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GREENING THE ECONOMY – TAKING ON EMPLOYMENT AND SKILLS CHALLENGES

Executive summary

Europe's competitiveness and the sustainability of its social systems depends on its capacity to adapt swiftly and effectively to structural challenges such as globalization, technological change, demographic ageing and the transition towards a low-carbon economy.

In recent years, climate change and the measures needed to address it have risen to the top of the policy agenda, highlighting also the need to better understand its implications for European labour markets, in terms of restructuring, employment impact and skills requirements.

BUSINESSEUROPE believes that much more efforts are needed to truly understand the employment effects of climate change, including the problem of carbon leakage. There is no clear definition of what constitute "green jobs" and the distinction between so-called "green" and more conventional sectors is artificial. Instead, the focus should be on the wider process of the greening of jobs and the interdependence between sectors must be recognized. A wider perspective on sustainability is needed if Europe is to be successful in the transition.

While data on future employment projections should be treated with caution, the available evidence indicates significant impacts by sector. This reinforces the need for employment and social policy measures aimed at improving flexibility and removing obstacles to mobility in the labour market. This is imperative for companies to be able to adapt and for workers to make a successful transition towards a new job.

Bearing in mind the limitations of skills forecasting, it is clear that the transition towards a low-carbon economy will require new and/or higher skills and this in all sectors of the economy. In addition, enhancing employability is a crucial determinant to enable workers to find and develop within a job, and to be more mobile. However, European companies are already struggling with skills shortages in particular within science, technology, engineering and mathematics. Demographic ageing might reinforce this problem. The shortage in science and technology must urgently be addressed if Europe wants to be competitive in innovation and the development of low-carbon technologies.

Faced with the likely impact on company restructuring, employment and skills, it is imperative to avoid any additional and unnecessary EU initiative that would prolong decision-making in companies and/or prevent change. Putting in place the right framework conditions is indispensable for environmental protection, job creation and economic growth to go hand in hand.



I. Introduction

1. The purpose of this position paper is to present the views of European business on the labour market implications resulting from the transition towards a low-carbon economy and to set out the prerequisites that need to be fulfilled for European companies to be able to play their part in the transition.
2. Climate change policies cannot be disconnected from policies in other areas such as employment, social policy or education and training since action in these areas will be essential to successfully manage the climate change challenge.

II. Taking on the challenge and making the most of opportunities

3. BUSINESSEUROPE supports the EU's efforts to fight climate change but calls on the EU to stick to the 20% emission reduction target at this point in time. No further unilateral commitments should be made until it is certain that other major economies have also made substantial and binding commitments.
4. The cost of reducing CO₂ emissions is significant. In spite of this, European businesses continue to remain committed to combat climate change. In fact, companies have already taken on this challenge and reduced emissions considerably. Between 1990 and 2005, greenhouse gas emissions by the energy-producing sector decreased by 11% whereas the manufacturing sector decreased theirs by 13%. The revised Emission Trading Scheme stipulates that these sectors will have to reduce their emissions by a further 21% between 2005 and 2020.
5. However, European industry and energy sectors account for only 6.5% of global emissions. That means Europe cannot provide the solution alone. Solutions must include all sectors and regions in the world through multilateral agreements. Prices for products are set on an international market. This means that if costs for production are significantly higher in Europe than elsewhere due to stricter low-carbon policies, carbon leakage will follow and competition will be distorted. A global level playing-field is key not only for climate protection to be efficient, but also for the consequences for economic development and employment in Europe.
6. The competitiveness of European companies and achievement of reduction targets are dependent on a broadened focus away from "green jobs" to "the greening of jobs". The green jobs concept constitutes a fundamental problem in the current approach to tackling climate change. There simply is no useful way to categorise what is a green job and what is not. Whichever definition you adopt, it will exclude jobs in "traditional" sectors that serve an important function in the complex process of moving to a low-carbon economy. Conversely, it would be misleading to qualify all jobs in the environment industry (e.g. waste management) as "new jobs".
7. A pigeonhole approach to combating climate change, based on an artificial separation of "green sectors" and "brown sectors", is doomed to fail.
8. This is due to the interdependence between sectors that policy-makers seem to neglect. The so called "green sectors" could facilitate adoption of new innovative



