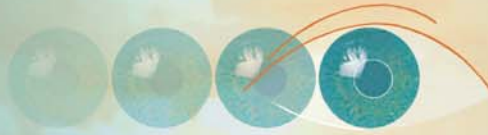




EUROPEAN  
COMMISSION

Community research



**BLUEPRINTS FOR FORESIGHT ACTIONS IN THE REGIONS**

**AGRIBLUE**

**Sustainable Territorial Development  
of the Rural Areas of Europe**



**DISSEMINATION CONFERENCE  
BRUSSELS, SEPTEMBER 23, 2004**



# THE AGRIBLUE BLUEPRINT

## Sustainable Territorial Development of the Rural Areas of Europe

Over the next two decades the rural areas of Europe will be radically transformed in terms of demography and the use of land as a limited natural resource. Most rural regions will face significant challenges linked to the management of structural changes to the system of agricultural production and to the diversification of the regional economy. These changes will have far reaching implications for the development of spatial strategies as well as for the provision of a knowledge infrastructure to support the sustainable development of the regions in economic, social and environmental terms.

This document is addressed to regional authorities, government agencies and other bodies with a stake in the future of the rural regions of Europe – farming organisations, chambers of commerce, labour unions and citizen groups. It emphasises the role that regional authorities can play in the creation of policies for sustainable development. It explains the role that foresight can play in the development of shared visions for the future of rural Europe, the mobilisation of relevant actors and the synchronisation of interventions at regional level by central government and agencies acting on their behalf.

*This is the preliminary version of the AGRIBLUE blueprint produced for the dissemination conference “Building the future on knowledge”. The final blueprint will be published after the conference by the Office for Official Publications of the European Communities*

September 2004



## EUROPEAN COMMISSION

### RESEARCH

*Commissioner: Philippe Busquin*

#### **Directorate-General for Research**

*Director General: Achilleas Mitsos*

The Directorate-General for Research initiates, develops and follows the Commission's political initiatives for the realisation of the European Research Area. It conceives and implements the necessary Community actions, in particular the Framework Programmes in terms of research and technological development. It also contributes to the implementation of the "Lisbon Strategy" regarding employment, competitiveness at international level, the economic reform and the social cohesion within the European Union.

**The Directorate "Social sciences and humanities; foresight"** (Directorate K) contributes to the realisation of the European Research Area in the fields of the social sciences, economic, science and technology foresight, and the respective analyses. To this end, it monitors and encourages science and technology foresight activities, conducts the economic analyses necessary for the work of the Directorate-General, and co-ordinates policy as regards the relevant political, economic, human and social sciences. It prepares the European reports on science and technology indicators, and it contributes to the development and implementation of the Framework Programmes in these fields. It monitors the progress made in the implementation of the Lisbon strategy. It is responsible for encouraging investment in research and technological innovation. To this end, it develops policies and measures to improve framework conditions for private investment and the effectiveness of public financing instruments.

**The unit K 2 "Science and Technology Foresight"** contributes to the development of policies and policy concepts through Foresight analyses and activities. Together with other Directorates and General Directorates, and specially the IPTS/JRC, the unit develops the co-operation between Foresight practitioners and users in Europe. In addition, it is responsible for the implementation of the respective activities in the 5th and 6th Research Framework Programme.

Director: Theodius Lennon

Head of Unit K2: Paraskevas Caracostas

Scientific Officers: Marie-Christine Brichard, [marie-christine.brichard@cec.eu.int](mailto:marie-christine.brichard@cec.eu.int)

Christian Svanfeldt, [christian.svanfeldt@cec.eu.int](mailto:christian.svanfeldt@cec.eu.int)

Website : <http://www.cordis.lu/foresight>

# Blueprints for Foresight Actions in the Regions expert group

To develop their potential, and find their new role in the emerging EU25+ knowledge-based economy, regions need to widen their focus and go beyond their own innovation landscape to explore the European and trans-regional dimension to the full. Foresight is a key element in the creation of future oriented and outward looking visions and strategies. Many regions considering implementing foresight exercises need help to overcome initial barriers, such as doubts about the usefulness and usability of foresight, problems linking foresight to existing regional mechanisms, as well as simply lack of knowledge on how to set up and undertake foresight activities. Easy to understand practical blueprints on how to set up a foresight activities to suit specific regional circumstances could be instrumental in supporting regions to implement regional foresight.

The blueprints expert group builds upon the existing Foresight knowledge base developed so far mainly at EU level by involving regional experts and policy makers active in earlier exercises, as well as using already available methodological tools and case studies, e.g., the Country specific Guides to Regional Foresight (<http://www.cordis.lu/foresight/cgrf.htm>).

Blueprints are practical guidelines to the setting up and planning of foresight. They are manuals or roadmaps, not foresight exercises in themselves. Blueprints build upon real problems in real regions, with strong stakeholder involvement.

The expert group was built around a core group of experts on foresight processes, who steered five working groups with regional partners, chosen because of their capacity to initiate actions and influence policymaking.

The working groups have been open to outside participation, and the resulting blueprints (one for each working group) are being designed so as to provide useful tools for regions not actively participating in the expert group, but facing the same challenges. The resulting blueprints are:

FOR-RIS: Experiences and ideas for developing regional foresight in a RIS/RITTS project context;

UPGRADE: Foresight strategy and actions to assist regions of traditional industry towards a more knowledge based community;

TECHTRANS: Trans-regional integration and harmonisation of technology support mechanisms;

TRANSVISION: Bridging historically and culturally close neighbouring regions separated by national borders;

AGRIBLUE: Sustainable Territorial Development of the Rural Areas of Europe.

The work started in December 2003 and its present stage ends with the dissemination conference on September 23, 2004.

Professor Liam Downey, Chairman  
Professor Peter Heydebreck, Secretary



## Foreword

Much of the work of the Agriblue Working Group was concerned with understanding in a detailed and practical way the challenges of sustainable development in the rural economies of Europe. We have tried to illustrate some of these challenges as they present themselves today. In doing so we have drawn upon material provided by members of the Working Group on the nature of rural regions in the UK and Ireland especially in the **BMW Regional Assembly, Wales** and the **Scottish Isles**, the region of **Weser-Ems** in Germany, **Brittany** in France, **South Savo** of Finland, the **Lubelskie** and **Malopoloskie** regions of Poland and the Rhodopes region of Bulgaria.

We have tried to make explicit the role of different stakeholders in meeting these challenges as well as the interdependence of issues and how this is reflected in governance challenges from a regional perspective. We did this in an attempt to better motivate the use of foresight exercises as support for sustainable policy development at regional level.

The members of the group met physically on three occasions. We met in Brussels, Weser-Ems and Galway. We are grateful to **Christian Svanfeldt** and his colleagues in the DG Research Unit K of the European Commission for organising the meeting in Brussels. We thank **Jobst-Seeber** as well as his colleagues from the Regional Innovation Strategy of Weser-Ems and from the region of Lower Saxony for their warm welcome to Weser-Ems. We thank **Gerry Finn** and **Kieran Moylan** of the BMW Regional Assembly for the hospitality they provided in Galway. We never did have that meeting in Bulgaria but thanks to **Atanas Atanassov** I am sure we will all meet there one day.

Our method of work was quite informal. Detailed discussions took place by phone, fax and email. Some members put great effort into drafting independent background papers that played an essential role in developing our understanding of the issues at stake. In particular **Atanas Atanassov, Paul O'Donovan, Ryszard Kaminski, Ferenc Kovats, Sirpa Kurppa, Yves Leon, Kieran Moylan, Jobst Seeber** and **Jorma Vilhunen** must be thanked in this regard.

Finally we decided to present the document in two parts. **Part 1** provides specific motivation and a reference scheme for foresight exercises in rural regions as well as answers to questions commonly asked by people conducting foresight for the first time. It is aimed at people who have a good understanding of regional development issues but need to know what foresight has to offer. **Part 2** expands upon Part 1 by explaining in more detail the role that foresight can play in the formation of policy for sustainable development, in the development of appropriate knowledge infrastructure for rural economies and in addressing governance challenges faced by regional authorities today. Readers who have questions are invited to contact members of the Working Group for follow-up. The contact details of all contributors are provided in the table on page 29.

Patrick Crehan & Liam Downey

Conveners of the Agriblue Working Group

# Contents

## AGRIBLUE

Foreword .....	iv
<b>PART I</b> .....	<b>I</b>
<b>1. Foresight for a New Rural Europe</b> .....	<b>I</b>
<b>2. The Changing face of Rural Europe</b> .....	<b>2</b>
Intensification .....	2
Extensification .....	2
Abandonment .....	3
Pressure on Urban and Peri-Urban Areas .....	3
The Change Management Challenge .....	4
The Role of Foresight as a Policy Development Process .....	4
<b>3. A Foresight Reference Model</b> .....	<b>6</b>
<b>4. Frequently Asked Questions</b> .....	<b>10</b>
What is Regional Foresight? .....	10
Why should I undertake a foresight exercise in my region? .....	10
What should a regional knowledge infrastructure look like? .....	11
How can research and innovation be financed at regional level? .....	11
Who needs to be involved and how will I get them on board? .....	12
Is it worth doing foresight if you don't have a budget for development? .....	12
Isn't foresight really only for well-off urban areas? .....	13
We need immediate solutions to existing problems so how can foresight help? .....	13
Can we afford the luxury of 'sustainable development'? .....	13
Is more to the rural economy than agriculture? .....	13
How does one deal with denial? .....	14
What can be done when key stakeholders will not talk to one another? .....	14
How long should a Foresight initiative last? .....	15
How do I go about planning a Regional Foresight? .....	15



<b>PART 2</b> .....	16
<b>5. The Sustainable Development of Rural Areas</b> .....	16
Multifunctionality .....	16
The Future of Agriculture in Europe .....	17
The Diversification of Rural Economies .....	18
<b>6. The Role of Knowledge in Rural Economies</b> .....	20
Knowledge-Intensive Multi-Functional Agriculture .....	20
Knowledge-Driven Rural Economies .....	21
The Role of Local Knowledge in Sustainable Development .....	22
<b>7. The Governance Challenge for Rural Economies</b> .....	24
The Spatial Dimension of Socio-Economic Development .....	24
Planning for a Sustainable Future .....	25
Complexity and the Challenge of New Legislation .....	26
The Synchronisation of Public Intervention .....	27
The Role of Regional Authorities .....	28
<b>8. Contact Information for the Members of the Agriblue Working Group</b> .....	29
<b>9. Background Papers of the Agriblue Working Group</b> .....	30

# I. Foresight for a New Rural Europe

## Part I

Territorial development is about the spatial dimension of development. It is concerned with where people live and work, the location of social and economic activity, and the way in which resources we possess in limited supply are exploited to achieve socio-economic objectives. Land-use is an important aspect of territorial development but not the only one. Sustainable territorial development is about striking a balance between the economic, environmental and social impact of development in a way that does not compromise the well being of future generations.

