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SPECIAL ISSUE: FORESIGHT AND REGIONAL DEVELOPMENT

**2 Editorial. Regional Foresight -
Future-Proofing and Validating
Development Strategies**
James P. Gavigan and Fabiana Scapolo

**Creating Vision in the Regions:
A Framework for Organizing
Regional Foresight**
*Michael Keenan, Ian Miles,
Francois Farhi and Denis Lecoq*

**Measuring and Maximizing
the Impact of Regional Foresight**
Fabienne Goux-Baudiment

22 Foresight in Cross-Border Cooperation
Birte Holst Jørgensen

**31 The Merits and Challenges of the
Deployment of Foresight Methods
in Less-Developed Regions**
Michele Capriati

**38 Mobilizing Regional Foresight Actors
to Strengthen the Strategic Basis
of the European Research Area Society**
*Günter Clar, Dimitri Corpakis
and Mikel Landabaso*

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Special Issue: Foresight and Regional Development

2 Editorial. Regional Foresight - Future-Proofing and Validating Development Strategies

6 Creating Vision in the Regions: A Framework for Organizing Regional Foresight

Deploying Foresight effectively in a regional context requires appropriate design and thorough planning. These are areas where a structured analysis and classification of a number of critical institutional, technical, and practical issues may be valuable.

13 Measuring and Maximizing the Impact of Regional Foresight

Regional Foresight is becoming increasingly common in many parts of the world, but underlying practices and methods could be improved. These improvements need to be guided by a better understanding of its impacts on public decision-making.

22 Foresight in Cross-Border Cooperation

Cross-border cooperation has long been a focus of efforts to achieve European integration. A recent project in the Baltic Sea area shows how Foresight can add value to such endeavours.

31 The Merits and Challenges of the Deployment of Foresight Methods in Less-Developed Regions

The principle of "Partnership" constituted an important innovation in regional policy making and planning practices in recent years but has not succeeded in giving policies a long-term outlook. Foresight methods may help redress this shortcoming.

38 Mobilizing Regional Foresight Actors to Strengthen the Strategic Basis of the European Research Area

European initiatives complementing and networking national and regional Foresight exercises can help ensure that all levels of governance can benefit from the added value such activities can provide.

NOV 27 REC'D

global concerns, and is perceived from the regional perspective to be of little value.

Very many – though not all – regional issues are quite different from national and international issues. Furthermore, the level of dependence/autonomy with respect to higher levels of governance is critical for regionally based actors. An additional complicating factor in the case of regions in the EU is the high degree of variability of governance structures and basic socio-economic conditions (levels of development), both within countries (e.g. north versus south of Italy) and between countries (e.g. considerable decentralization in Germany and Spain, versus the relatively high degree of centralization of France).

The articles all assume a minimum understanding of the basic concepts covered – foresight, regional development, planning and policy analysis².

This special issue begins with the article by Keenan *et al.*, which stems from the work of FOREN, and is aimed at practitioners who might be considering setting up some sort of regional foresight activity. In particular it presents and discusses an approach to scoping and framing a regional foresight exercise. Goux-Baudiment discusses more generally the link between regional foresight methods and the need to measure the real impacts – direct and indirect – of regional foresight, while highlighting some of the difficulties involved in this. Both of these articles draw on a number of different cases to illustrate their arguments.

The article by Jørgensen introduces and analyses a quite novel and interesting case of territorial foresight in the context of a cross-border region spanning parts of Sweden, Denmark and northern Germany (the part of the south-western Baltic Sea referred to here as the STRING region). This is a powerful example to show how the process of foresight can bear valuable fruit in situations that

would appear to be quite forbidding in terms of the complexity of institutional actors and administrations involved, and the language barriers, etc. Jørgensen emphasizes the need to build the democratic legitimacy of the foresight activity cautiously via existing political-administrative institutions, and not seek to create some new structure for this purpose.

The particular case of the application of foresight to less-favoured regions is covered by Capriati. He argues strongly for foresight as a means of fostering more robust and strategic local development partnerships with sustainable long-term strategies that traditional methods have failed to achieve.

The final article by Clar *et al.* presents a forward-looking view on how the policy scene at the EU level is developing, particularly in relation to the conjunction of research, innovation and regional-development policies. The article places particular emphasis on the importance of mobilizing regionally based foresight actors and actions within the new family of EU policy programmes. These reflect more and more the participative and inclusive philosophy of open coordination, which is itself a hallmark of foresight.

In addition to the messages and insights which the individual articles develop, a number of other more generic points emerge which are worth stressing, as well as the ways in which they are corroborated by the different articles, whether explicitly or implicitly.

1. *The emergence of foresight as a new way of informing policy and strategy development is an inevitable response to the increasing difficulty of making appropriate and robust decisions in the midst of rising uncertainty.*

This theme cuts across all the articles. The new open coordination approach to policy-making at EU level reflected in the Lisbon Strategy (Clar *et al.*)

feed into regional foresight as one among many other external inputs, and vice versa.

This is one of the initial premises and rationales for regional foresight that was widely tackled by the FOREN Network – it underlines the need for specific methods and a customized approach (Keenan et al.; Goux-Baudiment). Two of the forthcoming articles also deal explicitly with this theme – e.g. that by Miles and Keenan⁵ on the multiplicity of ways in which regional foresight and national foresight can be articulated. The other by Palma⁶ focuses more specifically on the role that regional foresight can play in relation to national technology and competitiveness policies.

Conclusion

Foresight is a convenient and evocative label for a very real trend in prospective studies as applied to strategy and policy planning. Its rise to prominence is driven by real needs and the failings of more traditional approaches. It refers more to an approach or philosophy of doing things rather than to specific techniques. One of the most important sets of practices Foresight comprises emphasizes interactive and

participative methods of analysis and decision support. Whether or not the label persists or disappears in time is independent of the changes the trend is bringing about in the ways in which strategic futures work is carried out. Ultimately, foresight, strategic futures, or whatever we wish to call it, is a means to an end. What is important is that those involved in making and shaping strategy and policy at whatever territorial level of governance have the best possible information and means of anticipating future threats and opportunities available to them. The foresight trend, if anything, can help to embed in both decision-makers and wider society and educational systems the inclination and means to consider the future as carefully as the past and the present.

Finally, as foresight moves into the regional development arena, it is more likely to develop in a much greater variety of ways than it has at national level. If so, this would be beneficial for all the stakeholders concerned. But it also seems likely that the relative weakness of regionally-based institutions compared to national ones calls for a higher level of support to help develop and embed foresight processes and to foster a natural disposition to consider long-term views in regional and local planning.

