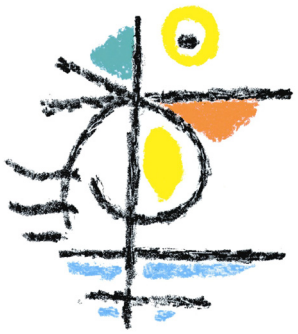

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The 2007 European Challenge: Taking world leadership for smart growth

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The 2007 European Challenge: Taking world leadership for smart growth

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Stern facts on climate change and economic growth

When, in a decade or so from now, we look back to the beginning of the millennium, we will probably remember 2006-2007 as a starting point for a new growth concept, based on a better understanding of how to make economic growth sustainable. New directions in energy, environment and economic policy started to emerge – and converge. The EU Commission's new Energy Plan for efficiency and renewable energy sources is one of the elements in this move to a new growth concept.

The single most important element of rethinking "old growth" in 2006 was the Stern Report, the UK Government Review of the economics of climate change, led by Sir Nicholas Stern (1). Before the Stern report, a pro-active climate policy was seen as a heavy burden on the economy – and resisted by influential politicians and media – while non-action was regarded as "a free lunch". Stern contributed with new insights and shed new light on the real burden on the economy of action as well as of non-action: *"Using the results from formal economic models, the Review estimates that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more. In contrast, the costs of action – reducing greenhouse gas emissions to avoid the worst impacts of climate change – can be limited to around 1% of global GDP each year".*

The Stern Report not only brought a new understanding of the costs of action and of non-action. It also pointed to the growth potential of a fundamental change of our economy to a low-carbon economy: *"It will also bring huge opportunities. Markets for low-carbon technologies will be worth at least $500bn, and perhaps much more, by 2050 if the world acts on the scale required. Tackling climate change is the pro-growth strategy; ignoring it will ultimately undermine economic growth".*

The report ends with a message that puts pressure on governments and on industry to act: "*The policy tools exist to create the incentives required to change investment patterns and move the global economy onto a low-carbon path. This must go hand-in-hand with increased action to adapt to the impacts of the climate change that can no longer be avoided. Above all, reducing the risks of climate change requires collective action. It requires co-operation between countries, through international frameworks that support the achievement of shared goals. It requires a partnership between the public and private sector, working with civil society and with individuals. It is still possible to avoid the worst impacts of climate change; but it requires strong and urgent collective action. Delay would be costly and dangerous."* .

The question which we have to address in 2007 is whether Europe will be able to build on these new insights and establish world leadership for a new growth concept, which benefits from the huge opportunities a climate strategy brings for the world economy.

The US - preparing for the post-Bush era

The debate on climate change is not a new one and there is no lack of scientific evidence. Research has been going on for quite a long time, climate change had moved up the global policy agenda, and the UN Kyoto conference had already agreed in 1997 on a climate strategy. Still, a pro-active policy was resisted by many influential

[1] London School of Economics and Lund University respectively; Members of the European Panel on Sustainable Development.

governments on economic grounds, most prominently by the US and Australia. The significance of the Stern report is that it reveals that this "coalition of the unwilling" is as naked as the emperor in the fairy tale "The Emperor's New Clothes" when it comes to core arguments on the costs of climate change policies.

The leader of this coalition, President Bush and his Republican administration, has long been in denial and even his announcement of a target of reducing US gasoline emissions by 20% in 10 years "Twenty in Ten" is a minimalist response. The British journalist, Anatole Kaletsky, observed in his column in *The Times* on the 25th of January 2007 that 'this comment, in just one throwaway phrase, incongruously squeezed behind a promise to promote more oil drilling, was not the Damascene conversion some commentators had predicted. However, the US, world leader in carbon dioxide emissions, is preparing for the post-Bush era. There is a new majority in the Congress and there are many influential Republican Governors and Mayors, who disagree with the President and who are taking decisions to introduce more pro-active policies. The best known example is California, where Governor Schwarzenegger has signed a bill which establishes a program of regulatory and market mechanisms to achieve reductions of greenhouse gases.

