybody can realise the origin of changes and adaptations within the final

concept. The development concept includes the analysis of the situation and guiding principles for further acting but also a second part of recommendations to different interest groups and the whole population. The third part of the concept is a collection of project sheets' with concrete ideas of action and the respective responsibility, financing and timetable. At the moment an evaluation of the goals is underway. The whole process has been accompanied by a group of seven trustworthy people and four members of the cantonal administration.

The conclusion therefore is, that it is up to the cantons to face the challenge and act upon their responsibility to proactively implement these issues. The Development Concept of Appenzell Ausserrhoden may stand as an innovative example and as a hope on the road towards sustainability.

9.3 Innovative Actions

9.3.1 Innovative actions concerning agricultural policy

In agricultural policy two innovative actions will be analysed: The regional marketing joint-stock company Appenzell - rundum gesund' and the foundation Pro Specie Rara to maintain old regional breeds of animals and plants. A third project which will be analysed is the 'Wood-Chain Appenzell' which is aimed at the use of regional resources which could support additional incomes for farmers.

9.3.1.1 The 'Appenzell - rundum gesund'- joint stock company

The name Appenzell' is well-known in Switzerland, Austria and the South of Germany not only for its famous cheese and an old folk-song. Also the mountain Säntis' (2500 m above sea level) as the geographical centre is a very prominent viewpoint and dominates the horizon. The landscape around is a tourist destination.. The small-structured pattern and the great influence of the agriculture in the region, especially in the mountain area, needs some creativity in creating development processes.

The action

The Appenzell - rundum gesund' is a regional marketing joint-stock company for the co-operation between interests and organisations: the farmers association, the organization of biological agriculture, the countrywomen's association, the regional tourist organization, the hotel owners, the butchers, the storekeepers, the landlords, the dairy co-operative and the consumer's association. It is aimed at the labelling and marketing of regional products to increase the value-added in agriculture and tourism and to maintain the cultural landscape and its diversity.

The basic idea of the project stems from a project in Vorarlberg (Austria). A good project has many parents. Many of the actors involved claimed the success as an initiator of the project. The project started with a phase of itinerant preachers but most of the work at the beginning has been done in small circles. An initiative group developed in April 1995 a label including the symbol, the organisational rules, the financial planning and a draft to get the license for using the label. The first period's financing has been negotiated in a small circle between the initiators of the project, the canton AR and a private foundation. The project itself started with the consultation of all relevant organisations, interest groups and the cantonal governments.

In 1996 the whole turnaround of the project was more than 0,2 millions ECU, a figure which must double for the project to be self-financed. The additional agricultural income was about 40.000 ECU. The company has 100 shareholders with total assets of 25.000 ECU. Licenses are given to 44 farmers, 17 food producers and 18 tourism services. The quality standards of the products are fixed and the origins and quality of the products is supervised by certified controllers. Each participant signed a treaty and a 'code of honour'. The greatest single success is the contract with the SWISSAIR company (the national airline) to provide with labelled products.

Until now the main problem in implementation is to be seen in the branches of food retailers and tourism services branches. Within these branches, there is a lack of orientation towards customers and their needs. Most of the 'normal members' take part in the action in order to be informed but they are not really engaged until now. They have a 'wait and see' attitude which is the most hindering element of the whole project. Many of them pay their fees but do not even display the advertising brochures in their shop. The most innovative actors are the country-women' association (e.g. farmer's women) and the young farmers. A very new experience for the farmers in the project is the finding that tourism could be an enlargement of their own economic efforts. In this case a real learning process is taking place.

The project uses three types of supporting missions from the region's policy: a strategy and concrete ideas out of the existing development concept of the canton AR, material and non-material support by cantonal political and administrative actors and cantonal subsidies in the first five years. Not only all opinion leaders but also a lot of politicians are engaged in the project even as shareholders and it is said that the annual session of the company is the one private meeting in the canton which draws the largest number of members of the cantonal government. One of the main factors of success are some very engaged actors: The 'Regional Secretary', the Director of the Regional Tourism Association and the Head of the Cantonal Department of Agriculture. He has previously been the Head of the Farmer's Association before and in this function he prepared much of the action. He organised the annual meetings of the association; during some years he confronted the farmers with new issues like 'controlled - biological agriculture', direct marketing, acting as an entrepreneur and others like these. The communication patterns within the members of the action are not as intense as between the few main actors and engaged members.

9.3.1.2 The 'Pro Specie Rara'- Foundation

The problem which led to the establishment of the Pro Specie Rara foundation in 1982 is not only a regionally specific one. The global development in agriculture (fertilisers and pesticides, machines, seeds and sorts) lead to a genetic impoverishment in domestic crops and animals. Also the old knowledge of how to best utilise these animals and plants became lost over time. Old varieties and species only can survive in very peripheral or economically underdeveloped areas like some parts of the mountain region of Appenzell where the mechanisation and rationalisation did not take place at the same rate as other areas.

The action

The Pro Specie Rara Foundation (PSR) aims at preventing the genetic diversity of indigenous species of domestic crops and animals from becoming extinct. To maintain the genetic diversity means also to maintain the typical characteristics which allow a decentralised and regionally adapted agricultural production. This goal includes a certain lifestyle philosophy as well as re-

gional development. Two tasks must be tackled in dealing with this particular problem. On the one hand the species have to be identified, the individuals registered and crossbred. On the other hand the species have to be used for agriculture ('on-farm' strategy) in order for these species to get the chance to adapt on new living conditions and for maintaining and passing-on the knowledge about cultivating the species and the manufacturing and marketing of the respective agricultural products.

The PSR foundation is the result of the private initiative of a single person. Hans-Peter Grünenfelder was interested in the issue long before he began to work on the problem after having discovered some rare species while hiking in the countryside. Based on his personal conviction, he founded the PSR. There was not very much acknowledgement and acceptance in the first phase of the project - most people, both in public service and the private citizen, simply did not recognise the problems at hand. Grünenfelder however did receive some private support and from the WWF Switzerland but was confronted with a lack of co-operation from farmers and the officials.

Since its difficult beginnings, the PSR foundation is supported by 4000 patrons and for about 2000 members active in breeding. PSR supplies volunteers with the seed, courses and practical advice. The volunteer has to repay the foundation with give back a part of their harvest of new gained seeds and also is asked to describe the experiences for the use of other cultivators. In animal breeding the PSR mainly supports but also founds breeding associations, searches and identifies new individuals or populations of a species, works out and actualises the electronic form of the breeding documents and publishes an actual state-of-affairs.

The motivations of most of the voluntary actors is a non-material one. Some of the supporters work in science and vocational training, in agricultural co-operations or in ecologically oriented projects. Professional farmers are a minority. The private commitment is supplemented by construction and maintenance of special gardens, data collection with the assessment of priorities, identification and description of species and varieties, lists of literature and tests with different varieties of the same species - for example corn - to compare the results in quality and quantity. The work is supported by information and educational activities. Another part of the work of the PSR Foundation is the search on how to commercially use the animals and plants being protected. Co-operations with restaurants or with SMEs in food producing (bakeries, butcheries and so on) are in the beginning phases but have proven to be successful in some cases.

The PSR foundation also initiates and supervises projects in other European countries. To support such activities an European 'spin-off' was founded called SAVE (Safeguard for Agricultural Varieties in Europe). Especially since the breakdown of the former socialist nations there exist a broad new field of activity because of the usual niche-economy in this part of Europe. SAVE coordinates the national associations and interest groups and is building up a close cooperation of regional and national NGO's in Europe. To recognise and prevent unfavourable developments, the Monitoring Institute for Rare Breeds and Seeds in Europe was founded in September 1995. The Monitoring Centre is a supplementing organization aimed at basic research and as a service centre for NGO's.

The PSR foundation has no political goals and keeps out mostly of political debates. Therefore it is a very presentable project for all kinds of politicians and the verbal support is unanimous. This support does not correspond with the actual material support because of it's very personal moulded history and its fully private character. On the conceptual level the PSR Foundation

especially co-operates with the Federal Department of Agriculture and supported, for example, the Swiss federal level in participating at the 'Congress from Leipzig' from the FAO, the agricultural organization of the UNO. The congress held in 1996 was aimed at preparing a 'global plan of action to maintain the genetic resources of plants.

9.3.1.3 The 'Holzkette' Appenzell

The 'wood chain' is not an agricultural project but the cultivation of forests could create an important part of the farmer's future income. 60 (AR) and 78 (AI) percent of the whole wood of 13.600 hectares of the forests are privately owned by farmers or co-operatives. The supply on wood per capita is for about 500 cubic meter per hectare, only 2.5 cubic meter per hectare is actually utilised. Despite this, the region has many sawmills and has been traditionally oriented towards wood as a resource in the construction sector. The structure of the affected branches related to the wood-industry is very small-scaled. Partly the professionalism of the branch is at a low level which leads to difficulties in getting the products to market. On the other hand the Swiss economy exports quite a bit of tree-trunks and imports significant amounts of finished wood in the form of planks and beams. Especially in Eastern Switzerland there is pressure of cheap prices from Eastern Europe via Austria.

The action

The 'Holzkette Appenzell' or 'wood-chain' attempts to bring together all the people who grow, sell, distribute, commercialise and manufacture wood and related products. It aims at building a network along the value chain in order to better use local resources. Information and communication about the possibilities to co-operate are put to the forefront and awareness for the network is currently being established. One goal is to optimise the economic structure and to coordinate measures of marketing and advertising. One aim is the establishing of a regional label for wood. Another long term goal is to create a kind of virtual wood-factory which is able to react quickly and precisely on market demands.

The 'wood chain' was initiated by a private innovative entrepreneur. The idea originates in Central Switzerland. The project started with a regional study group on the use of wood as an endogenous resource. Different occupations and branches participated in the study group. But the area covered by the group was too large, therefore the wood-chain is concentrated on the cantons AR and AI. In the canton of St. Gallen similar projects were later initiated.

In the last three years, many activities have taken place: lectures on ecological construction, excursions, presentations and the publication of articles in different journals and newspapers. Most of the activities are a type of marketing in the sense of creating public awareness but the activities try also to influence the members of the wood chain themselves as a learning process. The wood chain's success can be seen mainly in an increased communication and in an improved understanding between the various actors. Foresters for example give recommendations to the owners of forests on the quality of wood in terms of variety and thickness which were worked out together with the owners of the sawmills. Only one production project has been undertaken until now: the planning of a modular construction of hotels for the EXPO 2001 in Switzerland which can be dismantled and re-used afterwards. This concrete project adds a new quality of the wood-chain's work but remains a singular activity until now.

At the moment the project is driven by a few single actors who are especially enthusiastic about

the issue. The organization is very informal. But most of the concerned actors miss the long-term and vision for the chains view on the problem. The lack of specific action as well as possibilities to act hinders a more proactive involvement - and a lack of involvement in turn hinders the creating of new possibilities to act.

There is a strong interrelationship between the cantonal development concept of AR and the wood-chain. The lack of using endogenous wood resources first has been taken as an issue in the first development concept of the canton in 1982. The second development concept from 1993 cites the wood chain as a positive example for an innovative action; the recommendations given to private citizens, the wood-processing industry, SMEs and different associations followed the goals of the 'wood chain'. Some cantonal support exists especially through advice and administrative help. The most useful support by the administration is the work of the cantonal forester who is involved in the project as a central actor. The 'wood-chain' also receives some subsidies from the 'Organisation to Promote the Cantonal Economy' of the canton AR.

9.3.1.4 Assessment of the innovative actions against the criteria of sustainability

Environmental issues are part of all three innovative actions but are targeted at for different reasons. The utilitarian view dominates in the joint stock company and the wood-chain project. Positive ecological impacts are the consequent result of an economically motivated regionalisation. In both cases, the emphasis of the main actors is divided between marketing goals and an orientation towards sustainability. On the other hand, has the use of wood as a resource in construction has ecological effects which go beyond the ecological effects of regionalisation. The type of agriculture the PSR foundation supports rejects the standard industrial approach of agriculture and is clearly oriented towards the balance of ecological, economical and social goals.

The economical goals dominate in the joint stock company and the wood-chain whereas the PSR places non-material goals into the foreground. The recent trend towards the economical use of the genetic diversity which leads to an artificial change of genetic characteristics, to commercial genetic pools and the patent protection on species and varieties may be the main threat of the this project in the next decades. But in a strategic way the PSR argues in its publications mainly by means of the economic use of maintaining the old species.

The joint stock company and the wood-chain, both are able to develop a strong regional identity, but both projects have to be handled with care. The dominance of an economic view can lead to an abuse of the regional rural culture for marketing purposes - utilitarianism in all arguments threatens immaterial social goals. Here the work of PSR can also be an important input for a process of regional identification depending on the traditional way of agriculture and agricultural products. A mixture of both types of innovative action could be able to satisfy human needs, to maintain the regional heritage and to develop social potentials in the region.

In the systemic dimensions, diversity in activities is a clearly formulated goal of the projects. Combining different elements of the value-added chain creates an integrated view of the problems. In this way the combination between different policies seems to be the most compromising way of action in the mentioned context. The work of PSR directly aims to maintain diversity, both the genetic diversity as well as the diversity of agricultural lifestyles.

Subsidiarity as a matter of self-government could be reached with the organisational structure aimed at the regional level and a mixture between private commitment and public support. The joint stock company and the wood-chain project have been initiated as a public-private-

partnership from the top-down. Both actions show some obstacles in implementation as the laborious search for member's activity and the lack of ideas regarding products and production. The actors had to learn that such actions needs more time to become self-supporting as was first believed. However, the PSR needs the heavy involvement of private persons and associations to fulfil a matter of public interest and the fully private organization is not supplemented adequate by supporting missions on a material level.

The three projects are aimed at building up a thematically network. Partnership therefore is a crucial mode of operation as well as a clearly formulated goal of each of the projects. The projects show that communication between different professional and interest groups increases the awareness which in turn helps fulfil the goals of sustainability. But in the day-to-day work there still remain some teething troubles concerning the share of tasks and some negative effects of competition.

In two of the three projects participation is limited to most of the relevant organised interests. Neither in the joint stock company nor in the wood-chain project are ecological NGO's involved. Both innovative projects have been designed by regional decision-makers from the top-down. The absence of 'grassroots' gives a small base to these projects until now and much of the current work is connected with the persuasion the segment of the public affected by the issue. In the PSR participation is not an explicit goal but the manner in which tasks are carried out.

Including goals of equity may be the weak point of the innovative action. Individual equity is not a explicit goal in all these three projects but the intended possibility to widen the individual activities in a self-responsible way can support individual equity.

In the joint stock company and the wood chain project, the orientation towards regional competition is a characteristic feature. However, on the other hand the starting point of the regional competition are the specific resources which allows to protect the resources of other regions. It is difficult to assess regional competition in terms of regional equity if an action is oriented towards the increasing of regional value-added. Especially the interregional equity is reflected by PSR with its European spin-off and other supporting activities in the countries of Eastern Europe.

The inter-temporal equity only is an explicit goal of the PSR which is aimed at maintaining resources for the use of further generations. Both of the other projects focus on the better use of endogenous resources. This enables the local and regional community to create a regionally adapted development and therefore also stresses the dimension of inter-temporal equity. But how much the dimension is stressed depends on the 'struggle' between the goals of marketing and the goals of ecology and quality of life.

9.3.2 Innovative actions concerning technology policy

Three projects have been analysed: The 'Appenzell's Association for the Promotion of Environmental Sound Energies (AVE), the Electronic Mall Bodensee and the Virtual Factory.

9.3.2.1 Appenzell's Association for the Promotion of Environmental Sound Energies (AVE)

The association was founded at a time, where the discussion on ecological risks especially in the field of energy (atomic energy, water plants) was given much attention. During this time the

government of the canton AR dealt with a draft on a cantonal law concerning the use of energy which included the economical use of energy but not the promotion of renewable energy. was a trigger.

The action

The association promotes the construction of renewable energy plants and the use of such energy and represents these goals namely against the administration and the energy supplying firms. Additionally the association can buy, built and run small plants to produce renewable energy and organises groups of self-construction. The activities of the association includes lectures, excursions, presentations and courses.

At the beginning of 1991 the founder of the association asked the first 50 members to help him to get all parties, associations and groups of interests involved in the association. He visited the cantonal officials and politicians and put the following proposal forward: If the canton integrates a phrase in the new law like "...the canton will promote renewable energies within the bounds of his possibility..", then the association would supply an advice in these energy issues. Their philosophy is to produce many advance concessions by private work before asking for public subsidies. In establishing a first circle which covers all the different organisations and interests the association has demonstrated the broad support which is the starting point for an innovative action oriented towards subsidiarity.

At the end of 1996 the association had for about 600 members in the whole region. The three groups of self-construction have installed 48 plants on roofs of private houses covering about for about 900m². Larger plants have also been constructed: a solar energy plant on the roof of a cantonal school (2.700 kWh/year), a solar energy plant on the roof of a vocational school (5.000 kWh/year), three water power plants (a new one, an enlargement and a reconstruction) producing a totally of about 500.000 kWh/year and a wind energy plant (100.000 kWh/year). The financing of these plants is mainly done by private persons who buy a certain amount of ecological sound energy for a cost-covering price. For these activities the association received the Swiss Solar Prize 1995 and the canton AR has the highest density of solar energy installations for thermal use in private households in all of Switzerland.

The cantonal assessment shows that the association's work has created a milieu of interested people in the canton. A common database on demand, types of plants and so on became was created. The public opinion gets motivated and informed and a lot of new ideas grow in the region. In the association's meetings there are 80 to 140 persons which is a very high rate compared with the total population.

The cantonal department calls the association an 'ideal partner'. The cooperation is assessed by the canton as 'fully based on trust', the dividing of labour is seen as 'the conceptual work for the canton, the labour for the association' because sometimes there is a lack of strategical planning in the association's work. Each advice given to private persons concerning energy plants will be supported by the canton AR with the help of the cantons AI and SG.