Notes

1. FOREN and regional foresight issues were briefly introduced in an earlier article entitled Foresight and the Long-Term View for Regional Development (James P. Gavigan and Fabiana Scapolo), The IPTS Report issue 56 July 2001 (<http://www.jrc.es/pages/f-report.en.html>)
2. The article mentioned above may also help to set the scene for the reader.
3. COM (2000) 6 Towards a European Research Area, January 2000.
4. Searching for Time-Space Sensitive Policies on Urban Development: The ARCS Concept on Prospective Planning, forthcoming - The IPTS Report issue 61 Feb. 2002.
5. Bringing It All Back Home: Linking National and Regional Foresight, forthcoming - The IPTS Report, issue 61 Feb. 2002.
6. New Technological Paradigms and National Competitiveness: Potential for Regional Foresight, forthcoming - The IPTS Report, issue 61, Feb. 2002.

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Fabiana Scapolo is a

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The first parameter that will need to be considered concerns the **focus** of the exercise. There are undoubtedly a number of ways to think about the focus of any foresight exercise, but we have opted for the following classification in the regional context:

- *Social*, where the emphasis is on human development, covering issues such as demography, settlement, mobility, identity, sense of belonging, citizenship, networks, human capital, education and training, and healthcare.
- *Science and Technology*, where the emphasis is on technological developments on the one hand, and market opportunities and social needs on the other. This has been the most common focus at the national level, but is where results at the regional level are often less relevant.
- *Sector development*, where the stress is on economic development, with activities often focused on enterprise clusters, SMEs, industry associations, etc.
- *Territorial vision*, where the region is considered as a whole as the nexus for four main global issue areas: geography (resources, environment, etc.), geopolitics, economy and human development.

In fact, most regional foresight exercises do not have a single focus, but a combination, as shown in the matrix diagrams in Figure 1. Here, two regions

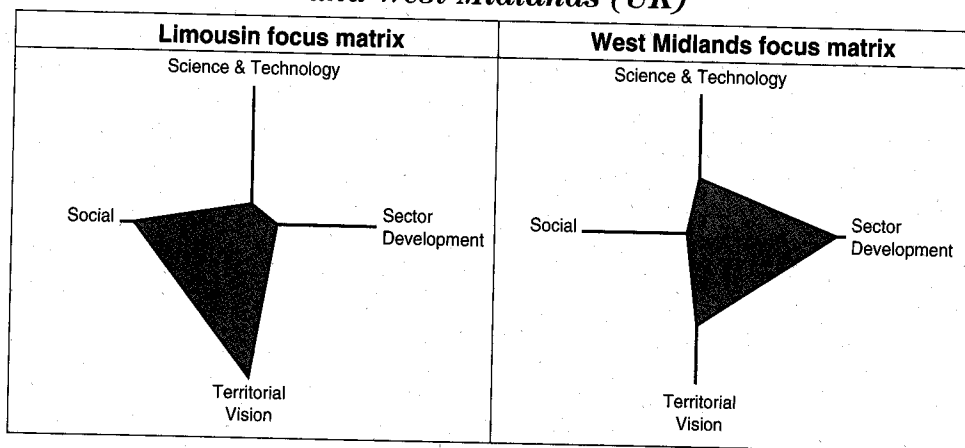
are shown, one in France (Limousin) and the other in the UK (West Midlands). It is interesting to note the contrast in foresight focus between these two regions, a situation that can be largely explained by the differing extent of regional devolution in each of the countries. Thus, in France, "territorial prospective" has become firmly established over the last fifteen years, with a strong territorial and social agenda that reflects the direction of regional devolution during this time. By contrast, there has been little devolution to the English regions, such as the West Midlands, other than the recent establishment of Regional Development Agencies (RDAs), which have a predominantly business focus. It is therefore unsurprising to see that the English region's foresight activities are skewed towards business-sector development.

Related to an exercise's focus are a number of other parameters². Foremost amongst these are the **objectives** set for a regional foresight exercise. These can be variable, as shown in Figure 2, but they tend to work towards the dual goals of mobilizing regional actors and informing policy making. Next, consideration has to be given to the nature and extent of an exercise's **coverage**. For example, if a predominantly sector-development focus is to be followed, are all business sectors in the region to

The first parameter that needs to be considered is the focus of the exercise. This may be social, science & technology oriented, sectoral or territorial

The focus of regional foresight can depend on the degree of autonomy attained by the region in question and the areas over which it has competence

Figure 1. Focus matrices for Limousin (France) and West Midlands (UK)



of sponsorship also needs to be considered here, since formal sponsors are rarely the only underwriters of the activities involved – if there is widespread participation in the exercise, the time and effort of those taking part will usually have been borne by the individuals themselves or their employers.

In most instances, one or more regional public agencies has taken the lead in formally sponsoring exercises, although there are exceptions – for example, in Lombardy (Italy), a local technical university, an industry association, the Milan Chamber of Commerce, and a leading banking group sponsored a limited regional foresight exercise in 1997. In other instances, a national government or the European Commission might sponsor foresight activities in a region, a common phenomenon in the UK where the “institutions” associated with regional governance are only now beginning to emerge.

The duration of sponsorship depends upon the nature of the exercise. The recently completed territorial type “Millénaire 3” exercise in Grand Lyon took three years to complete, although 12-18 months is more usual, even for the more extensive programmes. Given this scale of commitment, such exercises are conducted only every 5-10 years. The approach in the UK has been somewhat different, where regional foresight activity could not be considered, in most cases, to amount to an exercise or programme on the scale seen in France. Here, low-level activities are being funded on a continuous and rolling basis by the national government.

Although money and time are important considerations, there are other resources that will need to be secured and exploited for a regional foresight exercise. Amongst these are human, infrastructure and cultural resources. Examples include:

- The presence in the region or easy access to **expertise in Foresight** tools and methodology.

- The presence of **associative and representative structures** of different sections of society - networks, consumer/citizen groups, business associations, credit unions, chambers of commerce, leading figures in the community (public, business), etc.
- The extent to which such groups engage in **interactive/participative discussions** internally and/or with other groups.
- The extent to which such groups engage in **normal planning activities** (as opposed to foresight) or in “future” discussions internally and/or with other groups.
- The presence in the region of **latent Foresight potential** that could be mobilized with the right stimulus, i.e. the sensitivity of the various players to foresight thinking.

Tapping into these resources is rarely straightforward and requires substantial effort on the part of foresight promoters and organizers. In this respect, an ability to demonstrate political support at the highest level, which will be interpreted as serious commitment to regional action, can be pivotal. Awareness of an exercise also needs to be raised, which is something that can be done through policy documents, leaflets, workshops and conferences, media coverage, etc. Hopefully, this awareness can be transformed into a commitment to participate in a Foresight exercise.

Organization and Methodology

As mentioned, regional foresight exercises usually see the establishment of working groups that focus on a particular sector, theme, or issue. A steering or coordination committee usually oversees these groups and typically provides an exercise with direction, authority, and a transverse (e.g. cross-sectoral) perspective. Project teams are always necessary to facilitate the work of these groups, and many are located within sponsoring organizations (e.g. Grand Lyon), universities (e.g.