Over the next 20 years rural Europe will be radically transformed in terms of the distribution of people and of economic activity within and across its regions. These changes are inevitable and many forces conspire to bring them about. Major drivers of change include:

- Global competition in the production of agricultural commodities,
- Improvements in agricultural productivity from RTD & Innovation in biotechnology,
- New Information and Communication Technologies,
- Climate change and an increasing sensitivity to the impact of human activity on the environment as a finite resource,
- Demographics, low-cost travel and the new life-style aspirations of a mobile citizenry,
- WTO negotiations and reform of the Common Agricultural Policy,
- The adoption of the Acquis Communautaire by 10 new members states, and further imminent accessions.

Many of the rural regions of Europe are already experiencing changes in terms of the emerging patterns of abandonment and intensification of agricultural activity, the decline of rural populations and competition for housing in peri-urban areas, as well as the decline of rural economies and increased rural unemployment. It is not unreasonable to compare the situation that currently faces traditional farming communities with similar situations that have been faced by many regions dominated by single industries that have enjoyed extended periods of protection by governments from the rigours of the open market - coal, steel, shipbuilding, textiles and certain

manufacturing sectors. All members of society have an interest in the future viability of rural regions of Europe. These changes must be managed. They cannot be ignored. The rural areas of Europe will evolve into sustainable knowledge-based economies when those that live and work there recognise and understand the nature of these changes, see how their impact will be felt locally, develop change-management strategies, coordinate policy interventions that have broad social acceptance and ensure the provision of a knowledge infrastructure to support the long-term development of the regions in social, environmental and economic terms.

Strategies addressing complex issues in rural areas such as the abandonment of agricultural activity, the accumulation and exploitation of natural capital, the efficient provision of social infrastructure, the adjustment to industrial decline, the creation of employment or the diversification of local economies require a response in terms of policy interventions by ministries and agencies with responsibility for areas such as transport, agriculture, forestry, rural development, industry, education, RTD and Innovation, cultural heritage and the environment. The impact of these policies will be greatest when they arise in response to clear coherent strategies resulting from an informed open and broadly based dialogue, involving local stakeholders.

Regional authorities have a key role to play in these processes based on their proximity to stakeholders and their deep understanding of development challenges at local level. They are well situated to develop the broad base of societal support that is required for robust policy formulation and implementation. They are uniquely positioned to communicate needs to central government with a view to synchronising the contributions different ministries and agencies will make to the implementation of coherent multi-faceted responses to sustainable territorial development challenges. Foresight is a tool that supports deliberative policy development processes. It emphasises the participation of locally based stakeholders as well as representatives from government and its agencies in a process of vision building for the long-term future of the region.





## 2. The Changing face of Rural Europe

The rural areas of Europe vary greatly in terms of the nature of the challenges they face in their efforts to achieve sustainable development. All over Europe rural areas must negotiate a period of change brought about by the transformation of farming from predominantly tradition-oriented family-run businesses to a professionally run, science-based competitive enterprise, driven by knowledge and linked to the markets of the world. Deep structural changes will also occur over the next few decades due to demographic movements, pressure from the WTO and CAP reform. In many regions these changes are accompanied by pressure to urgently create new and alternative forms of employment. In all regions these changes have implications for the provision of physical and social infrastructure to support the society that will have emerged after this period of transition. This has important consequences for the spatial development of regions. This infrastructure will strongly reflect the growing role of knowledge in the regional economy and in the governance of rural regions.

2 The challenge of sustainable territorial development in rural areas is how to manage this transition in a way that preserves or even improves the balance between the needs of society, the environment and the economy. The importance of the sustainable development of rural areas lies in the fact that it requires the development and maintenance of forms of natural capital that are of value to society as a whole and not just to those living in rural communities. The rural regions are of importance to all members of society and this implies unique challenges for the governance of rural areas. It highlights the need for a new vision for rural economies, nationally and in Europe as a whole.

We start by examining the changing face of rural Europe in terms of changes to the structure of agricultural activity. These are often described in terms of the processes of intensification, extensification and abandonment of agricultural activity.

### Intensification<sup>1</sup>

Intensive farming occurs when natural advantages and other factors favour a particular form of agricultural activity and is usually associated with specialised enterprises. Advantages arise due to the nature of the soil, the availability of water, the altitude and aspect of the land, as well as farming tradition and proximity to transport infrastructure, access to valuable markets and the presence of agro-food processing and other service industries. Intensification accompanied by increased inputs such as feed-stuffs and fertilizer, may put pressure on the environment if it is not well managed. Excessive run-off into rivers and lakes can lead to the phenomenon of eutrophication. It may affect water resources rendering water unsuitable for human consumption. While there is a need to develop a vibrant internationally competitive agricultural production system across Europe, this must be done in a way that will not put the long-term viability of water resources and nutrient cycles at risk. Solutions exist in the form of IFM - Integrated Farm Management systems and technologies. These are knowledge intensive solutions and individual farmers cannot be expected to independently analyse and design solutions for their individual farms. An appropriate infrastructure of advisory services and technology providers is required. The right balance between public and private sector provision may be an issue for discussion and widespread adoption of good practice may require regionally adapted incentive structures.

### Extensification<sup>2</sup>

As a result of the globalisation of markets for agricultural produce, new consumer preferences, competition from new market entrants, scientific and technological progress as well as policy change, farming in many parts of Europe is losing its competitive edge. Once a farm enterprise considers that it has reached its limit of produc-

<sup>1</sup> Intensification is the opposite of extensification – an increase in output per unit of land.

<sup>2</sup> Technically 'extensification' of farm production is the decline of production per unit of land.

tion it will seek alternative sources of revenue to maintain its viability. This may mean diversification of production, it may mean a move into agrotourism and it often means an increased dependence on subsidies or other forms of income support. In the long term this may lead to new a new form of sustainable agricultural activity or it may simply represent a step down the path to abandonment. The extensification of agricultural activity is a signal that something is happening to the rural economy and it is increasingly common throughout Europe. Since the viability of agricultural production in regions characterised by extensification often depends on the provision of various forms of income support, the reform of the Common Agricultural Policy will have an important impact on the economic sustainability of these areas. As farm subsidies are decoupled from the production of agricultural commodities and associated to the production of public goods,

the importance of multi-functionality in agricultural production will play an especially important role in the future of these economies. Extensification is a complex and subtle phenomenon. The development of policies to enhance the viability of farm-systems experiencing extensification requires a regional, multi-disciplinary approach.

## Abandonment

The abandonment of agricultural activity arises for many reasons. It is generally associated with increasing competitive pressure on agricultural production, market change and policy change. In the future it may also be associated with evolving life-style aspirations of young people and even climate change. It is most critical in areas with marginal land with sub-viable enterprises. The new member states have experienced abandonment

Many of the farmed landscapes of Europe date back to the end of the last Ice Age. They provide sites for both **historic and prehistoric monuments**. If grazing stops, small shrubs, bushes and eventually trees appear. These grow in the shelter of monuments, the root systems upset foundations and the branches may push out roofs, windows and exert pressure on walls eventually cause them to fall down, destroying them for ever. Walking paths for **recreation** become grown over and **landscape views** become obscured. In some cases reversion to wilderness may be desirable but in many cases it results in the destruction of unique regional assets and forms of natural capital built up over generations.

on a large scale as a result of changes to the organisation of agricultural production associated with independence. Abandonment is often accompanied by economic or population decline. It can lead to the loss of biodiversity, to the loss of cultural heritage or to the loss of landscapes with high amenity value for tourism or recreation. Abandoned land often suffers a reduction in commercial value. From a landowner's point of view this means not only the loss of a source of income but also the loss of personal wealth tied up in the value of the land as a commodity. Abandonment is happening to some extent in most countries of Europe. In many countries, especially in the new member states the level of abandonment is high enough to be considered an important national concern.

## Pressure on Urban and Peri-Urban Areas

Rural areas cannot be considered independently of their relationship with larger cities and urban centres. For many town dwellers the rural areas are attractive places to live and this puts pressure on the so-called peri-urban areas<sup>3</sup>, not only in terms of land for living on, but also in terms of sites for industrial or commercial activity. For those living in the countryside urban centres provide opportunities for alternative employment as well as access to services and facilities for living, working and recreation. There is a complex and continuous movement of people between rural and urban areas and the boundary that separates these changes over time. This has implications for

<sup>3</sup> These are the areas that are in some form of transition from being rural to fully urban.



the provision of infrastructure for transport, utilities, healthcare and education. Many regions are under pressure for new housing to support new life-styles due to changing demographics and greater mobility due to better transport infrastructure. Such regions must balance the needs of people in terms of their life-style requirements, with the need to preserve biodiversity and natural landscapes and with a need for cost-effective service provision to resident populations.

## The Change Management Challenge

The organisation of agricultural production across the European Union is undergoing a process of radical change. These change processes will fundamentally transform the spatial organisation of Europe in terms of the location of agricultural activity, threats to rural landscapes, conservation areas, water-ways, soils, bio-diversity, areas of natural beauty, historical or cultural interest, and the burden of managing them. It will transform the rural economies in terms of where people live, work and spend time on recreation. It will change patterns of demand on physical infrastructure and utilities. It will create new demands for a knowledge infrastructure that will adequately support the needs of sustainable rural economies. These and other adjustment processes underway in rural Europe give rise to the following questions:

- What measures are required to ensure the continued economic, social and environmental sustainability of those regions of Europe that are becoming increasingly dependent on part-time farming, and especially those regions experiencing agricultural abandonment?
- How can the optimum balance be achieved between the international price competitiveness of the agriculture and food industries, and the other dimensions of a multifunctional agriculture in Europe?

- What are the implications of the transition to a knowledge-based economy as envisaged by the Lisbon strategy for different types of rural areas?
- Do regions have the research capability, the technology transfer capability and the organisational infrastructure to drive sustainable knowledge-based rural economies?
- What initiatives need to be taken to maximise the potential contribution of information and communication technologies to sustainable rural development in different rural regions?
- What forms of rural settlement will best facilitate the sustainable development of rural economies and the viability of rural communities?
- What are the principal influences on the location and extent of farm-based and non-farm diversification of rural economies?
- How can the conflicting demands on the use of rural space be managed?
- How can better integration of rural and urban land use planning be achieved?
- What institutional initiatives are required to achieve an appropriate balance between top-down and bottom-up approaches to the development of integrated strategies for the development of rural regions in Europe?

Foresight provides a mechanism for finding robust answers to these questions.

## The Role of Foresight as a Policy Development Process

Foresight is an interactive, interdisciplinary approach to creating knowledge about the future for policy development. It does not predict what will happen in the future. The approach is to understand the nature of the changes taking place, how the future is being shaped and how the future can be influenced through the setting of political

### BMW Region Confronts Change.

Although Ireland is often seen as an economic success story, development in some rural regions has lagged behind that in the main cities of Dublin, Cork and Limerick. In addition agriculture has become less viable as a purely commercial activity.

