

# CLIMATE PROTECTION

European business  
recommendations for EU  
and international policies



As President of UNICE, representing more than 20 million companies established in 33 European countries, I want to underline the importance of a well coordinated international effort to combat climate change. In Europe, companies are highly mobilised towards controlling emissions of greenhouse gases. From 1990 to 2002,

process industries managed to reduce their emissions by 22%. It is essential to launch a process for definition of an effective strategy for international cooperation for post-2012. This must be the purpose and the result of the Montreal 11th meeting of the UNFCCC (United Nations Framework Convention on Climate Change) in December 2005.

Ernest-Antoine Seillière

## KEY ISSUES FOR NEGOTIATIONS ON THE INTERNATIONAL POST-2012 STRATEGY

### CLIMATE CHANGE IS A GLOBAL ISSUE

To succeed in combating climate change, it is necessary to develop a truly comprehensive global strategy, in which every nation and region plays its part based on the principle of common but differentiated responsibilities.

Climate change cannot be solved uniquely from an environmental perspective. Climate change must be seen in the context of other urgent priorities – energy supply, economic development, quality of life and job creation, both in the near and longer terms. Any future strategy must marry environmental, social and economic realities and must include support for the most vulnerable countries and people; as well as measures for adaptation to climate change and for underpinning development.

### THE CRITICAL ROLE OF INNOVATION AND ITS DISSEMINATION

Technological development and deployment will be essential in achieving greenhouse gas reductions without compromising on better living standards in both developing and developed countries. Incentives are needed to promote research, its conversion into practical innovations and their wide dissemination. These will often call for adapting or renewing basic infrastructures of society, requiring substantial investments, which will only be undertaken in a context of sustained economic growth.

It is essential to establish efficient enabling frameworks to promote the transfer of technology between developed and developing countries, while protecting intellectual property rights.

### ENVIRONMENTAL OBJECTIVES OF CLIMATE POLICIES

Future environmental objectives of climate policies should be based on sound scientific analyses and realistic expectations regarding the pace of technological innovation and deployment. Such objectives should also acknowledge current limitations and gaps in climate science and risk assessment.

### LONG-TERM INTERNATIONAL GOALS FOR EMISSIONS CONTROL

Long-term international goals for emissions control may improve the ability of business to shape investment programmes and direct R&D efforts. They should be defined considering the essential need to engage all parties in climate protection efforts. However, such international goals will only be effective if they are connected to a credible, flexible and realistic long-term framework for policy decisions that can be adjusted based on growing experience and knowledge. Room for adjustment will be necessary to take account of scientific and technical progress, the time needed for industrialisation and wide-scale dissemination of technological innovations in a way that is compatible

with environmental, social and economic objectives, and major public policy decisions in nations and international fora. Strictly binding short-, medium- or long-term targets are not the best way to encourage technological breakthroughs based on long-term R&D. Therefore, any short- and medium-term goals should be based on realistic assessments and be open to appropriate revision when new technological breakthroughs become widely available.

### THE NEED FOR EFFICIENT MARKET-BASED INSTRUMENTS

If well designed and properly implemented, market-based mechanisms such as emissions trading, the Clean Development Mechanism (CDM) and Joint Implementation (JI) can be key tools for addressing the challenges of climate change, providing financial incentives to transfer carbon-efficient technologies and lowering compliance costs. The efficiency, workability

and transparency of such mechanisms must be improved to maximise their impact and to avoid unreasonable distortions in competition between companies and nations. Artificial ceilings on the use of credits from JI/CDM must not be introduced as these would reduce the effectiveness of the mechanisms and potentially limit the development of projects.

### THE EU EMISSIONS TRADING SCHEME (ETS)

The EU ETS has been implemented unevenly and development of the necessary administrative procedures has been slow. It is therefore difficult to judge its effectiveness or its value as a model for future schemes. The emerging large increases in electricity prices and their potential impacts on international competitiveness are a major concern for energy-intensive industries. A full analysis of the impacts of the ETS and appropriate improvements is critically needed.