Foresight exercises tend to receive financial support from a variety of sources and when many actors are involved they may incur costs which are not fully quantified

Foresight exercises also need to draw upon relevant expertise and representative bodies in the region

The working groups into which the exercise is subdivided are usually overseen by a steering or coordination committee giving them direction and a cross-cutting perspective

Concluding remarks

In this article we have attempted to present the main milestones regional authorities should keep in mind when undertaking a foresight process. Although we have not attempted to provide arguments and rationales for regions to undertake foresight, we do consider that foresight tools are highly relevant approaches to adopt in a fast-changing, knowledge-driven world. There are three sets of reasons:

- Over the last decade, most regions throughout Europe have built their legitimacy as policy makers in the RTD & innovation development field. There is now a need to develop the next round of policies via a mobilization of regional stakeholders. Foresight approaches are very well suited to vision building activities of this type;
- Because of the change in pace, this next round of policies should be quite different, moving from planning approaches toward more flexible and shared approaches. Here again, foresight processes, because of their mobilization and scenario building potential can be very valuable;
- Last but not least, the need to root RTD & innovation policies in a regional social and territorial vision calls for policy tools capable of integrating different foci in one process; we have tried to present various examples of the foresight approach potential to develop such integrated policies.

The added-value of foresight approaches to the policy development process is thus multi-

faceted. However, we must recognize that foresight processes are quite complex undertakings. To benefit from the potential contribution of foresight to policy making, it is necessary to undertake adequate preparation before launching foresight, to learn from each other's experiences, and to achieve better links between the technical elements of foresight and its practical application.

By drawing upon a number of exercises conducted in European regions over the last five years, we have set out in concise form some of the most important elements that must be considered when planning a foresight exercise.

In the space of this article, we have been able only to provide a brief outline of the cognitive framework for strategic choice in regional foresight. A fuller version has been developed by the FOREN network and has been included in a guide designed for regional foresight practitioners. This sets out to explain how and why foresight can be used, what the different approaches to foresight are, when and where they may be appropriate, and how the regional or local situation has to be taken into account in the design of a foresight process. A pilot project, "FOMOFO", using this framework is already underway in the Four Motors Regions⁴. It is hoped that such guidance will provide a useful resource to those contemplating and undertaking foresight in their region.

About the authors

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Measuring and Maximizing the Impact of Regional Foresight

Fabienne Goux-Baudiment, *proGective*

13
Methods and
Foresight

Issue: As Regional Foresight begins to take hold across Europe, partly aided by the European Commission through the Regional Foresight network (FOREN – Foresight for Regional Development Network), a recent world-wide Investigation of territorial Foresight has revealed both high expectations and the need to improve underlying practices and methods. Such improvements need to be guided by both better understanding and more precise measurement of the impacts of territorial Foresight on public decision-making.

Relevance: Based on a long Foresight tradition called “prospective”, particularly applied to territorial development, French experience with Foresight’s concepts and methods as well as evaluation of its impacts on public policy can make a significant contribution to the Regional Foresight knowledge base.

Regional Foresight: a recent world-wide development

A recent survey of Regional Foresight practices¹ has shown that it is now an almost world-wide phenomenon, especially in Europe, the US, Latin America and Australia. However, while methods seem to be very similar, with their emphasis on broad consultation, the reasons why Regional Foresight exercises are undertaken vary greatly and usually depend on quite specific circumstances. However, three different recurrent reasons can be identified, the first of which lies in the concept of sustainable development. This closely links ecological sustainability and community visioning, as was shown in the Queensland (Australia) Regional Foresight².

Similarly, in North and South America, Regional Foresight often aims to enable local communities to face various problems, an example being the Major Community Visioning Workshop³ of Flagstaff (USA).

In some other countries, a different motivations may prevail, such as the pressure of poverty or internal conflicts (e.g. Philippines, Colombia), where carrying out Regional Foresight is a means of bringing different actors together into a round-table dialogue. In this way, the future becomes a “neutral” space in which mediation and negotiation can be made easier.

In European Union countries, and also in Senegal, Colombia and the Czech Republic, the motivations are often political. The central issue,

Reasons for undertaking Regional Foresight vary, but often include sustainable development, the pressure of poverty, and the desire of regional authorities to express their autonomy

Measuring the impact of Regional Foresight

Regional Foresight is unquestionably a very expensive process given the substantial apparatus involved. Even so, not all of its costs can be calculated. A Regional Foresight exercise requires the participation of the maximum number of local actors, along with sufficient time and materials to complete the process satisfactorily and to produce results.

Because many people are involved, organizing such events is in itself very costly (e.g. with 15 people per workshop, 150 people involved means 10 workshops to organize, to moderate, to support with papers, data, expert hearings and so on). This also means further administrative staff, facilitators, consultants and experts have to be dedicated to the exercise. Additional expense may be incurred in providing special training to ensure awareness of general concepts and methods, producing *ad hoc* studies and data, setting up a communications system with both an internal focus (between the participants) and an external focus (towards those who are not part of the process).

The measurable costs therefore include organization, labour, knowledge, and communications. However, it is impossible to measure precise costs, in particular the cost of mobilizing people and resources. Time and energy are, of course, also required to attract people to take part. However, more than money is at stake. For example, better coordination and increased efficiency will be achieved if mobilization is managed effectively. However, any "capital" of trust that has been invested can be lost if mobilization cannot be turned into results and the expectations of change (which usually lies behind such a mobilization) are not fulfilled. The price to pay for this is usually lost votes in the next election.

The results of Regional Foresight

As shown in Table 1, Regional Foresight can yield results of several kinds. These outcomes can

be classified into four categories: political, economic, strategic, and collective-intelligence related.

The political outcomes principally concern two main areas. The first is the increasing autonomy of territories as expressed through the devolution process between the central state and an increasing number of territories. This is taking place not only in France, where it has been a common process since 1983, but also in a number of other European states (e.g. Spain and Italy) and further afield (e.g. Colombia and Canada). In this case, Regional Foresight has to generate highly practical information that can be directly integrated into official documents (e.g. plans, contracts, budgets, etc.)

The second political outcome regards the relationship between citizens and regional and local authorities. The more globalization impinges on people's daily lives, the more important the relationship of proximity between the local environmental (city, region,...) and its citizens becomes. Thus, local authorities emerge as being the most relevant representatives of authority and points of contact for citizens. This has most notably resulted in the emerging concept of city citizenship, sometimes at the expense of that of state citizenship or even regional citizenship. This phenomenon might explain the rapid development over the last few years of urban strategic planning.

