The Lisbon Strategy: Inventing a Better Future

Let me first say that it is a great honour for me to be one of the speakers at this conference and to have the possibility to tell you how I feel about Lisbon strategy I am grateful to all of you for this privilege. I think we are fortunate to have with us such a distinguished audience, CEOs, members of Economic and Social Committees, who are united by a common concern, a concern for sustainable development in the future for all of Europe.

'Expect nothing from the twenty-first century' said Gabriel Garcia Marguez, the Nobel-laureate writer. 'It is the twenty-first century that expects everything from you'. He is right. To paraphrase him, the 21st century expects a lot from us, from scientists, from academies, and learned societies.

On the morning of 1 May 2004 we Hungarians and 75 million Europeans awoke as new citizens of the European Union (EU). The EU expanded to incorporate ten new member states - The new 25-member EU now encompasses 455 million people – about 40% more than the US and Canada combined.

It means that Hungary has become a member of the EU, the largest market of the world, 455 million people, 455 million costumers. According to the Lisbon agreement, EU plans to build a "knowledge-based society, and a knowledge-based economy. It means we have to spend much more money on R&D. The EU has to do that if the EU wants to keep pace with USA and Japan and to make Europe a more attractive place to do business, and to have people living here happily.

Specifically, the Lisbon Summit in 2000 set a new strategic goal for the next decade: to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with better jobs and greater social cohesion. The Barcelona Summit in 2002 spelled out what this meant for R&D.

It means that the European Union is committed to being an economically competitive player at the global level. It is also committed to the view that, in order to achieve this goal, it must be globally competitive in science and technology. These ambitions are enshrined in the declarations of the European Council at the March 2000 Summit in Lisbon, and the March 2002 Summit in Barcelona, and are endorsed by the European Parliament. They signify direct recognition at the highest political level of the central role of science and technology in economic prosperity.

The implementation of the original Lisbon strategy was not a success story: most countries found nice excuses for not implementing it according to the original idea. The main problem in Europe 25 is that everybody wants first to get a bigger slice from the cake instead of making a bigger cake to have a bigger slice. This behaviour is characteristic of the member states, and supported by the bureaucracy, the red-tape of Brussels which is hardly bearable. After the re-launch, the Lisbon strategy needs more than ever the mobilisation of all citizens by means of a public debate. The general public must be earnestly informed about the challenges and what they risk to lose if the strategy fails. The debate should reinforce the commitment of the governments to achieve the goals of the strategy and put in practice the measures identified in their action plans.

In order to close the gap between the EU and its major competitors (USA and Japan), there must be a significant boost in the overall R&D and innovative efforts in the Union, with a particular emphasis on frontier technologies. The European Council therefore agrees that overall spending on R&D and innovation in the Union should be increased with the aim of approaching 3 % of GDP by 2010. Two-thirds of this new investment should come from the private sector.

Taking into account of the number of publications, Europe is in the lead with 41.3% of the world total compared with 31.4% for the USA. In terms of number of references, regarded as the best indicator of the quality of research, Europe is however behind the USA in most disciplines: about one-third more references are to US researchers. “A field-by-field analysis shows the gap is generally wider in the fields of basic research where an increase in knowledge is likely to have a particularly marked effect on competitiveness.” (Commission of the European Communities (COM(2004)9 final). As far as the Nobel Prize is concerned in Physiology/Medicine, Physics and Chemistry: between 1980 and 2003, there were 68 in Europe, against 154 in the USA, with the gap widening over the years.

As is often emphasised, a large number of US winners were actually born or trained in Europe. It is interesting that in Maths there is no difference between Europe and USA. For the Fields Medal, the “Nobel Prize in Mathematics” which is awarded every four years, the figures for the same period are as follows: 9 Europeans (including 1 working in the USA he is Hungarian); 5 Americans; 4 Russians (including 2 working in the USA and 1 in Europe); 1 Japanese; 1 New Zealander (working in the USA). In other words, a total of 9 researchers working in Europe an 9 working in the USA.

