

# **How to turn “Mobilising Regional Foresight Potential ” into a structural contribution to European integration**

*Lessons to be learnt from a comparative study of national foresight activities in accession countries*

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## Introduction

The transition process in Central and Eastern Europe (CEE) has shaken up the socio-economic systems. The very deep and fast changes in the early days could not support any long-term planning activities. The major restructuring in ownership parallel with increased capital in-flow has also resulted in further uncertainties related to the future development of the national system of innovation. However, at the second part of the 1990s some of the accession countries decided to launch technology foresight programmes at national level trying to explore the given country's future opportunities from technological point of views. Not all these programmes have been completed by now, but years of activities may provide enough information and experience to draw some lessons for the benefit of both the present practitioners and the future beginners in regional foresight actions.

The paper, as a contribution to the European Commission's "*Mobilising the Regional Foresight Potential*" high level expert group activities, intends to put all its learnings into a system determined by the following four key concepts:

- /1/ technology foresight (TF) as a means of capacity building;
- /2/ governance structure, the institutional and civic capacity necessary for TF;
- /3/ the learning effect necessary for and resulting from TF;
- /4/ quality aspects of TF exercise.

There are four countries – the Czech Republic, Hungary, Poland and Slovenia – which have decided to launch TF programme so far. Two of them have already completed it (the Czech Republic and Hungary). Some other nations are in preparation phase (Bulgaria, Estonia and Romania). In this paper we summarise experience gained from the actions launched. As the methodology of this work is concerned we gathered the available reports on TF programmes in CEE, studied the relevant international references and made interviews in all the four countries with persons being deeply involved in national TF exercises. (See the questionnaire of interviews and the list of persons interviewed in Appendix 2 and 3.)

### The definition of "FORESIGHT"

The concept of foresight is understood and used in a very different way all over the world. Today foresight is considered by many organisations, including the European Commission as an important tool for preparing policy decisions. Some international organisations aim to promote the application of this methodology, especially in the less developed regions (not only in Europe).

Usually the popularisation of things may result in losing or "softening" the original content and/or the drop in quality. That is why the common understanding of the term "foresight" becomes important and the formulation of a set of criteria on which actions may be considered as "foresight" seems to be necessary.

The countries in Central & Eastern Europe have a long tradition of planning at national level (the system was called as "*centrally planned economy*"). During the years of socialism these nations developed methodology for annual, medium (five years) and longer term (15-20 years) planning activities. This mechanism was hierarchically organised: the CMEA was in a central position, and the national level planning activities revolved around it like satellites. However, in spite of this hierarchy planning activities were nationally determined by the applied economic policy and approach, and the planning and vision creation culture. The change of the social, political and economic system diminished the necessity for such broad and permanent social planning activities. While the national planning offices disappeared at the very beginning of the social changes in the early 90s, the culture and the approaches have not disappeared.

This planning culture and traditions in the CEE countries are strong enough to say “*we have always made foresight*”. This opinion is stemming not only from the poor knowledge of foresight methodology and approach, but the blindness caused by strong traditions as well. There is a real danger that actions done in traditional way are labelled as “foresight”.

There are many other policy tools which serve strategic planning at both national and regional level. Technology assessment, policy analysis, futures studies, technology forecasting and trend analysis are examples. For the practitioners it is very hard to navigate among these tools and making proper selection of their application both in time and by objective.

**Lesson 1:** In CEE countries a special attention should be given to make aware the concept of foresight exercise. Without the clarification of the differences between orthodox planning, forecasting, future studies and foresight there is a real danger to label non-foresight programmes as foresight in order to be funded by international organisations.  
**(Language game)**

We consider in this paper an action as foresight, if it satisfies the criteria defined by the FOREN programme’s final document “*Practical Guide to Regional Foresight*” [European Communities, 2001a]. According to this document “*foresight is a systematic, participatory, future-intelligence-gathering and medium-to-long-term vision-building process aimed at present-day decisions and mobilising joint actions. Foresight arises from a convergence of trends underlying recent developments in the fields of ‘policy analysis’, ‘strategic planning’ and ‘future studies’. It brings together key agents of change and various sources of knowledge in order to develop strategic visions and anticipatory intelligence.*”

#### **Facts**

The major milestones of the four TF exercises in CEE are summarised in Appendix 1.

### **Main motivations of launching foresight programmes**

In time when foresight is becoming a very popular issue, not only the traditional (or rational) motivations can give reasons for launching such exercises. The application of brand new tools in policy making may be a reaction of the society itself, when the requirement for finding ways to answer new questions is clearly defined by the major stakeholders. This **organic approach** may result in a broader acceptance of and openness toward new methodologies.

**Lesson 2:** It is very difficult to run TF programmes if there is no common public understanding of the necessity of changes. This environment is very important to successfully launch and implement the exercise.

Sometimes the society itself and the main stakeholders fail to realise the need for such application, but international examples may draw the attention of experts to use new tools. The EU support schemes can generate a critical mass of capacities in candidate countries for launching such exercises. Foresight programmes, based on this motivation are **non-organic** and more demonstrative.

The size and quality of potential foresight capacities locally available may differ depending on the approach. However, it would be a mistake to give higher priority for the first, the organic one, especially in CEE. A successful demonstration may result in a relatively fast realisation of the use of new tools. The indirect impacts of a foresight programme should also be highlighted from this point of view (learning capacity, awareness, communication and networking among different social actors). However in such cases the external funding sources should provide

methodological support and should put in place permanent monitoring activities. The “language game” should also be given special attention in this case.

The first years of transition resulted in high frequency and large amplitude of changes both at social and economic terms. These uncertainties did not favour any long-term strategic thinking, both governments and business entities preferred to apply short-term (fire-fighting) actions. This situation could not serve well the input of long-term thinking, planning or vision creation.

At the end of the 90s a growing understanding has emerged inside and outside CEE, that long-term economic growth cannot be sustained in the early 21<sup>st</sup> century by the policy approaches and tools of the early days of transition. The cohesion of candidate countries in the integrated Europe depends largely on the *“high growth rates through increased technological change rather than through non-investment factors. New mechanisms for supporting innovation and industrial upgrading will be needed if productivity growth is to be maintained.”* [European Communities, 2001b]

The lack of long-term vision has become part of the daily talks at high policy level in all the countries, which have launched national TF programmes. The main motivation behind the TF programmes in CEE has been to formulate a legal base for S&T priorities by institutionalising the priority setting process. The other important aim was (is) to improve the visibility of S&T and innovation administration both to the general public and to the prime minister and other members of the cabinet.