In such cases, it is relatively easy to "measure" this type of impact of Regional Foresight, by means of a qualitative approach. Public-policy assessments can show if the recommendations arising from a Foresight exercise have been taken into account by public decision-makers. Such an impact assessment was in fact conducted in the French Region of Limousin at the end of its first Foresight exercise prior to beginning the second. In this case, the question is how to link the results of such an assessment closely to the preparation

Foresight exercises are clearly expensive, given what is involved. However, the total cost is extremely difficult to quantify

The results of Regional Foresight can be classified as being political, economic, strategic and collective-intelligence related

The political outcomes mainly relate to the process whereby regions in a number of countries are acquiring greater local autonomy, and to the way this is affecting the relationship between citizens and local authorities

Table 1. Some results expected from Regional Foresight and some suggested criteria for their evaluation

Type of Results	Results	Criteria for Evaluation
Political	devolution between a state and a territory	determine whether the documents relating to devolution include the contents of the Regional Foresight exercise
	improvement of the relationship between citizens and the local authorities	- opinion poll - involvement of local actors - local elections
Economic	giving stimulus to a common effort to implement sustainable development	determine the following: - improvement of the quality of life - restoration of the quality of environment - harmonization of economic and social factors
	improvement of the image of the territory in order to attract people, investments and firms	determine whether the attraction is achieved through migratory balance, the rate of influx of new firms, etc.
	improvement in the capacity to face competition	through: - geo-marketing tools - total quality process inside the local administrations - opinion polls
Strategic	identification of threats and opportunities within the possible futures	- determine whether the forecasts were right or wrong - if right, determine whether the opportunities were seized and/or threats avoided
	definition of a desirable future	- broad consultation - <i>Audit des acteurs locaux concernés</i> [®] (audit of the actors involved) - cooperation process - strategic council
	preparation of a territorial project	determine whether the project has been completed or is still being implemented (classic evaluation of public policies)
Collective intelligence	synergies	determine the following: - increase in partnerships - concrete achievements - new collective processes (information sharing...)

It is particularly difficult to assess the impact of the strategic outcomes of a Regional Foresight exercise given the impossibility of proving that the strategy chosen is actually responsible for the changes that take place over time

Despite the difficulties of measuring the impact of Foresight, a lot of practitioners claim that the process is at least as important as the content, because it creates synergies, partnerships, cooperation, networks and a future-oriented collective intelligence

does not mean that it is impossible, but that a major joint effort ought to be made to bring together Foresight practitioners, decision-makers and social scientists. Logically, one should wait for the fruits of such efforts to become available before pressing ahead with more Regional Foresight. But logic does not always prevail. Local and regional authorities

really need to do Regional Foresight, both for the inputs it gives to regional and urban planning processes and for the participatory process it involves. So, in practice, local authorities will have to increase their efforts in Regional Foresight in order to maximize its impacts even before rigorous scientific assessment of these impacts is available.

and society. So broad multidisciplinary content can better maximize the impacts of Regional Foresight than can sectoral content.

Regarding the process, several matters should be focused upon in order to improve results. One is communication between the various stakeholders involved in Regional Foresight, i.e. local elected representatives, members of the "technostructure", experts, academics, socio-categories representatives, actors of the local economy and inhabitants. Another is information: to deliberate in a useful way, i.e. to avoid repeating what it is already in every newspaper, participants should have a similar level of information and should have access expertise representing contradictory viewpoints. The transparency of the exercise as a whole, its length, its implications, and the level of involvement it demands, must be clear for everyone. The full support of the leaders¹⁵, the attention paid to each participant and the way in which the work is done must be intuitive, straightforward and not subject to question. The fruitfulness of the Regional Foresight exercise depends greatly on the fluidity of the process. To create bridges between participants does not mean just to sit them together around a table. Rather, it means providing them with the mental environment and willingness to open up to each other and to the multiple and complex objectives of a Regional Foresight exercise, as well as to interact and progress together in their understanding.

To summarize, the efficient combination of innovative content and a fluid participatory process offers the best way to build a concrete and shared territorial project.

Improving and developing appropriate methods

French *prospective* developed methodologies in two specific fields: *la prospective stratégique d'entreprise* for the business sphere, and *la pros-*

pective publique for the national public arena. Initially, most teams in charge of Regional Foresight exercises tried to transfer these methods and implement them at the regional level. But many of them failed for several reasons, in particular the fact that a territory, whether a region or a city, is neither an enterprise nor a nation. Even if the systems seem similar, the links between the different components are very different (for example, a territory has no single manager to whom all the actors answer; it cannot issue rules —such as a strategic policy— imposed on everyone in the territory as a manager can do in his firm).

In addition, the methods applicable to Regional Foresight, such as *la prospective publique*, have far more to do with sociology and political science than with economics and mathematics, which have shaped a large part of the methodologies used in *la prospective stratégique d'entreprise*. But the methods in such "soft" sciences (sociology, political science) have not developed in the same way as those in the "harder" sciences. This partly explains why there is such a real and special need for new methodologies in Regional Foresight.

This applies especially to two main questions: 1) how to make different actors work together and produce collective added value. And 2), how to help them to distinguish between short and long-term issues and tackle their complexity. Some methodologies are beginning to emerge, for example, to help with consultation (e.g. audits of the local actors involved, as used in France and Italy; and consensus conferences, as used in the Nordic countries, Belgium and France). But it is still very difficult to avoid the infamous GIGO (garbage in, garbage out) effect, about which decision makers are so concerned.

Finally, the successful management of a Regional Foresight exercise also demands close attention to complex project management and use of the necessary professional tools.

Maximizing the impact of a Regional Foresight exercise demands action directed at both the content and the process

Initial attempts at Regional Foresight based on either national or business Foresight approaches were often unsuccessful as a region or city is neither a country nor a business

8. See Eurocities. *Development Strategies : Final Report in European Cities*. Lyon : Grand Lyon (Mission "prospective et stratégie d'agglomération"), September 2000, 56 pages.
9. proGective, *Analyse rétrospective de l'étude Limousin 2017*. Limoges: Conseil Régional du Limousin, 1997; Quatenaire, *La prise en compte de Limousin 2007 dans quatre politiques régionales*. Limoges : Conseil Régional du Limousin, 1998; proGective, *Analyse détaillée de la prise en compte de Limousin 2007 par les acteurs locaux*, Limoges: Conseil Régional du Limousin, 1998.
10. See : *Charter of European Cities and Towns Towards Sustainability* (Aalborg Charter), 1994 ; *The Hannover Call of European Municipal Leaders at the Turn of the 21st Century*, 2000 ; Hugonnier, B., *Regional Development Tendencies In OECD Countries*, Paris: Territorial Development Service, OECD 1999; Dunford, M., *Catching up or falling behind? : economic performance and regional trajectories in the "new Europe"* / Dunford, M., Smith, A. - Economic geography. -Worcester. - Vol. 76 (2000), No. 2, 1999, pp 169-195.
11. A "strategic outcome" is the "pure" product of a Foresight exercise, whether regional or corporate. It is the choice of a shared long-term vision which will drive collective action. Almost all the French Regional Foresights have produced such outcomes, formalized as a "projet de territoire". But it raises very difficult questions such as: who defines what is the desirable future? And desirable for whom?
12. Goux-Baudiment, F., *Quand les territoires pensent leurs futurs*. La Tour-d'Aigues: Editions de l'Aube, 2001, 160 pages.
13. I would define here a strategic council as an entity created by a local authority (more often cities but also regions) to advise it, in a consultative way, about its strategy (strategic project). A strategic council is usually made up of around hundred volunteers (local actors, representatives of civil society and inhabitants).
14. Goux-Baudiment, F., *Les enjeux de la prospective territoriale en Europe*. Pouvoirs Locaux, no. 50, September 2001.
15. The leaders of the exercise are usually the local authorities that order it.
16. Project INTERACT (Integrated Urban Governance for the City of Tomorrow), 5th PCRD.
17. For more information, see <http://www.europrospective.org>
18. Groupe de Travail EUROCITES / EDURC, monographs of the working group *Stratégies de développement des métropoles européennes*, Groupe de Travail EUROCITES / EDURC, 2000.

