

Europe after the crisis – how can all good forces contribute to make us more competitive?

Leif Johansson at Acatech Festveranstaltung on 20th October 2009

Sehr geehrter Herr Professor Herzog, sehr geehrter Herr Professor Millberg, sehr geehrter Herr Professor Hüttl, sehr geehrter Herr Professor Kagermann, Exzellenzen, Botschafter, Staatssekretäre, meine Damen und Herren. It is an honour and a true pleasure for me to stand before you here today at Acatech's Festveranstaltung 2009. I would like to start by taking this opportunity to congratulate you on the establishment of your academy. I am myself a member of the Royal Swedish Academy of Engineering Sciences and I know the tremendous value the academy over decades has had for over Sweden. I wish you the same success.

Introduction; our beautiful hybrid bus now in London

Slide 1

Have you ever seen such a beautiful bus? A hybrid heavy double-decker bus. Londoners can now travel on the new Volvo Hybrid you see in the picture from Putney via Hyde Park Corner and Piccadilly Circus to Warren Street on a daily basis. Soon to enter series production, the bus is a parallel hybrid that can be powered either by the electric motor or the diesel engine independently or by both engines at the same time. This allows the fuel consumption and emission of greenhouse gases to be reduced by up to 30 percent and the bus to be extraordinarily quiet. The idea of hybrid technology as such has existed for many years but has not made a major breakthrough in Europe as of yet. However, this is about to change.

Hybrid technology is the result of multidisciplinary research and innovation, stepping up to the environmental challenge of climate change. Quite simply it is as interesting and fascinating as we all know engineering work can be. We of course also hope it will sell well in to world markets.

To have more examples of competitive European technology growth in the future I will cover three topics close to my heart here tonight:

Firstly the importance of young people choosing math science and technology in their education. When I was 13 -14 years old I already had very distinct interests. I wanted simply to devote my life to playing rock guitar. My father had another idea. He told me that I could play as much rock guitar as I wanted, but only after I had come home with good grades in math and physics. I didn't particularly like this order. He considered it to be an advice ...but whichever way I did as he said and it saved the world from a terrible rock guitarist and here I am happy doing other things.

Secondly I would want to talk about the absolute need to break down barriers between industry, finance and academia and work across institutional borders. We must do this to make Europe really competitive.

And finally I would want to speak about the need for us in industry to become better at living up to societal expectations.

These three subjects are absolutely fundamental to European competitiveness and they need to be at the core of a European post crisis strategy.

The Volvo Group's history and where we stand today



Slide 2: Business Areas

Before I go on, let me first tell you a little bit about the Volvo Group of which I have had the pleasure of being CEO for more than a decade. Our history began just over 80 years ago when the first series-manufactured Volvo car drove past the factory gates in 1927 and the first truck was presented in 1928. Today, the Volvo Group is organised in nine product-related business areas. As you can see, Volvo Cars is no longer part of the Volvo Group. Volvo Cars needed a larger industrial base to thrive and was sold to the Ford Motor Company in 1999 – an emotionally difficult but strategically correct decision. Today we are Europe's biggest, and the world's second biggest heavy truck and bus manufacturer. We go to market with the global brand of Volvo, but we also own Renault Trucks in Europe, Mack Trucks in North America and Nissan Diesel in Japan. We provide Construction Equipment, such as excavators and wheel loaders, globally to many customers as no 3 in the world in that industry. Marine applications of diesel engines, as well as aircraft engines and captive Financial Services also belong to our Group.

Slide 3: Sales and Employees Worldwide 2008

With sales in 180 markets and production in 19 countries, the Volvo Group is a global company. You see here the split of our sales on different continents and the number of employees. As you can see, we have a very strong European base with a huge export. In Germany, we have production facilities in Konz, where we manufacture excavators, and in Hameln, where we manufacture road development machines.