**Kieran Moylan of the BMW regional assembly** says “Bringing together all the stakeholders for a regional foresight exercise helped us to realise for the first time our shared interest in shaping an agreed prioritised programme of strategic investment for the region”.

goals and through the formulation of policy for development. This is not a process confined to experts, but to all stakeholders with an interest in the future of the region. The next step is to develop a vision for the future of the region that is realistic and actionable and that will guide policy makers in their detailed day-to-day decision-making.

The future of rural regions is not pre-determined. Policy makers have many choices. These choices

include opportunities for the development of agricultural activity on a regional level as a multi-functional knowledge-based industry as well as for the diversification of rural economies. Each choice is an opportunity to optimise results and to achieve desirable outcomes. This can only be done if the change processes are understood and managed. An adequate understanding can only be achieved at regional level through the involvement of regional stakeholders.



### 3. A Foresight Reference Model

A foresight exercise is composed of three distinct phases of work:

- **A Pre-Foresight Phase** in which the leader of the exercise - ideally a regional authority or some-other locally based actor that has a significant interest in development at regional level - identifies key players and solicits their support for the exercise, progressively refines the scope and objectives and assembles a core team of people to drive the initiative to its conclusion.
- **A Foresight Phase** in which experts and a broader group of people from relevant sectors of society are mobilised to actively participate in a structured series of interactive meetings and other exercises to develop a vision of the future that is realistic, feasible and actionable.
- **A Post-Foresight Phase** that consists of a persistent follow-up with relevant authorities and other groups such as policy makers and industry or civil society associations, to increase the level of awareness of the exercise, and to continue to explain to those involved in programming for regional development at local, national or European level what has been achieved.

#### 1: PRE-FORESIGHT

Informal exploratory meetings, sometimes one-on-one, sometimes in small groups, as well as

- Background Research,
- Agenda Setting, and
- Constituency Building...

#### 3: POST-FORESIGHT

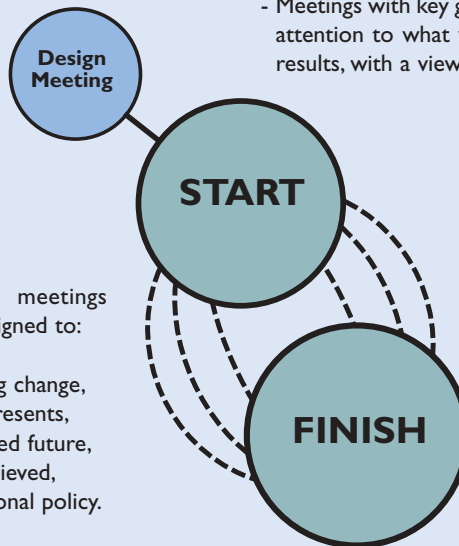
Wide dissemination of the results in terms of a:

- Formal published report, as well as
- Meetings with key government people to draw their attention to what was achieved and to discuss the results, with a view to influencing policy...

#### 2: FORESIGHT

A series of open deliberative meetings with stakeholder participation designed to:

- Achieve ownership of the future,
- Understand the processes driving change,
- Define the challenges that this presents,
- Create a shared vision of a desired future,
- Understand how this may be achieved,
- Explore the implications for regional policy.



The pre-foresight phase is the agenda-setting stage. The key actors are assembled and the ground is prepared for follow-up on actionable policy recommendations that may arise from the initiative. In this phase there is a chance to understand the concerns of the major political sponsors – in particular the public-paymasters, the providers of funds and the developers of regional programmes. The execution of a foresight exercise involves the organisation of many meetings. Each meeting and activity should have a well-defined purpose. The whole series of meetings need to be well managed, planned and executed if they are to achieve their goals.

Some of these meetings consist of technical working meetings. Others will be more open and dialogue oriented. Their goal might be to bring more diverse groups of people up to speed on what has been achieved and allow them to explore the inter-relatedness of different issues. Exactly how this is done will depend on many factors, not the least of which are time and resources constraints as well as the availability of key people to make contributions as experts, as facilitators or even to provide political support for the exercise. At some stage during the pre-foresight phase it is useful to conduct a formal 'design' workshop. In this meeting the core-team will thrash out the details of the whole exercise. They will come to a detailed understanding of the structure of activities to be carried out, the time-scale and the resources required.

It is important to bear in mind that in the case of a first foresight exercise these people may not fully understand what is being proposed. It will be a learning exercise in which they come to understand what foresight is, just as it is a learning exercise for the leader of the initiative in terms of how to organise one. Depending on the scale of the exercise this is the phase in which resources have to be acquired to support the work of the foresight phase itself. It will be important to manage the expectations of the major sponsors, to retain their good will and their faith in the exercise. In addition to conducting a technical 'design workshop' it may be useful to conduct some small orientation workshops with the intention of explaining to the political sponsors what will be obtained and why their support is important.

Two main tasks have to be accomplished in the Foresight Phase. The first is to achieve **ownership of the challenges** faced by the region. The second is to arrive at a realistic and actionable **long-term vision** for the region that is sustainable in social, environmental and economic terms.

Achieving ownership is not a trivial task because each participant has to arrive at a personal understanding of the main issues that may be quite different from that of other participants. There is no point in providing answers to questions that have never been asked or solutions to challenges that have not been acknowledged. To take a simple example the meaning of multi-functionality will be different for someone involved in tourism than for someone involved in farming. It is only when each actor in a community has digested the idea from a personal point of view can we say that the issue is understood by the community. A deep understanding can be developed and shared through facilitated dialogue.

There may be a number of issues that require interpretation in this way - 'sustainability' and 'knowledge society' are two important examples of terms that need to be made relevant and meaningful in a region specific way, before constructive policy related dialogue can take place. It may be necessary to organise independent meetings or parallel working groups within a single meeting to achieve this. Local experts should be encouraged to write papers on these issues and to have them debated in an open forum. To get to this stage however a number of meetings are usually necessary. These meetings may involve experts, economists or scientists to introduce the issues, but it is essential that they move away from a classroom or lecture style to a style dominated by professionally facilitated discussions using brainstorming and other techniques to structure discussions and drive them towards a useful conclusion. It is important to get people involved and to engage them intellectually so that their understanding of the issues is transformed. It is only at this point that the participants will really start to explore the future in these terms. Eventually when ownership of the challenge is achieved it is time to consider how to respond to the challenge.

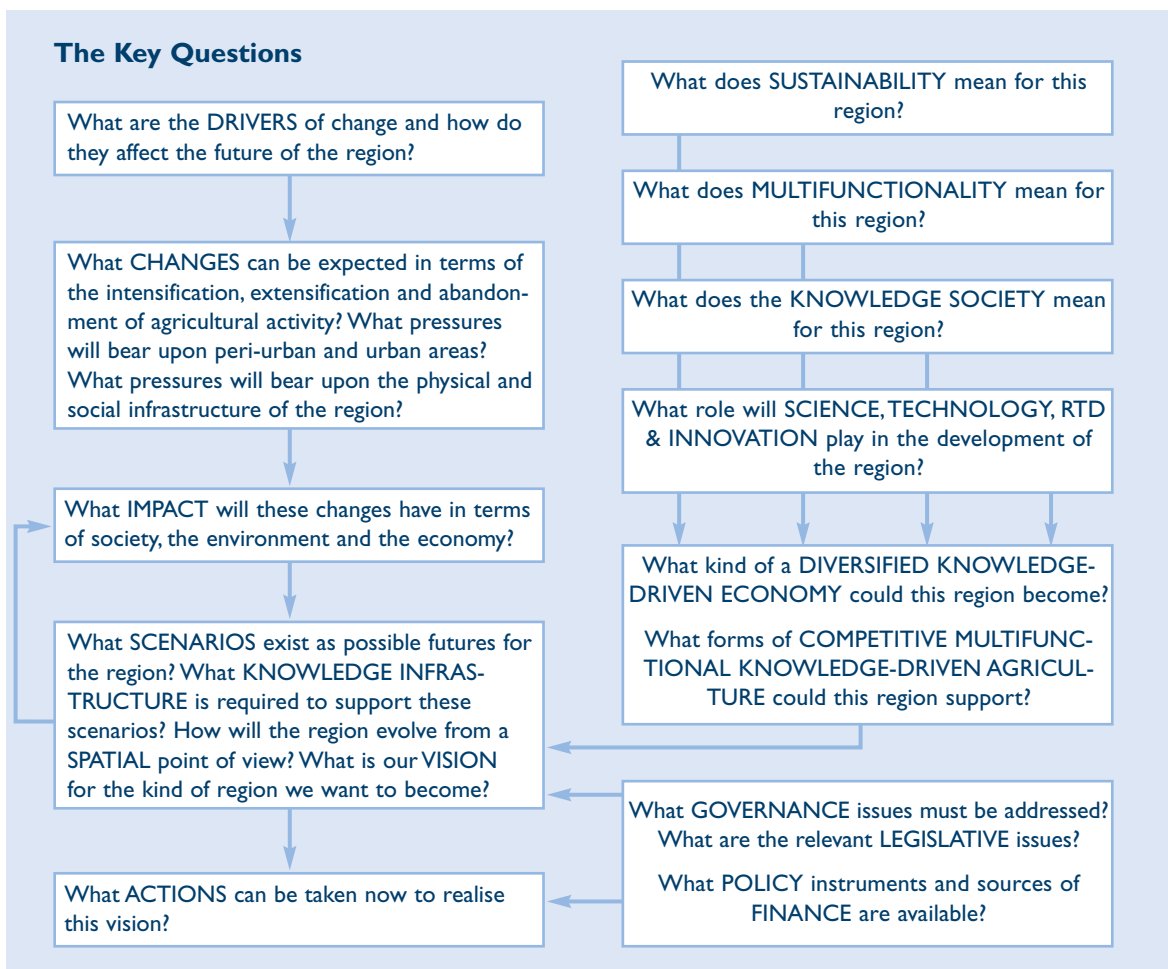


Once a challenge has been recognised or acknowledged a series of **scenario development workshops** can help to understand how the current situation may evolve. This could start with a meeting to develop an **understanding of the drivers of change** and how they act at regional level. The objective is not simply to create a list of drivers-of-change such as globalisation, climate-change, demographic-change and CAP reform, the goal is to get to grips with what this means at regional level. In exploring the impact of climate change for example, local working groups might explore the trends and the consequences of change in terms of the risk of damage to property and physical infrastructure, a well as in terms of the kinds of crops that will be grown and the kind of animals that can be reared for agricultural production. The interest lies in identifying at least from a qualitative point of view what changes will be wrought within the region and to complete the

general understanding of climate change with a deep understanding of what it could mean for the region.

The real skill for conducting foresight is the skill to guide participants through a series of key questions that will help them to understand the current situation of the region, develop a shared vision of what they want the region to become and draft an action plan for how to get there. The following table suggests a series of key questions that may be asked in rural areas. It provides a structure for the creative exploration of opportunities, the careful evaluation of the impact of choices on the community, the prioritisation or selection of options based on a local culture, values, identity and aspirations for the future, as well as the drafting of a plan of action based on realistic options for the implementation of a regional development policy.