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economic development, bringing people closer together and solving joint environmental problems (Holst Jørgensen, 1999).

As cross-border cooperation has progressed and acquired more and more concrete contents, the need has arisen for adequate organizational forms and actors capable of taking the initiative, deciding on actions and implementing them. In many border regions activities often tend to be framed by national interests and not by a broader cross-border outlook. In long-term cross-border cooperation activities misunderstandings and conflicts may arise due to information gaps as knowledge about systems,

rules and norms is embedded in national identities. In such circumstances, foresight methods (in the sense of participative exploration of joint interests) reveal themselves to be a more promising way of addressing the sensitivity of the national border and for giving meaning to the construction of cooperation across borders and boundaries.

This article explores how foresight can be used in a border region with reference to a case that extends across three national borders. Being the first cross-border cooperation to deliberately use foresight, it is an interesting case and one from which a number of preliminary lessons can be learned.

As cross-border cooperation has progressed and acquired more and more concrete contents, the need has arisen for adequate organizational forms and actors capable of taking the initiative, deciding on actions and implementing them

The STRING project involved a diverse group of regional authorities in three countries in the south western part of the Baltic region

Figure 1. Map of the STRING Area



Source: STRING, 2001.

The partners in the STRING project are: The Öresund Committee (S/DK) a cross-border committee with Danish and Swedish local and regional authorities; the County of Schleswig-Holstein (D); the County of Storstrøm (DK); the City of Hamburg (D); and the State of Slesvig-

The acronym stands for Southwestern Baltic Sea, T for Trans, R for Regional Area, I for Interdisciplinary and S for Geography.

The main aim of the project is to develop a common strategic platform and jointly address the challenges of the region. Networking among specialists, planners and decision-makers is one of the main objectives of the project. An implicit aim is to influence the political agenda on a regional level. Focus: Belt between Denmark and Germany.

The project involves local authorities, universities and research institutions, centres of innovation, business development, trade unions, chambers of commerce, business development organisations, Agenda 21 actors and other NGOs.

The project has a budget of 1.3 million Euro, of which 0.7 million Euro is co-financed by

1999 - 17 July 2001

The project is continuing to cooperate and build on the established process and structure within the strategic action plan.

10 inhabitants/km²

27,500 Euro per inhabitant

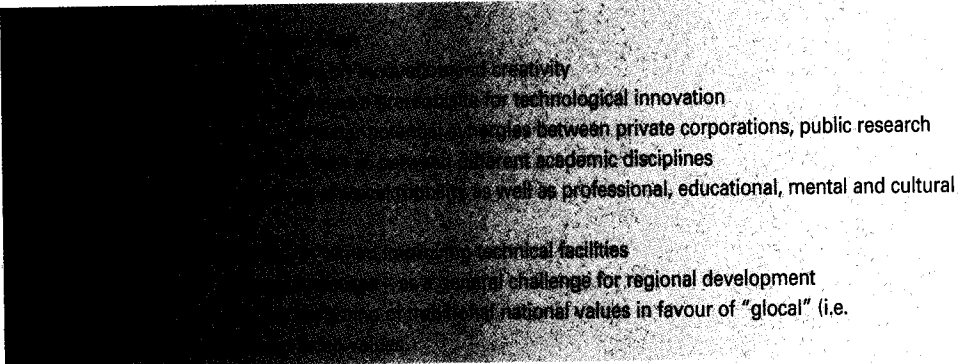
The formulation of joint interests and actions was made in an open process involving more than 100 experts from universities, research institutes, chambers of commerce, local and regional authorities, associations and organizations (STRING, 2000). The experts came together in thematic working groups, each of which was chaired by a key official from one of the STRING partners. The experts were appointed by each STRING partner on the basis of their personal merits, and not, as is often the case, on the basis of the organizations they

represented. This meant that new networks were created, and old ones were given new meaning.

The process assured what has been called the five Cs the foresight (Martin, 1995; Martin & Irvine, 1989):

Concentration on future developments, more specifically up to the 2010 horizon. This was the time frame used in the thematic workshops when experts identified driving factors for the future development of business and industry (local versus global spatial orientation; learning capabilities oriented

The overall process was managed by a steering group consisting of regional administrative leaders and a small project secretariat. Experts sat on thematic working groups chaired by key officials from the STRING partners



Source: *STRING, 2001*.

Some projects were already agreed and initiated during the strategy process, e.g. the Baltic Sea Virtual Campus project involving Swedish and German educational partners, and others were ready for take off. These projects were called the lighthouse projects to illustrate and breathe life into the ambitions of the overall political project.

One thing that turned out to be an important feature of the STRING strategy process was the cautious building of *democratic legitimacy*, linking each step of the foresight process to the democratic institutions of the region. The idea was NOT to build yet another political-administrative structure as was done in the case of EUREGIO, which was set up in the area along the Dutch-German border and has been endowed with a joint political assembly, shared administration and its own buildings (see also Holst Jørgensen, 1999). Rather, the idea was to create a dynamic political forum where political representatives of the STRING partners could meet, discuss and give direction to the project. The political representatives actively participated and committed themselves to the formulation and implementation of the strategy and the action plan. They met in five political forums during the course of the process, often in relation to the thematic workshops and the conferences. These forums constituted the milestones of the project and opened up the project to a broader perspective and focus. How each political representative gave an

account of agreed policies and ideas to his/her constituencies was a matter of each representative and the government system he/she represented – members were, for example, a county mayor, a town mayor, a city mayor, and a state prime minister.

The broader public was informed through political resolutions, together with newsletters, reports and a project web-page (www.balticstring.net). Although these decisions were made politically accountable to the citizens living in the region, the political representatives were fully aware that the future of the STRING region was closely related to bringing the activities much closer to the people. In 1997 unexpected civic resistance to closer cooperation across the Danish-German land border, in combination with widespread scepticism about the European project, had taught the promoters of the new region to be much more sensitive to the complexities of European integration. However, the STRING partners also agreed that public ownership would be closely related to implementing decisions and producing concrete results affecting daily life. The STRING project should make a difference to citizens living in the region, and should enhance it as a place to live and work. Or in other words, it should offer flexible solutions to everyday problems in a cross-border region, such as transportation, recognition of diplomas and credit transfer systems, tax systems, cultural life, integrated coastal management, etc.