## EXAMPLES OF EU INDUSTRY CONTRIBUTIONS TO PROTECT THE CLIMATE

### MEASURING EMISSIONS

Esso Nederland wrote a comprehensive monitoring protocol to measure CO<sub>2</sub> and nitrogen oxide emissions. In 2004, the Dutch government recommended that this protocol be promoted as a best practice in The Netherlands and across the EU.

### ELECTRICITY PRODUCTION BASED ON HYDROGEN

BP has begun the engineering and design of the first industrial-scale hydrogen-fuelled power station with carbon capture and storage, planned in the area of Aberdeen (Scotland). Natural gas from North Sea will be converted to hydrogen and CO<sub>2</sub>. The hydrogen will fuel a power station while the CO<sub>2</sub> will be injected for enhanced oil recovery and long-term geological storage. The project will create 350 MW (megawatts) of carbon-free electricity. It will permanently store 1.3 million tonnes of CO<sub>2</sub>.

### CO<sub>2</sub> NEUTRAL BIOFUELS

Renewable fuels are largely CO<sub>2</sub>-neutral. Since 2002, DaimlerChrysler and Volkswagen have participated in a project whereby waste wood is transformed into a very clean fuel known as "SunDiesel". This biogenic diesel fuel is produced by Choren Industries (Germany) from wood chips made of shredded waste wood and thinnings from forests. To date, promising tests conducted with SunDiesel have totalled more than 30,000 km.

### AUTOMOBILE INDUSTRY

European car manufacturers (ACEA) committed to reduce the average CO<sub>2</sub> emissions of their new passenger car fleet from 185 g CO<sub>2</sub>/km in 1995 to 140 g CO<sub>2</sub>/km in 2008. This commitment should reduce annual CO<sub>2</sub> emissions by 75 to 80 million tonnes in 2010, according to the European Commission.

## CIRCULATOR PUMPS

These pumps used in central heating systems are responsible for up to 15% of the electricity consumption of an average European household. Generalised use of high efficiency pumps by 2020 in the EU could save 17.6 million tonnes of CO<sub>2</sub> per year.

## NORNED PROJECT

In 2007, a 580-km high-voltage direct current (HVDC) link will connect the power grids of Norway and The Netherlands, and promote the use of renewable energy sources. This advanced technology solution, invented and supplied by ABB, will cut transmission losses by half. Through this submarine link (with a capacity of 700 MW), The Netherlands will import "green" hydropower from Norway during the day when demand is high, and export excess capacity from its thermal power stations during the night when demand is low. Expected reduction in CO<sub>2</sub> emissions : almost 1.7 million tonnes a year.

## PAPER INDUSTRY

The Dutch paper and pulp industry has launched the "Energy transition project for the paper chain". Its target is the reduction of the amount of energy in the final product by half in 2020, through initiatives improving sustainability, competitiveness, process and product innovation, and cooperation in the chain.

## PRODUCTION OF MELAMINE

A novel technology introduced by DSM of The Netherlands in 2004 offers a reduction of CO<sub>2</sub> emissions by about 70% compared with the previous best technology. This is the result of 15 years of R&D work.

## CDM PROJECT IN NIGERIA

Natural gas venting and flaring in Nigeria in 2000 was about 17.2 billion m<sup>3</sup> (19% of all flaring and venting in the world). The CO<sub>2</sub> and the uncombusted methane generated in this way contribute to climate change. A CDM project submitted by a consortium led by Nigeria Agip Oil Cy (subsidiary of Eni), will ensure that the residual associated gas produced in the oil fields (that is traditionally burnt using flares) is used to produce electricity in an advanced power plant (480 MW) which will add 12% to the generation capacity of Nigeria. Planned emission reductions : about 1.6 million tonnes of CO<sub>2</sub> equivalent per year.

## GLASS INDUSTRY

Since 1970, the quantity of CO<sub>2</sub> emitted per tonne of glass produced in Europe has decreased by 60%. Advanced low-energy (low-E) double glazing developed by European industry shows a very favourable eco-balance. Manufacturing of one square metre of low-E double glazing generates 25 kg of CO<sub>2</sub>. On the other hand, replacing one square metre of single glazing by low-E double glazing saves 91 kg CO<sub>2</sub> per year.

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