**Lesson 3:** The main motivation behind launching national TF in CEE is prioritising science and technology and innovation public funding. In the coming years the further stabilisation of national economies in the region will create stronger base for **organic** TF exercises, while the potentially growing EU funding for using foresight as policy tool will probably develop local capacities for **non-organic**, demonstrative TF actions.

### **Main focus, objectives and outputs of TF programmes in CEE**

The foresight programmes in CEE show a colourful picture as far as their focus, objectives and outputs are concerned.

Hungary and Slovenia decided to put the improvement of the quality of life and the long-term international competitiveness in the centre of their TF exercises. Both programme managers and high level government officials were aware in the time of launching the programmes that these aims were far beyond the competency of their agencies, putting the technology (and science) related matters into a wide social context.

The Czech programme aimed to produce a ranked list of priority areas for public funding in “oriented” (targeted) research. According to the government’s decision these priorities should have contributed to the improvement of economic competitiveness and social welfare. This document had to contain a list of key research directions (KRD) in thematic and cross-cutting research areas and recommendations for managing and implementing the so-called National Programme for Targeted Research. The outcome is well defined: the government is expected to make decisions based on the TF documents in 2002 (the new funding programme is planned to start at January 2003).

The main objectives of the Hungarian TF were much broader than to formulate only recommendations for public policies. It aimed at /1/ improving the communication and networking among the different actors of the national system of innovation (academy, business, public administration and general public), /2/ contributing to a national innovation strategy based on comprehensive analyses, /3/ helping Hungarian firms to increase their competitiveness, /4/ assisting organisational learning on co-operative and strategic thinking and /5/ supporting the preparation of the different actors for EU membership). [Havas, 2002] Since the complexity and the broad approach of this TF the outputs are much more difficult to

measure. The final document(s) contain recommendations, which are not always necessarily targeted to well defined government's steps. This type of documents requires certain "translation" efforts in order to define real government actions and measures. On the other side the messages are addressed not only to the highest level public administration, but other actors of the national system of innovation as well.

**Lesson 4:** The focus and objectives of foresight exercise significantly determine the character of the final document(s). It may be more visionary (general) or practical, only a list of priorities or action lines, more scenario-oriented or accounts of future trends, policy-directed or more public-viewed.

**Lesson 5:** The broader and more complex focus (and objectives) may result in a much more challenging task and longer process for transforming the TF recommendations into policy decisions. In such cases usually a large number of actors are addressed by the final document(s), which makes the implementation phase more difficult requiring higher networking and co-operation, and an effective communication.

### **Applied methods**

The applied methodology in all the foresight exercises very much depends on the selected focus and the objectives.

**Lesson 6:** The selection of applied methodology is determined by the objectives and the focus of the foresight exercise. The time frame of the programme is also an important factor, especially in CEE where the need to have the results (usually priorities for R&D funding) is actually very urgent.

There are three phases of foresight process: the pre-foresight (warming-up) phase, the main foresight activities and the dissemination/implementation phase.

**Lesson 7:** The pre-foresight phase is extremely important in warming up the "engines" of the process. This phase concentrates on awareness building, capacity development, refining the objectives, studying international practices on the applied methods, setting up the management unit of the programme, decision on the hierarchy of the programme management and selection procedure of the chairpersons and members of the different bodies (panels, Steering Group/Committee etc.).

The two finished TF programmes in CEE chose different methodological approaches based on their focus and objectives (and time frames).

In preparing the foresight programme the Czech management studied different methodologies applied internationally, then made decisions on adapting the "best available" technologies (methods). The programme worked under serious time-pressure, giving only 12 months by the sponsor<sup>1</sup>, who actually ordered the TF exercise. After carefully studying the potential

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<sup>1</sup> The ministry being responsible for scientific matters;

application of Delphi-survey, they decided not to use it, mostly because of the programme's heavy time-pressure and its low efficiency related to the project objective. The selected methodology was: *key technologies combined with thematic and cross-cutting panels*. The formal scenario-building method was also left out of the business because it is too time consuming.

In the process of the Czech foresight exercise the panels discussed the results of desk research (statistical data analysis and the relevant strategic papers of ministries), status report and SWOT analysis of the given area, the interviews and a summary report of the interviews (prepared by experts, selected and contracted by the project manager). Interviews were made with 283 customers of research results, representing the demand-side. The panels based on these inputs analysed the present situation and formulated the first set of priorities (KRD). Then the panel members scored all the selected priorities by two dimensions (feasibility and importance) and assessing by 35 criteria. The programme management developed a special Internet-based voting system for managing the process smoothly and effectively. The result of this procedure (a second list of KRD) was then revised by a working group consisting of panels' chairpersons and another member of the panels, members of the management and representatives of the sponsor and other stakeholders.

The methodology applied in the Czech programme had broader consultation than in the traditional *key technologies* programmes.

**Lesson 8:** In the case of CEE countries any kind of forward-looking activities are challenged by the lack of long-term vision of the society. This fact may explain the necessity of applying national (macro) level scenario building, which is usually not part of foresight activities. It is not an accident that the macro scenarios have become an integral part of foresight programmes first in CEE<sup>2</sup>.

Hungary applied both panel activities (scenarios, SWOT analysis, policy proposals etc.) and a large scale Delphi survey. More emphasis was given to socio-economic needs than on direct S&T issues. The Steering Group (SG) supervised the whole process, making decisions on strategic and methodological questions. The panels were provided a great deal of autonomy. They were encouraged, from the very beginning, to identify and adequately deal with cross-cutting issues when analysing major trends and developing alternative visions for their fields. The programme (called TEP) applied a matrix approach in managing and structuring the overlapping and cross-cutting areas. The SG defined at its early days some horizontal issues, like education, information technologies, environmental questions, accession to the EU, social cohesion, the role of large (multinational), small and medium-sized (indigenous) firms. More than one hundred regional workshops were organised to discuss the Delphi-results, background papers, draft visions and policy proposals. These workshops and meetings were likely to have contributed to the strengthening and re-direction or re-focus of existing co-operation and communication among different communities, as well as having facilitated new contacts and initiated new channels and actions. [Havas, 2002]

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<sup>2</sup> The same macro-scenario building methodology was applied in the case of South Africa;

**Lesson 9:** The modern scenario-building tools are not frequently used in CEE. If a foresight programme decides to apply it as part of its methodology, a special training (learning) course should be organised during the pre-foresight phase. In order to manage the cross-cutting and overlapping areas successfully and to have the necessary synergy among the panels' strategic thinking, the process of selecting the independent variables for the scenario building should be harmonised among the panels (if there is a macro scenario building), than the body responsible for this process should also be involved in this process.