From the view of the private firms 'dealing with solar energy plants, the association's work will be assessed as very important for the region. The association has been able to create a consciousness in the population to use renewable energies which also helps the private firms to sell their components. Therefore the owners often participate with providing their know-how. The regional energy provider SAK wants to participate in a new organization to reorganise the sale

of environmental sound energy. The energy provider plans to widen the idea of the association and integrate the canton of St. Gallen but at the moment it is too much work for the capacity of the association.

9.3.1.5 The Electronic Mall Bodensee (EMB)

The 'Electronic Mall Bodensee' (EMB) is an electronic marketplace which offers information from enterprises, cultural events, regional marketing, newspapers, administrations and so on. It has an European perspective to co-operate and combines very different suppliers in a cooperative structure. The EMB should strengthen the local and regional economy, create information and services and it should give free access to information and support the transparency in the region.

The action

The idea for this innovative action has been developed in the canton of St. Gallen by the Head of the Department of Economic Development. From the very first step the Institute of Innovation Management (IWI) of the University of St. Gallen has been involved which has created the theoretical concept for the project. The first planning took place in December 1995 and the project was launched already in January 1996 after only three weeks. It was a jumping in at the deep end. The EMB went on line in June 1995 after five months of preparation.

The EMB is said to be the greatest Internet supplier in whole of Switzerland and one of the most successful attempts of regionalising the Internet. It combines all the characteristics of a successful political project: innovation, regionalisation, learning and communication, profit sharing and so on. Because of its success, many politicians beat the drum for the project.

A company organises the structure and manage the activities of the EMB including the marketing, the administration of legal rights and the evaluation of the quality of the whole project. Other scientific institutions are strongly involved: The University and the Steinbeiss-Transfer Centre of Constance / Germany, the Technological Centre Dornbirn and the Vorarlberger Rechenzentrum in Dornbirn / Austria, and the IWI and the Delta Consulting Group in St. Gallen. The International Conference of the Lake of Constance as a cross-border conference of governments founded an institution to promote the EMB.

Meanwhile the EMB has 150 suppliers and a strong demand: 250 000 calls from 80 nations in one month. Since 1995 more than 1.000 private firms have their homepage on the EMB but the quality differs enormously. New clients like local authorities put the EMB-link on their homepage without even personal contacting to the manager of the EMB - the idea grows independently and is considered a public good. The scientific community round the Lake of Constance uses the EMB for the implementation of results in computer sciences and similar fields and to carry out empirical tests under the conditions of a real market in the Internet. The latest goal is to elaborate and invent a safe regional means of electronic payment.

One of the main problems are the high costs for developing the structure and technological tools and for adapting the whole system to new technologies. There is no adequate market for re-financing such expenditure but also there is not very much willingness from the public around the Lake of Constance to provide long-term subsidies. On the other hand there are some competition problems in communication technology with private firms and interests which disables the EMB as publicly supported institution to act in profitable spheres of business.

9.3.1.6 The Virtual Factory

The regional economy shows a high degree of industrialisation: 47% of all employees in the canton SG compared to 38% in whole Switzerland are employed in the manufacturing sector. In the canton SG about 15.000 people are employed by the machine industry and the metal processing industry is present as well. In the mountain region industrial production is characterised by small units, three quarters of the companies have less than 10 employees. On the one hand this means that they have difficulties concerning R+D, capital and further education, on the other hand it makes them more flexible than larger companies.

The action

A virtual factory network was founded in the region as a cooperation between existing firms to build up a cyber- network for producing machines for the mechanical engineering sector. The network connects 14 firms employing between 16 and 7000 workers. The network includes one firm from Austria and one from Germany. All firms contribute different central competencies to the network. The virtual factory network co-ordinates an intensive communication and built up temporal limited co-operations of firms to deal with special tasks. The idea was created by an institute of the University of St. Gallen and means to combine the flexibility of small firms with the advantages of great large firms concerning the firms capacities and infrastructure. The innovative action project was first outlined in the inaugural lecture of a Professor from the Institute of Technological Management (ITEM).

The project is divided in different overlapping phases. First an analysis of bilateral cooperation forms has been done. The result is a catalogue of the cooperation forms, their fields of application and the internal preconditions. In the second phase the ITEM-institute worked out the concept of the Virtual Factory, the technical advise and the appropriate infrastructure and service components. This two phases have been supported by the federal 'Commission for Technology and Innovation (KTI)' and by the international research programme 'EUREKA' as well as by contributions from the participating firms and institutions. The attempt is now to handle the Virtual Factory under real conditions of market and competition and afterwards to reach the phase of creating satellites.

The initial motivation of the project was purely a scientific one. The politicians supporting the project are motivated by the hope for a 'light on the horizon' compared with the actual economical state. The concerned firms involved have very different motivations connected with the search for new management strategies. There are different special tasks in the Virtual Factory: a 'Broker', a 'Manager of Orders', a 'Manager of Service' and a 'Network- Coach' who cares for the whole network- structure. A regular exchange of experiences on different issues is common, as well as social events to become better acquainted with the other collaborators. Different issues are dealt with in various working groups, for example marketing.

From the beginning the participating firms have been strongly connected to the ITEM- institute. Most of the firms changed their perception of sense and goals of the project within the last two years from worrying about capacity to recognising new chances. Firms who are engaged in the network process now states that there can be some economical use of this venture. The sense of being engaged is a very new experience for most of the firms. Most of the firms see the communication as the centre of the Virtual Factory. They all are very astonished about the degree of trust between firms of the same branch and all firms feels a kind of 'getting ready to go'. The whole project is seen as a new kind of competition which shifts from the competition be-

tween firms to a competition between regions. The manner of communicating enables the firms to react quickly and to work with uncomplicated structures. Only the less engaged firms see no additional gain of this innovative project.

However, the story is not without complications; the firms involved have pointed out the following: first, as a prototype sometimes 'trial and error' are the leading instruments to managing the project. Second, the selection of the members could have been done more carefully to connect different competencies. At the moment many firms with capacities and fewer with rare competencies are involved. Third, the whole project is being conducted in a very scientific way and some practical issues have been neglected. Fourth, firms believe that the technology policy is not seen as important enough for the project. Most of the firms argue that participation in the project should be the task of the single enterprises within the free market. There is obviously a gap between the real conditions of the project (idea and realisation by University's institute, support through public subsidies) and the perception of the participating firms.

9.3.2 Assessment of the projects against the sustainability criteria

Only in the 'Appenzell's Association for the Promotion of Environmental Sound Energies (AVE)' exist environmental goals. The two other projects are aimed at ecology not at all, the overall goals are economical ones. The economical goals of both are in-line with those of the public interest but the real economical use has been marginal until now. However, both projects are in their beginning. In this sense they are to be assessed as being more 'innovative' than 'sustainable'. But on the other hand there are not many ecological threats and limits for the projects. The socio-cultural impacts are weak in all three projects. The regional identification of the network partners increased and the AVE achieved with the Swiss Award on Solar Energy eminence. Especially in the case of the Virtual Factory the project is aimed at an innovative milieu built upon a common feeling of trust between the involved firms which can give some references to the socio-economic dimension. With regard to the three dimensions of development, the AVE can be judged as an innovative project moving toward sustainable development.

Diversity is mentioned in different ways in all the three projects. In the case of AVE, diversity can be seen in the different ways of working and the different resources to produce energy. The EMB offers a marketplace for many different actors within the region and strongly increases the diversity in communication. All the four systemic dimensions are explicitly reflected by this project which is especially caused through the characteristics of the Internet. The Virtual Factory is aimed at an increasing of diversity within a special type of production.

Subsidiarity is the explicit starting-point of the AVE. The basic philosophy is first to work and then try to influence the cantonal policy. The Virtual Factory was founded out from the University's sphere which has a high tradition in autonomy. The project shows that the strong political support and the role in public opinion can create a self-fulfilling prophecy for an project which is supported by public and private subsidies. The dimension of networking is a construction principle of all the three innovative projects.

Networking is the essential for the work of self-helping groups and also the Internet could be a very good base for regional networking. The Virtual Factory aims at networking between firms under the spirit of a global competition. Participation of those interests involved and participation of the broad public is an explicit goal of the AVE and the EMB. The Virtual Factory is oriented towards a specific target group which can participate in the project.

The financing of the larger plants of AVE is a contribution to the dimension of individual equity. The method of financing the projects enables step-by-step solutions for the consumers according to their own capacity. Everyone is able to use renewable energies without to be forced to install an expensive equipment on the roof. Neither of the other two projects particularly stress the sphere of equity but the necessary processes can be seen as a contribution to the dimension of individual equity.

In the AVE interregional equity is taken into account if the ecological impacts of the project are analysed. Increasing the share of renewable energy in the region helps to reduce harmful chemicals in other regions. In the same way the inter-temporal equity is a goal of the project. It can be seen in the term 'renewable energies'. The EMB's guiding principles include the idea of a network of regions. Until now the innovative project is very progressive and well-known and can therefore act as an example for other regions. A clear goal of the Virtual Factory is the economic competition not between firms but between regions in one sector of production to act successful in the global economy.

The dimension of inter-temporal equity is not mentioned by the EMB or the Virtual Factory.

9.3.3 Common features and differences

There are a few prerequisites which can be analysed as helpful to realise the projects:

Very helpful are semi-public institutions which provide advice and networking and which have the tasks to create and realise projects as it can be seen in technology policy. The different interviews draw an interesting picture of the region: There is a kind of innovative milieu created between the institutes of the university, the Office for Industry, Small Business and Labour in the canton of St. Gallen and the other institutions located in the region. A strong influence comes from the University's institutes because of their specific financing structure: about 60 to 70 per cent of their budget is derived by performing research, development and consulting for profit. Therefore the research efforts have to be very practical oriented and tends to create concrete projects in the region.

The most helpful in regional development projects is the process of discussing the goals. In agricultural, tourism and other policies the process shows broad effects on the region. This can be clearly seen with the situation in the canton AR, where a strong supporting structure exists. The structure is shaped from individual characteristics as well as from a way of interacting. The way the Development Concept has been developed used a lot of public discussions. The concept involves many examples for the new strategy of 'cooperative development'. At the same time other problems concerning the broader public interest filled the political agenda in the canton AR and created a discursive atmosphere: the discussion about women's rights to vote in cantonal elections, the amendment of the cantonal constitution, the abolishment of the 'Lands-gemeinde' which is an instrument of traditional democratic participation on the cantonal level - in an outdoor assembly people vote by raising their hands. All these discussions influenced the mood in the canton and created an atmosphere which has been able to generate innovative projects.

Similarly helpful are persons which are especially engaged in such projects and which are responsible by profession. This can be seen in the case of agricultural policy with the 'Regional Secretary' of the canton AR. Here all projects are connected with his efforts in one or another way. It also can be stated in the case of the Head of the Office of Industry, Small Enterprises

and Labour of the canton SG. The two projects EMB and Virtual Factory and other circles and political structural conditions are connected with his work.

A last helpful prerequisite are clearly formulated positions of the federal level as it can be seen especially in agricultural policy. The homogeneous orientation of the analysed concepts and the corresponding subsidies are necessary to implement a real paradigmatic change in policy. But the political implementation depends on the project:

While analysing the moving forces of the project over the lifetime-cycle two types of projects can be distinguished. The one type is initiated by private persons and - after the first steps of implementation - the public support is won. The other type is initiated through a kind of public-private-partnership and the persons and institutions affected by the project are the same over the whole lifetime-cycle of the project.

In the first case the public support is gained when the private efforts are not strong enough but an exemplary work has been done until this time. The support is a kind of reward and helps to implement the goals. The increase of the goals originates from the success of the project to date. In the second case the project is a result of public steering and usually initiated by the administration or members of the regional network of decision-makers which today also includes also the officials of organised interests. The public support is a kind of stimulus and it is planned to cancel this support after the project becomes self-sustaining.

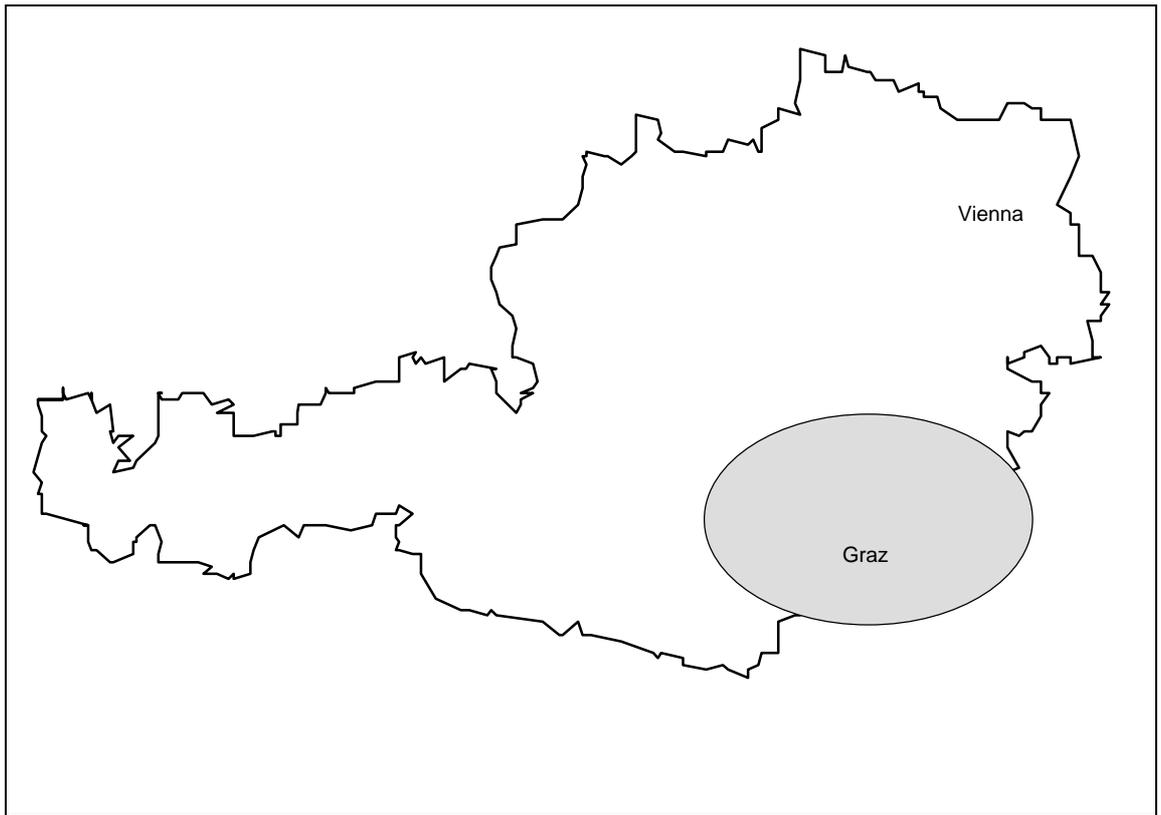
Another result only can be formulated as a hypothesis because of the small number of projects analysed. It seems, that the character of the 'goods' produced from the project influences the public participation. The more a project is oriented towards the 'production of a public good' in the sense of non-material results, the higher is the public participation of the citizens. The more the projects goal is the production of a private (economic) good, the greater is the support of the public mostly in the way of public-private-partnerships.

There are three projects which aim at the economic oriented networking of actors which have been involved for different reasons. The wood chain project, the joint-stock company to connect agriculture and tourism and the Virtual factory. All the three projects are successful due to the initiative of 'being pushed ahead' by single persons and are strongly supported by the public - if not with subsidies they are commonly cited projects in political speeches. The other two projects don't have a dominating economical goal and in both the public dominates: Pro Specie Rara and the AVE. They are oriented towards the implementation of a specific, clearly bounded 'product' or service which requires a lot of engagement. Such non-material products are the climatic issues as the reason for using renewable energies and the agricultural biodiversity.