### The Key Questions



The initial goal is not to 'predict' the future but to understand how the future is shaped and on that basis to explore a range of possible futures with a view to selecting one that is desirable and attainable. To understand the current situation various tools such as **SWOT analysis** may be used to take-stock of the situation, not only in terms of opportunities and threats but also in terms of strengths and weaknesses - in other words in terms of the resources available to the region from which it can create a desirable future. There is no prescribed or ideal way to organise a foresight exercise. The diagram above outlines the kind of questions that could be asked in the course of the exercise. It is intended to illustrate how dialogue on complex issues could be structured rather than to give a prescription for what has to be done. The ultimate goal is to arrive at a

**Vision** and an **Action Plan** outlining short terms actions needed to achieve the long-term goal. In organising such work a variety of organisational tools may be applied:

- Expert Panels, Working Groups & Taskforces,
- Discussion Groups, Brainstorming and Ideation Exercises,
- Exercises for Scenario Writing, Road-mapping & Action Plan Development.

Once the vision and the action plan have been developed the work of the Post-Foresight phase will consist of bringing this to the attention of a broader group of stakeholders and in particular to the attention of those involved in various aspects of planning and policy development. Both documents should become important points of reference for regional development policy in the future.





## 4. Frequently Asked Questions

One of the hardest tasks in foresight is the task of bringing together a core group of collaborators who will support and sustain the activity through until the end. Potential allies will have many questions that someone new to the foresight process will have difficulty answering. This section provides answers to some of those frequently asked questions and insights that may help experts acting for or on behalf of regional authorities to deal with their concerns and help move the initiative onto the next phase of implementation.

### What is Regional Foresight?

Regional Foresight is a structured set of participative vision building and strategic planning activities that allow regions to think, consider, debate, and shape the medium to long-term future of their regions. Many of the key process elements of foresight are widely used in strategic planning – the formation of expert panels, the use of socio-economic and environmental data, consultation, brainstorming, trend extrapolation and the setting of strategic goals. The distinctive feature of Foresight is its long-term future orientation that goes beyond immediate issues and concerns, and the use of methodologies such as brain-storming, scenario development and scenario analysis using SWOT or similar techniques. Foresight, unlike most approaches to strategic planning, deals with long-term prospects, and draws upon the views of multiple stakeholders. The European Commission has published the following definition:

*Foresight can be defined as a systematic, participatory, future intelligence gathering and medium to long-term vision building process aimed at present day decisions and mobilising joint actions.*

Foresight refers not only to a sequence of rigorous exercises of a scientific nature but to a rigorous process for the engagement of stakeholders in the creation of knowledge about the future for policy related process such as:

- The identification of investment priorities for regional development,
- The mobilisation of actors to address long-term issues,
- The orientation of actors on complex cross cutting policy issues,
- The identification of research priorities for S+T research programmes.

It can play an important role in constructing regional identity by the development of shared visions that unite people in the region in their understanding of each other's needs and in their thinking about their common future.

### Why should I undertake a foresight exercise in my region?

Foresight at a regional level can play a catalytic role in the establishment of initiatives and framework conditions conducive to innovation in the broadest sense. This means not just industrial innovation but social renewal in terms of how society is organised, its relationship with government and industry and in terms of its hopes and visions for the future. It can help to strengthen regional identity especially in the face of the transition from a traditional agricultural economy to one that is highly diversified, sustainable and knowledge-based. It can contribute to the creation of new identities. In the case of areas faced with the prospect of the abandonment of agricultural activities, new economic activities must be developed. These new identities can be expressed through a shared vision of how people will live and work when the period of transition has been managed. Exercises that address the issue of identity should try to include all sectors of society – age, gender, ethnicity, economic activity, family situation and other social grouping.

The value of a Regional Foresight activity resides as much in the process as in the perspective it produces. The process involves wide participation of major actors including local government, state development agencies, science, industry and private organisations in systematically forecasting long-term trends in the development of science, technology, the regional economy and social needs with the aim of identifying emerging technologies with highest potential of contributing to economic and social development.

Activities to anticipate change have progressively emerged in industrial countries. The increasing rate of progress in S&T, the globalisation of markets, the rate of innovation in terms of new products and services, make it more difficult to predict market trends. Interrelationships between science, technology and society are becoming more complex. Therefore, thinking, debating and shaping the future is essential to direct science and technology investment decisions and to make the industrial and societal choices that turn these investments into innovation and a better quality of life. As these investments have become very costly, policy makers in the public and private domain depend on more reliable systems to detect relevant signals early, and to evaluate the risks and opportunities of S&T developments comprehensively.

### **What should a regional knowledge infrastructure look like?**

Most regions recognise that knowledge plays an essential role in sustainable development but they lack a model for what an appropriate regional knowledge infrastructure should look like. A foresight exercise can play a key role in developing such a model but only if it addresses the demand side of research, development, innovation and other essential knowledge inputs for the regional economy. It is important to recognise that recommendations for the development of an innovation system at regional level should not be based on the opinion of academics and researchers alone. They represent one aspect of the supply side of knowledge. They know what knowledge they can supply but they have difficulty in considering issues that lie outside their own domain and many do not understand real needs of the sector. Professional researchers from national research institutes have a more market oriented approach

to meeting national needs but they too are often unaware of specific regional requirements. Farm advisors, agricultural consultants and outreach experts are a third general source of knowledge essential for the development of the region. Along with farmers and other agro-industry players including representatives of small and medium sized enterprise they have a better understanding of needs at regional level. All of these actors need opportunities to document what they know and articulate concrete recommendations for the development of a regional knowledge infrastructure. A regional foresight exercise provides such an opportunity.

There may be a need in some regions for new research facilities dedicated to region specific challenges that arise from the typography of the region or the multi-functional nature of agricultural activity. The regional innovation system should support research and innovation on regionally adapted farming systems. It should support the adoption of new organisational and management systems as well as the development of vocational skills on a demand driven basis. A regional knowledge infrastructure should address needs not only in terms of technologies for production but also in terms of knowledge intensive services that support production. The whole value chain requires support and this includes enterprises involved in the processing, storage, assembly, packing and distribution of products.

### **How can research and innovation be financed at regional level?**

The main question is how to finance regionally adapted programs for research, technology transfer and innovation. With structural funds it may be possible in some cases to build new physical infrastructure. However in general it will not be possible or even desirable to develop new institutions. Existing research institutions at regional, national or even European level must meet these needs. Their contribution will be most effective when provided on the basis of user driven research contracts. This implies a demand driven approach to research rather than the pursuit-of-excellence approach that characterises research programs in basic science. The competitive thematic program approach of most research programs at national and EU level is suitable for



long-term open ended research conducted by universities and national research institutes. However it is poorly suited to the needs of small enterprise. They need opportunities to contract out research assignments that are very specific in nature and that are executed in a relatively short period of time. Mechanisms exist for the delivery of research adapted to this situation in terms of credit lines or coupons provided to qualified companies or agencies on a first-come-first-serve basis.

Regional authorities in Europe have little or no direct control over budgets to support the implementation of regionally adapted research, technology transfer and innovation programmes. To move beyond this situation however they must start with a clear idea of the role of knowledge in the regional economy and specific knowledge needs before resources can be made available. Regions that have carried out such an exercise will provide compelling and highly credible inputs to national policy development processes and will be in a much better position to influence program development at central government level.

## **Who needs to be involved and how will I get them on board?**

There two main groups are often referred to as the stakeholders and the sponsors. Well-run foresight exercises often include a formal task in the pre-foresight phase for identifying the stakeholders and sponsors essential for the success of the exercise.

The stakeholders are those who 'own' the problem or challenge under consideration and have a stake in the future of the region. The 'sponsors' include local politicians and others - who are interested in demonstrating political support for the process. The sponsors also include agencies or government departments who play a role in the development of programs or in the allocation of funding to development projects at regional level. The first major applications of Foresight have been in the development of policy for research in terms of the prioritising of domains of importance for society and the economy and on which to focus resources. In this case the 'stakeholders' are those that are intended

to benefit from the research and innovation. An exercise that only engages local universities will only provide an academic outcome. Industrial and social stakeholders should strongly figure in the core group to ensure that the outcome is demand driven rather than supply lead. Participants in the process will be expected to bring their knowledge and expertise to bear on the work of the panels, with a view to identifying key investment priorities for the region over the agreed timeframe. These priorities can be used to determine the proposals for structural funds and other investment programmes, which may be of enormous benefit to the stakeholder organisations.

It is not easy to involve everyone who should be engaged from the beginning. Just as the organisers must learn how to conduct the exercise, the stakeholders and sponsors also need time to understand what is at stake and learn how to make an effective contribution. Time is required for explaining to people why they should be involved and what they will get out of it as well as for building the relationships on which good cooperation will rely.

## **Is it worth doing foresight if you don't have a budget for development?**

In many countries regional authorities have little or no direct control over the formulation of programs for regional development or over how the budgets are spent. Nevertheless a well-run foresight exercise can influence the programming process by providing inputs in terms of a clear vision of how the region would like to develop. When this is formulated on the basis of a rigorous and open deliberative process that engages key stakeholders in the region, and when it presents reasonable, well-founded recommendations it gains considerable legitimacy. It is important for sponsors to participate in regional foresight exercises so as to understand the completeness of the process in terms of stakeholder engagement, and to appreciate the technical details of policy recommendations. Foresight practitioners cite many benefits that derive from foresight that indirectly influence budget setting and programming at regional level. These include:

- Understanding of long term challenges and opportunities,
- Buy-in and ownership and shared understanding of priorities by key players,
- Agreement on long-term investment priorities to aid present day decisions,
- Articulation of a long-term strategic vision for the region,
- A basis for post 2006 regional investment programmes,
- Stimulation for innovation and investment and greater regional competitiveness,
- Demonstration of leadership on regional issues emerging from within the region,
- Orientation based on a targeted analysis of region-specific issues,
- Enhancement of the capabilities of all participants to think strategically about complex issues at regional level and increase their capacity for change,
- Development of a strong regional identity based on the future as much as on the past.

### **Isn't foresight really only for well-off urban areas?**

Foresight can be conducted in any region – urban or rural. Regional Foresight has increasingly been recognized as a powerful instrument for establishing common views on the future development strategies among policy-making bodies, including bodies concerned with rural development issues. It is probably even more important for disadvantaged areas as they will have a greater need and difficulty to mobilise actors and investment for the future. Foresight will equip the region with a clear vision of what it wants to become, guide local authorities in articulating needs and greatly improve its position when it comes to formulating plans for regional development that have a high level of legitimacy due to the strong backing of citizens, and a good chance of success.

### **We need immediate solutions to existing problems so how can foresight help?**

It is true that regions face many challenges that require immediate attention – rural unemployment and rural poverty are typical example of issues that cannot wait. However there is no contradiction between meeting short-term needs and having a long-term vision. In fact experienced

professional managers know that a long-term vision provides a very useful guide for short-term decision-making. It is increasingly recognised that a long-term vision is necessary to mobilise actors and resources. It does this by showing that the period of crisis will not last forever and that things could improve. It makes explicit the kind of a region that everyone would like to create.