One thing that turned out to be an important feature of the STRING strategy process was the cautious building of democratic legitimacy, linking each step of the foresight process to the democratic institutions of the region

The STRING partners agreed that the project should offer flexible solutions that were relevant to people's everyday concerns, such as transportation, recognition of diplomas, credit transfer systems, coastal management, etc.

various workshop meetings, to the political forums and public conferences. In the end broad support should be sufficient to make it possible to embark on concrete projects within strategic action fields giving shape to the vision of a high quality area based on innovation, entrepreneurship and sustainability.

- Most importantly, democratic legitimacy can be built up by linking each step of the foresight process to the democratic institutions of the various regional authorities. Dynamic political forums can be usefully established for political representatives to meet and give direction to the project. In the STRING example the aim was not to build new formal cross-border cooperation structures of the type seen, for example, in EU-

REGIO, but to align existing structures in new flexible and transparent ways. The challenge is to bring the cooperation exercise closer to the citizens of the region. In the example, a political commitment was made to involve citizens in future activities such as participative projects and thereby enable democratic expression across borders and boundaries.

To conclude, the *future boundaries* of cooperative exercises (such as that involved in STRING) are constituted by the ability of its founders to consolidate existing cooperation, to assure its democratic legitimacy and to create new bridges with neighbours, which may in turn imply further foresight processes.

Keywords

cross-border cooperation, scenarios, strategic action plan, democratic legitimacy, open process

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The author would like to thank project manager Dorthe MacKay from the County of Storstroem and her colleagues from the STRING secretariat for answering questions and commenting on earlier drafts of this article. Special thanks are also due to head of department Claus Thomsen from PLS-Ramboll Management for help and encouragement in addressing this issue.

Notes

1. Micro-integration refers to the solutions to everyday problems aggravated or caused by the national border. These include, for example, the development of joint emergency and natural disaster preparedness, the completion of transport and infrastructure links, regional planning and development, environmental protection of watersheds and rivers extending across the border, tackling issues facing border commuters, etc.

2. It started with 21 million Euro earmarked for 14 Article 10 pilot projects in different border regions. Later followed the INTERREG initiative: INTERREG I (1990-1993) had a budget of approximately 1 billion Euro for 31 operational cooperation activities; INTERREG II (1994-1999) had a budget of 2.6 billion Euro for 59 operational programmes (A), a number of energy networks (B) and transnational projects (C); and INTERREG III (2000-2006) has a budget of 4.9 billion Euro. Cross-border cooperation has also been supported within the framework of Phare and Tacis programmes in Central and East European countries and in the newly independent states.

The Merits and Challenges of the Deployment of Foresight Methods in Less-Developed Regions

Michele Capriati, *University of Bari, Italy*

Issue: The principle of "Partnership" has represented an important innovation in regional policy making and planning practices over the last 10 years, in particular in less-developed regions (LDRs). However, it has not so far triggered the expected process of "vision building", often leaving policies short-term oriented.

Relevance: Partnership practices are contributing to the birth of a new culture of policy making at the regional level, as local actors get involved and are asked to interact and take responsibility for long-term regional development objectives. Thus, Foresight can find fertile ground on which to work and could represent an important step forward in improving the quality of the participation of local actors in the process of shaping a desirable future and implementing policies that are less short-term oriented and so "future-proof" the regional system.

Introduction

Given their speed and pervasiveness, innovation processes represent both a new opportunity to be seized by less-developed regions (LDRs) and a threat in terms of a widening gap with respect to more developed regions in Europe. In the years ahead, regional policies will succeed if they are able to design and implement innovation paths which are long-term oriented, realistic and have the support of local actors.

The recent initiatives that have taken place in the context of the definition of choices and priorities for European regional policies have shown

themselves to be limited in their ability to trigger off an effective Partnership¹ capable of building a shared vision of the future and of fostering a learning community at regional level. Meanwhile, in many European countries, there have been a number of activities in the field of prospective analysis of long-term technological and socio-economic changes which have seen very wide participation. These experiences suggest methods and instruments which can be used in collective learning and vision building processes.

An analysis of these experiences can be useful for less developed regions of the European Union which wish to improve the quality of interaction between local actors as regards their development

Future regional policies will succeed if they are able to design and implement innovation paths which are long-term-oriented, realistic and have the support of local actors

excessive formalism of the interaction process, the absence of a shared vision and an excessive emphasis on the mediation of specific interests. The challenges that LDRs face in bringing about change require a great deal of improvement in the quality of the participation of local resources and capabilities of the planning process and, more generally, identification of social and economic development paths for the future. This makes Partnership, as seen to date, insufficient as a method to build a common vision on the development perspectives of a given community.

Changes under way and the new regional policy

Increased globalization is leading both to a great increase in market opportunities, and to stronger competitive pressure from third countries. This applies in particular to labour intensive enterprise systems operating in traditional sectors, which characterize LDRs in the EU,³ and in which cost competition strategies are most relevant. Competitive advantages based on factor costs are losing importance: a country that relies on low labour costs today can be rapidly replaced by another country employing the same strategy tomorrow⁴. Therefore rather than relying on advantages based on low costs and salaries, in relative terms, a regional development strategy should be centred on innovation⁵. Today, innovation is becoming crucial as a regional response to the challenges of globalization and of technological changes linked to ICTs⁶ (Information and Communications Technology). In fact, the growth of network economies increase the benefits for those who are "connected", leading to cumulative positive effects. This is why LDRs must strive to be inserted in the wider networks; failure to do so would increase the so called "digital divide" between those areas that have ICT competencies, infrastructures and knowledge and those that do not⁷.

In this competitive context, the resources that create wealth and economic development are knowledge and intellectual capital, rather than natural resources and physical labour. More than at any other stage of development, human capital is having a crucial influence on the competitiveness and innovative capacity of economic systems. Regional advantages will go to those areas capable of attracting the best professional skills and the resources necessary to turn innovation into new market opportunities and products.

In today's economy, therefore, knowledge is the most important strategic resource and learning the most important process. The ICT revolution is allowing the codification of different types of knowledge and easy access to it thanks to the convergence of different types of transmission tools. This process, however, does not diminish the importance of tacit knowledge which is built on the daily experience and interaction of actors and is strongly linked to the cultural and territorial context, thus making it difficult to transfer. Tacit knowledge belongs to the social context in which it is developed. Its development and spread, even if accompanied by more codified and transferable knowledge, needs an evolving social context. Indeed, the development of a given area can be seen as a process of building, spreading and innovating the competencies of a social system.