The Dynamics of National and Regional Patterns

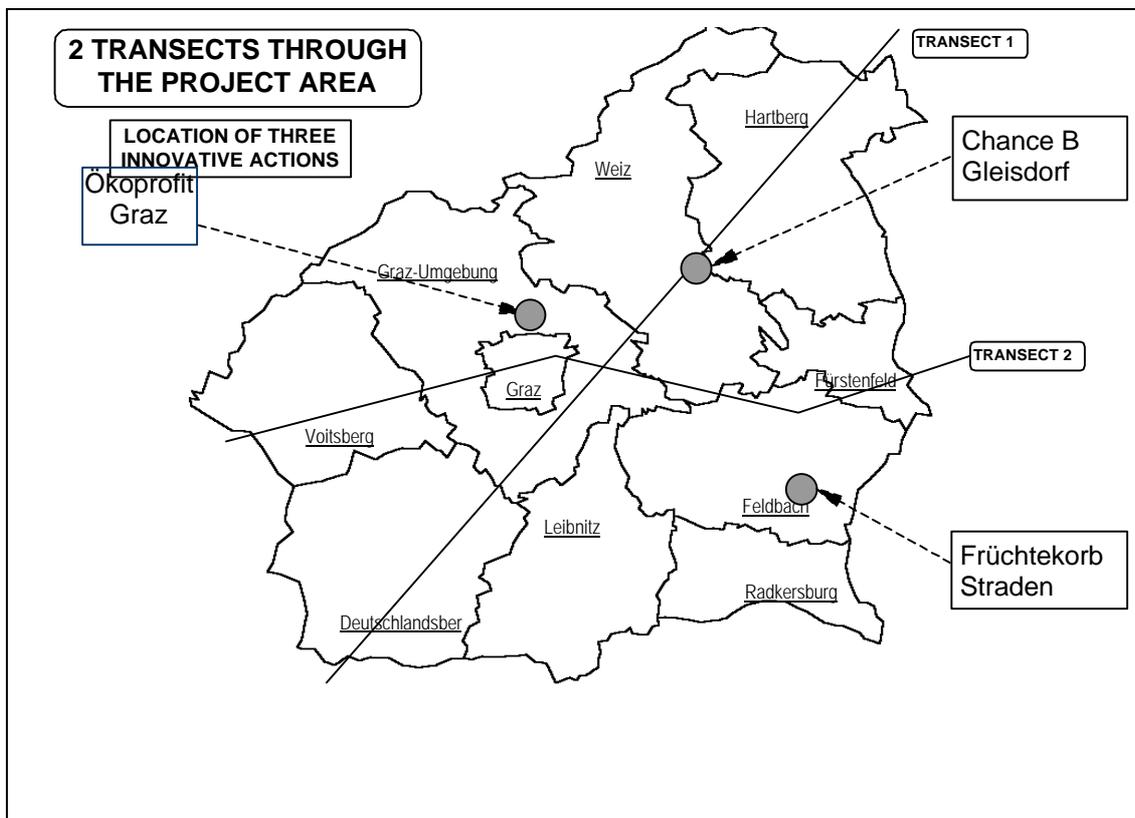
At least it is possible to give a SWOT- analysis of the supporting political system:

<p style="text-align: center;">Strengths</p> <p>The federalist structure provides many possibilities to create policy at the cantonal level</p> <p>The federalist structure leads to a diversity of concepts and measures</p> <p>The federalist structure demands a high rate of conceptual work at the federal level</p> <p>Paradigmatic changes in policy require a nucleus like the 'Regional Secretary' of AR</p> <p>On the regional level the University with the institutes influences the regional development positively</p> <p>Existing structures of trans-border cooperation with the respective freedom of action support innovative actions</p>	<p style="text-align: center;">Weaknesses</p> <p>A lack of cooperation between the cantons in the region can be evidenced</p> <p>The peripheral location and some geographical attitudes of the region are hindering factors</p> <p>The region has a lack of endogenous resources</p> <p>On the cantonal level partly a lack of conception work can be evidenced</p> <p>The 'artificially united' and very heterogeneous canton of St. Gallen complicates the policy design</p>
<p style="text-align: center;">Threats</p> <p>The federalist structure can lead to second best solutions at the federal level because of the bargaining processes</p> <p>Redundancy in institutions and measures or instruments seems to become reduced</p> <p>Clustering leads to the exclusion of new ideas which do not correspond to the 'common sense'</p>	<p style="text-align: center;">Opportunities</p> <p>The existing clusters in the two analysed policy fields can be a source of further innovative actions</p> <p>The increase of trans-border cooperation is politically determined and enables new scopes of action.</p>

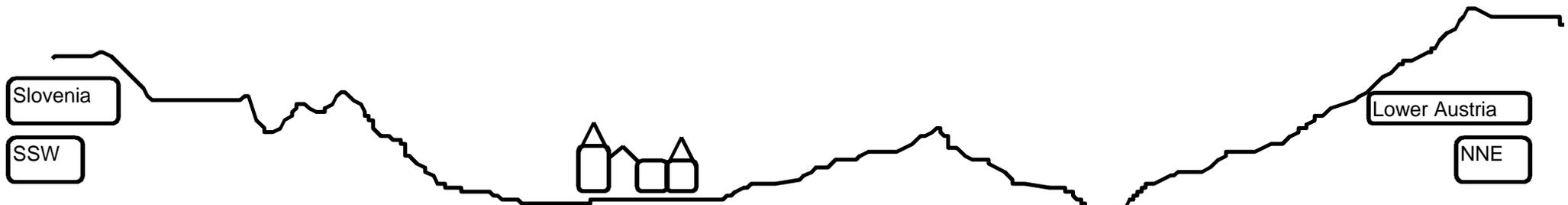


10 Lower Styria

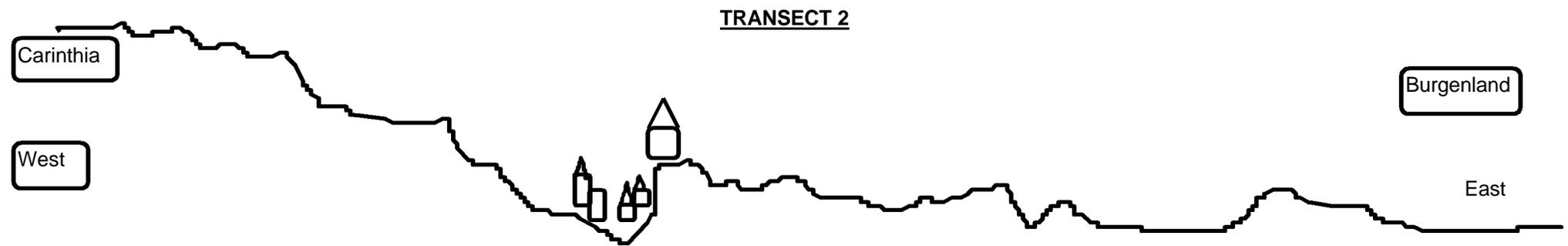
10.1 Regional context and image of the region



TRANSECT 1



AREA	WEST STYRIAN HILL LAND (DL)	GRAZ AGGLOMERATION, MUR BASIN (GU)	OSTSTEIRISCHES HÜGELLAND, UPPER RAAB VALLEY (GU, WZ, HB)	JOGLAND (HB)
GEOGRAPHY	Mountainous, mild climate (400-1000m); towards the East: Koralpe (1700m)	Mur valley South of Graz (400m); multi-use: industrial zone, habitat, agriculture, roads, airport	Hilly, mountainous (350-800m)	Alpine and prealpine, mountainous (800-1700m)
AGRICULTURE AND FORESTRY	Forestry, grassland, mixed crops, milk and cattle; highest wine growing area in Austria (up to 1000m);	fields, vegetables	Fruit plantations (apples), mixed structure with grassland and fields, concentration of corn, pig and poultry production in the Raab valley	Forestry, grassland, milk and cattle, sheep
MANU-FACTURING	Industrial implantations in Deutschlandsberg (electronics) and Lannach, local small crafts in the hill land	Industrial centre: Cars and motors, electronics, mechanical and engineering, metal processing, thermal power plants	Electrical and parts of automotive cluster in the Raab valley (Axis Weiz-Gleisdorf: „Energy region“), wood processing; small crafts	Wood processing, furniture; small crafts
TOURISM	Second homes, excursions, wine route (hiking, wine purchase)	Leisure centres South of Graz (Ponds)	Hiking, Agritourism (Apple route, Castle route, „Buschenschenken“ = farmer’s right to sell wine (from grapes, apples) and cold dishes	Summer resort (in decline), recreational vacations, farm vacations, on-farm offers
ENVIRONMENT	Dispersed habitat; SO ₂ from SLO damaging woods; generally good and high diversity of landscape	Heavy traffic (crossroad of two major highway axes, airport, railway). Ground water pollution (industry, agriculture), smog (inversion), multi-use conflicts	Intensive fruit plantations (pesticides, hail protection nets), ground water pollution (corn fields, private homes); generally good in the hills	Good, high diversity of landscape
INNOVATIVE ACTION	„Schilcherland“ direct marketing farmers association (now LEADER II Action Group); Styria Beef 30km East: Prototype of communal biomass heating in Silberberg (LB)	ÖKOPROFIT consultancy for environmental management in SMEs; Cleaner Production Centre; Agenda 21 Plan; communal energy concept (KEK)	Self-build movement of thermic solar systems (Gleisdorf/WZ); Sheep farmers cooperative Weiz; „Almö“ - low input oxen meat from alpine pastures	New types of rural tourism offers (e.g. vacations for handicapped people)



AREA	PACKALPE (VO)	WESTSTEIRISCHES HÜGELLAND (VO, GU)	GRAZ, MUR VALLEY (GU)	GRAZER BERGLAND, OST-STEIRISCHES HÜGELLAND (GU, FB)	RAAB VALLEY (FB)	OSTSTEIRISCHES HÜGELLAND (FB, FF)
GEOGRAPHY	Eastern Alps (1000-1700m)	Mountainous (400-1000m)	Mur valley in Graz city (400m); widening to the South	Hilly, mountainous (400-500m); scattered habitat	Raab (former) flood plains (300-350m)	Hilly, variable landscape (250-400m); Lafnitz valley at the border to Burgenland
AGRICULTURE AND FORESTRY	Forestry, grassland, milk and cattle	Forestry, grassland, milk and cattle, sheep	gardens, parks, forests	Forestry, mixed crops, fruit plantations, corn dominance in fields	Intensive field (corn) production, pig farms, some big chicken farms	Mixed crops, fruits and wine, growing dominance of corn
MANU-FACTURING	Small crafts	Lignite and mineral extraction; „old“ glass and metal industry, thermal power plants	Mechanical engineering; beer, dairy products; pulp and paper	Small crafts, wood processing and food (meat)	Leather, food (meat), scattered implantations of extractive industry.	Components (electric / metal industry)
TOURISM	Hiking, skiing	Excursions (events and museums), hiking	City tourism (culture, congress)	Agrotourism (thematic routes); excursion hinterland for thermal region and Graz		Spas, thematic routes, gourmet tourism
ENVIRONMENT	Contamination from the old industrial district; generally good; intermittent stress from weekend excursions	Industrial emissions, smog (inversion) between Köflach and Voitsberg; mediocre in general	City traffic; smog (inversion)	Intensive fruit plantations (pesticides, hail protection nets), soil erosion, scattered habitat; generally good	Ground water pollution (agriculture, scattered habitat), soil erosion, lack of biodiversity; mediocre in general	Ground water pollution (agriculture, scattered habitat), soil erosion; traffic stress in the Feistritz valley and around the thermal resorts; still good in general
INNOVATIVE ACTION	Conversion of old industrial sites into attractive touristic areas (Bärnbach: Land exhibition and establishment of the „glass centre“)		Agenda 21, „Ökostadt 2000“ and Communal energy concept	Pilot area of organic agriculture in Styria (St.Marein/FB)	30 km south: Kulturverein Straden (events and agrotourism)	

10.2 Policies

10.2.1 Agricultural and rural policy

Because of the natural conditions (mountains) and a long period of monopolised policy with reduced competition, Austria's farm enterprises are small structured. The average enterprise size in Austria is 15 hectares, within the particularly small structured project area it ranges from 12.6 (FB)² to 5.7 (VO) hectares. 66% of all enterprises are part-time run, within the project area the figure amounts to 70% (in the peripheral parts of the project area this development started only relatively late because of the lack of secondary sector employment opportunities; in 1990, the share of part-time enterprises in FB and RA was less than 60%).

The number of agricultural and forestry enterprises is declining annually, and since Austria's accession to the EU this trend has become stronger. The number of enterprises sank by 6.52% from 1990 to 1995. The percentage of people working in agriculture currently in Austria is 5.2%.

After the accession to the EU and the **Common Agricultural Policy (CAP)** in 1995 a main goal for Austrian policy makers was to minimise the price decrease at the coincidence of the EU market and Austria's small-structured agricultural enterprises. In order to cope with that problem, degressive compensation payments were granted to the farmers as an accompanying measure for four years: 100%, 65%, 40%, 25%, 0% (1999). Moreover, a special 2078/92 environmental scheme (**ÖPUL**) was approved drawing on the EAGGF-guarantee fund. With the ÖPUL programme Austria received one fifth of the funds provided by the EU Council Regulation No. 2078/92. The co-financing is at a rate of approx. 50% taken over by federal and state governments at a 60 : 40 ratio. Besides the aim to promote extensive and environmentally sensitive farming, ÖPUL with its 25 measures has also a strong element of securing an acceptable income level for Austrian farmers.

For implementing the EAGGF measures within the **5b area West/East/South Styria** the ILE („Integrated rural development“) offices were established by the Land Chamber of Agriculture. 90% of the measures subsidised by ESF are channelled through the Labour Market Service („Arbeitsmarktservice“), measures subsidised by ERDF are implemented by the Land-based Styrian Economic Promotion Company (SFG) and coordinated by the newly established Regional Management Agencies, seated in Grosswilfersdorf (East), Leibnitz (South) and Voitsberg (West).

Thus project promoters face a great number of interlocutors and application offices with different formalities and requirements. Only LEADER is concentrated in the hands of one official within the Land and Regional planning department of the Land government.

Yet two specific, „non-mainstream“ Austrian supporting missions are worth mentioning: the nation-wide **Federal support action for independent regional development (FER)**, funded by the Federal Chancellery in Vienna, and the **Styrian support action for regional independent initiatives (STEFREI)**, funded by the Land planning department of the Styrian Land government. Both were created in the first half of the 80s and both promote integrated regional projects using a territorial, integrated approach. They rather support „soft“ measures such as technical assistance, programming, conceptual work or marketing measures. One of the main criteria for subsidies says **that more than one economic sector must be affected**. By means of these two small actions (each provides about 385.000 ECU of benefits per year), quite a few

² Abbreviations for districts: DL...Deutschlandsberg, FB..Feldbach, FF...Fürstenfeld, G...Graz, GU...Graz-Umland, HB...Hartberg, LB...Leibnitz, RA...Radkersburg, VO...Voitsberg, WZ...Weiz

innovative, integrated projects have been successfully supported, including the „Früchtekorb Straden“, one of our case studies.

10.2.2 Active labour market policy

Austria has one of the lowest unemployment rates within the European Union, Styria shows slightly more critical figures in its old industrial Upper Styrian region and in the Southern rural periphery, but is improving considerably in the project area due to industrial and thermal bath investments; figures are mitigated by the highest rate of early retirements in Europe and a fairly high rate of young people in students' status (18% of the 23 year old).

The average unemployment rate in Styria is similar to the Austrian level. From a very low rate in 1980 (2,2%) it constantly rose to 8,1% in 1994. The peripheral districts show higher rates than the central districts, women higher rates than men. The differences according to sexes and age are more distinct in peripheral districts:

The region is a traditional commuter's region, even over far distances. 53% of working people commute outside their district boundaries (1994): GU has the highest rate, but mostly to Graz (80%), G the lowest (8%). WZ, a district with a relatively balanced workplace structure, shows the second lowest commuting rate (64%). 30% of these commuters (1994) are weekly commuters (1988: 40%), the latter becoming less because of the rising mobility of working people. Eastern, southern and south-western peripheral districts are forced to rely heavily on endogenous potentials - but they are scarce because of the strong brain drain to Graz and the lack of risk capital.

The **European Union's standpoint on Labour Market Policy** is more visible in declarations than in direct action. In November 1997 a Special Summit in Luxembourg has been held on this subject, but besides the structural funds objectives 3 and 4 and the community initiatives ADAPT/EMPLOYMENT, NOW, HORIZON, YOUTHSTART and complementary action programmes (LEDA) there is no coherent common social or labour market policy. National governments have been urged to elaborate national employment programmes before April 1998.

In **Austria** active labour market policy was funded by 1,81% of the GDP in 1995; active measures are placed between 10% and 20% of the total labour market budget, which is quite low with regard to the OECD average and to EU policy standards. The **political responsibility** for labour market issues lies at **the Ministry of Labour and Social Affairs (BMAS/Dep.3)**. The operational body for its implementation was called „*Arbeitsmarktverwaltung*“ (labour market administration) until the reform in 1994, when it has been transformed into a more independent organisation called **Arbeitsmarktservice/AMS** under the umbrella of the same Ministry, steered by the *Verwaltungsrat* (Supervisory Board) which is controlled by the Social Partners and managed by the Executive Board with a General Manager at the top. The **Federal AMS** sets the **general political targets** with regard to the political aims of the responsible Ministry, its own long-term orientations and the proposals made by the **nine Land-wise regional AMS-organisations**. Since 1997 there are binding mid-term targets.

In Styria there are 17 regional offices („Regionale Geschäftsstelle“, RGS) with another 5 auxiliary offices, the project area has 10 regional offices and no auxiliary office. The regional offices are subordinated to the Land level in target setting and budgetary issues. The main objectives and operational targets of the Styrian AMS are:

1. Reintegrating problem groups into the labour market
2. Livelihood sustenance
3. Establishing and improving business consultancy and workplace management

4. Combating the discrimination of women on the labour market
5. Prevention of unemployment by qualification measures
6. Combating seasonal unemployment

There are 5 main strategies for achieving the given targets:

1. Direct support and coaching while starting a new work contract
2. Removal of barriers by intensive counselling
3. Removal of barriers by the training of unemployed people
4. Prevention of unemployment by training of employed people
5. Promotion measures for integrating special problem groups into the labour market.

Examples for specific active labour market instruments, which concern only very small parts of the claimants, are:

- The „non-profit integration allowance“ (*Gemeinnützige Eingliederungsbeihilfe, GEB*), launched in 1985, fosters the placement of long term unemployed persons in jobs of public interest in cooperation with local or regional governments and non-profit associations, which receive up to 66,7% wage subsidy up to 1 year.
- *Sozialökonomisches Beschäftigungsprojekt (SÖB; socio-economic employment project)*: A non-profit firm providing transit jobs for reintegrating long-term unemployed and problem groups, which is subsidised per workplace (supply-side oriented).
- *Gemeinnütziges Beschäftigungsprojekt (GBP; public employment project)*: A non-profit organisation with similar missions. People working in a GBP are subsidised individually as workforce (demand-side oriented).
- *Beschäftigungsgesellschaft (BG; employment firm)*: A specific Styrian phenomenon created after German models and subsidised like GBP: BG is a non-profit - enterprise with limited responsibility, compulsorily including at least one municipality, providing transit jobs for reintegrating long-term unemployed and problem groups.
- *Arbeitsstiftung (work foundation)*: It is created in response to the crisis of a major enterprise, a region or a whole industrial branch. The *Stiftung* is taking over the staff, ensuring training and reorientation for a certain period of time.

After the experimental phase in the late eighties, the emphasis shifted from a social, maybe idealistic to a more market oriented approach. Active labour market policy is considered as a policy which sets framework conditions for the labour *market* in its proper sense. In tendency this trend could lead to the exclusion of hard-to-place people and the efficiency criteria even for integration projects are quite strictly handled, so that a number of these socio-economic enterprises had to shut down in the recent past. In Austria, active labour market funds are limited to less than 20% of the whole budget for labour market expenses, are also prescribed to each Land level. Thus the increasing demand for funding integration projects is facing a stable budget ceiling, the number of jobs in the „third system“ stagnates, but there is some hope in the „national employment programme“ following the Luxembourg Council decisions.

