Energy for Europe – time to reflect

Autoworld, Brussels, 29th November

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Ladies and gentlemen, thank you very much for joining us. As a company, we very much appreciate these occasions when we can engage with those who hold positions of responsibility and influence in the European Union.

I am glad we have been able to secure this splendid location which provides us with a visual reminder of the importance of transport, industry and innovation to Europe's economy – all very relevant to what I will discuss today.

And as a European company, with more than 30,000 employees here, we have a keen interest in the future of the region and I am grateful to you for taking the time to hear our perspective.

That perspective centres on the role of energy - but because of the centrality of energy to the EU economy, it necessarily extends to the wider theme of European competitiveness and Europe's future on the world stage.

Agenda

- Economic context – global and EU
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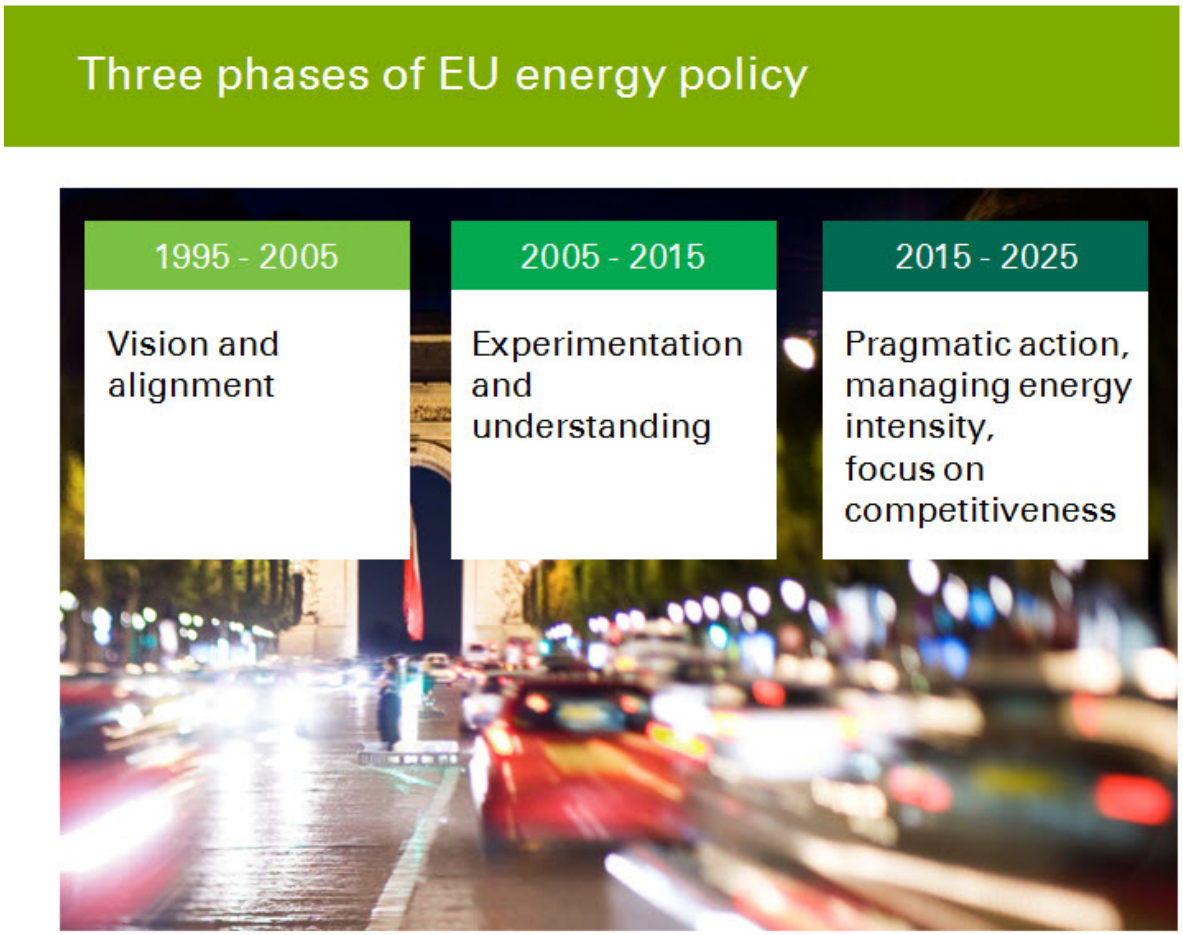
- EU energy
    a. Strengths
    b. Challenges
    c. Priorities

In my remarks I will therefore start by looking at the economic context as well as the energy world, before turning specifically to European energy, examining Europe's strengths and its challenges before closing with some suggestions regarding future priorities.

Europe today faces some severe challenges, not least in the sphere of energy. But my message today is that Europe also has enormous strengths upon which to draw. If Europe plays to those strengths then it can be what it should be - an open, progressive, prosperous, innovative force in world affairs.

In energy, I will argue that this requires taking a cool, logical look at the situation at what we have learned, and pursuing big, pragmatic choices from the fact-base we have now amassed.



I would characterise the situation thus. The EU has seen two phases of what I would call 'post climate-awareness energy policy'. The first, lasting roughly from 1995 to 2005 – was one of vision and alignment – moving towards a common vision of the desired future and a strong global response to an undesirable one – that of global warming.

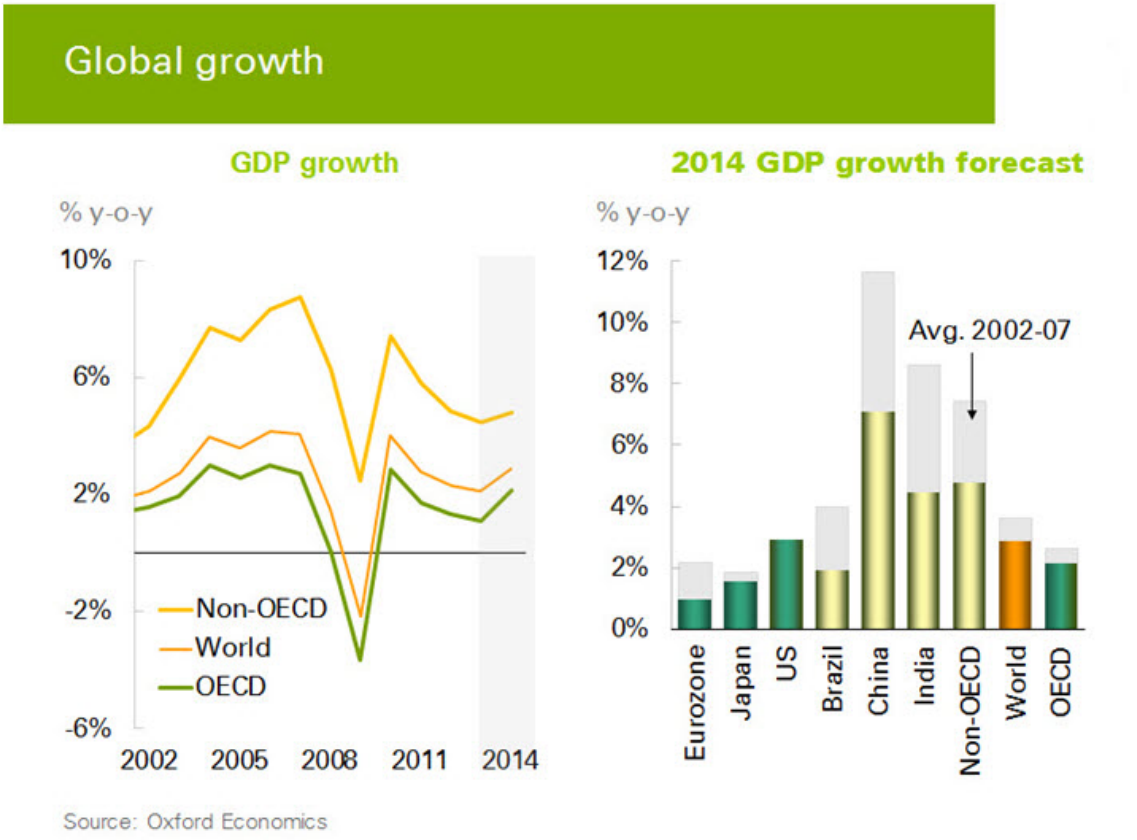
The second phase – of 2005 to 2015 - has been one of experimentation and understanding – in which several instruments, policies and technologies have been tested, notably the Emissions Trading System and measures designed to meet targets for renewable energy and energy efficiency.

