

**Speech at the Opening Plenary Session  
Third Annual Meeting of the STS *forum*  
September 10, 2006, Kyoto, Japan**

**Esko Aho  
President  
Finnish National Fund for Research and Development (SITRA)**

Kyoto, Japan, 10.9.2006

Ladies and Gentlemen,

There is one similarity between the 22nd Congress of the Communist Party of the Soviet Union, organised in 1961, and the Lisbon European Council meeting held in 2000.

They both set an objective to become a leading economic area in the world. The 1961 Party Congress expected that the Soviet Union would catch up the American living standard by 1980. The Lisbon process expected that the European Union needed only ten years to become the most competitive region in the world.

In spite of huge resources devoted for science and technology, the Soviet model failed and the whole social system collapsed.

The Soviet case describes us that economic progress is not about planning and making strategies. The creation of global economic and technological leadership is about implementing. It is about making reforms, not only designing them.

The long-term perspectives of the European model are not bright. We are faced by major social, financial and demographic challenges. Unfortunately, they resemble the one of climate change. The evidence may be weak today, but when it will become obvious, then it will be too late to act.

In 2002, the Barcelona European Council set a target to raise research and development funding to three percent of GDP in 2010. That goal is not going to be reached.

Something else is going to happen in 2010. If the present trends continue, China will, at the latest then, pass the European Union in R&D funding in relation to GDP.

But that is not our fundamental problem.

Ladies and Gentlemen,

The crucial challenge lies in our paradigm. It has been exceedingly difficult for Europeans and European societies to understand that transformation from resource-based economies to knowledge-driven societies requires, except money, radical changes in our traditional social model.

Together with substantially higher investments in R&D, we need at least three additional factors to reach our strategic goals in the global arena.

Firstly, we have to create properly functioning markets for innovative products and services. The European political tradition prefers resource allocations to demand side efforts. The fact is that in several key areas European markets are still fragmented and there is lack of opportunities for those taking the risk to innovate.

Secondly, we need mobility. Human and financial resources should be transferred in line with our strategic goals. The present paradigm is just opposite; Europeans expect that increased investments in R&D will guarantee the stability of our societies.

Again, in our political tradition stability is preferred to mobility.

There is a common misunderstanding that increased mobility is in conflict with the European tradition of equality. By contrast, the promotion of mobility creates new opportunities to overcome the rigidities of the European social model: high unemployment rate, huge public sector deficits and increasing social unrest.

The third requirement for an innovative society is entrepreneurship. There are always risks related to new businesses. We need individuals that are willing to take required risks and that way push forward economic and social development and growth.

Ladies and Gentlemen,

Without any doubt, Finland belongs to the group of countries that have benefited most from the information technology revolution and globalisation. Partly deliberately, partly by coincidence, we have implemented that four-pronged strategy that the European Union should apply.

We have made systematic investments in education and R&D. Together with Sweden, Finland was the first country in Europe to fully liberalise the telecom market. Our active participation in European integration and globalisation contributed substantially to market creation for those high-technology sectors we had invested in.

In addition to financial efforts and market creation, our deep economic crisis in the beginning of 1990s forced us to increase mobility and to strengthen entrepreneurship with radical reforms both in the public and private sectors.

Now our main objective is to transform our society from a R&D-driven to an innovation-driven society.

There is a simple and provocative way to illustrate the primary difference between R&D and innovation. Where R&D focuses on transforming money into knowledge, innovation is about transforming knowledge into money.

The core of an innovative society is based on the resources of science and technology.

Application constitutes the second level of the national innovation system. Rapid and efficient utilisation of the best knowledge and the most advanced technologies are the key drivers of productivity growth in manufacturing and in service production both in the public and private sectors.

With the assistance of the most modern technologies the health care sector, for example, could find a sustainable way how to handle the growing imbalance between limited financial resources and growing demand of services.

Most of us are already experts in utilising new ICT-based services in banking. We have faith in information technology. However, it is surprising that we do not necessarily rely on electronic patient records in health care.

This is why innovation requires a favourable environment. An optimal ecology is the third layer of the well-functioning national innovation system. The better education and skills your population has, the more innovative society is.

Thank you.