A number of difficulties arose during the scenario-building process. The programme management did not realise at the beginning that the panel members had no appropriate knowledge on the application of this tool. They preferred to apply the traditional approach: making so-called "optimistic", "pessimistic" and "business-as-usual" scenarios. The lack of openness for alternative futures also resulted in some challenges at the beginning. After realising these problems the SG and the management made the necessary correction (seminar on scenario building and harmonisation of mezo- and macro scenarios).

### **Social and Political Context of TF Exercises in CEE**

Foresight exercise is a tool for policy decisions. It is not necessarily connected directly to the decision preparation process, its objectives may also be to facilitate networking and dialogue on selected subjects, or to develop capabilities for actions in the society or in part of it. Foresight actions are run in a given social environment, which significantly determine both the content and quality of the outcomes and the impacts. During the preparation phase this environment should be carefully studied and taken into consideration in deciding the focus, the objectives, the applied methodology and the expected results at the output. Otherwise the cost/benefit ratio of foresight may become unacceptably high or the exercise may have contradictory effects. There is no room for studying such questions in detail in this paper, but based on the interviews we try to draw the attention to some important social barriers, which may have special importance in planning foresight actions in CEE.

### **Social resources**

Foresight is a tool for **future-oriented thinking**. During the 90s the political changes in CEE enforced past-oriented thinking. Several reasons may explain this situation. Firstly, after decades of socialism most of these societies started to look for their roots in the past. Secondly, closing the socialist era proved to be much more difficult and painful than expected in almost everywhere in the region. This process also supports the backward-looking attitude and doesn't favour activities of future-orientation. Thirdly the low quality of social capital is also a big problem (corruption etc.).

However, improving the political stability and successfully managing the economic crises in the candidate countries may change this social attitude, which can contribute to the creation of the necessary critical mass inside the political/social elite turning more to the future. In many CEE countries there are signs that refer to this phenomenon. For example in some smaller nations, which became independent in the early 90s this critical mass is gathering under the flag of "information society" (Estonia and Slovenia seem to be good examples).

The **decision-making culture** of CEE societies does not meet Western standards. In order to solve a problem in the Western culture in an ideal case the process typically starts with identifying the problem, then the options for solution are clearly described, the best feasible one is selected and implemented. The **reflexivity** is a very important element of this process. It means a regular and systematic collection of data on the outcomes of any actions. The aim of this data collection and analyses is clear: to improve continuously the performance of an organisation. Reflexivity means openness for doing things better and accepting critical attitudes and approaches. It is a significant part of the learning process, which is becoming more and more important in the modern (knowledge-driven) societies. So in Western democracies it is

generally accepted that the implementation should be monitored and the outcomes evaluated. Political decisions are supposed to be based on experts' knowledge and the process intends to involve all the stakeholders. The countries in CEE have a big deficit in this sense. Political programmes are usually declaratory, stated in very general terms. Long-term and short-term goals, priorities are either not set or set without practical implications for budgeting. The concept of reflexivity is not understood by most of the CEE governments. No success or performance indicators are embedded in the policy programmes, the monitoring and evaluation can not be considered as a daily experience of public funding. Ministerial officials are the key source of information, the involvement of stakeholders is occasional and weak. The major intention of data collection is not necessarily to form a solid base for decisions, but to support decisions already made. [Kozlowski, 2002]. Foresight exercise, with its participatory attitude, is totally against this approach, but in CEE it should be implemented in an environment with such deficit.

For example many (so-called) strategic documents were born during the past 12 years in CEE on R&D and innovation policy, without having any public funding allocation impacts. Two reasons may explain this. First of all, this period of transition was extremely intensive in fast and huge changes, which could not serve long-term strategic thinking. The main focus during this period was to create strong basis for market economy and modern democracy, and managing as smooth and peaceful as possible the urgent challenges of economic and social (sometimes political) crisis. Under these circumstances no data were available for strategy formulation. Secondly, the R&D (and innovation) administration in all the CEE governments were in very weak position throughout the whole period. In lacking consensus on long-term social development strategies in the society and among the main political actors, the financial ministries tried to keep their neutrality as their decisions are concerned on selecting priorities by sectors, by targets etc. In this environment it was easier for the R&D administration to prepare papers with strategic character only involving its own interest groups (science and technology community, other ministries with higher "R&D intensity" etc.). On the other side, it proved to be almost impossible to reach consensus at government level on financial allocation consequences of the strategies.

**Lesson 10:** The foresight exercises may contribute to changing the decision making culture and to improve the social reflexivity in CEE.

As we discussed above, there are deep roots of (central) planning in CEE. It is not only institutionalised (inherited this organisational culture to newly established institutions<sup>3</sup> or to the strategic planning/analysing units of different ministries), but it has become part of social behaviour and culture as well during the decades of socialism. The Hungarian foresight programme at its preparation phase realised the danger of this situation. "Given the legacy of central planning, it was also an important consideration to launch a 'bottom-up', professional programme – that is, driven by experts –, as opposed to a 'top-down', heavily centralised, politically loaded one. Therefore, it seemed to be a better solution to initiate TEP by OMFBC Council where civil servants, business people, representatives of the research community and various professional associations and innovation policy experts take decisions together." [Havas, 2002]

But probably the same reason could be detected behind the fact that the relevant Czech ministry selected a management unit for the foresight exercise outside both the ministry (and government) and the traditional professional planning and future-studies community.

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<sup>3</sup> In some countries central government offices (agencies) have been created on the basis of the former national planning offices;

## **Social infrastructure**

In a well-developed, stable society large number of organisations facilitate and promote the communication among the different interest groups and social strata. This very complex and complicated associative and representative structure creates well-functioning networking platforms serving as infrastructure for foresight activities.

These structures in CEE are much poorer than in the developed nations, and even the existing institutions are much more inside-looking and narrow-minded, and usually they focus their attention on their short-term interests. Their function in improving the networking infrastructure in the society has not been realised. Their role in articulating interests of groups and communities they represent is weak. At present they have no significant contribution to create and develop platforms for open social discussions and dialogues.

In the countries in CEE there is a tradition on vertically organised systems. It is true for structuring the economic and social activities as well. The actors are socialised for being adjusted to such environments. Foresight is a method, which relies on social networking not accepting rigid and formalised hierarchies.

More generally, it can be underlined that all social systems in CEE “*appear to be highly localised and particularised. The different parts of the system have started to operate independently of the rest which among other features is characterised by restricted/non-existent flow of information between the parts, lack of co-operation and, in some cases, excessively high levels of competition.*” [PREST/FhG ISI 2000]<sup>4</sup>

**Lesson 11:** The underdeveloped, fragmented social infrastructure with low level of networking capacity and weak civil society do not provide the necessary support for foresight exercises in CEE. The application of this tool may indicate this deficit and contribute to the creation of new platforms for real social dialogue.