The two Commissions of Jose Manuel Barroso have overseen a lot of good outcomes but there have also been some casualties – from the pace of solar deployment to the unexpectedly low price of emissions allowances as a result of recession, and the cost of certain renewable energy sources.

The third phase - I would suggest - needs to be one that learns from - and builds on – the experiences of the past 20 years – and this needs to be a phase of "pragmatic action, managing energy intensity and with a stronger focus on competitiveness".

Economic context – global and EU

So let me start with the Economic context Europe sits in and I will begin with a look at global growth.

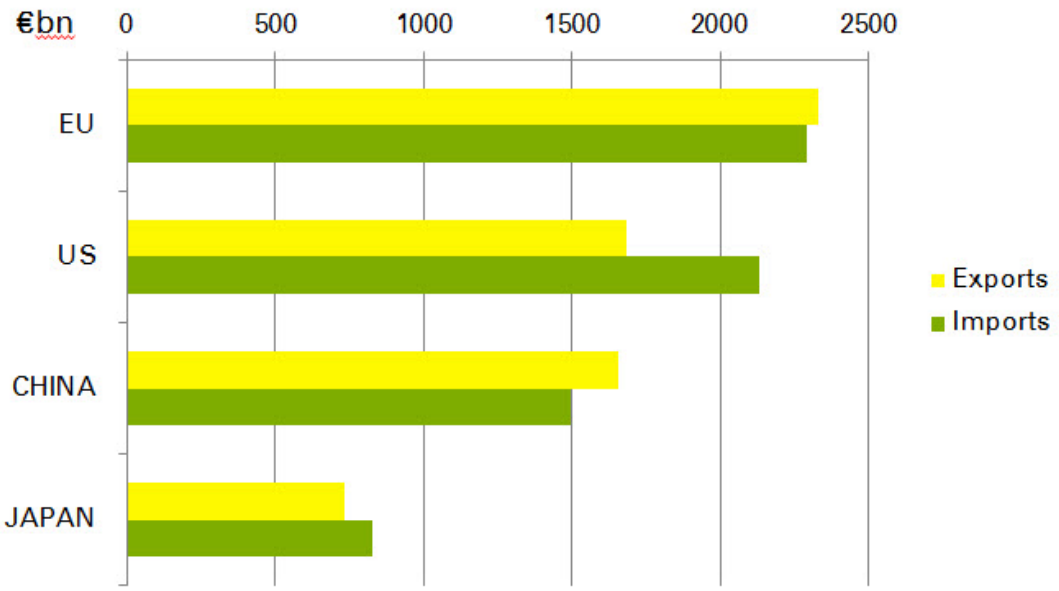


There are two differentials of note here. First on the left, there is the gulf between the OECD and non-OECD worlds. Specifically, on the right you can see that next year, China is expected to grow at 7% or more while the OECD world grows on average at around 2%.

This is what one would expect given the relative stage in economic evolution.

However, there is also a differential within the OECD, between the US and the EU. In the US, fundamentals are improving and growth of more than 2% is expected in 2014. Meanwhile in the EU, a recovery of sorts is underway, with fiscal deficits being reduced – but it is a slow recovery and growth of only around 1% is anticipated.

The EU as a trader – 2012



European Commission - DG Trade Statistical Pocket Guide, 2013

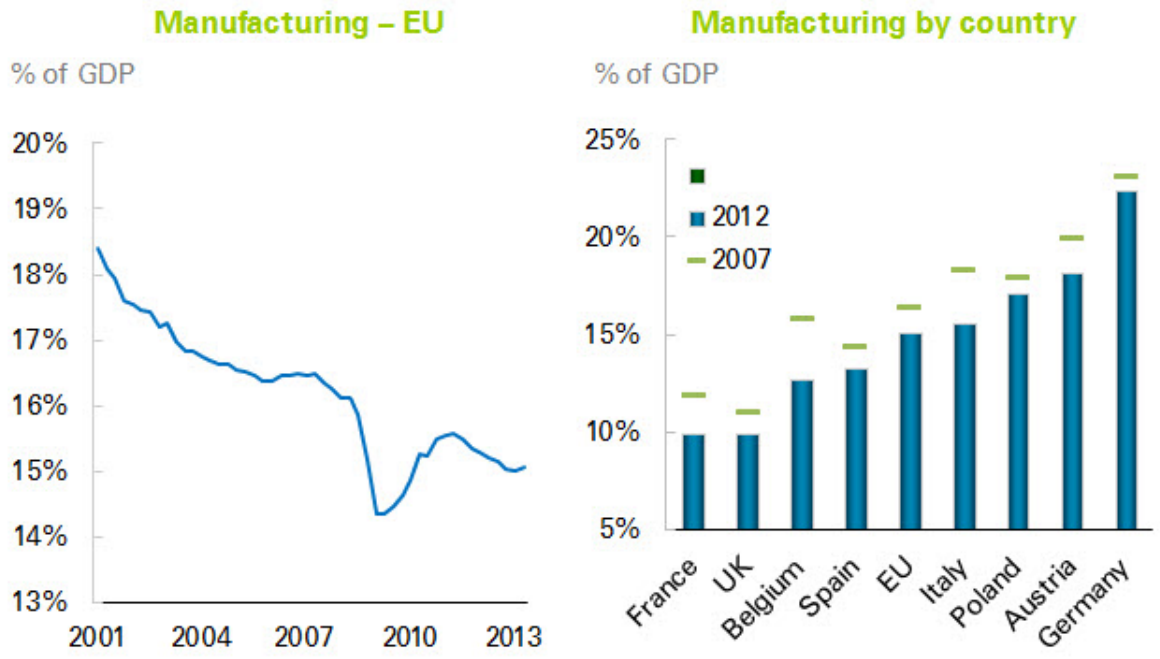
Looking beyond the short-term, Europe's economic future will depend to a great degree on its role as the world's greatest trader. It exports – and imports - more than the US or China. It also has the greatest inflows of foreign direct investment.

Furthermore, the EU's exports of goods are worth around three times its exports of services – €1.7 trillion as against €0.6 trillion. The net trade surplus that the EU generates in machinery, transport equipment, manufactured goods and chemicals practically offsets the net deficit caused by energy imports. So while Europe has great service industries, it is a myth to believe they have become the backbone of its economy. Europe still receives a material contribution from its industry.

This is fundamental. One of the most corrosive myths of recent decades has been the idea that economic growth is driven by consumption rather than by production. As the big non-OECD countries have reminded us, solid growth is driven by productive wealth creation, which then leads to sustainable consumption that is not balanced precariously on a tower of debt.

So what is the current condition of Europe's wealth creating businesses?

