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### **The Future of R&D as a factor for European Competitiveness**

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Ladies and Gentlemen,

The day could not have been better chosen to discuss European Competitiveness and the future of R&D.

As you know, my fellow Commissioners and I have just this morning adopted our proposals to relaunch the Lisbon strategy.

The centre piece of our proposal is to establish a partnership for jobs and growth between the EU, Member States, and all actors at local and individual level, including the business sector.

The aim of this new partnership is to revitalise the European economy by jointly implementing actions in three areas:

- actions to make Europe a more attractive place to invest and to work;
- actions to leverage knowledge and innovation for growth; and
- actions directly targeted at creating more and better jobs.

We propose a simplified reporting process in which Member States and the Commission will establish single annual reports integrating these three dimensions of the Lisbon process.

It will come as no surprise that I attach importance to leveraging knowledge for growth.

My strong conviction, increasingly shared by others, is that we will achieve competitiveness and leadership for European enterprises on global markets, only if we rapidly put Europe in the lead as an economy and a society of knowledge. No knowledge, no future for Europe.

We are strong in knowledge. But we can become much stronger still if we pool our efforts in an intelligent way. This is our main competitiveness challenge, but also an important societal challenge.

By the way, I am not inventing anything radically new. The Lisbon strategy launched in 2000 mentioned already knowledge. The Kok report singled out the knowledge society as the EU's top priority.

But, maybe for the first time, we can have a coherent approach and political willingness to build a Europe of knowledge.

### **The competitiveness challenge in Europe**

Some of our trading partners are competing with primary resources, which we do not have. Some compete with cheap labour, which we do not want. Some compete on the back of their environment, which we cannot accept.

The only way for Europe and European enterprises to build sustainable leadership is to fully exploit the knowledge triangle: the creation, transmission and use of knowledge, through research, education and training and innovation.

The emerging markets on which our companies have to compete are increasingly global and increasingly technology-intensive. Armed with knowledge, we can make the difference in terms of new and better products, services and processes.

A particular weakness of the European economy, taken as a whole, is that it invests too little in R&D. And it is relatively specialised in middle to low-tech sectors with rather low added value and where competition is driven by costs more than by innovation or quality.

We recently compared the top 500 private R&D spenders in the EU with the top 500 outside the EU. The picture is quite telling. In 2003, the EU 500 decreased their R&D investment by about 2%, while their non-EU competitors increased their R&D investment by 3,9%. The biggest industrial R&D sector in Europe is the automotive and component sector. Outside the EU, it is the IT sector.

Making Europe fit for the markets of the future will involve a structural change towards higher technology and value contents within sectors and an even greater change across sectors towards the higher-tech.

This vision of competitiveness as a quest for knowledge makes the old opposition between competitiveness and social progress largely irrelevant.

Knowledge does not only make business more competitive: it also brings continuous progress to society. Progress in fields such as health, preservation of the environment, sustainable energy supply, rests largely on the progress of knowledge.

Furthermore, the knowledge economy will improve the quality of employment, by shifting employment towards jobs with higher qualifications, higher added value and creativity.

Finally, only the sustained growth that the knowledge economy will bring about can leverage the resources that we need to sustain the cost of the inclusive society, with high levels of care and protection, which Europeans aspire to.

Building the knowledge society is probably the best, and maybe only, way to sustain the European model of society, without having to make a trade-off between economic growth, social cohesion and environmental protection.

The first and foremost policy priority for the Union is thus to support strongly the three sides of the knowledge triangle – research, education and innovation – and to ensure that the triangle operates in the most favourable framework conditions.

### **The framework conditions for doing research in Europe**

I can tell you that there was a lot of support among my fellows in the Commission to develop appropriate framework conditions for the knowledge economy.

You will find some measures listed in our proposals on Lisbon.

We will be working hard this year to adopt a fully revised Community framework for state aid for R&D, which will be considerably more favourable to initiatives to support business research efforts.

We will also prepare proposals in the area of fiscal incentives for R&D, an instrument that is becoming increasingly popular in Member States.

