Enlargement Futures Project

Forum Bled, 2-4 December, 2001

PROCEEDINGS

Enlargement Futures Report Series 07

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Introduction

This year’s Forum Bled (the 6th one since 1994) was organised by the Ministry of Education, Science and Sport of the Republic of Slovenia in co-operation with the Institute for Prospective Technological Studies from Seville around the results of the Enlargement Futures project. By drawing from a wider circle of experts than from government and science alone, the IPTS project attempts to map the uncertainties as they are perceived by society as a whole, and to sketch the strategic choices and policy options open to the present and future member states of the European Union. The Steering Group of the Enlargement Futures project met early this year in Brussels, and again in Prague in September. The expert panels had earlier workshops in Seville and in Prague as part of the mid-term seminar of the project.

The Conference in Bled was attended by over 100 experts, most of whom were from the candidate countries. Ministers, civil servants and representatives of non-governmental organisations were among the participants. Copies and executive summaries of the reports can be found on http://www.jrc.es/projects/enlargement.

The Programme in Bled started with opening speeches by Ms. Lucija Čok, Minister of Education, Science and Sport of the Republic of Slovenia, Mr. Jean-Marie Cadiou, IPTS Director, Mr. Erhard Busek (a Member of the Association Forum Bled, later appointed as the EU’s Special Representative for the Stability Pact for South-East Europe), Ms. Tea Petrin, Minister of Economy of the Republic of Slovenia, and Mr. Rado Bohinc, Minister of Interior of the Republic of Slovenia and one of the main initiators of the Forum Bled.

Minister Čok stressed the importance of the European Research Area, as well as that of the Higher Education Area for the development of a science and technology community in the enlarged EU. Dr. Cadiou explained how the process of Enlargement itself challenged both the candidate countries and the present EU member states to consider possible future developments. The political, economic and social impacts were further highlighted by the next three speakers. Dr. Busek emphasised the positive role of the EU in the creation of peace and stability in South-East Europe, mentioning the candidate country status of Slovenia as a good example. Minister Petrin gave an overview of the Slovenian policies on economic development and innovation. The final speaker of the opening session, Dr. Bohinc, discussed some security aspects of EU policies and Enlargement.

The second day of the Conference was devoted to the presentation and discussion of the final panel reports of the Enlargement Futures project. It was opened by Dr. Rado Genorio of the Slovenian Office for European Affairs and by Dr. Gustavo Fahrenkrog, who presented an overview of the project and a preview of its main findings.

The session on Technology, Knowledge and Learning discussed the priorities in the areas of science and education. It observed the tendency in the candidate countries to remain close to the stated policy objectives of the EU and its present member states, without taking into account the restrictions of the government budget and the need to be innovative. Prof. Charles Edquist congratulated the authors of the report for their productive approach, combining a focus on both innovation and learning with empirical work. His advice would be to analyse the services sector and the organisational structure in more detail. Prof. Namik Kemal Pak emphasised the progress of Turkey in the field of science and research. The problem is one of insufficient demand. Turkish industries have largely failed to develop their own research system. Prof. Alojz Kralj of the
Slovenian Academy of Sciences and Arts asked what references candidate countries should use in their decision making. Mr. Dominique Le Masne commented that even the present EU member states face problems in the recruitment of young researchers.

The Economic Transformation panel found that a more detailed analysis of branches of industry and service sectors could lead to a better understanding of the process of economic growth and convergence at national and region levels. Foreign direct investment is a very favourable influence, which with time should help the candidate countries to develop their indigenous base of market-oriented research. Prof. Andras Inotai warned against uncontrolled competition on the basis of labour costs and pointed out the changing role of investment by trans-national companies in a world of free capital movement, with perhaps an increasingly limited spin-off to local small and medium-sized enterprises. Prof. Jerzy Kleer added that imitation strategies may not always produce the desired results in the candidate countries. Prof. Marian Švetličič of the University of Ljubljana warned against leaning too much on the past when looking ahead. He stressed that without the transformation of the existing EU economy the economic transformation of the candidate countries cannot be expected to be successful, and that the new European architecture should give small countries a significant role to play.

The session on Sustainability, Environment and Resources discussed possible developments in the areas of water and soil, energy use and transport. Ample room for national policies and win-win situations were identified in the report, for instance in the promotion of alternative methods of farming and in the development of bio-fuels. While acknowledging the difficulty of establishing a change in values based on better information and knowledge, the discussants (Mr. Børge Diderichsen, Prof. Jaanus Paal, Prof. Uno Svedin, Dr. Aleksander Zidanšek) suggested that even more innovative approaches than those identified in the report should be sought. They also recommended investigation into the effects of environmental policies on the population’s health in the long term and inclusion of global risks such as climate change and increased poverty and inequality. A more immediate concern is to what extent the candidate countries will be willing to accept regulation and taxation as means to provide stimuli for innovation and sustainable development.

The panel report on Employment and Societal Change addresses the challenges of regional transformation and the possible role of social security and enhanced mobility in the pursuit of the EU’s cohesion objective. Mr. Allan Larsson warned against attacking the challenges only at the regional level, pointing out the more general tension between the turnover of jobs on the employment demand side and the much slower regeneration rate at the supply side. Bearing in mind the fact that 80% of today’s technologies will be replaced over the next ten years, measures to encourage life-long learning on the part of the labour force are called for. Prof. Igor Lukišič referred to the Commission’s White Paper on Governance and the attempt to re-connect Europe with its citizens. In the same vein, Prof. Claire Wallace touched upon the issues of migration and xenophobia. Prof. Jerzy Langer emphasised the importance of education, innovation and adaptability for the success of the European Research Area: “Panta Rei”.

At the last day of the Conference the draft report of the panel on Information and Communication Technologies was presented. The ICT panel is an offshoot from the Technology, Knowledge and Learning panel.

This presentation was followed by a session on Ethics in Science and Research, in relation to social values and Enlargement. Dr. Gregor Tomc of the University of Ljubljana added some thought-provoking insights, for instance on the use of labelling for products produced with the help of genetically modified organisms.
The Conference ended with presentations on the European Research Area and Enlargement by Mr. Louis Bellemin of DG Research and on the different concepts of national, regional, cultural and European identity by Prof. Mitja Žagar, Director of the Institute for Ethnic Studies in Ljubljana.

Closing remarks were made by Prof. Stane Pejovnik, State Secretary of education, Science and Sport of the Republic of Slovenia, and by Dr. Cadiou.
Enlargement Futures Project
FORUM BLED
on
Techno-Economic and Societal Impact of EU Enlargement
Bled, December 2-4, 2001

PROGRAMME

Sunday, December 2, 2001

18:00 - 19:00  Registration of Participants

19:00  OPENING

Science, Education and Training – Cornerstones of Knowledge Based Society
Ms. Lucija ČOK (Minister of Education, Science and Sport of the Republic of Slovenia)

Introduction to the Enlargement Futures Project
Mr. Jean-Marie CADIOU (European Commission, Director - JRC/IPTS)

Europe and the “Sciences Added Value” in the Context of Enlargement
Mr. Erhard BUSEK (Chairman, Institute for the Danube Region and Central Europe, Austria)

National Development Programme and Foresight in Slovenia
Ms. Tea PETRIN (Minister of Economic Affairs of the Republic of Slovenia)

Freedom, Security, Justice – Elements of EU Policies
Mr. Rado BOHINC (Minister of Interior of the Republic of Slovenia)

21:00  Reception given by the Minister Ms. Lucija ČOK

Monday, December 3, 2001

09:00 - 10:00  INTRODUCTORY SESSION
Chair: Mr. Stane PEJOVNIK (State Secretary - Ministry of Education, Science and Sport, Slovenia)

Candidate Countries and the Enlargement Process
Mr. Rado GENORIO (Deputy Director - Government Office for European Affairs, Slovenia)

Enlargement Futures Project
Mr. Gustavo FAHRENKROG (European Commission, Head of Unit - JRC/IPTS)
10:00 - 11:00  
**PLENARY SESSION I**

**Panel Report on Technology, Knowledge and Learning**  
Mr. Ken DUCATEL (European Commission, Futures Project Manager - JRC/IPTS)

Interventions:  
Mr. Charles EDQUIST (Linköping University, Chairman - Department of Technology and Social Change, Sweden)  
Mr. Namik Kemal PAK (President - TUBITAK, Turkey)  
Mr. Alojz KRALJ (Vice President, Slovenian Academy of Science and Arts, Slovenia)  
Mr. Dominique LE MASNE (Ministry of Research, Deputy Head - European Affairs, France)

11:00 - 11:30  
Coffee Break

11:30 - 12:30  
**PLENARY SESSION II**

Chair: Mr. Zoran STANCIC (State Secretary - Ministry of Education, Science and Sport, Slovenia)  

Panel Report on Economic Transformation  
Mr. Andries BRANDSMA (European Commission, Enlargement Project Manager - JRC/IPTS)

Interventions:  
Mr. Andras INOTAI (Institute for World Economics, Hungarian Academy of Sciences)  
Mr. Jerzy KLEER (Warsaw University, Department of Economics, Poland)  
Mr. Marjan SVETLIČIČ (University of Ljubljana, Faculty of Social Sciences, Slovenia)

12:30 - 15:00  
Working Lunch

15:00 - 16:00  
**PLENARY SESSION III**

Chair: Mr. Robert BLINC (Jožef Stefan Institute, Slovenia)  

Panel Report on Sustainability, Environment and Natural Resources  
Mr. Peder JENSEN (European Commission, TSD Unit/IPTS)

Interventions:  
Mr. Børge DIDERICHSEN (Novo Nordisk, Vice Director - Corporate Research Affairs, Denmark)  
Mr. Jaanus PAAL (University of Tartu, Institute of Botany and Ecology, Estonia)  
Mr. Uno SVEDIN (Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning, Director of International Affairs, Sweden)  
Mr. Aleksander ZIDANŠEK (Director, Center for Sustainable Development, Slovenia)

16:00 - 16:30  
Coffee Break
16:30 - 17:30  PLENARY SESSION IV  
Chair: Mr. Vlado DIMOVSKI (Minister of Labour, Family and Social Affairs of the Republic of Slovenia)

Panel Report on Employment and Societal Change  
Mr. Marc BOGDANOWICZ (European Commission, JRC/IPTS)

Interventions:  
Ms. Claire WALLACE (Institute for Advanced Studies, Austria)  
Mr. Allan LARSSON (Former Director General, DG Employment)  
Mr. Jerzy LANGER (Polish Academy of Sciences, Advisor to the President)  
Mr. Igor LUKŠIČ (Dean, Faculty of Social Sciences, University of Ljubljana, Slovenia)

19:30  Dinner

Tuesday, December 4, 2001

09:00 - 11:00  PLENARY SESSION V  
Chair: Mr. Jože TRONTELJ (University Clinical Centre, Slovenia)

Information and Communication Technologies  
Ms. Elissaveta GOUROVA (European Commission, JRC/IPTS)

Issues on the Research Agenda:  
EU Prospective of Ethics in Science and Research  
Ms. Barbara RHODE (European Commission, Head of Unit, Research DG)  
Popular Fears vs. Professional Ethics  
Mr. Gregor TOMC (Faculty of Social Sciences, University of Ljubljana, Slovenia)

11:00 - 11:30  Coffee Break

11:30 - 13:00  CONCLUDING SESSION  
Chair: Mr. Milos KOMAC (State Undersecretary - Ministry of Education, Science and Sport, Slovenia)  
European Research Area and the Enlargement of Europe  
Mr. Louis BELLEMIN (European Commission, Head of Unit - Research DG)  
Enlargement – The Search for a European Identity  
Mr. Mitja ŽAGAR (Director, Institute for Ethnic Studies, Slovenia)

13:00  CLOSING REMARKS  
Mr. Stane PEJOVNIK and Mr. Jean-Marie CADIOU

14:00  Working Lunch
OPENING
Science, Education and Training - Cornerstones of Knowledge Based Society

Ms. Lucija ČOK

Minister of Education, Science and Sport of the Republic of Slovenia
Your Excellencies, Dear Ladies and Gentlemen - our distinguished guests,

I am honoured to welcome you to the Forum Bled Conference, organised by the Association Forum Bled and the Institute for Prospective Technological Studies, here in the beautiful scenery of Bled in Slovenia. I am especially pleased and proud that this important initiative, offering in-depth discussions, exchange of opinions and views related to the role of education, science and technology in the economy, society and policy, is focusing this year on the challenges and opportunities of the EU enlargement.

The EU has a clear vision of the strategic development, which includes enlargement as the crucial short-term task. Among the priorities set for strategic development of the EU, sectors like public health, biotechnology, information and communication technologies, rational use of natural resources, strengthened role of renewable energy sources, sustainable transport, sustainable land use and climate change were identified. These priorities are a challenge for the current member states as well as the candidate countries, who will undoubtedly turn to the research and technological development sphere in order to find the proper tools and solutions. Science certainly has the means to develop suitable tools and solutions. Through such instruments as the European Research Area, Framework programmes, and Networks of Excellence, the integrated and co-ordinated scientific activities in Europe will surely play an important role in creation of incentives and in facilitating the integration of the associated countries.

Today, more than ever before, following the September 11th and later events, we should be aware of the reality of globalisation. Challenges facing Europe in the coming years are mostly linked to social inclusion and human resource development.

Recent history reminds us forcefully that regional problems and conflicts, as well as degradation of environment and climate change, have already become a common problem to every living being on this planet. And only science can give the appropriate answers to the accumulated problems demanding a systematic and problem solving approach. At the moment when our country has been invited to participate in the 6th framework programme of the European Community for Research, Technological Development and Demonstration Activities (2003-2006), this very important meeting is taking place here in Slovenia. This gives us an opportunity to focus on some crucial aspects of participation in the next framework programme, European Research Area, European Higher Education Area, etc.

Of course, success and the concrete achievements of this meeting will be assured by you, our distinguished guests, therefore our full appreciation goes to your attendance and your interest in closer collaboration and to our common willingness to harmonise positions towards the EU and its educational and research initiatives.

In the previous conferences of International Science and Technology Forum Bled it was established that the current state of affairs with regard to scientific research, technological development, education, economy, society and policy is extremely challenging for the candidate countries.

However, innovation capacity and absorption of industry, especially in small and medium sized enterprises, has to be promoted. Educational, research and development activities also have to be integrated into the strategy of homogeneous regional development and adjusted to the demands of the fast development in the EU. Despite several drawbacks, the candidate countries have expressed
their determination to improve the deficiencies as soon as possible. Nevertheless, the enlargement envisaged will certainly add a new dynamic to the European integration processes.

In this context, this meeting should be aimed at finding the largest possible number of mechanisms to define the most appropriate ways of collaboration. It should also identify areas of common interest in the fields of science, technological development, education, economy and society, oriented towards a strategy-based participation in the common European space. In this respect, we should consider ways of strengthening collaboration among the member states and candidate countries through closer partnerships, especially in the light of the forthcoming preparations for the common European educational and research incentives.

Taking an active role in the accession process to the EU is an important step for Slovenia. The discussions so far have identified similar views on the significance of education, science, technological development and innovations in the developmental strategies in Europe. These findings together with harmonised, common positions among candidate countries on EU incentives should speed up the EU enlargement process. The crucial criteria for Slovenia as a small country, is to be recognised in the European space.

The associated status and active participation in the FP5 gave the candidate countries the opportunity to check the skills and competitiveness of their RTD sphere in the European space. As a relatively new country, Slovenia has taken its role seriously. Preparations involved multilevel activities, planned and performed through co-ordinated actions of our ministries, universities, institutes, Innovation Relay Centre and companies in order to promote Slovenian research and business involvement in European RTD programmes and to increase our European partners’ awareness of Slovenia’s potential. By the end of 2000 in the FP5, Slovenia had more than 250 successful participants in 200 projects.

In the field of education and training, candidate countries have also been very aware of the need for international co-operation, comparability and compatibility. They must adopt some basic common standards (but without uniformity) of knowledge, skills, competencies, and attitudes that represent a prerequisite for integration into broader development currents and processes presented by the “knowledge–based Europe”.

Slovenia has a number of reasons for its full involvement in international co-operation in the field of education in the recent years. One of them, on an internal level, concerns the conceptual and legislative changes in the whole structure of education that occurred in the past decade and the need for concrete verification and comparison of solutions at international level. Another one is basically connected with strategic geopolitical changes in Europe and with the shifts in the philosophy and understanding of international co-operation in the field of education. There is a move from “co-operation” towards “internationalisation”, from an activity-oriented towards a process-based strategy. This is accompanied by a shift of attention from individual to institutional aspects, and from bilateral to multilateral co-operation. The growing importance of activities targeted on groups of countries underlines both the existence of common interests and the need for multilateral co-operation. This internationalisation process enables Slovenia to enter as an active partner into the new “international educational space”. The synergies in the field of education will be explored chiefly through high-quality international co-operation, via networks, joint programmes and projects, common databases and comparable methodologies. Here, I would put special emphasis on academic mobility as an important lever for creating a “common European Higher Education area”.

Higher education is indeed the education sector which has always been the most dynamic in seeking out and building up co-operation beyond frontiers. Therefore, the most important questions in this perspective in the field of education would be:

- How can governments, in co-operation with higher education institutions, help to face up to the major challenges in the overall process of convergence and shape European higher education area, and

- how could the countries gathered here today contribute to this process, taking into account both individual and common interests?

The conclusions of the Bologna declaration represent a major step in that direction. Slovenia is strongly determined to implement the conclusions by introducing them into its legislation and other strategic acts, and by means of adjusting its educational system to EU standards.

Slovenia is expecting a very positive impact on its economy from active involvement in the EU initiatives. In this respect, direct contact between high representatives, followed by close contacts between scientists, experts, co-ordinators, national contact points and facilitators from all over Europe, is still the best way of obtaining good results in international scientific and educational co-operation.

To ensure final goals it is extremely important to engage the right responsible partners and to form sound consortiums on the incentives foreseen. In my opinion, this high level meeting is an important step in the process of exchange of good practice and experiences among the promoters and multipliers of research and educational policies in Europe and world wide.

Today education, research and technological development play a central role in society. This fact needs to be recognised by all countries that wish to become or to remain competitive by European and global standards. The awareness of the importance of international co-operation in the field of science and technology is crucial for all countries in the modern world. As a small country, Slovenia is particularly aware of the importance of science, research and technological development for the country and its society, and is taking an active role in promoting scientific and technological research aimed at bringing benefits to the nation.

I would like to thank our distinguished guests and high representatives for their interest and presence at this important meeting and I hope that, as a result of our discussions here in Slovenia, many closer links will be established between our educational, RTD and economic spheres. Also, I hope that many possibilities for closer partnerships that stimulate future collaboration will be identified. Now is the crucial time to find common positions with regard to the EU incentives. I wish all of you fruitful discussions and I hope that we can upgrade the existing links and establish closer partnerships between our countries in the future.

Thank you for your kind attention.
Introduction to the Enlargement Futures Project

Mr. Jean-Marie CADIOU

European Commission, Director - JRC/IPTS
Enlargement is perhaps the greatest challenge the EU has faced in the more than 40 years of its existence (including the years that it existed under the flag of the European communities), for at least three reasons:

- It has the potential of making Europe the biggest economic power in the World in terms of production and trade.
- It ends the division that has existed between East and West since the end of World War II.
- It is causing all of us, in the EU 15 and in the candidate countries, to rethink our policies and give them a sustainable future.

Accordingly enlargement has been given high priority by the Commission, and even higher this year. According to the Commission’s recommendation to the Council, published on 13 November, up to 10 candidate countries could be ready to join in 2004, that is in time for the next European Parliament elections. There is sufficient basis for that in the current financial framework. In fact, this repeats and confirms the Commission’s recommendations of last year, as endorsed by the European Council in Nice in December 2000.

The Strategy Paper accompanying the 2001 Regular Reports on the progress of the candidate countries towards accession adds that the accession negotiations can be concluded independently of the decisions to be made on EU finance for the period after 2006. By the time of the European Council in Seville in June 2002, the Commission will report on its action plan, including reports on the monitoring of the commitments on institution building made by the candidate countries during the accession negotiations.

This year’s Strategy Paper emphasises that it is imperative for enlargement that the historical process of re-unifying the European Continent is firmly rooted in the support of its people. Ensuring that the public in the Member States and in the Candidate Countries is well informed is a major challenge in terms of communication strategy for everyone involved: Commission, European Parliament, Member States and Candidate Countries authorities as well.

Obviously, most EU policies are affected by enlargement, and in particular the Research Policy and the European Research Area recently proposed by Commissioner Busquin, of which Candidate Countries are clearly an integral part.

The European Commission’s Joint Research Centre, which serves EU policymaking where S&T matters are concerned and is a key element of the ERA, has launched a major initiative on Enlargement. This deals with S&T issues covering the “acquis communautaire”, involving candidate countries in its networks of partners, and also training and mobility. In particular, the JRC is about to launch an initiative to bring people from candidate countries to JRC Institutes and policy Directorate-Generals, so that they learn how the policy making process works in the Commission, and how Directives are prepared, decided and monitored (at least the S&T based ones).

IPTS, the Institute for Prospective Technological Studies, is one of the seven JRC Institutes. Its mission is to anticipate technology and society developments, paying special attention to the interaction between the two, draw up analyses and bring them to the attention of policy makers.

Very early on, we recognised the importance that enlargement was going to have, both in the EU-15 and in the candidate countries, and how deeply this was going to affect policy areas such as
technology, employment and competitiveness. This was first analyzed in the course of the Futures Project, but at the same time, we decided to launch a network with key people from candidate countries that eventually led to the Enlargement Futures Project. Many members of this network are present here. I don’t want to mention all of them because I am sure I will forget someone, but the Slovenian member is Milos Komac. Professor Michel Kleiber, who was with us from the beginning, could not come today, because he has just been appointed as the Polish Minister of Science. I also want to mention that several other members of the Foresight Network have since become members of the JRC Board of Governors: Karel Aim from Czech Republic and Andrejs Silins from Latvia are with us today.

Before I say a few words about the Enlargement Futures project, let me just outline why I think foresight has become more and more important in the last few years.

As evolution in both technology and society accelerates the need for anticipation is greater. At the same time, people need time to change their ways of living, and sufficient time has to be allowed for suitable debates and people’s involvement before a major decision can be accepted. Unfortunately this means very often that by the time the decision can be taken, the problem has changed, in other words often today’s decisions solve yesterday’s problems.

Another issue concerns long term problems, like the consequences of demographic or climate change, which require difficult decisions, but where the effect is not seen immediately. The temptation is great to put the problem to one side until after new elections – or even until the next generation.

These (and other) reasons, in my view explain why anticipation (or foresight) is now of increasing importance.

The Futures project brought together the lines of thought that the IPTS had been developing since its inception in 1994. It analysed the key drivers of change and innovation in Europe up to 2010, and their implications for technology, employment and competitiveness in the EU. The Enlargement Futures project started in January 2001 with a similar philosophy, but focusing on the enlargement issues, particularly seen from candidate countries’ perspectives.

Actually, both the Futures and the Enlargement Futures projects have been recognised in the Commission’s White Paper on Governance as one of the instances where longer term views on “Policies for an Enlarged Union” are exchanged, discussed and thoroughly analysed.

A Steering Group was set up, which came up with a list of more than 80 possible topics when it met at the beginning of this year. These were then clustered in 4 thematic panels:

- Technology, knowledge and learning (Education and skills, Intellectual capital, Brain drain, S&T, ICTs)
- Sustainability, environment and natural resources (Energy, Water, Mobility and Transport)
- Employment and societal change (Demography, Health, Diversity, Cohesion; boundary conditions)
- Economic transformation (Industry, Agriculture, Trade, Services; measurements)
A panel on Information and Communication Technologies was added later on. And a special workshop studied the important and difficult questions of Ethical issues. Finally, several studies were commissioned to fill potential gaps left in the landscape covered by the panels and to deepen the analysis of some of the key questions. The European Science & Technology Observatory (ESTO) network has taken a very active part in this, which is reflected in one of the reports of the project.

By drawing from a wider circle of experts than from government and science alone, the panel approach of the Enlargement Futures project attempts to map the uncertainties as they are perceived by society as a whole, and to sketch the strategic issues and some policy options open to the present and future member states.

The results of the project, as they will be presented to the Forum Bled tomorrow and the day after, are very much the product of the panel discussions. Many Steering Group and panel members are present here and we wish to thank them for all the input they have provided, during the workshops in Seville and the seminar in Prague, but also before and after those meetings.

Of much greater importance than the (considerable) size of the reports is, of course, their contents. These draft reports were put on the IPTS website even though their conclusions were still preliminary. Views of government and NGO representatives could be found next to each other, and next to the findings of scientists, researchers and media representatives. And in the final reports they are still there. This shows that when discussing and contemplating possible future developments the different views proved to be far from irreconcilable.

Two examples of conclusions that run through the panel reports are:

- That greater regional diversity can be made into a focal point and a big advantage of the Union through an operational and partly institutionalised exchange of best practice
- That new or aspiring member states should not blindly follow the priorities of the incumbents, for instance in the field of science and technology, but find innovative approaches best suited to their particular situation and strengths.

As the reports show, these conclusions on the exchange of best practice and the need to find innovative solutions could equally apply to such areas as the environment (the use of renewable energy), education, migration and the setting and revision of social systems.

I will defer other insights and conclusions for the presentations tomorrow and the day after. But not before thanking the Forum Bled for providing us with this splendid occasion in this beautiful place. The Forum Bled Association and the Slovenian Ministry of Education, Science and Sport have got together a very distinguished audience, and I hope that, all together, we will make the best of this unique opportunity.
European Union Contemporary Security Policy Implications

Dr. Rado BOHINC

Minister of Interior of the Republic of Slovenia
Mister Chairman, Distinguished Colleagues, Ladies and Gentlemen!

Providing security, prevention and suppression of crime in a climate where there is more and more international and transnational link-up, makes it necessary for individual countries to integrate their security functions along wider international lines. And not just that, I believe that because of these new threats, we have also to think about setting up a supranational concept of international security, or a "global security network". Today, we cannot simply provide security on the national level any more, the time has come when we have to think about the formation of common principles for crime prevention and suppression policy, about reconciliation of individual measures and legal order, about exchange of experience, information, and so on.

The question arises to what extent these security needs are reflected in European integration, or in the narrower sense, by integrating into the European Union, and above all:

- what is the role of the European Union, from the supranational state institution standpoint, in providing security;
- what are the "international security" implications, where the security of the Union as a whole is concerned;
- how the Union responds to the new threats to Community safety, what security measures it provides, and whether we can talk in this context about an overall crime prevention and suppression "policy";
- whether in today’s context of the European Union’s entire institutional structure and its legal order we can already talk about the traditional concept of national security being widened;
- what are the criteria with which candidate countries should comply in order to achieve full membership of the European Union in the security field and to collaborate in the "global security network". Last but not least, how do we achieve these standards?

The European Union today has undoubtedly achieved more than economic integration only. What was initially economic integration exclusively has grown into a political superstructure, which includes collaboration among member countries in the field of common foreign and security policy, and in the field of justice and home affairs. This process, which has not been developed simultaneously, is today reflected in a series of factors - for example, in the community role of the acquis communautaire formation, in institutional construction, in decision making processes, and so on.