EU industry

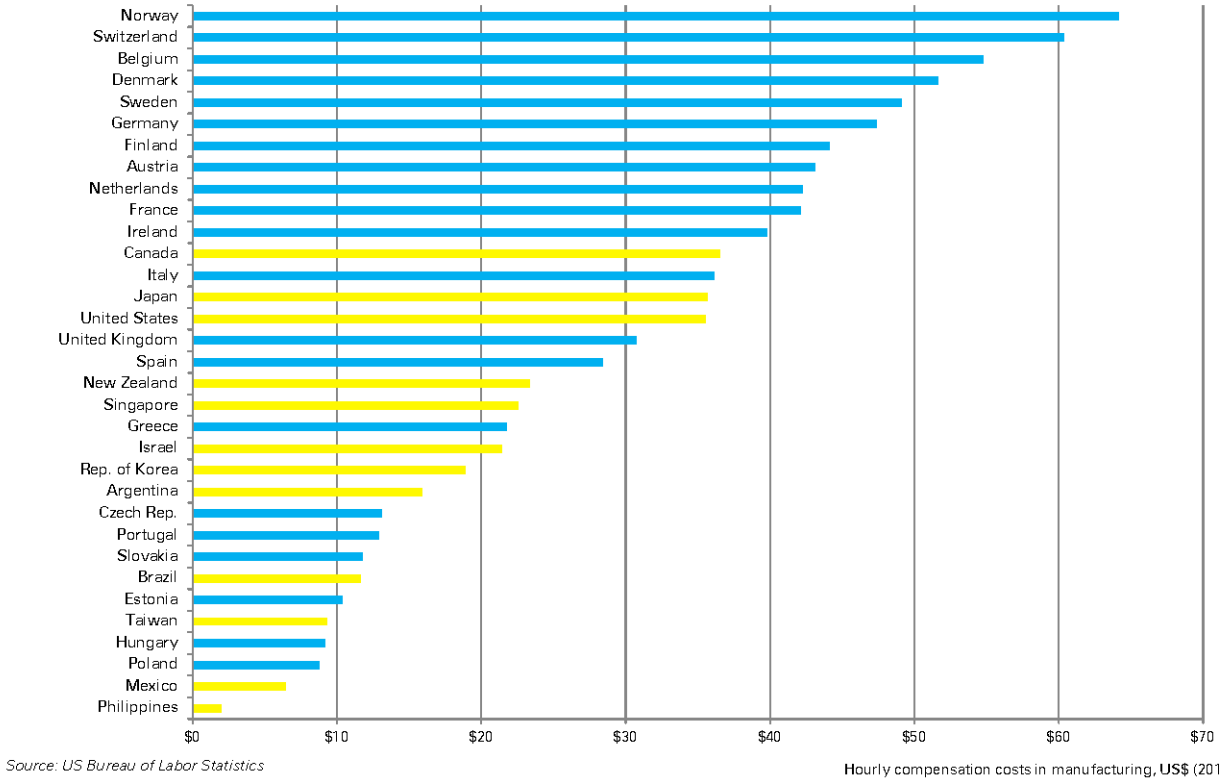


Source: Eurostat

As we know, Europe's industrial production is in decline. Industrial production has slipped well below one fifth of GDP. And I applaud the Commission for making an explicit goal of getting back to that 20% of GDP by 2020.

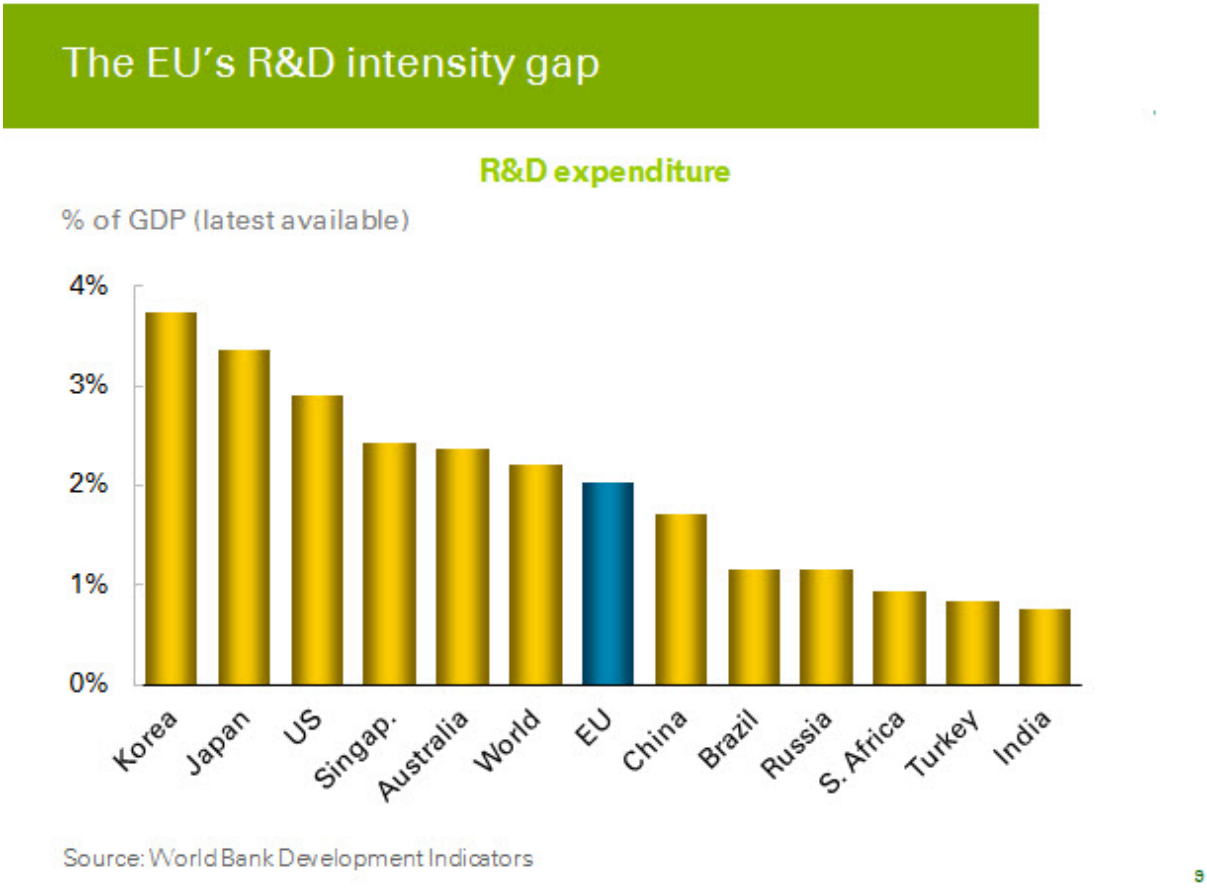
As shown on the right, the percentage has also fallen in all major economies over the last five years.