- technologies in the production processes of conventional industries whereas conventional industries enable “green sectors” to develop environment-friendly products and services. For instance, installing triple glazing in buildings will increase energy efficiency in the long run, but it requires an extra energy investment from traditional industries initially when the glass is produced. Likewise, there would be no solar panels, wind turbines, railway tracks, etc., without the steel and cement produced by traditional industries.
9. Energy policies aiming to tackle climate change will have an impact on all sectors. For instance, changes in the price of electricity will affect the overall price structure of the economy, which in turn will affect demand, production and imports. As a consequence, policy-makers need to be careful to make informed decisions when setting rules and regulations in this area. Transparent and predictable policies that take into account the long-term investment cycles of companies and strive to treat companies in different sectors on equal terms are required. It is of particular importance to clarify implementation measures of the Emission Trading Scheme directive aimed at protecting EU competitiveness and preventing carbon leakage.
 10. A long-lasting positive employment effect is also dependent on growth being market-driven. Governments picking winners is a risky business that could lead to lock-in effects for technologies and unnecessary costs for reducing greenhouse gas emissions.
 11. European companies have the potential to make use of first-mover/fast-follower advantages to increase their competitiveness. There is already a significant knowledge base in renewable energies, recycling, etc. However, competitors are moving fast. Europe faces a severe risk of lagging behind as the USA, South Korea and Japan invest a significantly higher share of their GDP in R&D than the EU27¹. This calls for a strengthening of public sector investments in research, development and demonstration of new technologies, as well as increased quality of education in science, technology, engineering and mathematics (STEM).
 12. The share of GDP spent on tertiary education in 2006 by South Korea, the USA and Canada is 208%, 241% and 225% higher than that of the EU². Funding of R&D on the one hand and education on the other must not be set against each other. Both investments are crucial and should consequently be reinforced, at EU *and* member state level. The EU2020 strategy has renewed the target of achieving a 3% of GDP investment in R&D. Committing to higher R&D investment levels is a welcome step to provide conditions to tackle the climate change challenge.
 13. Notwithstanding this, development of innovative products and services that could increase energy efficiency require *more* than ambitious R&D targets. In order to bring discoveries to the market and into large-scale deployment, the right conditions for innovation, entrepreneurship and production are just as important. Well-functioning labour markets that enable Europe to grasp the full benefits from research, innovation and knowledge are necessary.

¹ EU27: 1.9%, South Korea: 3.21%, USA: 2.7%, Japan: 3.4% of GDP, Commission 2006

² DG Research (data: Eurostat, OECD)



III. Labour market implications

A. Employment

14. The attempts that have been made to quantify net employment impacts of climate change *policies* in the EU show different results due to the nature and coverage of the estimates. But employment impacts are clearly dependent on a number of prerequisites linked to the functioning of our labour markets such as the adaptability of companies and workers.
15. Flexible labour markets are key to reduce adjustment costs related to the transition to an eco-efficient economy as they facilitate a smooth adaptation to new markets and new productions processes. Flexible contractual arrangements help companies cope with fluctuations in demand and stimulate hiring.
16. Flexibility in the labour market must be accompanied by efficient public employment services; active labour market policies; and, last but not least, training aimed at increasing workers' employability.
17. Implementing flexicurity policies, including lifelong learning, is thus urgent. Many workers already find themselves with an education and training background that does not correspond to employers' needs. Failing to implement the flexicurity principles would therefore impose a high cost on the individual who has lost his or her job, since unemployment spells risks of becoming longer or even permanent.
18. The effects on employment of climate change *as such* are significant for several sectors, like tourism, agriculture and financial services, for instance insurance. Both positive and negative direct effects on employment exist in Europe. Among the regions that will be hit hard by climate change effects, several are currently rural areas with an important agricultural sector, supported by subsidies. The policy consequence of this should not be to make such regions even more dependent on subsidies. Instead, conditions need to be created for a business climate that stimulates growth in a broad range of sectors.

B. Skills

19. The transition towards a low-carbon economy major restructuring will lead to job destruction and creation but above all, it will mean that new skills will be required within one and the same occupation. The mechanics at car manufacturing companies will still be building engines. But the engines will be different, as will the skills demanded for the job. Energy conservation programmes in the chemical and pharmaceutical industries will have consequences for how employees carry out their work, ranging from how technicians handle laboratory emissions to how employees in factories cope with new production processes. Yet another example is the service sector, where new skills will be necessary for the sale, use and installation of new technologies, etc. The greening of jobs clearly affects the skills required among a broad range of sectors, not just the so-called "green sectors".