The European Union’s common security policy formation process, at the moment directed only towards the most visible and burning Community threats, has a short history. First steps towards the formation of a common security area were only taken in the mid 1980s. Recognition of the fact that provisions for the free movement of persons, services and capital imply the loss of control on state borders, thereby indirectly opening the way to various types of crime which threaten the security of member countries, has also encouraged measures for crime prevention. Various working groups were formed, individual projects were elaborated, and agreements concluded (Schengen) on the limitation or prevention of potential threats to the Community.
The Maastricht Treaty (1992) represents the first formal step towards the EU as a political union. It makes provisions that represent a common interest in realising the Union’s objectives on collaboration in the field of justice and home affairs. It substantially intervenes in order to achieve the right of free movement of persons, and the prevention and suppression of organised crime. The possibility of collaboration between security and judicial institutions was for the first time analysed in detail.

The Amsterdam Treaty (1999) introduced further substantial and formal modifications of agreements upon which the European Union has been founded. We could even talk about a new European Union "Constitution" since it includes provisions that refer to the security area, predominantly provisions on common foreign and security policy, and the gradual development of an area of freedom, security and justice.

The new Chapter (IV) regulates free movement of persons on internal borders, control on external borders, defines measures in the field of asylum, immigration and protection of the rights of citizens from third countries, and judicial participation in civil cases. All these issues have to a great extent become a concern of the Community as a whole.

In a similar way the “third pillar” part that defines police and judicial cooperation in criminal affairs should become more operational. This mainly concerns the fight against organised crime, terrorism, trafficking in human beings, drugs, weapons trade, bribery and fraud. For this purpose, special authority was granted to Europol (European Police Office), and the decision was taken that the Schengen system, originated outside the European Union, should be legally and institutionally included in the Union.

The Intergovernmental Conference that concluded its work in December 2000 in Nice added to the measures agreed in Amsterdam, mainly on the institutional level. In justice and home affairs, the most significant additions are:

- measures to facilitate free movement of European Union citizens (Article 18 of the Agreement on EC),
- judicial participation in civil matters (Article 65 of the Agreement on EC), and
- provisions under paragraph IV of the Agreement on EC (visas, asylum, immigration and other policies that refer to free movement of persons).

Bearing in mind the modifications briefly outlined above in policy on security, justice and home affairs, introduced first in the Amsterdam Agreement and then further in the Nice Agreement, I believe that we can now reply positively to some of the questions I raised in my introduction on the European Union role in the development of an area of freedom, security and justice.

The Union’s role as a supranational institution providing security has undoubtedly been strengthened. This is reflected in the decision making process and in the larger role played by the European institutions in community "security policy" planning, fields of common interest, and legal order. Likewise, candidate countries are constrained to comply with more detailed criteria in order to achieve full membership in the EU. The new agreements facilitate participation and decision making with qualified majority, mainly in those fields that make up the framework of free movement of persons or migration policy, while the other part is still subordinated or dependent on intergovernmental decision making, understanding and consensus. Measured by these indicators we
can conclude that a great step forward has been taken, mainly in planning the common migration and asylum policy.

As regards the latter, European Union activities are no longer oriented only towards reconciliation of national measures to control the entry and movement of people within the European Union, and among member countries, but also on a wider scale. It is now understood that control over migration fluctuations and illegal immigration prevention cannot be provided without wider international cooperation in suppressing the original causes.

The tragic consequences of the recent terrorist attack on the U.S.A. has demonstrated the need for the formation of a common European security and crime prevention policy and has provided a strong incentive for the introduction of harmonised measures. The Union and the larger international community have never before been so unanimous in their condemnation of any criminal act, and have simultaneously harmonised crime prevention and suppression measures as a result.

It has been recognised that efficient national and community security cannot be provided only through the exchange of data on criminals, which has been the case with international police cooperation up until now. What is needed above all is a uniform criminal and penal policy, covering investigation methods and the creation of a common intervention force. However, we are also more and more confronted with the dilemma of when and to what extent we should apply measures that restrict human rights and freedom. Naturally, this is a question of values: to what extent does the maintenance of security justify intervention into human rights and freedom? This question goes beyond the agenda of our discussions today, though in the future it will undoubtedly need careful attention in the formation of further common security policy.

Slovenia is actively participating in the development of a common security policy and taking steps to comply with the demanding criteria for European Union membership. As regards immigration, all planned European legislation on asylum seekers, foreign citizens and employment of foreigners has been adopted. The visa policy has also been entirely renewed. Slovenia has harmonised the provisions that refer to the efficient suppression of organised crime with European law, and we have signed and ratified numerous international conventions on corruption, drugs trade prevention, transnational crime prevention, and others.

Our legal system in the field of justice and home affairs is thus already harmonised to a great extent with the European Union legal order. Therefore, we now have to also assume responsibility and prove our readiness for active participation in providing security in the common European space. Last but not least, as members of the European Union we shall assume responsibility for protection and control of its external borders.
INTRODUCTORY SESSION
Candidate Countries and the Enlargement Process

Dr. Rado GENORIO

Deputy Director - Government Office for European Affairs, Slovenia
Ladies and Gentlemen,

I would like to express the satisfaction of our Government with the Commission's recent adoption and publication of the fourth enlargement package, which includes the Enlargement Strategy Paper, Regular Reports on the progress towards accession by each of the Candidate Countries and the revised Accession Partnership. Our administration estimates that the report is generally favourable as far as our country is concerned. Moreover, it could be claimed that this year's report is the most favourable so far. Consequently, we are persuaded that it will represent a good foundation for a favourable report next year. This last report by the Commission will be of special importance as it will serve as a basis for the Commission's final opinion (avis) on the accession of the candidate countries to the EU.

I would like to stress that we were most satisfied by the fact that the current Report includes in its Strategy Paper a new approach by the Commission in which ten Candidate Countries are clearly singled out as being the most advanced in the negotiation process. These countries consequently will probably be included in the EU enlargement of 2004. The Report stressed the assessment of the Commission that all candidate countries, except Turkey, continue to meet the political criteria. With regard to the economic criteria Slovenia was, together with the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovakia, assessed to be a country with a functioning market economy that will soon be able to cope with competitive pressures and market forces.

In the Government of the Republic of Slovenia we were extremely happy to see that the Regular Report reiterates the Gothenburg dates: enlargement in 2004 and the conclusion of negotiations with those candidate countries which meet the conditions during the Danish presidency in the second half of 2002. It is planned that the drawing up of the Treaty of Accession will begin in the first semester of 2002. The mention of these dates in the Report is a further insurance for the administrations of the Candidate States that have entered in the last phase of painful reforms and negotiations for accession, that dates set in Gothenburg are going to be respected by the Union.

It is in my opinion that one cannot overestimate the significance of the Commission’s position that the negotiations should be conducted and concluded on the basis of the existing acquis. With regard to the chapters with the most substantial financial implications (regional policy, agriculture and budget) the budgetary framework laid down in 1999 in Berlin (Agenda 2000) should also be taken into account. According to the Commission this framework provides a sufficient basis for the financial aspect of the enlargement. It has been continuously stressed by our officials that negotiations should be concluded independently of the decisions for financing the EU after 2006. Therefore, we are very pleased with the Commission's position in this year's Regular report that confirms this principle and gives, at the same time, a possibility to the future Member States to be fully integrated in the establishment of a new financial perspective of the Union after 2006.

It is my deepest conviction that the Report on the progress of Slovenia reflects Slovenia’s genuine and substantial efforts to meet the conditions for membership and shows that last year’s endeavours to accelerate its accession to the EU have borne fruit. The progress in judicial reform and abolishing the backlog of pending court cases, the administrative reform, outstanding border issues with Croatia, free movement of goods, capital and services, taxation, customs, agriculture, transport, environment, telecommunications, culture, financial control and justice and home affairs has been assessed favourably. The Report states that Slovenia already fully fulfils the criteria in company law, agriculture, transport, energy, culture, audiovisual and telecommunications sectors.
Our administration has also taken on board some critical comments in the Report. According to the Commission Slovenia should speed up its preparations with regard to the backlogs in land registry cases, removing restrictions to free movement of capital, inflation control, privatisation of the banking and insurance sectors, regional policy, free movement of persons, social policy, consumer protection and translation and legal revision.

The fact that decisive steps should be taken in regional policy has been singled out in the Report. This had been highlighted by some Government Services in 2001. As hardly any progress was achieved in this area in 2001 the Commission has issued some quite critical remarks about the Slovenian regional policy. We are well aware that a sound regional structure is of vital importance for the successful functioning of a future Member State in the Union, and a precondition for the acquisition upon accession of financial means from the structural and cohesion funds. These decisive steps will therefore be taken by Government services in the future.

Ladies and Gentlemen, allow me to say that I am convinced that the Commission’s Regular Report on Slovenia’s progress towards accession for 2001 is, and should be, an additional encouragement for the administration of the Republic of Slovenia to successfully conclude the project of accession of our country to the Union. At the same time, the Report sets on the administration some additional responsibility to its people to meet one of the priority goals it had set itself, i.e. to be internally ready to accede to the EU by the end of 2002.

Today’s main occupation is how and when to finalise Accession Negotiations. The Accession Strategy and the Roadmaps for negotiations tabled by the Commission last year mean more than just a negotiating timetable. They are in essence a commitment by the 15 Member States to adopt common positions within certain timeframes, and this also goes for the area where their interests diverge significantly.

Slovenia’s goals are also very well known. Slovenia will be internally ready to fulfil obligations arising from the EU membership by the end of 2002. We would like to conclude the accession negotiations during the Spanish Presidency (June 2002) and sign the Accession Treaty by the end of the Danish Presidency, as I said before in Copenhagen. Following the above-mentioned timetable, we have reason to believe that the Accession Treaty should enter into force on 1 January 2004.

Negotiations are running smoothly. The basic principle of the negotiations is the principle of transparency. As you know, our position papers have to be presented in the Slovenian parliament.

In more than three years of the negotiations, we provisionally closed 22 Chapters.
COUNTRIES BY THE NUMBER OF PROVISIONALLY CLOSED CHAPTERS

CYPRUS 23
HUNGARY 23
SLOVENIA 22
CZECH REPUBLIC 22
LITHUANIA 21
LATVIA 21
ESTONIA 20
SLOVAKIA 20
POLAND 19
MALTA 19
BULGARIA 13
ROMANIA 9

During the Belgian Presidency, our intention is to close five more chapters, namely taxation, competition, justice and home affairs, transport and free movement of persons. Chapter 2 is especially difficult for Slovenia, bearing in mind that basic principles set by the EU, like differentiation, own merits etc., were not followed.

During the Spanish Presidency, we intend to close Chapters on agriculture, budget, regional policy and institutions.

There are still some controversial issues to be faced, for example justice and home affairs, taxation, budget, regional policy and agriculture.

A very important issue in the negotiating Chapter on Justice and Home Affairs is the protection of the future external borders. Regarding the financial issue, Slovenia expects to be a net receiver.

Other subjects, such as taxation and agriculture, throw up social issues. The agriculture acquis could change significantly in the next few years. But the decision to reform CAP first and to speak to the Candidate Countries afterwards would mean laying down a new condition. That kind of scenario is not acceptable for Slovenia. We have to negotiate and to conclude the negotiations on the basis of the existing acquis.

According to the National Programme for the Adoption of the Acquis, another 69 laws need to be passed by the end of this year. Nine of them have already been submitted to the National Assembly and are awaiting the third reading. The remaining 50 are expected to be adopted in 2002. However, political agreement will first have to be reached on certain legislative packages, and then the organic laws adopted. Such fields include employment, which is vital for direct foreign investments in Slovenia, public administration, for which all organic acts are awaiting parliamentary procedure, and the matter of the country's regionalisation, i.e. introducing a different territorial division.

An important step forward will be made with the amendments to the Constitution. In addition to the general provisions valid for accession to and membership in any supranational organisation, they will regulate a partial transfer of sovereign national rights.
The referendum and the importance of public opinion should also be considered. The decision by referendum prior to the ratification of the Treaty in the National Assembly will be of great political importance for our country. The latest polls show that 58% of the population would vote for accession. It is nevertheless necessary to prepare new measures in the field of public relations strategy because the existing activities have not yielded satisfactory results. It should further be mentioned that I am well aware of the fact that, as the accession process approaches its end, the number of questions and dilemmas directly concerning our membership in the EU is increasing. On the other hand, public awareness is also improving.

We should not forget that the future of the European Union, much discussed lately, must also be of concern to us as future Member States. Therefore, allow me to say in this distinguished setting, that for me the European Union means what it is right now. This is the Union we know and wish to become a member of, because of its successful functioning and the ability to overcome any obstacles. We have had daily contacts with its institutions for a number of years and know its officials by names. This, for me, is the reality.

We should therefore decide together on the future form and image of Europe. It is of the utmost importance for Candidate Countries that they contribute their own views on the future regulation of the relationships in the EU. I believe that the concept of Convention with representatives of the Candidate States as a prelude to the actual IGC will represent a constructive forum through which the many different political actors from the Member States, Candidate States and from the Union will be duly represented.

Such a Convention, coupled with precisely defined working methods, would facilitate reaching agreements on what we really want to achieve when speaking about the future of Europe. What kind of Europe are we working towards? Do we want a more political or a more integrated Europe?

The question of the final goal of European integration and the search for exactly what kind of Union we want to live in are far from being a new preoccupation – the latter existed long before the current integration project began. But it has never been such a serious issue before. The widening and deepening of integration have always gone hand in hand, and it seems that the new enlargement of the Union is no exception. It poses some fundamental questions, and the prominent names from Europe's political life are proposing different concepts and ideas as they try to look for an answer. We are all acquainted with those concepts and I am not going to reiterate them here.

Let me just express my sympathies with Mr. Jospin's model, where priority is given to the Union's objectives rather than institutional mechanisms. For him Europe is first and foremost a work of the intellect, a model of society and a vision of the world. Content first and structure second. In my opinion it is all about a community of common values, such as democracy, the rule of law, respect for human rights, a common market and, last but not least, respect for national and cultural diversity among the nations that constitute the Union. These values are the reason why membership of the Union became the top priority, and the main national interest of the newly born Slovenian state ten years ago.

Ladies and Gentlemen, let me conclude by saying that enlargement will happen and it will happen soon. We have passed the point of no return and the process is irreversible. We should be proud and optimistic about the accession of all our countries to the EU.
Enlargement Futures Project

Mr. Gustavo FAHRENKROG

European Commission, Head of Unit - JRC/IPTS
Introduction

Bled, Slovenia, December 2-4, 2001

Gustavo Fahrenkrog

IPTS within the institutions of the EU

THE EUROPEAN COMMISSION

20 Commissioners

Secretariat General  DG RELEX  DG Research  DG E&C  JRC  IPTS
The mission of IPTS

Is to provide prospective *techno-economic analyses* in support of the European Union’s policy-making process.

IPTS *monitors and analyses S&T related developments*, their cross-sectorial impact, the inter-relationships between *technology and society*, and their future policy implications.

IPTS operates *international networks*, pools the expertise of high level advisors and synthesizes and presents information in a timely way to policy makers.
The “Futures” Project: Focus on EU-15

- Four Panel Reports
  - **Demographic and Social Trends**: Mosaic Society & Ageing
  - **ICT and the Information Society**: Ubiquitous computing
  - **Life Sciences and the Frontiers of Life**: Precautionary principle
  - **Natural Resources and Environment**: Increasing complexity

- Three Maps
  - **Technology Map**: Europe’s strengths, weaknesses and timelines
  - **Competitiveness Map**: European attractor regions
  - **Employment Map**: Europe’s emerging skills crisis

- Three Cross-Cutting Issue Reports
  - **Knowledge and Learning**: Urgent need to restructure
  - **Enlargement**: Investment patterns & potential skill pools
  - **The Societal Bill**: health, pensions, education, environment a multi-dimensional challenge for 2010

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**Origin and objectives of “Futures Enlargement”**

- The **Futures** Project
- The Thematic Network of Foresight

- Identify the challenges of the transition
- Stimulate the debate
- Focus on S&T, Employment and Competitiveness policy
Steering Group

Experts candidate countries
- B. Tamm (EE)
- A. Silins (LT)
- K. Makariunas (LV)
- R. Galar (PL)
- M. Kleiber (PL)
- S. Kwiatkowski (PL)
- J. Langer (PL)
- K. Aim (CZ)
- K. Klusacek (CZ)
- P. Javorcik (SK)
- A. Havas (HU)
- F. Kovats (HU)
- C. Ciupagea (RO)
- M. Komac (SL)
- S. Totev (BG)
- E. Turkcan (TK)
- A. Demetriou (CY)

EU Experts
- G. Avery (EC-ENL)
- J. Burianek (EC-JRC)
- P. Caracostas (EC-RTD)
- G. Clar (EC-RTD)
- G. Dalton (UK)
- M. Keenan (UK)
- P. Havlik (A)

Enlargement Futures Project

Work Program for “Enlargement Futures”

Phase 1
- Steering Panel
- Thematic Panels

Meetings
- Brussels February 2001
- Mid-term Seminar Prague September 2001
- Conference Forum Bled December 2001
Some results:
Drivers of change

Two sets of very different drivers of change

- Those affecting all countries (EU +): technological change, globalization of economy, general demographic trends.
- Those affecting 10 of the 13 Candidate Countries: The effect of a planned economy on the geography of economic activity, skills and today of poverty

6 cross-cutting issues

- A Single Market of 28 countries inserted in a global economy
  - Consensus on Macro-economic policy (credibility)
  - Economic convergence is a slow process
  - Some countries might leapfrog this development—(Ireland)
  - Strong dependence on Foreign Direct Investment
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EU-15 100 100 2.6 3.3
Ireland 94 123 9.5 10.7
Greece 67 69 3.3 4.1
Spain 80 81 3.7 4.1
Portugal 71 74 3.6 3.3

**Trends in specialisation from 1995 to 1999**

![Diagram showing trends in specialisation from 1995 to 1999](image)
2. - Regional disparities

• 41 out of 62 regions show substantial weaknesses
• Large metropolitan areas are capturing most of the growth
  – complex economies
  – concentrate most skills
  – mobility is possible
• Weak are:
  – Second tier urban areas with industrial development
  – Regions with a high share of employment in agriculture
3.- Employment, skills and education

• Two different issues: at the low and high skill end

• Employment rate is falling despite above average growth

• Problems of low skilled unemployed
  – Linked to restructuring regions and sectors

• “brain drain” or “brain waste”: loss of skilled researchers leaving the research system
  • the need to make research careers more attractive

Employment rates in Spain, Hungary, Poland, Turkey compared with the EU-15 average
4. Challenge of reconverting the S&T base

Science and Technology strategies

- Agendas tend to be more technology push than market driven
- EU S&T policy is a tool to drive integration and sharing of facilities (the European Research Area)
- Need to find a balance between domestic requirements and European issues

The Societal challenge: the bill

Challenge:
Finding a **financially sustainable social security model**

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<th>Policies</th>
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6. The Challenges to a sustainable Europe

- **Environment** (implementation of the “acquis communautaire”: water directives, IPPC, impact of agriculture, mining)
- **Energy** (nuclear power plants, limits of renewables, alternatives => CO2)
- **Transport** (growing demand, limited infrastructures, congestion => physical and economic bottlenecks + CO2)
PLENARY SESSION I
Panel Report on Technology, Knowledge and Learning

Mr. Ken DUCATEL

European Commission, Futures Project Manager - JRC/IPTS
Enlargement Futures Project

Technology, Knowledge and Learning
Bled, Slovenia, December 2-4, 2001

Ken Ducatel,
Head of Futures

Main themes:
• Science and Technology strategies
• Knowledge institutions and capacities
• Learning capabilities
### S&T Strategies 1: excellence or relevance?

#### Centres of Excellence

**Country (city)**

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### S&T Strategies 2: Foresight = open processes?

#### Enlargement Futures Project

**Country**

<table>
<thead>
<tr>
<th>Country</th>
<th>Responsible institution</th>
<th>Mechanism / method</th>
<th>Time horizon (years)</th>
<th>Follow-up action / results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>Ministry of regional development</td>
<td>Panels of experts, SWOT analysis, sector studies</td>
<td>no 2000-2006</td>
<td>National plan for economic development</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Ministry of Education, Youth and Science</td>
<td>Panels of experts</td>
<td>yes 2001-2004</td>
<td>Priority for oriented R&amp;D</td>
</tr>
<tr>
<td>Hungary</td>
<td>Steering Group and National Committee for Technological Development</td>
<td>Panels of experts, scenarios, Delphi survey</td>
<td>yes 2000-2020</td>
<td>National innovation strategy</td>
</tr>
<tr>
<td>Latvia</td>
<td>Ministry of Economics</td>
<td>Scenarios, modelling, SWOT analysis</td>
<td>no 2003-2023</td>
<td>Macro-economic development</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Ministry of Economic Affairs</td>
<td>Panels of experts</td>
<td>yes 2010-2017</td>
<td>National development Programme (from 2003)</td>
</tr>
<tr>
<td>Turkey</td>
<td>Scientific and Technical Research Council of Turkey</td>
<td>Delphi, scenarios, panels</td>
<td>yes 2003-2021</td>
<td>Policy planning</td>
</tr>
</tbody>
</table>
S&T Strategies 3: Are resources sufficient?

R&D as % of GNP

EU Average

Source: Eurostat, National sources for Turkey

Knowledge capacities 1: High potential

Comparison of PAC and EU States’ Technology Achievement
Knowledge capacities 2: decline (& recovery?)

- Decline in applied research
- From ‘brain loss’ to ‘brain gain’

Knowledge capacities 3: weak domestic demand

- Short-term - competitiveness and market share
  - Product quality and diversification
  - Reduce costs - labour, materials and energy
  - Environmental protection
- Widely spread over economic sectors
- Limited financial resources and low revenues
Knowledge capacities 4: Options and strategies

- Target research intensive inward investment
- Create centres of excellence in applied research with industrial linkages
- Directly link research funds to S&T priorities
- Build on strong university-based research growth
  - Linking teaching and investigation
  - Part-time professors
- Encourage international research networking

Learning capabilities 1: Czech University growth
Learning capabilities 2: Skills gaps

<table>
<thead>
<tr>
<th></th>
<th>technical skills</th>
<th>IT skills</th>
<th>general flexibility/ adaptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>University graduates</td>
<td>40.58</td>
<td>13.04</td>
<td>46.38</td>
</tr>
<tr>
<td>Vocational education</td>
<td>20.99</td>
<td>32.10</td>
<td>46.91</td>
</tr>
<tr>
<td>Secondary education</td>
<td>28.75</td>
<td>23.75</td>
<td>47.50</td>
</tr>
<tr>
<td>Primary or less</td>
<td>32.79</td>
<td>13.11</td>
<td>54.10</td>
</tr>
</tbody>
</table>

Source: EBRD, 2000

CEEC staff deficiencies as compared to home country personnel (% of responses from senior executives in multinationals investing CEECs)

Knowledge and technology in 2010

- **Full integration**: all PACs integrated into the global/EU S&T system and specialized in areas where they could offer excellence or have competitive advantage
- **Regional co-operation**: countries and/or regions consolidate into co-operative blocs in respect to S&T capacity
- **Uneven and multi-speed progress**: big variations emerge with some PACs well integrated in the global/EU research area and others struggling to find a profile
First I want to congratulate the authors of this report. I think they have a very fruitful approach and I will come back to that. I also think that they have done very interesting empirical work in spite of the data problems that they have been confronted with. I am convinced this report will be extremely useful for the Candidate Countries.

The title of the report is "Technology, Knowledge and Learning" and in the report the authors talk both about Technology as well as about Innovation. There is, I would say, a major difference between these two. This picture should show this.

**Picture 1: A taxonomy of innovations**

If we divide innovations into its constituent parts, we can talk about product innovations, which is a matter of *what* is being produced, and process innovations, which is a matter of *how* things are produced. Among the process innovations, we have technological and organisational innovations, and among product innovations, we have goods as well as services. I strongly prefer the term innovation to technology because if you use the term technology there is a risk that you neglect organisational innovations. We know that they are extremely important for reaping the benefits from technological process innovation. There is also the risk of neglecting services. We all know that services constitute 70-80% of our economies.

As you notice, I'm focusing on the innovation part in the research and development and innovation system. I will talk about innovation systems from now on. In this way I think I will complement Mr. Ducatel who spoke pretty much about the research part.

As I see it, the most important components of innovation systems are organisations and institutions. Organisations are then formal structures with an explicit purpose; they are players or actors. They
include not only firms but also a lot of other organisations, e.g. public organisations. Institutions on the other hand are for example laws, rules and technical standards, they constitute the rules of the game as opposed to the players or actors. There are very important relations between organisations in innovation systems. Results from research on a region in Sweden shows that of those firms that carried out a product innovation during a certain time period, 76% developed this innovation in collaboration with other organisations. In highly developed countries this is a fact. I believe that a lot remains to be done in this respect in the Candidate Countries - and this is also stressed in the report.

The institutions - or rules of the game - in the system may influence or govern for example the relations between universities and firms, and this has been very important for the knowledge based industries. If the relations between firms and universities do not function properly it might be necessary to change the rules of the game here, i.e. to change the institutions governing this relation. This is actually a very important part of innovation policy. There is no direct economic cost associated with such kind of innovation policy because it is a matter of changing rules. In passing it could be mentioned that European integration is very much a matter of changing the institutions in Europe.

Thereby I have entered the area of innovation policy and I will continue by saying a few words about the policy implications of the so-called systems of innovation approach.

**Picture 2: General Policy Implications of the Systems of Innovation Approach**

1. Organisational actors might need to be created, redesigned or abolished.
2. Institutional rules might need to be created, redesigned or abolished.
3. Innovation policy should not only focus on the elements of the systems, but also – and perhaps primarily – on the relations between them.
4. Innovation policy should secure that negative lock-in situations are avoided.
5. Innovation policy should facilitate changes in the production structure.

No. 1 and 2 in the picture concerns the organisations and institutions and they might be created, redesigned or abolished and this was a very important part of the development process in many countries in East Asia. It has also been important in Eastern Europe during the last decade or so, but I think there is much more that needs to be done here in order to make the innovation systems of the Candidate Countries function more efficiently.

No. 3. The focus should be at least as much on the relations between the elements in the systems as on the elements themselves. This is because interactive learning between the elements in the systems is so important. Innovations are normally not made by firms in isolation, they are made by firms in collaboration with other units in the system.

No. 4. Negative lock-in situations are development paths that lead to, for example, low growth and high unemployment. This might happen in various countries or regions. The best way through innovation policy to try to avoid this is to facilitate (and now I'm on no. 5) changes in the production structure. This was very strongly stressed yesterday by the Minister of the Economy, Tea Petrin.
The reason that this is so important is that there are very large differences in the rates or productivity growth between sectors. In some sectors the annual productivity growth is maybe 2 or 3%, in other sectors productivity growth might be as much as 30, 40 or even 50% per year - which is quite amazing. This is, by the way, what has recently been called "the new economy".

