

# Climate change, the new industrial policies and ways out of the crisis







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# 1. Editorial

**T**he negotiations in Copenhagen took place in the very particular context of an economic and financial crisis which caused unprecedented unemployment in Europe, and demonstrated the dominance of the financial system over the real economy.

Against such a background, Europe's trade unions believed it necessary to link the issues of climate change to those around employment and industrial policies, and to put the question of climate change within a wider debate. The time has come to put forward a radical economic and industrial transformation involving a vision and objectives for the medium to long term, and considering that climate change is exacerbating the inequalities within and between the various regions of the world.

The European Trade Union Confederation (ETUC) believes that facing up to the challenge of sustainable development is essential. The future of the planet cannot be seen in isolation from an attempt to address social inequality. Controlling our environment is an objective that is part of the trade unions' social project. It is tied in with the need for social cohesion in Europe and the wider world.

This is why the ETUC has signed up to the Declaration by the International Trade Union Confederation (ITUC), drafted for the Copenhagen Conference. The ETUC supports this declaration, and it was also anxious to explore the concept of just transition at European level, in particular in the framing of industrial policies relying on the transformation of industrial sectors and consequently of service activities.



The ETUC sees just transition as being potentially a genuine opportunity. Work still needs to be done on how to implement its basic principles within the framework of a European strategy: dialogue between government, industry and trade unions, and other interest groups; green and decent jobs; investments in low-carbon technologies, and new green qualifications.

The European strategy to be implemented needs to be a strategy of development and not merely a strategy of negotiation.

Europe needs to persuade States, including developing and emerging countries, of the importance of social and environmental transparency, of the importance of control instruments, of regulation, of standards and of sanctions in escaping the principle of the lowest common social and environmental denominator and getting instead into a virtuous circle.

To ensure its own growth, and avoid becoming weakened at global level, Europe has to develop an internal strategy involving improvements to European governance, the adoption of legislation on climate change, and the ambition of a European recovery, specifically through R&D and through the implementation of stronger Community industrial policies which must make it possible to move beyond the intra-European divisions and the perverse effects of the dictates of short-term profitability on industrial investments.

Europe has to commit itself to green growth, which will help to maintain and create quality jobs and social progress, across the whole economy, because all jobs are affected. To this end, Europe will need to think about workers and about their representatives as key players with whom they will have to engage in a dialogue and negotiations.

In response to these challenges, the ETUC has framed a structured trade union strategy by initiating the draft study 'Climate disturbances, new industrial policies and ways out of the crisis', in collaboration with its European federations and with the support of the European Commission.

The study, of which the results were presented in London on 5 and 6 October 2009, and which the reader will find summarised in this brochure, emphasises that the policies and measures in a low-carbon economy affect all sectors of activities, and that the social dimension needs to be very firmly embedded in

European policies linked to the development of industrial strategies, so as to respond to the aspirations of workers while equally combating inequalities. To achieve this, we need to support coordinated global initiatives on research and development, to share scientific knowledge, and develop and disseminate green technologies at global level by tapping into technology transfer policies and balanced rules governing intellectual property, which take account of those needs as well as of the social and economic objectives of those funding R&D.

The ETUC drew on the results of the study to frame and adopt a resolution in October 2009, likewise reproduced in this brochure and widely disseminated and used by the ETUC as a proposed trade union strategy at the Copenhagen Conference in December 2009.

Lastly, the brochure also includes the analysis drawn up by the ETUC following the failure of the Copenhagen negotiations, and sets out some potential avenues for the future, as well as position on the financing and management of climate policies.

From the point of view of the trade union movement, action on climate change can and must seek to become an engine for sustainable growth and social progress. Such action must marry the battle against climate change with the battle against poverty and social inequalities. Timidity on this score is no longer possible. Things have come to a head and urgent action is required, including via the European Union's strategy by 2020, which is currently under discussion. The ETUC believes that the European Union's 2020 strategy needs to be revised and made to include the priority actions set out in this brochure in order to contribute to the transformation of our societies and peace.

**Joël Decaillon**

Deputy General Secretary, ETUC



# 2. Summary of study results



The complete report is available to be downloaded from the ETUC web site at [www.etuc.org/a/6787](http://www.etuc.org/a/6787)

## 2.1. The challenges: the definition of new industrial policies

Reducing CO<sub>2</sub> emissions is a major challenge for industry in general.

The low-carbon transition policies that will cover the period 2010-2030 are anticipation policies whose climate bounds are the commitments made by States to reduce greenhouse gas (GHG) emissions. Their pace and general implementing conditions will be updated by the **Copenhagen** summit.