### **Can we afford the luxury of 'sustainable development'?**

To catch up in economic terms it is tempting for regions to ignore social and environmental objectives in an attempt to pursue quick economic goals. Sustainable Development has become one of the most frequently stated political aspirations of the European Union. Sustainable development is not seen as a luxury it is recognised as a must!

The EU structural funds are a mechanism for re-distributing to the regions of Europe, the financial resources they require for development that they cannot provide on the basis of their current level of economic activity. A Foresight initiative at regional level intended to develop a vision for the future of the region as a sustainable rural economy with a knowledge-intensive multi-functional agricultural sector is an excellent way to ensure that the exploitation of structural funds has good impact, high visibility and buy-in by local stakeholders.

### **Is there more to the rural economy than agriculture?**

A good example of a diverse rural economy is the case of Weser-Ems in Germany. Agriculture is very important in this region but so are other industries. The future prosperity of the region depends not just on agriculture but on all of the other economic sectors. They provide employment for those that farm on a part-time basis, as well as for those not engaged in farming. Not only can foresight take other sectors into consideration it MUST do so! In very rural areas such as the Mourne Mountains in Ireland as much as 60% of the people are unattached to the land and make their living from something other than agriculture. The key to development is diversification. The more diverse the rural economy the more alternatives it provides for employment and the better it is able to deal with decline in any one sector.



An essential part of a vision for the future of a rural region is how it might diversify based on its current strengths and the opportunities that new technologies and new markets could provide.

### How does one deal with denial?

Many regions of Europe face problems with rural unemployment, migration or depopulation. In some cases this is a direct result of ongoing changes in the structure of agriculture. Policy options for dealing with these issues exist, but the biggest initial challenge is getting people to face up to the inevitability and reality of change and then to consider solutions that go beyond a reliance on grants or income subsidies. This is especially true when dealing with communities that have a strong sense agricultural tradition. It is very hard to bring about change in such circumstances and the danger is that issues are deferred until it is too late. How does one deal with denial of the inevitability of change and the need to address it now?

A foresight exercise can help regional authorities overcome denial by establishing a shared understanding of the changes that are taking place, by demonstrating to its citizens that solutions exist and that choices can be made. Foresight can help people to think through the options on the basis of a long-term vision of a viable rural future. The idea is that by making good choices in good time the need to change can be transformed from a threat into an opportunity.

The organiser of the foresight exercise may need to devise tactics to deal with denial when it emerges in the process. In dealing with the future of farming questions might be raised about farm succession. This is an issue not only in marginal areas but also in areas of high farm viability. Who

will inherit the farm? Will they farm it, lease it or sell it on? Would they advise a young person to take up farming as career? Open discussions or debates on topics such as these could be used as a form of pre-foresight to explore issues and identify people whose opinions are held in high regard by the local community.

### What can be done when key stakeholders will not talk to one another?

If key stakeholders are not involved from the beginning the foresight exercise will be a waste of effort. The recommendations arising from the exercise will lack credibility from a political point of view. The foresight team will run a real risk of being accused of conducting an academic exercise and of providing recommendations that are well intentioned but irrelevant and of benefit only to special interest groups.

The first step is to understand who the stakeholders are. This is an important pre-foresight activity. Even knowing who they are bringing all the stakeholders together will not be an easy task. In fact it is unlikely that this can be accomplished the first time you set up a foresight exercise. The stakeholders also need time to understand what foresight is, what value it can provide and how best they can contribute to a foresight exercise.

For this reason a first foresight activity should lead to the continuous implementation of foresight practice that will give authorities and stakeholders time to learn how to cooperate on this kind of initiative.

In 2002-2003 ARI - the Agricultural Research Institute of Cyprus carried out a pilot foresight exercise on 'Agriculture as a Knowledge Industry'. The goal was to initiate and support a broadly based dialogue on the future of farming in the context of globalisation, CAP reform and accession to the EU. **The main stakeholders were the four largest farmers unions**, organisations that traditionally compete with one another due to their association to four main political parties. ARI facilitated a foresight exercise that consisted of an open and transparent dialogue that explored scenarios for the future of farming in Cyprus. Over a period of two years shared views emerged and with help from ARI a set of recommendations were drafted that were endorsed by all groups, communicated to the government and integrated into the national development plan. **This foresight exercise served as a catalyst for dialogue between traditionally opposed organisations** that enabled them to agree on issues where they had a shared interest and where a long-term approach to national policy was required.

## How long should a Foresight initiative last?

This depends on the availability of resources, the complexity of the issues that need to be addressed. A series of foresight initiatives in Malta carried out in the period 2002-2003 generally lasted for about 6 to 9 months. However the pre-foresight phase lasted about 6 months and the post-foresight work still continues today. National foresight exercises intended to provide input for national policy in Science and Technology usually take two years. The BMW Regional Assembly in Ireland is conducting a foresight exercise that is expected to last one year. Increasingly foresight is seen as a continuous on-going process and that it is better to have a number of smaller foresight exercises than the occasional heroic effort conducted at great expense. One advantage of conducting several smaller exercises is that it provides an opportunity to learn from one exercise to the next and make continuous improvements in execution.

## How do I go about planning a Regional Foresight?

This blueprint document is accompanied by 4 other blueprints and a final report from the Blueprint expert group. All of these will be available after the conference on the website : [europa.eu.int/comm/research/conferences/2004/foresight/index\\_en.html](http://europa.eu.int/comm/research/conferences/2004/foresight/index_en.html). The European Commission supported the development of a series of guides to regional foresight through a project called FOREN funded by the FP5 STRATA program. This information is available on the FOREN website at <http://foren.jrc.es>. The general guide has been made into a series of national guides localised to each member state. These are available to download at <http://www.cordis.lu/foresight/cgrf>.



## Part 2

# 5. The Sustainable Development of Rural Areas

'Sustainability' is one of the most important political aspirations articulated at the level of the European Union. It has become a key objective for many of the regions of Europe. Nevertheless sustainability is a broad and ambiguous term that requires localisation and interpretation in a region-specific way. The term 'sustainable development' refers to a form of development 'that meets the needs of the people today without compro-

promising the ability of future generations to meet their own needs'. One of the main challenges of sustainable development is to avoid destroying the natural capital that regions have accumulated over time. The natural capital of a region consists of its indigenous resources not just in terms of what can be extracted for economic gain, but in terms of all other spatially situated resources that are important for the well being of society now and in

**In the Netherlands rural development policy is based on the philosophy that 'every Dutchman uses the countryside' and the Ministry for Agriculture, Nature and Food Quality of the Netherlands has launched a 'Valuable Manmade Landscapes Programme' as part of its National Rural Development Programme under Agenda 2000. It has selected 11 areas characterised as providing valuable man-made landscapes and these are being developed using a bottom-up community based approach.**  
([www.minlnv.nl/](http://www.minlnv.nl/))

16

the future - forests, soils, rivers, lakes and biodiversity, historical monuments and valuable man-made landscapes. These resources need to be maintained and developed by adding value to them. It is possible for regions to accumulate nature capital and it is possible for them to destroy what has been accumulated until now and end up with long-term or even irreversible damage in terms of polluted water resources, damaged landscapes, barren lands and loss of biodiversity. It is important for regions to take stock of their natural capital as a first step in managing it so that its value can be realised.

Ultimately sustainability is about striking a balance between objectives that are social, environmental and economic in nature. Achieving such a balance is not a rational process and there is no single 'correct' solution. There are however a number of general principles that must be respected. For this reason the term 'sustainability' requires interpretation at regional level. If a region wants to become 'sustainable' it must also define what this means in terms that are meaningful to local citizens on the basis of their values, identity and

aspirations for the future, and in terms that are actionable by local authorities.

Foresight is a good way to explore the meaning of sustainability at regional level, to bring home to local stakeholders what it means in terms of the kind of changes that are necessary to achieve sustainability and the consequences of not doing so in terms of a decline in quality of life, damage to the environment or the destruction of natural capital that has taken many generations to create and accumulate. Foresight can be a useful tool for reconciling the conflicting economic, social, cultural and environmental objectives of different stakeholders in the region.

## Multifunctionality

It is now widely recognised that the cultivation of land creates not only private commodity goods, but dispersed public goods as well. Perhaps the best-known example of this is the creation of valuable landscapes as a by-product of farming activity. The maintenance of valuable man-made

landscapes is one of the key considerations of the multi-functionality of land use in Europe. The concept of multi-functionality attempts to make explicit the different kinds of value created by agricultural activity. Although the production of agricultural commodities accounts for a declining share of economic activity in rural areas, it is understood that agricultural activities have important positive indirect effects on other parts of the rural economy. This is most evident in the case of tourism and leisure. Many of the beautiful landscapes that are attractive to tourists are in fact farmed landscapes. Not all landscapes are of equal value from the point of view of the provision of public goods. Some countries have started to classify and monitor their landscapes in terms of their contribution to maintaining a high level of biodiversity as well as in terms of their cultural, recreational or other amenity value to society. The classification of landscapes is a first step towards the management of public goods created by activities such as agriculture.

The contribution of multi-functionality to the rural economy does not stop at landscapes with tourism amenity. Landscapes also support recreational activities such as camping, biking, walking and hiking. They host archaeological sites and historic monuments and constitute a heritage resource<sup>4</sup>. They may have religious or other cultural significance for people. They are host to an important part of our bio-diversity. Certain landscapes such as reed-beds and salt marshes have an important environmental function related to the purification of water and the provision of natural barriers to control flooding and erosion. Other forms of intangible value provided by certain kinds of agricultural activity are animal health and food safety. Multi-functionality is way of making explicit the ways that agriculture creates value for society, with a view to ensuring that these sources of value are not eroded or compromised by the competition to produce commodities for the lowest prices and in the most competitive way possible. It seems clear that multi-functionality will play an important role in the future of agriculture in Europe.

Multi-functionality is not only a feature of agricultural activity – it is an essential feature of all economic activity. Some rural regions have started to consider the implications of the multi-functionality of non-agricultural activities for development

policy. In particular they have been looking at activities such as energy production, small scale industry and specialised production. Public services such as post-offices, schools and clinics also play a multi-functional role in the rural economy. The Nordic countries are especially advanced in this kind of thinking and the region of South Savo in Finland has put a lot of emphasis on energy production in particular. Although these sources of multi-functionality have not been explored to the same extent as agriculture it is likely that they will play a role in the development of policy in sparsely populated regions in the future<sup>5</sup>.

The logic of multi-functionality has created a new industry – an industry for the production of intangible public goods, and it has provided a basis for the diversification of revenues derived from agricultural activity that are compatible with WTO rules and enhances the viability of extensive farming. However there is considerable scope for improving the competitiveness of agricultural production by enhancing the ability of producers to innovate both in terms of product and productivity.