There are basically three ways or three mechanisms to change the production structure in an economy. Diversification is one that has been much practised in East Asia. A second is firm creation and rapid growth of those firms - that's the US-mode. (For example, companies such as Cisco and Microsoft did not exist 2-3 decades ago.) A third mechanism is that foreign firms invest in new product areas in the country. This has been practised in Ireland, and has recently been very successful as we heard in Mr. Fahrenkrog's presentation earlier.

I have two more comments and I will try to be brief.

The first concerns the division of labour between the public and the private sectors, i.e. it has to do with the reasons for public intervention. In my mind two conditions should be fulfilled in order for public intervention in the economy to be justified. The first is that markets and firms cannot achieve the objectives. That is, a “problem” must exist, which is not solved spontaneously. This condition aims to ensure that what the public sector does not duplicate but supplements what market forces and private actors do. This might seem to be common sense, but there are actually many examples in which this condition has been violated, for example in Sweden. I also imagine that it is important to consider this in previously planned economies.

The second condition is that public authorities must also have the ability to solve or mitigate the problem. It might be the case that a problem cannot be solved by the public sector and then there is no reason to try, of course. It might also mean that new instruments have to be developed or created in order to make this possible.

My final comment is to say that a great strength of the report is that it deals with research and innovation on one side and education on the other side at the same time. It is not very common that reports do this, and this report is therefore an exception. This is important because innovation and education are two different kinds of learning which are very closely associated to each other. Education is a matter of individual learning, and the resulting human capital is controlled by individuals. Innovation and some other activities is a matter of organisational learning which leads to the accumulation of structural capital which is not controlled by individuals but by firms. I think it is very important for the Candidate Countries that they continue to deal with these two kinds of learning within the same context.

Thank you very much!
This speech was partly based upon the following publications:


My presentation will be quite different from Mr. Edquist’s. Being a theoretician, if I may use this term, he can challenge the report or he can even make some comments towards its improvement. Being a practitioner in science and technology policy, I will be more focused and I will have some comments from the Turkish perspective. Namely, what do we get out of it, how do we see it, and what are the things which could be considered strengths and weaknesses in our S&T system in the context of the report.

Turkish entry to the EU customs union in 1996, followed later by the formal acknowledgement of its candidate member status in Helsinki in 1999 have put Turkey on a course for integration with Europe, hopefully in the not too far future. Certainly the necessary condition for economic and ultimately political unification is the acquisition of the ability to innovate, in other words: transformation to a knowledge and technology producing country in the modern sense.

The question then is: What kind of technology and which fields of science Turkey should concentrate on so that it becomes a productive, a relevant or a useful member of the European Union? I'm commenting upon some of the leading themes in the report in this sense. Here, I would like to really make a reference to the very wisely stated warning in the report; I think it's one of the central themes which has been put forward in the report. Against an over-ambitious or cavalier - or whatever terminology you use - choice of the priorities in the cutting edge area mirroring those of the framework programmes and the EU member countries as a reflection of national pride instead of those actually needed by the country for creating critical national competencies.

Before the first invitation to Turkey to participate in the Enlargement Futures Project early this year, the Supreme Council of Science and Technology of Turkey had decided to formulate a long-term strategic policy document for Science and Technology for the years to 2023. The Scientific and Technical Research Council of Turkey (which I happen to be heading), in its capacity as the secretariat of the Supreme Council, was assigned to draft a policy document. Work is currently in progress on this draft in co-ordination with relevant scientific bodies from all sectors of the country, particularly economic sectors. The issue addressed in the scope of this project is the one stated above, that is: What kind of technology and which fields of science Turkey should concentrate on, not only in the context of EU enlargement, but also for the sake of its development. So, this question has a general relevance for Turkey.

Turkey is quite prepared, obviously, for a long and rather troublesome path to integration.

One of the basic tools available to us world-wide when deciding on a matter of such long-term perspective is the instrument popularly known as foresight. The major question is: How should we employ foresight for Turkey’s long-term scientific and technological progress? What parallel political, social and economic perspectives should we choose and how should we align them to scientific and technological progress? In which direction will the regional and global trends progress and how could they affect the country's future? These are crucial questions that need to be answered with acceptable clarity before an attempt towards formulating a long-term policy document, capable of retaining validity over the years.
There is one long-term objective for Turkey that can facilitate the addressing of all these questions: EU membership, which Turkey is determined to attain. Therefore, a starting point in our technological foresight is the harmonisation of Turkey's economic and political legal and social systems with those of the EU countries, i.e. with the acquis communautaire of the EU. However, in regard to science and technological systems, harmonisation does not lie in uniformity but, I would like to underline this, in diversity as it was again put forward in the report. As is the case of industrial trade, each country must concentrate its efforts in areas where it has relatively higher ability to complement the joint effort within the Union. There are definitely areas such as public health, medicine, etc. where concerted scientific efforts are needed. But outside of these, a country like Turkey can be very efficient in filling up the gaps in science and technology where European countries would be deficient.

Turkey has been patiently constructing a sound scientific infrastructure over the past 60 years. The number of universities, 74 in total, 51 being public and 23 being private non-profit organisations, is constantly increasing, with many of them on a par with top league international educational institutions. They are trying to meet the needs of an ever growing young generation, which demands better education and jobs – in short, a better future.

Turkey's young population, a sizeable portion of which is well educated, is also an asset I claim for Europe and the problems it faces with an ageing and declining population. Let me please quote some figures: The total number of students enrolled in primary and secondary education is 13 million and the ones in the higher education (in spite of the fact that, at less than 20%, the schooling rate is quite low) is 1.5 million. The total number of teachers in the primary and secondary sector is about 0.5 million and those in the higher education, including research and teaching assistants, is 150,000. So we are talking about a huge group of people which is a tremendous asset.

Although there is still a long way to go in bringing our research system (in terms of the number and quality of researchers, as well as funds at their disposal) up to the EU level, the primary bottleneck in our S&T system is insufficient demand for science and technological capacity building. With the lack of adequate incentives over the past years, industries have failed to deal with their own mechanisms for innovation, relying instead on indirect technological transfer or simply product licensing. TUBITAK has dedicated a good portion of its efforts and resources to addressing this problem, harvesting encouraging results in a relatively short time. As you might have guessed, our efforts to train industry to innovate, as well as TUBITAK's own R&D projects, were hit hard by the current crises afflicting our country. There's no question that this is the worst crisis in our Republican history with all political, economic and social institutions suffering severe effects. Yet it is my strong belief that what we are undergoing, referring to a recent report of Mr. Drucker, is a creative destruction process in the Schumpeterian sense. It's a wave that will pass, leaving behind not the debris of destruction, but a sound system with strong foundation that will endure future crises.

Those washed away will only be structures lacking firm roots or reasons to survive. We are confident of the wider role outside that we are playing in the conquest of new frontiers. We are confident of the new studies and strides our technologies will take with the boost they will get from the wider recourse to R&D in the coming years. Our confidence should not sound like wishful thinking. We know that it is based on firm foundations. We place our stock on the ability of our people to tackle hardships. But most important of all: we base our hopes on the quest of our young generations for knowledge and their urge to learn. With these assets we look confidently to the future, as scientists of a generation boasting brilliant accomplishments. Let us work together to make sure that the better future we foresee will be a joint one for the Europeans of coming decades, and that all the 28 and perhaps more countries will come and join this prestigious club. Thank you.
These brief comments and views are the result of an ad hoc reading of the Enlargement Futures Project on Technology, Knowledge and Learning, here referred as TEKL.

The views and comments are prepared according to the instructions obtained and are divided in two parts:

A. General views and comments and

B. Detailed comments.

GENERAL VIEWS AND COMMENTS

1. The pre-accession countries, (PACs), are significantly different in size and most of them could be considered as smaller countries. TEKL strategies differ according to a country’s size. The “boundary conditions” in the PACs are also significantly different. By the term “boundary conditions” we understand the state and completion of the transition process, economic and demographic developments, regulatory limitations, corporation tax rate, costs of payroll, the functioning and established innovation system, the number of tertiary educated people per 1,000 inhabitants. Owing to this, the starting position in regard to TEKL in the PACs countries differs greatly, too. Thus the possible approaches and recommendations should also be quite different. Therefore, some suggestions about how and when to select a corrective measure could be quite useful. The report on TEKL is not only weak in presenting the boundary conditions, but also in explaining how to incorporate into the strategic decision making the size characteristics and boundary conditions.

2. Reading the TEKL project one can get the impression of a rather descriptive, subjective and generic presentation of the problems. The findings are rather weak, too generic, missing supportive data and analytical reasoning. This is the consequence of utilising inconsistent and diverse data. The lack of comprehensive, transparent and comparable data is more than evident. this, the analytical base for the findings is weak. For instance, the generic and agreed trend of exchanging teaching for learning is not illustrated by data, good examples or successful approaches.

3. The PACs’ ability to compete and overcome developmental problems is limited in many ways. To mention some: funding limitations, resources, human factors, but also inherited tradition and mentality. These limitations are barely mentioned, and there is no discussion on how to overcome them. The second rather weakly presented issue is the efficiency problem and how to ensure the rational utilisation of resources. The issue of efficiency, particularly regarding the TEKL approaches to it, is in our opinion the most important one.

4. In the areas of knowledge production, transfer and learning, quality assurance is essential since innovativeness and competitiveness depend on the quality of educators. Therefore transparent and high criteria for habilitation and promotion procedures in higher education institutions are essential. Not many recommendations or data in this regard are presented. Also missing is a discussion of good practice. The institutional quality and performance evaluation of teaching and research, as well as the governmental institutions, and evaluation mechanisms are not...
sufficiently stressed or discussed. The questions of how the evaluators are evaluated and what arrangements are needed are given little attention.

5. The aging and demographic decline problem is common to most European countries. The demographic negative trends combined with the need for increasing the tertiary educated population in most of the PACs and EU countries are stimulating mass enrollment. This opens the question of how to educate top professionals from students of average talent. Discussion of didactics is too scarce.

6. Reading the TEKL project one would expect a well structured and supportive discussion about the circumstances and possibilities of the PACs and their possibilities to progress faster at least in comparison to the average of the EU countries.

7. The crucial question of concentrating means and efforts, and setting of priorities could be given more emphasis and also supported by good examples. Most of the PACs would have to realise that, without sound priorities and concentration of means, future prosperity will be foggy.

8. Discussing the distribution of researchers over different institutions (Figure 7, page 49) it seems that at least for Slovenia, the research institutes are not included in this analysis. In Slovenia we have several dozen research institutes, independent legal entities, which are state owned research institutes, employing more than one third of all researchers. The Slovenian Academy of Sciences and Arts has no institutes in science, technology or learning fields that could be related to faster economic growth. This shows that non-transparent or even wrong data were utilised. Are there also in other PACs independent but state owned research institutes? The mission, importance and evaluation of performance of such institutes is entirely missing in the report.

9. A general remark can be made that the TEKL report in “medical terms” describes a lot of symptoms but not much diagnosis, or how to relate the symptoms to a sound diagnostic decision. Even more true is that not many possible therapies are presented, what remedies to apply for a possible cure. Possible scenarios and how to select them are not discussed either, nor is the problem that most of the PACs need more than one “remedy” to cure their problems. Therefore, the interrelation of possible corrective measures is of great importance. The issue of selecting corrective and selective measures for systematic changes in TEKL is a difficult one, particularly in settings with unpredictable mentality reactions. We very much miss the discussion of these problems.

10. Coming back to the boundary conditions already mentioned in point 1 and particularly the barriers to faster progress because of the national law regulation, it seems that the best fostering of the TEKL activities and overcoming of mentality barriers are the law and funding mechanisms. The use of these possibilities is not sufficiently stressed or recommended.

11. The essential question left open in the report is how the strategies for the TEKL development in the PACs differ from those in the EU countries. We could rephrase this by asking what references and criteria in judging the TEKL performance the PACs should be used in their decision making and comparison of achievements. In our opinion, this is far from evident in the report. Possible answers could be obtained by scrutinizing the published EU – FP5: Innovation Scoreboard Data for 2001 (see http://www.cordis.lu/scoreboard/). By observing the 18 indicators, the results of the most recently monitored performance of the EU member states provide some evidence. These data seem to cast doubt on the comparison of the PACs’ performance with that of the EU-15 in the TEKL report. The analysis is probably misleading, incorrect and needs explanation and justification. I know this statement is far reaching but it is
supported by the EU-15 Innovation Scoreboard Data for 2001 and the Summary Innovation Index 2001 and its annual change. The essential message for the PACs is that most of the EU-15 countries are not a very good reference for monitoring and grading of their TEKL and innovation performance. This is because 8 EU members display a negative innovation index in 2001. The picture is even less attractive if the trends or annual changes of the index are included in the analysis. The combined criteria display an unfavourable performance, because of the 15 EU member states only Finland, Denmark, Ireland and Sweden are moving ahead in their innovation performance. The same is true for the USA and other advanced countries. In contrast, most of the EU countries have a negative innovation index and/or are losing momentum or even falling behind. The presented evidence supports the conclusion that the PACs are in a difficult position when determining the referencing of their TEKL strategies and decisions about priorities and changes. This finding leads to a second remark about the TEKL report’s possible value and usefulness. One may question how much of new information is included, particularly if compared to other similar reports (EU, DG Enterprise, Innovation Directorate: Innovation Policy in Six Candidate Countries: The challenges: Cyprus, Czech Republic, Estonia, Hungary, Poland and Slovenia, September 2001, The European and Central Asia Region; The World Bank, Washington, D.C., A Strategy to Develop a Knowledge Economy in European Union Accession Countries, October 16, 2001, draft).

12. The last point of our presentation is devoted to the focal question of the Enlargement Futures Project and how it contributes to the advancement of techno-economic development and competitiveness in the PACs and helps them in this regard by introducing different very much needed changes. The Project and the TEKL report could have gained substantially from referencing their benchmarking data, conclusions and recommendations to the 293 criteria used in the well known annually published World Competitiveness Yearbook. The results should be scrutinised and referenced against this yearbook. Such a discussion would be helpful for providing a base and measures regarding the size of the developmental problems in the PACs countries and how these problems are interrelated to the governmental performance, management, financing, innovation and performance of learning, knowledge generation, transfer and research institutions performance. The competitiveness issue is, after all, the focal point for all countries and even more for the PACs where these problems will probably develop from bad to worse at the time of joining the EU. TEKL advancement in a country can contribute much to competitiveness and for this reason, it is essential to scrutinise the issues in conjunction with the power of competitiveness. Regrettably, this was not the objective of the report.

Ljubljana, November 27, 2001
Mr. Dominique LE MASNE  
Ministry of Research, Deputy Head - European Affairs, France

I will try to focus on this report on Technology, Knowledge and Learning which I found really interesting. I thank the authors of this report. I have only four or five remarks on which I wanted to focus.

1. First of all: Mr. Ducatel showed us two sketches or two transparencies on which I would like to comment. Concerning the national research and development (R&D) efforts, that is the ratio of the R&D expenses over GDP,. I think he showed very well that there was a big discrepancy between the EU average and the PACs, as has been mentioned before. I wonder whether it is possible for most of the PACs to catch up with this average within this 10-year period, that is between now and 2010. For example, Spain, Portugal and Greece from the time they integrated the European Union, that is 1981 for Greece, 1986 for Spain and Portugal, have been working very hard to increase this ratio. Though they may in fact have doubled their own ratio, they still have not achieved the EU-average. I therefore think it will be difficult for most of the Candidate Countries to catch up with this ratio within the next 10 years. Slovenia and the Czech and Slovakian Republics may achieve the EU average as they are not so far from it at the moment. However, I think it's really nearly impossible for the Baltic States and for Bulgaria and Cyprus.

2. The second point is the decline in R&D personnel in Central and Eastern European Countries. The sketch that has been shown is really impressive because there has been a decline by 30 or 50 % in these staff during the last 6/7 years, or maybe 10. This is a problem, of course, but it is a problem that also concerns Member States. France itself faces such a problem – not a rapid decrease in R&D staff, but a quick ageing of its population. France has now taken this problem in hand and has launched a vast plan of recruitment of young researchers. The average age of a CNRS personnel is 48 which is, I think, crazy because, as you know, post-docs and doctorates are the most powerful drivers of research and development. When you are 48 (I'm 48) I think you are an old researcher...

3. Third comment: I would like to comment on something which is somehow missing, that is research tax credit. I have the feeling that almost all the Central European Countries give financial incentives to foreign and national investors if they settle new companies in their country. But I think only Poland and Hungary have settled research tax credits schemes for the private companies performing R&D activities on their soil. And this is something really interesting, I think, which has proven efficient in France, these last 20 years. This is a good incentive for most of the countries wanting to integrate into European Union and of course for some of the Member States.

4. The fourth comment is a sort of warning. I participated in a meeting in Brussels last March on the integration of East European countries or Candidate Countries in the European Research Area. I was astonished to see the figures for the 5th FP. Most of the Candidate Countries were, in fact, “donors” to the Member States in FP5 (especially Poland) because these Candidates Countries had a rather low participation rate compared to their entrance fee to the FP. At first, they had a reduction in their ticket to the FP (for the first two years, they had this 50 % reduction which was a good thing). Now, however, they are facing a big debate because the reduction will slow down until they pay exactly in proportion to their GDP, and this will create a huge difficulty.
We have to find quick and effective means to mitigate this trend because we have to open the ERA to all those countries. Ways of achieving this could be to open existing projects to these countries, train co-ordinators in these countries (because the rate in co-ordinators is a key factor for taking part in the programme), and enhance a better diffusion of the programme all over the country (through NCP, for instance, or maybe with the help of some other Member States).

5. If I have two minutes I would like to show you some French schemes that have been completed over the last three years. A law on innovation was passed in 1999 giving incentives to the mobility of researchers, and to the creation of start-ups stemming from the public sector. This means that in France, people from the public sector, i.e. civil servants, can create new companies and apply their research in new companies. They can in fact play with their own research to create companies in innovative and technological domains. It increases the co-operation between the industry and education and research organisations (i.e. universities or research centres). There are also fiscal incentives for these companies.

A second measure is to encourage the creation of innovative companies through a national contest. An annual contest for the creation of innovative companies in technological domains has been granted 30 Million Euros a year over the last 3 years and has granted financial awards to 300 people all over France a year. We also had a call for proposals up to 150 million Euro over the last 3 years to develop regional incubators of technological SMEs and seed money funds.

These are some examples of measures that are necessary in France because, as Mr Kralj just mentioned, France is not that good at innovation and we have to tackle the problem. It is not that easy to do this, but we used legal means which proved efficient in the public sector. I think these examples could be followed by some of the PACs.

Thank you very much.
PLENARY SESSION II
Panel Report on Economic Transformation

Mr. Andries BRANDSMA

European Commission, Enlargement Project Manager - JRC/IPTS
Economic Transformation Panel

EU Experts
- J. Howells (UK)
- K. Lammers (DE)
- S. Radosevic (UK)
- J. Siebrand (NL)

Experts from candidate countries
- U. Viesturs (LV)
- J. Kleer (PL)
- E. Majewski (PL)
- L. Halpern (HU)
- C. Cionga (RO)
- C. Ciupagea (RO)
- P. Stanovnik (SI)
- G. Minassian (BG)
- S. Slavova (BG)
- E. Turkcan (TR)

IPTS
- A. Brandsma
- G. Fahrenkrog
- B. Golob
- E. Gourova
- P. Jensen
- N. Thumm
- A. Tuebke
**European Competitiveness**

- **Economic growth**
  - Sectors of industry and services determine the performance of countries and regions
  - *Farming* has commercial, environmental and subsistence role

- **Economic restructuring**
  - *FDI*: only 1/5th flows into low wage sectors; do not neglect indigenous component

- **Patterns of specialisation**
  - Go for technological, organisational and social innovation

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**Economic Growth**

GDP growth forecast

![Graph showing GDP growth forecast for EU-15, CECC-10, Romania, and Turkey from 1999 to 2003.](image)

Source: Commission's Autumn 2001 Economic Forecasts
Economic Convergence

Income per head in the EU and the candidate countries


Foreign Direct Investment

FDI/GDP in 1999/2000

Source: UNCTAD

Enlargement Futures Project
Foreign Direct Investment

Cumulative FDI per capita

Source: UNCTAD

Economic Structure

Services as % of gross value added

Source: EC 2001 Regular Reports, Eurostat
Sectoral Contributions to Trade Balances

In deviation from EU net import/export positions

Economic Transformation Panel

Six cross-cutting issues

The retooling of the agri-food chain
The geography of economic activities
The economics of sustainability
ICT diffusion/production/use
The dynamics of human capital formation
The ageing of the population
1. **Development patterns in CEECs**

All transforming countries shared, at the very beginning of transition, two basic principles: political democracy and some kind of market economy. Twelve years later, we find that, despite the commonly shared principles, the development, structural and income gaps among the CEECs have widened. This can be clearly shown in different growth rates, macroeconomic stabilities, income level, and even more, in industrial and trade structure, competitiveness, assessment by international financial institutions, as well as the society's behaviour (mentality). This point is not only important in order to adequately evaluate the quality and speed of transformation, but, no less importantly, in order to analyse the legal, economic, social, institutional and mental absorption and adjustment capacities of the CEECs at the threshold of EU accession. Namely, all of them very well know that they have to take on the EU acquis (which, in some areas and in a globalising world, may be outdated). However, their capacity to take it on is substantially different. This "gap" would become immediately manifest, if the EU happened to opt for a "big bang enlargement". More importantly, finishing negotiations on accession with the EU may have very little to do with EU maturity of the given candidate country.

2. **Micro vs. macro-economic development and performance indicators**

From the very beginning, the core issue of a successful transformation has been the sustainability of the process. Unfortunately, it has frequently been omitted both by governments of different political "colours", and by international organisations, as well. Not less importantly, economic policy-makers have concentrated their efforts several times on one "main enemy", be it growth, inflation, unemployment or current account deficit. They did not realise that economic processes are complex and interdependent (and interdisciplinary). Therefore, even if economic policy thinks it has to set a clear priority, it must not forget about other elements, since they form part of the system and, if treated in an inadequate manner, may soon backfire and jeopardise the success of the main priority as well.

3. **How to measure economic convergence?**

Transition economies in general, and the European Commission reports in particular, pay almost exclusive attention to the development of GDP per head indicators. There is no question that this is probably the most synthetic indicator of economic development. However, several comments can be made on this point.

First, the generally used comparison of the CEECs, to what extent they have reached their pre-transformation GDP level can be seriously questioned. On the one hand, all countries are in a deep restructuring, which may change the relative economic strength of a given country within a short period (e.g. appreciation and devaluation of the national currency). Thus, the fundamental criterion of comparison has to be the sustainability of the transformation process. On the other hand, the "recovery performance" largely depends on the reference year to which the present statistical figure is compared. It is, however, well known, that the individual CEECs started the transformation process from very different base levels (Poland's shortage economy can hardly be compared with Slovenia's, or even Hungary's, relatively "affluent" economies).
Second, EU statistics are also misleading. Nobody questions that the average GDP per head level in the CEECs is much lower than in the EU, although country-by-country differences are sometimes higher than within the EU. However, GDP per head figures have to be put into a dynamic context, in which not only differences in growth rate of GDP but also appreciation of the national currency and a comparison of "disposable income" (after paying housing expenditure) have to be included. Even more importantly, the future of the EU seems to depend more on the growth potential of the candidates than on their present level of GDP per head. In this context, at least some of the candidates are in a better starting position than some EU member countries (privatisation, social and institutional flexibility, role of foreign direct investment, production and export structures, development level of human resources, innovative and research and development potential, etc.).

Last but not least, if the candidate countries got the same share of EU transfers as the cohesion countries (up to 4 per cent of GDP/head), their economic growth would be even more telling, not to mention the growth impact of spillover processes of EU-financed infrastructural, institutional and environmental modernisation.

4. Transnational companies and R&D activities in the CEECs

First, for different, but well-known historical, geographic, economic, social and other reasons, individual CEECs have launched different policies to attract foreign capital. Some of them opened up immediately (partly due to heavy external indebtedness but also due to the openness of society well before the political transformation started). Some others proved more reluctant, because of political fears and uncertainties of foreign domination, as well as the initial dramatic growth of the domestic market and demand. In fact, two basic patterns developed in the 1990s: one FDI-related policy based on the large and rapidly growing domestic market, and another policy establishing globally competitive production and a service-producing location for transnational companies.

Second, any comparison of FDI figures, both annual inflows and stocks, in the individual CEECs have to be compared with utmost caution. On the one hand, statistical methods and registration procedures are sometimes rather different (e.g. announced, committed vs. real inflows). On the other hand, reinvested profits, which are an integral part of the FDI stock, are in most cases not reported in National Bank statistics. Therefore, a country which started FDI-attraction at an early date, may register today a lower inflow of fresh capital, but have a high level of reinvested profits. Finally, the pattern of FDI has to be reckoned with. For the sustainability of the transformation and modernisation process, the fundamental question is whether this capital flows into productive investments, and within it, into domestic or global-market-oriented ones, or into short-term and speculative funds.

Third, the sustainability of the successful modernisation process more and more seems to depend on the availability of qualified labour (not necessarily with PhDs). Increasingly, FDI, in the global competition, has been relying on the most important competitive factor of the CEECs, namely qualified labour. Global trends support this strongly. This is a new pattern of international division of labour among differently developed countries, since the classic pattern, applied and experienced in Latin America or the rapidly modernising Far East, was mainly based on technology-intensive versus low-skilled, labour-intensive exchange of goods and services. The success of a sustainable modernisation process crucially depends on the availability of skilled labour, both produced by efficient education systems, in-work training or a well-defined immigration policy. If this labour is not available, FDI would not necessarily loose its interest in the given country or region but would certainly not upgrade the technological level, enhance value added, or strengthen further commitment in the given economy.
Fourth, co-operation between transnational companies and domestic, or rather, small and medium-sized firms (SMEs) located in the host country, is a key factor of success. However, the pattern of co-operation seems to be different from that traditionally developed in advanced Western European economies (as Southern Germany, Austria or Northern Italy). The latter had several decades or, in some cases, more than a century to develop a firm structure of SMEs which are able to co-operate with transnational firms (TNCs) and become a reliable factor in the global or European subcontracting network of the large enterprises. SMEs in CEECs developed, or are developing, under very different framework conditions. On the one hand, they do not have several decades to catch up: either they are competitive in the short run or they will most probably perish or be pushed back to domestic/local markets. On the other hand, no nation state protectionism can be imagined, as was the case for most Western European SMEs in their critical stage(s) of enterprise development. As a result, the sequencing of SME-TNC co-operation will not follow the conventional route from SME to TNC, but, most probably, the reverse. Namely, it will be TNCs which are expected to create a network of SMEs able to participate in their global subcontracting/subsidiary system. As a result of successful participation in this network, some SMEs may become more and more independent and competitive on the international scale (in contrast to competitive firms that became subcontractors in the past).