Labour cost in manufacturing

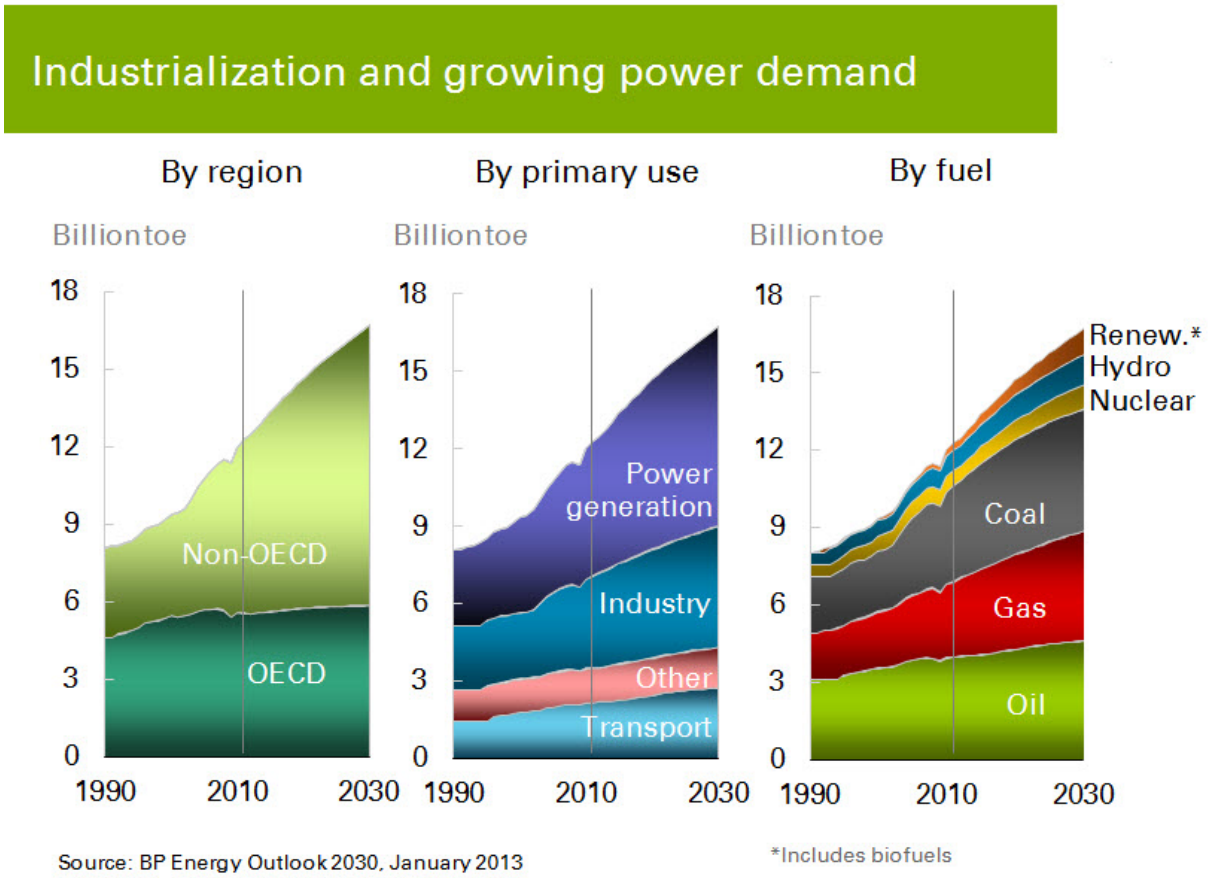


Source: US Bureau of Labor Statistics

Shown in blue on this chart, Europe has labour costs that consistently top the international leagues. I recognise that some of these costs reflect what we know as the European model with its accent on welfare and good industrial relations. But I think we have to also recognise the reality that if that model is to be preserved, something may have to give elsewhere.



A final point on the economic background: Europe is a good place for innovation, but not the best. If you look at R&D intensity - the proportion of GDP spent on research and development among major economies, the leaders are Asian countries such as South Korea and Japan, closely followed by the US, with the EU lagging behind. China is catching up and expected to overtake the EU in absolute R&D spend next year.



These projections are drawn from BP's Energy Outlook – which covers our views of energy trends between now and 2030. This analysis is based on current and expected trends in demand, supply, policy and technology.

We expect demand for energy to keep rising by around 1.5% per annum to 2030, with almost all of that growth coming from the non-OECD world.

Energy used for generating power is expected to grow by 50% to 2030, while industry's demand grows by 30%. Both of these trends reflect the continuing industrialization of the emerging economies.

Demand for energy in transport is projected to grow a little less strongly, at around 25%. This reflects the way that rapid growth in the world's vehicle fleet is being offset to a degree by increasing fuel economy.

And in terms of the fuels that will meet this demand, we expect oil, gas and coal to make up similar shares of the mix by 2030 – around 27% each, with fossil fuels making up about 80% of primary energy despite the rapid growth of renewables.

It is worth reflecting for a moment on renewable energy. Despite all the attention and support it has received, it constitutes only 2% of the global total and although it is growing reasonably quickly, we still only expect it to account for 6% of global consumption in 2030.

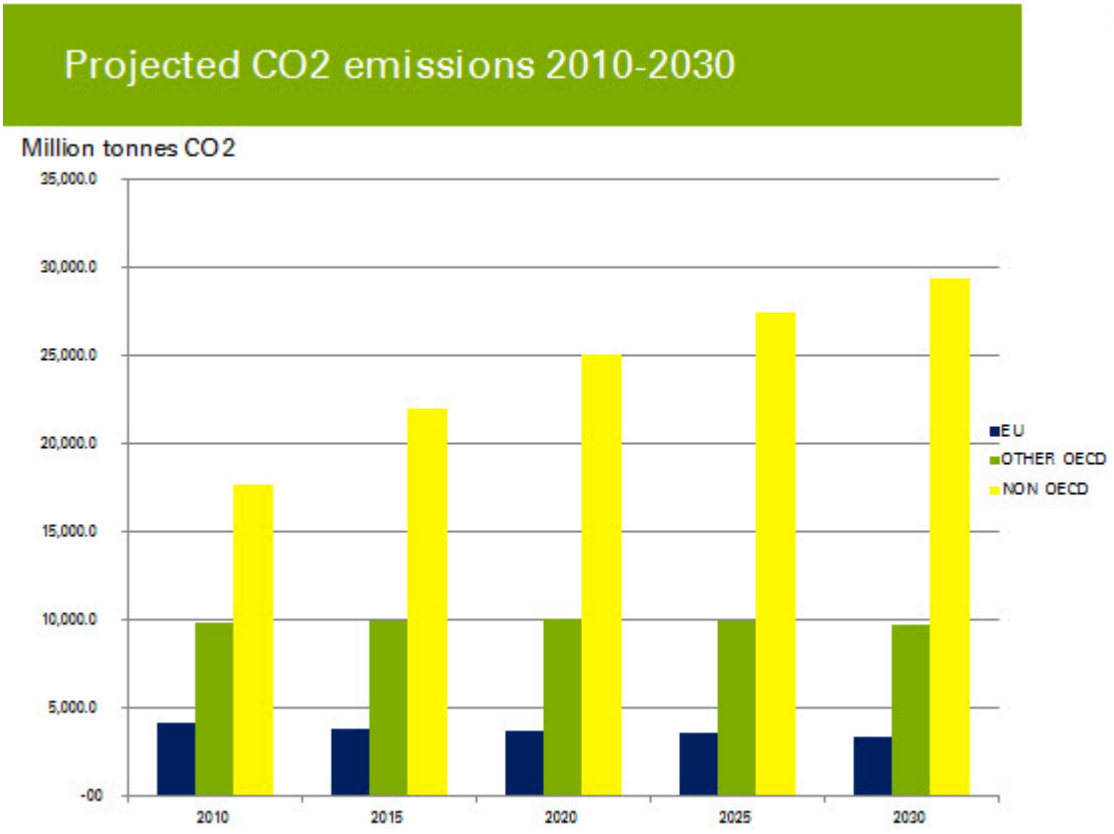
In terms of the resources to fulfil the demand for oil and gas, the last few years have seen a spectacular opening up of new reserves, particularly so-called unconventional oil and gas. Shale gas

and tight oil are now set to account for a %20 of the growth in global energy supply out to 2030, half of all liquid fuel growth, and %37 of natural gas.