## The Future of Agriculture in Europe

It is no longer reasonable to base policy for the development of the agricultural sector on considerations of production alone. From the point of view of regional development the issue goes beyond the productivity of individual farms and touches upon the competitiveness of the whole chain of production. It is necessary to consider the whole value chain from the farm-to-the-fork or from the stable-to-the-table as people often say. Competitive production is only sustainable when it is embedded in an efficient system of services such as harvesting, storage, distribution, packing and processing. One of the challenges of innovation in the agro-food domain is that it depends as much on the efficiency of systems as much as on the efficiency of individual producers. These remarks are intended to highlight some aspects of the challenge of diversification of agricultural activity.

Considerable knowledge and expertise is required to understand and present viable alternatives to current forms of production. The Rhodops region

<sup>4</sup> A good point of reference is the website of the Irish Heritage Council at [www.heritagecouncil.ie](http://www.heritagecouncil.ie) and Gabriel Cooney at the Department of Archaeology in UCD – [Gabriel.Cooney@ucd.ie](mailto:Gabriel.Cooney@ucd.ie).

<sup>5</sup> For more on this contact Jorma Vilhunen at [Jorma.Vilhunen@te-keskus.fi](mailto:Jorma.Vilhunen@te-keskus.fi)





If development policy is to have a sustainable economic impact it must address the value chain from the farm to the fork. This will require a comprehensive and coordinated approach in terms of the interventions of different ministries and their agencies. **A Foresight initiative can play an important role in mobilising these actors and helping them to understand why and how they need to work together to achieve long-lasting development goals.**

of Bulgaria is a good example of a region that has recently experienced high unemployment and declining agricultural output. It has many small farm holdings that are in poor condition and a variety of different soil types and climates. It also has the potential for diversification of production in terms of flax, walnut, hazelnut, almond, plum, apple, cherry, sour cherry, strawberry, raspberry, blackberry, bilberry, aronia, lavender, camomile, thyme, wild savoury, marjoram, rosehip and mint. It also has potential to develop ecological production for example based on wild-growing herbs and fruits. It could produce cereals such as rye and increase its production of rabbits, sheep, buffalo and goats in addition to its current production of cattle, wheat, barley, tobacco and potatoes. The region faces a very complex set of options for the development of the agricultural system. This region has the potential to reach a high level of

competitiveness in production but the choice of what to produce will also depend upon the feasibility of establishing a system to support the whole value chain, the existence of markets of sufficient size, agents with the ability to enter those markets, the seasonality of production, the ability of the region to brand itself as a producer of quality, the availability of finance to support the necessary investments as well as the appetite of local producers based on their culture, tradition, identity and sometimes even a sense of crisis to try something new. The diversification of agriculture requires the cooperation of very many independent actors. A foresight activity that brings these actors together to develop a vision for the development of agriculture in the region would lay a basis for well-grounded and robust decision making.

Ireland is now the number one exporter of mushrooms in Europe. **The success and growth of this industry was largely due to the presence of a company in the 1980s – Monaghan Mushrooms – that organised the supply of quality produce for supermarkets on the basis of contract growing.** This company also took a pro-active role in helping farmers and non-farmers to move into mushroom production by providing training and technology on reasonable financial terms.

**“Farmers need to change from thinking in terms of what we can grow to what we can sell”**

Govert Gijsbers from TNO-STB the Netherlands

## The Diversification of Rural Economies

It is important to manage land use not only for the well being of those involved in farming as a business but for society as a whole. Nevertheless over the coming decades, agricultural production as an industry sector will provide employment for a decreasing share of the population. From an employment perspective most people living in rural areas will earn their living from other activities. Many regions of Europe are already confronted by important challenges arising from high rates of rural unemployment. Rural areas therefore face the same challenges as other regions in terms of the need to create new business opportunities, encourage and promote entrepreneurship, attract inward investment.

To retain and strengthen existing enterprise, measures will be required to increase high value-added economic activity, stimulate innovation and technology transfer, promote the development of quality systems and encourage access to foreign markets. Rural areas with competitive agricultural production can pursue strategies to develop competitive world-class industries based on the production of food, energy and other industrial crops. Regional development plans will involve measures for training, research or business development, access to credit, venture capital or loan guarantees and support for technology transfer.

Planning for success may mean anticipating increased pressure on the local transport and housing infrastructure as well as a need for demand driven local RTD and Innovation services. From the available options and choices - which are the best ones? What are the robust ideas that have secured broadly based support and a high level of commitment from political actors? This is

especially important if a regional development plan must appeal to authorities that are not regionally based. To ensure this, a foresight action can be of benefit. Important groups to involve are local industry representatives that are being encouraged to respond to the unemployment challenge in terms of greater or higher risk efforts to achieve growth. Their concerns need to be understood if realistic policy options are to be formulated.

Areas with tourism potential may consider specific measures to develop this as a new industry sector. Areas that are rich in tradition or cultural heritage, that have places of natural beauty and sites suitable for sporting activities, concerts or festivals may consider the feasibility of developing a rural tourism industry. The creation of a new industry sector based on existing competencies and resources will require the cooperation of a great number of local actors. A deliberative and broadly based dialogue with regional stakeholders – possibly with help from outside experts – will therefore be required to understand the feasibility of a rural tourism response to the unemployment problem. These steps will depend on a shared vision of what the region will become as a tourism destination, what kind of tourism service can be provided and by whom. Foresight has an important role to play in mobilising actors to take a first step in the diversification of the local economy based on a positive attitude towards the changes that will accompany these developments.

Although new enabling information and communication technologies have the potential to increase the employment options available, levels of education and access to appropriate knowledge infrastructures for training, RTD, Innovation and technology transfer will matter more than it ever did before.



## 6. The Role of Knowledge in Rural Economies

The capacity to create knowledge and to harness it for growth is central to the concept of the knowledge society. Science and technology is no longer the sole concern of scientists and engineers. All members and all sectors of society must use knowledge as a resource to improve the way they work and live. However there are many open questions as to what kind of knowledge infrastructure is appropriate in rural areas. This is one of the most important issues to consider for the long-term viability of rural economies.

Institutes based in rural areas do not enjoy the same operating conditions available to universities based in major urban centres such as proximity to large populations, physical ease of access to the transport networks of the world and the possibility of economies of scale to justify support for research or teaching in a broad range of disciplines. The reproduction of knowledge-infrastructure for urban environments on a rural scale is unlikely to meet the needs of the rural economy. The logic of global excellence that dominates the culture of national RTD and Innovation infrastructure needs to be complemented at regional level by a logic that is regional and demand-driven. A regional knowledge infrastructure should possess unique and irreplaceable assets based on its proximity to local actors and should measure its performance based on its ability to respond to local needs. An inclusive knowledge society is one in which all members of society systematically harness knowledge as a resource and not just the trained scientists and talented innovators. The rural regions of Europe are endowed with knowledge that is valuable but local in terms of the traditional abilities, memory, culture and the place-specific know-how of those who live there. This

knowledge is generally not accessible at national level. What kind of infrastructure is required to leverage such knowledge assets and develop them with a view to achieving a sustainable rural economy that provides prosperity and a high quality of life for all those who live there?

A Foresight exercise on these issues could play a very important role in helping people to interpret the ideal of a knowledge society in rural areas, to reach a shared understanding of the role that knowledge plays in the regional economy, to see their knowledge needs and to understand what forms of knowledge infrastructure can best respond to them.

### Knowledge-Intensive Multi-Functional Agriculture

The multi-functional nature of agricultural activity is exemplified by the example of wine production in regions such as Lombardy in Italy. Lombardy is famous not only for the production of wine but as a destination for tourism. Its popularity as a tourism destination is intimately linked to the structure of the countryside in terms of terraced vineyards, farmhouses and country roads. However wine grown in terraces is more costly and labour intensive to produce than wine grown using modern methods in flat open fields. If wine growers in the region were to use only the most competitive currently available methods for growing and harvesting, they would destroy much of what the region has to offer in terms of landscapes – the basis for a vibrant tourism industry. This clearly illustrates how farming can create a valuable public good and why it makes sense to

The food industry has on the one hand developed into a highly innovative science and technology based branch of economic activity. At the same time it has remained an area in which certain food products are still produced using age-old techniques. It includes both global players and local producers. **These structural extremes pose a unique challenge to the development of the food sector at regional level in rural areas.** Research, development and vocational training are essential parts of a strategy to deal with unemployment in regions that depend on the food industry. These instruments must be tailored to the needs of each region and market. They need to address the knowledge needs not just of production but of all related businesses in the region.

subsidise farming for the production of these public goods. In effect farmers are compensated for employing inefficient methods of production because the by-product of production in terms of a valuable man-made landscape is of importance to the local economy. The issue of whether or not a specific method of production provides a public good is highly contextual and dependant on the locality and the other forms of capital that have accumulated there.

The fact that wine grown on terraces is less competitive as a commodity than wine grown using common varieties and most modern methods in open fields, provides a clear challenge to the research community to develop varieties as well as methods of cultivation and harvesting that improve the competitiveness of wine produced under these conditions. National research institutes may have difficulty responding to such challenges as their efforts will have greatest impact when they are focused on the needs of the biggest producers and the most typical land-use configurations. Such research will be of less benefit to wine growers in regions that are dominated by atypical farm configurations and where farm productivity is based on the logic of multi-functionality. A regionally based research program is required to increase margins and continually improve production within the region. Foresight initiatives are required to explore the future of farming in a region-specific way, taking account of the role of multi-functionality and identifying the kind of knowledge required to improve its viability.

This line of reasoning can be applied to extensive farming in general by virtue of the role that multi-functionality will play in ensuring the viability of farms of this kind. The precise character of extensification is a region-specific issue that can most efficiently be addressed by research efforts at regional level with a view to improving the incomes of regional based farm enterprises and offering alternatives to abandonment.

## Knowledge-Driven Rural Economies

Rural communities will need support from a knowledge infrastructure that is able to address their specific needs. Universities have a role to play here but other forms of infrastructure are also required. In terms of research this means services that are based on a deep understanding of the situation of local producers that are aware of options for development in that region and that are able to respond to demands as they arise. This regionally based demand-driven approach to research and innovation needs a totally different funding approach from that applied to universities and national research institutes. University research is guided by a focus on global excellence designed to attract the best brains to a curiosity driven research agenda and national institutes are driven by national needs. For purely practical reasons neither can respond to the differentiated needs of each region. Knowledge regions are regions in which the knowledge-needs of all producers are met and not just those of large, world class actors, capable of independent research themselves.

Modern agricultural production is embedded in a system of science and technology intensive services for cultivation, harvesting, processing, packing and distribution. New practices based on improvements to machinery and systems are continuously being developed. New information technologies based on GPS and RFID as well as wireless network infrastructures are changing the way people work. New plant and process technologies are being created for the production of renewable energy and 'factory' crops. Innovation is an important part of agriculture related economic activity and the farmers of the future must find ways to harvest knowledge just as well as they harvest crops.

