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## Future Skills Needs for the Green Economy: Some Starting Points

### 1. What does sustainable development mean for the EU?

Sustainable development is the preservation of the environmental and social conditions for prosperity. History shows that failure to manage these forces leads to political instability and conflict. The global agenda for tackling economic growth amidst climate change should reflect the following propositions:

- **The future will not be like the past:** we have never experienced a population of 8-10 billion people in a rapidly interconnected world which has already breached many of its environmental limits.
- **Reaction is not an option:** waiting to react to changes in natural systems means it will be too late to prevent irreversible climate change. Failure to anticipate will result in political instability, conflict and the erosion of core values in the pursuit of survival.
- **The pace of change must match the challenges:** Sustainable development requires a conscious driving of global societal change towards specific goals (a low carbon economy) over limited timescales - this is an unprecedented project.
- **Solutions require the pooling of sovereignty:** the biggest global problems that will dominate the 21<sup>st</sup> Century, from terrorism to climate change, from mass migrations to organised crime, cannot be solved by



nations acting alone. Europe is the world's most sustained and far reaching experiment in the practical and political realities of sharing sovereignty. Its continued success matters to everyone, not just to Europeans.

In Europe, four factors will drive change:

- **Resource scarcity:** scarcity of natural resources combined with rapidly growing demand is already resulting in rising costs for – eg – oil and basic foodstuffs.
- **Energy security:** ensuring the security of European energy supplies requires a strategic shift away from dependence on oil and gas imports toward using local coal and renewable energy sources.
- **Climate change:** unmitigated climate change would result in hard security threats (water scarcity, extreme weather events, mass migration from other continents) to which there are no hard security answers. The transition to a low carbon economy is imperative.
- **Intergenerational justice:** a new approach must resolve the growing intergenerational tensions inside Europe. Younger people now shoulder the fiscal burden of an aging society, but have less economic security and face high environmental and energy costs. Europe needs to generate intergenerational cooperation to share fairly the cost of higher public investment in pensions, healthcare, resource efficient infrastructure and in tackling climate change.

While Europe faces new economic challenges, it also has misplaced fears.

- **Europe should be more confident:** Europe has strong assets for delivering prosperity and security into the future. Europe leads all major economic powers in generating political support for investment in the public goods which underpin the economy: in healthcare; in pensions; in social security; in education; in tackling climate change and preventing poverty and instability outside the EU. Europe is a pioneer in innovative approaches to the “public purpose” economy, such as the EU Emissions Trading system.

## **2. Winning the argument about climate and prosperity: does the EU Climate Package threaten competitiveness and jobs?**

When he launched the proposed EU Climate Package in January 2008, Commission President José Manuel Barroso underlined that the 20% by 2020 goals to cut CO<sub>2</sub> emissions, increase the share of renewables in the energy mix and improve energy efficiency, are “an opportunity that should create thousands of new businesses and millions of jobs in Europe”. The Commission’s 2006 renewable energy roadmap alone points to 650,000 jobs in the sector by 2020.

This message about opportunities for growth in the transition to a green economy has yet to convince either citizens or political leaders. Both perceive climate in terms of “cost”. In particular, debate on the Climate Package in the European Parliament has been dominated by the issue of carbon leakage in energy intensive industries – the claim by the European Cement Association and the European Confederation of Iron and Steel Industries that auctioning of carbon permits “would cripple European industry through direct and indirect costs”, forcing relocation outside the EU. In the words of MEP Eija-Riitta Korhola “The problem with the Commission proposal is that it means we export pollution and import unemployment.”

The answer to Kohola by MEP Anders Wijkman, that “We should not fool ourselves that we can achieve our long-term climate goals without sacrifices”, only partly addresses the problem of perception. On the one hand, European security and prosperity are dependent on tackling climate change and require realism about costs: it should be recognised that energy intensive industries account for well under 1% of EU GDP.<sup>1</sup> On the other hand, climate change will alter business models, presenting new economic opportunities, notably in the (necessarily localised) task of making buildings energy efficient – this is a message that has not been strongly heard. Here it is important to replace the term “low carbon economy” (with its connotations of a *low* growth economy) with the term “green economy”.