Most of this growth will occur in the US, making the US net energy import independent by 2030. %58 of the US trade imbalance today is energy. In short, unconventionals have changed the game for US.

We are also fairly sure that there are significant resources yet to find globally– perhaps the equivalent of another trillion barrels' worth - in deep water, in the Arctic and in deeper exploration onshore – all subject to responsible operation and clear regulation.

In BP, we calculate that the world still has more than 50 years' worth of oil and gas reserves at current consumption rates in known reservoirs , without taking those yet to find resources into account.



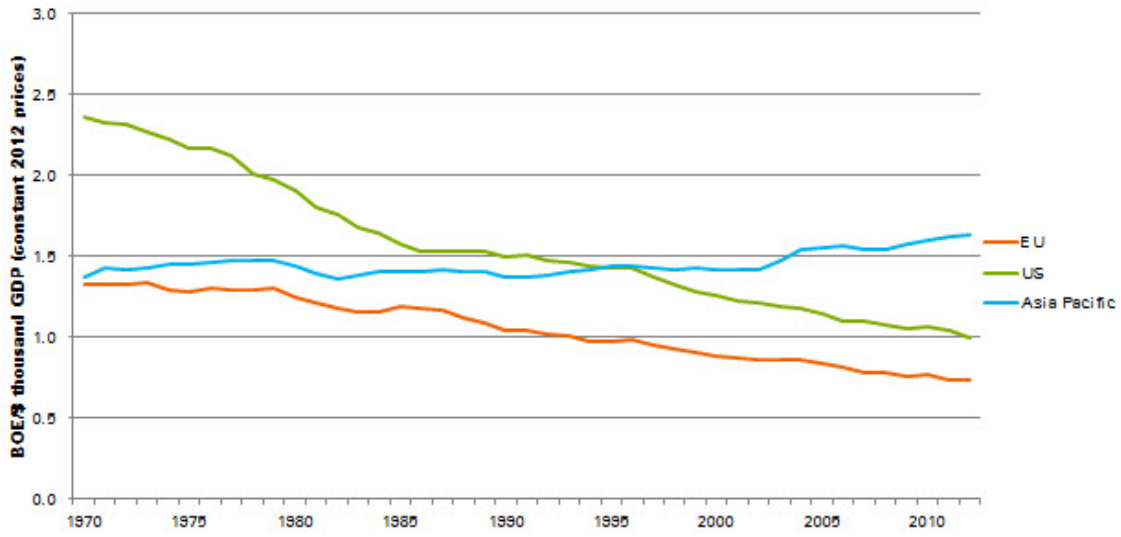
The profile of future energy demand – almost all concentrated in the non-OECD world – is reflected in the outlook for carbon emissions. Between 2012 and 2030, energy-related CO2 emissions are expected to fall by 7% in the OECD world – and by around 17% in the EU specifically - but to rise by around 40% in the non-OECD countries.

Here, perspective is vital. By 2030, we expect that the EU's energy-related carbon emissions of 3.3 billion tonnes will be one thirteenth of the world's total or one quarter of China's emissions alone. In fact, come 2030, we estimate India will emit more CO2 than the 28 EU countries put together.

EU energy - Strengths

So this is a good moment to move on and look specifically at European energy – its strengths, its challenges and priorities. I'll start with the good news, which is that Europe uses energy more efficiently than anywhere else in the world. And this is in part due to the actions the Commission and member states have taken to incentivise energy efficiency, such as promoting high fuel economy engines and efficiency in power generation and heating.

Energy intensity



Source: Includes data from BP Statistical Review 2013 and IMF

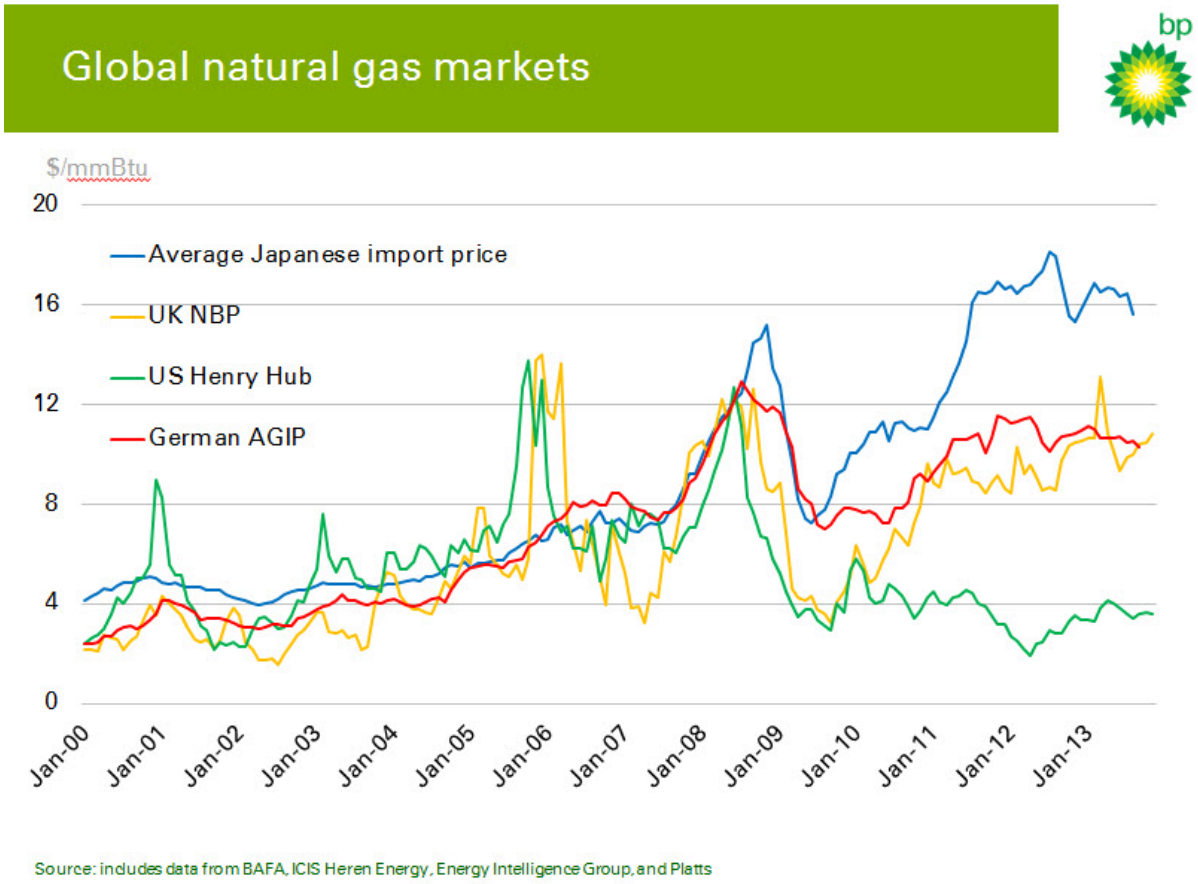
The relevant metric is that of energy intensity. On average the world uses about 1.3 barrels of oil equivalent of energy per $1000 of GDP. Very roughly, therefore with some energy sources cheaper than oil, at $100 a barrel oil price, energy makes up about 10% of the economy.

In Asia, it takes around 1.5 barrels of oil equivalent. Within that, China is at 2.5. In the US it takes about one barrel. In Europe, it only takes three quarters of a barrel – less than one third of the intensity of China.

