

**UNICE-COWI REPORT ON COMPETITIVENESS AND EU CLIMATE CHANGE**  
**(31.10.2004)**  
**KEY RESULTS AND POLICY IMPLICATIONS**

1. Introduction

The March 2005 European summit in Brussels will assess the actions taken with a view to achieving the economic, social and environmental objectives set out in the Lisbon strategy 2000-2010. It will also hold a discussion on development of the EU's long-term climate change strategy, and on possible post-2012 targets, on the basis of cost-benefit analyses currently in preparation at the Commission.

A stakeholder consultation on EU climate strategy post-2012 is being organised by the Commission on 22 November 2004.

Against this background, UNICE is today publishing a study commissioned from COWI consultants (Copenhagen) analysing the economic impact of the EU's policy to implement Kyoto (the full UNICE-COWI report can be obtained from UNICE's website: <http://www.unice.org>).

This study shows that EU competitiveness will be affected by the EU's planned policy.

UNICE hopes that this contribution will help to steer EU climate policy in a direction that preserves the chances of achieving the long-term economic, social and environmental objectives encompassed by the concept of sustainable development.

2. Main results of COWI analyses

COWI consultancy have used the GTAP – ECAT model (Global Trade Analysis Project – European Carbon Allowance Trading), which derives from international research efforts (see [www.gtap.org](http://www.gtap.org)). This multi-region, multi-sector General Equilibrium model makes it possible to analyse effects on international trade in both CO<sub>2</sub> allowances and goods.

The following table shows the impact on GDP of current EU climate change policy, as calculated on the basis of assumptions shown:

| <i>Figures in italics give the GDP variation in 2010 resulting from EU climate policy 1997-2010</i> | Technological adaptation in response to the "carbon" constraint                                      |   |
|---|--|---|
|   | <u>"Simplified" scenario:</u><br>unconstrained long-term technological adaptation of all sectors (a) | <u>"Cautious" scenario:</u><br>sluggish short-term adaptation of the electricity sector (a) |
| Moderate economic growth 1997 - 2010 (UE 25)  | <i>-0.36%</i>  | <i>-0.48%</i>   |
| High economic growth 1997 – 2010 (UE 25)  | <i>-0.6%</i>   | <i>-0.8%</i>  |

(a) Two assumptions concerning technological progress are considered by COWI:

- "long-term adaptation case": this assumption considers an automatic, generalised and smooth adaptation of the technology stock over the long term, in response to carbon constraints.
- "sluggish short-term adaptation": this assumption takes account of the fact that, in sectors such as electricity, technological adaptation generally occurs in a non-linear way, through projects with long lead times. This assumption also considers that changes in the pattern of cross border electricity trade with countries outside EU are very sluggish. This assumption, which seems closer to reality than the long-term adaptation case, generates slower and more limited technological adaptation over 1997- 2010.

These estimates are much higher than those produced by the European Commission, which believes that EU implementation of Kyoto could result in a GDP loss of less than 0.1 %.

Under the "simplified" scenario, European exports of energy-intensive goods to non-EU destinations fall by 3.8% in 2010; under the "cautious" scenario, this fall is 5.1%.

The report shows that in addition to the negative competitiveness impacts, pursuit of climate change policies as currently organised by a limited number of countries under the Kyoto Protocol will not result in satisfactory attainment of the stated environmental objectives. The relocation of production brought about by EU current policy reduces the activities of European business to the benefit of companies located outside the EU, in general operating at a (much) lower level of energy-efficiency and in many cases even without absolute emission constraints. This generates additional CO<sub>2</sub> emissions at global level. In the "simplified" scenario, the fact that the EU and a number of other countries implement unilaterally the Kyoto Protocol generates additional CO<sub>2</sub> emissions (known as "carbon leakage") which represent 17.8% of the total emissions reductions in industrialised countries (implementing their Kyoto objectives) in 2010. In the "cautious" scenario, the carbon leakage rate is 21%.

The estimated allowances prices are 17.0 Euros/tCO<sub>2</sub> in the "simplified" scenario and 26.5 Euro/tCO<sub>2</sub> in the "cautious" scenario. In the simulations this implies a significant increase in electricity prices.