## **Human resources (participation and learning)**

The participatory character of foresight should be given a special attention in CEE. Probably this is one of the main aspects, which draw a sharp borderline between orthodox planning and foresight. The real activity of the different stakeholders’ groups participating in the exercise should also be carefully studied. The selection procedure and the criteria for selection both also seem very important.

In CEE the most critical point is how the business community is represented. In countries where the national business entities are only in the early phase of development, their international links are usually underdeveloped. There are only a small number of high level managers who are ready and able to have *real contribution* to a foresight-like long-term strategic thinking. However, a successful foresight programme needs active participation not only from the multinational companies’ side but from national big firms and SMEs as well. This is one of the most challenging requirements for foresight programmes in CEE from the participatory point of view.

The other factor, which should be taken into special consideration in CEE is the traditional strong position of researchers in science-related public matters and their very weak links to the business sector. There are several misunderstandings in relation to the role of science in a modern society, which seem to remain strong in CEE in mid-term. For example: based on the previous practice and experience the autonomy of scientific activities is over-estimated. Many scientists share the opinion that setting S&T priorities is not the task of governments and the decisions on public funding allocation should be left exclusively on the science community (from setting up the rules to evaluation). On the other side, at the beginning of the transition

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<sup>4</sup> The sentences were written only on Poland, but we think it is relevant generally on CEE as well;

period many politicians (and leading economists) thought that the market would automatically result in applications of scientific knowledge without any involvements of the government. In time when the foreign direct investments were (are) the major sources of technological innovation, the local R&D efforts are considered by many decision-makers and experts as only a cultural activity. The poor understanding of the concept of innovation is also typical in CEE. All these opinions have strengthened the defensive reaction of the science community and have decreased the trust toward political instruments, which otherwise should be strong in innovation policy setting.

**Lesson 12:** The relative weakness of the business sector in CEE may result in an unbalanced representation of stakeholders (not necessarily measured in terms of the number of participants, but as in terms of their real involvement and their influence on the process). There is a danger that foresight activities in CEE can become too academy-oriented (research-motivated). The business participation should be taken seriously during the whole process.

Another barrier in relation to foresight activities in CEE is the general attitude to social communication. *“Social dialogue is part of the EU acquis but in most candidate countries it is still only weakly institutionalised and the capacity of interest organisation is progressing slowly. This is due in part to the communist legacy and in part to the context of economic transformation...The ability of the state to dictate the system of consultation and collective bargaining has been strengthened by the realities of economic reform such as large-scale privatisation, the need to impose wage limits, and high unemployment.”* [European Communities, 2001c]

In the Czech programme the communication among different actors was considered as a tool for consensus building. Mostly the panel members were involved in this process. Several users have also been contacted by the programme in the interviewing phase. The number of participants is relatively low (less than 500), but the time frame could not make it possible to reach broader social base. Majority of the panel members was over the age of 50 (76% of the total participants), they had a high share with academic background (51%) and most of them were males (90%). Very limited representation was given to young persons (7% under the age of 40). The programme could become attractive for several acting politicians as well.

**Lesson 13:** The participation of politicians and policy makers in the activities of different bodies of foresight has proved to be a good approach.

In the Hungarian case the communication and the involvement of more and more individuals in the whole process was one of the aims of the programme. Taking into account the membership of the different bodies (altogether some 200 leading experts), the respondents of the Delphi survey and the participants of the various workshops organised across the country, a few thousand industrialists, academic persons and government officials have contributed to the success of TF. The participation of young generations and females were also too low in this programme. The capital, Budapest was over-represented (as it is the case in innovation activities, R&D and economic performance as well). The programme at its beginning aimed to have a strong involvement of journalists (as “engineers” of social communication) in the panels’ work, but the number of persons and their contribution was far from the expected.

The human development process is one of the permanent activities of foresight. It is very important to have the critical mass in foresight expertise, which is necessary to launch a programme.

In CEE the preparation for a foresight activity starts with learning. Lacking any experience in applying this tool, a critical mass of experts should be trained. Potential foresight participants might be ‘deterred’ by sophisticated, demanding methods, especially when foresight is conducted for the first time in a country. This human capital development phase may determine the later success of the programme. Its smooth implementation requires a large number of well-trained foresight-experts in all the participating communities, so there is a strong need for a permanent training and learning activity. The learning capacity of different social actors varies, so both the content and the applied methodology should be adjusted to the “receiving & adaptation” culture of the trainees. As far as the “language game” is concerned, the learning process should target the concept of foresight.

**Lesson 14:** The real time learning is the main elements of the whole foresight process, not only at the beginning (in the pre-foresight phase) and during running the programme, but in the implementation (dissemination) phase as well (evaluation etc.).

### **Administrative culture**

#### **Examples for implementing foresight recommendations**

The two foresight programmes that have been completed in CEE could not provide enough experience to draw some conclusions concerning the use of foresight recommendation in policy formulation. However, a short summary of the present stage of implementation seems to have some values:

<b>TF case</b>	<b>Actions</b>
Czech Republic	<ul style="list-style-type: none"> <li>◆ The government – based on the recommendation of the TF - is preparing a decision on the priorities and the management structure of the National Targeted Research Programme (launching in January 2003).</li> </ul>
Hungary	<ul style="list-style-type: none"> <li>◆ Some ministries have (probably) relied on TF results/recommendations when formulating their policies/strategies (ministries of transport and environment);</li> <li>◆ A new public health programme is under preparation<sup>5</sup>;</li> <li>◆ A new funding scheme launched in 2002 by the Ministry of Education aiming to develop mobility between firms and academia (it was one of the recommendations by TEP);</li> <li>◆ A number of standing committees of the Parliament have discussed TEP reports, usually recommended to take action (e.g. health, education, environment, IT, economy, transport &amp; traffic);</li> <li>◆ The strategic division of the Prime minister's office has begun to organise discussions by panels' reports.</li> </ul>

#### **Implementation capabilities**

National (and regional) foresight programmes are implemented in an environment, which is strongly determined by the operation of public administrations. Usually these organisations play important roles in launching these programmes, when they decide their focus, objectives and

<sup>5</sup> Co-ordinated by a member of the Health and Life Sciences panel of TEP and launched by the relevant minister who was also a member of that panel;

expectations. They actively participate in the execution phase and are responsible to transforming the outputs into actions.