Fifth, TNCs in some countries (e.g. Hungary) have experienced a rapid learning process in the last decade. Starting with low skilled, low wage contracts, mainly "exported" by Italian, Austrian and German firms, transnational companies soon realised that much more profitable investments could be made in skill intensive sectors, such as transport equipment, electronics, precision instruments, etc. In recent years, however, there has been a third wave of FDI, focusing on R&D-intensive activities. The reasons for this change are twofold: first, profit margins in this field are much larger than in any other sector; and second, the innovative capacity of skilled labour in the CEECs is relatively high because of economic, social, educational and historical circumstances.

5. Labour: quality and migration

At the beginning of the transformation process, labour in the CEECs was considered to be highly educated, well trained and easily motivated. These features have been widely recognised and used by TNCs established in the region. Nevertheless, accumulated human capital suffered two important losses. First, part of it has been substantially downgraded (partly because of non-applicable knowledge, but partly due to the closure of many uncompetitive factories). Second, in the case of the less developed countries with high levels of political instability, there has been a significant outflow of talent (brain drain, or rather, brain push).

The key economic policy question is to what extent skilled labour can be kept in the transforming countries, and how this volume can be enhanced in a relatively short period.

Fears of migration in Western Europe are mainly unjustified and exaggerated. Excepting political crisis and civil wars (as in ex-Yugoslavia), no massive migration can be predicted on the basis of economic criteria (e.g. income differences). Income difference is an absolutely inadequate instrument for quantifying the volume of migration. Not even income difference at purchasing power parity (PPP) is a correct measure, since most people in the CEECs have their own apartment or house, while more than half of Western Europe's population lives in rented apartments and houses. Therefore, disposable income should be used as a basis for comparison, including housing rent, if a citizen from any CEEC worked in Western Europe, instead of living at home without paying such a rent. In addition, the migration capability of most CEECs is rather limited, even within their own, national and linguistically homogeneous borders.
Anyhow, one should not neglect the fact that migration potential may depend on the pattern of "Eastern" enlargement of the EU. Any delay may cause additional disappointment precisely in the more developed, better prepared, and, generally, geographically neighbouring countries. And this could contribute to higher migration potential.

Europe, as such, is increasingly feeling the shortage of skilled workers in selected sectors in order to remain or become competitive with North America and the Far East. In addition, an ageing population poses some problems that can hardly be remedied without having a long-term immigration policy. Unfortunately, these policies are, at the moment, the competence of national governments, which have already started or are about to start specific (partial) immigration programmes (see Germany's green card effort). If not regulated on the European level, such endeavours may easily lead to an uncontrollable situation with substantial damage for everybody participating in the "game" (see the impact of "competitive devaluation" in various parts of the world in the last decades). Therefore, I would like to emphasise the urgent need to establish the rules of the game for an all-European immigration policy.

6. New factors of international competitiveness

There has been a lot of discussion in the last decades about the factors of competitiveness, both on national, sectoral and enterprise levels. In the globalising economy, competitiveness clearly upgrades the human factor. Skill and technology, innovative capacity and flexibility are becoming the major elements in enhancing competitiveness. Still, we should not forget that competitiveness in the 21st century requires two additional factors. On the one hand, the performance, the quality of public administration is important. On the other hand, social cohesion – a much broader concept than the traditional one of "social peace" – plays a part. Both elements are particularly valid for small national economies, largely exposed to international competition and increasingly integrated into the international production and service network of TNCs.

7. What to do with TNCs? Are they our "enemy" or "friend", or just a necessary partner in the current stage of modernisation and global development?

There is a growing hostility towards TNCs. First, this has global sources, as globalisation proceeds and the enemies of globalisation protest on the streets (ironically, partly facilitated by the means of transport and communication created by globalisation and TNCs). Second, the unprecedentedly quick liberalisation of trade, services and capital movements in the CEECs naturally leads to a social backlash, once foreign companies have taken key positions in the respective national economy. (The situation of CEECs is only worse in those cases where FDI did not show special interest to enter their markets). TNC activities, to a large extent, depend on the economic, social, educational, employment, and other policies pursued by the host country. Obviously, the latter has to change and adapt itself to different levels of FDI activities. One needs a different FDI-related policy at the starting point, when foreign companies have to be attracted into an unknown and risky market. New policies are necessary, once FDI has been located in the given market and technological upgrading and higher local added value are on the agenda.

The role of FDI has to be adequately communicated in a society, which has readily accepted its presence in the first years, obviously characterised by capital inflow and job creation only (excepting FDI in privatisation deals). However, the success of FDI-driven activities can best be seen once capital flows become a two-way street (as part of the profit will be repatriated or exported to other investments in the CEEC region). At this point employment creation starts to be accompanied by "job destruction", as a clear result of structural upgrading, provided the economic policy of the host country is correct. Nevertheless, the society has to be aware of the fact that two-
way flows still mean substantial net inflow of capital and net creation of jobs, again, if the
economic policy of the host country is correct. Since, however, this relationship has never been
explained to the population, demagogy has a broad stage. And, since consciousness and public
awareness generally lag behind economic processes by several years, it is easy to find supporters to
demagogic and populist policies. As a result, one of the most important tasks is to start an open and
wide ranging dialogue between representatives of the government, the TNCs and the society.

In this framework, it has to be made clear that TNCs, even if they enjoy tax holidays or special
treatment, apparently leading to budgetary income loss and to a differentiation vis-à-vis mainly
small (and uncompetitive) local companies, make a crucial contribution to the overall
modernisation process of a transforming economy. First, in contrast to many domestic firms, they
always meet their financial obligations (social security payment, unemployment contribution,
VAT, other taxes, etc.). Second, they create new jobs, while helping domestic companies to keep
jobs (within the subcontracting network). Third, they substantially contribute to the development of
physical and human infrastructure, as well as in terms of environmental protection. Fourth, they
carry out the lion's share of exports and invest heavily in R&D-related activities. The main
challenge to the host country's economic policy (and policymakers) is how to establish the best
conditions, in which TNCs and the host country's economic priorities can be harmonised, leading
to mutual benefits in the longer term.

Budapest, January 21, 2002
Mr. Chairman, Ladies and Gentlemen,

I will be speaking about the theory of convergence and the positive and negative effects of imitation strategies: on the one hand, some development trends are universal and less developed economies can benefit, in terms of catching up, from adapting their structures and institutions to those of more developed countries. On the other hand, however, wholesale imitation limits innovativeness.

1. There is no denying that countries seeking accession to the European Union strive to model themselves on EU economies in the level and structure of GDP. Obviously, as the gap narrows, benefits from economic, technological, scientific and cultural co-operation grow. Imitation is consequently justified, as it is necessary for these countries to make up for their economic and technological arrears.

Various imitation models come in handy in the adaptation process. However, two facts should be noted in this context:

First, imitation models are characterised by internally coherent and logical systems of links between politics, economics and the social sphere. Usually, changes in one area stimulate transition in other areas, although the opposite scenario is also possible. Especially important is the proper order of transition projects, coupled with the time factor.

Second, there are at least three models of imitation: 1) Full imitation, 2) Partial imitation, and 3) Marginal imitation.

2. Theoretically, EU Candidate Countries should adopt the imitation model guaranteeing the fastest possible completion of the transition process and institutional and legal adaptation to EU requirements.

From a purely theoretical point of view, full imitation seems to be the simplest model, offering ready-made procedures and institutions. However, the eastern German example shows that this model involves three major disadvantages: i) exorbitant costs, ii) insufficient economic progress, as indicated by the slow rate of gross domestic product growth and a relatively low level of technological innovativeness, and iii) limited public approval.

For political and economic reasons, EU Candidate Countries should steer clear of full imitation. Partial imitation should be the preferred model. Still, two questions must be asked in this context: first, what should actually be imitated and in what order; second: what should be the scope of imitation and what should be the scope of autonomy in transition and adaptation to EU requirements.

3. Space and time constraints rule out a detailed analysis of this process. I will limit myself to making several points concerned with the economic aspect of this issue. Two general remarks to begin with.
First, the EU Candidate Countries form a highly diverse group in terms of economic development, technological advancement and the degree of openness. Consequently, the best option for them is to follow more than just one model.

Second, the level of continuity, as demonstrated by these economies' ties with the past, varies, both institutionally and in terms of external economic ties, behaviour models and production structure.

To an extent, the imitation theory reduces the importance of continuity. It also underestimates the role of what are called hard areas in transition, in favour of soft areas, which can be quickly changed by political decisions and the market.

What does the convergence theory mean for the economy? That some of the development trends are universal in character and that less developed economies seeking to catch up with their highly developed counterparts must adapt their structures and develop an institutional and legal system as soon as possible.

Yet, these assumptions are only correct in theory. Practice proves them false, largely because large-scale imitation limits and sometimes even rules out innovativeness. Imitation produces the desired results at early stages of development and in relatively short periods. In the long term, a combination of imitation and innovativeness is necessary if development is to be efficient and effective. The actual proportion of imitation and innovativeness depends on the size of the country, its population, economy, the role of science, the character of the scientific community, the structure of industry and government policies.

At any rate, maintaining a high level of growth without indigenous and innovative sources of growth is practically impossible. Moreover, the New Economy based on know-how is becoming increasingly important. Its further growth requires an extensive, independent system based on innovativeness.

I would like to highlight several problems that are not just theoretical possibilities, but have become fact in many countries.

Problem 1: From a general theoretical perspective, GDP growth is a key measure of a country's development. Usually, less attention is paid to the actual structure of GDP growth even though transition, especially in the initial stage, leads to a change in the GDP structure. This process is initiated in an early stage of transition and the economy slows down as a result of a transition crisis. The slowdown is mainly due to maladjustment of the old structure of supply to the new structure of demand, coupled with a severance of traditional external economic ties. The transition crisis is accompanied by an institutionalisation of the market economy, which leads to a faster increase in the role of services in the GDP. These two factors contribute to the modification in the GDP structure, bringing it in line with the EU standards. This process is much faster than work to overcome the transition crisis, not to mention efforts to bridge the gap separating the Candidate Countries from the EU economies. Average per capita of GDP in the Candidate Countries accounts for about 36-38% of the EU level, but in terms of GDP structure the differences are much smaller. (The ratio of services to GDP is around 70%.) Consequently, Candidate Countries are almost twice as advanced in GDP structure as in per capita GDP.

The question is whether these fast modifications in the GDP structure are favourable from the perspective of economic development. A clearly positive answer to this question is impossible. The change in the GDP structure is good when the process is accompanied by an increase in per capita GDP. A major increase in the share of the service sector produces favourable results only when the
per capita GDP is more than 12,000 dollars per capita, in terms of purchasing power parity. When GDP is below this level, its 'hard' component - including food, housing, clothing and other goods manufactured to satisfy people's basic needs - is insufficient. Among Central and Eastern European countries, only Slovenia and the Czech Republic are in the $12,000-$15,000 range, practically speaking, while Estonia, Hungary and Slovakia are likely to follow suit several years from now. In Poland, hard goods account for about $3,200 and services for more than $5000 in purchasing power parity terms. I cannot say that this is a good combination or a good proportion, only that, considering the high degree of income disparity, the process of convergence does not necessarily have to be advantageous.

Problem 2: Foreign direct investment has undeniably had a positive effect on transition in Candidate Counties’ adaptation to EU standards. This is due to, first, the inflow of capital; second, new technology; third, new management techniques; fourth, increased exports; and fifth, inclusion in the globalisation process. However, FDI may also be counterproductive which seems to be especially true for Poland. Admittedly, Poland is a special example among the Candidate Countries. It has a large domestic market – in fact as large as all the remaining Central and Eastern European countries put together, with the possible exception of Romania. Foreign direct investors are chiefly interested in the domestic market and their involvement produces far-reaching consequences in this area. Sadly, the Polish experience reveals four key disadvantages of FDI.

First: Even though foreign direct investors have contributed to the efficiency of privatisation, many industries and businesses based on modern technology have been either liquidated or their role has been reduced substantially. Privatisation has contributed to developments such as an elimination of competition, both on the domestic and foreign markets.

Second: The share of high-tech products in Poland's exports is almost 60% smaller than in the case of Hungary.

Third: Due to FDI, among other factors, the past decade has seen a major drop in innovativeness measured by the number of new patents. In the total number of newly registered patents in Poland, foreign patents outnumber local patents by 2 to 1.

Fourth: Multi-national corporations pay practically no taxes, adding to the malaise in public finances - this may, however, not be an exclusively Polish headache. Admittedly, this situation is largely due to the inadequate policies of the government, which has paid insufficient attention to arranging proper relations with multinationals.

Problem 3 concerns the relationship between small and medium-sized businesses and unemployment. For all transition economies, unemployment is a dramatic problem. In many countries it has grown for two basic reasons. First: Many businesses undergo restructuring processes which swell the ranks of the unemployed. Second: Economies are likely to grow at a slow rate in the coming years, absorbing insufficient labour.

It seems that small and medium sized enterprises will be the main sources of new jobs. However, they can not create new jobs now due to the shortage of capital and limited possibilities for raising funds through bank loans. In a situation in which a large section of the banking sector is in the hands of foreign capital and the government does not offer the necessary guarantees, small and medium sized businesses face limited opportunities for growth. A relatively high level of state intervention is needed in this area, even though the dominant economic doctrine in transition economies calls for limitations in the state’s role.
Problem 4: The role of the science sector as a source of innovativeness. One of the characteristic trends in transition economies is decreasing expenditure on science and the outflow of research personnel, especially young and dynamic researchers, to countries in which science is supported by both the government and the corporate sector. In transition countries, as the Polish experience shows, government outlays on R&D have decreased for decades, while multi-national corporations and other large businesses have been hesitant to contribute. Multi-nationals operating in Poland have their own research centres and institutes abroad. Transition economies usually import new technology, which is positive in the short term, but in the long term the absence of an independent R&D sector and specialised research centres hurts these countries and leads to their growing dependence on Western technology.

To sum up: Imitation does not always produce the desired results in transition economies. Excessive imitation expected to accelerate adaptation can easily prove counterproductive.

Thank you for the attention.
Since many things have been said already, I will make only a few points. I have already communicated some technical comments on the report directly. One is serious - in table 4, p. 37, regarding convergence time. Data for some countries are wrong and consequently, the derived convergence periods are also wrong. I want to make six points:

- One can never plan the future on the past. (Or rather, yes, you can, but what will be the result?)

- There cannot be a successful transformation of the Candidate Countries without a transformation of the EU economies.

- For new challenges we need new institutions, new policies, and new social capital as Abramovitz would say.

- The real challenge for the Candidate Countries is post-accession transformation. This is the number one challenge that we must face in a few years to come.

- We are always talking, almost exclusively, about inward FDI. For the last 3 years I have been working on outward FDI of transition economies, and I would like to emphasise that this is an important issue which we need to consider, because it can be an instrument of restructuring as well.

- If we want to have a peaceful and prospering Europe, the new European architecture should be small-country-friendly.

Let us concentrate on each of these six points in turn.

On the first point, my general remark is that this report contains too much about the past, and it would be better to look into the future and into the challenges that we are going to face. If I had written the report, I would probably have done the same – concentrate on the past and extrapolate the trends because it is easier – however, I am a discussant and I can be more ambitious. Why is it so important to look ahead? Because sources of competitiveness are changing as we speak. We have to adapt to these changes very swiftly. This ability to adapt, if possible ex ante, to such technological changes is the most crucial ability which we should develop. Let me call on a Nobel prize winner for economics, Douglas North, who said that adaptive capabilities are as important as innovative capabilities. Related to that is the issue which I would like to stress really strongly: the timing of the decision. Always almost it is much better to make a less than perfect decision on time than a perfect one too late. Otherwise you may miss the trend, and we in Slovenia and in any other Candidate Countries sometimes get the impression that we are too late. What is important for the future actually is to create the conditions for agents to respond to changes, to new challenges swiftly. That means enhancing education, which the reports stress so strongly, and the development of social capabilities, not just by education, but by setting up the whole infrastructure, all the institutions, the whole fabric of the society.
Let us illustrate this by my favourite slide (Darwin was my favourite in school). This monkey with the mobile represents the ability to change and Darwin is saying that “it is not the strongest species that survive, nor the most intelligent, but the ones most responsive to change”.

My second point is that without transforming the economies of EU member countries, there is no transformation of future members. Economic transformation is really a two-way street. If the Member States do not transform or adjust to what has happened already, and if they do not anticipate future developments, the Candidate Countries are bound to copy only the past and are unlikely to catch up. So, the transformation of EU economies is a pre-condition for the transformation of the Candidate Countries. Outward FDI flows are instruments of such restructuring, not only inward FDI, as has been proven already in countries which we have studied so far.

Third point: The challenges are new, every day there are new ones, and what is needed are: new policies, new instruments to address these new challenges. Sometimes you get the impression that there is too much rigidity of the institutions of the EU and within the countries. You know that when you establish institutions it is very difficult to get rid of them later. You cannot change the institutions only by changing the people so sometimes I would say we need new policies and new instruments to address new challenges. Why is this so important? I am quoting Eric Hofer, an American philosopher who wrote in 1954: “The only way to predict the future is to have the power to shape it”, and these new policies, these new instruments and institutions can perhaps develop this power. What kind of new institutions? I only have to point out here that sometimes we are told: you have to introduce all those institutions which exist in large countries in the EU. But small countries cannot do that. It would be a waste of resources. Why not have multi-purpose institutions in small countries which can do the trick? Have some other types of organisations, in order not to repeat the stories of the past.

Fourth Point: Post-accession transformation is crucial and a political challenge. Without reducing certain industries – which may even involve giving up certain activities in existing member countries – we can not transform to the future. This is of course a very tough political issue and agriculture is one of the sectors concerned. Within this framework, I would like to indicate, that adopting the acquis should be followed by searching for opportunities in new enlarged markets. I feel that in the Candidate Countries the fact that we are going to be in a totally different situation politically, economically, socially, is not yet built into our mindset. We have to get to work now to take advantage of the new opportunities provided by the enlarged markets. We have to try to develop a new pattern of dynamic specialisation, instead of following the recipes of the past. The report rightly emphasises that Candidate Countries have increased their specialisation, but I still feel that there are many of them, including Slovenia, that have inherited an all-embracing economic structure, with not enough specialisation. But the same applies to the European economy as a whole when it is facing the globalisation challenges. My last remark on this point is that in many countries specialisation in intermediate products is regarded as an inferior orientation or strategy, and yet in many Candidate Countries, including Slovenia, the most prosperous enterprises are actually in this intermediate sector.

Fifth point: I have already said something on outward and inward internationalisation and I would stress that we should gradually shift emphasis from one to the other, or at least put that on our agenda. The outward FDI flows are still quite modest but much higher than in the report, which uses data for 1998; the accumulated flow of outward FDI by CEECs is actually 15 billion dollars. Only three countries (Czech Republic, Hungary and Slovenia) account for 3 billion dollars, and what is important is the dynamics; in 2000 the outflow of FDI from the economies in transition grew faster than the inflow. This is a strategic response to globalisation.
The last point which I want to make is that all countries will be winners if we create a world that fits small states. This quotation is taken from Haye (1944). Why do I mention this? Because we have seen in the last few years some erosion of the position of small states in Europe. Integration theory predicts that large states which attempt to dominate may destabilise integration. Small rich states that pay a lot into the budget will also destabilise the integrated structure if their political weight is threatened with erosion, considering the outcomes of all possible country groupings and coalitions. We have to be very careful about the balance between these two groups of countries. Fortunately, according to the same theory, small but less advanced states are factors of stability because they can expect net gains from integration. Enlargement hence means stability.

To conclude with a small diversion: the report is about catching up, catching up as fast as possible. If the Slovenian football team made it to the world championship, why can’t firms and states? In a way they compete as the football teams do. Unfortunately, the rules in their game of economic or political competition are less transparent than in football. Let’s make them more transparent and predictable.

Thank you.
PLENARY SESSION III
Panel Report on Sustainability, Environment and Natural Resources

Mr. Peder JENSEN
European Commission, JRC/IPTS
Sustainability, Environment and Natural Resources

Sustainability

*Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*

A broad concept: environment ⇐ economic life ⇐ social conditions
Framework Conclusion:

• **Acquis communautaire and sustainability are not policies, but boundary conditions for policy development.**

• **Within this framework there is ample room for national policies to support goals arising out of local needs.**

• **Aim of exercise is to highlight the potential synergy between national and EU level policies**
The Agricultural Sector

Sustainability, Environment and Natural Resources

Common Agriculture Policy
Rural Development
Eco-conditionality on production support
Direct support

Environment
Bio diversity high
Increasing Productivity
Decreasing Employment
Rural-Urban Migration

Technology
• Fertilizers
• New crops
• Methods

Social buffer
Social conditions

Sustainable Opportunities in Agriculture

Sustainability, Environment and Natural Resources

Biofuels: 20% in 2020?
**Sustainability, Environment and Natural Resources**

**The Agricultural Policy Challenge:**

Candidate countries have to balance increase in production and productivity with social and environmental performance.

The Common Agricultural Policy and other policies offers a range of tools.

**Sustainability, Environment and Natural Resources**

**The Energy Sector**

Security of Energy Supply
- Efficiency
- Self sufficiency
- Renewables

Enlargement Futures Project
The Energy Policy Challenge:

The sustainability challenge is a matter of striking the balance between:

- security of operation,
- security of supply,
- cost of provision
- emissions from generation.
The Transport Policy Challenge:

The sustainability challenge is striking the balance between economic development and environmental consequences.

Technology and land-use planning can increase the room for manoeuvring.

Key insights gained through the process:

- CAP is an illustrative example of the opportunities for synergies between EU and national policies
- Transport and energy policy frameworks are more flexible, allowing more room for national initiatives
- A challenge for the EU20+ is to create the financial instruments to support these policies
Conclusion:

• The objective of preparing for accession should not only be to meet the acquis’ requirements, but rather to use the acquis as a framework for the development of sustainable policies, which meet the needs and priorities of the citizens.

• Candidate countries present a special case but will not stand alone in an enlarged Europe.
INTERVENTIONS Plenary Session III
Mr. Børge DIDERICHSEN
Novo Nordisk, Vice Director - Corporate Research Affairs, Denmark

The occasion for which we are gathered here now is a very important one. Obviously the shape of Europe is currently changing and maybe in Copenhagen in the autumn of next year, Denmark will be the country to welcome Slovenia and many of the other accession countries to a greater European Union. Forum Bled and the report that we are discussing here may play a role in ensuring that the quality of life in this greater European Union, including the accession countries, will increase and must increase through integrative sustainability as part of the transition processes. But in my opinion it's not enough that we gather here from many different parts of Europe, even from the United States, using hundreds of litres of gasoline on travelling and cutting down hundreds of trees in order to produce the reports distributed to us. It is not enough that we all agree amongst ourselves that we are concerned about sustainability. It is very important that when we leave this conference, we don't say to ourselves "and so what"? So I hope that all of us tomorrow, when we go back to our countries, have ideas on how we will do things differently and better.

My contribution here has two parts:

One is to comment very briefly on the report, especially a part of it that I took a particular interest in, and the second is to give you some personal considerations of relevance to the issues today.

The report on sustainability issues has been organised according to three dimensions: economic wellbeing, equitable community and rational use of resources.

What I miss in this otherwise interesting and informative report is an indication of which economic sacrifices can be made for the sake of rational use of resources in cases where you need to keep a balance between these three dimensions. It is quite obvious that situations where you can fulfil all your intentions according to these three dimensions are unlikely to occur. Discussion would have been welcome on the economic sacrifices that will have to be made in order to make better use of the natural resources.

Another part that needs further discussion is: What are the consequences of not making rational use of resources? I do believe that in the long run it must be possible to predict the consequences from the societal point of view, from the economic point of view and from the point of view of quality of life in a greater European Union. What will actually happen if we do not act in time?

We do have some politicians who look a little bit further than the next election, and for these politicians it is important to know from the specialists what will happen if we do not carry out a number of dedicated initiatives.

I would also suggest that, later in this discussion, we include the issue of accession countries being willing to accept and use regulation and taxation as stimuli for innovation. I can give you an example from Denmark where we decided some years ago to give a number of incentives in order to develop wind energy. As a consequence of this the windmill industry in Denmark now produces a very sizeable part of our value added and exports. I am sure that a similar advantage could be developed in some of the accession countries if, of course, you build on some of your local strength...
and if you are sufficiently determined to push forward with the necessary technology. The tax man is sometimes quite helpful in this connection. The Danish euphemism for this kind of tax on energy and resources is "green taxes". This is an idea for you to take home and sell in a more acceptable way.

So, apart from the three dimensions, the report has been structured into four sections, which go across the three dimensions. The four sections are: agriculture, water, energy and transport. And here I have a question for the people who prepared this very nice report – did they consider including health as a fifth section? I think that if we all become lazy, fat and sclerotic we can forget about sustainability. I believe that medical care and the way society approaches the ever-increasing problem of medical care is also a sustainability issue.

My final direct comment on the report is that it should make clear that while the problems of ensuring sustainability and quality of life in the accession countries as they join the European Union are important, we should also be aware that global challenges and threats, which we are facing on a global scale, are much larger. We face climatic changes, and poverty, and we will face disappearance of arable land. Some of these changes will be on a much larger scale, also for the accession countries, during their process of joining the EU.

Now I come to some personal considerations that I hope may serve as food for thought. It is obvious that if you live in Slovenia, Bulgaria or one of the other accession countries, and see the quality of life and the material goods available to the EU citizens, you will not be able to accept that your economy cannot grow because the environment has to be protected. Therefore we obviously have to allow the new member states, with living standards today below those in Western Europe, to enjoy economic growth. The important point is, however, that they have to grow with less waste.

Also, I think it is important to point out that this growth should be generated by, and supported by generation of value through knowledge. Knowledge itself is a non-polluting re-usable substance.

Finally I would like to point out, for those who may not be aware of it, that we are now entering the era of the life sciences. Enormous amounts of information are produced every minute of every day. Every 16 months the total amount of knowledge in the field of life sciences doubles. This gives huge opportunities for science and technology and for biology. Using the resources we have in biology we may in the future be able to solve difficult problems and also help to build a sustainable society. In this context I would like to raise the issue of Genetically Modified Organisms. On the one hand, they increase the knowledge content and therefore its price of agricultural products. On the other hand, they may help sustainable growth by reducing the need for fertilisers, and by producing bio-plastics and other products which will reduce the pressure on the environment.

Knowledge may be produced with few resources. Actually it is there at your fingertips in your computers. It may be sold at a high price, it is non-polluting, re-usable and recyclable. It is the perfect product to develop in accession countries wishing to avoid or reduce the problem of non-sustainability. The role of science in this context cannot be overestimated.

Products that contribute to sustainability are characterised by quality, design, uniqueness, efficiency and the positive features they have vis-à-vis the environment. The tax man may again help to make your choices - more IQ and less CO2, more individuality or more automation. The last "or" of course reflects the fact that design connects with individuality, high efficiency production is often obtained by automation.
What is important for all the new countries is that there is a solid science and technology base on which you can build a platform for strategic fundamental research. But sustainability also requires education and readiness for change. You also need an integrated knowledge policy: science, technology, education, entrepreneurship. Therefore I am glad to hear that Slovenia recently reorganised its Ministries to facilitate the formulation and implementation of a policy which includes all these elements.