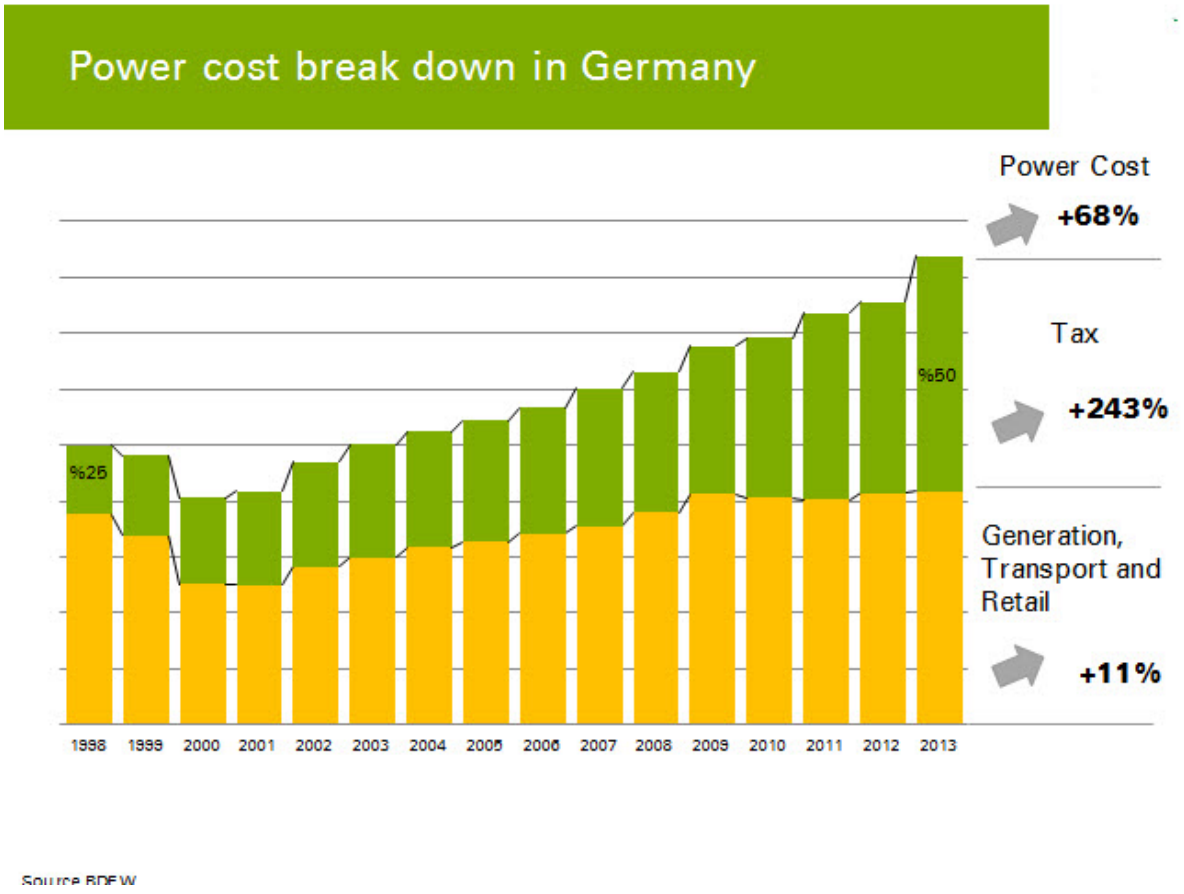
This is a lead Europe should aim to sustain as a fundamental pillar of competitiveness. However, both the US and China are setting aggressive energy efficiency targets and without strong action, the gap will narrow over time.

EU energy - Challenges

European energy policy, which has been highly focused on climate change and emissions reduction for the last few decades is also key to competitiveness. I welcome the integration of Climate and Energy Policy in the forthcoming framework due in January. They cannot possibly live seperate lives. Let me therefore review the effects that EU policy has had in both areas – first in terms of carbon, and second in terms of competitiveness.



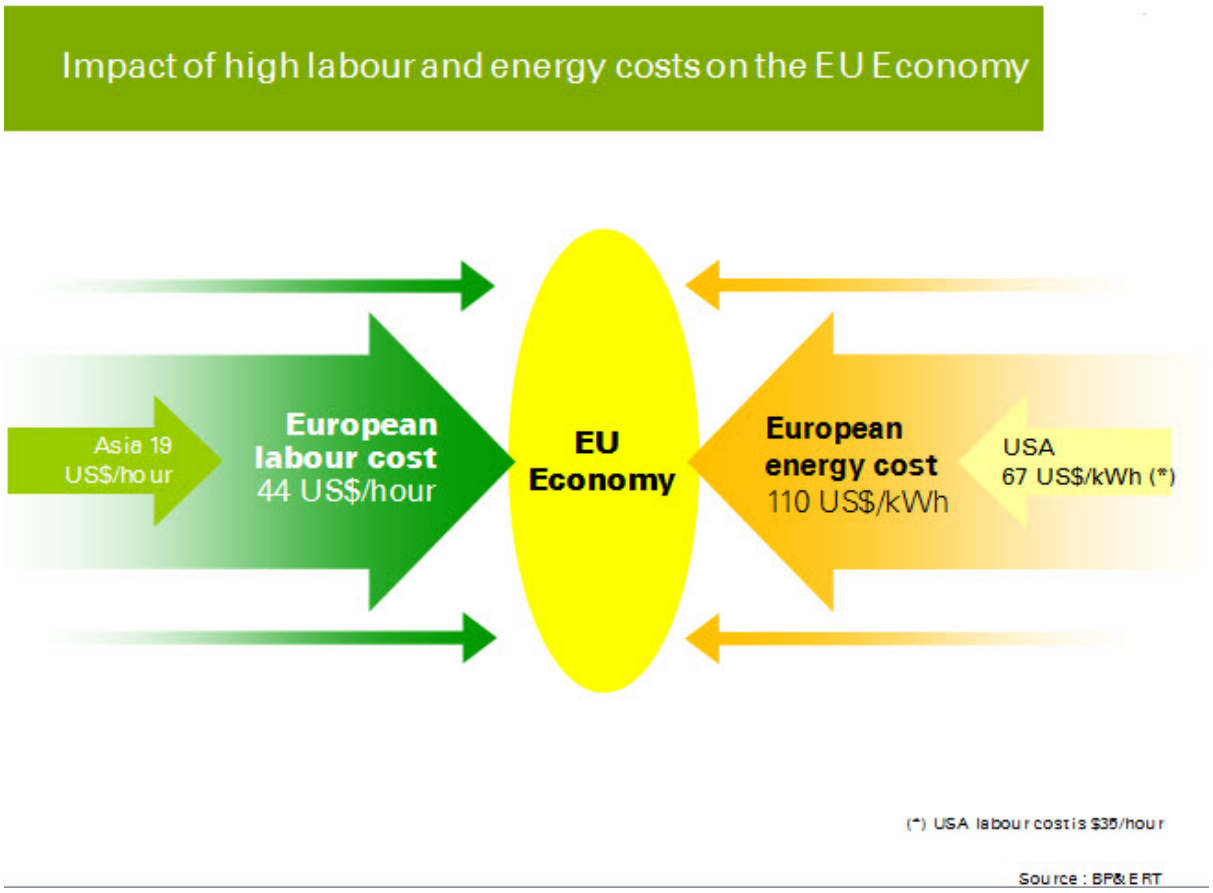
Europe may have low energy intensity, but the cost of the energy is not low. In the EU the price of gas has more than doubled since the year 2000 and is now nearly three times the US price – although only around two-thirds of the Asian price. In Asia, gas prices are linked to the oil price. In the US, the price is driven by the abundant supplies which cannot be exported. In Europe, the prices are driven by Russia gas prices and the need to attract near-market LNG away from Asia.