10.2.3 Technology policy

The **EU** handles technology policy under different labels: the most prominent is 'Research and Technological Development' (DG XII), followed by 'Industrial Policy' (DG III), 'Energy Policy' (DG XVII), 'Trans-European Networks' (TENs) or 'The Information Society' (DG XIII). Three categories of criteria have been developed as cornerstones of the EU's technology policy:

- societal development (including the quality of life, ecology and health)
- economic development (including scientific-technological perspectives)
- subsidiarity (including advantages of 'critical masses', common standards, etc.)

A final differentiation between research, technology, innovation and related terms does not exist. To develop the basic conditions of success for a genuine technology policy for the EU the Fourth Framework Programme (4FP) includes the module 'Targeted Socio-Economic Research (TSER)' which is aimed at 'Evaluation of science and technology policy options'. Today's challenge is to strengthen the competitiveness of European industries because of their weakness in R&D, compared with Japan and the US. The 'Green Paper on Innovation' discusses the positive and negative factors which influence innovation in the EU. These factors range from human resources to financial issues and the legal frameworks; technology is one among them. The Green Paper uses a broad view on innovation. In February 1998 the guidelines of the 5FP have been decided upon; they build on similar keywords as the 4FP: Resources of the ecosystem, Information Society, sustainable growth and competitiveness, international cooperation, innovation and participation of SMEs, improvement of human potential.

Austria spends 1,5% of the GDP for research, which is very low according to the OECD standard. Most public research is coordinated and financed by the Federal Ministry of Sciences. About a half of the total amount of 1100 MECU per year is spent by private enterprises. The coverage of license imports by corresponding exports in Austria is at 28% (OECD average: 58%).

In **Styria**, however, research and technological policy are important pillars of the Land identity. The expenditures of about 30 MECU in 1995 are second biggest behind Vienna. There are some important organisations and networks for technology development:

- The Joanneum Research Centre, second biggest extra-universitarian research institution in Austria with around 300 employees, owned by the Land of Styria. The Department for Economy and Technology includes an Institute for Technology and Regional Policy (InTeReg) which plays an important role in advising Styrian and also federal regional policy makers.
- There exist close links between technical university institutes (University of Graz and Technical University, several technical Colleges, Arts College), extra-universitarian research, the high tech sector of the industry and the administration of the Land and the city of Graz.
- The TECHNOVA - Innovation fair and cooperation exchange supports SMEs in the introduction and utilisation of new technologies.
- There are also private enterprises undertaking research, generally those employing more than 100 people.
- The central region of Graz has an outstanding position within the project area. It hosts all universities, colleges, research institutes and big firms in the high tech sector; of course most of the patents are registered there. The central region shows 4 times as many patents per worker as the peripheral region.

In the year 1994, in the absence of a national technology policy concept, the **Technology Policy Concept for Styria (TPC)** has been elaborated by experts of the Joanneum Research Centre for the Styrian Land government. The concept is in essence based on 2 pillars:

- Promotion of industrial clusters (development & networking)
- Support of specific cooperation structures and linking them into existing or emerging clusters

The concept builds on existing organisations and networks, which subsequently become actors in its implementation. These are public, semi-public and private funding, research and consultancy bodies.

Styria has also reorganised its Land-based support structures as a preparatory step for the TPC. The creation of the **Styrian Economy Promotion Organisation (Steirische Wirtschaftsförderungsgesellschaft, SFG)** and its clear objectives to promote trade & industry, led by a small and dedicated team of experts, resulted in speeding up technological innovation and service delivery. The SFG has a subsidy budget of approx. 36 MECU/year. The TPC for Styria is the first one on a province level, and it is definitely supported by Styrian policy makers.

In accordance with the aims and principles the following measures are proposed:

- Pilot „umbrella projects“ for selected cluster. Cooperation brokerage and meetings as well as financial subsidies for cooperative innovation projects.
- „Soft“ cluster promotion: This measure supports the integration of businesses into existing or new clusters and/or national and international co-operation networks. The measures include information, consultancy, the integration of vocational training and higher education institutions as well as the animation of a network called „Technology Partner Styria“.
- Creation of „AN-institutes“; these are research institutions in close connection with universities, doing very practical research by further developing basic research results into marketable innovations.
- Coordinated information initiative. The current offers in innovation-related services are ascertained and passed on by interdisciplinary advisory services and innovation consultants.
- Demonstration centres within research institutions will make the access for SMEs easier and more attractive.
- Cluster-specific qualification measures: The existing offer of lectures at universities is used and eventually extended; cross-sectoral further education initiatives are supported.
- „Innovation assistants“ for SMEs offer project-related external specialised knowledge; they might become highly qualified employees after being hired by SMEs. The training of these assistants is supported by the Labour Market Service.

The TPC obviously helps to orientate economic policy makers in Styria to streamline support programmes and provided funds because of its sound scientific foundation. The Styrian authorities emphasise a strategic, technological policy; the Land decides which economic branches and which kinds of technologies are particularly welcome and hence supported. The support consists of a mix of subsidies and technical assistance. Local municipalities eager to develop industrial estates orientate their aspirations according to the TPC framework. In fact, the negotiation power of strong investors for getting investment subsidies is far from being mitigated. Moreover, if they „fit“ into the dominant cluster structure, the automotive cluster, they can bargain for maximum benefits (as it was the case with the „Magna“ iron sheet factory near Gleisdorf

in 1997). Fuelled by a number of large investments and the hiring of a special „automotive cluster manager“ in the board of directors of the SFG, the number of enterprises and employees in this sector has risen considerably in the recent past. A „cluster on working material“ in the Upper Styrian old industrial region, and a „wood cluster“ in the project area are now being promoted

The **environmental cluster**, featuring quite prominently in the TPC, is underrepresented in real policy orientations and measures, to an extent that several initiatives and firms now organise themselves in order to actively solicit funds for building it up; its pole will be Eastern Styria and it comprises the following fields:

- renewable energies and raw materials
- eco-industry and eco-parks
- sustainable regional development and local and regional agenda 21
- education and training (with the long-term target to create a College for Sustainable Development in East Styria)

The TPC strongly influenced the design of the **National Technology Concept** developed a few years later, partially by the same group of experts. However the national concept is far more disputed; a „billion Schillings for technology“ has been decided upon in 1997, after several years of concept writing and rewriting, and several ministers having struggled for consensus. There is still a question mark over the actual use of these funds.

10.3 Innovative actions

10.3.1 „Fruit basket Straden - an agritouristic project starting from a local cultural initiative“ (RA)

The „smaller region“ of Straden consists of four communities (belonging to one common parish) and is situated in south-eastern Styria (districts Radkersburg/RA and Feldbach/FB), objective 5b area. It produces a great variety of agricultural products, mainly by small scale farms; most farmers practise part-time farming; the share of part-time farmers in FB and RA amounts to 70%.

Straden is situated between two touristic centres, the spas of Bad Gleichenberg and Bad Radkersburg (15 and 30 km distance). The spas in south-eastern Styria, not only famous for recreation, but also known for health and family tourism, are the economic hope of this region; they had a constant increase of overnight stays within the past years. The smaller region of Straden itself hardly had any overnight stays up to the 90s. The pristine village of Straden, situated on an old volcanic rock amidst the surrounding hilly vineyard landscape was visited during day trips which, however, did not contribute much to the income of the communities. There are a few opportunities only for young people to get a job in the region. So they leave for both higher education and for jobs and come to see their relatives only on weekends and during holidays.

10.3.1.1 Brief description of the action

The aim of the „Fruit Basket Straden“, the tourism association of the smaller region of Straden (around 4000 inhabitants), is to dynamise the local economy by linking together the fields of tourism, agriculture and culture. The common image - the Fruit Basket - shows the great variety of agricultural products. Well known beyond the region is the „Stradener Strassenspektakel“, a music and micro-arts festival taking place every other year and on the last occasion visited by about 10.000 people. In this festival musicians of every style can be heard, and the whole vil-

lage is involved in the organisation. Moreover, they run a village art gallery, smaller festivals for microtheatre and cabaret and organise a number of further cultural events; this cultural entrepreneurship is quite untypical for a rural community in the surroundings.

Building on a considerable agritourism „basis“ the initiative plans a step forward by a number of 5b-funded projects amounting to a total investment sum of 5,1 MECU, dedicated to further develop and connect these three fields:

- The old monastery school is to be revitalised and converted into a cultural centre. It should not only be used for cultural events; in time seminars and workshops for „educational tourism“ purposes will be offered there.
- About 20 farms renew their houses and offer farm vacations, „event tourism“ or start direct sales.
- A natural bathing pond and a horse riding ground are to be established to attract families with children to stay longer.

All in all the overnight stay facilities have doubled and the number of overnight stays has increased at a two-figure percentage since 1990.

10.3.1.2 History of the action

Phase	Evolution
Cultural initiative „Straden aktiv“ (1976 - 1990)	Formed by a group of the local youth a very active culture group “Straden aktiv“ started to perform theatre and performances; with time they felt their own limits and started more and more to organise cultural events and to invite other theatre and music groups. Since 1983 the group organised the “Stradener Straßenspektakel“ which from then on took place every other year. They never founded a legal entity, but “Straden aktiv“ soon became a “section“ of the tourist association, when they began to deal with public funding of their various activities.
Tourism development/ start (1991-1993)	The speaker of “Straden aktiv“, who took over the local grocery shop from his parents, started to get involved in the local tourism association, primarily called „society for the improvement of local amenities“. He helped to establish a tourism information centre in a gallery room of a local artist. Soon they started to sell some local crafts and produce there. The tourism board elected a new chairman, a young, very ambitious and nowadays internationally known wine-grower. He was the one who agreed to develop common visions of local stakeholders with the assistance of a consulting body (ÖAR), which was funded by FER (support for regional development of the federal chancellor). FER had the advantage to be unbureaucratic, non-sectoral and innovative at the same time with no regard to the type of actor, be it farmer, craftsman or worker. The guidelines discussion involved the four mayors and about 100 farmers, entrepreneurs and initiatives in the fields of tourism and culture, as well as other important persons. Besides the tourism association, three groups of farmers, who market their products in the tourist information centre start to implement the first steps of common projects. The implementation was funded via the STEFREI budget line of the Land Styria (planning department), similarly unbureaucratic and non-sectoral as the federal FER. Both instruments were developed in the early eighties by committed government officials as a response to the growing demand of endogenous initiatives in „lagging“ regions, but had very limited scope compared to the wide range of sectoral funding mechanisms.
Founding of the tourism association, first projects (1993-1995)	In 1993 a new Land Act on tourism promotion passed the Land parliament. The 4 communities of Straden established a semi-public tourism association. Members of this association were the communities, all the entrepreneurs of the villages and many farmers. Private people started to invest in accommodation, farmers intensified their direct sales in the information office. The winegrower stepped back from his function to dedicating himself to his profes-

	<p>sion; after an interim solution the speaker of „Straden Aktiv“ became President of the tourism board. He got all the new initiatives to join the biggest ever „street spectacle“ of 1994, with many local and international „folk“, „ethnic“ and „world musicians“ and cabaret groups, food and craft stalls. With the years the „Strassenspektakel“ has got far more than a regional reputation and was attended by some politicians. On the eve of regional elections and EU accession, they did not hesitate to promise generous funding of further infrastructure projects.</p>
<p>Investment and implementation period (1995-)</p>	<p>In the year 1995, after EU accession, Straden applied for a village development project. Straden was the first project to be submitted under the title „Village Renewal“. The voluminous application forms and the proceedings of the support were only adapted while dealing with the Straden project, but by the end of 1995 the Fruchtekorb Straden got a verbal promise over the amount of 5,1 MECU and an unspecified positive written answer. The political responsibility was now definitely assigned to the agricultural and rural policy department of the Land government, with the help of the so-called ILE-consultants („integrated rural development“) as outlets in the district chambers of agriculture, but there was no official written confirmation. The sectoral assignment causes the division of the project package into parts; the three smaller communities restarted with a new vision with new consultants, more or less imposed by the funding authority; new farms wanting to start farm vacations and direct sales respectively were grouped together and given compulsory training sessions by the chamber of agriculture. This separated them from the older group, which is already in operation for a certain time. The original project sum was finally put in question by Land government officials, a disturbance which caused severe tensions between the board members of „Fruchtekorb Straden“, but after many months of uncertainty and renegotiations they seemed to get nearly the same amount again, but the game is still open. The budget for the annual thematic Land exhibition („Youth“), which is held in Radkersburg in 1998, apparently did not foresee corresponding funds for the cultural activities in Straden...</p>

10.3.2 The association „Chance B“ - an integration project for handicapped people in Gleisdorf (WZ)

The action was born in the context of the educational system of a rural town in Eastern Styria. Severely handicapped children were generally excluded even from primary education before 1984. When concerned parents and teachers successfully created the first class for „severely handicapped pupils“, special support measures became necessary to integrate those children into the school system. The employment of an AMS-subsidised assistant made necessary the official creation of the non-profit association „Chance B“ (which means „opportunity for handicapped“ (behindert) and „second opportunity“ at the same time). Within 10 years, the scope of activities grew and the association became a service institution for handicapped people of all kinds, degrees and ages, and an important employment firm on the transitory labour market.

This means that the context co-evolved with the initiative; the labour market system only became a contextual element in a later phase. In other words, the starting context was the educational system, soon enlarged towards the social and health system and finally to the labour market system as the most comprehensive policy field dealing with human resources.

10.3.2.1 Brief description of the action

„Chance B“ offers personal social and health services for handicapped people of nearly all kinds and ages. It employs 62 persons with a further 15 training places, 18 transit work places and 10 activity therapy places. „Non-classical“ drug addicts, elderly persons etc. are only accepted in exceptional situations. The association has around 150 members, though there are only a handful of people really involved, besides the employed staff,. The committed peer group nowadays is about 6 people. From outside „Chance B“ is less regarded as a „solidarity move-

ment“ than in earlier times, but in turn is very much respected as a professional operator in the social and health sector.

For the mobile services Chance B holds 51% of an enterprise together with 12 municipalities in the smaller region of Gleisdorf. It fits perfectly into the vision of an „integrated social services provider“ as it is stipulated in the new social services regulation in Styria. There is only one more integrated services provider besides Chance B, which obviously inspired the new regulation (1997). The other Styrian districts are covered by Land-wise specific service providers (which only cover a part of the respective demand, e.g. like home assistance, pre-school encouragement, physiotherapeutic assistance).

For the training courses and the transit jobs, which are supported by qualification and personal support measures, the association directly holds seven „socio-economic enterprises“ with key - employees responsible for each branch (social assistance service and meal delivery, office services like copy shop or local mail distribution, a mobile canteen and dishes rental, wood workshop, joinery, an organic farm with its own market stand and the public school buffet. Chance B would need 17 permits for the different crafts they practise. But Federal Law allows exemptions for so-called „protected workshops“ which employ handicapped people. The restaurant licence, though, has been provided by the founder and manager, who got a license for running a restaurant.

The whole enterprise has an annual turnover of around 2,3 MECU, from which nearly 1 MECU is made by the mobile services company (with limited responsibility). The special funding system targeted to socio-economic enterprises in Austria has the effect, that the enterprises cannot feed their own capital stock. Whenever they get more revenues than foreseen, the subsidies are cut back. For the construction of a new handicapped home Chance B has chosen a new way by founding a holding company together with two municipalities, which builds the home and then gives it to the association for rent. The monthly rent will contribute to a certain capital stock as a reserve for the future, necessary for economic sustainability.

There is some money flowing in from fund raising events, such as concerts, flea markets etc. which shows the popularity and the public support which the association has.

10.3.2.2 History of the action

Phase	Evolution
Experimental class / Initiation (1984-85)	The initiative grew from the action of one, committed, empathetic teacher with a peer group of teachers and parents of handicapped children.
Experimental class / Project (1986-87)	The teachers were supported by the tolerant school director; they had networking links to a working group on special pedagogics in Hannover (D); the district officers for social welfare and labour market integration were committed to the aims of the peer group. In order to get a subsidized assistance job (via the Labour Market Service) they founded an association after several months of intensive discussions about objectives and motivations. They are now a strong peer group of about 10 people (teachers, parents) with high commitment and identification.
Integration work / Start-up (1988-1989)	The initiator and group leader quit his school job and became manager of the association which switches to integration assistance before and after schooling. Links with the Land - labour market service became intensive as the project was organising courses for work integration; the cooperation with the German work group (important for scientific inputs and expertise towards the administration) and other social initiatives, especially in Styria, was intensifying. The association became part of a Land-wide network of social initiatives.

Integration work / Maturity (1990-1993)	The association transformed into a „social enterprise“ which function as a transit - labour market integrating, qualifying and thus preparing hard-to-place people into the ordinary labour market; standards and effectiveness criteria are worked out together with the Land - Labour Market Service in collaboration with the Styrian network of social enterprises which emerged from the social initiatives network.
Regional social and health service enterprise / regional clustering (1994-1996)	The association creates, together with 12 communities, an enterprise of ltd. responsibility, which provides integrated health and social services for the smaller region of Gleisdorf
Regional social and health service enterprise / enterprise consolidation (1997-)	Together with two communities the association created another enterprise as the holding company for a new home for handicapped people. The manager is stepping back from the presidency; the board is now held by non-employed persons for a better execution of the controlling tasks.

10.3.3 „ÖKOPROFIT“ - environmental consultancy for entrepreneurs in Graz (G)

Some of the students and assistants of a concerned senior professor at the TU Graz intended to deal with new solutions for problems in a world of diminishing resources and founded the STENUM work group (an acronym for „material - energy - environment“). It soon embarked on its own research projects with international partners.

Under the title „Cleaner Production“ the efforts took shape within the EU sponsored PREPARE-programme. Among the regional partners the Graz city department of environment showed special interest, sought partners for implementing Cleaner Production concepts on an entrepreneurial basis. Graz suffers from smog because of its location at the south-eastern edge of the Eastern Alps in the inversion basin of the river Mur. Sensitive to the environmental movements of citizens, the municipality developed a communal energy concept (KEK) under the leadership of the head of the municipal energy office. This man was appointed head of the environmental office in 1990. From the beginning he looked for new, long-term environmental projects for Graz - together with his partners in the technical university.