And then there is also the responsibility from within: education in sustainability and care for the environment. Your children have to tell you that they don't want you to waste the resources of nature because the future belongs to them. And your companies have to show through environmental reporting what they are doing with the resources, which are commonly owned by all of us.

Accession to the EU also means, as expressed in the Gothenburg Summit Meeting in 2001, striving for sustainability. We should be aware that knowledge based economies are a step closer to sustainability. Finally, I would like to emphasize that each of us should leave Forum Bled with the intention of doing things differently, if we want to return to this beautiful spot, because only sustainable locations will last forever.

Thank you for your attention.
Prof. Jaanus PAAL
University of Tartu, Institute of Botany and Ecology, Estonia

I will try to be very specific and focus just on the version of the Panel report that was available on the Internet. I have not checked how much it has been changed in the recently printed version.

I concentrated my opinions in the form of eight theses.

1. It is sure that the Panel has given a good description of problems connected with EU enlargement and the problems that we face in agriculture and so on. The main threats are described, general ideas to smoothe or overcome the conflicts and difficulties are introduced. Still, I have looked through the text as an editor and found numerous confusing word-for-word repetitions. I hope that they have been removed from the printed version.

2. Although there are numerous international documents dealing with problems of the environment and nature protection, in the Panel report only the Kyoto Protocol and the Water Framework Directive are mentioned and cited. In my opinion the Panel would be more comprehensive if references to at least the Convention on Biological Diversity, Habitat Directive and Pan-European Biological and Landscape Diversity Strategy were included and their general ideas were reflected. With respect to the maintenance of bio-diversity and quality of life, which in the long term perspective are mutually connected, these documents are the most prominent.

3. We have heard a lot about the importance of science. However, though some problems of technology are briefly touched upon in paragraphs dealing mainly with energy, the position, tasks, possibilities, mainstreams and perspectives of the scientific sphere are not discussed at all. Science is only briefly mentioned in the form of a question: "How can science provide input to governance in relation to the steps required for the enlargement process to be successful?" In my opinion it is an arrogant and very obvious underestimation of science if it is looked upon only as a helper for improving governance. For example, solving of almost all the problems mentioned in connection with the Water Framework Directive is inconceivable without serious scientific input.

4. In Annex II of the report it is stated that the misunderstandings of principles and significance of sustainable development restrict implementation of a relevant policy. Also the low environmental culture of management and population may be a serious barrier for reaching sustainability in development. The paragraph dealing with the disposal of waste states: "Special efforts will be put into pro-ecological education, mainly in schools." However, it is striking that education is only given a higher priority by the Panel if treated together with waste disposal. At the same time the crucial importance of raising public awareness is indeed strongly coupled with education, and this has at least been underlined in Annex II of the report.

5. In the Chapter on "Agriculture, water and soil", besides organic farming and growing of oil plants for producing bio-fuel, there is also another alternative – growing corn for producing biodegradable plastics – that deserves to be mentioned. From 100,000 tons of corn it is possible to get ca. 45,000 tons of lactic acid and from that by adding catalyst plasticisers, about the same amount of plastics. This innovative technology elaborated quite recently in Estonia has worldwide potential, in my opinion, since a renewable raw material is used ensuring the reduction of pollution
caused by plastic waste and the technological process itself is environmentally clean. The straw can be used for producing fodder or building materials.

6. The report asserts that the Candidate Countries’ less extensive production in agriculture, where the pollution caused by fertilisers and other agricultural chemicals is also low, is a position which should be safeguarded as a resource. This attitude is very welcome. Moreover, in Accession Countries a remarkable proportion of semi-natural and sub-natural habitats, harbouring rare and/or endangered habitats and species are still maintained. Also these areas and habitats should be evaluated as bio-diversity resources and as examples of several nature types that have perished in many EU countries already.

7. In the summary concerning the transport sector only two opinions are emphasised, (i) paying more attention to land use planning and, (ii) providing incentives for development of alternative fuels. Earlier in the report, however, strengthening the role of railways is described as a main concern for the EU in order to reduce the environmental impact of transport. The report argues that financial constraints have led to a deterioration of the railways. Therefore, it seems reasonable to advocate the sustainable aspect of railways much more in the Panel, and to connect this with the statement that the new common transport policy offers a range of tools to allow member states to implement measures which may be more effective than those attempted so far.

8. The Panel is compiled, in my opinion, according to the ethic dominating the anthropocentric industrial world. Nature is considered only as a resource for satisfying mankind's constantly growing needs for consumption. This is made very clear from the definition of sustainability considered as a basis for the Panel: "Sustainable development is development that meets the needs of present without compromising the ability of future generations to meet their own needs." It is not inappropriate to remember here the warning of the Club of Rome about growth limits and the necessity to have a new ethic in planning nature exploitation. To quote from the Earth Council's report on "Implementing sustainable development, experiences and recommendations from national and regional consultations for the Rio plus 5 Forum":

\[\text{“if the anthropocentric attitude continues to prevail there cannot be any significant and principal success in implementing sustainable development,”}
\]

\[\text{“while the European region is mainly influenced by Christianity, there are no essential differences between Western and Eastern Europe in the implementation and failures of sustainable development.”}
\]

New ethics, a new 'in-harmony and balanced men-nature' relation is needed. As it has been recognised in the Bolivian report: "The paradigm for sustainable development implies changes in the culture and in the patterns of development, production and consumption. This requires substantive transformation in the value systems, in attitudes and in social behaviour."

Thank you for the attention.
Europe, Sustainability and the R&D challenges

Sustainability after the Göteborg EU Summit

The topic I want to address, is the relationship between general sustainability policy in Europe on the one hand and the science and technology policy domain on the other. Of course, in order to have a position on this matter you have to find formal expressions of these policy domains, particularly the European sustainable development policy overall. We are fortunate in the sense that we have had one year of very intense discussion in the EU with regard to this topic, leading up to the codification in the Gothenburg Summit. So we are now in a better position than a year ago to address the issue about the flavour of European sustainable development policy, what it means for accession countries, and what it may mean for the R&D policy connections.

Let's have a look at what Gothenburg provided as a frame. Indeed it is lucky for us that we are not meeting a year ago but now. This time last year there were quite a lot of activities behind the scenes, but no visible convergence. Right now we can look at the Gothenburg codification and see that the strategic aim is that the EU citizens should have economic stability, supportive social conditions and a clean environment – which, in fact, connects to several of the themes for this Bled Conference. We also see three dimensions of sustainability appearing in terms of concern for all sorts of effects: the economic, social and environmental impacts but also the causes. And we also have at the institutional level, the environmental dimension added to the others already codified in the Lisbon strategy.

The policy package also provides other things. It provides a reference to the 6th environmental action programme. This relates to the Commission's strategy document from the spring of 2001, and refers to various activities including the implementation processes, especially regarding the general goals and strategies for the integration of the environmental concern in EU sectors. This is of course very important for the Candidate Countries.

But we also have many other process specifications. The future spring Councils are supposed to assess future advancements, which gives a forward looking flavour to the policy package. With regard to the RTD (research, technology and demonstration) policy, the reference to the 6th Framework Programme (for research), although not yet finalised, merits special note. I think the combination of energy, transport and environmental research domains is of considerable importance, and connects nicely with the Bled Conference report we have been reading.

Comparison to the Bled Conference input report

But there is also the selection of the set of priority areas: climate change, transport, health and natural resources. Let's have a look at how the Gothenburg summit viewed these areas and compare this with the treatment given to them by the Bled report. Basically there are many similarities, but not with regard to all priorities.
There are obvious connections between the Kyoto Protocol and the Bled report in the field of energy. As regards the setting of indicative targets for electricity generation from renewable resources, it is, of course very significant that renewables have been identified in the report as not having a very strong position in the Candidate Countries.

I think that the reference to the European Investment Bank’s invitation to be partner in the Gothenburg policy frame alludes to the investment structure for the entire sustainable development endeavour. Indeed, we need to see more on the investment side with regard to whatever comes around the corner connected to sustainable development. The connected infrastructure investments brings us to the part dealing with transport – nicely handled in the Bled report – specifically dealing with the volumes of traffic, and the separation of transport growth from GDP growth. Unfortunately we also see in the report, and it’s not the report’s problem but an issue about “reality”, that the number of cars is increasing very quickly. We see that this is coming. Though it is, of course, far from anything we would like to see, it still seems to be a tendency difficult to counter. I think the infrastructure investment for the transport system is a very important matter. Maybe a somewhat stronger stress on the policies that seem to emerge as a sum of policies in the private sector would be interesting to see, not only with regard to transport, but also to the other priority areas.

Public health and the issue of infectious diseases also seem to be missing from the report. This also holds true for chemical policy and the European Food Authority issues, which of course have connections with agricultural (CAP) issues.

With regard to the fourth section of the Göteborg EU policy package on natural resources; I think the part about the changed relationships between economic growth, consumption and natural resources and the generation of waste is quite interesting. In the Central and Eastern European setting, we see that the break in the association between these two factors (i.e. economic growth on the one hand and the consumption of natural resources on the other) hasn’t happened in the same way as it has in the existing 15 EU member states. However, the maintenance of bio-diversity in Central and Eastern European countries, contrary to the tendency in the present EU, provides a very positive future contribution to the enlarged system. I think it is really worth mentioning, as the Candidate Countries may need to take care that they preserve this advantage and their different ecosystems long term in further EU negotiations. The fact that there is a potential feedback to the 15 EU member countries, also having to look at these possibilities, adds to the importance of the issue. Of course, a future agreement must be based on an understanding about what is economically and structurally possible for the Candidate Countries. So there are systems chart “arrows” in both directions. In this regard, reference has to be made to connections to the Common Agriculture Policy, the common fisheries policy and the integrative product policy. All refer to interesting issues connected to this area.

Key policy challenges

If we want to highlight the key features of the policy challenges ahead, which would be at the top of the priority list?

Obviously we are talking about multi-dimensional systemic issues. In the report, they are emerge in a cross-sectoral fashion - although I would have appreciated more emphasis being given to their ‘systemiciness’, because quite often the core issue is to be found in their ‘cross-sectoralness’, rather than in the bits and pieces.

The policy process, including the review and feedbacks, is of course of extreme importance, and I think that with regard to the accession countries it's not only the ends that have to be mentioned. We are not only talking about the acquis, but also about the dynamic and highly interesting institutional
creativity needed in the overall process. This is connected to multilevel governance, the consultative and participatory nature of this very process and the global connotations we have heard about, and which were commented on by the Chair, and also to the priority sequence we have talked about before.

This means that the Gothenburg package provides an effective review process as an integral part of the Sustainable Development strategy that includes a dynamic and active operative connection to different policy areas. Of course, it is very important for the Candidate Countries that the move towards this type of connection continues.

With regard to the global dimension of sustainability, it must be appreciated that the Göteborg policy package gave such a clear signal. Sustainability cannot be achieved by operating within a limited area – even thought it is as big as Europe – alone. There is always a global setting: systemically, normatively and operatively. It is not possible to conceive of a sustainable Europe isolated from the global total – that is certain.

The research connection

So, how do we now move forward with regard to connections to the R&D field? I think, taking an overview and leaving particular details to one side, we have to envisage a matrix. The R&D characteristics that have to match the policy package outlined above have distinctly systemic features, just as many of the policies have a systemic character themselves. This calls for interdisciplinarity, cross sectoralness in the research approach, and alertness with regard to the contextual embedding, especially taking account of the socio-economic frame. The research approach also has to look into the long term, in parallel to efforts covering the medium term's bits and pieces. The multi scales, the “glocality” (not only globality, but also the global coupled to the local), the issues connecting natural phenomena and socio-economic and cultural issues, are all characteristics of the priority directions of the RTD efforts.

It is probably fair to say that the RTD characteristics include the notion of risk and danger but also windows of opportunity. It would have been nice if the Bled report had covered a little more on that issue. Instead of merely mentioning the presence of particular actors, I also would have liked more specific mention of those upstream actors that are needed with regard to setting the broad RTD agenda. It is important also to flavour work in the search for sustainability with some sort of practice orientation, including the possibility of developing unconventional RTD directions. Creative novelty in packaging ideas is needed in order to combat what is ingrained in the entire governance structure at the moment.

We also have the time dimension of the issues: the long term perspectives, the many pieces along the road, the path dependencies and many alternative paths resulting from the plurality of visions which were presented in the Ministerial discussion yesterday. If there are many alternatives, are there also many alternative end-states? - How should we approach this issue in overall policy and in the R&D policy?

When we approach the connected operative issues in terms of potentials (and also needs for) cooperative RTD mechanisms (such as joint projects, etc), we must do so on at least two levels: the national one and the European level. We often talk in terms of greater force and competitiveness in the total European arena as a possible outflow of cooperative measures. We talk about the possibility of addressing broader issues, and of mobilising the comparative dimension in Europe in order to get a more in-depth analysis. These are bonuses at the European level. There are also bonuses at the national level emerging from international cooperation: the connectivity to a greater picture than the
local one, the added value for national contributions if they can also be seen as parts of a grander effort, improved networks, etc. But we may also have to reduce some of the fears emerging from huge programs too rapidly and hierarchically launched. This holds just as true for small countries. In the process of setting up our international collaboration patterns we have to minimise potential negative facets and improve the creative ones in order not to marginalise the small countries or to produce unintended effects on national RTD structures and priorities in these countries. And that also holds for more general issues, e.g. the potential erosion of cultural diversity, which indeed could be viewed as a loss of future assets. So we have to find a balance between degrees of European coherence shaping and more local needs and concerns.

The rounding up questions would then be, with regard to the RTD system, which requirements and tools would be needed when we are addressing the “connectivity issue” to ways of governance. We obviously have to make new types of institutional approach - we probably even need to create new institutions. We have to find what the roles of different actors are in the Sustainable Development processes. We also probably have to reform our R&D institutions with regard to the systemic nature of the issues. We have to find connections between previously unconnected domains of knowledge and shape the specific mechanisms that need to be boosted to tackle the interdisciplinary issues.

A map from 18th century Swedish history provides an image of a locality in the countryside. We can see all the small areas of cultivation in the way the ownership at that time was distributed. It is an image of the agricultural society at that time. We can see that the reform, which was made on the basis of efficiency arguments, connects to our discussion today, and that sustainability challenges are not new. It has always been clear, as in this process 250 years ago I allude to, that the pillars of sustainability cover all the economic, ecological, and socio-cultural aspects, and they are all in one package in a connected fashion. This has always been a challenge for the transformation of society, and seen in retrospect, we see that the issue of sustainability always has been at the center of renewal of society in its adaptation to continually changing conditions. This also holds true for the Candidate Countries and the present 15 EU countries in building the new Europe that we are talking about today.
The flavour of European SD Policy

SUSTAINABLE DEVELOPMENT AND R&D – POLICY: The European Context

By Professor UNO SVEDIN
Swedish Research Council for Environment, Agricultural Science and Spatial Planning (Formas)

Chair 2000-2001 of The European Consultative Forum on the Environment and Sustainable Development

Contribution to the Conference
Forum Bled, December 2-4, 2001
Göteborg 15-16 June 2001

Strategy Aim
EU Citizens shall be granted
- Economic stability
- Social supporting conditions
- A clean environment

Means
All new major suggestions for decisions to be judged against
- Economic
- Social
- Environmental effects

Structurally
The environmental dimension to be added to the Lisbon Strategy for social and economic development

Uno Svedin, 2001-11-26

Follow up of Göteborg

- Spring Councils to assess advancement
- 6th Framework Programme (Research) to be taken into account:
  - energy
  - transport
  - environment
- First set of priority Areas
  - climate change (yes to Kyoto)
  - transport (combating volume, crowdedness, pollution etc)
  - health (rel to the Chemicals policy; contagious diseases; the food authority)
  - natural resources (agricultural- fishing- product- policies)

Uno Svedin, 2001-11-26
Follow up of Göteborg

- Special set of goals: (e.g.)
  - at least 22% of electricity from renewables by 2010
  - environmentally friendly transport
  - the new chemicals strategy
  - agricultural policy and ecologically sustainable production methods
  - fisheries policies to be related to the support capacity of the ecosystems

Follow up of Göteborg

- Reference to the 6th EAP
- The Commission SD Strategy Document
  (including implementation processes, especially regarding general goals and strategies for integration of environmental concern in EU sectors)
- An environmental dimension is added to the Lisbon strategy
TARGETING ENVIRONMENTAL PRIORITIES

- climate change
- transport
- public health
- natural resources

“First step” – priority list

CLIMATE CHANGE
- Kyoto protocol (to meet national and European commitments)
- Indicative targets for 2010 of electricity from renewable energy sources
- Invites the European Investment Bank

TRANSPORT
- volumes of traffic and congestion
- decoupling of transport growth – GDP growth
- road to rail/water/public passenger transport
- infrastructure investment for SD transport forms
- better pricing policy of transport

PUBLIC HEALTH
- Safety and quality of food (e.g. European Food Authority)
- use of chemicals (Chemicals policy)
- outbreaks of infectious diseases and resistance to antibiotics
- European surveillance and early warning networks
NATURAL RESOURCES

- change relationship between economic growth - consumption of natural resources - generation of waste
- Maintaining biodiversity
- Preserving ecosystems
- Avoiding desertification
- Add objectives to the Common Agricultural policy
- Review the Common Fisheries policy
- Implement the EU Integrated Product Policy

KEY FEATURES OF THE POLICY CHALLENGE

- MULTIDIMENSIONAL – SYSTEMIC
- POLICY PROCESS (incl. review and feedbacks)
- MULTILEVEL GOVERNANCE
- CONSULTATIVE AND PARTICIPATORY
- GLOBAL CONNOTATION
- PRIORITY SEQUENCE
Global Reach

- regionalisation
- local impact of globalisation
- complexification
- diversification of power

Scale

Time

Uno Swedén, 2001-11-26
Systems features

Interdisciplinary science  ←  Cross sectoral

- Long term
- Related to risk
- Across scales (multilevel)
- “Governance” embedded

Time Related Issues

- Long term – but also many pieces along the road
- Path dependency?
- Many alternative paths?
- Many alternative end states?
Time Related Issues

- Long term – but also many pieces along the road
- Path dependency?
- Many alternative paths?
- Many alternative end states?

Systemic
- intersectoral
- interdisciplinary
- cross cultural
- interconnecting different actors

Participatory – Democratic
- upstream agenda definition
- social economic embedding

Technology in context
SYSTEMS FEATURES
- interdisciplinarity
- cross sectors
- contextual (including the socio-economic frame)

LONG TERM (but also medium term actions)

MULTI-SCALES ("GLOCALITY")
(issues of “matches” of different phenomena at different scales)
- natural phenomena
- socio-economic-cultural
(e.g. watershed management)

Uno Svedin, 2001-11-26

RELATED TO “RISK”/DANGER AND WINDOW OF OPTIONS
- several paths
- avoid non-sustainable directions
- recall path dependence

ACTORS PRESENCE
- upstream presence in the R&D agenda
- “practice orientation”
- also uncommon R&D directions

GOVERNANCE EMBEDDED

Uno Svedin, 2001-11-26
SOME KEY ISSUES:

- Integration
- Micro-Macro connection
- The Science-Policy relation

Tools for:

- AVANTGUARD “SEARCH” OF ENTRY
- COMBINING POLICY DOMAINS (e.g. R&D-policy and innovation but also investments policy) - “policy combinatorics”
- STAKEHOLDER INVOLVEMENT (“participatory”)
- CREATING CONDITIONS FOR R&D ACTIVITIES (“institutional design”)
  - financial mechanisms
  - implementation mechanisms
- FEEDBACK AND SYNTHESIS IN CONNECTION TO POLICY (“PRECAUTIONARY TASKS”)
- QUALITY CONTROL
- RESULT DISSEMINATION
QUESTIONS:

What specific requirements emerge due to the “governance” embedding
- The tools related to the Science-Policy interface

What specific demands emerge from the “actor” relevance
- The tools related to participating mechanisms
- especially upstreams in the definition of the agendas (but balance the roles )

What specific demands is drawn from the systemic nature of the issues
- early connections between different of the unconnected domains of knowledge,
- Specific mechanisms for this to be designed and encouraged (including inter disciplinary frames)

THE GÖTEBORG SUMMIT
(The EU SD-Strategy)

ALL DIMENSIONS
(Economic – social –environmental)
In a mutually reinforcing way

SYSTEMIC and TRANSSECTORAL
“Adds a third environmental dimension to the Lisbon strategy”
“Establishes a new approach to policy making”
Also “National SD Strategy”
The Science-Policy relation

Bridging the gap

- there is a gap
- to understand the differences in the logic of the two sides
- to appreciate a common task
- to find practical means and institutional forms to face the challenges

QUESTIONS:

WHAT ARE THE STEPS WITHIN e.g. ERA THAT KEEPS A VARIABLE GEOMETRY OPEN AND STILL MAKES ADVANCES FORCEFUL?

WHAT ARE THE VERY FIRST STEPS?
- “spearheading” test cases?
- which thematic realms first?
- by whom?

IS THE ARTICLE 169 OPTION ONLY CONFINED TO THE FP SPERE? (AND ITS CONVERGING AGENDA)

WHICH TOOLS?
- the networks
- the financing mechanisms
- synthesis mechanisms
- evaluation mechanisms
DIFFERENT TOOLS HAVE DIFFERENT:

- GENERALITY LEVEL
- TASKS
- TIME DISTRIBUTION
- THRESHOLD TO GET STARTED
- DEEP GOING IMPACT

THE GLOBAL – AND – LOCAL PLACE – SPECIFIC (“GLOBALITY”) NATURE OF THE SD ISSUE

- Special methodology
- New types of network
- Innovation needed in financing
- Break out of national confines
Ladies and Gentlemen,

After the excellent introduction and presentations, which have already covered most of what I wanted to say, I will limit myself on one issue, which I believe is very undervalued, and that is the human resource. It was briefly mentioned in the previous presentations by Prof. Diderichsen and Prof. Paal. It is included in the document as part of the waste programme, which is, of course, a very nice example. We also use this example with great success at all levels of education from kindergarten up to university level, but I think that this is not enough. I believe that we need a change in values. This is what Prof. Paal was discussing at the end. I can give you one example in response to Prof. Diderichsen who said that it would be nice to have tax incentives like in Denmark. In our country, this suggestion has been made over the years – however, it has not been included in the budget. I believe a strong change in values is needed.

How can we do this? I believe that it's easier to get results if people are persuaded, rather than forced, to do what is necessary. The famous philosopher Alfred North Whitehead, who co-operated with Bertrand Russell, wrote an essay "From force to persuasion". The idea is that in a civilized society people are persuaded to act in a civilized manner. It's much better than to force them to do so, because if you force them, the effect lasts only as long as the force is present. Afterwards they will act in a different manner and not sustainably.

Here, one of the tools that can contribute to the promotion of such a sustainable society are indicators of sustainable development. Measurement should be performed in such a way that people understand how to measure quantitatively sustainable development on the one hand, and on the other hand, that they also know this is a paradigm that has to be accepted, so they press the politicians and other people who are responsible for decisions. Once people understand that decisions have measurable consequences, this is the first step towards the change. We know that the indicators of sustainable development, such as percentage of GDP for R&D and other indicators, can measure how close we come to sustainable development. We also need more indicators from science and technology, because in the list of more than 100 indicators, there are usually only 2 or 3 from the field of science and technology.

In conclusion, I would like to say that there are, of course, many challenges in the accession to the European Union. There are also high costs of implementing the directives like IPPC, and there are many negative population trends like ageing. In Slovenia this is a very difficult challenge, also faced by many other Eastern European societies. On the other hand there are also opportunities. Here I see that sustainable development is an opportunity to move towards a knowledge based society. Of course knowledge is not enough; we must also add values because knowledge without values is not going to bring us in the right direction. We know people who have a lot of knowledge, and still do not achieve sustainable development. So, in the future I see a Slovenia that can only survive as a knowledge society based on values of sustainable development. This means that human beings, the natural and cultural environment must also be valued and the dialogue, based on respect for cultural, ethnical and national diversity is the key to building a new European Union based on sustainable development. What is most important here is the education of the new
generations, where we need to educate leaders who will promote sustainable development, leaders with knowledge and values that can help us redirect development towards sustainability.

Thank you.

Chair:

I would like to thank the panelists for their excellent presentations and for raising very challenging issues.

Let me comment a bit on what was really important: the changing of the human paradigm to accept sustainable development. I believe personally that humanity is moved by two kinds of approaches: the strongest approach unfortunately is self-interest. And self-interest is not sustainable, unless you link it to a scientific area. It is said that if you push your self-interest in a very primitive way you destroy your own existence. In this sense I would say that though the indicators will be very useful, the normal person will not care very much about GDP per se. He cares whether he will be able to breathe clean air or whether he will be eating poisoned food. This I believe is a strong incentive.

I believe the forces in human history were of two kinds; one was greed and self-interest, the other one was religion or new kinds of ethics. Some people say we need a new religion, which will preach sustainable development. Personally I don't believe that this is possible nowadays but something like that should be done. Perhaps the only way to change the paradigm which Prof. Zidanšek was speaking about is to make people aware of their self-interest and convince them of the need for sustainable development – otherwise, it cannot go on. But the trouble is people will probably see this only when the consequences are very apparent and when the consequences are apparent it will be much too late. Perhaps the panel can be concluded at this point; discussions will continue in the next panels.
PLENARY SESSION IV
Panel Report on Employment and Societal Change

Mr. Marc BOGDANOWICZ

European Commission, JRC/IPTS
Employment and Societal Change

Bled, Slovenia, December 2-4, 2001

Marc Bogdanowicz

The panel members

Thematic Experts
- P. Fleissner (A)
- G. Coomans (BE)
- M. Suhrcke (I)

IPTS
- M. Bogdanowicz
- G. Fahrenkrog
- B. Golob
- A. Brandsma
- Y. Punie
- M. Zappacosta

Experts from candidate countries
- P. Zvidrins (LT)
- J. Waszkiewicz (PL)
- M. Bojar (CZ)
- G. Kovacs (HU)
- A. Kramberger (SL)
- E. Dimitrova (BG)
- S. Ivetarsky (BG)
- F. Sahin (TR)
- N. Trimikliniotis (CY)
Employment and Societal Change

Main themes:
- Employment challenge: a closer view at regional level
- Options to address the issues:
  - Regional transformation
  - Solidarity and safety nets
  - Mobility

Taking a closer view at regional level
CC13 cover 62 regions.
These regions show observable disparities in employment rates.
Regional disparities

Towards unbalanced development?
- 41 regions out of 62 regions show today severely weak labour-market related figures
- A two-tier Enlarged Europe, with high social and regional discrepancies, could be an outcome of the future decade.
- What are the possible options to address this challenge?

Regional disparities can be addressed by:
1. Supporting Regional Transformation
2. Building Solidarities
3. Encouraging Mobility
Supporting Regional Transformation

4 shaping forces during the coming decade….

1. Further economical transformation will strongly affect the labour-force market.
2. The diversity of these regions will necessitate adequate local solutions and managerial skills.
3. The demographic structure of peripheral regions will be an issue.
4. The readiness for development strategies will be essential.