For a post-communist government the socio-economic transition and the restructuring of its operation is a Herculean task. The paradox of the state in transition is that it is supposed to retreat from the dominant position it held under socialism and at the same time be the prime actor in the transition. The transition from big government to a strong state lies at the core of transforming the economic system in former communist countries. [Wagener, 2000]

According to Western experts one of the biggest deficits the CEE countries have in preparation for the EU membership is the relatively poor performance of public administration. *“Candidate countries will need to attain their administrations to reach the level of reliability of the European Administrative Space an acceptable threshold of shared principles, procedures and administrative structural arrangements.”*[OECD, 1999]<sup>6</sup>

*“At present the administrative/government system in most of the CEE countries is highly hierarchical and vertically organised. The information moves usually from the bottom to the top through a large number of gateways, while the decision-making responsibilities are centralised. The 1990 reform was only partial. It focused only on separating the political positions (ministers and state secretaries, political advisors) from administration and for the creation of civil servant corps.”* [Kozlowski, 2002] Division of responsibilities is not well-defined (like financing, evaluation, monitoring etc.). Mechanisms for balancing different interests of stakeholders and mutual control of different decision-making organs are weak or lacking.

The co-operative culture is very poor, the tasks and functions of individual organisations are not well defined, the system itself is not transparent enough. The organisational learning and innovative capabilities are weak. The technical and managerial competence, creativity and strategic thinking are not highly valued, the loyalty is much higher prioritised as requirement for employment than the professional knowledge and expertise. There is a growing gap in skills at local labour markets between the private and public sectors. This gap has already turned into counter-selection by quality. It has resulted in more rigid system from labour mobility point of view. The transparency in daily activities, the accountability, working under well-defined rules and conditions, delegating the authority and responsibility to lower level of the hierarchy (to the level where enough information is quickly available for making decisions) are not considered as values in operating government offices. Not the quality of services, but positioning the given organisation in the power game determines actual decisions. The system is not open for new initiatives, its adaptation ability is weak and does not show high level of flexibility. Co-ordination and co-operation among the different ministries and government agencies is a very challenging job.

At the time of knowledge-driven society the productivity of hierarchically organised systems has proved to be eroded, while the structures functioning in a matrix-like system are becoming much more appropriate and effective. The public administrations in CEE can not be considered as modern, high-quality organisations in this respect. They face now double challenges: first of all, they have to be reformed in order to follow the operation of such institutions in the developed democracies and secondly, parallel with this process they have to be adjusted to the presently not precisely defined requirements of the “information society”. Brand new technologies of governing should be applied in CEE in the near future (in 10 years).

Foresight programmes, while providing the framework for a “disciplined vision of the future”, demand a considerable level of social and political stability and continuity. The complex process from conception to decisions on implementation takes about five to six years. It means that at least two governments are involved in the exercise.

Out of the four countries we studied there are three where parliamentary election was held after launching the TF programmes. In two cases (Poland and Slovenia) the uncertainties of these

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<sup>6</sup> Quoted by Kozlowski [2002]

political movements caused negative impacts on running the programmes. Hungary was the only country where the change of governing coalition has not resulted in breaking the process.<sup>7</sup>

The receiving capacity and ability of the relevant decision making organisation(s) is critical for implementing the programme. The later acceptance of the recommendations should be enhanced by the procedure itself.

**Lesson 15:** The decision of an official body is not a pre-condition for launching a foresight exercise. However the strong involvement of those who may use or apply the results of foresight is necessary in the whole process. Therefore the audience of TF is another key issue in setting up a programme.

Regardless of the country and thus the political tradition, there are issues that need special attention in relation to formulating policy recommendations:

- ◆ The time horizon of foresight recommendations is always far beyond the usual interest of the decision-makers (politicians and civil servants). The need for recommendations that could be used directly in the decision-making procedure is an inherent contradiction that foresight needs to face.
- ◆ The long-term view of foresight may become even more serious if the exercise address broad socio-economic issues (as it happened in the Hungarian case). As far as the time horizon and the potential issues of the exercise are concerned, it is advised to take into consideration how the groups with potential action power are thinking (time horizon; what issues may interest them; what measures/actions would 'pay off', power game etc.).
- ◆ There is no consensus among the leading political actors on the growing importance of innovation and knowledge in modernising the societies. As part of this aspect, there is no common understanding of the strong relationship between innovation, economic performance, competitiveness and quality of life. Even scientific community and public administration often fail to understand the complex nature of innovation and follow the outdated linear model of innovation.
- ◆ Policy proposals advised by the foresight papers tackles complex issues, while at the same time they should be understood and then managed successfully by a hierarchical and vertical organisational structure of the government. [Havas, 2002]

**Lesson 16:** The TF actions contribute to a better understanding of the close relationship between technological and non-technological factors influencing the quality of life and competitiveness.

**(Government structure and the implementation)** Higher number of agencies (ministries) involved in the implementation needs higher level of co-ordination and co-operation inside the government. Thus the involvement of a large number of government agencies and experts that strengthen the participatory character of TF may also cause difficulties in relation to the implementation.

The instability related to the S&T administrative structure creates unfavourable environment for TF activities. The frequent structural changes of governing organisations, the weak position of

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<sup>7</sup> But as we discussed earlier, the TEP was not highly visible at top government level and the new minister supervising this activity was earlier one of the foresight panel's member (as scientist);

innovation and R&D administration inside the governmental structure usually makes it impossible to create the necessary coalition behind the foresight exercise inside the government.

There is no dedicated agency being responsible for innovation and technology in the four countries discussed. *“Parliamentary committees or extra-governmental councils for science and technology do not appear to play a significant role in innovation policy formulation.”* [European Communities, 2001b]

The TF activities at this time are usually a very “personalised” business in CEE. If the person (minister or other high-level administrator/politician), who guarantee the necessary political support to the programme steps out of the stage, the chance to stop or break the process is high.

**Lesson 17:** The application of foresight is not embedded into the normal decision preparation system in CEE. When foresight is applied for the first time in a country, the role of person(s) providing political support to the exercise is extremely important which makes the process too risky and vulnerable.

The process itself and its implementation very much depend on the administrative and especially on the decision-making culture. How can a paper with full of recommendations be transformed into actions inside the government’s decision making and implementation labyrinth? One of the key challenges is how to transfer the TF recommendations into decision-makers’ intention. In this process paying attention to the changes of the governments is very important.

**Lesson 18:** The recommendations of TF usually need actions far beyond the 4-year governing cycles. From the very beginning of the foresight exercise the precise planning of this transformation should be considered as a key element. It differs by country and by administrative culture.

## Reasons behind postponing launched foresight programmes

In two cases the launched foresight programmes have been postponed.

**(The Polish case)** After finishing the preparatory phase the relevant government agency (KBN) began to set up the Steering Committee and the panels. Because of the unsatisfactory level of trust in the different stakeholders’ groups resulted in a failure of combining these bodies. The persons interviewed under this study explained by two reasons this fact.