10.3.3.1 Brief description of the action

The head of the environmental department of Graz asked the STENUM research group to work out a concept for eco-consultancy to private firms. ÖKOPROFIT I was launched as a pilot project in which 5 enterprises of Graz were involved; this project was still strongly advisor-oriented.

Based on the experience of ÖKOPROFIT I the partners sought a better position between both improvement of knowledge and mobilisation of actors. The resulting training programme combined expert-borne know-how transfer with informal experience exchange in free workshops as well as with practical implementation in their own enterprise.

ÖKOPROFIT goes for preventive environmental protection in enterprises, reduces waste and emissions, analyses and improves modes of operation and helps to reduce expenditures by concrete measures. It has been and still is very successful and since its start in 1991 has involved more than 60 enterprises of different branches and size (from 5 up to 3000 employees) within Graz alone. In 1998 ÖKOPROFIT is registered as a brand name, which can be licensed to other municipalities in the EU. In exchange the city of Graz builds up and steers an international network of communities enrolled in the process. Outside the EU ÖKOPROFIT is applied in more than 50 enterprises in the Czech Republic, Slovakia, Hungary and Brazil.

10.3.3.2 History of the action

Phase	Evolution
Initiation and project	Research group STENUM at the Graz TU, Institute for Process Engineering,

development (Case study ÖKOPROFIT I): 1990-1993	developed an advisor-oriented model (ÖKOPROFIT) by which preventive environment protection can be realised in enterprises. The Graz Environment Department showed strong interest and supported the project by financial and organisational assistance. ÖKOPROFIT started with 5 enterprises in Graz. The focus lay on consultancy.
Project realisation (Workshop model ÖKOPROFIT II):1993-1994	Together with STENUM and the environment office a workshop model based upon the experiences in ÖKOPROFIT I was launched. The workshop combined theory and practice. The active participants were informed about the latest developments in entrepreneurial environment protection, which they tried to realise in their own enterprises as a home exercise. Because of the exchange of experience between the individual enterprises the results were excellent (saving of expenditure). ÖKOPROFIT II was carried out with 12 enterprises.
Spreading out: 1994-1995	The model was successful and was supported from both local enterprises and politics. The municipality of Graz continued to subsidise the ÖKOPROFIT workshops. The towns Dornbirn and Klagenfurt and the Land of Lower Austria took over the model and executed it with slight regional adaptations. STENUM kept the strategic leadership and integrates more (local) partners into the design and implementation. Actively participating enterprises got an ÖKOPROFIT award. The jury consisted of environmental experts and the Social Partners.
Internationalisation 1995-1997	<p>ÖKOPROFIT became well known beyond the Austrian borders. The UNIDO financed offsprings in Hungary, the Czech Republic, Slovakia and Brazil. The project Cleaner Production Centre served as a centre for the outreach of the ÖKOPROFIT model within Austria.</p> <p>ÖKOPROFIT continues to be supported by the municipal politicians. The financial subsidies are now primarily geared towards innovative solutions in entrepreneurial environment protection. The exchange of experience between the enterprises is emphasised by the „ÖKOPROFIT club“ and „innovation pool“ (a pool of experts ready to get involved in case of demand). Further partners get involved. The Chamber of Commerce provides advisors and rooms. Finally the regionalisation within Styria takes place.</p>

10.4 SRD analysis

The interactions between innovative actions and supporting missions have been assessed according to the ten components of sustainable development orientation. The results are presented in the following table. However, the links between actions and policies are much more complex:

- **Früchtekorb Straden:** The supporting mission shifted from territorial approaches (FER, STEFREI) to the village renewal budget line within the 5b programme, which was implemented by an institution belonging to the agricultural sector (ILE).
- **Chance B:** The labour market policy is an important context for the initiative, but it equally deals with the education and social welfare system.
- **ÖKOPROFIT:** The link to Technology Policy is rather inverse: The successful operation at least indirectly influenced the content and intention of the TP concept. In this case the supporting mission (environmental department of Graz) and innovative actors (scientists/consultants) kind of „merged“.

Components for SD orientation	Früchtekorb Straden - Rural Policy	Chance B - Labour Market Policy	ÖKOPROFIT - Technology Policy
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Environmental	The project created direct sales facilities for organic farming. In making use of the ÖPUL programme crop diversity was enhanced. Unfortunately the combination of extensification subsidies outweigh subsidies for organic farming.	Positive effects by projects in „green“ market niches (organic farming, organic buffet and market stand, wood workshop).	The participating firms concentrate on improved environmental protection. A double dividend is achieved by eco-innovation: Less energy and resource use, less toxic and other waste. ÖKOPROFIT improved the air in the Graz basin.
Economic	Main thrust of the project. Additional jobs and higher income from annual two-figure increase in overnight stays and guests frequenting events (p to 10.000). The investments of 5,1 MECU proposed within the 5b programme will benefit to the agritouristic attractiveness of the region.	Consolidation is ensured by a shift from an educational and social project towards a cluster of social and health services enterprises.	ÖKOPROFIT helps to save resources and expenses. The average pay back period for eco-investment is less than a year.
Socio-cultural	Strong emphasis on cultural activities promoted by the group „Straden aktiv“, their events are widely known even outside the region.	Leading role in the comprehension, the inclusion and pedagogics directed to handicapped people.	The participating employees are the moving forces of the project on company level. Experts are integrated as peers. Through the exchange of experiences, excursions and workshops intensive social contacts between employees of the different firms and on different company levels take place.
Interpersonal equity	No visible effects	Specialised in this core target area; inclusion and therapeutical work, provision of transit jobs, qualification measures and employment assistance.	Knock-on effect for further cooperation within and between enterprises.
Spatial equity	Früchtekorb Straden serves as a model for endogenous development initiatives in rural peripheral regions all over Austria.	Acts as model especially for solutions in rural areas and participates in quality improvement at the Land and Federal level.	Starting from being a local project in Graz, ÖKOPROFIT has spread on the national and international level. The project can basically be realised in any region, regardless of economic or ecological differences. An EU-wide network and a licensing system have been created in 1998.
Intertemporal equity	The cultural events stimulate young people to commit themselves to village based activities and to connect their own future with that of their region.	As an investment into „human capital“, but also as a niche market operator in vicinity services and local food production it has a long term effect on passing values and attitudes from one generation to another.	Steps towards a cyclical economy and environmental protection.

Diversity	Broadening the scope of activities and local offers, linking cultural and agricultural to tourism activities.	Extremely flexible and adaptive in applying existing funding regulations. It actively replied to the supporting missions and thus improved the responsiveness of the public support systems; moreover it contributed to the development of third system employment and to the local economy.	The project enhances the exchange between very different partners: big and small firms, civil servants and experts, environmentalists and business people.
Subsidiarity	The Law on Tourism (1993) proved to be of advantage. It enhanced the creation of local organisational and financing structures for a consistent local tourism development. This was an important prerequisite for the formation of the Fruit Basket Straden.	After several attempts successful involvement of municipalities into social and communal tasks; the project inspired the new Land regulation on the regionalisation of social and health services (Chance B is one out of two integrated service providers in Styria).	The tangible results for enterprises increase their strong commitment to take action beyond the initial goals and on their own initiative and risk. Public support concentrates on the creation of favourable framework conditions for know how exchange and transfer.
Partnership	Cooperation between communities and between farmers and tourism entrepreneurs. However, the partnership was put to a severe test by some specificities of the 5b (ILE) support structure which did not grant a really free choice for advice and training to beneficiaries; moreover, tensions arise between municipalities, the project manager and other key actors due to an imminent cutback of funds.	From the very beginning networking with other Styrian and Federal social initiatives; co-founder of the Styrian social enterprise union; acting as an interlocutor for the Land Labour Market Service in setting up transplacement and efficiency standards for transit job enterprises; cooperating with an international association for pedagogics for handicapped people; actively involved in a work group within the social department of the Land government for creating pedagogic standards for the new school for assistants to handicapped persons.	Partnership is an archetype of the project: The project stems from the partnership between STENUM and the department of environment in Graz; the „ÖKOPROFIT Club“ integrates experts, civil servants and entrepreneurs of all kinds, the „innovation pool“ integrates other experts and institutions (like the Chamber of Commerce) and the ÖKOPROFIT network connects municipalities and related actors Europe-wide; international agencies (UNIDO) integrate partners in Central/East Europe and overseas (Brazil).
Participation	Strong involvement of the population in the “Stradener Strassenspektakel“. In addition, more than 100 people were participating in the development of the guiding principles of „Früchtekorb Straden“.	Active involvement of handicapped people and parents/responsible persons from the very start.	The concept is based on active participation of involved enterprise delegates and supporting institutions. The economic advantages (cost reduction) and the gain of reputation (ÖKOPROFIT award for enterprises) fuel the cooperation between business, environmentalists and politics.

10.5 Interrelationships

10.5.1 How do policies support the innovative action?

Früchtekorb Straden - Rural Policy	Chance B - Labour Market Policy	ÖKOPROFIT - Technology Policy
<p>ÖPUL assists in diversifying agricultural production patterns; corn monoculture has been reduced and cultivation of pumpkins (for seed oil) and vegetables, both products that can be sold in short circuits, has been emphasised instead.</p> <p>On the other hand ÖPUL is a disincentive for converting to organic agriculture because it provides fairly high subsidies for a range of extensification measures.</p> <p>The innovative action was the result of an integration of the local cultural group with the lowest supporting mission level - the municipalities - into the tourism association.</p> <p>Initially the innovative action had been supported by FER and STEFREL, using a territorial approach in an unbureaucratic and problem specific manner.</p> <p>Since 1995 the 5b funding scheme provides more funds for investment projects. Because of the support structures connected to the programme implementation (separate technical assistance for EAGGF, EFRD and ESF), the integrated project was split up into its sectoral components which negatively influenced the initiative.</p> <p>Agricultural and rural policy oscillate between more sectoral or more territorial approaches. The agricultural sector tries to expand to integrated rural activities (which is understandable due to the difficult situation of farming all over Europe), but does not achieve the necessary shift to an integrated approach on the actors' level. It structurally discriminates against non-farmers.</p>	<p>Interlocutors in the supporting missions applied existing support measures even to cases for which they were not really designed in a very flexible manner (experimental labour market policies, subsidies for handicapped people). This showed the capacity of administrative people to improvise within limited margins if they are either enrolled to the innovative actors' goals or at least tolerant enough to let them grow.</p> <p>Innovative actors replied to supporting missions and thus co-developed new support schemes for new challenges (outplacement and efficiency criteria for socio-economic enterprises, pedagogic guidelines for assistants for handicapped people).</p> <p>The innovative action gave birth to new activities, organisations or institutions by merging some of its original ideas and actions with parts of the support system (quality management for socio-economic enterprises, school for assistants for handicapped people, territorial enterprise for social and health services). In other words, the „squashes“ between supporting mission and innovative action created „secondary innovation cycles“.</p> <p>The cooperation with the regional network of innovative actors enabled the Land level of supporting missions to transfer innovative structures and procedures to the Federal level (quality management for socio-economic enterprises).</p> <p>Supporting missions delegate a good deal of controlling and monitoring measures to innovative actors and their environment (they acknowledge the collective negotiation status of the Styrian Union of social enterprises).</p>	<p>Members of the municipal administration and a university research group created their own distinctive strand of innovative action, which can be considered as a „virtual institution“ mounted by the communal administration, the private sector and the STENUM enterprise.</p> <p>The strong identification of the municipal administration (and the responsible town councillor) with the programme may have led to a reluctant behaviour of the Land administration and of the Viennese administration to quickly adopt the approach.</p> <p>The municipality developed own funding schemes and continuously improved the technical support for the target groups, enterprises of all kind and size in Graz.</p>

10.5.2 How does the innovative action influence policies?

Früchtekorb Straden - Rural Policy	Chance B - Labour Market Policy	ÖKOPROFIT - Technology Policy
The innovative action had no	Promoters of the innovative action	ÖKOPROFIT has spread

<p>influence on the support programmes FER and STEFREI, which were already well established when the project started. However it became a reference case as the first project eligible under the budget line “village development“ of the Styrian 5b programme, and one of the first at all to be advised by the newly established ILE offices. Only in the course of this application the forms (a 40 pages long paper pile) and proceedings were adapted to the other budget lines “holiday on farm“ and “direct marketing“. The Straden project thus influenced the design of the forms and proceedings, which lasted enormously long and did not show reliable outcomes for the innovative action itself.</p>	<p>(teachers and parents) speak the language of both systems, the supporting mission and the target group of the innovative action (bridge function).</p> <p>The innovative action is led by a strong peer group with a clear, emotionally consolidated identity; the group speaks with one voice and is able to support failures and resist exclusion, ignorance or repression.</p> <p>The initiative is led by an individual (founder and long term manager) who is empathetic with the target group, able to anticipate upcoming tendencies and guided by a clear vision (leadership).</p> <p>Although the impact of the innovative action makes supporting missions more sensitive and responsive to the real needs of specific target populations, the latter don't forget the irritation caused by the process; this makes that later initiatives imitating the pioneering one are more often entrusted with the pilot implementation of new structures and processes than the ones standing at their origin.</p>	<p>out to the city of Klagenfurt, the Land and communities of Vorarlberg, the Land of Lower Austria and abroad. The model is frequently imitated or adapted, but the „inventors“ are not always mentioned.</p> <p>Whereas the design of the Technology Policy was somehow inspired by the successful cooperation between the university and the city administration in terms of environmental improvement, the actual implementation does practically not take the „eco-cluster“ into serious political consideration.</p>
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10.5.3 How does the innovative action influence the broad public?

Früchtekorb Straden - Rural Policy	Chance B - Labour Market Policy	ÖKOPROFIT - Technology Policy
<p>Around 100 citizens participated in the elaboration of a shared vision for the small region of Straden; their involvement inspired new local actions. This is documented by the overall positive response to the renewal programme for old buildings which got reused as guest accommodation, or the increase in local wine taverns and direct sales facilities.</p> <p>Influenced by Straden, the mayors of adjacent regions (e.g. the nine mayors of the small region of Fehring, east of Straden) started with an integrated development programme by common action.</p> <p>The Strassenspektakel (street spectacle) has inspired similar cultural events in various rural places in Styria and Austria.</p> <p>The Strassenspektakel drew the attention of politicians to Straden which in turn positively influenced funding authorities.</p> <p>The chairman of the tourism association has become a welcome participant at LEADER network and similar meetings to</p>	<p>The initiative raises public attention for a marginalised group or a suppressed topic; instead of stirring up bad consciousness, it sets positive signals through solidarity events, flea markets, concerts, but also public discussions, using a project newspaper as means of communication.</p> <p>The initiative involves opinion leaders and key persons with direct access to regional mass media for the aims of the action (strategic alliances, e.g. bank people, lawyers, auditors, district officials)</p> <p>The initiative holds vivid contacts and creates partnerships with external organisations having scientific authority in the respective field of action (e.g. the work group on special pedagogics in Hannover/D, which once held a symposium in Gleisdorf on invitation of the „Chance B“).</p> <p>The initiative establishes viable, replicable models for new structures and processes in their respective field of action (vanguard function, e.g. as integrated social and health service supplier for the smaller region of Gleisdorf as a prototype of the new „integrated social and health regions“ regulation in Styria).</p>	<p>The „Agenda 21“ action plan set up under the umbrella of the environmental department, brought the „European Sustainable Cities Award“ in 1996.</p> <p>Entrepreneurs taking part in the programme remain „member“ of the „ÖKOPROFIT club“ which is an informal and highly effective experience exchange group; this collective learning allows a reintegration of the environmental theme into daily business considerations.</p>

tell about his experiences.		
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10.5.4 How do policies interact?

Früchtekorb Straden - Rural Policy	Chance B – Labour Market Policy	ÖKOPROFIT - Technology Policy
<p>The support actions FER and STEFREI helped to establish an integrated local development project; at the onset of the 5b programme, the initiative was in a pole position for getting strong financial support; however, the sectoral segmentation split the approach up into single project strands; unpredictable changes in funding mechanisms during the application period provided further irritation.</p> <p>The 5b procedure was apparently designed for „tabula rasa“ situations; technical assistance had to be delivered by advisors standing near to the funding administration; the three surrounding communities were urged to undergo the whole vision making process once again, which isolated them from the „main“ village of Straden; new farm vacation offers were re-grouped separately under the guidance of the ILE/Chamber of Agriculture and thus were forced into a competing position to the already existing farm holiday enterprises.</p>	<p>Labour Market Policy showed vertical overlaps in competency and decision power in its experimental phase, at the time when the innovative action grew; this coincidence paradoxically seemed to raise innovativeness because of the qualitative competition between different decision levels, even if their relationships were difficult to manage.</p> <p>Land based social policy, and labour market policy, much more dependent from the Federal level, interact horizontally by means of inter-institutional agreements; innovative actors deal with them in parallel; a multilateral negotiation system has never been installed.</p> <p>Since the AMS reform in 1994 the complete responsibility is delegated to the Land level, which engenders more reliability, but also more determination and less flexibility</p> <p>Since the AMS has passed from direct Ministry control to social partners control, their regional performance has become more dependent from the respective political and communication culture between the social partners in a Land or even a district.</p> <p>District officials (education, social and labour market policy) act as important mediators and „background facilitators“ between the local and the Land level.</p> <p>The experimental school class for severely handicapped pupils was finally not accepted as „new standard“ after the end of the experimental period. The actors level was actually too far away from the relevant decision level (Federal Ministry of Education).</p> <p>When the Land is accountable for specific sectoral operations, it is hard to involve municipalities into the same issue; it needed the creation of a joint enterprise for social and health services, to „get them on board“.</p>	<p>Diffusion upstream (to the Land) and horizontally (to other cities or rural regions) has been slow, but now seems to have achieved a new quality by the EU-wide patenting of the method and the creation of the ÖKOPROFIT network. There are substantial difficulties in finding the appropriate sources of funding regardless of the sector (farmers, entrepreneurs, communities, regions).</p> <p>On the Land level environmental policy (belonging to the agricultural department) and technology policy (belonging to the economic policy department) are disconnected from each other. ÖKOPROFIT is applauded by practically everyone, but can hardly be handled by the separate policy strands, if they don't interact. It seems, that only an initiative from bottom-up („eco-cluster initiative“) might trigger a targeted promotion of environmental engineering as a key cluster for the Styrian economy.</p>



11 Toscana / Val di Cornia

Some features	Italy	Tuscany	Livorno	Val di Cornia
Population	57,283,000	3,528,000	337,000	60,000
Size in square km	301,323	23,000	1,210	366
Inhabitants per square km	190	153	227	164
Regions	20	Region	Tuscany	Tuscany
Provinces	102	10	Province	Administrative district (Circondario)
Municipalities (Comuni)	8104	287	20	5

11.1 Regional context

The Tuscan Region contains a number of “different” Tuscanyes each with strong sense of local community, richness and diversity of landscape, historical, cultural, natural and archaeological heritage.

