The Competitiveness of Europe

Presented by
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Good afternoon Ladies and Gentlemen.

And thank you Malcolm for inviting me in beautiful Prague, and for giving me the opportunity to participate in this very interesting meeting, while having a chance to visit for the first time one of the most charming and beloved cities in Europe.Which is, by the way, also the site of one of our fastest growing and most promising design and application centers. So much that, in fact, our Prague IP Design Factory - this is its official internal definition - grew from just ten people in December 2002 to over 160 people by now, making it by far the largest semiconductor design facility in Eastern Europe, excluding Russia.

I also wish to thank Future Horizons – and the many of you who have been regularly attending these meetings – for having been perseverant enough to respectively invite me and listen to my presentations on as many as ten out of thirteen editions of the International Electronics Forum.

Well, I must say that this tenth occasion is a special one for three reasons. First of all, because ten is a nice round number, and it's worth celebrating. Secondly because this will be the last time I will participate in this forum as the CEO of ST. And last but not least, because this Forum coincides with a very special event: the Czech Republic and nine other countries joining the European Union.

In light of this historical event, Ladies and Gentlemen, I will use this special opportunity to talk about one of my favorite subjects: the competitiveness of Europe.

Actually, in preparing today's address, I went through the presentations I had prepared for previous editions, and found out that the word Europe was repeated on a very high number of pages. It was also fun to read some of the forecasts I made, realizing once again how accurate professional and amateur crystal ball readers can be in analyzing the causes of past events, and how hazardous it can be for them to forecast the future.

In the '80s, I had been following the development of European electronic and microelectronic industries with the loving care of a parent of talented, but not very diligent children. I had been looking with dismay at missed opportunities and at the risks of retreats with no return. However, I have always been a firm believer of the fact that Europe would eventually be successful: and I was right.

At the turn of the decade, and later on in the '90s, I have been watching the first signs of important recovery, welcoming – and, if you allow me, contributing to – the new winning spirit and the unprecedented global attitude of the European semiconductor industry. I saw, of course, the explosion of a worldwide leader like Nokia and, among others, the further strengthening of European automotive electronics producers. I witnessed the change in the balance between competing macroeconomic systems. And, while I could clearly anticipate the trend, never had I imagined the actual explosion of the Asian market nor could I have imagined the corresponding decline of the American one. By the same token, I could not foresee, ten years ago when we convened in Munich, that the European semiconductor market, which was some 19% of the world's total at the beginning of 1994, would still represent 19% of the total in February 2004. Nor could I anticipate that the European consumption could be slightly higher in February 2004 than that of the American market, which used to be one third of the world in 1994. And even in my most optimistic dreams I

could have imagined to see in 2004 three European companies among the top ten world players in semiconductors.

Anyway, while trying to objectively observe Europe in its permanent competition with other major macroeconomic systems, I always tried to analyze both positive and negative aspects, suggesting whenever I could some possible improvements and corrections to negative trends. Today the Old Continent is living another moment of difficult transition, with the late and slow picking-up of economy, while the pendulum of industrial success is decidedly swinging in favor of Asia and specially China.

While Europeans should be praised for some outstanding achievements like the conception of welfare state or the creation and the enlargement of the European Union, I believe that, in the new wave of globalization, they have not done their homework properly as far as competitiveness is concerned. In past years the European economy has not been able to take the leading role America used to have and become the world's economic locomotive. More recently, Europe has been unable to react to the irresistible comeback of American economy. The differential between the two economies has become even more evident recently, as the American GDP in 2003, with the help of the devaluation of the US dollar against most other currencies, has grown almost eight times faster than that of countries in the Euro area, which were able to grow at the disappointing rate of just 0.4%. And while for several years there has been general consensus on the fact that the insufficient and improper use of modern technologies is one of the root causes of this differential, little has been done to address this vital issue.