Another example is the Republican Mayor of New York City, Michael Bloomberg, who has outlined a plan to make New York City a "sustainable city" by 2030. It is a plan for population growth, for the upgrading of infrastructure of the city and to make NYC *"a leader in meeting some of the greatest challenges of our time, global warming, reducing global warming emissions by more than 30 per cent by 2030, achieving the cleanest technology of any big city in America (2).*

Now, sustainable development is not only an issue for public policies, it is a reality in business, at least for those businesses that have understood the conditions for success in the future. The fact is that big enterprises in the US are preparing themselves for the post-Bush era; they are investing for a New America. Big businesses such as General Electric and Wal-Mart in the US have committed themselves to new company strategies for sustainable development, "sustainable business" or to become "CO_2-neutral enterprises" (3). Wal-Mart, has set the goals to be supplied 100 percent by renewable energy, to create zero waste and to sell products that sustain resources and environment (4).

The growing interest in sustainable business and the need for new technologies is bringing venture capital into clean-energy technology. "Investors are falling over themselves to finance start-ups in clean technology", according to *The Economist*. Venture Business Research reckons that investment in the field by venture capitalists and private-equity firms has quadrupled in the past two years in the US (5).

Can we trust business "going green"? It is obvious that enterprises have started to understand the widespread concern over climate change and do understand that environmental reputation will play a growing role in the years to come. It is business – but not business as usual.

Europe – stepping back and forth

In Europe, the European Union has been the driving force behind the agreement on the Kyoto Strategy and the establishment of the first emission trading scheme, ETS.

However, the first two years of the Barroso Commission marked a step back in the quest for a new model for economic growth, integrating social and environmental goals. President Barroso himself, and also Vice President Verheugen, seemed to focus on an "old growth" concept, reducing the importance of social and environmental considerations, building the whole strategy on "deregulation". More recently, however,

especially after the publication of the Stern report and the Green Paper on Energy, the Commission has started to bring at least economy, energy and environment together. Mr Verheugen has in a personal letter to the President, widely circulated, stated "*that we need to propose a realistic unilateral target for 2020 which we would further strengthen if other countries also commit to substantial actions to fight climate change*". He also writes that he "*would like to more aggressively promote an industrial policy that will make Europe the frontrunner in environmental industries"* (6).

Presidents and Prime Ministers of the EU Member States have also emphasised that the long-term consequences of climate change have become clearer "*and that new information from recent studies shows that the costs of inaction for the global economy will significantly outweigh the costs of action"*. Furthermore, they stressed that there is *"a strong link between the EU's climate change policy and its energy policy as well as its jobs and growth and sustainable development strategies, and that all of these policies can and should be mutually reinforcing"*. They have agreed that the 2007 Spring Summit of the European Council will discuss an integrated approach for a secure, environmentally friendly and competitive energy policy. The aim is to *"demonstrate the European Union's leadership in integrating climate change objectives into other sectoral policies and measures*".

They have committed the EU to a revision of the Emissions Trading Directive, "*which should take effect at the start of the third trading period beginning in 2013. It confirms the crucial role and the long-term ambition of the EU Emissions Trading Scheme*". Finally, they have asked the Commission to prepare – for the Spring 2007 Summit – options for a global post-2012 agreement consistent with the EU's objective of a maximum global temperature increase of 2ºC above pre-industrial levels (7).

The new EU Commission proposal on energy and climate change is a response to the conclusions of the Summit. The Commission wants to improve energy-supply security in Europe while combating climate change and making the industry more competitive.

The proposals include a cut in CO_2 emissions by at least 20% by 2020. The Commission will propose increasing the use of renewable energy sources and raising energy efficiency; to limit global temperature changes to no more than 2°C above pre-industrial levels. This would make Europe the most energy-efficient region in the world, according to the Commission (8).

A new technological paradigm

Thus, there is a growing understanding of the importance of a climate-change strategy and there are declarations of intent and also some clear commitments by the EU. Still there is clearly quite some way to go from these commitments to the development of a comprehensive new approach to economic growth. In this search for a new growth concept it is useful to take a long-term perspective on the driving forces behind economic developments in order to understand the role of technologies and innovation for economic performance – in the past and in the future.

- Looking back to the 20th century, we know that economic development was driven by interaction between, on the one hand, labour-saving technologies and investment, and, on the other hand, improved real wages and purchasing power; this interaction was supported by a growing supply of cheap energy. It was a long journey from the introduction of the conveyer belt in the US factories to the just-in-time principle and lean production in Japan. This technological paradigm was the cornerstone of an unprecedented economic development in Europe, in the US and, finally, in Japan.