This diversity has stimulated a mixture of different development approaches, creativity and innovation, entrepreneurial attitudes, sense of responsibility towards the local communities. It is also at the base of integrated local systems which have important economic and social roles in for example industrial districts characterised by SMEs (e.g. Prato, S. Croce sull'Arno, Empoli, Poggibonsi, Arezzo, etc.), as well as other types of local districts characterised by the long standing co-existence of different social patterns between rural and urban populations (e.g. Val di Cornia, Val di Chiana, Val d'Elsa). Various components (socio-cultural, economic, institutional, etc.) act in this complex and uncertain system and the regional programming policy (the annual *Regional Development Programme* - PRS) underlines a willingness to govern a complexity which is: structural (many components putting significant attention on the diversity of local development); functional (many interrelationships putting significant attention on the coordination and integration of local authorities and actors); evolutionary (not linear and ongoing, discontinuity); active (not deterministic but systemic); decisional (many options and decision makers putting significant attention on the central role of the local actors). Policies and initiatives are connected to the historical strong sense of mutual help, social welfare, solidarity and quality of life; a long standing orientation which characterises the wide dimension of the not-for-profit sector, social networking, volunteer associations (social, cultural, political) and the dominant role of left wing parties and the labour movement in many areas of Tuscany (e.g. the Val di Cornia).

According to regional laws and development programmes (PRS), cohesion is more and more understood as the way to offer equal opportunities for development in different situations, respecting diversity in terms of institutional, social, economic and cultural capacities. The link between different levels of government, the awareness of bringing these levels as close as possible to the citizens have characterised the 25 years of regional experience in Tuscany. The Tuscan legal and institutional framework is clearly orientated to participatory democracy, to stimulate various representative forms of collective interests and to favour populations and local authorities in determining aims and objectives as well as in implementing projects. In this context, the recent national laws towards subsidiarity have already be initiated in the Tuscan expe-

rience, which is more complex and diversified, and enforced in regional laws and regional development programmes (PRS):

- *institutional subsidiarity* as an empowering process which increases the responsibility and autonomy of the lowest levels of government in order to make them more capable of dealing with local issues and development;
- *functional subsidiarity* as an empowering process to implement initiatives, projects and programmes, which is based not only on institutional actors but also on social actors; this means the development of a participatory process which involves local actors, associations and interest groups in the decision - making of their communities;
- *socio-economic cohesion* as a way to lessen disparities in the allocation of resources and to open opportunities towards local development;
- *institutional cohesion*, as a way to lower disparities in administrative activity and to assure the efficiency of policies geared towards socio-economic cohesion.

This new framework will favour more than before a regional development based on local initiatives in which local actors determine new patterns of a synergetic utilisation of the endogenous resources, including the diffused variety of local diversities.

11.2 Regional policies

An analysis of relevant programmes has been made in three policy fields: agriculture, active labour policy and energy.

Agriculture Policy	<ul style="list-style-type: none"> • Water source management (1994-1998): is directed at the modification of agricultural methods to reduce the environmental load, in particular with respect to the use of water. This programme is environmental in nature and responds directly to the deterioration in the quality and quantity of irrigation waters in agricultural areas. • Incentives for a new rural development (1994-1995): is directed at the improvement of productive capacity and living conditions in the agricultural communities with particular attention put upon the mountain and depressed areas.
Active Labour Policy	<ul style="list-style-type: none"> • Local Employment Initiatives and Works in the Public Interest (1994-1999): employment opportunities and self employment in new sectors (the environment, socio-cultural and historical heritage, etc.) • New employment services (1997 - 1999): instruments to manage active labour policies at regional and local levels.
Energy Policy	<ul style="list-style-type: none"> • Energy saving and co-generation (on yearly basis since 1991): in industry, small businesses (craftsmen production), services and building industries. • Renewable energy sources (on yearly basis since 1991) : in the building sector and production of energy from renewable sources in agriculture.

The above mentioned programmes are clearly focused on the following components:

Components	Agriculture Policy	Active Labour Policy	Energy Policy
Environment	X		X
Economy	X	X	X
Socio-culture	X	X	X
Social Equity		X	
Interregional Equity			
Intertemporal Equity			
Diversity	X	X	
Subsidiarity	X	X	
Partnership and Networking		X	
Participation	X		

The other components are not fully considered by the programmes since they are taken for granted according to the traditional way of elaborating and implementing policies in the regional context. The lack is in giving explicit references to these components in order to reinforce the overall policies.

Changes were recently introduced which have a significant role in the immediate future. Regarding subsidiarity, at national level, two national laws (administrative federalism and de-bureaucratisation) were approved between March and May 1997, based on the principles of the subsidiarity, completeness, efficiency and inexpensiveness, co-operation between State – Regions - Local Authorities, responsibility and single (unitary) administration, homogeneity, adequacy, differentiation, autonomy and financial support. The laws determine the duties of the State as those regarding the national cohesion while the duties of the regional, provincial and local governments are to guarantee cohesion at their territorial levels. They reveal an actual rebuilding of the Italian administrative system from the bottom up with the purpose of assuring more direct correspondence between social contexts and administration methods; an epic turning point after 130 years of centralised State administration.

This framework interests all the regional policies, considered within a dynamic process which will foster a transversal nature and strong interdependencies, demonstrated by the above mentioned programmes, within almost all sectors of regional development. Indeed, each policy field demonstrated a growing orientation towards a more coherent integration and diversification within new principles of development.

Agriculture Policy	New orientations are towards elements of sustainability, assigning an important role to agriculture in future development and employment, affirming the orientation set out in the Cork Declaration (1996) on rural development. Recent regional laws and proposals are aimed at integrated agriculture practises, addressing: protected areas; water system; organic farming; agri-tourism; spatial planning; land conservation; assistance to young persons to favour biodiversity and sustainable use of the territory by means of co-ordinated activities between agriculture, the environment, socio-cultural and historical heritage
Active Labour Policy	The recent "Pact for Development and Employment in Tuscany" (September 1996) and territorial pacts for employment and development created in Valtiberina, Grosseto, Massa Carrara and Val di Cornia pave the direction for the future. Both the regional and the territorial pacts underline: the rise of new policies and sources of employment improving the socio-cultural level of the local populations (human capital), integrating employment services, information, education, vocational guidance and training, counselling, the matching of the labour supply and demand; the improvement of the entrepreneurial culture; the integration of innovation and diversification of the local economic fabric; the renewal of territorial common identity; the sound utilisation of endogenous resources, maintaining and enhancing the environmental, cultural and historical heritage.
Energy policy	The recent regional law (1997) on Energy Resources is orientated towards sustainability by means of a coherent Regional Energy Plan.

Overall regional orientations

The current regional scenario is characterised by:

- the regional law (1995) on *spatial planning*, which includes environmental factors and the environmental impact assessment (EIA) with the aim of directing public and private initiatives towards sustainable development;
- the regional law (1995) on the *environmental impact assessment* (EIA);
- the *regional environmental policy* which stresses relevant areas (e.g. the creation of protected areas, land use planning and protection, biodiversity, pollution abatement, risk industries, integrated water management, earthquake prevention, waste management, site reclamation, energy management, environmental monitoring and education);
- regional agencies which act in co-ordination to support local authorities and actors in order to cope with the complex and interrelated resource issues which are present in the region, ARPAT (for environmental protection), ARRR (for resource recovery) REA (for energy) and ARSIA (for development and innovation in agriculture);
- the regional law (1995) on *subsidiarity*;
- the willingness to elaborate a *first sustainable regional development plan*;
- the new regional administrative department "*sustainable development and ecological control*" which has a transversal role relative to other regional departments.

A vision emerges giving global sense to individual parts and promoting clear interrelationships between policies promoted by the regional government and initiatives promoted by local leaders, key persons and local authorities. Both the top down and the bottom up approaches reveal attempts to promote elements of sustainable development. In order to improve knowledge at local and regional levels, conferences are organised on sustainable development, as well as on the environment. The most recent were held in November 1997 in Florence (as an international debate related to the *INSURED* project) and in Livorno (as a provincial meeting anticipating the willingness for a provincial Agenda 21). The increased involvement of local actors is stimulating the need to improve knowledge and to update methods for participatory democracy in social

and political arenas and in corporate management, as well as to foster co-operation, partnership and networking. This is the case of local and regional authorities, SMEs, social interest groups, development agencies, Universities, research centres, etc. Moreover, collaboration with local, regional, European and international experts, centres and agencies for sustainable development improve the capacity of creating new shared visions clearly orientated towards sustainability, increasing the awareness of the environmental problems and local knowledge. The above requisites are regionally recognised since the new regional development programme (PRS) 1998/2000 follows four fundamental principles: *Federalism*, in relationships with the State and the local autonomies; *Europeanism*, in relationships with the European Union and the European Regions; *Solidarity*, in relationships with the less developed Regions; *Sustainability*, in relationships with the development patterns and processes.

11.3 Brief description and history of seven local innovative initiatives in Val di Cornia

Thirty-four persons were involved in interviews and conversation regarding the Val di Cornia context and perspectives. Seven initiatives were selected and analysed through qualitative interviews, followed by group discussions (e.g. consultation meetings).

Initiative	Promoters, target groups, motivations and brief history
<p>Local Agenda 21 – Piombino 1996 –1997</p>	<p>Promoters: Local authority Target groups: Citizens and economic actors Motivations and brief history: Following fifteen years of programmes aimed at reducing pollution (in particular of industrial origin), LA 21 would introduce an integrated development towards sustainability based on reclamation and diversification of industrial areas. The fundamental objective of Agenda 21 is to create a break with the past. Agenda 21 represents a coherent outline to integrate various environmental initiatives into a single policy. It is not an operative instrument but fixes the objectives that must then be followed with operative instruments with the involvement of all the interested subjects. The principal goal of this initiative is the identification of a sustainable model for the city of Piombino. The definition of sustainability is taken from the Aalborg Charter as a creative process that includes all areas of the local decision process and requires continuous examination in the city management process. The local urban scale is considered the minimum level of intervention.</p>
<p>Alta Maremma Covenant 1993 – 1997</p>	<p>Promoters: Local authority Target groups: Citizens, farmers and other economic actors, local authorities themselves Motivations and brief history: Since 1993, twelve local authorities have formalised an agreement to co-ordinate and manage an integrated programme by means of specific local projects. The local authorities encompass “Alta Maremma”, where Val di Cornia is embedded, interesting three Provinces (Livorno, Grosseto, Pisa). The programme, which is updated yearly, is orientated towards sustainable development based on the improvement of agriculture and rural areas.</p>

Initiative	Promoters, target groups, motivations and brief history
<p>S. Silvestro Park 1993 – 1997</p>	<p>Promoters: Local authority, universities, local businesses</p> <p>Target groups: Local communities, naturalist, environmental and cultural tourists, pupils and students, researchers</p> <p>Motivations and brief history: By the beginning of the 1980's, the local authority of Campiglia Marittima, with the collaboration of the University of Siena, initiated a long term project aimed at protecting and promoting the history of one of the most distinctive characteristics of the Val di Cornia: the mineral exploitation area dating from Etruscan times up to the recent past (1978). Promoted by the Valley's local authorities, in 1993 the "Parchi Val di Cornia SpA" (a joint-stock company) was created to manage the park within a co-ordinated system that aims at increasing the value of other natural, historical, cultural and archaeological reserves. Nowadays they constitute the core of the so called "Cultural District Park of the Val di Cornia" which is: one of the most effective results of a long term process (since the end of the '60s) of co-ordinated and integrated spatial planning between the local authorities; one of the most important steps towards sustainable development in the Valley.</p>
<p>CIGRI water management 1993 – 1997</p>	<p>Promoters: Local authority</p> <p>Target groups: Citizens, farmers and the other economic actors</p> <p>Motivations and brief history: During the last sixteen years, important changes have led to the integrated management of the water resources in Val di Cornia managed by a consortium which involves representatives from the local authorities of the Valley and the Mountain Communities of Elba and Capraia (archipelago islands). Nowadays the CIGRI's strategy is clearly orientated towards sustainable development based on delivering water of good quality (healthy) to the citizens, stopping the long term degradation of water resource quality (with the consequent increase in the saline levels in the acquifer and land) and reclaiming the resources by means of a Valley wide co-ordinated project of water savings.</p>
<p>La Bulichella – organic farming 1984 – 1997</p>	<p>Promoters: Exogenous adults (Outsiders)</p> <p>Target groups: Local community, biological and naturalist consumers and tourists, people at risk of social exclusion</p> <p>Motivations and brief history: Twenty one years of dynamic efforts and innovative change have characterised this local initiative which started as a multi-function organic farming in 1984. Created by non-local persons, with different professional backgrounds (e.g. industrial manager), the Bulichella became an example of a sustainable entrepreneurial culture creating close interrelations with the local socio-cultural, political and economic environment, and promoting a new lifestyle based on the reconciliation between humanity and nature.</p>
<p>La Cerreta – organic farming 1979 – 1997</p>	<p>Promoters: Endogenous young persons</p> <p>Target groups: Local community, environmentalist and naturalist tourists, young people at risk of social exclusion</p> <p>Motivations and brief history: This innovative local initiative is the result of a twenty year process initiated by a group of local young people (15) and presently carried on by two of the original members. Many modifications and improvements to the original programme have been made. The Cerreta has become a local example of successful organic farming. The vision of the current promoters is to pursue local sustainable development in an entrepreneurial way; a pragmatic approach which has substituted the prevalently ideological motivation of the initial group to demonstrate that it is possible to realise eco-compatible development in an market-driven society.</p>

Initiative	Promoters, target groups, motivations and brief history
ARSIA – demonstration centre of irrigation 1995 - 1997	Promoters: ARSIA, Province of Livorno, local farmers association, universities Target groups: Local farmers, experts, development and innovation agencies Motivations and brief history: Fostered by the results of research published in 1995, ARSIA, with the participation of the Province of Livorno, the local farmers associations, a host farmer (in Suvereto) and Universities of Pisa and Firenze, promoted a three year (1996 - 1998) project to experiment with water saving irrigation methods in a specific environmental context and typical local production. The basic aim is to improve the Valley aquifer quality by adopting innovative low-cost technology adequate to local farming conditions.

Confronting these initiatives, one can understand how long they take to move from conventional to new development patterns which are orientated towards sustainability and the “stages of development” in terms of local capacity building.

Initially, in the Val di Cornia, the path toward sustainable development was fundamentally initiated by the intensive actions aimed at protecting natural, cultural and historical heritage against land speculation (from the late '60 to the beginning of the '80s). This defensive strategy opened the path for innovative elaboration, improving the local knowledge and know-how towards sustainability (development strategy).

Secondly, it is clear that a stage of increasing environmental awareness arrived at the "institutionalisation" of sustainable development principles (e.g. with the Alta Maremma Covenant and new projects managed by CIGRI). During this period of nearly 13 years (since the beginning of the '80s up to 1993), apart from two private local initiatives (La Cerreta and La Bulichella), the other five were promoted by public actors. The privately-promoted initiatives have assumed the role of reference points (“good examples”) to stimulate and improve local entrepreneurial capacity in managing an innovative and sustainable development (exchange and diffusion of experience and best practices) within the Valley and abroad. The public-promoted initiatives have assumed the role of “flagship” projects or programmes (e.g. San Silvestro Park) which help raise general public awareness, mobilise the local communities, provide transversal “pre-conditions” in order to make the start up of local private sustainable initiatives feasible.

Thirdly, a current stage is characterised by using the above knowledge and know-how; spontaneous initiatives are initiated by local actors who assign to a core of actors and institutions the role of facilitators (e.g. Piombino Local Agenda 21). This stage required about four years: from the "institutionalisation" of sustainable principles (1993) up to 1997 when the negotiation on the "territorial pact" started with more consensus and participation by the local communities on the basic principles.

Lastly, the above conditions appear to lead to a next probable stage where a multiplying effect will be fed by imitative process. In fact a basic conceptual innovation is becoming reality, where the vision of sustainable development will be carried over the Valley, acquiring more consensus and participation by the local communities.