In March 2000, the European Council in Lisbon set out a ten-year strategy to make the EU the world's "most competitive and dynamic knowledge-based economy in the world", aiming at catching-up with American ICT supremacy by 2010. Well, until now, only telecommunications can show real progresses, mostly thanks to Finland, Sweden and Denmark. We spend too much in subsidizing agriculture and too little in R&D. And, while the 2002 European Council in Barcelona reiterated the unanimous commitment to increase European R&D spending from 1.95% to 3% of GDP which was at the base of the Lisbon Strategy, very little is happening also in this field. Yes, we have the apparently very good excuse of the lack of available resources in times of weak economy, and certainly it takes time to make a big ship turn around. But it's a fact that in the meantime each European cow is being subsidized, every day in the year, with six dollars of EU money, or, if you wish, with three times the money available on average to each individual in one third of the world's population to survive.

We are clearly suffering from a lack of competitiveness, and the comparison becomes even more scaring as countries like China and India not only show GDP growth figures approaching ten, but also are clearly and rapidly closing their traditional technological gap.

Today, China is already the fourth largest economic power in terms of GDP and is by far the fastest growing one. With its superior power in terms of population, territory and resources, it can challenge any other macroeconomic system, and, in fact, many analysts predict that, in 20 years, China could become the #1 economic power in the world. It is true that the European Union, with its 450 million citizens after the enlargement to new countries and its strongly developed economy, could theoretically challenge this primacy, but, as I said, competitiveness issues must be addressed first, even if we choose of just keeping our present position.

I have identified five of these issues that I would like to share with you today.

The first one is:

to **Take better advantage of Europe's human capital to create a constant stream of innovative, high value-added products and services**
Innovation has been extensively discussed at all political and technical levels for many years now. I have personally addressed this point on several occasions and even in previous editions of this forum. However, it was, it remains and, I guess, it will continue to be a truly focal issue for European competitiveness also for the next several years.

In my opinion, Europe must focus on three major aspects of innovation:

a) Education, in order to prepare the human capital for a knowledge society.
The way for a Europe that wants to remain competitive must pass through an intensive strengthening of its educational system, from basic schooling to the universities, in order to raise the level of wide groups of the population, allowing them to participate in increasingly compelling processes of innovation. The risk, if this is not carried out, is progressive social erosion, with intellectual elites who would remain linked to the global process of worldwide development and an ever-widening range of less educated and less competent social groups that would increasingly lose ground and be forced to accept progressively decreasing relative wages.

b) Research and Development, so that new technologies and new products can be created and adopted, capable of continuously moving the economy toward higher value added products and services.

c) Innovation in operating processes, both at public and private institutions and corporations.

For the sake of time, I will limit my comments here to the point of Research and Development.

As we discussed before, the European Council set for the EU the target of 3% of the GDP to be spent in R&D by 2010. Well, according to the latest data available from Eurostat, Research and Development spending in the Union progressed by just 0.04 percentage points to 1.99% of GDP in two years. In the same timeframe, American R&D spending increased by twice as much the European amount, to 2.8% of GDP.

So, while I have no doubts that reaching the target of 3% of GDP for R&D spending would be a fantastic achievement for Europe, I believe that the Union and member countries have not yet developed and deployed the tools needed to translate the target into reality. I am also convinced that, in order to achieve that goal, all actors on the scene should contribute with a special effort. I am referring to the European Union itself, to national governments and, of course, to the private sector which should rapidly close the gap that today exists with other competing macroeconomic systems. The contribution of EU private enterprises to total R&D spending indeed represents in Europe only 56% of the total, against more than two thirds of the total in the US and Japan.

In my opinion, we should act in 4 directions:

- a generalized tax credit on R&D spending should be decided for all companies, in any sector and in any European geographical area. For example laws should be passed so that at least 10% of any R&D expenditure is automatically transformed in tax credit. There might be variations on the same principle, but the basic concept should not be changed: automatic tax credit. Some countries have already devised more elaborate systems by which tax credit is received, with different rates, both for the total R&D expenditure for the year and for the incremental amount versus the average of previous years. There are advantages in both the simpler and the more complex systems. What is really vital for encouraging investments on innovation is the stability in time of the tax credit system, in order to give full visibility for the future and allow entrepreneurs to plan ahead for the next years. In my opinion the stability of the system should be guaranteed for at least 10 years.