Firstly, in the past decade several policy papers on S&T were prepared in Poland without any practical consequences. Nobody could give a guarantee that the foresight process would not follow this practice. Close to the parliamentary election (in 2001) the time for launching such long-term forward-looking activities seemed to be too risky. Secondly, in 2000 and early 2001 the S&T administration, especially the minister chairing KBN, focused their attention on very important legislative actions (modification of the law on KBN). The failure of setting up the necessary bodies on one hand, and to have a more urgent policy task on the other have resulted in postponement of the national foresight programme without having an exact time frame for the continuation. After the election the newly appointed minister at KBN has announced officially that the technology foresight programme is one of his priorities.

**(The Slovenian case)** The situation in Slovenia was a little bit similar to the Polish one. The previous government decided to launch a national TF exercise and started to prepare it. After a strong awareness building and training activities a launching conference was organised in 2001, called *“Slotech 2010”*. However, after the parliamentary election the science & technology administration was totally restructured. The Ministry of Science & Technology (the agency which launched TF) was dissolved, the science units have become a minority part of the Ministry of Education, while the technology sections have merged to the Ministry of Economy.

This fragmented representation of innovation and S&T in the public administration could not keep the necessary energy and coalition inside the government and with major stakeholders behind the launched foresight programme. The importance of TF in the agenda of the Ministry of Education has decreased, leaving alone the Ministry of Economy which realising this situation decided to launch a “key technologies” programme.

**(The Hungarian case)** The parliamentary election in Hungary (in May 1998) has not broken the running TF process. The programme was launched about half a year before the election by the then relevant government agency (being responsible for innovation and technology development<sup>8</sup>). It was not given a strong support from the top of the government. Why? There are three reasons. First, given that the next election would be held in 1998, launching TF as an officially approved government programme seemed to be somewhat risky. Second, it was also clear that it would be a too lengthy process to seek a ‘rubberstamp’ from the government. Third, it was also uncertain if the acting government would give its support (given the low importance attached to innovation policy by both governments in 1990-1998). [Havas, 2002] The TF programme has survived, but in lacking strong political support the weak coalition in the public administration may result in serious problems in accepting the recommendations. (But as the facts detailed under the point 4.4.2. show, this strategy may also lead to positive social and political acceptance of the recommendations and may result in actions.)

### **Communication**

One of the most challenging aspects of the application of foresight as a policy tool is the communication among the participants in order to find consensus in most of the questions raised by the process itself. This communication can not be simplified to discussions on the same topics, but it requires real dialogue, improving the understanding inside the foresight community, finding or creating common language during the process and pushing (sometimes pulling) the participants into the same direction.

One of the major indirect impacts of foresight may (or should) be to gain really good practice in communication between social groups which are usually not talking to each other, and improving the networking in the society. Another advantage of foresight is to develop the communication culture in general in the society as a whole.

**Lesson 19:** Foresight may demonstrate the weakness of social dialogue, networking and poor communication capabilities at organisational and social level on one side, and it may contribute to developing this culture in an effective way on the other. This aspect of foresight may be considered nowadays in CEE as the most important positive impact.

This element of foresight has an extremely high importance in the case of CEE countries. The quality of public discussion in almost all the accession countries is a problem. After the political changes these societies have become much more fragmented than they were earlier. The links between business and academy, business and public administration are poor which makes the national system of innovation very underdeveloped. These relationships are usually not institutionalised, the bridge-building actors are missing, and still the intention by the actors to improve this communication is lacking or very weak. The societies have not realised that it is one of the main obstacles of modernising themselves.

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<sup>8</sup> By OMF (National Committee for Technology Development) – after the election the agency was first supervised by the minister of economy (who was earlier member in one of the TF panels), then the administration was merged to the Ministry of Education (keeping the Committee as an advisory board to the minister);

## **Structural contribution to European integration**

### ***Capacities developed by TF actions as values in the unified Europe***

Foresight is a new tool applied more and more at both national and regional level in Europe. The accession countries are part of the “European foresight area”, so any capacities built up there may contribute to the continental stock of knowledge, expertise and skills. A common foresight language may contribute significantly to the synergy of regional, technology and innovation policies inside and outside the EU. It may make easier both the applications for and the decisions in the EU’s different supporting schemes.

### ***TF as developing new resources for modernising the societies***

Foresight may create new resources or develop the existing ones. There are some areas where the importance of this tool can have a special importance in CEE (communication, networking, TF infrastructure, common language, international links, business-academy relationship, new planning/visionary methodology, development of policy decision culture, improving the social infrastructure and reflexivity etc.).

### ***TF as a resource in preparing countries for EU membership***

One of the five objectives of the EU strategy on the knowledge-based society is a “society open to innovation”. The need for the development of a broad dialogue with science, business and the general public on the opportunities and risks of new technologies and innovation is hence given priority. This topic is very much related to cultural aspects. [European Communities, 2001b]

Foresight as a tool may play an important role in the preparation of the accession countries to the EU integration. First of all, with the help of foresight candidate countries may analyse their present status and their potential future opportunities in an effective way. Foresight may serve as an appropriate platform for policy decision preparation. Secondly, the indirect impacts of foresight activities can contribute to significant improvement of many resources (especially human and social ones) which are necessary to modernise these nations. It can create a solid basis for networking of individuals and organisations, and it may indicate the weaknesses in the social and institutional infrastructure of communication. It may help realise at the society and institutional level the strong and urgent need for developing this system, and mobilise the necessary resources. And thirdly, foresight capacities may assist to prepare good quality strategic documents both at regional and national level, increasing the competitive position of national applicants for EU funds.

## **Conclusions**

After a decade of intensive period of transition, countries in CEE face new challenges. How these societies should be put on a fast growing development track, which may result in modernisation and preparation not only for EU membership but for navigating the nations successfully in the age of globalisation and information as well? This question will generate a new set of future-orientation in these societies. The growing demand for making decisions for longer time horizon may create a strong social basis for forward-looking exercises. Foresight can offer an effective, internationally accepted tool for managing successfully this process.

*This participative, transparent, forward-looking method “helps making choices in an ever more complex situation by discussing alternative options, bringing together different communities with their complementary knowledge and experience. In doing so, and discussing the various visions with a wide range of stakeholders, it may also lead to a more transparent decision-making process, and hence provides a way to obtain public support. Foresight, however, is not a panacea; it cannot solve all the problems listed above, and cannot solve any of them just on its own. Obviously, other methods and tools are also required.” [Havas, 2002]*

**Lesson 20:** The foresight exercises in CEE have demonstrated, that this tool can be relevant even in a small country, not in the forefront of technological development, but rather somewhere in the semi-periphery.

