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Inspiring future generations

*Check Against Delivery
Seul le texte prononcé fait foi
Es gilt das gesprochene Wort*

European Round Table of Industrialists

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Distinguished guests,

Ladies and Gentlemen,

I am delighted to be here right at the start of this innovative venture. I am pleased to see that you have brought together two of the cornerstones on which Europe's future will be built – industry and education. Two sectors where interaction has been rather limited until now.

My hope is that the partnership which is sealed today is only the first of many.

Despite the major shocks which have hit the global economy in the recent past, European industry remains highly competitive. (I use the term "industry" here in the broad sense, since much of the service economy depends on a sound industrial base). Yet, in a constantly changing world, our policies have to evolve in response to today's challenges.

In the mid-term review of industrial policy in 2007 we spoke of the three big challenges facing industry today: globalisation; the speed of technological change; and concerns about climate change and the environment.

Even if the immediate prospects for overall employment growth are limited, industry will remain a cornerstone of the European economy. It is important to dispel the myth of deindustrialisation. Directly, and indirectly, industry is the major source of value creation in the EU.

In order for industry to thrive we need a sound industrial policy. It is a vital component of the renewed Lisbon Strategy for growth and jobs. But let us be clear: industrial policy is not about intervention, picking winners, or similar old-fashioned concepts. It is about creating the right environment and a climate suitable not just for making good profits, but also for addressing societal challenges.

Our aim is to provide the right framework conditions for enterprises and to make the EU an attractive place for industrial development and job creation.

Industry, though, is not just factories or offices, or invoices or receipts. Industry is people – their ideas; their creativity; their activities; their skills. Human capital is Europe's greatest resource, its most precious asset if we are to shape, and not just be shaped by, the challenges we face.

This is where education – our second cornerstone – weighs in.

Globalisation and new technologies are increasing both the pace of change in labour markets and the skills needed.

We have seen a great deal of change so far in our lifetimes. Already, for example, more than 50% of the European workforce works with a computer screen. But the pace of change over the next 50 years will far outstrip what we have experienced.

Think of the young people we are here to discuss today: if we try to imagine the world 50 years hence, the world in which some of them will still be working – we are brought up short. We have very little idea of what the world will look like; what jobs will look like.

How can we prepare our young people for the challenges ahead? The jobs they start out in will be transformed in their lifetimes. They are quite likely to change job, perhaps change career, several times in their working lives.

While we don't yet know what the jobs of the future will be, we do know that more and more jobs will demand high skills.

Our analysis tells us we can expect almost 20 million new high skilled jobs by 2020 and 13 million medium-level jobs. Routine jobs will tend to disappear – creative skills will be in demand.

Overall, everyone will need to keep increasing their skills over their lifetimes. We must support our young people as they start this journey. We need to ensure that young people are able to keep learning, throughout their lives, developing their capacity to change without fearing the future. Europe will only succeed if our citizens have the right skills to face these changes with confidence.

The rapid pace of change makes it all the more necessary to be proactive. Because Europe's future is at stake, we need to anticipate future challenges and to ensure a better match between the demand for, and supply of, jobs and skills.

This is the rationale of the EU initiative "New Skills for New Jobs". We intend to create new instruments for analysing and anticipating labour market requirements. It will help us identify the right skill mixes so that we can train and prepare workers for the new jobs that will come on-stream.

While we can't know with complete certainty what jobs will be around in 2020, we can try to define the sets of skills companies will need.

We know that we will need both technical skills and more horizontal skills – analytical skills, problem-solving, team working. And these horizontal skills are the ones that employers have most difficulty in finding.

We need to adapt our education and training systems so that they provide these skills alongside the specific technical or vocational competences.

To do that, we need partnership. Partnership between the world of education and training and business. There needs to be a continuous dialogue between the business and education worlds, to make sure that the curricula meet employers' needs. But also to ensure that the ideas of our young students can be more easily transformed into economic and social value.

So I want to invite companies to play a key part in our New Skills for New Jobs initiative. We must work together to forecast the jobs and skills of the future. I hope I can count on those here today to participate.