My services are preparing guidelines and recommendations in some key areas: the recruitment, career and mobility of researchers; the role of foundations to fund R&D; the role of cross-border public

procurement that stimulates innovation; and cooperation and technology transfer between public research and industry.

At Member State level, much more ambition and commensurate action will have to be taken to pursue the 3% research investment action plan.

The Commission is and will be calling on national governments not only to set nice targets but also to take appropriate measures to reach these targets.

At local and regional levels, the focus should be on developing new and existing poles and clusters of high-technology and innovation, bringing together SMEs, universities and the necessary business and financial support. The EU will help in this process notably with a scaled up initiative called “Regions of Knowledge” to support regional authorities.

But the knowledge challenge goes beyond science, research and innovation. These are vital elements, but they are part of a bigger picture. The crux will be to keep them in sharp focus while ensuring the right policy mix and cross-policy integration and coherence with the other vital areas of reform to be deepened or newly embarked upon.

Let me flag one example: migration. The Council is in the process of adopting a directive for visa for researchers from third countries. This is a very important first step. But we have also just launched a Green Paper debate on a European migration policy. Will Europe want to have a dedicated migration policy for attracting knowledge workers? Will Europe give itself the tools and the flexibility to attract the best talent from across the world? Not that we necessarily want to keep them here forever. But you cannot say that you want to become the most competitive knowledge economy, and at the same time close your research system for talent from outside.

### **The state of R&D in Europe**

Turning specifically towards the research side of knowledge, as you asked me to do, I have to say that in some respects the challenge may look awesome.

In 2002, the European Council committed the EU to increase public and private research investment to the order of 3% of GDP by 2010.

We have worked hard at the EU level. The European institutions adopted the “Investing in Research” action plan.

Progress has been fair also in terms of new measures in the Member States: almost all adopted national targets, and a healthy mutual stimulation is leading to increasingly favourable support schemes, not least in the shape of fiscal incentives. The UK introduced tax credits for research, France introduced the statute of young innovating company.

However, this has not been sufficient yet for research investment to catch up more than marginally. Overall R&D investment is now reaching 2% of GDP, up from 1.9% in 2002, still a far cry from the levels encountered in the US (circa 2.7%) and Japan (over 3%).

There is an urgent need for stepping up our actions to make Europe a more attractive place – *the most* attractive place – to invest in research.

We need to deliver, and I want the European Union to show the best example in this regard. We will do this by proposing a series of measures to improve the framework conditions for research, for example the revision of the state aid regulations as already mentioned.

But the most visible good example will come in the context of the EU’s next financial perspectives. This will be a moment of truth for the EU. This will be the moment when European leaders will have to decide whether they want a bucolic Europe that is good in redistributing the wealth we have.

Or whether they want a Europe that thrives on knowledge, fosters economic growth and creates sustainable prosperity for a higher number of people.

I suspect that, put in these terms, all leaders will say they want the latter. But building the Europe of knowledge requires resources. The Commission is proposing to double the research funding in the next Financial Perspectives from 5 € billion per year to 10 € billion per year. That still will only represent 9 % of total public spending for research in the EU25, compared to the 5% today.

But the doubling is important for many reasons. I'd like to name three at this point:

- Firstly, to show that we understand what the problem is today and where the opportunities lie for tomorrow. Can we move from a situation where every Member State maximises its own net budget return to one in which we productively invest in those areas that ensures the growth of the EU as a whole?
- Secondly, to be consistent with the commitments already taken, for example on the 3% target. It would be hard to explain that the EU is asking its Member States to invest more in research, without doing so itself.
- And thirdly, to reinforcing existing actions and carry out new ones that are best done at European level, be it to have our best researchers work together with a critical mass of resources and to have them compete for excellence, be it to build the new research infrastructures of the future that go beyond the reach of single Member States or be it to set up large public-private partnerships to develop and deploy key technologies like hydrogen or nano-electronics.

### **The future Framework Programme**

As you probably know, the EU's research programmes are organised in multi-annual Framework Programmes. We are currently working full speed to be able to present our proposals for the 7<sup>th</sup> Framework Programme in early April.