At the same time that Europe is thinking about the best implementation of the Lisbon strategy, a national middle-term strategy for research, development, and innovation is under discussion in Hungary. Although this strategy is far from finalisation, some of its elements are closely related to the Lisbon agenda.

The question then arises, ‘What is the situation in Hungary?’ An increasingly competitive and changing world makes the need in Hungary to implement the Lisbon targets ever more urgent.

Last year, the R&D budget was 0.89% of the GDP (180 billion HUF = 900 million USD), which is much less than that of the EU, and the contribution of the private sector to the total R&D expenditure was only 37%. It is very low in comparison with that spent in the EU, where its R&D budget is 1.9% of the GDP and 65% of that is contributed by the private sector.

Therefore, a new law was implemented in the Hungarian Parliament, a so called Innovation Fund law, which entitled it to generate funds for R&D from those companies who do not spend money on R&D.

Promoting basic science should be an important task priority, and it should be a priority in Hungary. We realize that there can be no applied science if there is no science to apply. The number of people involved in R & D in Hungary is low, 3.6 people/1000 applied workers, as compared to 10 in the United States, 13 in Sweden, 6 in the EU. We

need to achieve a target of 8/1000 for the EU by 2010, which is equivalent to an extra 700.000 researchers. This will be a difficult target for Hungary to achieve. In Hungary, our current output of graduates and postgraduates will not be sufficient to meet this demand.

Channelling more funds into basic research won't be enough by itself, though. If research is to flourish in the long term, we need high quality scientists and human resources, and for this we need to develop a high quality educational system - from kindergarten through tertiary education and vocational training, ideally including fluency in several languages.

In addition, private industry R&D must be kept at the cutting edge in order to compete and generate the necessary profits that will allow companies and governments, through taxes, to finance basic research. But it is even more important to increase the investment of the private sector in R&D. Look at the FW7: basic science is a priority.

It is an old tradition in Hungary that we have excellent scientists and very good ideas, but we are not very good in putting ideas into practice. Should I say that it is the fault of industry? No, I do not want to say that, but in the past, almost all our brilliant ideas have been implemented abroad. In order to change this, we have to change our policy as far as R&D is concerned.

Education, R&D and dissemination of knowledge

The new millennium finds us in the middle of a biological and information revolution. This revolution has given mankind the power to change the course of our life.

We scientists, and also those who are active in politics, have to understand that in this century, more than ever before, the world will be shaped by science. Knowledge, especially scientific knowledge, will be the engine of modern society, providing a new foundation and new raw material for prosperity, and well-being for mankind. As the United States and Japan have done, the European Union too must build a 'knowledge-based society', and I know that it is going to build it. Science has the potential to change the world for the better, to improve the quality of our lives, to make life for mankind more satisfying and happy.

At the same time, we have to keep in mind that an inappropriate utilization of science could result in negative effects, and could in fact create severe ethical problems for us.

Thus, our moral duty is to make sure that knowledge is used properly and that we make every attempt to find solutions for our social, psychological, environmental, health, and economic problems.

The question we have to face is how to achieve these goals? The answer to this is that we should first learn as much as we can from each other. This is what this conference is all about.

Last year, in 2005, Budapest hosted the second World Congress of Science, organized by the Hungarian Academy of Sciences UNESCO and ICSU. One of its messages was that we must establish two-way communication between science and the public, and we must build a bridge between science and economy. Another message was that an important cause of poverty is the lack of access to knowledge.

Thus, the availability of knowledge can have a crucial role in poverty eradication, it can have an important role in the future of mankind.

If you ask me how I feel about our future in Hungary, I would say that in spite of the not very good news I just told you: I am optimistic.

But if you ask me how I feel about the future I would say I am still optimistic. Let me mention you an anecdote. When Edward Teller was asked how he feels about Hungarians he said Hungarians are very talented people and the language we are speaking is very funny. But when you want to enter a building through a revolving door with a Hungarian just behind you, I am pretty sure the Hungarian will enter first just in front of you.

Thank you.