The potential benefit of national TF programmes in CEE may be summarised in the following way [SPRU/FhG ISI, 2000]:

- ◆ Changing the thinking on the role of science, technology and innovation;
- ◆ Identification of S&T priorities through a transparent process;
- ◆ Identification of priority industrial sectors/sub-sectors and their technology needs;
- ◆ Development of a coherent national innovation policy;
- ◆ Increased interactions between representatives from government, industry and academia;
- ◆ Creating pre-conditions for the development of trust in the relationships between different social actors;
- ◆ Initiating a process of communication;
- ◆ Achieving consensus regarding the current and future problems;
- ◆ Increased level of co-ordination between different policy making bodies.

**Lesson 21:** Factors which are necessary to launch a successful foresight programme:  
[a] Well-defined focus, objectives, audience and responsibilities; [b] Organisational stability in the TF management; [c] Strong, but 'distant' political support; [d] Sound management structure; [e] Incentives for the participants<sup>9</sup>.

**Lesson 22:** Coalition building is an important and necessary step for running foresight exercises successfully.<sup>10</sup>

**Lesson 23:** The TF programmes should not be rushed, they should be given sufficient time for reflection, learning, refinement and reactions.

**Lesson 24:** In foresight the process itself is as important as the outcomes, it may also be considered as a product of the exercise. It is dangerous if the "technology" of foresight is given high priority and the process itself is considered only as a tool (especially in CEE nowadays).

<sup>9</sup> Motivations - not necessarily financial ones, but strong policy support, new way of thinking and communication, well-organised project, international and local networking etc.;

<sup>10</sup> For example the following questions should be carefully examined at the beginning of a TF exercise: who holds the flag of action, who are the main partners, what is their role, what is the character of their contributions, how the decisions are made, who has the decision making power and in which issues, who is sponsoring the exercise etc.;

### Summary Table of Lessons

In the following the lessons and experiences discussed in details above is put into the following matrix:

	Barriers	Challenges	Opportunities	Approaches
Capacity Building				
Governance structure				
Importance of learning				
Quality control				

The real content of this table is given by column.

### Barriers

	Barriers
<b>Capacity building</b> <i>(the role of TF in capacity development)</i>	<ul style="list-style-type: none"> <li>◆ Segmentation (traditions, segmented civil societies etc.);</li> <li>◆ Decision making culture;</li> <li>◆ Planning traditions and culture;</li> <li>◆ Low risk taking capacity, short terminism – need for cultural changes;</li> <li>◆ Poor social reflexivity.</li> </ul>
<b>Governance structure</b> <i>(private/public partnership)</i>	<ul style="list-style-type: none"> <li>◆ Institutional infrastructure (private sector only for consulting);</li> <li>◆ Not well-balanced actors (stakeholders: weak business and civil society, strong administration);</li> <li>◆ Bureaucracy;</li> <li>◆ Administrative culture;</li> <li>◆ Limits of legal competencies of institutions;</li> <li>◆ Lack of institutional maturity, resource and autonomy at regional level.</li> </ul>
<b>Importance of learning exercise</b>	<ul style="list-style-type: none"> <li>◆ “Language game” – calling something as TF; not the language, but the concept should be targeted in the teaching process);</li> </ul>
<b>Quality control</b> <i>(methods applied, competencies etc.)</i>	

## Challenges

	Challenges
<b>Capacity building</b> <i>(the role of TF in capacity development)</i>	<ul style="list-style-type: none"> <li>◆ PPP – how to take into a social context;</li> <li>◆ Network-development.</li> </ul>
<b>Governance structure</b> <i>(private/public partnership)</i>	<ul style="list-style-type: none"> <li>◆ Motivation;</li> <li>◆ No trust = failure (trust is a source of capital);</li> <li>◆ TF should be placed into a wider policy area;</li> <li>◆ Inadequate systems of governance, competencies and regional resources (the innovation is dominated by national level actors, regions are not given power to deal with and manage it);</li> <li>◆ TF may support restructuring the S&amp;T systems and the regional innovation systems;</li> <li>◆ Role of person(s) providing political support is very high (it increases the risk and vulnerability of TF exercises).</li> </ul>
<b>Importance of learning exercise</b>	<ul style="list-style-type: none"> <li>◆ Motivation (why we need TF? – organic and inorganic approaches);</li> <li>◆ Policy-making is strongly influenced by EU funding schemes, opportunities (FP5, FP6, preparation for the future availability of the Structural Funds etc.);</li> <li>◆ Teaching the present and future policy makers;</li> <li>◆ Keeping real time of the learning activities and character of TF (from the preparation to the implementation of TF recommendations).</li> </ul>
<b>Quality control</b> <i>(methods applied, competencies etc.)</i>	<ul style="list-style-type: none"> <li>◆ Selection of participants and methodologies is determined by cultural and social factors, and by the focus and objectives of the programme.</li> </ul>

## Opportunities

	Opportunities
<p><b>Capacity building</b> (the role of TF in capacity development)</p>	<ul style="list-style-type: none"> <li>◆ Catalyst for change;</li> <li>◆ Sustaining the momentum of regional development;</li> <li>◆ TF may validate longer term, future-oriented goals for policy decisions at regional level;</li> <li>◆ The complexity of major public issues can not be handled and managed effectively without foresight methodology;</li> <li>◆ Better understanding of the close relationship between technological and non-technological factors in innovation.</li> </ul>
<p><b>Governance structure</b> (private/public partnership)</p>	<ul style="list-style-type: none"> <li>◆ New ways of communication are developed;</li> <li>◆ TF may generate brand new platforms for partnership and it may demonstrate new level of civil and business participation for all the players;</li> <li>◆ TF may clarify institutional competencies between national and regional actors.</li> </ul>
<p><b>Importance of learning exercise</b></p>	<ul style="list-style-type: none"> <li>◆ New culture of communication;</li> <li>◆ Technical competence and skills may be developed;</li> <li>◆ Indirect impact of TF may be to build trust and developing learning and technical capacities at regional level;</li> <li>◆ TF may facilitate innovative behaviour and complex approaches of strategic thinking.</li> </ul>
<p><b>Quality control</b> (methods applied, competencies etc.)</p>	<ul style="list-style-type: none"> <li>◆ TF may focus to mobilise the extensive human and financial resources at regional level, especially in countries with poor regional system of governance.</li> </ul>