Initiative	Recognition of environmental and development issues (*)	From ideas to projects	Current phase (**)	From incubation up to now
Local Agenda 21 - Piombino	Beginning of the '80s, when industrial pollution became a top agenda commitment of the local authority	Since 1982, co-ordinated programmes against pollution, etc. up to 1996 when L.A. 21 was approved	Start-up	15 years
Alta Maremma covenant	Beginning of the '90s, when a different approach was followed to cope with the Valley crisis	Since 1992 up to 1993 when the first covenant was approved	Development	7 years
S. Silvestro park	Late '60s when spatial planning included parks against land speculation	Since the beginning of the 1980's up to 1993 when a single company was created	Start-up	30 years
CIGRI water management	Beginning of the '80s but in 1990 a different approach was followed to cope with water issues	Since 1990 up to 1993 when first reclamation works initiated	Start up and development of various projects	16 years
La Bulichella – organic farming	Late '70s when different lifestyle became important to the promoters	Since 1977 up to 1984, when the farm was created	Maturity, verification and new planning	20 years
La Cerreta – organic farming	Late '70s when young people wanted to change their lifestyle	Since 1977 up to 1979 when the farm was created	Development	20 years
ARSIA – demo-centre of irrigation	1985 when a local plan for agricultural development was elaborated	Since 1992 up to 1995, when the project became feasible	Maturity; the experiment will end in 1998	12 years
<p>(*) the term "different" is here utilised to mean innovative efforts (e.g. environmental and /or sustainability orientation) versus the conventional ones (e.g. industrialist orientation)</p> <p>(**) the implementation phases are considered as those of enterprise and employment creation within local development initiatives: start-up; development; maturity; decline. They follow the idea and project phases.</p>				

11.4 SRD analysis of the local innovative initiatives within the context which has helped their implementation

11.4.1 Environment

from protection to recovery and increase in value of natural resources

During the '60s and afterwards, when Italy was plagued by land speculation and illegal construction activities, the local authorities in the Val di Cornia initiated the practice of co-ordinated spatial planning which included the creation of natural parks and the establishment of rigorous limits to speculative private interests. Other examples of increasing environmental awareness followed. The highest catalyst point was in 1987 when a referendum against the doubling of the national electric-power-generation station (Torre del Sale) located in the valley gained a large consensus in votes, as a result of a strong participatory involvement and commitment of the local populations of the Val di Cornia. Step-by-step, projects and plans have been conceived and implemented in specific sectors as the local initiatives analysed can fully demonstrate.

Local Agenda 21 – Piombino	Pollutant control, environmental reclamation and rehabilitation and a reorganisation of land-water-energy use by means of the following activities: territorial planning; reclamation of urban and industrial areas; noise abatement; waste management and soil mitigation; water savings and integrated management; energy savings and renewable sources; environmental monitoring and reporting; natural park system (1996 – 1998 Programme)
Alta Maremma Covenant	Definition of a “homogeneous zone” as a minimum geographical area to manage in a co-ordinated way with attention given in particular to the environment and its natural, historical and landscape resources; the defence of the territory’s natural characteristics and the reclamation of compromised areas; the protection of the agricultural territory and the reduction of high impact activities which effect both land and aquifer quality with the overall reduction of intensive agriculture practises with low value output.
San Silvestro Park	A park (within a system of parks) with European profile and audience, based on: the value of nature and the environment as the principal axis in the policy of integrated management; a systems logic which combines the efforts to integrate culture-nature-tourism; a network (the Cultural District Park) of a number of different parks with historic and archaeological characteristics (San Silvestro and Baratti - Popolunia), forest and naturalistic (Montioni and Poggio Neri), coastal (Rimigliano and Sterpaia).
CIGRI	Consideration of the complete water cycle, based on: the interconnectiveness of its different components; the theory of complexity applied to environmental and resource protection of an integrated water basin; inter-local equity between needs, consumption and savings; projects to affront an overall environmental reclamation of the water cycle for the archipelago and the Tuscan coast; re-utilisation of treated water (civil, industrial, etc.) for industrial uses; secondary utilisation of thermal water in agriculture and industrial plants.
La Bulichella	An innovative poly-functional business project to increase the role of agriculture within its overall activities, based on: organic farming (preserves, conserves, vegetable broths, olive oil and high quality wines); agri-tourism; social reinsertion of disadvantaged people (the Project Bulichella); a store (the Bucchero); the control of all phases of the production processes from within, future efforts to increase artisan activities on the grounds.
La Cerreta	A small agricultural business based on: continuous innovation, creativity and learning; organic farming; balanced agri-tourism; environmental education; promotion of local culture (farming and gastronomy); social reinsertion of psychologically challenged people.
ARSIA	A technological experiment of agriculture practices based on: identification of irrigation indicators to minimise water consumption in tomato, melon and watermelon cultivation; analysis of the “deficit irrigation” performances during the growth phases of sugar beet cultivation to optimise irrigation efficiency; the identification of specific parameters and the physiological responses of the plant.

11.4.2 Economy:

from the leadership of a mono-industrial development to diversification and integration between different sectors and the environment

Data, literature and all interviewed key-persons confirm that:

- the role of industrial employment has always been of great importance to the Valley even though it has decreased;
- the industrial employment has been strongly concentrated in the city-factory of Piombino and based on iron and steel manufacturing, as well as on the related service activities and on the electrical power production;
- the above phenomenon did not result in a wild urbanisation of Piombino and the Valley since co-ordinated interventions were made in town planning. Local authorities were far-sighted in: a) promoting a co-ordinated public transport aimed at commuter industrial workers; b) co-ordinating their spatial planning;

- the beginning of the 1980s can be interpreted as the starting point of a tremendous crisis in the traditional heavy industries (e.g. iron) and a modification of the Valley socio-economic fabric which fostered a de-industrialisation process;
- even though agriculture lost ground, islands of resistance and renewal existed in the Valley and the tertiary sector increased its overall role.

As a general observation, the industrial crisis has resulted in an opportunity to change the conventional economic model, as also the seven local initiatives demonstrate.

Local Agenda 21 – Piombino	Economic and productive diversification, optimisation of port, industrial and artisan activities, development of historic, cultural and natural resources of the area in connection with the parks systems.
Alta Maremma Covenant	Agritourism (closely linked to agricultural production); local quality goods labelling (to certificate and to promote local products and organic farming); business services (to provide technical support to local farmers in marketing, sales, etc.).
San Silvestro Park	Conservation of the natural and historic-archaeological resources as a source of new employment opportunities, satisfying the needs for new services on the part of local communities, industries and visitors; a welcome centre offers general services and food facilities for visitors; a further facility will be initiated as a restoration laboratory with exposition and service areas.
CIGRI	Treated wastewater becomes a commodity for: an increase in agricultural earnings in areas where the aquifers have already a high salt concentration or are not productive enough; covering the costs of the operation with fair prices.
La Bulichella	Products are certified as denomination of controlled origin labelling for the Val di Cornia (e.g. wines) and sold in the locally owned store (Bucchero); some are exported (especially wine and olive oil) throughout Europe and in Asia.
La Cerreta	Significant efforts and constantly reinvesting profits into new projects made this business profitable in agritourism and related activities. Further projects are orientated to create an area for livestock raising.
ARSIA	The identification of water requirement indicators will allow for the more controlled qualitative and quantitative productivity at a lower cost (savings in water, energy, labour, equipment costs).

Moreover, in February 1998 the "territorial pact" of the Val di Cornia was signed by the five local authorities and nearly 30 local institutions, agencies, associations, banks, public and private companies. The Pact favours concrete entrepreneurial projects putting attention on sustainable development. The active involvement of local actors and entrepreneurs is clearly demonstrated by about 150 projects which will create 2000 jobs (in tourism, agri-tourism, agriculture, environmental infrastructures, small industries, services, etc.)

11.4.3 Socio-culture:

from conventional industrialist values to concepts of sustainable development

Two distinctive souls have always co-existed in the Val di Cornia: the naturalistic one (very aware of environmental problems, rural and farming issues, archipelago connection of "sea and land") and the industrialist one (more recent but with historic ties to activities related to mines, quarries, iron production dating back to Etruscan times). The relationship between these two souls constitutes a long term non-linear process, partly in conflict, but clearly animator of innovation and continuous change within a continuity of traditions, identities, local diversity, common matrices of history, culture, social and territorial fabric. The claim to better quality of life has become, more or less spontaneously, the common ground between two main different areas, strengthened by a desire for improved environmental conditions, a traditional attachment to the earth (the naturalistic soul) expressed by the populations of the countryside and rural areas, an

expectation of a progressive industrial development expressed by the urban workers and the labour movement. As a result, an environmental culture has prevailed which is not particularly radical and does not seem to have prejudiced closure to industrial activities. The neighbouring areas reacted to the industrial crisis more rapidly than Piombino. To the citizen of Piombino, the industrial crisis represented the end of an era: the iron-era. A sense of powerlessness spread for many years, but the other citizens of the Valley, those living outside Piombino, had different perspectives as they had never completely shared the industrialist vision and already considered industry as being not a faithful ally to agriculture. The path towards sustainable development seems to have been opened by the courses of action supported by the local authorities and key actors.

Local Agenda 21 – Piombino	Promotion of a public conscience directed at lifestyle choices, production models, territorial uses and saving attitudes, behaviour and values. This is the result of the massive environmental impact that the metallurgical industry has had on the city.
Alta Maremma Covenant	Promotion of the sensibility of the population with regard to the aspects of quality and health for agricultural products; to the interaction and exchange between the local culture, rural activities and the value of the territory. This action is supported also by professional training to improve the quality of local farmers.
San Silvestro Park	Motivation of the public for cultural, historic, archaeological, architectural resources that are strongly connected to the natural environment. This action is supported by close relationships with the University, scientific research, professional training of qualified persons in the tourist and culture-related fields.
CIGRI	Promotion of public awareness by means of campaign information related to water consumption. In 1996 the programme entitled “put a brick in your toilet tank and win” was launched to publicise the importance of residential water consumption reduction.
La Bulichella	Organisation of the “youth summer” for children from Suvereto of 6 to 12 years; organisation of professional training courses for disadvantaged youth; social reinsertion through insertion into a family, drug recovery and assistance for the socially disadvantaged; management of an artisan laboratory, cloth and ceramics for children at risk; courses for agri-tourism operators and organic farming; predisposition of vacation structures for creative experiences, manual labour, art courses, traditional product making.
La Cerreta	Pieces of the Maremma history, culture and traditions are offered along with the hospitality of agri-tourism in the form of gastronomic culture, horse riding, country fairs, agri-culture and excursions. Related activities include: environmental education; wine country tours; naturalistic photography, organised in collaboration with the Italian Society of Nature Photographers, green vacations for children.
ARSIA	Increase in the awareness of the environmental consequences of agricultural activities. The innovative technologies studied in the project gained the interest of local farmers and experts, in particular the young operators and assisted in promoting a process of transforming the traditional culture of producers and entrepreneurs.

11.4.4 Social equity:

from long term experience of conventional social welfare to a pro-active culture and interventions to promote new concepts of quality of life and equal opportunities between genders and citizens

During the long term crisis of big industry, the two souls of the Val di Cornia (industrialist and naturalistic) conflicted and mixed with each other: adult men had lost their jobs; permanent and regular industrial employment had become a chimera; families had to cope with unemployment of their adults and younger members; everybody was forced to react to earn his living and women had to contribute to the family income. Not only adult and young men but also women have tried to change their conditions and some of them have become self-employed and entre-

preneurs, diversifying the fabric of small businesses (see the economic dimension). As a result, during the last decade, employment has increased more for women than for men. Moreover, in the countryside, women entrepreneurship has improved both in quality and in activity (e.g. agriculture, trade, restaurants, etc.). If this crisis did not result in riots, disorder and social dissolution, it is due to the capacity of local communities to maintain their cohesive foundation based on: solidarity values and identity; strong social networking with a wide variety of associations devoted to social welfare; local authorities, mayors and councillors with an “open-door” administrative behaviour and programmes to maintain and improve social welfare. In fact, social equity has always been an intrinsic value for the local and regional programming which has characterised the local “red” governments for a long time. For example, during the ‘60s and the ‘70s, when their role was very limited, the local actors tried to mitigate the impact of the impetuous industrial development providing, above all, social services. These practices emerge from the public side (e.g. the social welfare services provided by the local authorities, the local health agency), the social side (various volunteer associations) and the private side.

Local Agenda 21 – Piombino	The programme was created in a social context, historically characterised by strong worker movement, unions and social organisations along with local authorities and public institutions orientated to a social equity which has been incorporated into the local politics and class initiatives.
Alta Maremma Covenant	The efforts to give agriculture a central role is related to an effort to improve the social and economic conditions of a marginalised rural population. It is further directed at the promotion of a social model which does not exclude the rural areas and does not relegate these areas to simple containers of memories.
San Silvestro Park	Even though the park project was created before the iron and steel industry crisis, it presently constitutes a possible response to the economic difficulties in the area. This is related to the positive impact on the local economic community and the real possibility of new employment opportunities.
CIGRI	Water quality reclamation and the reuse of treated wastewater improve the quality of life for all the population of the territory, as well as reduce individual water costs. Various instruments are utilised and will be strengthened, including financial incentives, (e.g. higher cost for primary water utilisation by the industry and discounts for secondary water utilisation, etc.).
La Bulichella	One of the best results was to offer to adolescents and young persons the possibility to be part of a social group, helping them to avoid marginalisation through numerous projects (family living, Youth Summers, artisan workshops, professional training courses).
La Cerreta	Activities of social reinsertion have had very positive results from participation with psychiatric centres and private practitioners for persons with psychological and physical disabilities, favouring solidarity, internal and external, reciprocal esteem, group work, and research. Efforts are made to meet these objectives while at the same time avoiding the creation of a system of unhealthy competition.
ARSIA	The techniques experimented with are characterised by a high transferability within the territory and are particularly adapted to the requirements of those smaller agricultural businesses which cannot make major investments in irrigation practices.

11.4.5 Interregional equity:

from a long term experience of local interactions within the valley communities to the increasing awareness of the interdependencies between the valley and other communities at provincial, regional and European levels

Without losing their own autonomy, the local authorities of the Val di Cornia have always elaborated and performed actions which were not only targeted towards their individual community but had concern for all the Valley population. Thus, global thinking and local acting improved the capacity of local authorities, mayors, councillors and other key actors in conceiving

initiatives orientated towards economic diversification and sustainable development. Practically all the initiatives taken into account show this tendency.

Local Agenda 21 – Piombino	The programme integrates positively in the overall prospective for the Val di Cornia and the aim is to involve also the other local authorities of the Val di Cornia.
Alta Maremma Covenant	The covenant concerns geographical areas located in three provinces and has provided examples of sustainable development practises for regional local authorities; the local key actors have been capable of transmitting knowledge, amplifying concepts, creating alliances, networks and partnership, and promoting initiatives which nowadays can be considered as milestones for all of Tuscany; indeed the Manifesto “Agriculture and territory: a workshop for the sustainable development of Tuscany”, published in 1996 by the Tuscan association of local authorities (in collaboration with scientists, universities and research institutions) used as a starting point the Val di Cornia experiences, motivations and expectations of sustainable development.
San Silvestro Park	The system of parks covers the entire Val di Cornia and local authorities contained therein. The proposed “Etruscan Civilisation Park”, an inter-provincial theme park which has attracted both European and international attention would tie in well with the Cultural District Park of Val di Cornia. There are also strong ties between the Val di Cornia, the Val di Pecora and Elba island. The shared history of metallurgical activities, starting in the Etruscan era could prove to be a promotional vehicle for all three areas and in particular the Via Aurelia Park.
CIGRI	The water management approach is directed at pursuing inter-local equity between needs, consumption and savings. The approach to the theories of complexity and chaos has been of relevant importance since they give understanding of how to manage services (e.g. water resources management) within a large area with complex interdependencies between local communities and different territorial characteristics.
La Bulichella	This business and life model is an example of an approach which can be transferred to other situations with different characteristics, for its points of reference, fundamental values, efforts to create a new productive reality, and its productive diversity.
La Cerreta	This entrepreneurial example represents a point of reference for agricultural businesses, given its fundamental values and efforts to create productive diversity, communication, organisation with economic and qualitative results, as well as fair international trade with other organic businesses (e.g. South American coffee growers).
ARSIA	A process of increasing the idea of shared water resources and the interrelated nature of all the valley resources is overcoming the localised vision of water resource problems and helping to increase understanding of the influence of individual actions on the wider territorial problems.

11.4.6 Intertemporal equity:

from long term experience of conventional relationship between generations (e.g. Rural and urban family) to new concepts of solidarity and alliance (e.g. Futurity)

In the Val di Cornia context, social equity has been the basis of a kind of social pact which cemented an alliance between local communities and improved the valley identity. Nowadays the local health agency, along with the local authorities, the social and volunteer associations are preparing courses of action towards a new intergenerational solidarity. The seven local initiatives follow this principle.

Local Agenda 21 – Piombino	Aimed at improving the quality of life through programmes of environmental improvement and increase in value, favouring a strong sense of the community's definition of itself (history, cultural heritage, social cohesion) and defining tangible results looking at present and future generations
Alta Maremma Covenant	Aimed at recovering and maintaining rural and agricultural cultures and activities, with innovation and humanisation, also in favour of the future generations.
San Silvestro Park	Orientated to transmit to future generations the historic, cultural and environmental values of the Valley
CIGRI	Orientated to the savings and reclamation of the available resources and to their increase in order to hand down renewed resources to the future generations (e.g. the current unfavourable water balance of the Valley is estimated to reach a favourable balance in the next ten years' time).
La Bulichella	Aimed at continuing research activities and information activities on new low impact techniques (e.g. most recently it formed a study group for the cultivation of olives using bio-dynamic methods), as a combination of healthy production methods and environmental protection from which future generations will benefit
La Cerreta	Aimed at demonstrating the feasibility of an eco-compatible development model which is exportable to other areas and in the future, hinging on the willingness to use the resources in a way which does not compromise their future availability.
ARSIA	Aimed at developing a new relationships between environmental protection and agricultural production with overall benefits from the diffusion of lower consumption irrigation technologies for a more positive future of the valley.

11.4.7 Diversity:

from values and product standardisation to the promotion of diversity and quality of local values and resources (environmental, economic, socio-cultural, historical, etc.)

Crisis has fostered the search for alternative options and solutions based on the rediscovery of the local diversities and traditions within a context where innovative links have been created between agriculture, craftsmanship, manufacture and tourism (e.g. "the wine country tours" which connect parks, boroughs, castles, farms, museums, monuments, churches, historical places, gastronomy and agriculture produces).

All the seven initiatives demonstrate how the territorial potential and local identities are a rich heritage to be enhanced in value.