- a limited number of mega-projects on which the community wants to play the future of Europe. Those projects of strategic importance should be co-financed at a reasonably high level by national and European institutions: I am thinking of public coverage in the range of 30% of total R&D cost, and the actual support should depend on both the level of financial resources required and on the level of risk of the specific investment. The number of such projects should be obviously limited in order to focus available human and financial resources on selected items, and it would be difficult for me to imagine more than ten strategic programs being active at the same time. In view of the importance of these projects, I guess that most of them should not be limited to the tight boundaries of individual countries and should therefore involve all or most of the countries in the Union. The obvious model that springs to my mind is the experience we have built-up with Jessi and Medea programs in the areas of electronics and microelectronics.

I have in mind some of the subjects that, at least for me, would fit into the definition for those strategic mega-projects: nanotechnologies and nanoelectronics, biotechnologies, life sciences, wide-band communications, intelligent transportation systems and energy conservation and generation. The list can of course be changed at will, but the choice must be in any case selective in order to avoid the excessive proliferation of projects and of R&D centres involved, and in the end the wasting of already scarce resources.

- increasing dramatically the efficiency of European research institutions, both Universities and other public research entities, by cutting useless bureaucracy, creating efficient networks in order to improve synergies while minimizing duplications and introducing proper measurements criteria, based on objective results. On this specific aspect, I would like to mention that the linking of public funding levels to the amount of contributions from private enterprises that certain European research institutions are experiencing is, in my opinion, an efficient way to channel public funds where they can provide the highest possible returns. In general, I would also state that by linking to actual performance both the amount of funds available for research at each single R&D lab and the remuneration of individual researchers is, in my opinion, an excellent way to maximize efficiency and to favour the cooperation between industry and public research institutions.

- giving, as a further way to foster the creation of efficient public/private R&D networks, a strong tax credit of say 30% of total expenditure for all R&D funds destined by private enterprises to universities for cooperative projects, not otherwise financed. It’s a simple, but

rather ingenious mechanism which could in my opinion help overcoming the difficulties that particularly small and medium enterprises have in dialoguing with universities.

The second point is:

to **Reduce dependency on fossil fuels**
Europe is dramatically dependent from imported energy, which today is based on fossil fuels, particularly oil. The problem is that oil, both per se and indirectly, is a major threat for humanity. First of all it is a major source of pollution, and pollution kills: not only those that die because of breathing toxic end products from combustion, but also those that perish under extreme weather conditions caused by greenhouse effect gases. Oil is also a major cause of economic and political instability. Just think of this: each $10 per barrel increase in the price of oil increases the European Union's oil bill for external supplies by about $40 billion a year. This means that, from the time of the $10 low in oil price in autumn 1997 to now, the oil bill for Europe has increased by almost $100 billion a year. And if no valid alternatives for oil are found, and no new sources for oil are discovered, in 20-25 years the economic independence of Europe may be at serious risk too. So, for the Member States and for the Union, it is vital to develop an energy policy which will drastically reduce the dependence from oil. In this respect, we must act in three directions:

- favour all forms of conservation in general
- increase fuel efficiency for automobiles and other vehicles
- develop, with maximum possible determination, alternative and renewable sources, that is to say: wind, solar, biomass, hydroelectric and eventually hydrogen, as a mean of storage and transportation.

By investing in those areas, Europe would not only reduce its dependence from the supply of fossil fuels, but the development of new technologies that are needed to support this strategic choice and their spin-off on several industries would boost the overall competitiveness of the European system. The extrapolation of these concepts convinces me that the nations who do not pledge protection of the environment, particularly for the control of the greenhouse gas emissions that are changing the climate of our planet, will see their companies defenseless against the more forceful competition of enterprises which have known how to confront and successfully overcome the challenge of sustainable development.

A case in point is the automotive industry. For example, if the United States does not make the commitment for compliance with environmental parameters as other countries have done, it could find itself in serious difficulty when confronted with competition from Europe or Asia, where innovative solutions would have been developed to limit unitary consumption and pollution.

The third item is:

Companies must be able to adapt more quickly to market changes
The European system has a much bigger inertia than other systems in responding to the changes in the demand of the market, which are becoming increasingly frequent and fast. In order to improve these circumstances which negatively impact Europe's competitiveness, I would suggest two main streams for action:

- bureaucratic simplification;

- flexibility of labour. Allow me to say here that I am not advocating the adoption in Europe of the American or Asian type of flexibility, the total freedom to hire and fire which, in my opinion, cost too much in terms of disruption in the lives of both individuals and communities. I am rather supporting the idea of a better use of existing national labour legislation so that adaptive measures can be rapidly implemented when needed, rather than being forced to undergo lengthy negotiations with the Unions on each major variation in the market cycle. Of course, this does not mean eliminating employee rights. Rather, companies and employee representatives need to make a cultural step forward and agree on measures that allow companies to quickly adapt to changing conditions (through such ways as flexible hours, part time and temporary work and temporary shutdowns) without incurring social disruption.