And 3 options in debate:
- Entering the global market era?
- Diversifying the local economy?
- Supporting the traditional economy?

Employment and Societal Change

Regional disparities can be addressed by:

1. Supporting Regional Transformations
2. Building Solidarities
3. Encouraging Mobility
Building Solidarities

3 shaping forces during the coming decade...
1. Finding a financially sustainable social security model
2. Taking a role in the re-definition of a EU-wide social policy agenda
3. Taking in account the civil society, its expectations as well as its capacities

And 3 options in debate:
The EU-wide integrated social model?
The State-only alternatives?
The State-regulated privatised provision?

Employment and Societal Change

Regional disparities can be addressed by:
1. Supporting Regional Transformations
2. Building Solidarities
3. Encouraging Mobility
Encouraging Mobility

3 shaping forces during the coming decade:….
1. Identifying the effective issues related to migration and free movement
2. Managing democratically the multicultural diversity of EU+
3. Taking in account the global emergence of social and political rights

And 3 options in debate:
The open multicultural EU+?
The regulated internal mobility?
The dispersed national models?

Employment and Societal Change

Conclusion: the challenge of building a cohesive EU+

“In order to pursue its overall harmonious development, the Community shall develop and pursue its actions leading to the strengthening of its economic and social cohesion. In particular, the Community shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions or islands, including rural areas.”
INTERVENTIONS Plenary Session IV
My remarks are related to the part of the report about migration. The authors should be congratulated in the way they have presented this issue of mobility because they have presented it in a positive way: How can mobility contribute to the future of the European Union, to the future of the accession countries? This is different from the way in which migration is usually seen in relation to the accession countries and the accession process, because it is usually seen in a rather negative way. People are afraid of migration, they are afraid that lots of people will flood out of the accession countries and into the European Union. This fear is fuelled by the way in which the issue is often presented in popular media.

I would like to argue that, first of all, migration is not really a threat. I think that is what the authors of the report are also saying, but beyond that we should look at migration as a way of integrating different parts of Europe, we should see it in a positive light. We can also see it as a way of providing economic integration on the one hand and also social integration on the other – as a way in which the communication, understanding and tolerance between the different peoples of Europe can be enhanced.

The second issue is that most people think of the accession countries - and here I am thinking mainly about Poland and Hungary, Czech Republic and Slovakia – as countries of emigration. The belief is that people have always emigrated out of those countries to other parts of the world and that they will continue to do so or even increase their emigration into Europe once they are part of a common labour market. I would like to emphasise that this pattern has changed. The countries of East-Central Europe are no longer emigration countries; rather they are now countries of immigration, countries, which are themselves receiving migrants. In fact, the balance of migration since the mid 1990s is that more people go to those countries than leave those countries. Since this is the case, we should be considering what sort of migration there is into those countries rather than what sort of migration there is out of them.

The third thing I want to do is to question the idea of migration: What is contemporary migration? I think this has also changed in recent years and this should affect the way in which we think about migration. In the past, for example in the Cold War period, migration was a one way ticket out of East Central Europe, mostly people just left and started a new life somewhere else. There was little chance to return. This is the image of migration that people hold of this region. However, this pattern no longer holds. Now, since the opening of borders and with the improvement in communications between the different parts of Europe, mobility can also be a return ticket. People come and they go and that is a more normal pattern if they have the freedom to do so. They commute backwards and forwards, but they do not want to leave their homes, their communities, their families permanently. If we see migration in this way then the issue of the relationship between the accession countries and the EU is a rather different one. We should think of this.
perhaps as mobility rather than migration, and mobility can only enhance communications and
development within Europe.¹

Now I would like to illustrate these remarks. Starting with the issue of out-migration. As I said, I
don’t really think that this is a problem for the future of Europe. Just to give you an idea of some of
the patterns. Generally speaking, out-migration out of these countries has declined since 1993. In
the 1970s and 80s about a 100,000 people used to leave East Central Europe for the West. In the
mid 1980s this increased to one million, in the early 1990s it exploded to three million per year, and
in 1993 dropped to 2.5 million, and then after that to 500,000, and the authors of the report predict
that maybe 150,000 per year would be a reasonable prediction for the future.² If that is the case the
numbers leaving Central Europe are rather small and are even declining.

But what sort of migration into the accession countries do we find? First of all, we have the in-
migration of permanent settlers but those are rather few and to some extent can be explained by the
fact that countries such as Poland and Hungary have large diasporas of co-nationals living outside
of the borders. Some of these now start to “return” to their homelands. Others, having been forcibly
expelled during the Communist period, or emigrated to the West, now want to return. A second
type of migration is that of the asylum seekers and refugees who we find in other parts of Europe as
well; these numbers have increased but are still rather low compared to the EU countries. A third
type of migrant is the transit migrants, that is, people who are using these countries as gateways to
go somewhere else. Those numbers are large, but are coming more and more under control with
the development of migration policies in the Accession countries, so that transit migrants are being
stopped more and more at the eastern borders of the accession countries rather than on the western
borders. Then there is a boom in tourism. But some types of tourism are actually disguised
economic migration - for example, some people who enter as tourists are actually buying and
selling goods across the border or are temporarily working. However, this is partly because of the
inhibiting regulations for small scale entrepreneurs and workers. Labour migration also increased,
but this tends to be in the tradition of guest workers, people who come for a short period of time,
earn money, then go home again. They come from Ukraine, Romania and from other East
European Countries so that patterns of circulation or “migration systems” have already evolved in
the last years. Some of the settlers in Poland, Hungary, Czech Republic and Slovakia come from
further afield, from China and from the Caucasus as well as the former Yugoslavia. For these
people, Central Europe offers good business opportunities. There is also (as mentioned in the
report) a more neglected topic: that of West-East-migration. That is, people going from the West to
the East. For example, as well as the flood of consultants and managers, there has been a wave of
young Americans, enough to even form a kind of colony in Prague.

What are the consequences of this for the accession countries?

We need to start thinking of migration in these terms rather than the way in which they are often
presented in the public debate. If we do this, then a range of new issues emerge. First of all, it
means that the pre-accession countries are becoming multi-cultural societies, and that is something
new for them. Most of the politicians and the citizens of Poland, Hungary, Czech Republic and
Slovakia think of their countries as culturally and ethnically homogenous. This is something that
many Western European countries are also struggling with. Although there are already some

¹ These remarks are further discussed in my recent book with Dariusz Stola „Patterns of Migration in Central
Europe” Palgrave 2001 and a forthcoming article „Opening and Closing Borders: migration in East-Central
Europe” in the Journal of Ethnic and Migration Studies.
established cultural minorities, the rise in in-migration raises the issue of new cultural minorities and that requires some rethinking of national identity. Thus, we are also seeing the emergence of more overt forms of xenophobia. In surveys of public opinion carried out in East Central European Countries there are very high levels of xenophobia compared to Western European Countries. This will be something that should be addressed in future.

I give you one example: in one survey people were asked if they didn’t want an immigrant as a neighbour in the period 1995-1998. In Western Germany 4% did not want an immigrant as a neighbour. In Eastern Germany it was 10%. In Hungary it was 25%. In Poland it was 21%. In the Czech Republic it was 28%, in the Slovak Republic 18%. This pattern is repeated in other surveys too. There is considerable resentment and fear of foreigners in some of these countries - but the good news is that it seems to be declining.

The conclusion is therefore that out-migration from Central and Eastern Europe is not really a problem. Indeed, perhaps the problem is not how to stop or prevent migration but how to encourage it, how to encourage people to be mobile between different European countries. The issue of in-migration does need to be tackled however. This is because there are all sorts of newly established relationships between Eastern European countries on the one hand and the accession countries on the other hand as people have been working as guest workers or as traders, and they have been coming and going across those borders. This is something that has helped in the development of those countries. However, the general feeling seems to be: “We should put a big wall between those countries we define as “accession countries” and the rest of Eastern and South-Eastern Europe. We should fortify this wall to keep people out! We should concentrate our attention upon the privileged band of accession countries and just forget about the rest!” This tends to increasingly criminalise the kind of mobility taking place across the Eastern borders of the newly enlarged Union. After a brief period of relative freedom of mobility, borders are once more being closed. But of course the rest of the Eastern European countries are also a part of Europe, they are also brought into the accession process through their relationship with the accession countries. I think we need to think in a creative way about policies that can regularise the kind of economic migration and mobility between Eastern European countries such as Ukraine and the newly enlarged European Union. Ukraine is important because many guest workers went from there first to the Czech Republic and Poland, but now as these opportunities are made more difficult, to the rest of the European Union. The increasing economic disparities between the accession countries on the one hand and the Eastern and their Eastern and South Eastern neighbours on the other, which is assisted by the accession process, creates conditions for more migration, that at the moment takes rather the form of temporary mobility. We need to think about ways of regularising and handling this kind of migration rather than raising false fears to make conditions worse.

I would have thought that we don’t want on the Eastern side of the accession countries a kind of US American - Mexican type of border which has to be policed in a violent and hostile way,

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encouraging criminality. With more creative and humane policies, it should be possible to think of better ways of regulating those borders.

After all, we have to remember that the (sometimes clandestine) cross border mobility is a way in which ordinary people can augment their inadequate incomes. In most cases they do not want to be criminals, they just want to make a living. We should therefore try not to criminalise them. It also takes some initiative and entrepreneurial talent to engage in cross border trade under risky conditions. These activities can also blossom into more legitimate business as they are a way of raising capital as well as making a living. They are therefore important for the economic development of the Accession countries on the one hand and the less fortunate countries to the East and South on the other. An example is the cross-border mobility into Poland: an estimated 60 000 jobs depended upon the Warsaw Stadium bazaar, one of the biggest bazaars for Eastern European traders in Central Europe. Many Polish businesses depended upon this small scale cross border trade, which was threatened by the need to erect a new strong border to the East. Many small entrepreneurs in Ukraine, Russia and Belarus also depended upon this trade and the short term labour mobility. It was an example of positive cross-border co-operation. We have to imagine that the smugglers of today are also perhaps the SMEs of tomorrow!

Thank you.

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Mr. Allan LARSSON
Former Director General, DG Employment

Let me start by saying that I learned a lot from reading the report and listening to the presentation. I found the report very interesting and stimulating. However, I would like to point to two factors that I think are missing in the report. One is about the labour market and employment and the other is about social protection.

Let me start with the employment perspective and the very strong focus in the whole report on the regional diversity. The question is: what policy conclusions will you draw from that strong focus on diversity? I think that there is a risk that the conclusion is that employment policy only can be shaped on regional and local levels while there is very limited room on the national level and almost no room on European level to do so. Here I think that you could avoid that risk by introducing a description of the challenge that is common to all those regions, to all the 15 member states and the 13 Candidate Countries.

I would like to illustrate this with a few slides, which we used to present the analytical work behind the European employment strategy. This is about the two-speed labour market. It's an extreme simplification of the labour market, a way to explain the dynamism of the labour market. You will find to the left the demand side of the economy, you see on the right the supply side. The demand side is industry, manufacturing industry, the service sector, the public sector, the social economy – all the economic activities employing people. On the supply side we have the labour force, we, all of us, who have a job or are looking for a job, make up labour supply. Now you see that there are some figures illustrating the different speeds in the transformation of demand and supply, the structural changes. To the left you see that 10% – a figure quoted by the OECD some years ago – is the normal “death” rate for jobs (about 10% of all jobs will have gone in 12 months time). Although there will also be 10% new jobs these will be in other sectors of the economy, in other places, other regions, with other qualifications and requirements. This is the normal turnover, sometimes a little bit higher, sometimes a little bit lower. But it is important to recognise this dynamism in the labour market. On the side of the labour force – we who are working or looking for a job – turnover is lower. About 2 or 3% of us leave the labour market, for age or other reasons, and then a new cohort of young people with new education, training, enter the labour market. This is the normal turnover and the normal introduction of competence and new skills into the labour market, and the reason why we call it a two-speed labour market. There's one speed on the demand side and another much lower speed on the supply side. This creates two problems, two well-known problems.

On the demand side of industry, at the growing end of the economy you have bottlenecks, difficulties in finding people with the right skills and competencies. Some enterprises would grow faster if they could find these rare people. At the declining end of the economy you get redundancies, people with old skills in declining industries. These people are made redundant and they become unemployed, and a lot of them, because of the way the system is organised at the moment, will become long-term unemployed. This is the dynamism of the economy and here we face a couple of challenges as policy makers. One is on the demand side. We have to promote change, especially in the Candidate Countries in order for them to catch up with the rest of Europe. A higher speed of change is needed than currently exists in both the Candidate Countries and in the present member states. Therefore promotion of change through trade, technology, and
entrepreneurship is extremely important. This also means that there will be much more work to do with the management of change on the supply side so that people are given new starts, new chances, new opportunities. They need support to come back into new gainful employment – a very hard task. These two parts of the policy package – promotional change and the management of change – are a common challenge for all member states and all Candidate Countries and common to all the regions that you have described in the report.

I would like to add some information on how we discussed the role of technology and the demographic factors when we designed the European employment strategy.

This is another simplification, in this case a simplification of the role of technology in working life. We took it from 1995 to 2000, but we can move it and apply it to 2000 to 2010 because it’s still the same development. You see new technologies and you see existing technologies. The message is that in 10 years time around 80% of existing technologies will be replaced with new and better technologies. The speed of change is higher in Information and Communication Technologies, but overall 80% of technologies we have today will in some way or another be replaced in 10 years time. This is the important message, and it means there will be demand for new, higher and above all broader skills. There will also be a need for new more flexible organisational work. This is one side of it – new technologies.

The other side of it is people and the ageing of our workforce. Here you see what will happen between 2000 and 2010 in the workforce of the EU-15. You see to the left that the number of people between 20 and 40 will diminish by 12 million people. So the group from which enterprises normally recruit and find new skills and new competencies will now diminish. We have been used over the last 20 or 30 years to the fact that young people are available and that there are more young people than there are jobs. This is changing dramatically and we will now have more people above 40. I prefer to talk about them not as older workers, but rather as more experienced workers. There will be 13 million more people in this category – workers that in the past enterprises planned to get rid of when there was a downturn or restructuring. Now, in the future they will represent an important resource. Enterprises have to learn to identify the most experienced workers as a resource. My advice to the Candidate Countries is simple: do not repeat the mistakes made by a lot of member states in the European Union during the 80s and 90s, when they created systems to get people out of the labour market, by giving them early pensions or disability pensions. That is the reason why employment rates are very low in some of the EU countries. Don't repeat that mistake.

Now, let us bring together the discussions on technology and demography. The fact is that 80% of the workforce will have been educated and trained more than 10 years ago; at the same time 80% of the technology will be new. This is a challenge that every region, whatever your starting point, will have to face. You will have to manage this change and you will have to bridge the “skills gap”.

This leads me to the second point I would like to challenge in the report. This is about social protection. What I read here is that social protection is focused on solidarity – of course it is. Your main message is that social protection is expensive in the present EU member states. You present some figures to underpin this message and you take the two extremes, I think the lowest is 16% in Ireland and the highest is 53% in Sweden. But you have failed to explain how you compare the cost of social protection. Compared with what, that's the question I have. I would like to introduce an OECD study made a few years ago by Professor Gösta Esping Andersen. He compared not only public expenditure, on which you have focused here, but also total expenditure on social protection. He looked at the two extremes of the OECD, the United States on the one hand and Sweden on the other hand and what did he find? He found that the share of household expenditure spent on social protection is roughly the same in the US and in Sweden – 39.6% of GDP in the US and 41.2% in
Sweden. Not a big difference. These two countries are interesting because they have almost the same level of employment, USA 74%, and Sweden just below 74%, so it shows that you can reach a high level of employment (in terms of employment rates) with very different systems of social protection.

Therefore I think it's dangerous to say that social protection is very expensive. If you don't pay it in one way, you'll have to pay it in another way. You should focus not only on the level of public expenditure. You should focus on the structure of the systems. You can design a system that offers exits from the labour market – generous unemployment benefits without any work tests, disability pension systems, low retirement age and so on. If you do this, then you have a very expensive system. Alternatively, you can design a system where you have strong incentives to go into the labour market, to stay there and so on. Here the social protection system will be more sustainable.

I would like to end by showing one slide from the preparations we made for the Lisbon summit last year where employment strategy was determined in the more general framework of social protection and social inclusion. We looked at the relation between social protection systems and employment. To the left of the graph you can see that if unemployment remains constant over the next 10 years (62%), then the dependency ratio, the red dotted line, will go up, and that means a heavy burden on the active generation. If, however, you look at the right side of the graph, where we took a medium employment growth of 1% a year, going from an overall employment rate of 62 to 67%, you can see a decreasing dependency ratio and a diminishing burden on the active generation. Now, the heads of state and government in the EU have put 70% as a target for the development in the labour market in the next 10 years, so it's an even more ambitious target than the one you can see here. This is what you need to focus on: the relation between social protection systems and employment. You have to make your employment systems employment friendly. It is not the level of public expenditure that you should focus on but its structure and this must be directed to supporting employment. In this way employment will also support your pension system, and your social protection systems in general.

Thank you very much.
Ladies and Gentlemen:

As the time is rather limited let me concentrate on just one key problem raised in the report and then, as a member of the Steering Committee, on a few general issues concerning the future of the FUTURES Programme.

The report itself clearly identifies employment as the key problem not only for Central European countries but for the whole of Europe. If nothing is done it will lead to unpredictable disruptions. Before 1980 or even 1990 unemployment was not an issue in the former socialist countries. Now, we are facing unemployment rates as high as 20% in large regions (we saw these terrifying maps just a moment ago). Therefore it is no surprise that the voices and resentments of the past become loud and aggressive. I think that the rapidly growing unemployment is a major issue for euro-sceptics – not only in Western Europe where there is fear of the immigration wave from the East, but also in CEE countries, where the loss of social security has become a major issue. What are the reasons, then, of this situation that has actually happened over the last 10 years? I would like to pinpoint just three of them:

1. The structure of the old industry and changes in agriculture leading to more efficient larger private farms. Here we have a first paradox which is quite well known from the history of Europe – namely, progress leads to social disruption.

2. The increase in new jobs is too small and does not balance the losses. And the global slow-down of the economy doesn't help.

3. Those born in the baby boom in Central and Eastern Europe, especially in Poland, are now reaching production age.

Fig 1. Demographic prediction of the 19-23 year old population in Poland.
In Poland alone about 3.5 million young people will be ready to be employed for the first time in the coming 5 years. The estimate for the next 20 years is about 8 million – quite a large number. In the coming decade, Poland will have a net increase in workforce, while at the same time, the rest of Europe will already be in demographic recession.

In Poland today, about 18% (about 4.5 million people) officially have no job. This is a really terrifying figure. But even more dramatic consequences of current unemployment are expected in 10 to 20 years time as the numbers of old people requiring social services increase, adding to the enormous social pressure we already face now.

A very simplistic prediction, which has in fact become a driving force behind the employment barriers, and which has been made particularly by the German speaking members of the European Union, is that an enormous immigration wave to is expected from the newly accepted EU member countries.

I am not a prophet, but would like to draw attention to the following fact. For the last 10 years, there have been no formal barriers to travel. Everybody has a passport and visas are not an issue, at least for the time being. The number of real emigrants is virtually nil. People just prefer to return and stay at home.

Interestingly, quite similar observations can be made locally. As clearly shown in the report, local gradients in employment are very large. But the net migration within the country is still very small. And there are no language barriers, which definitely exist for real emigration.

Recently there were numerous offers for specialists in Information Technology. They were very generous, and what happened? Simply nothing.

In the simple world of physics if there is a gradient, then we have a flow. The larger the gradient, the larger the flow. If this does not occur, there must be some other stabilising or preventing factors that are stronger than the obvious pressure. I am sorry to say that the report does not provide even an educated guess as to the explanation of this observation.

In my opinion, the hidden variables preventing the flow would also be valid 10 - 15 years from now and fairly small forces or tools would be enough to prevent large economic migration. This is because, in my opinion, the people's hopes are currently major stabilising factors. This is certainly true for Poland and the Poles.

Now, I was very hard in my first comment, so let me be easier with the second one. Please, don't be too afraid of the Polonisation of Europe. We were neither able nor willing to conquer the United States, although there are more than 10 million Poles. As you know, Poles “managed” to have a very strong advisor to one of the previous presidents of the United States. And we have a great Pole quite close to God. Why should we then think about conquering Germany or Austria by flooding any of these two countries?

Let me return to solutions of a real problem. We should look much further ahead in our analysis – to a time when most of the formal enlargement processes are complete. The issues of a common or reunited Europe, as Mr. Busek proposed naming it yesterday, will be on the table. To minimise the pile up of problems resulting from clearly visible regional disparities, some actions should be taken as soon as possible. The assessment of the (Enlargement) Futures Project quite rightly pinpoints some of them. So let me just mention one, which is at the very top of my priority list, not least because it concerns the academic world which I come from.
These days everybody talks about the knowledge based economy. Some countries even declare themselves to be knowledge based societies, or at least point to this as a target. The concept of the European Research Area is the key ingredient of this goal. But research is not enough. Even more important for societal adaptability is education. Education in itself is not an immediate remedy for unemployment but is certainly true that educated people adapt much better and much more easily to the dynamics of the current times.

There is also a third element, namely innovation, a real driving force for the modern economy. You may call it semantic numerology, but some 2000 years ago, the great Heraklitos said "απο παντα ρει", which means, “everything moves”. Indeed, Europe is on the move.

We may decipher this magic Greek word ‘ρει – REI’ quite appropriately for the European Area, namely

R can stand for research
E for education
I for innovation

A European Area built upon these three elements will not only be able to face the challenges of the future, but it will also assure our stability. Finally, to define ‘area’, as even schoolchildren know, 3 points are needed. And also 3 legs on a construction are the minimum for stability.

These three elements define the areas, but how about the tools? There is no doubt that most tools must be used locally and must rely upon local effort. If, however, Europe is to be taken as a whole, why not use available structural funds in a more pro-active fashion? Why is so much devoted to agriculture or better said, support for the rural areas? Why shouldn’t a much more significant portion of these funds, backed by local funds, be streamlined into higher and specialised education and into modern research infrastructure, so much needed in Central and Eastern Europe?

Tough times are coming – all the more reason why we must insist on investment in the future – in the younger generation. This suggestion leads me directly to the Futures Project and the IPTS. In my opinion, the project must go on and the IPTS has already proved its competence and extremely high quality. The next phase is scenarios. In fact the only real drawback, which I see in the current outcome, is that reports provide a somewhat historic and photographic picture. But science also offers predictive tools. I propose this as a goal for Futures 2. But as the problem becomes much tougher, why not go along with the 6th Framework Programme and the European Research Area, namely by networking. If such an idea could be considered, I would repeat the suggestion I made in Prague to create a network of the national foresight and prognostic teams, with the IPTS acting as an intellectual and organisational “hub” for this project. Then not only could the information be transmitted from the IPTS, as happened with the current project, but the JRC in Seville could play a much more ambitious role: the intellectual leader in predicting the future for Europe.

I have already discussed this issue with Professor Kleiber, who became the Polish Minister of Science a month ago and who has been with the Futures project from the very beginning. We would like to declare that Poland is ready for such an endeavour.
And as a final conclusion, as I'm also the last panelist, let me make the following observation. Almost two years ago George Soros stated “The markets are about to dive into recession, but only very few see this already” and this was well before Internet-euphoria and the final fall of most of the stock markets. His assessment was very pessimistic, but professionally realistic and profitable for him and for his clients.

Per analogiam, I would risk a somewhat similar verbal construction: The world is endangered by extreme events and most people fear that even harsher dramas are in sight. But only a few among the intellectual and political elites know that such scenarios can be avoided and that the solution, at least for Europe, is simply a common Europe built by the enlargement process. The work of the IPTS team headed by Mr. Cadiou and Mr. Fahrenkrog is, in my opinion, one of the most essential learned contributions in this process.

Dear IPTS team: Thank you very much for the grand vision, courage to address tough issues, patience with meddling panellists during the course of the project and finally for the outcome. We are looking forward very much to its sequel, namely: FUTURES 2 – STRATEGIES AND SCENARIOS.

Thank you very much.
I would like to make some brief comments and formulate some crucial points. First of all, it was interesting to read this report. Overall, it is well done. It’s good to see that a group of such highly-qualified scholars has been dealing with such important questions related to the process of European harmonization. I would like to invite and motivate the creators of the report to think along some other lines I am personally more familiar with. So, these are the questions that have occurred to me while reading the report and which I would like to put forward to you.

The first question is how to use some concepts, for example, civil society. The concept of civil society has been developed in opposition to the national state concept. It made sense to use it as a counterpart to the political state – that is, the modern national state. Recently, further ideas have been developed and the concept has been internationalised. And here I ask myself which civil society should we have in mind when using this term in a discussion of the European building process? Is the civil society more or less national or even nationally-based or is it international and based on international cooperation? Who is the representative of one and who of the other? Is it possible that we, by stressing the civil society, just want to be more open, that is, broaden our ideological view, but without opening any institutional channel for promoting and reforming various dimensions of the civil society?

The second question is an ideological one. It relates to the concept of democracy and how to use it. In the report democracy is used in a common sense way as a “democratic multi-cultural society” and "strong democratic market economy". Yes, nowadays all is and should be democratic. But as a political scientist I cannot imagine that a market economy could be democratic and it most certainly isn’t. Neither is society. Democracy is more or less a model of government and participation in the field of politics.

This brings us to the question of identity. The report refers to it only in one sentence (the White Book on European Governance), which I quote: “Our task is to connect Europe with its citizens”. This, I believe, is essentially the task of emotional management. Emotional management can in fact be seen as politics that has nothing to do with particular policies. It is crucial to be aware of the ways to grip people emotionally, to engage the emotions of the masses throughout Europe. It is through this process, I believe, we could create a European identity. However, this isn’t the question for the masses but for the European leaders and opinion makers of both the European Union members and the Candidate Countries. Therefore I think we should find and create an elite in every region and tie it with the country or region in order to approach the answer to promoting better employment, particularly in those regions where unemployment is very high.

Finally, I would like to stress just one more point that I didn’t detect in the report itself – the question of flexibility. I believe that societal change is strongly related to the question of flexibility and how flexibility is achieved by individuals, in other words, how can people adopt and live out a plurality of identities. Namely, having more identities means having the possibility to switch from one identity to another. Only then will the society achieve flexibility and become a permanently changing society. Otherwise it will change on a merely mechanical level, but without engendering real societal change.
PLENARY SESSION V
Information and Communication Technologies

Ms. Elissaveta GOUROVA

European Commission, JRC/IPTS
Horizontal activity of the ‘Enlargement Futures’ Project focusing on:

- Infrastructures
- Infostructures and content
- Capabilities and skills
- Key issues and outlook
Horizontal activity of the ‘Enlargement Futures’ Project focusing on:

- **Infrastructures**
- **Infostructures and content**
- **Capabilities and skills**
- **Key issues and outlook**
Infrastructures trends

- Communication networks
  - Diversity and convergence
  - Uneven access for citizens and businesses
  - Security and IPRs: a critical issue

- Industrial position
  - Emerging local specialisation patterns
  - Niche potentialities for domestic industry
  - From monopoly to full competition; from fragmentation to concentration?