20. The growth of the renewable energy sector risks being seriously hampered due to skill shortages. For instance, in the UK, a 2008 CBI survey shows that half of the companies in the renewable energy sector have difficulties in finding project managers, specialist technicians such as qualified electrical engineers (40% of firms reporting a difficulty) and turbine technicians. Germany's renewable energy companies are suffering from a shortage of qualified employees, especially in knowledge intensive positions. This is worrisome since the markets for low-carbon energy products are expected to be worth at least \$ 500 billion per year by 2050³.
21. The STEM skill shortages that Europe currently faces strike traditional industries as well, thereby putting the overall greening of the economy at stake. A 2009 survey carried out by CBI showed that 62% of employers were having difficulties in recruiting individuals with STEM skills. Furthermore, to capitalise on possible opportunities in the transition towards an eco-efficient economy, improved business skills will also be required. The consequences of this lack of key competencies are reduced competitiveness due to higher costs for companies, lower productivity and a slower technological development towards a low-carbon economy. All of which eventually have an impact on employment growth.
22. It should be underlined that changing demand for skills will apply to all levels and not only to highly skilled workers. Projections show that the demand for mid-level qualifications will increase significantly over the course of 2010-2020. Mid-level job profiles will therefore also be highly affected by the consequences of climate change. To illustrate this, an example from the construction sector could be used. In the construction of an energy-efficient building, all participating levels need knowledge on eco-friendly construction, from architects and planners to electricians, masons and plumbers. This points to the importance of vocational education and training and possibilities to undertake lifelong learning at all levels, to ensure adaptability throughout an entire career.
23. Technological development to mitigate and abate the effects of climate change is a long-term and continuous process and future skill requirements are difficult to predict. Therefore, close collaboration between higher education institutions and business would help increase the responsiveness of the educational system to the changing labour market needs. For the individual who has invested several years in an education, such collaboration means more chances of getting a skilled job, i.e. return on investment. However, the cooperation between business and education providers needs to start at an even earlier level. Smooth collaboration is necessary also with schools to encourage pupils to develop STEM profiles.
24. Equipping the work force with the right skills is important also for workers' abilities to contribute in the innovation process. Employees will play a key role as companies anticipate change and translate knowledge into solutions for climate protection. In other words, Europe's attractiveness for key competencies and creative minds is crucial if we are to be part of the brain circulation rather than facing a future brain drain.

³ Stern, 2006



C. The role of social partners

25. Social partners have an important role to play in dealing with the labour market implications associated with climate change policies. In their social dialogue, they should promote sustainable economic development by facilitating restructuring and adaptation to change.
26. European social partners are dealing with labour market implications of climate change policies, at sectoral level as well as cross-industry level. In their Social Dialogue Work Programme 2009-2010, BUSINESSEUROPE, ETUC, CEEP and UEAPME committed “to develop a joint approach to the social and employment aspects and consequences of climate change policies, with a view to maximising opportunities and minimising negative effects, and to identifying possible joint actions.” Consequently, social partners have undertaken a study entitled “Employment impact of climate change policies”.

IV. Conclusion

27. Europe has the potential to position its economy to take advantage of the economic shift globally. We are not only facing major challenges but also potential opportunities related to competitiveness and employment effects.
28. Our success will depend on whether policy-makers are prepared to take bold and firm action to put the proper framework conditions in place. We cannot do without a work force with skills matching real labour market demands, if the greening of the economy is to be achieved. Furthermore, for opportunities to materialise, modern labour markets that are flexible and adaptive to change are a vital component.
29. No consensus has been reached on the definition of “green jobs”, but more importantly, the distinction between “green” and “brown” jobs threatens to counteract the objectives of climate change policies rather than reaching them.
30. There is an interconnection between sectors that policy-makers seem to neglect. Conventional industries enable green sectors to develop environmentally friendly products whereas “green sectors” facilitate adoption of new innovative technologies in the production processes of conventional industries. An overall greening of jobs, cutting across conventional as well as emerging sectors, has the potential of making a real impact in climate change abatement.