- Towards the end of the 20th century digital technology made a breakthrough, drastically reducing the real price of information, information-processing and communication. This breakthrough led to new services, was a factor behind the globalisation of financial markets and information flows, and delivered increased productivity and prosperity. Today, more than 90% of businesses and more than 50% of households in Europe have access to the Internet – higher in northeast Europe, lower in southeast – and the figures are growing. Almost all schools are using computers in education and training. Computer literacy is one of the basic skill requirements for almost every new job. E-commerce has begun reshaping the traditional forms of distribution. At the same time as this technology becomes everyone's tool, the capacity of the Internet is growing rapidly: in the last five years the amount of data available on the Internet increased 1000-fold and in the next five years another 1000-fold increase is expected. The access to information and connection has already begun changing the way we are working, when we are working and where we are working. Still, we are in an early phase of this development.

- We are now facing a new paradigm, which will include the development of a third dimension, a dimension of more resource-efficient technologies, which we need to radically reduce the use of energy and other natural resources. These new technologies will probably be as pervasive as the new technologies of the 20th century, and even more important for life on our planet. Energy is key to economic growth and to a responsible climate strategy. A basic element in any climate change strategy is to increase energy efficiency, mainly through the application of better technologies in the commercial and residential sector, in industry and in transportation. A second element is the exploitation of new energy sources (natural gas, wind, solar and bioenergy). As it will take a long time to implement a new energy system based largely on renewable energy technologies, there is a clear need for a third element in the form of bridging technologies to reduce significantly carbon dioxide emissions from energy production on fossil fuels, mainly in the form of capture and storage of carbon dioxide.

Technology in its many different forms has a huge impact on economic growth and development. Economic growth is driven by expectations, which are translated into investment in buildings, equipment, infrastructure and into knowledge and new jobs. As new technologies have a great impact on expectations, there is a clear link between technological developments on the one hand and economic growth and prosperity on the other. Technologies are embedded in investment and every investment decision includes a choice between more or less sustainable technologies, regardless of whether these technologies are labelled environmental technologies (technologies, whose main drivers are environmental regulation) or mainstream technologies. With this approach all investment, in buildings and equipment, in transport systems and industries, in houses and offices, represents a potential in a growth strategy for sustainable development, or a "smart growth" strategy (9).

In this perspective, to be competitive, every enterprise has to offer the very best technology, in all three dimensions, that is, in traditional labour-saving technologies, in information and communication technologies and in new technologies for resource efficiency, for sustainability. One or two of these will not be enough – all three dimensions are needed.

We are just at the beginning of a fundamental transformation of our economies, a process that requires strong policies to unleash a new wave of technological innovation and investment, generating growth and employment – and a better environment. National governments and European institutions have

to take the lead in this process of "creative destruction", phasing out old fossil-fuel technologies and replacing them with new and sustainable technologies. This means strong public policies, using incentives for new technology and new investment and disincentives to make the CO_2 intensive technologies of the past obsolete. In other words, the focus should be on getting prices right.

A new understanding of knowledge for the growth concept

Thus, the identification of the climate strategy, of clean technologies and of sustainable business as "*the pro-growth strategy"* to use a phrase from the Stern Report, will be a core element in a new growth concept. However, linking the economy and the environment is just one core element. Another core element is a better understanding of knowledge as a dynamic element for economic growth. The Lisbon strategy has the aim of promoting a knowledge-based economy, but the implementation of this strategy is slow, far too slow, in many Member States. There seems to be too much "old growth"-thinking among policy-makers and politicians. It is time to give the strategy a better underpinning by taking on board the fundamental rethinking of the economic growth theories that has taken place during the last 10 years.

During these years, economists have taught us to understand the difference between labour and capital on the one hand and knowledge on the other. While labour and capital are rival goods, which can be used by one person/enterprise at a time, knowledge is a non-rival good, a resource which can be used simultaneously by a great many people – but subject to IPR, intellectual property rights. Take basic research findings as an example or Internet or patents, aimed at expanding markets for innovations. They all illustrate the difference between knowledge and a piece of land, a bank loan or a paid working day.

Knowledge is not a fixed quantity which has to be divided in slices like an apple pie. Knowledge can be used by many, without decreasing the value of that knowledge for others. As a consequence, and this is the main point in the new growth theories, the traditional economic perspective of diminishing returns is replaced by a new one - we are living in the age of increasing return (10).