Infrastructures challenges

- Turning the ICT sector into a sector of economic growth

- Challenges to regulation considerable
  - Facilitate growth and market relations
  - Safeguard competition and consumers’ rights

- Addressing the complex digital divide
  - Availability and affordability of access to all
  - User assistance and easy-to-use devices
High growth rate in EE, CY, MT, CZ, TU

Large difference in penetration rates:
high in EE, CY, SL, SK
low in BG, RO, TU

Horizontal activity of the ‘Enlargement Futures’ Project focusing on:
- Infrastructures
- Infostructures and content
- Capabilities and skills
- Key issues and outlook
Infostructures and content trends

• Content production
  ➤ Potential for growth in local content and services
  ➤ What future for domestic media systems
  ➤ Imminent trend to industrial consolidation

• e-business and e-government
  ➤ Potential for growth of e-public services
  ➤ Significant push by banks and multinationals to e-business
  ➤ Lack of critical mass

On-line content trends

Web sites per sector (%)

[Bar chart showing web site penetration by sector in various countries.]

Source: ESIS Indicators, 2000
Infostructures and content trends

- Content production
  - Potential for growth in local content and services
  - What future for domestic media systems
  - Imminent trend to industrial consolidation

- E-business and e-government
  - Potential for growth of e-public services
  - Significant push by banks and multinationals to e-business
  - Lack of critical mass

Readiness for e-business and e-government

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Higher readiness? Substantial improvements needed

Infostructures and Content Challenges

• Access to digital content
  ⇒ Cultural heritage and high quality content accessible to all

• e-business and e-government
  ⇒ Radical changes needed in behaviour and organisation
  ⇒ Potential for ICT-based competitiveness and growth not sufficiently exploited

• Ensuring trust and respect of human rights

Panel on Information and Communication Technologies

Horizontal activity of the ‘Enlargement Futures’ Project focusing on:
• Infrastructures
• Infostructures and content
• Capabilities and skills
• Key issues and outlook
Capabilities and skills trends

• ICT education
  ➞ ICT curricula and networking of schools
  ➞ Polarisation in e-learning
  ➞ Demand for high-skilled teachers and new content
  ➞ Bias towards young people in schools

• ICT skilled employees
  ➞ Partial availability of ICT professionals
  ➞ General workforce lacks ICT skills
  ➞ At SME level initiatives are underway

Capabilities and skills challenges

• Workforce
  ➞ Avoid brain drain of IT specialist
  ➞ Life-long learning

• Citizens
  ➞ Stimulating digital literacy and interest in new services
  ➞ Creating a learning attitude

• Managers needed for the knowledge-based economy
Enlargement Futures Project

Horizontal activity of the ‘Enlargement Futures’ Project focusing on:

- Infrastructures
- Infostructures and content
- Capabilities and skills
- Key issues and outlook

Key issues

- No technical reason why catching up with EU15 will not work
- The present lack of critical mass (supply and demand) calls for public-private partnerships
- Beware of solving the skills shortage in the ICT sector, whilst maintaining large levels of ICT illiteracy
Outlook for IS policy in candidate countries

• **Scenario 1: Business as usual**
  Candidate countries are heading for a society which is made up of IS clusters instead of a balanced development.

• **Scenario 2: ‘Marshall Plan for an IS’**
  Only a big policy push (external and internal) might create an IS for the benefit of all in candidate countries.

Thank you
Issues on the Research Agenda: EU Prospective of Ethics in Science and Research

Ms. Barbara RHODE

European Commission, Head of Unit, Research DG
The topic was not foreseen in the original concept of the “enlargement futures”

- It is a spin-off of the panel on “technology, knowledge, learning”
- The topic is evolving very fast and has been taken on board by the organisers in the running process
- IPTS organised a workshop on the topic in Brussels by Paola di Pietrogiacomo and Ken Ducatel
- No report, no fully developed panel behind

But the hope to inject some more ideas, important to a fruitful development of the European Research Area
....and
Very important!
It is not only a topic for the candidate countries, but also for Europe as a European Research Area

At present we are investing major efforts for all countries co-operating in the FP

The Research Council on the 10th of December will publish an **Action plan “Science and Society”**

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**Ethics - right now - is hitting the headlines**

- **On Sunday last week** the US company Advanced Cell Technology (ACT) announced that they have achieved for the first time a human somatic cell nuclear transfer (meaning: human cloning)

- **On Thursday the EP** after one year of intensive debate in the ad hoc Committee on “Human Genetics” voted against its own report
The rapid advancement of science will have a deep impact on society and the future living conditions.

Science is developing new products and is asking many questions to the people, such as:

- Do we want to eat genetically modified food?
- Do we want to know our genetic code?
- Do we want our employer to know our genetic code?
- How did BSE evolve, was the scientific advice good enough?
- Do we want to live with nuclear power?
- What are the risks, what are the benefits?
- Are the scientists responsible, does science take a harmonious path supported by the population?
Contents of science is a policy decision

When investing a share of the GDP in science
- What to achieve for the people, the citizens
- How do we want to live in the future
- NGOs are putting pressure, if they do not agree
- People can block the scientific advancement if they do not agree:
  - The Swiss referendum against biotechnology

Ethics in Science has hit the headlines

Not only in European countries a heated debate is going on:
- What is allowed for scientists to do and what not?
- Are we allowed e.g. to touch the human embryo to use it for research?
- Is this really necessary to cure serious diseases like Parkinson, Alzheimer, cancer?
- And if so: How to decide on these ethical dilemmas?
- What kind of regulation does your country need?
- What kind of controls?
- …and what kind of research are we able to finance on the EU level?
The situation in the MS States

Concerning embryonic stem cell research: extreme diversity:
- UK allows research on embryo until 14 day
- in DE you would go to prison (situation changing - last Thursday: ethics council)
- many countries no legal solution
- US: public “existing stem cell lines”
- In the private no regulation

Europe is a place of cultural diversity
- formed by national history, different religion and diverse cultural background
- Two world wars and the war around the collapsing Yugoslavia were the worst results of not respected cultural diversity, turning into hostility
- WW2 also demonstrated that science is not innocent and needs democratic control (dreadful medical experiments)
- However, the model on how co-operation in Europe has slowly been built up, was not through values or the attempt of harmonisation, but through technical and economic cooperation: “win-win situation”: European Economic Communities
- the principle of subsidiarity: the social, the political, the values are only starting to be addressed since the development of the “European Union” (10 years, Maastricht)
Creating the European Union: Charter of Fundamental Rights

7 December 2000

Article 1: Human dignity is inviolable. It must be respected and protected.

Article 3: Right to the integrity of the person... in medicine and biology:
- the free and informed consent of the person concerned, according to the procedures laid down by law,
- the prohibition of eugenic practices, in particular those aiming at the selection of persons,
- the prohibition on making the human body and its parts as such a source of financial gain,
- the prohibition of the reproductive cloning of human beings.

Article 7 and 8: Respect for private life and the protection of personal data

Article 13: Freedom of the arts and sciences

Article 22: Cultural, religious and linguistic diversity (pluralism)

Article 37: Environmental protection

Article 38: Consumer protection

Attempt to achieve more convergence

• What to finance in the FP?
• EP “Human Genetics”, the Fiori report
• planned: for 13 November, FP 14 November
• need for debate, postponed to 29 November
• FP on 14 November, debate only on ethics
• Fiori contradictory to FP report rejected:
  – 316 again out of 400
• the debate has only started
The FP conditions 1:

Article 3:

“All the research activities carried out under the Framework Programme 2002-2006 must be carried out in compliance with fundamental ethical principles.”

“During the implementation of this programme and in the research activities arising from it, fundamental ethical principles are to be respected, including the following: protection of human beings, data and privacy, as well as animals and the environment in accordance with Community law; relevant international conventions and codes of conduct, e.g. the Helsinki Declaration, the Convention of the Council of Europe on Human Rights and Biomedicine, the Universal Declaration on the human genome and human rights adopted by UNESCO;

current legislation and regulations in the countries where the research will be carried out.

FP /2: Excluded to be financed:

1. Humans

- human reproductive cloning
- research activities modifying or aiming to modify the genetic heritage of human beings;
- nor any research activity involving the creation of a human embryo for research or therapeutic purposes be carried out.

2. Animal suffering must be avoided or kept to a minimum and special attention must be paid to animal experimentation involving species that are the closest to human beings in this regard. (in accordance with Directive 96/609/CEE).
FP/ 3: control by “ethical review”

• Where appropriate, participants in research projects must seek the approval of the relevant ethics committees prior to the start of the RTD activities.
• An ethical review will be implemented systematically for proposals dealing with sensitive issues.
• In specific cases, an ethical review may take place during the implementation of a project

Rules of Participation: Article 18

Evaluation and selection of proposals for indirect actions

Any proposal for an indirect action which contravenes fundamental ethical principles, particularly those set out in the Charter of Fundamental Rights of the European Union, or which does not fulfil the conditions set out in the work programme or in the call for proposals may be excluded from the evaluation and selection procedure at any time.

Countries in Pre-accession

• What is the legal situation
• Which are the institutions to control the implementation
• Is the Ministry of Science and Technology, the Academy of Sciences, the Grant Agencies, University informed and involved?
• Questionnaire send out via the science councillors in Bruxelles
Result and next Step

- Very uneven structures
- Some countries little information
- But the questionnaire in some countries has launched an initiative: in Slovakia a law is being drafted
- Conference in Bratislava in February/March
- Booklet on each country with all regulations
- Country profile of what is accepted and allowed
- Implementation of ethical review
  - We need experts in Brussels, also from candidate countries
- Bulgaria, Cyprus, Poland ???
Societal Values and Ethics

Mrs. Paola di Pietrogiacomo/Mr. Ken DUCATEL

European Commission, JRC/IPTS
Societal Values and Ethics

Bled, Slovenia, December 2-4, 2001

Paola Di Pietrogiacomo/ Ken Ducatel

Experts from candidate countries

A. Alkam (TR)
A. Gorsky (PL)
R. Komel (SL)
V. Parve (EE)
L. Pudze (LV)
J. Šimek (CZ)
P. Stoeva (BG)
Societal Values and Ethics

- Initial messages:
  * Global Society / Global Values?
  * New pressure on public institutions in technology
  * Develop the missing link economics/ethics
  * Role of neutral expertise
  * Importance of accessibility
  * Awareness, education and public debate
Popular Fears vs. Professional Ethics - Science in Anxiety Environment: The Case of Biotechnology

Dr. Gregor TOMC

Faculty of Social Sciences, University of Ljubljana, Slovenia
1. It seems safe to conclude that the general public does not have at its disposal the knowledge which would enable it to rationally pass competent judgement on the potential usefulness or risk of much of scientific research. There is also no reason for us to believe that the situation will improve in the future. If anything, it would be safer to predict a growing gap between the increasingly hermetical nature of complex science on the one hand and the everyday, common sense knowledge of the public on the other. The implications of this conclusion are in my opinion far reaching – public trust or mistrust of science is to a greater extent a question of faith or fear. It is primarily a moral question.

2. The public is not emphatically involved in all scientific issues. It probably passes the majority of them in 'blissful ignorance'. It only gets involved in those issues which for some reason or other have a moral background. The nuclear industry obviously has such a background – it is called the atomic bomb. For many people the association between a nuclear plant and Hiroshima comes readily to mind. On the other hand people are not afraid of industries based on coal, although far more people were killed by it. Or another example: most people are more mistrustful of planes than of cars, despite numerous statistics and decades of habitualisation to the contrary – because of our ingrained fear of flying. This is why the September events in New York had a drastic effect on air traffic whereas thousands of automobile accidents on our highways do not.

When an emphatic background exists, it is not difficult to incite and create an anxiety environment. This is, in my opinion, precisely what happened in the case of bio-technology – environmental, consumer and similar groups are continually expressing their mistrust of bio-technology, grounded in emotional resistance. And what is the moral background of bio-technology that makes us potentially so prone to fear? In my opinion it is our fear of monsters, expressed in moral tales, folk myths (from dragons to Dracula) and modern fiction (from Frankenstein to X-Files). This fear is exploited by the media (by no means for instrumental reasons only) and by politicians (not for practical reasons only), creating a general climate of distrust of these technologies.

The climate is of course not identical in all European countries. Mistrust is greatest in Austria and Germany, whereas trust is greatest in Portugal and Spain, with all other countries falling somewhere in between (1). We could hypothesise that mistrust is greatest in those states in which civil society groups, the media and politicians create a climate of fear in concert. But the climate of mistrust has nevertheless become a European phenomenon. In 1996 (2):

- 74% of the respondents considered that genetically modified food should be labelled;
- 60% believed that there should be public consultation about new developments in bio-technology;
- 53% claimed that existing regulations are insufficient to protect people from the risks of bio-technology;
- and 39% of the respondents replied that religious authorities should be involved in regulation of bio-technology.
3. Slovenia is, in this context, no exception. Let me illustrate my point with a typical newspaper article from the leading daily 'Delo' entitled 'Genetically changed food – As long as it is nice to look at and cheap' (3). The journalist starts by claiming that the majority of Slovenians are against the use of pesticides, insecticides, mineral fertilisers and, of course, genetically changed organisms in farming. She then proceeds to extensively reproduce the opinions of representatives of an environmental group and of a consumer group, both expressing views in contra. Their views are followed by those of a representative of the Ministry of Agriculture who reassures the public that our strategy favours environmentally friendly farming. The journalist concludes with a brief account, 'rather provocative' in her opinion, of a geneticist from the university who points out that bio-technological mutations and recombinations have enabled us to increase our food production five times in the last 20 years. In the overall context of the article, however, this sounded like a Pyrrhic victory, clouded by unforeseen and unforeseeable long-term risks.

The general tone of the article leaves no doubt – consumers should rely only on 'natural' food produced without chemicals. Two arguments are proposed in favor of such agriculture by its adherents:

- genetically changed organisms in food production may have unintended consequences in the future of which we are unaware at the present,
- bio-technological farming is controlled by no more than a dozen multinational companies.

The first argument is phobic and as such irrational in its essence. While it is undoubtedly true that bio-technological farming may have unintended consequences, the same is also true of any present action we undertake (or fail to undertake, for that matter). As for the second argument, monopoly is potentially harmful. But a return to traditional modes of agriculture does not seem to be the most logical response. One that comes to mind more readily is political and economic opposition to monopoly.

4. Respondents in a Euro-barrometer survey were asked to disclose their attitudes towards six bio-technologies: genetic testing (using genetic tests to detect inherited diseases); medicines (introducing human genes into bacteria to produce medicines or vaccines); crop plants (transfering genes from plant species into crop plants to increse resistance to insect pests); food production (using modern bio-technology in the production of foods, for example to make them higher in protein, more durable or tastier); research animals (developing genetically modified animals for laboratory research studies); and xeno-transplants (introducing human genes into animals to produce organs for human transplants). Do they consider these bio-technologies to be useful, risky, or morally acceptable and should they be encouraged?

Respondents perceive:

- all bio-technology as useful (although its perceived usefulness gradually declines from genetic testing to xeno-transplants),
- with the exception of genetic testing and medicines, all are seen to involve risks (the greatest supposed risk is involved in food production and xeno-transplants),
transgenetic animals and xeno-transplants are perceived as morally unacceptable and food production just barely qualifies as moral (the other three are not perceived as morally questionable),

and the first three (genetic testing, medicines and crop transplants) should also be encouraged.

The data indicate that respondents are not mistrustful of bio-technology as such, because it is supposedly 'unnatural', as is sometimes claimed. They have learned to cope with a certain degree of bio-technology and emotionally resist only those that have the most obvious moral background:

- Xeno-transplants and research animals are close to mythical monsters,
- research animals are close to animal rights issues,
- and food production is close to disgust with impure food intake.

This seems to indicate that the moral dimension is crucial for our understanding of the respondents' attitudes. Thus all six bio-technologies were perceived as useful, but not necessarily as morally acceptable. Those that are perceived as morally unacceptable are anchored in primary emotions such as fear and/or disgust.

We can conclude, as do the authors of the report, 'that large sections of the European public are deeply ambivalent about much of modern bio-technology. The prevailing focus of this ambivalence appers to be moral, a collection of anxieties about unforeseen dangers ...' (4).

5. When scientists confront the climate of general mistrust from the perspective of their professional ethics, they do not address the anxiety environment in which it is anchored. They speak, for example, of the usefulness of bio-technology or of the absence of risk involved in bio-technology introduction, unaware of the fact that the anxiety has a moral and not a rational background. The problem is that when the public perceives bio-technology as morally unacceptable, rational scientific argumentation is interpreted as only short-term usefulness and absence of risk as ignorance of unintended consequences of bio-technology. The discussion is thus from the start a dialogue of the deaf.

Mistrust seems to be mutual – scientists reject moralisation of their work and limitations to self-regulation of scientific organisations, while the public rejects what it perceives as the cold rationality of science, seeking moral authorities which can appease their fears (new age phylosophy, classical religious dogma etc.). Thus, when European respondents were asked who in their opinion could be trusted to tell them the truth about bio-technology regarding food production, environmental groups came to mind first (close to 25%), consumer organisations second (over 15%) and farmers' organisations third (below 15%). Trailing behind were the medical profession (over 5%) and universities (under 5%) (5). In such a science-sceptical environment, the role of scientists as potential opinion makers cannot be substantial.

As the anxiety environment, created by well organised and financed civil society groups, builds on mistrust which is not rationally anchored, it is in reality a phobic environment – the public to a large extent reacts to imaginary rather than real threats to the environment. As we are dealing largely with irrational dangers, they cannot be addressed by the professional ethics of the scientific community. The prevailing climate of prejudice must first and foremost be addressed
by the politicians who have participated in its creation. In the case of bio-technology in food production, this would need numerous strategies which would have to be at least as well organised and funded as the anti-biotechnology campaign, and waged on two levels.

On the level of ideas it would have to be made clear that no known scientific research has found any proof that genetically modified food is dangerous. If anything, the so-called 'natural' food is more dangerous, for the simple reason that there is less control over its production. Phobic media reporting on the subject should be systematically countered by facts supplied by the authorities. On the level of activities, food fairs (such as the Anuga in Koeln), dedicated to such myths as 'back to nature farming' should receive no support from the authorities. Labelling of genetically changed foods should not be implemented as it is discriminatory. Genetically changed food production should be stimulated in EU and its markets opened to its imports, etc.

In this fashion the phobic environment towards bio-technology would gradually change, creating a climate more conducive to scientific arguments. If, on the other hand, the present trends continue, European societies will be faced by an increasingly paradoxical situation. On the one hand, we will be living in societies more dependent for their survival on science and its applications in everyday life, but on the other hand we will have the general public more reliant on superstitious, unscientific beliefs. If these trends continue, we may find ourselves in a distopia best described as islands of modernity surrounded on all sides by traditional prejudice.

Notes

1) Europe ambivalent on biotechnology, p. 3
2) Ibid, p.2
3) As long as it is nice to look at and cheap, p.8
4) Europe ambivalent on biotechnology, p. 4
5) Ibid, p.5

References


CONCLUDING SESSION
European Research Area and the Enlargement of the European Union

Mr. Louis BELLEMIN

European Commission, Head of Unit, Research DG
Thank you very much for inviting me to speak at this conference. I understand that this conference is part of an ongoing process of reflections on issues related to science, education and technology in the perspective of enlargement. I am very happy to have the possibility to participate in these reflections.

Europe faces a series of important changes today, one of the most spectacular ones being, without any doubt, the future enlargement of the European Union to up to 28 members.

Enlargement of the European Union is a historic opportunity to unite Europe peacefully after generations of division and conflict.

Enlargement will extend the EU’s stability and prosperity to a wider group of countries, consolidating the political and economic transition that has taken place in Central and Eastern Europe since 1989.

This round of enlargement, like previous ones, will add to the Union’s strength, cohesion and influence in the world. The extension to include new members will put the Union in a better position to take up the challenge of globalisation, and to strengthen and defend the European social model.

Enlargement will present significant economic opportunities in the form of a larger market. Taking in the applicant countries would create a Single Market of more than 500 million inhabitants. A market of this size can be expected to give a boost to investment and job creation, raising levels of prosperity throughout Europe, in both new and old member countries.

Research certainly is not absent in this dynamic. On the contrary, the research capacity, the structure and the quality of research in a widened Europe will largely condition the future competitiveness of the Union, at the same time as its power of attractiveness for the research workers of the whole world.

To fulfil these objectives, the enlarged European Union should first of all be able to count on many and more mobile human resources. Promotion of increased mobility for the researchers and the multiplication of the research networks constitutes one of the principal issues for European research.

Obviously, the accession to the European Union of 13 new Member States comprises in itself encouraging aspects. These countries have well organised research structures, as well as large numbers of well-trained staff. Scientific vocation seems less problematic than in the countries of the Union. The future organisation of scientific research in Europe, however, also raises important questions. In particular there is the risk of stripping the applicant countries of their infrastructures and of their better research workers and of instituting, thereby, new forms of brain drain.

The European Councils in Lisbon and Stockholm have given us the mandate to make Europe "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and better social cohesion".

The globalisation and the increasing importance of knowledge in the economy and daily life requires that Europe does more to harness the potential of the new technologies. Science and technology must become more accessible, understandable and responsible.
European Research Area

Europe has, of course, long been a geographic area where research has flourished, but all too often it has flourished in not-so-splendid isolation. Thus there are world-beating research teams in centres of excellence scattered across the continent - with 'scattered' being the operative word, since the networking and co-operation between such teams and such centres is often missing. We now have the 'common market' for goods and services dreamt of by the EU's founding fathers, but we have not yet achieved a common 'market' for research. That is the objective of the European Research Area. A researcher, wherever they may be physically located in Europe, should feel that they are working not only in Europe but for Europe - for the benefit ultimately of all Europe's inhabitants.

This is not a new concept but the political context has changed. Perhaps for the first time, science and technology are now a high priority on the European political agenda; it is recognised that they are essential elements in ensuring economic growth, employment and improved quality of life. This was clearly stated last March at the European Council in Lisbon, when the EU Heads of State and Government gave the European Research Area their full support as a central component in establishing a knowledge-based society in Europe.

Since then, science and technology have remained high on the political agenda with two issues clearly coming to the fore.

Efforts to promote research, innovation and enterprise are too fragmented and research funding is below that of Europe's main competitors. The implementation of a European Research Area should prevent fragmentation through better co-operation and co-ordination, ensure critical mass, increase mobility of researchers and facilitate exploitation of research results.

As regards frontier technologies, Europe must capture the next wave of knowledge technologies as they will support new industries and become centres of growth and job creation in the future. Life sciences, materials, information and communication technologies as well as 'clean' technologies will fundamentally change our economies in the future. Protection of innovation and patents together with appropriate financing of research are the key to our future.

This political prominence recognises the fact that the globalisation of the economy and communications, and the acceleration of scientific and technological progress and its many social implications make the European Research Area an objective that cannot be postponed. It is an idea whose time has come.

But ideas require action. How is the objective to be achieved? Something has got to change – quite a number of 'somethings', in fact. The following areas for action have been identified:

- Networking of existing centres of excellence in Europe and the creation of virtual centres through the use of new interactive communication tools.
- A common approach to the needs and means of financing large research facilities in Europe.
- More coherent implementation of national and European research activities and closer relations between the various organisations of scientific and technological co-operation in Europe.
- Better use of instruments and resources to encourage investment in research and innovation including patents and venture capital.
- More abundant and more mobile human resources. This means:
• Increasing the mobility of researchers and introducing a European dimension to scientific careers.
• Giving more prominence to the place and role of women in research.
• Stimulating young people's taste for research and careers in science.
• Bringing together the scientific communities, companies and researchers of Western and Eastern Europe.
• Improving the attractiveness of Europe for researchers from the rest of the world.
• Promotion of common social and ethical values in scientific and technological matters.

Let's look at these in a little more detail.

**Networking Centres of Excellence**

World-class centres of excellence exist in practically all areas and disciplines in Europe. However, their expertise is not always well known abroad. Many research problems – industrial and non-industrial – need not only a critical mass of financial and human resources, but also complementary expertise from specialists in different domains. Mapping these centres of excellence and then encouraging their networking – both electronically and by more traditional means – would help maximise the resources they have to offer to Europe as a whole.

**Defining a European Approach to Research Infrastructures**

Research infrastructures, from radiation sources to databases on molecular biology, play a central role in the progress and application of knowledge in Europe, but they are expensive to build and operate and not always used to their full potential. For several years, the European Union has provided financial support for trans-national access to such facilities, for the development of new instruments and equipment, and for projects designed to improve the interoperability of installations and the complementarity of their activities. We now need to go one step further and develop a European approach to research infrastructures covering not only access to facilities but their creation and operation.

One particular case is that of data networks. High-speed networks open up vast possibilities to researchers: virtual laboratories, remote operation of instruments, almost unlimited access to complex databases. The growth and use of the World Wide Web, which, by the way, was originally developed at CERN for the use of researchers there, illustrates this quite effectively. However, to meet the increasing needs of research, specific networks are necessary. In the United States, high-speed broadband facilities are now available to researchers, especially at universities. The recent Internet-2 and Next Generation Internet (NGI) initiatives launched in partnership by the scientific community, the public authorities and the private sector in the United States should increase these capacities even further. In order to reduce the disparities in Europe in this area, the European Union is supporting the upgrade of high-speed links between national telematics networks from 155 Megabits per second now, rising to 2.5 Gigabits/s this year (under the recently approved Géant project) and 100 Gigabits/s in the near future. The 'CERN experience' will also be exploited in other areas such as astronomy.
More Co-ordinated Implementation of European and National Research Programmes

Today, national research programmes are carried out largely independently of one another, which tends to prevent the full benefit from being drawn from the material and human resources deployed. To some extent, EU research programmes exercise a co-ordinating effect on research activities in Europe. This is institutionalised in the case of fusion, which is covered by an integrated programme. There is also a de facto effect in other areas, especially where there were no structured programmes at the national level when the European-level programme was set up, and in very specialist areas where there is not yet much expertise in Europe. However, EU programmes should also have this impact in areas where there is already appreciable integration of industrial efforts, such as aeronautics.

Better Use of Instruments and Resources to Encourage Investment in Research and Innovation Including Patents and Venture Capital

Increasing use is being made of indirect support, especially fiscal measures, to stimulate private investment in research and development and to create jobs for researchers and technicians in industry. In the United States and Canada, for example, there are some interesting long-term support schemes for start-up companies. In Europe the mechanisms used differ substantially from country to country, suggesting that there is room for the exchange and spread of best practice.

The current European system of patents, as operated by the European Patents Office and the national offices, is based on the granting of national patents, which are valid only in the Member States where they are issued. This system is costly. In fact, a European patent currently costs five times more than a US patent, a fact which is broadly believed to be one of the major obstacles to patenting - and therefore to innovation - in Europe. To remedy this, the Commission is working to create a 'Community' patent, which will cover the whole European Union at a much lower cost. This should be in place by the end of this year.