It is because of the link between learning, innovation and cooperation that the regional dimension is crucial. When territorial proximity is important, regional policy becomes a key policy for innovation. Thus the new challenges Regions face as a result of globalization and technological change must be understood in the context of the different levels of development among regions, which, in the absence of adequate policies, could further increase⁸. *This is why regional policy in the LDRs must aim at anticipating changes and activating a new generation of interventions that*

Innovation, rather than cost competition, is becoming crucial as a regional response to the challenges of globalization and of technological changes associated with ICTs

Although ICTs permit the formalization and codification of different types of knowledge, this does not diminish the importance of tacit knowledge, which is more firmly rooted in the social context in which it is developed

grounds, thus facilitating reciprocal enrichment and adding value in the process of identification of objectives and priorities.

Greater focus on the process than on the result - It allows the exercise of vision building to be transformed into a collective learning process capable of feeding and being fed from the juxtaposition of a variety of different competencies and institutional, economic and social actors. In addition, as it may take a considerable time – up to 2 or 3 years – it ensures a certain degree of continuity which allows in-depth analysis of the issues and debate of the results. In this way, a planning process can become an occasion to induce change in actors' behaviour, rather than just to identify priorities and objectives.

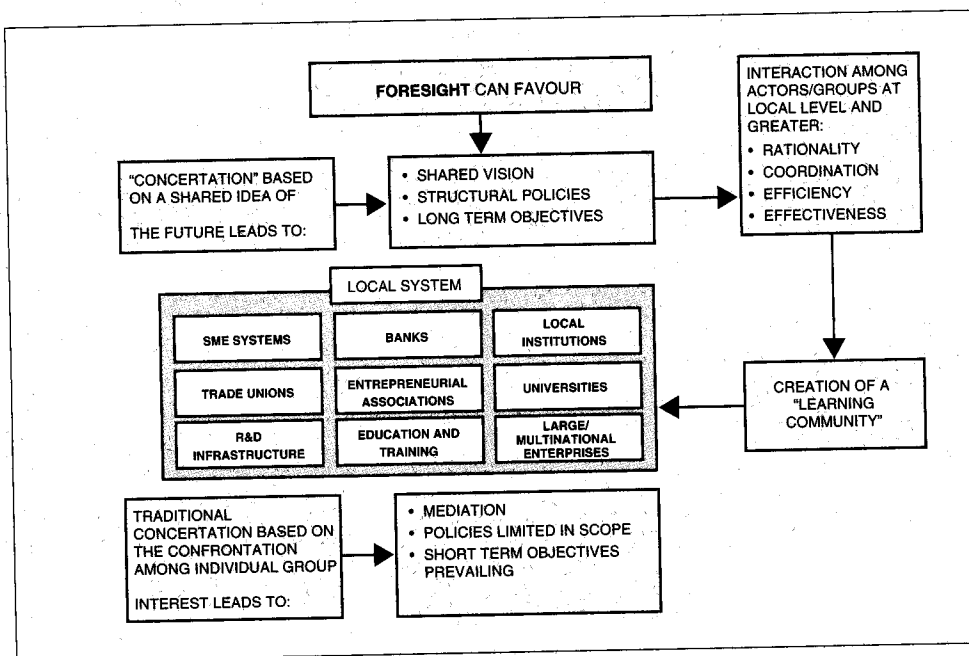
Convergence towards one or more objectives and/or possible scenarios – Foresight is an iterative process which starts out by defining an objective

and tries to shape actions and use of resources in the present so as to work towards its realization: thus it meets the need –often overlooked in current planning approaches – for local public and private actors to share a vision of the possible futures. In so doing, it avoids the formation of simple partnerships centred on specific interests and becomes an opportunity to learn and increase collective knowledge and intellectual capital at local level.

These characteristics seem to provide an answer to the limits identified in the planning approaches mentioned previously.

Innovation and local systems development depend on the quality of the interaction between their key actors (see Figure 1). In the traditional approach, business associations, trade unions, local institutions, universities, SMEs, and large enterprises usually interact by stating objectives and policies which simply define their respective

Figure 1. Scenarios for the Future Business and Industry 2010



State shall create a wide and effective association of all relevant bodies, according to national rules and practice, taking account of the need to promote equality between men and women and sustainable development through the integration of environmental protection and improvement requirements. All designated parties (...) shall be partners pursuing a common goal".

2. CEC 1999.

3. On the challenges faced by SMEs in the present competitive scenario see the preliminary papers of the OCSE Forum "SME 2000" and in particular OCSE 2000. See also IPTS 1999.

4. Porter 2000.

5. Porter 2000. On the relationship between development policies and innovation, of particular importance are the Communications from the European Commission that in recent years have progressively defined a significant framework; see in particular CEC 1998, 2000a, 2000b.

6. See CEC 2000b.

7. See CEC 2000c e CEC 2001 in particular chapter 1.4 on factors that favour a real convergence.

8. See CEC 2001, in particular chapter 1.

9. This approach is increasingly explicit in the EU actions relative to Structural Funds. See in particular CEC 2000c.

10. On Foresight experiences see Gavigan-Scapolo 2000 and Miles-Keenan 2000.

11. Capriati-Ca'Zorzi 2001, Capriati 2001.

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The Broader Context: the on-going Governance debate, the "Lisbon Strategy", and the European Research Area (ERA)

In February 2000, taking into account the emergence of knowledge-based economies, the challenges of enlargement and European integration, and the emergence of new societal patterns, the European Commission launched a debate on governance, one of its four strategic priorities¹.

This became necessary in the light of the overall discussion of the future of the European Union. The governance debate aims to improve accountability, transparency and efficiency of decision making in Europe. It seeks to provide new insights on how European societies can make their way through the on-going integration process, including the levels and nature of participation. The regional level is particularly concerned, firstly because it forms a privileged focal point for understanding, shaping and implementing the policies of the Union. Secondly, because regional actors can influence several of the choices that may be made in the field of the society and the economy. Thus, the future development of Foresight and related activities at regional level is strongly linked to the further evolution of the governance debate.

Focusing on the long and medium term priorities of the Union, the Heads of State or Government agreed in the context of the extraordinary European Council (Lisbon, March 2000) on a *common vision for economic and social development in Europe*, the so-called **Lisbon Strategy**. This aims to make the European Union by 2010 *"the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion"* through "open methods of coordination and benchmarking". To move towards this ambitious target effectively, actions have been proposed in a broad range of policy fields, with goals con-

cerning employment, economic reforms, social cohesion, and others. Europe's lagging behind in various research and innovation aspects –with adverse cross-impacts for other policy fields– means **Research and Innovation Policy is set to become one of the key instruments for achieving these goals**. Thus, stepping up efforts to **develop and consolidate a European Research and Innovation Area (ERA)** has been made one of the key areas for action in the "Lisbon Strategy":

- identifying and networking scientific excellence in Europe;
- strengthening pan-European collaboration;
- establishing clearer and more consistent priorities for public research.²

Seeking to develop "economic intelligence-type" systems capable of identifying and assessing potential impacts of technological and scientific breakthroughs is a particularly cost-effective way of advancing towards the Lisbon goal of strengthening the knowledge-based economy in the Union. The key question is **how** to establish and connect future oriented systems all over Europe in ways which respond efficiently to the economic and social needs of countries and regions, drawing on good practice and capabilities existing in the Union in this field, and making them widely available for policy development.