This is of great importance for EU strategies and for Member States policies. Most European countries need to make a decisive restructuring of public expenditure in favour of higher education and R&D and to improve incentives for business investment in knowledge. There is also a need to bring universities and other public research organisations closer to industry to improve the innovation systems.

According to a Dutch study, the economy of the European Union could have stronger growth if the Member States succeed in reaching the Lisbon goals in 2010. In particular the increase in employment and higher R&D expenditures could have a big impact on GDP. One example: as a result of a successful implementation of the EU R&D strategy the European economy could grow by an additional 4 to 12 percent in about two decades (11).

A new social agenda for inclusion and growth

Climate change has triggered a better understanding of environment as a part of a new sustainable growth concept. However, the economic and environmental dimensions have to be merged with a social dimension, which will be of particular importance now, when we are facing a new strong wave of technologies which will affect many dimensions of our lives.

There is an old rule of thumb saying that 10 per cent of all jobs will disappear in the next 12 months – because of new technologies, new consumer preferences and competition

from more productive enterprises, jobs which are replaced by new jobs in other enterprises, in other sectors of the economy and in other regions. This rule of thumb is based on research for the OECD Jobs Study from the early 1990s, before the big wave of new information technology and before the integration of Eastern Europe, China and India into the global division of work. Today, the pace of change is higher and the social consequences of changes are affecting more people than ever. The process of creative destruction hits some people, while offering new opportunities to others. This process has to be well managed. One lesson from the last ten years of the digital era, of introduction of IT into working life and of growing global competition, is that public policies did not give sufficient support to individuals to move on to new jobs. There were too many exits from the labour market, and too few spring-boards to new jobs.

Statistics on labour market performance provide evidence of the shortcomings of public policies. Some European countries still have employment rates of around 60 per cent, while the best performing countries have achieved between 70 and 75 per cent. The average is still around 65 per cent. Unemployment figures of around 10 per cent still exist, constituting a waste of human resources.

Too many children drop out of school. Early school-leaving reveals mechanisms of exclusion in the education system. In 2005 almost 15 per cent of young people aged 18-24 left school prematurely; too many young people suffer from a lack of quality education and a lack of job opportunities. Unemployment among young people is twice as high compared to the average, amounting to 17% in the EU, up to 30-40% in some countries; too many women are denied an equal position in work and society. Women have more precarious jobs, they take more responsibility for children and the elderly and find it difficult if not impossible to reconcile work and family life. Too many disabled persons lack the support needed for successful integration into working life. Chronic illness or disability affects approximately 15% of the working age population, more than half of whom are out of work.

Now, when we are entering a period of new technologies, reshaping our economies, we need a new social agenda with more inclusive education and labour market policies. The political lesson of the last 50 years is that well-designed social policies should be regarded not as costs, but as investments in human and social capital with a positive impact on economic growth and adaptability, more necessary than ever in our globalised world. Some European countries have proved that good economic performance and strong social policies can go hand in hand.

Labour market institutions determine whether working life will be inclusive or exclusive. Job security, unemployment benefits, anti-discrimination legislation and active labour market policies can create a framework, but most conditions at work are decided either by employers or by the Social Partners in dialogue and negotiations.

Investment in people – in child care, education, training and retraining – should be at the heart of economic policies for growth and social policies for inclusion and social justice. A new approach, a life course approach, to education and social policies is needed to get things right from the be-ginning, to prevent rather than cure social problems. A well designed social policy is as important for "smart growth" as sustainable technologies, when we plan for the new economic conditions of the next decades.

Towards a smart growth strategy – a summing up

2006-2007 might be remembered as a starting point for a new growth concept, based on a better understanding of how to make economic growth sustainable, by bringing economic, social and environmental policies together in

a mutually supportive way. Investment and technology – new resource-efficient technologies – are core elements in such a new growth concept. A smart growth strategy should stand above sector policies, like energy policy or environment policy or research and development policies. It should serve as a framework for policy coordination in the transformation process which has to be promoted and managed. It is an opportunity for Europe to take the lead and to offer something new, when traditional "old growth" is coming to an end. Tackling climate change and social exclusion and building a stronger knowledge base is the pro-growth strategy of our time.

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