Historically, Europe also suffers from low levels of venture capital investment in high tech sectors. Recently, however, there have been a number of positive changes. Some 650 companies are now quoted on new European markets equivalent to NASDAQ in the US. Over the last few years, the Commission has taken a series of initiatives in this area, several of which are being implemented in conjunction with the European Investment Bank (EIB). We have also organised successful fora - notably in the areas of bio-technology and IT - to bring industry, scientists and finance into contact, but more is needed.

More Abundant and More Mobile Human Resources

Mobility is an effective and well-known way of training researchers and spreading knowledge, and EU programmes to encourage this have met with great success. In recent years these have involved thousands of young European scientists and we expect many more to participate over the next four years. However, even if researchers are more mobile than the rest of the population, they are still not mobile enough. One inhibition is their lack of familiarity with the research 'cultures' that exist in other countries. There are also administrative obstacles including social security and pension rights.

It is also true that in Europe today, a researcher's career unfolds by and large within a national framework. Recruitment methods that give preference to nationals for academic or scientific careers, and the lack of adequate career structures for researchers from other European countries, deprive research organisations of the experience and knowledge of brilliant researchers trained
elsewhere. Sometimes, too, appointment and promotion practices may penalise researchers who have remained abroad for too long, which constitutes another disincentive to mobility.

More human resources for research in Europe also means action upstream of scientific careers. Every country in the Union is observing a disaffection with scientific study and a loss of interest among the young in careers in research. In Germany, for example, the number of physics students has dropped by half since 1991. Science teaching may be the key. It is at school that a basic knowledge and understanding of science is acquired and that a taste for scientific and technical subjects is developed.

**Science and Society**

It is not necessary to explain to this audience the importance of progress in science being accepted by society – by its citizens. From cloning to data protection, progress in knowledge and technology, especially in the life sciences and information technology, goes hand in hand with a growing number of ethical issues. In general, Europeans share the same values, but they often differ in how they apply these in practice. Ethical issues concerning scientific and technological advance are thus approached differently from one country to another. This is a reflection of cultural diversity, which must be maintained and respected. Nevertheless, too great a difference would cause its own problems. It is therefore important to foster convergent and coherent approaches to these issues. This needs an agreed approach to risk management (the precautionary principle and ‘expertise management’). Here, too, we can learn from each other’s experiences.

**Implementing the ERA**

Even if the initiative for the European Research Area has come from the Commission, I would not want to give the impression that it is some kind of top-down, central government ‘master plan’. It does have widespread political support, but the idea of the European Research Area has also been warmly welcomed by the scientific community and industry. Making a reality of the European Research Area, too, will necessarily require a joint effort by the EU, its Member States and research stakeholders.

In practice this means implementing the action areas I have already mentioned, which can be summed up as follows.

To begin with it will require a number of legal and regulatory changes - particularly to remove obstacles to the free movement of researchers, knowledge and technologies in Europe. This includes such areas as scientific careers, social security and intellectual property.

Equally important is the need to improve the performance of European research. Again, this is not just about public funding. An example is the chemical sector where industry and science work together. To do this we must improve the co-ordination between national programmes, network centres of excellence in the public and private sectors in the Member States, and focus EU-level research on a limited number of priorities. These are post-genomics and biotechnology, technologies for the information society, nano-technologies and intelligent materials, aeronautics and space, food safety and environmental health risks, sustainable development and global change, and citizens and governance in a knowledge-based society.

We must strengthen the EU's capacity for technological innovation too, in particular by supporting research for and in SMEs, dissemination, transfer and take-up of knowledge and technologies, exploitation of research results and setting-up of technology-based businesses. Substantial progress
has been made in recent years in creating a favourable environment for research and innovation, and this is reflected in an increasing number of small start-ups.

Then Europe's research infrastructure must be strengthened by implementing a European strategy in this area, taking into account questions concerning access, operation and construction, and also covering the question of large-capacity electronic networks for research.

In support of the development of a knowledge-based economy, we must improve Europe's human resources in science, technology and innovation, in particular by increasing cross-border mobility, developing European careers, increasing the participation of women in research and making the scientific professions more attractive to young people and Europe more attractive to researchers from other countries.

Lastly, we must establish, on a European scale, a new contract between science and society, strengthening the link between research activities and policies and the needs of society, taking greater account of the needs relating to the application of the precautionary and sustainable development principles, as well as the social and ethical consequences of scientific and technological progress

**Open to the Candidate Countries**

The Commission is working to establish not only a European Research Area but a European Research Area that is open to the whole world, for mutual benefit. Quite naturally and logically we have begun this close to home with the areas of Europe that are not yet part of the European Union.

For years we have conducted co-operative research projects with research teams from Central and Eastern Europe, often financing their involvement in recognition of the value their participation brings to Community activities. Under the current five-year research programme we have formalised this participation by offering full 'association' to countries waiting to join the EU in return for a financial contribution to the research budget in proportion to each country's GDP. They can even use assistance under other EU programmes designed to help Central and Eastern European countries advance economically to fund part of this contribution. All countries have accepted this offer, which means that their researchers can participate in EU-funded research projects and networks on exactly the same basis as researchers from EU Member States, receiving up to 50% co-financing on research projects. And participate they do.

**New Framework Programme and Candidate Countries**

The Commission considers that candidate countries will be associated with the new Framework Programme and that is why in its proposal candidate countries are treated in exactly the same way as the Member States.

Some of the activities of the new Framework programme are particularly important for the candidate countries:

- networking – networks of excellence are designed to create close and enduring partnerships between existing research entities, capable of generating very high quality knowledge. They will be achieved through common programming arrangements and hopefully will set up a backbone of a network of 'virtual centres of excellence' across Europe.

- participation in integrated projects – these are intended to mobilise a considerable volume of resources for pre-defined objectives (in terms of processes and products, and/or scientific and
technological knowledge). They may be a way to develop public-private partnerships, which should create very strong and dynamic links between the industrial and university sectors.

- Development of a benchmarking method. This will enable public authorities at national and regional levels to evaluate and improve their policies through exchange of good practice, and to map excellence across their territories. This will also give the candidate countries the necessary information to adapt their policies and systems and get them closer to those of the Union.

- Candidate countries are already involved in these activities, they have appointed the experts for "benchmarking" and "mapping of excellence" and a first meeting with these experts took place on 28 February 2001.

- SMEs – one important weakness of Member States and candidate countries is the transformation of the research results into innovative products and processes. The new Framework Programme foresees stimulation actions to reinforce innovation especially in the regions, by comparing regional experience and exchanging best practice through benchmarking. Furthermore, it intends to encourage trans-regional co-operation on innovation issues and to provide support for the creation of technology enterprises and the elaboration of regional strategies in this field.

- Research infrastructures – better access to existing scientific infrastructures in Europe will be ensured and the development of new infrastructures where it is necessary for science or for relevant regional technological development will be stimulated.

- Mobility – mechanisms will be introduced to facilitate the return of scientists to their countries or regions of origin (either on an individual or global scale).

All these future Community activities are particularly relevant to the candidate countries’ needs in order to get them better participating in our Framework Programme for RTD.

It is why we at the Commission will do our best to have candidate countries associated to the new Framework Programme from the outset.

The candidate countries have already expressed their wish to start exploratory talks to that end as soon as possible.

We have already started the preparatory work on the future association agreements and we are very confident that it will lead to speedy and successful negotiations.

Integration of candidate countries

In order to enable candidate countries to participate in their own right in the co-ordinated international scientific co-operation activities, they must be successfully integrated into the European Research Area.

To that end, those countries must be assisted in enhancing their RTD and innovation systems. The necessary improvements in the research structures existing within candidate countries may be facilitated by specific schemes, complementary to the collaborative work undertaken by virtue of their association to the Framework Programme or in support of their participation in that programme.
Improvements should be aimed at adjusting candidate countries’ RTD policies, boosting their scientific and technological research potential and developing links between their scientific communities and those of Member States.

These schemes should be carried out under the various EU instruments supporting research and economic and technical aid, but also with close co-ordination between the EU and Member States as well as between the Member States themselves.

Conclusion

The question is now whether we have a strategy, whether we have a comprehensive plan of action to integrate countries to the wider European Research Area and whether or not we have the staying power, the political will, to see it through. I am convinced that we do.

Our hope and our aim is that children starting at primary school today will, when they come to leave school, be living in countries – their own countries – that are radically changed for the better, full members of the European Research Area, and of the EU. This is a big challenge and I believe that Science and Technology can effectively contribute to realise it.
Enlargement - The Search for a European Identity

Prof. Mitja ŽAGAR

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1. To speak about identity and specifically about European identity is a difficult, but very tempting task. This topic is often discussed and sometimes dominates discussions in pubs, streets and different institutions; discussions on identity are also frequent at schools and within a scientific community. It is no wonder that identity is a natural topic for discussion. Discussions on identity focus on a few short, but important questions often asked by every human being:

Who am I?
Who are WE?
Who are THEY – the others?

Not surprisingly – as it is with weather or football – everybody has an opinion and/or specific view on identity. Often these views differ; they can be conflicting and, sometimes, exclusive. In a way, these discussions and different, sometimes dissenting views, reflect the complexity of the phenomenon itself.

2. Questions regarding the nature and content of European identity, and especially the search for a new European identity, its relation to other identities and a possible loss of national identities, are frequently asked in the context of EU enlargement. These questions are discussed and different views exist in all current EU member states. Initiated especially by opponents to EU integration, they are already or are becoming burning issues in the candidate countries. Often, the public in these countries fears that their national identities will be lost or, at least, substantially weakened with their full integration into the EU. So far, nobody knows the answers to these questions.

I guess that I was asked to prepare this presentation on the search for a new European identity in the context of EU enlargement because identities, especially ethnic identities as specific forms of collective identities are traditionally important topics in the study of ethnicity. Additionally, I had participated in many discussions on the possible role of the future EU member countries and their populations within this European integration.

Initially, I thought of presenting a traditional analytic study of this phenomenon that would contribute to the already substantial body of scholarly literature in existence in this field. However, when I told the organisers of this international conference about my intentions their reaction was: "Oh, God, NO!" They told me that the last thing they needed was another traditional, serious and possibly boring paper. They asked me for a more popular essayist approach – for a programmatic contribution that should aim at offering some new concepts and approaches. Although I knew that this was an almost impossible task, I decided to give it a try. Here is my attempt to fulfil the request of the organisers.

3. When I started to review the existing scholarly literature on identity again to see what others had said about this topic, I felt that almost everything had already been written or said. Practically every discipline of social sciences and humanities and many scholars addressed this issue in their specific way. I looked at several (more than eighty – to be precise) different definitions of identity – or, better, identities. Some of them are very simple, others complex, some more general, while others are very specific.

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8 In bibliographical references at the end of this presentation you can find a selected list of some works that I used in writing this text. Although I do not refer directly to all listed titles, I decided to include them because they contributed to the formulation of my discourse.
Reviewing the literature I also found several different and occasionally conflicting ideas and concepts of European identities. This is not surprising. Discussions and different discourses on the definition/concept of Europe and its identity/identities have existed for several centuries. However, in recent discussions a common ground seems to be appearing. They point at an urgent need to establish a new concept of pluralistic and inclusive European identity that would recognise the existing diversities.

4. I shall start this discussion with a simple initial question:

What is identity?

There is no simple answer to this question – which might not be all that simple after all. I have already mentioned that there are several definitions of identity/identities that could serve as answers to this question. For the purpose of this presentation that focuses on a new European identity as a specific type of – existing or emerging – collective identity, it is sufficient to use a simple definition:

identity is the feeling of belonging to a certain entity, defined by different (in the case of collective identities – agreed upon and shared) objective and subjective criteria.

I would add that every individual and collective identity as a social phenomenon is a process and not a state; it appears, changes, transforms and eventually ceases to exist.

As imperfect as this simple working definition is, it points to a few important characteristics of this phenomenon. Identity might be an objective fact, but it is above all an individual and/or collective feeling and belief that somebody belongs to a specific category determined by common characteristics. However, a feeling of an individual might not be enough; it is very important that others also perceive and recognise this individual as a member of a specific entity. In this context, identity gets its social dimensions and becomes a social phenomenon.

Additionally, we have to recognise that there are several different types of identity we can detect in everyday life. Not only are there several different identities that simultaneously exist in every society, every individual possesses and shares several different identities at the same time. For

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9 We might start with a few definitions from dictionaries and encyclopaedia. The identity is described, for example, as:

A) 1. the condition of fact of being the same in all qualities under consideration; sameness; oneness.
2. (a) the condition or fact of being some specific person or thing; individuality;
   (b) the condition of being the same as something or someone assumed, described or claimed. 

B) 1. the state of being identical, absolute sameness.
2. the condition of being of a specified person or thing; established his identity = established who he was. 

C) 1. the state of having identifying characteristics.
2. the individual characteristics by which a person or thing is recognized.
3. the state of being the same in nature, quality, etc.; linked by the identity of their tastes.
4. the state of being the same as a person or thing described or known: the identity of stolen things was soon established…
example: we are members of our families; we are men or women (gender identity); usually, we have our school, work and professional identities; we possess our local, regional and national identities, we belong to a certain religion and/or church or are atheists; we are young or older (age, generation identity); we are drivers and pedestrians; we belong to different associations, clubs and/or organisations that nurture their own identities; we can be athletes or fans of sports clubs, etc.

These are only a few of many individual and/or collective identities that exist and are shared by people in modern societies. We all possess several identities, but we also shift our identities occasionally and develop new ones. For example, I was told by my colleagues from the Institute of Ethnology and Anthropology of the Russian Academy of Sciences that they did a study (back in the Soviet times) that detected more than fifty different identities of an individual in different situations throughout his/her life and in some cases more than seventy (especially when they studied people from small, marginal minorities).

Although self-identification, the way we see and define ourselves, is a key factor in determining our identities, it can be equally important how others see us: Do they see us the way we think/believe we are? The way others see us is especially important in cases of collective identities: When are we seen as members of a certain collective entity by others? To further complicate identity issues, others are not a homogenous group and their views may conflict. Additionally, a key component, sometimes the constituent component of our collective identities, can be the recognition of our membership and identity by other recognised members of a certain collective entity. This can lead to interesting, sometimes funny, but also possibly conflicting situations. What if somebody considers himself/herself a member of a certain collective entity (e.g. ethnic community) and identifies with it, but other recognised members of this entity do not recognise and accept him/her as a member? What if a specific collective entity considers a person a member of this entity, but this individual does not identify with this collective entity? What is the relation between various individual and collective identities, especially when they are in conflict with each other?

These questions would be much less important and potentially explosive, if collective identities were not exclusive. However, several collective identities are exclusive. This is conditioned by their creation. They appear when one collective entity encounters another collective entity. Initially, collective identities are often constructed in a negative way determining and stressing differences that exist between the groups. If these differences are small or difficult to detect, they can become more pronounced in order to form distinct collective identities. Sometimes, a positive definition of a certain collective identity is also developed later, but this is not necessarily the case. Even in these cases such collective identities often remain exclusive. However, I believe that it is more likely that positively defined collective identities are more inclusive.

When we speak of collective identities, especially ones such as regional, national or ethnic identities, we have to take into account that culture(s) constitutes an important dimension of these identities. Culture or, more precisely, shared culture is understood in many different ways in this context. However, these concepts of shared culture usually imply a common language, sense of a community, shared origin and history, often the existence of a religious community, etc. These concepts might mystify the phenomenon of culture. I would suggest replacing these “mystical” concepts with ‘life-ways’ or ‘folkways’, as does David H. Fisher in his book *The Albion’s Seed*10 where he describes four different British folkways in America. Thus, we would describe “cultural

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differences” by describing differences in speech ways, building ways, family ways, gender ways, age ways, food ways, magic and religious ways, etc. among distinct communities.

5. The new European identity, or rather identities that are being shaped in the process of the EU enlargement and further development of the European integration can be best presented in relation to specific types and/or categories of identities. Here I refer to individual and collective identities, to single, multiple and multi-layered identities, to exclusive and inclusive identities, to local, sub-national (regional), national and supranational identities, ethnic and (ethno)national identities, etc. Also, we have to observe identities in relation to other social phenomena.

First, however, we need to answer the following questions: Is there a European identity? How is it formed and what does it look like? Are there more European identities? From personal experience I am sure that a definite European identity exists. I discovered this when I was in the USA. I definitely felt European and was aware of my European identity. Furthermore, I shared this European identity with other Europeans from several countries. Interestingly, we communicated in American English, which was nobody’s mother tongue, and this helped us to form a kind of community that was distinctively different from American ones. We recognised the existence of many differences in this community and soon discovered that our European identities also differed in several elements. Also our perceptions of our European identities and their contents were different. However, our distinct European identities had several things in common. My belief that there is a European identity is also confirmed by my students who always tell me that they feel they are Slovenes, Italians or Norwegians, but that they also feel they are Europeans.

We can conclude that more, different European identities exist, conditioned by the existing diversity (including specific historic developments) in Europe. However, these European identities share several common elements that allow for the formation of a common European identity. Such a European identity would have to be a complex, inclusive and plural one. In addition to diverse European identities it would also have to accommodate the many local, regional, ethnic, national, religious, etc. identities that exist in Europe.

This brings us to the next point. A new common European identity has to and can only exist simultaneously and in coexistence with other identities present in Europe. However, we might want to transform some existing aggressive and exclusive identities and ideologies – such as nationalisms or hegemonisms – that could possible destroy a new common, complex and internally plural European identity. Hopefully, we are able to recognise that every individual in a modern plural world possesses several identities that interact, and sometimes even contradict. This interaction can lead to new, structured identities that can be defined as multi-layered identities. These multi-layered identities are not just simple sums of single identities, but represent new qualities with characteristics of their own. In my view, any European identity has to be a point in case. To be viable it has to be inclusive and include the different identities that coexist in Europe.

Is the new European identity an individual or a collective identity, or will it be in the future? I would argue that European identities traditionally have both dimensions. Although they should logically be predominantly collective identities, I would argue that for the time being their individual dimension might be more present than the collective one. This has to do with the fact that the new Europe has not yet been formed as a specific community; it still needs to be established as such.

One of the characteristics of identities is that they define borders – division lines that delimit a certain identity and thereby a certain entity from others. These borders can be territorial (as we usually perceive borders), but they can also be social borders that define specific non-territorial
social niches of specific entities. Borders might play different roles. They do not only divide different entities, but can enable their links, communication, co-existence and cooperation; this is extremely important in our interdependent plural world. Even if the identities of these entities are exclusive they do not exclude communication and cooperation among these entities. Furthermore, they can develop complex structures and mechanisms of relations and cooperation that can also include fairly developed and efficient mechanisms for the prevention, management and resolution of conflicts. However, exclusive collective identities usually prevent more intense cooperation and links between such entities – including inter-group marriages. Exclusive identities oppose the creation of new common identities, especially if they see them as weakening their own. Nevertheless, occasionally exclusive identities can accept the development of broader inclusive identities (e.g., European identity), if they do not see them as threats and if these new identities do not interfere with their exclusive nature.

The prevailing perception of identities is that they are exclusive in nature. This perception might or might not be true. Aggressive collective identities (such as nationalist ones) that are the most present in the public nowadays are often exclusive. However, there are also a few inclusive identities (e.g., identities based on civic citizenship) that are traditionally not as aggressive and vocal. Hopefully, more inclusive identities will develop and will become more visible. I believe that inclusive identities are better able to stimulate cooperation between different entities and also formation of new common inclusive identities.

A major problem in the creation of a new common plural European identity will be the integration of traditional collective identities – such as ethnic, religious and national identities. These collective identities are usually closed, exclusive and based on belonging to closely integrated specific communities. They are traditionally strong and very present in the life of an individual. Although this does not correspond to reality, these traditional communities with which we identify are often perceived as homogenous entities. Cross-border or supranational identities, especially complex and internally plural identities are not very frequent and – as a rule – they are much weaker. In many ways, the feeling of belonging to a cross-border or international entity as the basis for cross-border or supranational identities has yet to be created and strengthened.

6. Although I am speaking of European identities and of building a new common European identity, I have not addressed the second key initial question: What and who is Europe? In other words, we need to define Europe and Europeans. Although this seems to be an easy geography quiz question in every European primary school, the answers are not that simple.

The most obvious geographical definition defines Europe as the territory between the Atlantic Coast of Portugal to the West, and the Ural Mountains to the East and between the Scandinavian Peninsula to the North and the European Mediterranean coast to the South. This traditional definition includes the Mediterranean islands (with Cyprus and Malta), the British Isles and Iceland, and often also Greenland. However, the South-Eastern border of Europe is not all that obvious. Within this geographical definition there are several traditional divisions of the continent, i.e. Western Europe, Central (Middle) Europe, Northern Europe (Scandinavia), Southern Europe

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11 About the importance of (territorial) borders for the identity of ethnic groups and for ethnic relations see, e.g., Frederick Barth, (ed.), Ethnic Groups and Boundaries Oslo: Universitetsforlaget / Boston: Little & Brown, 1969.
(Mediterranean), Eastern and South Eastern Europe. Historic and political divisions and definitions make every definition of Europe even more complex and complicated.\textsuperscript{12}

According to this geographical definition, Europeans are all those who live in this territory. But do they all feel they are Europeans? Although it would be almost impossible to detect the existence of a formed community in the whole territory, we could assume that inhabitants of this territory share at least some elements of a common identity. This identity might be very weak and embryonic, but people in these countries do say that they are Europeans. However, their ethnic and national identities usually override this common identity.

European political divisions, throughout history but especially in the past two centuries, also resulted in diverse European identities. For example, the division of the Roman Empire defined the border that later became the dividing line between the West (Catholic and Protestant) and the East (dominated by Orthodox Christianity). The Ottoman conquests defined the Islamic cultural and religious circles in Europe. These religious divisions, the existence of great European empires, their borders changes, formation of new states, wars, diverse social, economic and political developments were all factors that also contributed to the shaping and reshaping of European identities.

However, it was the bipolar division of the world that conditioned the most important division in the twentieth century. In Europe this division was marked by the “Iron Curtain”, which also changed the perception of Europe in people’s minds. The West feared the East, but somehow forgot it. In the West they looked at the Easterners – Eastern Europeans – as poor cousins who seemed to have moved over to the other side. They were no longer considered Europeans of the “same kind.” It was in the West that the economic and political concepts of European integration were born and these concepts usually encompassed the West alone.\textsuperscript{13} However, Europe continued to exist in sports and in some other fields throughout the second half of the twentieth century.\textsuperscript{14} Political ideas of a common European space hardly existed until the idea of a “common European house” reappeared in the 1980s. After the collapse of communism in the East, this changed and almost all Eastern European countries expressed their desire to join the EU. This meant the beginning of the EU enlargement to the East that marks the last decade of the twentieth century and the beginning of the twenty-first century.

An important task of the enlargement process is to build a new perception of “Europeanness” and a new common European identity. This means that a new perception of the European East and West should be developed that takes into account both existing and emerging similarities and diversities. Although the task seems very difficult and it might require some time, there have been positive examples in the past – especially in the West. Namely, there is the existing common European identity, sometimes fragile and uncertain, which was created after two World Wars, in the context of traditional German–French rivalry with a specific role of the UK and with contributions from


\textsuperscript{13} Desires of the former Yugoslavia to approach and eventually join the European Community (EC) in the 1980s did not seem very realistic, while in other Eastern European countries such ideas did not even appear – at least not officially. However, in the retrospective we could guess now that a stronger European involvement and the possible inclusion of the former Yugoslavia in the EC could have prevented tragic wars in this territory and eased the transition substantially.

\textsuperscript{14} In some cases, such as certain team competitions (e.g., European football and basketball team competitions) or the Eurovision Song Contest, Europe included also Israel that has never been accepted in the Arab world to which it geographically belongs.
other countries. The European Communities and the EU, however imperfect and criticised by Euro-sceptics, were useful tools in this process. In order to play this role in the building of a new common European identity in the future, the EU and the enlargement process needs to be democratic.

7. Building a new common European identity will require not only incorporation, but also a certain transformation, of existing European identities. It will have to build upon the positive experiences and traditions that form Europeanness, but it will also have to consider and fight negative experiences that caused much suffering. Europe contributed greatly to social and cultural developments, made positive contributions to science, technology and culture, and also to cultural diversity and richness. However, its negative impacts were substantial as well. Europe produced aggressive and hegemonic nationalism, colonialism, fascism, Nazism, gulags, concentration camps, holocaust, “ethnic cleansing,” etc. Such negative phenomena can be avoided in the future only if they are fully understood and if people are aware of their possible negative consequences.

This requires that we define the positive contents of a new common, inclusive and pluralistic European identity and develop a comprehensive strategy for its development. This strategy must also include a concerted action plan for all those relevant factors, including education, science, media and politics that with their activities can contribute to the goal. Although it is not very popular to speak about ideologies nowadays, the building of a new common, inclusive and pluralistic European identity does require a new “ideology of cooperation,” based on inclusion, equality and recognition of diversity. This ideology should show all the advantages of equal cooperation and inclusion for the future development of Europe. Such a new ideology should complement the currently prevailing culture and ideology of competition and mobilise people to oppose and fight all exclusive political ideologies.

A new common, inclusive and pluralistic European identity has to recognise today’s reality. Since European integration will not do away with nation-states at any time in the near future, its new identity as a supranational identity has to complement the existing traditional national identities and patriotism. As Europeans we will need to develop a democratic supranational patriotism, which is only possible if the democratic legitimacy of European integration and its possible transformation into a European federation are ensured. This is the reason why issues of legitimacy and democratic deficit need to be addressed in a serious manner.15

I believe that a broad political coalition will be required to achieve this goal. This requires a broad consensus on the content of a new common European identity that was discussed in this contribution. To summarise, I believe that this new common European identity is (in as much as it already exists) and will need to be (as I hope we will shape it):
- an inclusive identity,
- a multi-layered and plural identity that will have to incorporate many existing different regional, national and supranational identities,
- a multicultural/intercultural identity that will recognise, respect and facilitate existing diversity (linguistic, cultural, religious, etc.), but also will allow the development of new identities,
- an identity built upon democracy and democratic vision of a common Europe,
- an identity built upon democratic, supra-national patriotism, etc.

8. I consider the building of a new common, inclusive and pluralistic European identity an important and desirable task. However, there are many dangers that can hinder or even prevent the realisation of this goal. Explaining these dangers would require complex and lengthy discussions. Considering the time and space allocated to my presentation and the volumes of books on these topics, I will just list some of the phenomena that are in my view the most dangerous:

- intolerance, national exclusiveness and nationalism,
- racism and xenophobia,
- internal colonialism and inequalities, unequal treatment,
- hegemony, tendencies of possible future ‘monolithism’,
- lack of legitimacy, democratic deficit, etc.

9. A positive note to conclude: I do believe that this magnificent task can be accomplished. However, if a common European home is to be realistic, we urgently need to create a new, inclusive and plural European identity, based on the principles of democracy, equality, recognition and respect of diversity and on the ideology of equal cooperation. To this end, we should do everything we can to start the awareness raising campaign and to contribute our share in the building of this identity.

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