3. Five essential avenues to remedy the EU's competitive handicap

a) Action needed to establish genuinely global cooperation

Consulted by the European Commission on the international cooperation regime that should succeed the Kyoto arrangements in 2013, UNICE underlined<sup>1</sup>:

- the need for all countries and all regions to play their part in international cooperation, and in particular the USA, China and India;
- the need to consider innovative methodologies for setting emission reduction objectives – setting quantitative reduction objectives (in absolute terms) for countries, as was done in Kyoto, seems poorly suited to establishment of wide global cooperation including the USA;
- its opposition to setting unilateral EU objectives for the period 2013-2020.

b) Ensure more effective deployment of the JI and CDM mechanisms

The Kyoto Protocol contains provisions which generate flexibility by allowing EU states and companies to achieve their greenhouse gas (GHG) emission commitments by carrying out GHG-saving projects in other industrialised countries (JI projects – Joint Implementation) or in developing countries (CDM projects – Clean Development Mechanism). These mechanisms are a valuable means of enhancing the dissemination of environmentally efficient technologies.

However, bureaucratic procedures and restrictive interpretations place a strong brake on the launch of such projects. This reduces valuable possibilities for the EU to reduce the cost of implementing the Kyoto Protocol.

c) Ensure full access to the emissions quotas assigned to Russia and Eastern European countries, which they will not completely use

In the Kyoto Protocol Russia and its former satellite countries were given emission rights up to 2012 based on an outdated industrial infrastructure (with poor energy efficiency). Taking account of the energy modernisation under way in these countries, their future emissions are likely to remain well below the ceilings decided in Kyoto for 2012. The Kyoto Protocol allows governments or companies to purchase available emission quotas from third Parties such as the Russian Federation. It is essential that this possibility is not hampered by political initiatives in the EU and/or its Member States inspired by the idea that such purchases represent “hot air” and are not actual emission reductions.

d) Need to adapt some internal EU instruments and policies

The European emissions trading scheme will be launched on 1 January 2005, with a first phase extending until the end of 2007. It is essential to remedy the handicaps in terms of international competitiveness which result from unilateral implementation of this scheme by Europe. This should be done in the context of organisation of phase II of the scheme (2008-2012) at the latest.

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<sup>1</sup> Action on Climate Change Post 2012 (ACCP) – UNICE's contribution to the consultation organised by the European Commission, 31 October 2004-www.unice.org

e) Critical importance of speeding up development and dissemination of new technologies

A substantial strengthening of R&D programmes at national and European level is necessary. In particular, the "Climate protection" action line in the 7th EU RTD framework programme needs to be reinforced. Initiatives should also be taken to develop transatlantic technological cooperation.

4. Conclusion

Climate change is a global problem which calls for global cooperation. This is necessary from both environmental and economic perspectives. European industry has made a major contribution to combating climate change and it is highly mobilised on this objective. However, appropriate framework conditions are necessary so that this contribution can be pursued on a sustainable basis.

In making strategic decisions concerning climate change, the Commission and Member States must take into account that if all major trading partners are not operating under the same rules developed at the international level, then this is tantamount to imposing a substantial penalty on companies in those countries which are applying these rules, harming their competitiveness and hence their capacity to contribute to social and environmental progress.

It follows that, if the USA do not ratify the Kyoto Protocol, then a new model for international cooperation will be required, designed to ensure tangible participation of all countries including the USA, developing and threshold countries, notably China and India. The EU must prepare to play an active role in the debate on this new model, and contribute to its development.

Given the current international context, a revised EU climate change strategy needs to be designed to avoid any negative impacts on EU industries' competitiveness which result from both the non-ratification of Kyoto by the USA and from major economic areas that do not have emission reduction commitments. Such a strategy must also promote climate protection.

To facilitate this re-design, a review of all relevant EU policies concerning the period 2008-2012 must be launched, aimed at assessing their impact on European competitiveness in the above case. The contribution made by UNICE and COWI to this assessment exercise should be duly taken into account.

The 2005 Spring European Council is set to hold a major, in-depth discussion on EU climate change strategy as based on the Kyoto targets.

European industries are willing to participate in discussions on cost-efficient approaches that combat climate change and preserve competitiveness and lead to full global cooperation.

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