The fourth point is:

to **Extend working time during working life to meet market realities**
We must realize that, in an extremely competitive world, Europeans cannot continue to work so little. Europeans could not compete with the Chinese by working 36% less hours a year, even if their yearly salaries were the same as theirs. And they are certainly NOT the same. Europeans cannot retire earlier than anyone else in the world: with the age of European population averaging 50, with one person out of three aging more than 65, our grandchildren will have to pay taxes as high as 75% of revenues on average, should they decide to keep the present social security system. Europe cannot have just 63% of the total European population at work when in the USA the corresponding figure is some 10 percentage points above that level. Again, I would like to propose two paths for improvement:

- Gradually lengthening the total number of hours worked in a year to reach an effective average of 1800 hours, like in the USA.

- Extending the number of years worked in the life time of individuals. Most European governments are attacking this difficult issue, often facing extremely negative reactions by their public opinion. However, I don't think there is any reasonable alternative available if, as I just mentioned, we consider the aging of the European population, the low level of fertility rate, and the increasing restrictions on the rate of immigration our countries are adopting. The retirement age must be extended and the level of pension should be based on the total amount of money earned during an individual's career (and not the highest salary at the end of that career).

The fifth and last point is:

to **Level the fiscal playing field for European companies**
In a global economy, fiscal considerations are key as companies decide where to invest. To attract and keep capital at home, Europe should adapt to corporate needs and offer a more competitive fiscal package for corporations. The inevitable consequence of this is the reduction of revenues, and therefore of available resources to keep up the welfare state that is fundamental for social cohesion. To some degree this lack of resources can be compensated by improving the efficiency of public administrations and re-focusing the

action of national governments only in those areas they should manage. That is, in my views, defence, security, education, health and social solidarity.

But in the end, at equal efficiency, if a country chooses to have a high level of social cohesion, then it inevitably has to pay a high cost for the services and the life-long support it must provide to its citizens. Conversely, a country which decides to sacrifice social cohesion and basically abandon less favoured layers of its population, will have to bear lower monetary costs, and of course will have to pay a higher social price.

Therefore, in order to maintain the social cohesion to which we are committed, and, at the same time, level the fiscal playing field for European companies, we may well need to compensate for reduced corporate taxes by paying more in personal taxes, either direct or indirect.

Squaring the circle

I know, ladies and gentlemen, that closing my remarks today on that harsh note might leave this audience with a dark shadow hanging over it. So let me add a few words as a conclusion. First of all, allow me to say that while no one of us likes to see his own tax money wasted, for example, in useless bureaucracy, I guess that, at least on a second thought, we all appreciate the value of social peace.

The problem is always the same: squaring the circle, as Ralf Dahrendorf has so clearly described. In essence, squaring the circle means finding that optimum balance between economic growth, political freedom and social cohesion. Now, we have seen Americans maximize growth and freedom, while penalizing cohesion. Many Asian countries have preferred to maximize growth and cohesion, reducing political freedom to various extents. Europe has been favoring cohesion and freedom, penalizing the maximization of growth.

We all failed in squaring the circle, or maximizing all three factors. And this should be our challenge for the future.

Today, as globalization envelopes increasingly large sectors of economic life, we in Europe stand at a crossroads. If we hide from the competitive realities or are unwilling to adapt to them, we will fall behind and see first our prosperity, and then the social and cultural values to which we are so deeply attached gradually dissolve. At the same time, we must resist a model of globalization that is indifferent to social solidarity. If we address the future boldly by building on our existing resources and assets, globalization constitutes an enormous opportunity to move Europe forward, by realizing our incomparable potential and perpetuating our dream of a better world for everyone.

And let me conclude by restating, once more, my optimism: Europe will find the way to “square the circle” and to make it happen!

Thank you for your attention.

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