Agriculture and related industries must consider the impact of the life sciences especially biotechnology on methods of production, and the relationship between production, human health, genetics and animal-nutrition. It is reasonable to expect farmers or those involved in other parts of the food chain to understand how science and technology can transform the way they work. They can rely on the example of demonstration farms and the advice of specialised service providers to stay up with advances.



Keenan Industries - an Irish SME that started out manufacturing steel structures and moved into the development of machinery for the feeding of cattle now applies leading edge research on animal nutrition to help farmers radically improve the yields and quality of produce from their dairy and beef herds while optimising the use of resources grown on the farm. **They have enabled a knowledge intensive approach to milk production.** As a result **the farmer no longer simply buys animal feed it buys a science-based knowledge-intensive feed-service** that applies the latest results of research in animal nutrition and feeding strategies to improve the farmer's bottom line.

Advisors and high value added service providers will play an increasingly important role in the economy of rural areas. The box on the right provides an example of a modern provider of high value added knowledge intensive services to the beef and dairy sector in Ireland. A previous box referred to a similar provider of technologies and services for mushroom production. These examples illustrate what a knowledge based rural economy could look like and indicate how a rural economy can diversify by building upon its strength in production. The regions in which these companies are based have not only become better producers of agricultural commodities they have become exporters of technologies for agricultural production as well. Competitive sustainable rural economies will increasingly depend on the presence of such actors, mainly because of the role they can play in directing research efforts towards goals of economic benefit for the region. A foresight exercise on the future of rural economies should look at the future of knowledge intensive agricultural services and the role they can play not only as an industry sector but also as key components of the regional innovation system.

Inevitably rural economies must diversify and develop non land-based commercial and industrial activity. All sectors of industry will require support in terms of an infrastructure to address their training, RTD, technology transfer and innovation needs. The presence of such support provides a better framework for inward investment to the region. Many of the regions of Europe are poorly

served in this regard. Foresight activities involving local entrepreneurs have a very valuable role to play in the orientation of research, innovation and business development programmes that respond to needs and stimulate demand for problem-oriented research that can have an impact on the social, environmental and economic viability of the region.

## The Role of Local Knowledge in Sustainable Development

The first of the 'Key Questions' provided on page 9 as part of a reference model for a regional foresight exercise was a question about how major external drivers of change act at the regional level. Without a good understanding of how drivers such as globalisation or CAP reform will act on the local economy, it is hard to identify the actions that must be taken and the cost of not doing so in time. A detailed understanding of how drivers of change intervene at regional level includes understanding how these external forces are translated into local drivers of change, what impact will they have on industry, on employment, the environment and the way people live as well as their ability to make a living and enjoy a good quality of life. By thinking in global terms it is easy to make wrong assumptions that might result in poor policy decisions. The box-above illustrates how easy it is to over simplify complex issues as well as the importance of good research on socio-economic and environmental issues in rural areas.

The Burren is a region of the West of Ireland that is noted for its rare fauna, beautiful landscapes and rich archaeological heritage. This landscape has been farmed for thousands of years and recent changes to farming policies resulted in **the abandonment of a traditional farming** practice called wintering that was ultimately provided these high amenity landscapes. A superficial examination of the consequences of this on the local economy indicates that abandonment would be accompanied by a reduction of farm incomes. **A deeper analysis however reveals** an increase in the number of cattle farmed due to the adoption of more efficient methods, leading to micro-intensification in an area of global abandonment.

The creation of knowledge is essential for good policy making. The role of knowledge in the development and implementation of policy for a sustainable Europe is even greater than before. Much of the knowledge required for policy making however – a detailed understanding of the change management challenge, the consequence of not addressing it, and the feasibility of preferred policy options, resides with local stakeholders at local level. Regional authorities have an important role to play in making this available as an input to policy and program development processes. To do so they need to communicate extensively with

stakeholders, understand their needs and map out sustainable options for the future. This work is very complex and may require support in terms of social, economic and environmental studies conducted at regional level, the use of statistics provided at regional level, and the opportunity to carry out exploratory modelling. This is required not only as a support to the development of inputs for decision-making at regional, national and EU level, but also as a support for communication with stakeholders in the context of foresight and other deliberative policy related processes.



## 7. The Governance Challenge for Rural Economies

Unemployment is an urgent issue facing many rural regions of Europe. Strategies to reduce unemployment in rural areas draw upon the resources of ministries for agriculture, enterprise and social welfare. Strategies for new enterprise development require education, training, research and innovation. These will draw upon the competencies of ministries for higher education as well as science and technology. It is clear that integrated programmes for the diversification and transformation of rural economies will require substantial public investment and support from different parts of central government either directly or through their agencies acting at regional level.

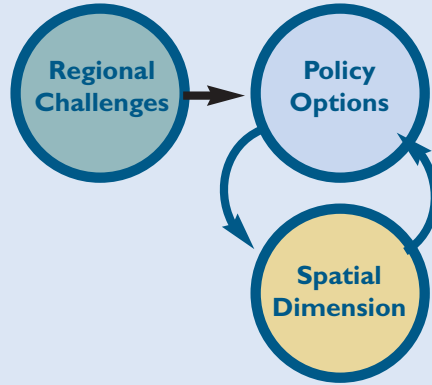
While regional authorities are well positioned to understand the needs of local actors and formulate recommendations based on these needs, they are usually in a weak position to deliver due to limited control over budget and limited authority in the design of programs for public intervention. A foresight initiative can play an important role in bringing together representative from different parts of government to come to a shared understanding of these needs and recognition of their legitimacy by participating in a rigorous and broadly based process of vision building for the future. It is essential to involve representatives from different ministries in such long term visioning exercises. It is essential to involve those that can be part of a solution and incorporate them into the vision building process. This imposes a burden of work on the leader of the foresight initiative in the sense that in the pre-foresight phase at least, they and the members of the core group should develop a detailed concept of what they expect in terms of an action plan. Only by anticipating who will be 'part of the solution' can steps be taken to involve them in the exercise.

### The Spatial Dimension of Socio-Economic Development

The changing use of land in rural areas as can be observed in the intensification, extensification and abandonment or agricultural activity as well as the evolution of peri-urban areas has an inherently spatial dimension. These changes will be accompanied by changes in the spatial distribution of populations, age-profiles and levels of economic activity as well as changes in the level of demand for utilities, transport infrastructure and government services such as the provision of healthcare and education. GIS technologies are widely available and very useful for visualising spatial patterns of change. These are useful tools to support open and broadly based discussion on the nature of change facing rural regions and the effect that this will have on the lives of people living in an area. These tools can be used to explore the effect of policy choices on the spatial distribution over time of land-use, population, income, age group and other socio-economic variables. They are very good for exploring complex issues, asking what-if questions and examining the consequences of situations that are hard to describe in simple terms.

Complex issues often do not have simple unique answers and sustainability is one of the most complex issues that policy makers face today. It is quite likely that the only way to effectively engage a broad audience in a realistic discussion on the sustainable development of the rural economy will be to use such tools to illustrate issues in a visual and dynamic way. More specific challenges such as rural unemployment evoke a great number of possible policy options, all of these have a significant impact on society and will affect the way in which the territory develops from a spatial point of view. The ultimate aim is to reach a shared understanding of issues that are complex and interlinked, that is good enough to enable reasonable discussion and compromise, to enable a group of people with different backgrounds and diverging interests in the region to explore the

Dialogue on Social Economic & Environmental Implications



meaning of sustainable development in terms of a balance between issues that are economic, social and environmental.

**Planning for a Sustainable Future**

Governments may try to optimise land-use by providing land-use policies and incentives that favour certain kinds of development. Investments in infrastructure tend to be very significant and this approach is part of an effort by government to ensure that the investment has some kind of ‘optimal’ impact. However the ‘optimisation’ of development is a complex issue. Agreed criteria

can be both qualitative and quantitative. Even when criteria are agreed, planners know from experience that much depends on the scale at which optimisation is carried out. In the case of a major development project experienced planners would expect different optimal solutions depending on whether the goal is to optimise at the level of the town, the region or the nation.

Planning is sometimes compromised and execution is often delayed by NIMBY-ism<sup>6</sup>. Typical examples of this occur when local groups of people oppose development projects such as incinerators, large masts or antennae, wind-turbines or sites for the disposal of nuclear waste.

**Ministries for Transport** can make an important contribution by getting involved in earlier stages of the planning processes - by contributing to activities related to the anticipation and management of transport demand as well as the exploration of options for transport service provision.

**Note:** This is a paraphrasing of remarks of Niall Cussen of the Irish National Spatial Strategy in the Department of the Environment, on the occasion of the Irish Presidency meeting on Foresight for Innovation in June 2004.

Issues that are social or cultural are often hard to anticipate. They may be rooted in ideology, tradition or local identity. These factors are important at a personal or local level and they may require some form of bargaining or negotiation to resolve.

A working group on sustainable spatial development in Dublin in June 2004 referred many times to a need for openness, fairness, equity, tolerance, compromise, responsibility and leadership as

prerequisites for the success of spatial planning strategies for sustainable development. They concluded that the world is too complex and too fast moving to plan on the basis of the traditional predict-and-provide approach and referred to a need for a more anticipatory logic<sup>7</sup> to guide planning processes. Advanced democracies should take account of the culture and identity of various stakeholders within the region as well as their expectations and desires for the future. Foresight

<sup>6</sup>This word NIMBY is really an acronym that stands for **Not In My Back Yard**

<sup>7</sup>Conor Skeehan of the DIT speaking at the Irish Presidency meeting on Foresight for Innovation held in Dublin on 14 and 15 June 2004





**Fish farming provides an important employment opportunity in many coastal areas.** Difficulties arise however where local government has secured foreign direct investment to establish fish farming activities, but where those plans are abandoned due to the actions of environmental organisations objecting on the basis of a desire to preserve areas that are valuable for their sense of remoteness. It is not always clear to what extent such actions satisfy the real needs of the community. This highlights an important challenge for regional development - how to reconcile needs that appear to be in conflict? Such **complex issues require deliberation** to understand the wishes of different groups. Foresight exercises provide opportunities for creative thinking about how to resolve conflicting needs and interests. It can provide a basis for compromise or successfully negotiated outcomes.

can play a role in this by providing a long-term vision for development based on a broadly based understanding of the meaning of fundamental issues such as 'sustainability'. Planners have an important role to play in this process.

## Complexity and the Challenge of New Legislation

It is not possible to create legislation that has a uniformly low impact on the operations of all stakeholders in all regions under all conditions. It is inevitable that contradictions will emerge but these in general are local issues.

**The EU Water Framework Directive** is formulated in terms that characterise lakes, rivers and other relevant features. Under this directive a different regulatory regime applies to lakes that have clay or stony bottoms. Many lakes are situated adjacent to land that is farmed. Cases arise where similar farms situated beside lakes are treated differently under the directive. This may mean a difference in impact of the legislation on otherwise similar farms. Unexpected and complex questions arise at regional level about the precise impact of such legislation on individual farms and their equitable treatment.