Insofar as total GDP growth will slow, Europe should also seek to redefine economic success in terms of well-being: reconstructing the social bargain around strong positive incentives for women, older workers, young people and

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<sup>1</sup> These industries also have limited exposure to competition: rising transport costs currently impose “border tariffs” equivalent of at least €40-60 per tonne CO<sub>2</sub> on steel and cement imports from Asia.

immigrants to work; and using the Lisbon agenda to drive radical increases in resource efficiency across Europe.

Climate will impact on future skills in two ways. There is a need to assess the potential repercussions of climate change in order to identify and provide input for the development of appropriate adaptation policies – eg, in the fisheries sector, where climate effects are causing fish stocks to move steadily northward, beyond the boundaries of the fisheries policy territories. Some skills will become increasingly less relevant. There is also a need to assess the net skills demand and employment effects of environmental policies: to ensure that investment in new growth industries will mean that the number of jobs created outweighs the jobs lost.

### **3. Accelerating the transition to a green economy: market barriers to competition; EU Budget Reform**

Two EU policies will shape the market for new skills and set the pace in the transition to a green economy.

Europe has set a goal of limiting global temperature rise to below 2°C. This goal will require Europe to reduce its domestic GHG emissions by 80–95% by 2050. Such a radical transformation to a zero carbon economy will require high levels of innovation, and maximum creation of opportunities for new market entrants to emerge, providing lower carbon products, services and materials. Four sectors will undertake the bulk of the reduction in CO<sub>2</sub>: manufacturing, transport, energy, and construction.

DG Competition has a crucial role play in investigating and preventing market barriers to competition and new entry in these industries. For example, giving free carbon permits to EU industries such as steel and concrete will undermine innovation and competition in low carbon products. Allocation of free permits would either remove carbon cost pass through or give high carbon companies additional financial resources. This would raise barriers to entry for lower carbon alternatives to these products, notably in the construction industry: eg, timber laminates, recycled materials, low carbon concrete and advanced high strength steel products. It will also disadvantage architects, engineers and designers who are producing new designs for buildings and other infrastructure



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which have reduced overall material use, and thus lower embodied carbon emissions. Without such innovation, it is unlikely that the EU can develop models for decarbonisation which can be used by other countries and form a basis for European competitiveness in the future.

Public policy cannot risk relying solely on market deployment of new technologies and skills. For example, we have no idea when (or even if) we will the market will achieve grid parity for renewable power generation: it would be a big risk for the policy maker to rely on a price prediction to deliver this objective in the timeframe needed to drive out carbon emissions in order to achieve climate security. In terms of managing the risk for European and global climate security and for European external energy security, there will have to be an investment plan and a public policy that will deliver a shift to renewables even if solar energy ends up being under-priced by carbon and coal.

One of the most powerful tools in the EU's policy armoury is the budget. The current EU budget review is a "once in a generation opportunity" that will effectively fix the shape of the European budget until 2020: it needs to achieve a radical shift if spending is to reflect the future priorities of Europeans. Europe should better align its resources with the challenges it faces, rather than to its past political arguments.

Europe has taken a global lead on climate change, but the priorities of energy and climate security are not reflected in the current budget. No one member state can invest in a new low carbon European power system, or provide the huge investment needed to develop technologies such as carbon capture and storage or concentrated solar power. Ambitious European plans for new technology and infrastructure are currently unfunded, reducing European credibility with domestic industry and with other countries. Lack of a programme for new skills training in sectors such as energy efficiency contributes to scepticism among citizens that a green economy will create new jobs.

A reform option could be to create a new (time-limited) energy and climate budget, co-financed by EU and member state resources, including auctioning of carbon permits. An intelligently-focussed EU budget, funding European-scale programmes, should set the standard for member state "bottom up" public spending. It should be designed to open up new business opportunities and leverage private investment from around the world in the fields of clean energy,



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resource efficiency and intelligent infrastructure. The contribution such a budget would make to the attainment of Europe's goals would provide a concrete example of the benefits of cooperative EU action, creating positive public pressure for sustained investment in greening the economy.