Developing Foresight to strengthen the strategic basis of the European Research Area

As market opportunities appear and disappear rapidly it becomes increasingly difficult to predict trends using traditional instruments in traditional ways. In this context of uncertainty and volatility, it is all the more necessary to invest successfully in Science and Technology (S&T), and make the industrial and societal choices that turn these investments into innovations and lasting improvements in terms of quality of life. But these invest-

As part of the overall discussion on enlargement and integration, the European Commission has launched a debate on governance which aims to improve, accountability, transparency and efficiency of decision making in Europe

Seeking to develop "economic intelligence-type" systems capable of identifying and assessing potential impacts of S&T developments is a cost-effective way of advancing towards the Lisbon goal of strengthening the knowledge-based economy in the EU

These general suggestions to intensify Foresight type activities in Europe have been further developed in the proposal of the European Commission for the next Research Framework Programme, aiming to **strengthen the ability to anticipate and develop shared views on RTDI-related issues at stake for Europe**. This would finally contribute to better informed decisions regarding the prioritization and implementation of public and private policies, and greater consistency between EU, national and regional/local policy levels. The risks and opportunities Foresight processes identify are often of a similar nature to those in different countries and regions, while the solutions Foresight can provide may well identify complementarities and reveal the advantages of cooperation at national or inter-regional levels.

The regional dimension of the European Research and Innovation Area

The final translation of knowledge into economically relevant activities very often takes place at the sub-national level. It is also at this level where "learning" capacities can be best organized through networks and public-private partnerships, so as to ensure that knowledge flows irrigate the economy, and RTDI resources are most efficiently used for tackling specific economic development objectives.

The pervasiveness of Science and Technology has increased in a way that they now impact even core government functions (witness, for example, the debate on "e-government"). Therefore, it has become vital for policy makers in all policy fields to deal with S&T developments in an integrated and multidisciplinary way in order to exploit the opportunities and diminish any associated risks. Policy makers are faced with a number of challenges:

- to ensure that the different innovation-related regional actors (e.g. universities, technology centres, business consultants, business clusters, financial institutions, development agencies) coordinate effectively,

- and to "co-develop" policies (e.g. regional policy, research policy, industrial policy, education and training) in a coherent and systemic way.

Although it might seem surprising at first sight in an era of globalization, these developments have increased instead of decreased the importance of informed decisions and management capacities of regional actors. Their initiatives to foster innovation through competition, cooperation and networking are the basis for success in the global economy - the success of their regions and, ultimately, of Europe.

In this respect, regionally based agents will have to play their role as dynamic actors in structuring the ERA through:

- developing the necessary infrastructures, equipment and human resources to conduct high level research and to increase innovation-related problem solving capabilities;
- fostering partnerships between the public and private sector to stimulate knowledge creation and diffusion, and a better uptake of research results into the local socio-economic fabric;
- encouraging entrepreneurship and creativity through economic innovations based on exploiting regional diversity and endogenous potential;
- fostering an environment conducive to research and innovation through legal, financial and fiscal measures, including public procurement policies;
- stimulating inter-regional exchanges of ideas, good practice and human resources, including technology transfer between regions.

That this need is felt all over Europe has been recently underlined by the number of innovation programmes submitted by regional governments in response to the Commission's Communication *The regions and the new economy* of July 2000⁴. More than half of the proposals received from over 100 (out of nearly 160) European regions aimed at

Despite the increased importance given to foresight there has been a lack of integration and coordination, often resulting in efforts being duplicated rather than exploiting possible synergies

The pervasiveness of S&T has made it vital for policy makers in all policy fields to deal with S&T developments in an integrated and multi-disciplinary way in order to exploit the opportunities and control the risks

Global forces have increased rather than diminished the importance of informed decision making and management capabilities at the regional level

- identifying and mobilize all relevant actors (at whatever governance level), to enable efficient and effective EU-wide networking, and institutional development and capacity building.

It is in this context of the mobilization of all actors involved in Foresight type activities, that complementary initiatives aiming at regionally based actors are suggested. This field seems to be the fastest developing and most innovative one, and at the same time the largest "unknown and unexplored territory".

Activities focusing on the regional level could draw heavily on experience from successfully implemented initiatives, e.g. in the framework of the Regional Innovation Strategies (RIS), the Regional Information Society Initiatives (RISI), the INTERREG cross-border regional cooperation under the European Regional Development Fund (ERDF), and the Regional Innovation and Technology Transfer Strategies (RITTS) under the Fourth and Fifth Research Framework Programmes (FP4, FP5). Examples include:

- IRE, a network involving over 100 European regions, undertaking the design and the implementation of a regional innovation strategy, funded by either Regional Policy DG or Enterprise DG: It has been designed to serve, among other things, as an open forum for discussion of RTDI policy options in which regions share and exchange knowledge in areas such as methods for technology auditing, RTDI strategic planning, RTDI impact indicators, etc.
- RINNO¹⁰, a joint initiative by Regional Policy DG, Enterprise DG and Research DG providing a central resource for regions to obtain information about good practice in regional innovation, particularly with respect to SMEs, integrating:
- the "Information layer", factual information on all large regional innovation schemes in member states regions;

- the "Knowledge layer", case studies selected through a process of peer review by expert working groups to illustrate good practice in regional innovation schemes;
- the "Wisdom layer", practical help on a range of issues concerning the implementation of regional innovation schemes.

In both schemes, the advantages for regions of cooperation at European level in the RTDI field have been shown.

More specifically focused on both the need for and the potential of regional Foresight is the Thematic Network (comprising 13 European regions) and its Accompanying Measure (directed at the "Four Motors for Europe" regions¹¹), which are supported by the STRATA programme (under FP5) uniting regional policy makers and Foresight experts from all over Europe. As these projects are currently in their final phase, information is already available on:

- the opportunities of regional Foresight, and
- ways of overcoming the obstacles that still hamper the diverse regions of Europe to benefit fully from those opportunities.¹²

As well as **benefiting from past experience**, future activities –intended to mobilize the potential of regional Foresight actors and to develop a dynamic, well-networked European institutional landscape can at the same time **influence and take advantage of the new Innovative Actions under ERDF (2002-2006)**, where three priority themes are particularly significant for developing the ERA:

- regional economies based on knowledge and technological innovation;
- eEurope-Regio: the information society at the service of regional development;
- regional identity and sustainable development.

Last, but not least, regional actors could orient the development of their Foresight exercises

Activities focusing on the regional level could draw heavily on experience from successfully implemented initiatives

A number of the priority themes of ERDF are also particularly significant for development of the European Research Area

Regional actors can use the opportunities presented by the next Research Framework Programme, such as "Networks of Excellence" and Integrated Projects" to orient development of their foresight activities

Keywords

foresight, changing governance, Lisbon strategy, European research area, regional policy, RTDI policy, innovation systems

Notes

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