Education is about giving every young person the chance to develop their talents and abilities to help us build a competitive Europe.

Of course, this means catering for those who are not doing well at school, who risk dropping out, to face a lifetime of insecure jobs due to their lack of basic literacy and maths skills.

But it is not just a matter of labour market needs. Technology – just like industry – is about people. The scenario of technologically-driven high skill jobs is not a science fiction scenario. It is people who drive technological change.

Europe needs more highly skilled, qualified and motivated individuals to push back the technological frontiers, in order to improve economic growth and employment.

Maths, science and technology skills are the motor that will drive innovation and invention forward. They are crucial driving forces in our increasingly knowledge-based societies.

So, how are we doing in terms of maths, science and technology teaching - or MST - today? As you have rightly pinpointed, there are gaps we have to fill.

But let me start with the good news: we have been working closely with the Member States on the issue of MST for some years.

It became clear, when we were getting the Lisbon Strategy off the ground in 2000, that Europe needed to fill a clear deficit of science and technology professionals. Improving education and training play a key role in delivering the revised Lisbon Strategy for Growth and Jobs.

Member States agreed to make increasing graduates in MST one of the five education and training benchmarks for measuring progress in this field across Europe.

And the work paid off. The target was to increase numbers by 15%; in 2006, we produced 29% more MST graduates than in 2000.

Today, the EU has more than twice the number of MST graduates in the US and nearly four times the number of Japan. Our growth has been stronger than in these countries.

This is quite an achievement! It looks as if Europe has been successful in attracting young people to maths, science and technology studies.

But is the problem solved? Not really. Indeed, there is no reason to feel complacent:

- Growth has been even faster in some major emerging competitor countries. China has more than quadrupled the number of its MST graduates since 2000. In 2006, it produced double the EU's figures.
- On a closer look at the EU figures, we see that growth is very uneven among Member States and between fields of study. Moreover, the number of young people emerging onto the labour market with suitable MST skills is still too small.
- While there has been very strong growth in computer science since 2000 (+80%), growth has been less strong in mathematics and statistics (+17%) and in engineering (+14%).
- There was nearly no growth in life sciences (+1%). In physical science the number of graduates has even decreased since 2000 (-5%). We still don't have enough female MST graduates.
- What's more, school performance in maths and science is disappointing. We have not succeeded in improving the mathematics and science skills of 15-year-old pupils. Some of our economic competitors in East Asia – such as Korea and Japan – show maths and science skill levels of pupils that are far above the EU level.

Your analysis, therefore, on the need to promote MST in our schools and universities is spot-on.

And so is your solution. The European Commission has been calling for more partnership between education and business for some time.

The rate of change has largely outpaced our education systems. Schools must build up the foundation skills so that no one is left behind in the knowledge society.

We have stressed that in teaching maths, schools should build on everyday life experiences. That science needs to be practice-based and inquiry-based.

We have also highlighted how important it is for all young people to develop entrepreneurial skills, in the broadest sense, since a sense of initiative and innovation and an ability to take risks underlie every technological advance.

Partnerships with business can be hugely helpful to awake motivation and interest; and they can open doors so that education and business can communicate and understand each others' needs.

Last month, it was my privilege to launch the new European Institute for Innovation and Technology, Europe's flagship venture for bringing about a step-change in European innovation.

The business-research-education partnership model you are proposing is precisely the partnership that will make the EIT a success.

One of the successes I am certain lies ahead is that the EIT will grow quickly to make a major, direct contribution to Europe's skills needs. Of course, the EIT alone will not tackle all the demand. But it will act as a reference model for other organizations to experiment, and find new ways to anticipate and supply the skills and competences of tomorrow. It should become a substantial provider of highly qualified postgraduates in cutting-edge fields, with MST skills that are second to none.

But excellence doesn't end there.

Your venture will involve all stakeholders in raising maths, science and technology skills across the board among Europe's young people.

I can assure you that the Commission will be happy to work with you towards this goal, so that the next generations will carry forward the flame of excellence in MST that the EIT has lit.

Together, let us show them the way ahead to take full advantage of the "fifth freedom" – the free movement of knowledge in Europe.

Thank you.