Whatever the outcome of the Financial Perspectives negotiations, we will propose a Framework Programme on the basis of a doubling of funds.

The key objective for me, in designing FP7, is to have research programmes that contribute to achieving our revamped Lisbon goals, in other words to leverage knowledge for growth.

While the Research Framework Programme is supporting quality of life and society's broader development, it also contributes directly to competitiveness by funding R&D projects of immediate industrial relevance. These projects typically include both public research institutions and private companies, thus helping to bridge the gap between public research and industry at the same time as bringing together the best science and technology talents in the European area. The projects are already very often led by industrial partners.

I intend that in the 7<sup>th</sup> Framework Programme these collaborative projects will be even further geared towards the needs of industry.

Furthermore, this direct contribution to competitiveness will be substantially strengthened in FP7 with the Joint European Technology Initiatives. These will bring together European, national and business resources around major ventures of technological research and development corresponding to the major technology-intensive markets of the future. I see these as champions for knowledge for growth.

These initiatives are made possible thanks to the thorough preparatory work of European Technology Platforms, which are driven by major European companies and involve also other stakeholders. We have 22 of these technology platforms in many different areas, ranging from innovative medicines and aeronautics to textiles and the construction sector.

In addition to preparing the ground for technology initiatives, the “strategic R&D agendas” of these technology platforms constitute a main input to the science and technology orientations of FP7 more generally.

Even more broadly, thanks to the involvement of European industries and to the association of Member States representatives, European Technology Platforms are beginning to play a central role in shaping both industrial research and public support programmes throughout the EU for the technologies concerned.

Their role as drivers for a modern industrial policy at EU level is recognised in our proposals for the Lisbon mid-term review. An industry policy aiming at supporting national champions is a policy of the past. Supporting public – private partnerships that reach for leadership in key technology areas, based on a long term European research agenda, will provide much better value for tax payers’ money.

The Framework Programme will also contribute to the mastery of advanced technology by Europe’s industrial fabric through its support actions for SMEs, which will be considerably increased in FP7, and through the more active promotion of SME participation in other FP projects.

But all this will not suffice to make Europe attractive enough to reverse the current trends of delocalisation of business research towards other continents, primarily the US and Asia.

If you ask businesses why they move outside Europe, the key factors they name are the excellence of the public research base, S&T infrastructures and human resources.

This is why industry has been consistently calling for the Framework Programme to develop substantial actions in these fields.

FP7 will address these issues in several ways :

- Excellence of the research base will be promoted through the new European Research Council, which will fund individual teams of researchers (rather than large consortia) competing for the first time at the European level. This major development is not only supported by basic science organisations but equally by companies, who appreciate the potentially powerful effect of the Council to further enhance the basic research on which they draw, to promote the value of competition and excellence and to open up national basic research systems.
- Infrastructures will be developed through a strengthened infrastructures programme, targeting, among other things, equipment of industrial relevance, in the framework of a coherent European infrastructures strategy developed by the European Strategy Forum for Research Infrastructures.
- Researchers’ training and career development will be supported through a further enhanced “Marie Curie” scheme, promoting public-private career paths and mobility as well as facilitating the emergence of a trans-European labour market for researchers.
- Finally, the convergence of national research programmes will be enhanced through a re-inforced scheme of support to their coordination, the so-called “ERA-Net” scheme.

## **Conclusion**

Ladies and Gentlemen,

I have discovered that the research portfolio is one of the most exciting in the EU today.

I hope I have shared this excitement with you today.

I feel very much strengthened by our proposals for the Lisbon mid-term review, which highlight research as an area where the EU can make a big difference in terms of enhancing growth and creating jobs, as part of a coherent programme to realise the knowledge society.

The realisation of the importance of knowledge is growing. We now need to enhance that realisation among our political leaders who will take crucial decisions for the EU's future in the months to come.

And we need to find the right approaches to mobilise the public at large to participate in the building of knowledge Europe.

I am convinced we can do it. I am also convinced we have no choice.

Thank you for your attention.