Local Agenda 21 – Piombino	Attention given to the social, economic and cultural conditions of Piombino, with the objective to increase the sensibility regarding the value of the natural capital of the area through an improved resource use
Alta Maremma Covenant	Introduction of a system of quality labelling related to the production of goods (for example livestock related) is based upon highlighting the diversity of the area
San Silvestro Park	The specific diversity of the territory is reflected on the base of its varying environmental character, the locally historic presence of man as well as the diverse cultural and archaeological resources that are specific to each area in the valley
CIGRI	Each project has multiple and overlapping results and should be viewed with respect to the strengthening effect it has on the other projects respecting the natural water cycle, the differing qualities of water resources for different uses; a correct planning of water use and management of water resources should identify the quality of the water necessary to meet the requirements of each end user
La Bulichella	Products are organically cultivated which are typical of the area

La Cerreta	Traditionally cultural gastronomic activities of the area are promoted, as well as research and projects to recover old varieties of grapes and fruit trees of the area, to maintain the biodiversity, in particular regarding local fruit species, to preserve the ecotypes and genetic information of the indigenous species
ARSIA	Methods examined in the project will lead to a lower environmental impact of agricultural activities thereby increasing the possibility for biodiversity and improving overall water quality; through this experimentation, the modernisation of the irrigation practises will preserve the characteristics and output of the local agricultural practises

11.4.8 Subsidiarity:

from a long term experience of effective local government to the strengthening of the local authorities' role in decision making by means of innovative combinations between bottom-up and top-down approaches

There are historical reasons which foster the feeling of autonomy in Val di Cornia. This territory was formerly a city-state (between 1399 and 1815) of a single diocese for many centuries since the medieval era. The Val di Cornia has always been characterised by a significant distance from centres of powers (economic, political, administrative and cultural). This is still true given that the nearer provincial capitals (Livorno, Siena, Grosseto) are distant as well as the regional capital (Firenze). The role of the local authorities has been strong and determined, they have strengthened the common identity of the Valley, respecting its local diversities and developing an efficient style of governance and streamlined local administrative institutions (in respect of the Italian average). Of course, in these efforts, the local authorities have been supported by the regional government and many regional laws. Subsidiarity became a practical way to combine top down policies and programmes with bottom up initiatives, plans and strategies. Power has been progressively delegated from the regional to the provincial and local level. Nowadays, a new stage is about to begin which will further improve subsidiarity; this represents the result of a long standing tradition of collaboration between the different levels of power to affirm common goals and visions. There is a cultural identity and a network of relationships which make local communities feel, above all, as inhabitants of the Val di Cornia. In fact, the old administrative traditions have been continuously renewed arriving at the concept of "small town network", which is at the basis of the current creation of the Val di Cornia administrative district, according to the principles of subsidiarity enforced by regional laws.

Local Agenda 21 – Piombino	The programme needs to be supported by further territorial decentralisation of the regional environmental agencies along with the empowerment of the local authorities within co-ordinated administrative districts giving them adequate legal, technical and administrative instruments. For instance the planned Val di Cornia administrative district would help Agenda 21 to acquire further definition and support.
Alta Maremma Covenant	The covenant is based on the voluntary participation and collaboration of the local authorities and it is open to the Provinces of Livorno, Grosseto and Pisa, who have the identical right to vote and participate in the administrative costs for the individual projects at the same level as the participating local authorities.
San Silvestro Park	Presently the San Silvestro Park and the Valley park system enter within the provincial system of protected natural areas. The Province has the responsibility of managing the provincial parks and protected areas and a role in the co-ordination of local authorities proposals. The provinces, after consultation with the local authorities and the Mountain Communities present to the Region projects for territorial parks and nature reserves. After examination of these projects, the Region selects protected areas to create and partition the available financing. The selected Parks are then entered in a three year regional plan for protected areas.

CIGRI	The Region, in co-ordination with the Provinces has the responsibility of programming hydro-geological resource management. To comply with this function, the Province of Livorno elaborated an integrated provincial plan for water and energy which contained the guidelines in water resources. CIGRI has a very close relationship with the local authorities, supplying assistance and technical advice, and operates within the following institutional and legal framework. CIGRI, while planning to transform itself into a joint stock company is not characterised by the rigidity which often hampers local authorities in their public services. CIGRI's human resources programme reflects that of a modern private organisation, using the same methodologies (worker motivations, process control, procedure simplification, etc.).
La Bulichella	The Bulichella has developed an open style of management both internal and in respect to other businesses, the local authorities and the population. For these reasons, the Bulichella become a reference point for the population and the local institutions with respect to socio-cultural problems of man and his rapport with nature. Its vision, missions and objectives are clearly shared by the local authority making it possible for the leader of this initiative to hold an important position in the local government for many years (as vice-mayor and responsible for many policy fields).
La Cerreta	A relation with the local authorities has been fostered which reinforces the role of the Cerreta project. Efforts have also been made to follow both the regional and EU orientations. A flexible structure has been created that allows for easy and quick modifications along with a variety of production capabilities better to react to socio-economic changes.
ARSIA	The project integrates a top down and bottom up approach and was financed through Regional laws and provincial programmes related to the agricultural services. The cooperation of the host farmer was instrumental in project experimentation.

11.4.9 Partnership / networking:

from a long term experience of collaboration and co-ordination in specific fields (e.g. Parks, spatial planning, etc.) to the strengthening of joint-projects and tasks between the local authorities, public, private and social sectors and agencies

The practice of networking has always been a basic component of the Valley local communities and their lives, especially social networking. During the '70 this fabric was re-motivated by vigorous demand for participation. Voluntary associations are present throughout the Valley, including those which promote environmental thinking. Therefore, the general Val di Cornia population is involved in social networking and it is represented by associations. This process has resulted in an institutionalisation of the social networks. The involvement of interest groups in the decision making has created formal methods of co-decision. Thus, there is a filtering-effect determined by the very wide range of associations and networks: upwards (from the citizens to their local authorities) and downwards (vice versa). This cycle can reduce speed and opportunities of innovation; it can limit the capacity for changing strategically the traditional ways of thinking, views, belief, values and behaviour; but it is important in maintaining social cohesion since without it, it would be impossible to find out common orientations to cope with the long term industrial crisis.

In the path towards sustainable development, the leadership exerted by key persons has been determinant. They continue to cover important administrative and managerial roles (mayors, councillors, executive directors, chairmen of boards of directors, representatives of business associations etc.). The entrance of other younger key persons has assured a certain turnover in the above roles.

In all these elements, a clear leadership has been created which is concentrated in key persons, their role in the local authorities and the political parties; this leadership is mediated by individual, collective and institutional relationships by means of an intensive social networking and partnership. What can be noticed is a low direct networking and partnership between the sustainable development initiatives. Of course, the situation is improving, at least during the last

year, as local businesses and their associations, trade unions, local authorities, business innovation and service centres, banks etc. become involved in the effort to determine a diversified sustainable development in the Valley by means of joint tasks and projects.

Local Agenda 21 – Piombino	Aims to involve all possible institutional levels and businesses concerned to provide economic resources within a shared vision
Alta Maremma Covenant	Co-ordination between local authorities, involvement of the Provinces, the Region, universities
San Silvestro Park	A very wide range of collaboration and interrelationships both on the scientific side (Italian and EU universities) and on the business side (in the cultural sector, crafts and arts, tourism, etc.)
CIGRI	A very wide range of collaboration and interrelationships of scientific profile (Italian and foreign experts, academics and Universities), of entrepreneurial level (farmers, businesses) and of institutional context (regional, provincial and local authorities, UE, etc.)
La Bulichella	A very wide range of relationships and collaboration with scientists, universities, health services, local authorities, other similar initiatives in Italy and abroad, etc.
La Cerreta	A very wide range of relationships and collaboration with regional, provincial and local authorities, health services, environmental associations, ARSIA, the park system company, local farmers, universities, experts, other similar initiatives in Italy and abroad, etc.
ARSIA	Universities, CIGRI, local farmer associations, regional, provincial and local authorities.

11.4.10 Participation:

from information and formal participation (e.g. Delegation from citizens to efficient local authorities and collective key-agencies) to fostering co-decision, individual involvement and commitment

A general consensus accompanies the frame of sustainable initiatives, even though resistance and probable conflicts (e.g. Piombino Local Agenda 21) are expected mainly on the part of big industry and employers' organisation, as well as non-explicit resistance and diffident prudence on the part of trade unions (e.g. employment concerns). More than opposition, there is a lack of convinced participation along this path (e.g. Alta Maremma Covenant), but local administrators (mayors and councillors) act anyway since they must find solutions to meet the necessities of their citizens' daily life within a long term perspective. This is a clear commitment of the already mentioned key local actors who are orientated towards sustainability. The above practices are not new in the Val di Cornia. The local governments have characterised themselves as effective instruments to cope with citizens' needs. The roles of the elected representatives in town councils, that of mayors and councillors have always been mission-driven: to understand problems and needs of the local population; to know territory, people and resources; to be close to the citizens; to create alternatives; to elaborate programmes and policies which improve local social welfare; to adopt an "open door" style; to foster an efficient and streamlined local public administration to perform programmes, projects, etc. But, those which are good democratic practices have the risk of lessening direct participation and spontaneous animation and mobilisation of the social community concerned; in this way legitimised social networking assumes the aspect of a network of systematic decision-delegation from the citizens to their representatives but without definitive separation since the latter should be coherently part of the former. Therefore, the problem of active participation of the population remains relevant.

The seven initiatives, here analysed, confirm that information and communication are usually provided by local authorities and local promoters as well as consultation meetings and report-

ing, co-ordinated actions, public reflection, shared meanings, values and vision, joint planning. But something better must be done, as all the local promoters commented.

Local Agenda 21 – Piombino	The local authority performed a number of consultations with a number of social groups, but failed to adhere to the prepared plan for a wider participation. In particular, a constant degree of information, co-ordination and effort between the Province, ARPAT and other regional agencies in the environmental field is necessary.
Alta Maremma Covenant	Annual updating of the actions and the verification of the past years activities are open to the participation of the local councils, environmental and cultural groups, trade associations and all related public organisations. The Mayor Conference sessions and decisions are public. A regularly published bulletin represents an opportunity for dialogue between local groups and the population.
San Silvestro Park	The participation by the University greatly assisted in gathering the attention of the public and strongly influenced the political debate. The Park will have a site on the Internet. However, public interest in the park activities should be further promoted.
CIGRI	A long history of collaboration with the local communities, businesses, environmentalist groups and other associations will be further enhanced.
La Bulichella	The creation of a strong visible motivations contributed to the success of the agricultural operations and the social actions, to the increase in public consensus, and allowed all the collaborators to feel part of the overall direction of the business.
La Cerreta	A significant effort was made to stimulate the entrepreneurial capacities of the farmers and tourism operators in the area. There are signs of new related businesses being created, especially in artisan production which has grown in recent years tapping into a potentially large market.
ARSIA	The decisive element in stimulating the interest of local farmers was the participation of the host farmer and his actions as a leader and divulger of experiences gained.

11.5 Interrelationships between regional policies and local innovative actions

Prevalent best practices have emerged which are leading to:

- the inclusion and incorporation of the environment in the regional and local economic policies and courses of action, supported by the improvement of the human capital potentials - socio-culture - (interrelationships between *sectoral* components);
- the enforcement of subsidiarity as a leading concept in the regional and local economic policies and courses of action, supported by legal, institutional and organisational frameworks, including diversity, partnership and networking, participation (interrelationships between *systemic* components)
- the development of social solidarity among citizens and local communities; practices are intensively articulated in the “social and gender equity” and in the “interregional equity”; less diffused, elaborated and performed are practices concerning the “intertemporal equity” which is taken for granted, even though the awareness of the necessity to qualify and quantify objectives is increasing and some experiments are carried out (interrelationships between *equity* components).

11.5.1 How do policies support innovative actions

The capability of the Val di Cornia territorial government is reflected in the connection of elements which come from both the local side (resources, traditions, innovative initiatives, etc.) and the regional side (laws, programmes, schemes). All the local initiatives reviewed reflect the influence of regional policies, schemes and laws which give a framework in instruments and op-

portunities. The innovativeness of the analysed local initiatives mainly consists in the creativity of combining these opportunities. Clear examples are Local Agenda 21 – Piombino and San Silvestro Park. Until now, this interrelationship has been more sectoral than general (spatial planning, water management, resources recovery, parks and the environment, social services, transport, economic promotion), but a new perspective will open if the process of subsidiarity (the next administrative district) is closely linked to all the other principles of sustainability according to the horizontal and vertical cohesion between strategies, programmes and initiatives.

11.5.2 How do innovative actions influence policies

The Val di Cornia can be considered, at the moment, as one of the leading forces in Tuscany in experimenting with sustainable local development initiatives. All the local initiatives reviewed have influenced regional policies, schemes and laws which eventually incorporate some of the successful courses of action. Examples of this interrelationship are demonstrated in La Bulicella, La Cerreta, the Alta Maremma Covenant.

11.5.3 How do innovative actions influence the broad public

The path towards sustainability requires a long incubation period (16 years in the Val di Cornia) to foster a notable influence in the broad public. These innovative actions are inherently driven towards expanding public participation. This is clearly demonstrated in CIGRI and ARSIA. In fact the former is clearly orientated to developing instruments for improving communication with local communities; in the latter, participation of the public became an evident necessity if the objectives of the initiatives were to be successfully met.

Thus participation and involvement should facilitate the natural exchange of knowledge, know-how, experience and good practices. This process would be more effective and faster if specific instruments were utilised (e.g. forums, meetings, vocational training, etc) within a “virtual” Valley agency for sustainable development based on new methods of networking and partnership.

11.5.4 How do policies interact

The analysis demonstrated how a local area can anticipate regional policies, resulting from: its historical homogeneity (from the political, administrative, social, cultural and environmental points of view), its distance from high-level-decision-making, its original way to combine a waning industrialist soul with an growing “sustainabilistic” soul, its cohesion between different identities. The Val di Cornia is characterised by the need to respond to the long term industrial (iron) crisis which has strongly affected the Valley communities. A mixture of important changes and consolidated experiences up to now makes it possible to maintain and partly renew the strong sense of community with its institutional foundations.

Social or institutional branches have not been destroyed but transformed. Thus, the Val di Cornia is characterised by continuous change within the continuity of the local basic socio-cultural and political fabric. There is room to improve all legal, institutional and organisational arrangements, learning from other European experiences and local examples: a concentric movement from the outside and the inside which surely shall facilitate the re-addressing of the regional policies. In this sense, the bottom up approach is vital to the extent that it stimulates a loop which goes to the higher level, passes through elements of change and returns to the lowest level; the top down is therefore vital if it supports this open ended cycle. One clear example of this interrelationship is demonstrated by the agreement between the Region, the Province of Livorno and the Val di Cornia local authorities (26 September 1997). The agreement covers many policy fields in a transversal way: subsidiarity, the environment, economic development,

active labour policies (vocational training), technological innovation, infrastructures and spatial planning, health and social services.

11.5.5 Interrelationships - SWOT Analysis

<p style="text-align: center;">STRENGTHS</p> <ul style="list-style-type: none"> • different Tuscany within Tuscany, strong sense of local community and solidarity, richness and diversity of landscape, historical, cultural, natural and archaeological heritage • important role played by local districts where historically deep relationship exist between inhabitants and nature, rural and urban-industrial patterns of social life • consolidated culture and practice of self-government, partnership and networking, participation • new regional laws and procedures orientated towards subsidiarity, environmental protection and sustainable development • the already existing local sustainable development initiatives to be taken as points of reference and good examples 	<p style="text-align: center;">WEAKNESSES</p> <ul style="list-style-type: none"> • environmental impact of traditional patterns of production, transport and services, heavy mono-industry, seasonal mass tourism; etc. • loss of some historical cultures with loss of creativity in conceiving innovative activities and development initiatives • low degrees of: innovative and environmentally orientated entrepreneurial culture; networking and partnership between the existing sustainable development initiatives; diffusion of new projects and courses of action • day-by-day administration and management which, combined with an institutionalised strong social networking, can lessen the capacity for sustainable planning and for local active participation
<p style="text-align: center;">THREATS</p> <ul style="list-style-type: none"> • reduction in the quality of ecosystem, man-made environments and in biodiversity • insufficient capacity for monitoring sustainable development • probable insufficient capacity for defining a shared vision of sustainable development • decrease in (or lack of) local leadership clearly orientated towards sustainable development with risk of progressive loss of public consensus about innovative programmes and initiatives • increase in territorial socio-economic disparity and in unemployment with risk of reduction of human capital and social instability 	<p style="text-align: center;">OPPORTUNITIES</p> <ul style="list-style-type: none"> • maintenance and enhancement of environmental resources, the historical and territorial heritage • increase in diversification, co-ordination, partnership and networking • improvement of local capacity for research, monitoring and territorial analysis • improvement of entrepreneurial culture toward total quality environmental management and sustainable development • involvement of local actors, improving their knowledge and updating the methods for participatory democracy • enhancement of long term open-minded strategic thinking and planning • strengthening of the above vision through integrated programmes and articulated projects • enhancement of the above programmes through a strong alliance between local and regional governments

11.6 Image of the Region

The analysis of top down policies gave an image of Tuscany which shows “the potentiality to enter into the path towards sustainability” since the following three basic characteristics have been detected:

- the strong commitment to subsidiarity;

- an increasing awareness on the role played by the environment in the development patterns;
- a consolidated culture of programming and a willingness to re-orientate this culture towards the principles of sustainability.

The analysis of the bottom up initiatives gave an image of the Val di Cornia as “a feasible laboratory for sustainable development experiment” since the following two basic characteristics have been detected:

- *a strong commitment towards creative subsidiarity (both formal and informal);*
- *significant orientation towards the concepts of sustainable development.*

Both the above features are clearly “institutionalised” (stated in official documents, programmes and projects). If closely combined, they help a vision of sustainable local development to emerge (Val di Cornia as an open “sustainable district” and innovative laboratory); but this vision needs to be widely shared by local actors and citizens; which in turn means that they need to see the above features clearly enforced in order to take part in this “sustainable laboratory” with their own activities by means of feasible plans. This effort can facilitate the natural exchange of knowledge, know-how, experience and good practices. The process would be more effective and faster if specific instruments were utilised (e.g. forums, meetings, vocational training, etc) within a “virtual” agency for sustainable development based on innovative methods of networking and partnership.

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