In this context, I should also recognize that we have very good competitors here in Germany. Or perhaps tonight we should call them partners in our industry. “Commercial vehicles” trucks and buses, is an industry where European companies, some German, are absolute world leaders. Our products and services are vital elements in the network of transport and logistics solutions, which is necessary for functioning of everyday life. If the infrastructure is the backbone of society today and in the future, then transportation represents the blood flow. And we provide a production tool for transport. Few people drive trucks because it such great fun, I might be an exception tonight in that, but instead our customers do productive work when they drive trucks. And again it is an industry where we have a clear European lead.....I am sure that my German colleagues, partners in our industry, are as determined as I am to keep it that way.

Reinforcing European competitiveness

Slide 4: Reinforcing European competitiveness

The Volvo Group and European industry need to be competitive on a global level, but we also need to operate in a competitive region. A competitive European region. We have by no means given up on Europe. We see Europe also as a manufacturing base for our products. We want to develop our group in Europe and we want Europe to develop with us. We, European industry think this European passion and the fact that we provide products and services but also jobs, gives us a natural place in the debate and agenda setting, political or otherwise, of how we build Europe's future.

The financial crisis hit Europe hard, in fact much harder than some parts of the world. But the time has come to look past the crisis. The time has come for European leaders, public and private, to look towards the future, to ensure prosperity, by reinforcing European competitiveness.

Competitiveness depends on many enabling conditions which positively influence economic activity and business development. Enabling conditions are in turn the result of complex processes, including the actions of governments and public institutions. In this, those that stimulate research, innovation and sustainable development are and need to be the most important.

The European Round Table of Industrialists' - ERT's - core mission is to promote European competitiveness. We are a group of around 50 leaders of European industry of which Wulf Bernotat E.ON, Jürgen Hambrecht BASF, Léo Apotheker SAP, Peter Löscher Siemens, René Obermann Deutsche Telekom and Gerhard Cromme ThyssenKrupp who has also served as chairman, are current German members and Acatech's president Henning Kagermann is a former German member. I have the honour of being the designated Chairman.

We ERT promote European competitiveness. Firstly of course by taking action ourselves in our own companies and industry sectors, but also by advocating necessary action from EU Member Governments, the European Parliament and the European Commission.

The European Union's enabling conditions need to be strengthened in order to enable the region to match world-class standards of output, productivity and employment, and to create leading global businesses. Evidence from many sources, including work by ERT, shows that too little is spent on R&D, too many people fail to achieve basic educational standards, and labour costs are high, most often because of high levels of taxes and social charges.

We in Europe are not lacking a to do list of things that can improve.

Slide 5: The Powercell partnership

As already said, governments at all levels, including EU Institutions and Member States, have a crucial role to play in strengthening Europe's enabling conditions. Whilst in some cases, direct action is possible, in others governments can help by creating incentives and removing obstacles that limit positive actions by individuals or companies. In other cases still, solutions may lie in governments working with companies to find new ways of creating a business environment that supports risk-taking.

The passing financial crisis has not made this less important – quite the opposite. Let me give you an example of a promising success story with a specific focus on sustainable development in the recent creation of the company Powercell in my home town of Gothenburg, Sweden. Look at this truck driver; he and thousands of his colleagues will no longer need to have their engines idling hour after hour in order to power cab equipment such as televisions and microwave ovens while they rest. The Powercell company has developed a unique fuel cell and reformer technology making it possible to reform liquid fuels, such as diesel, to hydrogen gas in a silent and environmentally sound process. Thanks to the involvement and investment of the Swedish government Energy Agency, but also international corporations like Midroc and OCAS and the Volvo Group, Powercell will now be able to industrialise this new product creating hundreds of new jobs within the next three years. The lessons learned are that we need not only to do good R&D in Europe, but we also have to find ways to build scalable demonstrators and create incentives for individuals and companies to invest in new technology to create real businesses, real companies.

The European Union will invest €41bn or 30% of its 2009 budget in agricultural support. Although to some extent this is an unfair comparison, only €5bn or 3% is invested in research. I believe that Europe's future lies in creating excellent research, development and demonstration, RD&D, and that it is in RD&D that Europe truly can compete. I also believe European Union funds should be used for structural change into competitive structures and not for structural preservation.