## Approaches

	Approaches
<b>Capacity building</b> <i>(the role of TF in capacity development)</i>	<ul style="list-style-type: none"> <li>◆ Organic foresight (the motivation is strongly connected to local needs);</li> <li>◆ Pre-foresight seminars – awareness building.</li> </ul>
<b>Governance structure</b> <i>(private/public partnership)</i>	<ul style="list-style-type: none"> <li>◆ Coalition building is necessary in order to improve the supporting base of both the process and the implementation;</li> <li>◆ Macro level scenario building is necessary in CEE where there is no consensus in the society on the major future visions of development;</li> <li>◆ Participation of politicians may serve the future implementation of the recommendations and the necessary networking among the major stakeholders.</li> </ul>
<b>Importance of learning exercise</b>	<ul style="list-style-type: none"> <li>◆ Non-organic foresight having a demonstration character;</li> <li>◆ Scenario-building techniques should be considered as a targeted teaching subject during the pre-foresight phase.</li> </ul>
<b>Quality control</b> <i>(methods applied, competencies etc.)</i>	

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## Appendix

### APPENDIX 1: MAIN MILESTONES OF TF PROGRAMMES IN CEE

#### THE CZECH PROGRAMME

<b>December, 2000</b>	<i>Launching the TF exercise</i>
<b>January-February, 2001</b>	Pre-foresight phase (identification of sectors and experts, building project structure)
<b>March-May, 2001</b>	Input data collection (interviews, desk research, sectoral SWOT analysis)
<b>June-September, 2001</b>	Panel work
<b>October, 2001</b>	Public presentation of the interim results
<b>October-November, 2001</b>	Working group discussions (finalising the selection process of key research directions (KRD))
<b>December, 2001</b>	Final report to the government and public presentation of the results
<b>May, 2002</b>	Decisions at government level based on the TF recommendations (expected)

#### THE HUNGARIAN PROGRAMME

<b>1996/1997</b>	Studying the TF programmes in other countries
<b>April, 1997</b>	Launching the programme
<b>October, 1997</b>	Steering Group appointed
<b>October, 1997 – April, 1998</b>	Pre-foresight phase (awareness building, setting up panels, training courses etc.)
<b>April, 1998</b>	Main foresight (panel SWOT analyses, thematic reports and alternative visions, Delphi survey, macro-vision development)
<b>May-June, 1998</b>	Parliamentary elections and new government
<b>January, 2000</b>	Major restructuring of the S&T administration
<b>May, 2000</b>	Main foresight process completed (final reports of the Steering Group and the panels)
<b>June, 2000 -</b>	Dissemination and implementation

#### THE POLISH PROGRAMME

<b>1999</b>	Preparing TF: PHARE SCI-TECH II. programme
<b>April, 2000 – January, 2001</b>	Trying to set up Steering Committee (failed)
<b>February, 2001</b>	Decision on postponement of TF

**November, 2001**

Parliamentary elections, new government

**February, 2002**

Starting the preparation of a new TF exercise

**THE SLOVENIAN PROGRAMME**

**2000**

Launching the TF programme

**2001**

Pre-foresight process

(conference on TF, setting up a working group on TF, experts' training)

Parliamentary elections, new government

Major restructuring of the R&D administration

Launching a key technologies programme

**May, 2002**

Publishing the final report of the key technologies programme (planned)

## **APPENDIX 2: QUESTIONS OF INTEREST**

### **FACTS**

- ◆ Identification of national foresight programmes in your country (name)
- ◆ How you define(d) “FORESIGHT” (what you mean on that term and what you do not consider as a foresight?)
- ◆ Main focus of the programme (social – human potential development, education & training health care; science & technology; sector development – SMEs clusters; territorial, regional or other)
- ◆ Main objectives (policy decision preparation? informing the society and/or the policy makers, building networks, improving the competitiveness etc.)
- ◆ Applied methods (panels, questionnaires, meetings, workshops, Delphi survey, scenario building, necessity of macro – national level – scenario, scientific analyses & reports, other surveys etc.)
- ◆ Participants (the character of participants – like industry, SMEs, government, trade unions etc.; the extent of the participating institutions – all of them, or a certain share of them, the criteria of selection etc.)
- ◆ Funding bodies (the size and the source of foresight programme funding)
- ◆ Time factor: time horizon of the programme; Time schedule of the programmes (launching date, their present status, the expected finishing date)
- ◆ Outputs of the programme (What is the character of the final document: priority list of necessary actions, scenarios, accounts of future trends, visionary paper or a much more practical, action oriented document etc.)
- ◆ Identification of major actors in foresight (institutional and personal selection)
- ◆ Activities related to regional foresight actions in your countries (examples of foresights at regional level, interests to run a foresight at this level, awareness of foresight methodology at the regional development community, major actors – both at institutional and personal level – in regional foresight in your country)
- ◆ The demands related to regional foresight in your country

### **EXPERIENCES:**

- ◆ Policy context (in the initiation phase, during running the programme and readiness for action at the end) – intentions, interests, understanding of foresight by major actors of the national system of innovation, demand for coherent, future-oriented policies, difficulties)
- ◆ Main motivations of launching the foresight programme (innovation policy, economic and social development policies, international “pressure”, personal reasons etc.)
- ◆ Outcomes of the programme (what it has resulted in so far and/or what is the expectation as outcomes)
- ◆ Preparation of the programme (main characteristics and targets of this process, applied methodology)
- ◆ Selection of methodology for the foresight activities (rationale of this selection, description of the selected methodology)
- ◆ Scope of the foresight programme (holistic approach, technology fields targeted – why they have been selected and how the selection process was run etc.)

- ◆ Communication strategies and methods
- ◆ The organisation and management of the programme (e.g. Steering Group, panels - how to select the members, the decision-making system on methodological, policy, administrative and financial issues)
- ◆ Major difficulties the participants have met in running effectively the programme in your country (cultural, social, political and other factors)
- ◆ Assessment of the resources available for running a foresight programme in your country (financial sources, human resources available, infrastructure resource, cultural resources, social resources)
- ◆ Indirect impacts of the TF programme in your country (learning effects necessary for and resulting from TF, institutional and civic capacity building and development necessary for TF, TF as a factor for institutional learning and innovation system development, Bringing new ways of communication)
- ◆ Which factors are considered as necessary and/or important ones for running successfully a TF programme in your country or in other accession countries? (Factors which are as important there, than in other countries, factors having special importance in the case of accession countries, factors which may limit the success of TF in an accession country )

#### **STRUCTURAL CONTRIBUTION TO INTEGRATION**

- ◆ Capacities developed by TF actions as values in the unified Europe
- ◆ TF as developing new resources for modernising the societies
- ◆ TF as resources in preparing the countries for the EU membership

#### **LESSONS**

Conclusions on factors favouring and those, which are not favouring foresight activities in your country; practical advises to the followers – best practice & failures.

## APPENDIX 2: LIST OF PERSONS INTERVIEWED

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<b>Czech Republic</b>	KADLECIKOVA, Kristina	Technology Centre, Foresight Manager
	VÁCHOVÁ, Daniela	Technology Centre, Foresight Manager
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