Source BDEW

The high electricity prices from which European industry is suffering are also partly a function of measures aimed at stimulating low carbon energy. In Germany, for example, power costs have increased by %68 from 1998 to 2013 with the cost of producing and distributing power increasing by 11%, but the charges from a combination of the Eco-Tax, Renewable Energy Act, Combined Heat and Power Act, Concession Levy and Value Added Tax have increased by 243%.

European business has therefore suffered from the costs of promoting low carbon energy at the same time as enduring high fossil fuel prices, imposing considerable stress on its economy and impacting competitiveness.



And looking at the issue through the lens of global competitiveness, Europe faces a squeeze.

It has labour costs that are more than double those of Asia and energy costs that are around 60% higher than those of the US.

To put it another way, the US has reasonable growth plus cheap energy, China has high growth and expensive energy; Europe has almost no growth and quite expensive energy – the worst of both worlds. That is a real issue because energy is a significant part of Europe's cost of production – and production underpins Europe's global economic strength.

Looking ahead, the EU is now considering an industrial emissions directive, a fuels quality directive and other measures that could add further costs to industry and I believe the EU should be cautious about introducing new regulations. While these are well intentioned, I do think that this is instead a time to pause as there is a real risk of unintended concequence and further damage to industrial activity.

EU energy - Priorities

So let me turn finally to priorities for the future. As I indicated at the beginning I think that the next Commission needs to look afresh at energy and climate policy. The new approach should be framed on one hand by a deep appreciation of Europe's real strengths and on the other by a candid acceptance of the challenges.

1. Learn from experience of last 20 years
2. Rebalance the focus

- Energy intensity, cost and carbon

1. Shape pragmatic pathways
    - Simpler goals, philosophy, ETS & internal market
    - Power & heat: efficiency, natural gas, some nuclear & cost-effective renewables
    - Transport: fuel economy, hybrids, biofuels, targeted electric vehicles
2. Energy and international relations

I would suggest that there are four key priorities for the EU at this stage.

1. Learn from experience

The first is to internalise the facts that have been learned in the last two phases of energy policy - including the way that measures, predominantly and independantly focused on addressing climate change, have had unintended but serious impacts on competitiveness. And while emissions have fallen, Europe has recently been outperformed by the US. Other perverse outcomes have been observed and the lack of coherence of policy leads to confusion and a burden industry can ill afford. And we know how important industrial production is to the sustainable health of this trading bloc.

2. Rebalance the focus

Second, I suggest the EU needs to increase dramatically the focus on energy per unit of GDP –and look hard at the cost of that energy - as well as its carbon content. Europe leads the world in the amount of energy used per unit of GDP – but lags much of the world in the cost of that energy. It is time to address that deficit through competition and making the European energy markets more efficient. In short, in the current context, the priority should be to maintain leadership in energy intenstity of the economy, then reduce the cost of that energy and then it's carbon.

3. Shape pragmatic pathways

Third, with the lessons of the past 20 years in mind, and the measure of energy per unit of GDP to the fore, I believe Europe needs to shape pragmatic pathways for power, heat and transport and within an overarching energy philosophy which can guide Member States to deliver them.

That philosophy must be clear but permit flexibility in how to deliver it locally. Europe has a powerful economy-wide tool « The ETS» – and I would advocate making it the primary mechanism for meeting the objectives, making pricing more effective and simplifiying the numerous policies and targets into perhaps a single GHG target.

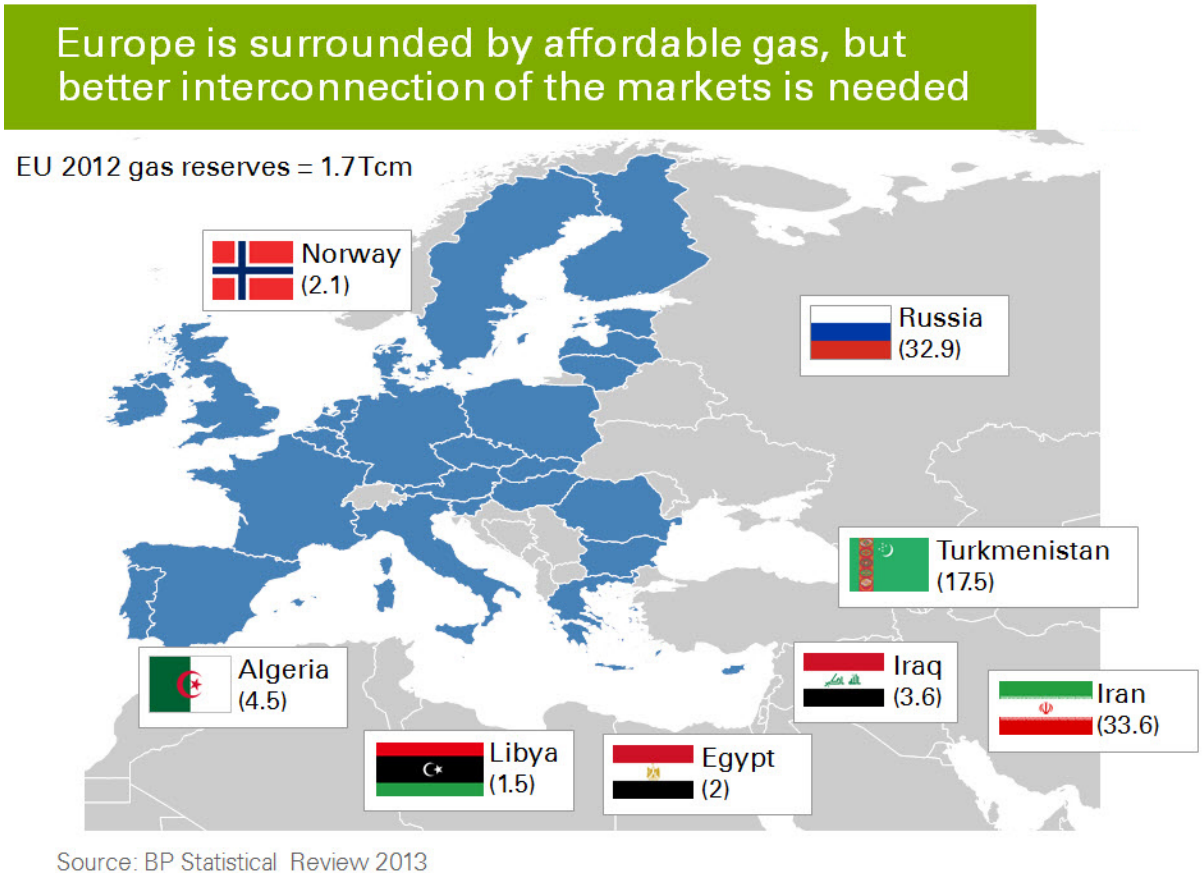
On GHG targets, goals must be framed in terms of a need for both a competitive and a sustainable Europe. We should consider moving away from separate goals for renewables and energy efficiency where these can be individually incentivised by the trading system, a mechanism which already exists. We must also encourage lowest cost pathways for the energy mix and monitor them carefully. If we do not, then the danger is that we will export the carbon problem – along with industrial businesses.

This brings me to a very powerful weapon in our armory and one which the US has rediscovered – natural gas. The vision of a continent running on clean energy supplied by sunshine, wind and waves is an inspiring one – and as an oilman, also to me. In the very long term, it may be an attainable one.

But trying to make that vision a reality prematurely has led to many unintended consequences while the proportion of renewables in Europe's energy still only stands at just over 5%.