Slide 6: Collaboration of good forces

Although enabling conditions are essential, competitive success in research, innovation and sustainable development most importantly requires collaborative action from universities, research institutions and industry. We need to form long-term and strategic collaborations.

European universities and industry need to increase joint collaborative investment and engagement in innovation and applied research. It is ERT's and industry's experience that many universities appreciate the stability provided by a long-term cooperative partnership with industry. We also think it is a strategic advantage for a university to know industry's views and prioritisations. On the other side it is clearly advantageous for industry to be able to participate in the great knowledgebase that universities represent. I often argue that more of industry's R&D, even much more of industry's R&D could be spent in collaboration with universities if we found new ways to cooperate.

There is also a need for more venture capital to help exploit good ideas from the world of academia. We know from experience that the journey from idea to market introduction of new services or products is long or even very long. That is not a law of nature. In industry and in the finance markets and in government we can impact that time period and dramatically shorten it. At Volvo Group, as an example, we have created a venture capital company, Volvo Technology Transfer. The idea is that Volvo Technology Transfer should bring our group closer to outside new technologies by investing in them, but also to commercialize technologies that we have in house, which can be better developed with outside capital and partners. Our experience after the first decade of activity is quite reasonable also in financial terms... even though right now in the midst of a financial crisis you may have to choose your observation point carefully to reach that conclusion.

Students are dropping maths, science and technology



Slide 7: Estimated shortage in STEM skills in Germany

I said that I would come back to young people's interest in education and work in maths, science and technology - MST. You will hear the abbreviation – MST – several times so please remember it. This is something that has been worrying me personally, the Volvo Group and the European Round Table of Industrialists for quite some time now, as competency in maths, science and technology is becoming more and more fundamental to human life and modern economies. For young Europeans, MST should be about passion to change society and mastering the tools to influence and shape the future, and of course on an individual's level keeping career options open. For Europe as a whole, MST plays a key role in growing adequate research and development - R&D – capacity and thereby ensuring economic and productivity growth.

We know that a negative demographic trend, and a declining proportion of students choosing MST education at both the upper secondary school and tertiary levels is creating and will continue to create shortages in skills in many European countries. Germany and Sweden are amongst those countries with large supply problems. Although demand is more difficult to predict, this slide from a German study shows one estimate of upcoming shortages in Germany.

As one might expect, making forecast of labour market demand is troublesome. However, some of the variables are easy to foresee, such as upcoming retirements. A European population age pyramid reveals that large age groups are reaching retirement age. The incoming age groups are much smaller, resulting in a potential shortage of human resources in MST.

Another alternative and perhaps just as important way of looking at demand for human resources in MST is the political one – looking at where we would like to be in the future in Europe instead of where a “business as usual” extrapolation of current demand might take us.

The European Commission and EU Member State governments continue to state the fundamental importance of MST in a knowledge based economy. We point out to ourselves how dependent on research, development (R&D) and innovation to drive competitiveness ensuring social welfare and economic growth we really are..... But the Lisbon target to increase the proportion of European GDP invested in research and development from 1.9% to 3% is still far off. Very far. We are, one can say, holding great speeches but having very little real impact.



Slide 8: Students are dropping maths, science and technology

In many parts of the industrialised world, students are dropping maths, science and technology classes and leaving empty seats behind them. Let me however be clear that I don't think that we have the young people to blame. It is others, including industry, that are failing them and I'll come back to what the European Round Table of Industrialists believes is part of the solution.

Research suggests that today's youth wish to study and work with something meaningful that fits with their values and concerns and that they do not find or think that they will find this in MST. A leading professor in science education, Svein Sjøberg of Oslo University, suggests that many young people associate science and technology work with the development of even broader bridges, even faster aircraft, newer techniques for pumping up oil, even smaller mobile phones and even faster computers with even larger storage capacities. Young people however also believe that today's health and environmental problems overshadow the worries we may have about too 'slow' aircraft, computers' 'poor' storage capacity and 'limited' access to fossil fuels. I see this interest to participate in meaningful work to improve the world as the greatest opportunity to attract young people into industry.