Many areas designated under the **Natura and Habitat Directives** are cultivated as farmland. Farmers often oppose such directives because of the uncertainty they create as to the restrictions that may be imposed on farming practices. They are concerned that the directives will limit their ability to adopt more efficient methods of farming, to diversify or to invest in infrastructure.

In many regions of Europe water pollution is caused mainly by the presence of phosphates

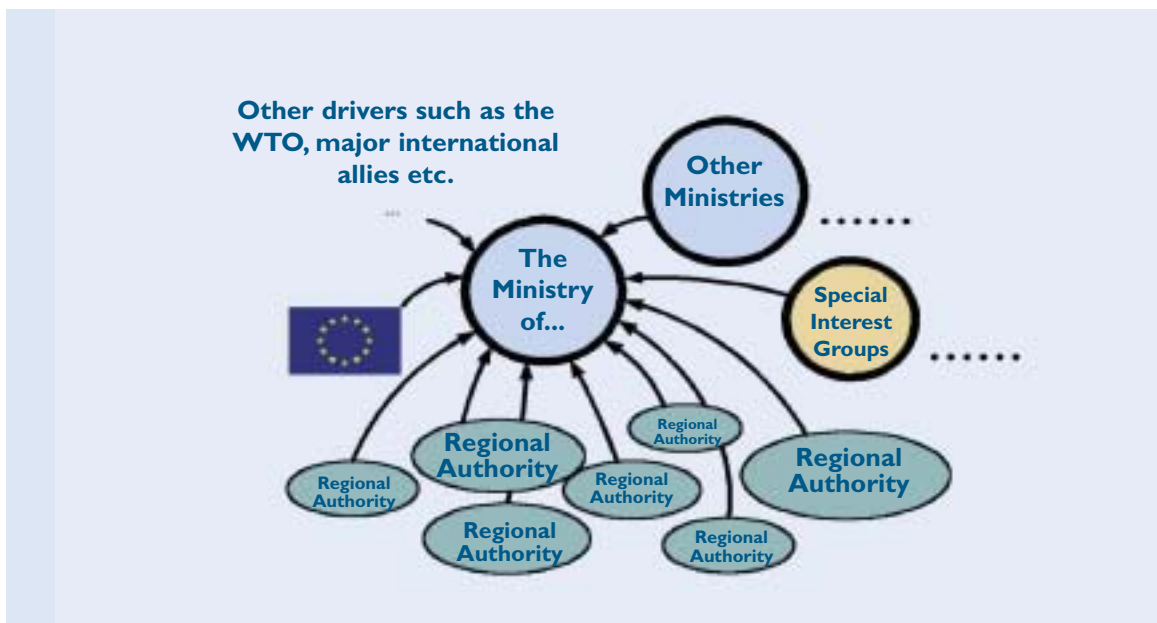
rather than nitrates. In such areas compliance with the **EU Nitrate Directive** will place a burden on farmers but will have little or no impact on water quality in these or neighbouring regions.

Directives dealing with **Waste Materials** cover the handling of animal manure. The disposal of such waste is an issue of public concern especially near built up areas in terms of air and water quality and it has a strong 'spatial' dimension. A further complication in rural areas arises where farm pollution does not have a point source. Accordingly its interaction with the environment is complex and hard to model and control. Directives relating to pollution, water-quality and waste disposal are interrelated. Their implementation requires cooperation between the agricultural sector and enforcement agencies.

These examples are intended to illustrate the difficulty of creating legislation that suits all actors, the inherent complexity of spatial considerations and the need for inclusive deliberative approaches to policy for the sustainable development of regions.

## The Synchronisation of Public Intervention

Countries that have a sectoral approach to the development of the agro-food industry are very much aware of the shortcomings of this approach. It is not sufficient to address the production of agricultural goods independently of other functions in the value chain. The role of industry clusters as well as value-chains linked to production must also be considered. Not only do farm enterprises require support in terms of training and help with the adoption of technologies, other actors require support including those involved in packing, processing & distribution.



The problem is not easily addressed. For example agricultural production is the competence of the Ministry for Agriculture whereas packing and processing is often the concern of the Ministry for Industry. The demands of consumers in terms of quality, safety and traceability raise the standard required of these services and create more needs in terms of training and investment that extend throughout the agro-food chain. Often a different ministry deals with health and food safety, another with the environment, and the ministry for transport may have a strong interest in distribution systems.

Each ministry interacts independently with regional authorities on issues that are of importance to them and inter-ministerial issues tend to feature fairly low down the agenda. Each ministry has a limited knowledge of the systemic needs of a regionally based agri-commodity value-chain. Effective public intervention requires the synchronisation of programmes across the whole chain by a number of different agencies. Complex organisations however well structured are full of gaps reflecting needs for which they have not been explicitly designed. It is therefore difficult for central government agencies to coordinate interventions at the level of the value-chain or regionally based industry cluster.

## The Role of Regional Authorities

The burden of initiative therefore lies with the regional authority. The essential challenge that they face is the challenge of bringing together in one region independent policy interventions so as to have the greatest impact on the regional economy.

A Foresight initiative is a good way to prepare the region to meet this challenge.

A foresight initiative intended to benefit the agri-food value chain should involve all major actors in the value chain as well as all agencies or representatives of ministries whose resources might be called upon to intervene with the goal of increasing competitiveness throughout the agri-food system.

Governance systems at regional level differ greatly from one country to another. The State Provincial Office of Eastern Finland for example is a joint regional authority shared by seven different ministries. It promotes both national and regional objectives of the state central administration. It promotes and evaluates the provision of local services for which these ministries are responsible.



In other countries mechanisms for coordination are more complex. In the case of Ireland a great number of structures exist at regional level as agencies of different ministries. For example in addition to Regional Authorities and Regional Assemblies, there are County Development Boards, County Enterprise Boards, Town Councils, Local Authorities, Community Development Programmes, Area Partnerships, LEADER companies, Regional Tourism Authorities, Regional Health Boards as well as regional offices of TEAGASC the national food and agriculture development authority, Enterprise Ireland and the IDA. These organisations all have different levels

of autonomy in the region and access to different financial resources.

As suggested in the diagram above the regional authority who conducts a foresight exercise has a key role to play in managing communication between the stakeholders on the one hand and the relevant sponsors from government administration. One of the most important tasks at the start of a foresight exercise is to understand which ones are important for the issue being considered as well as how and when to involve them in the exercise.

## Contact Information for the Members of the Agriblue Working Group

Expert	Organisation	Email
Atanas Atanasov	Agribio Institute in Sofia, Bulgaria	atanas_atanassov@abi.bg
Vasilka Grumova Balabova	Bulgarian Ministry for Agriculture and Forestry	v_galabova@mzgar.government.bg
Patrick Crehan	CKA - Brussels	Patrick.Crehan@cka.be
George Cristodorescu	GTZ Germany	George.Cristodorescu@gtz.de
Tszetan Dimitrov	Bulgarian Ministry for Agriculture and Forestry	tz.dimitrov@mzgar.government.bg
Dermot O' Doherty	Intertrade Ireland	info@intertradeireland.com
Paul O'Donovan	Welsh Development Authority	paul.o'donovan@wda.co.uk
Liam Downey	National University of Ireland - Maynooth	rhona.bradshaw@may.ie
Gerry Finn	BMW Regional Assembly	gfinn@bmwassembly
Pierre le Foll	Regional Authority of Brittany	p.lefoll@region-bretagne.fr
Govert Gijsbers	TNO Strategy, Technology & Policy – The Netherlands	gijsbers@stb.tno.nl
Juliet Harvey	Scottish Development	Juliet.Harvey@scotland.gsi.gov.uk
Ryszard Kaminski	Polish Academy of Sciences, Institute for Rural and Agricultural Development	r.kaminski@pro.onet.pl
Ferenc Kovats	Hungarian National Foresight Program	Ferenc.Kovats@om.hu
Sirpa Kurppa	MTT - Finland	Sirpa.Kurppa@mtt.fi
Yves Leon	INRA - France	Leon@roazhon.inra.fr
Neda Leonaviciute	UNDP - Lithuania	neda.leonaviciute@undp.org
Polina Evdokimona Marina	Bulgarian Ministry for Agriculture and Forestry	polina@mzgar.government.bg
Yves Morvan	Regional Authority of Brittany - France	cesr@region-bretagne.fr
Kieran Moylan	BMW Regional Assembly - Ireland	kmoylan@bmwassembly.ie
Edyta Prosinska	Polish Ministry for Agriculture and Rural Development	Edyta.Prosinska@minrol.gov.pl
Werner Repenning	The Regional Innovation Strategy of Weser-Ems, Germany	werner.repenning@br-we.niedersachsen.de
Jobst Seeber	DIALOG – The Carl von Ossietzky University of Oldenburg	seeber@dialog.uni-oldenburg.de
Christian Svanfeldt	European Commission	Christian.Svanfeldt@cec.eu.int
Phil Thomas	Artilus – United Kingdom	Phil.Thomas@artilus.co.uk
Elitsa Valentinova Zdravkova	Bulgarian Ministry for Agriculture and Forestry	e.zdravkova@mzgar.government.bg
Jorma Vilhunen	Employment and Economic Development Centre for South Savo - Finland	jorma.vilhunen@te-keskus.fi
Renata Zielinska	Polish Ministry for Agriculture and Rural Development	Renata.Zielinska@minrol.gov.pl



## Background Papers of the Agriblue Working Group

Paper	Availability
Sustainable Territorial Development of the Rhodopes Region in Bulgaria	Atanas Atanasov
Slides for the core group meeting in Brussels on 29 & 30 March 2004	Patrick Crehan
Agriblue presentation for the Galway meeting on 13 May 2004	
A Taxonomy of Rural Development Challenges	
A Maturity Model for the Governance of Sustainable Rural Economies	
Foresight from a knowledge management perspective	
The Future of Rural Ireland	Liam Downey
Knowledge Agriculture – perspectives towards a new model of milk production	
'Finland & South Savo - Active Policies for Innovation and Change'	Jorma Vilhunen
'The Environmental Programme of South Savo 2005-2010'	
from the South Savo Environment Centre	
'The Environmental Strategy of Mikkeli region, Mikeli Agenda 21'	
from the Environmental Services of Mikkeli City	
'Eastern Finland Energy Strategy' from the Regional Energy Strategy of Eastern Finland	
'Poland-Lubelskie Employment Pacts'	
Two Polish Regions – an overview of policy challenges	Ryszard Kaminski
Initiatives for the activation of Rural Poland	
Polish Unemployment	
Sustainable Livelihoods	
Social inequality in Rural Areas in Hungary	Ferenc Kovac
Breton Challenges	Yves Leon
Breton Foresight	
Sustainable Territorial Development	
Challenges to Sustainable Territorial Development in the BMW Region	Kieran Moylan
Department and Agency Roles in the BMW Region	
Sustainable Regional Development in the Weser-Ems Region of Germany	Jobst Seeber
RegIS-Online - A Regional Business and Economic Information System on the Internet	