Meanwhile, gas is the Cinderella of Europe's climate policy. It is 24% of the EU mix as opposed to 30% in the US.

The climate situation is urgent and we do no service to future generations by not encouraging a pragmatic and material option to acelerate our progress which is literally close at hand – again, natural gas.



Europe is a continent surrounded by competitive natural gas supplies – including those from Norway, Russia, the Caspian Sea, North Africa, the Middle East and potentially the East Mediterranean.

We need to rebalance the promotion of renewables with the task of accessing and utilising this natural gas.

Companies such as BP are already at work on this. For example, as many of you know, we are a leading partner in the project to open up the southern gas corridor from the Caspian to Europe. If this goes ahead, as we hope, it will bring 16 billion cubic metres per annum –or bcma - of gas from a new facility at the giant Shah Deniz gas field off the coast of Azerbaijan to customers in Azerbaijan itself, Georgia, Turkey, Greece, Bulgaria, Albania and Italy and eventually beyond.

There are several other potential new gas supply chains into the EU and driving gas-on-gas competition can only be good for security and for the cost of energy.

Therefore, concomitant with that effort to access gas from Europe's periphery there should be a renewed effort to complete the single market in energy within the EU. As the former Polish Prime Minister and President of the European Parliament Jerzy Buzek – now an MEP, has said, the EU's internal energy market "constitutes the most direct path towards a fully competitive Europe."

Meanwhile R&D into energy efficiency, alternatives and renewables should be intensified. For renewables, we need to make them competitive with fossil fuels as quickly as possible.

So, what does this mean for the different uses of energy?

For power and heat, the pragmatic pathway is energy efficiency, natural gas and - for some countries - nuclear, in addition to selective, cost-effective renewables generation.

For transport, I would advocate it is also about fuel economy, downsized, boosted, hybridized internal combustion engines, and use of competitive biofuels. Electric vehicles should also be developed, but only introduced at scale by policy when: low-level pollution needs to be addressed, if the power grid has been decarbonised; or when lower total energy use per passenger kilometer over an adequate distance can be demonstrated.

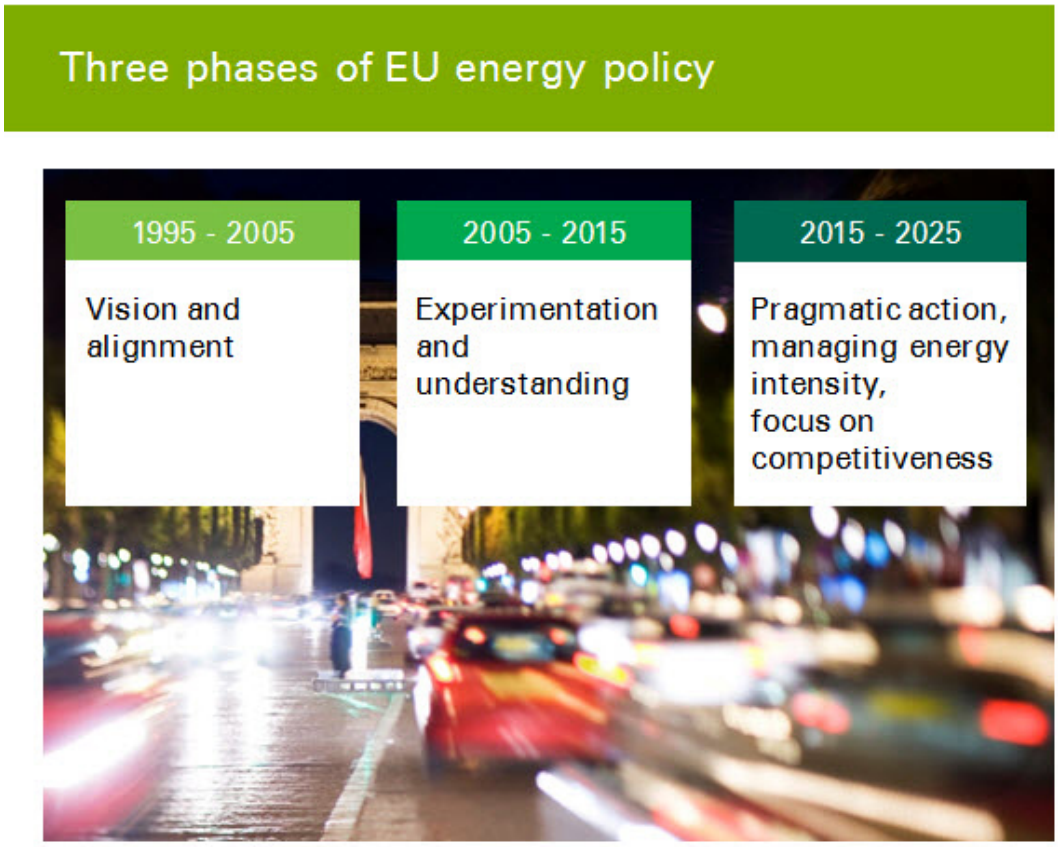
4.Energy and international relations

This takes me to the fourth priority – which is for Europe to use its capability in international relations to help shape its energy future, that of the world, and Europe's own competitiveness.

One substantial and specific contributor to this process should be the Transatlantic Trade and Investment Partnership – or TTIP - which is now taking shape.

BP has suggested that energy should be an explicit theme within the TTIP, with the aims of improving the competitiveness of both parties. This might for example include shared standards, joint R&D programmes and most importantly complementary climate related policies in which the pace of carbon price intensification is monitored on both sides of the Atlantic to avoid unintended dislocations and loss of competitiveness.

Europe must also continue to play a pro-active role in climate change negotiations – formally and informally - not least because of the opportunities that could exist to monetize its expertise in energy efficiency by exporting or licensing technology to emerging economies.



So ladies and gentlemen, let me sum up the main points I have made.

Europe has gained valuable experience through the first two phases of post climate-awareness energy policy – those of vision and alignment and experimentation and understanding.

Its many strengths include the world's least energy-intensive economic bloc, thriving exports of industrial goods, attractiveness to foreign investors, high quality education, a culture of innovation and leaders who are determined to blend a prosperous economy with a progressive society.

However, Europe faces big challenges, including the combination of high labour costs and high energy costs, industrial decline and an climate policy that is not yet fully achieving its objectives.

I have stated that I believe a fresh and a pragmatic approach is required and I have suggested some specific steps that might be taken.

I believe the priorities for the next two Commissions should be fourfold:

First Europe needs to internalise and embed the lessons it has learned.

Second it needs to refocus policy on the volume and cost of energy that is consumed for each unit of GDP – and not primarily only on the carbon content of that energy.

Third, with that focus in mind, Europe needs to pursue and encourage pragmatic pathways for progress in power, heat and transport, with appropriate regulation to drive this change across Europe and avoid the continuing inefficiency of unnecessary experimentation and policy diversity.

And fourth, Europe should use its influence on the international stage to help shape a better global energy future and one in which Europe can deploy and create value from the strengths it has built up over the years.

There was a symbolic moment in June when a saloon car was driven around the Lower 48 states of the US, setting a new Guinness World Record for fuel economy – at 3.1 litres per 100 km. The car was built in Texas – but it was made by a European company. And it was not a small or abnormal vehicle, in fact it was a VW Passat TDI Clean Diesel.

I hope that car represents Europe's future – providing the benefits of energy with a superb level of efficiency, earning revenues for Europe in a key export market, illustrating how emissions can be reduced in response to progressive regulation and demonstrating the brilliance of European industry when it is encouraged and enabled to play to its strengths.

Thank you very much.