There are also a number of other challenges. Negative stereotypes of scientists, engineers, researchers and other MST careers can be found amongst youth in most of the western world. There is a lack of attractive role models and a lack of information and understanding of what careers in MST are about. In some cases the job market is perceived as unstable and salaries are perceived as low relative to the amount of work involved. This is compounded by the perceived lack of “jackpot potential” in MST careers, with young people not seeing the possibility to earn a very high salary and to become famous.

As a result too many young Europeans opt out of MST subjects at an early age. Not only is this worsening the shortfall in MST graduates, but it also limits their individual options, creating barriers for them in the future. It is here that business can play a critical role, specifically explaining what business does.



Slide 9: Partnership between education and business

Although the issue of increasing interest in MST education and careers is much broader, it is in the role of business that the European Round Table of Industrialists has chosen to focus its recommendations. Business' critical role in increasing interest in MST education and careers can be summarised in three points. Business needs to work together with schools to provide:

- Meaningful life and career contexts to school mathematics, science and technology classes
- Role models, real people to identify with, for students
- Much better information on MST careers for students, teachers and career advisors

To date business had not played a big enough role in education to help boost MST-based competencies. Although some partnerships exist at the university level, business is simply not used to getting involved in primary and secondary education establishments. The presence of business in education is considered by some with suspicion, and in some cultures is even rejected. This must change and is changing. I really do not see any risks in going down the road of much more interactivity between business and schools.

Slide 10: Create knowledge factories

I'm impressed to see that Germany in many ways is leading this change.

Wissensfabrik is an innovative example of combining good forces to make us, in this case Germany, more competitive. Wissensfabrik was founded in 2005 by a number of leading German companies and now has a large number of partnerships with schools across the country making a powerful contribution. Through mentorships and other activities, their goal is to make the next generation fit for global competition.

The European Round Table of Industrialists would like to see more initiatives of this kind expand across Europe. To that point, ERT is working together with European Schoolnet – a network of European ministries of education - to establish a European Coordinating Body which will coordinate, leverage and build upon existing school and business partnerships in the field of MST education across Europe. It will provide support for the emergence of new national platforms, which in turn will be invited to become part of the European Coordinating Body membership.

The industry needs to be better at living up to expectations



Slide 11: The industry needs to be better at living up to expectations

Industry needs to be better at living up to society's expectations. Sustainable development caring about future generations, be it in environmental or educational matters, must be at the centre of our operations. Not only is this important for society – it is also important for our employees. By engaging in society and living up to society's expectations we are also engaging our employees, making them proud of themselves and their business. This in turn leads increased to productivity and competitiveness.

Industry often, very often, has an exaggerated concern over new legislation in general and legislation in the environmental area in particular. What we can, and should ask for is a much more solid process of impact analysis to find unintended consequences and weed them out. But, in general we should be ambitious and build a world our children will want to live in. When we combine all good forces to do that it will also lead to, I am convinced, a real long-term competitive Europe.

Europe is the place to be

Slide 12: Europe is the place to be

Despite our challenges, Europe is definitely the place to be. We have some of the world's most reputable universities. We have a long industrial tradition and many successful and innovative companies. And, the EU provides a political platform for integration and change unparalleled elsewhere in the world.

When I was in my third year of studies at the technical university one of our professors told our class that we all would achieve great careers and reach high levels in industry, earn lots of money, marry the most beautiful girls, win the lottery and possibly save the world from catastrophic events, if we onlytook the advanced course in thermodynamics. I did and while all his promises have not happened; I have enjoyed my life in technology and engineering and in industry tremendously. We know from studies that most engineers are very happy with their work and their lives. Let us bring that passion and energy across to the next generation of technology leaders.

Vielen Dank