For the sectors of the first and second industrial revolutions, coal and steel on the one hand, electricity and the automotive sector on the other, all parameters of the production and use of goods produced will be called into question by the introduction of a low carbon requirement synonymous with energy efficiency and savings.

Situated at the heart of the organisation of developed industrial societies, energy- and carbon-intensive sectors are also intensive in capital and quali-

fied manpower. As such they are the living result of decades of regulatory, trade and taxation policies and measures which have ensured the industrial development of the European countries and shaped their economic and social organisation.

*The combination of the three fundamental parameters of a society's economy, namely its modes of production, consumption and social organisation, requires the implementation of new industrial policies that bring coherent change to the market and regulations, the public and private sectors, taxation and finance, the social and technological spheres, as well as to the trade unions and the political dimensions.*

### Convergent multi-sectoral industrial policies

This study aims to encompass the full importance of the definition of these new industrial policies but it is beyond its scope to address all the sectors concerned or all the sectors selected at the same level. It thus opts for a dual level review:

- ▶ the first applies to the industries directly affected by low-carbon policies through new regulations or emissions trading on the carbon market;





- ▶ the second applies to the coal sector in three countries - Germany, Poland and the United Kingdom – which have very different experiences and policies.

The conclusions are specific to each sector and each country. However, certain converging principles emerge and model the new parameters of industrial policies adapted to the realities of the 21<sup>st</sup> century.

Adapting to these new realities means first and foremost defining new industrial policies within the framework of a globalised and financial economy. These industrial policies, while remaining compatible with market mechanisms, make it possible to develop prospects, consistency and guarantees in order to:

- ▶ finance over the medium and long term the low-carbon technological and social transition by giving industry a stable regulatory, fiscal and legal framework in its strategic orientations;
- ▶ organise a social transition which, over and above its occupational dimension, implies a profound change in wage relations and of which the new flexibility demanded of qualified labour is a pivotal evolution;
- ▶ protect the low-carbon transition from the abusive practices of the financialisation of globalised European economies, to prevent speculation of all kinds from denaturing the objectives by the means.

*These are the conditions that must be met to stop the de-industrialisation of the European economies, which was recently worsened by the crisis of financial origin that struck late in 2008.*

## How to control the risks of rapid de-industrialisation through carbon leakage?

Policies to combat climate change come within a general context of a relative weakening of European industries that is the result of a number of factors, among which:

- ▶ the industrial growth of the emerging countries, which are becoming new competitors on the global market, first and foremost China;
- ▶ policies of relocation to countries with low costs, which are being implemented by many European transnational companies;
- ▶ the effects of the financial crisis of late 2008, whose economic and social

consequences demonstrated the high degree of financialisation of the industrial economy of developed countries.

Under these circumstances, deregulated lowcarbon policies contain the recognised danger of accelerating the de-industrialisation of the European economies.

To cope with this threat, the new industrial policies must therefore simultaneously include a defensive dimension aimed at combating carbon leakage and an offensive dimension aimed at organising the widespread use of clean and lowcarbon technologies.

Applying regulations in Europe and consequently adding to the energy costs of production through policies to reduce CO<sub>2</sub> emissions, without equivalent measures being taken in other countries of the world, would be tantamount to emitting more CO<sub>2</sub> for the same production. The result would be the opposite of the objective sought.

This is particularly true given that, in many sectors, European industry ranks in the lower end of carbon emitters. Under these circumstances, substituting European production with extra-European production would in most cases result in higher pollution. This is the case for steel, chemicals, cement, clay products for construction and petroleum refineries.

Exposure to carbon leakage is thus the fate of any energy-intensive industry that is globalised by virtue of its trade.

The period that will open in 2013, with the auctioning of 100% of emissions from electricity production and the gradual auctioning of 30% to 80% of emissions from industrial sectors potentially exposed to carbon leakage, therefore brings great uncertainty. The European Commission's latest proposals confirmed the danger of carbon leakage in the absence of an international agreement.

Guarding against the risks of carbon leakage without penalising the competitiveness of European producers can take one of two forms, either the grant of free emissions allowances or border compensation measures.

The distribution of free emissions allowances is equivalent to granting subsidies, which would very quickly disrupt the play of competition between sectors and between domestic producers and importers.





On the contrary, border compensation measures would place importers and European producers on the same footing in terms of their carbon situation, in conformity with WTO recommendations.

This would nevertheless require three conditions:

- ▶ the definition of carbon standards by sector so as to determine the best available technology mixes;
- ▶ the creation of a European standardisation agency that is above the parties, charged with enforcing these standards;
- ▶ the promotion and organisation of carbon traceability for all goods traded worldwide.

*Under these circumstances, comparisons of technologies or of production modes, known as benchmarks, may be the subject of economic, social and environmental definitions that combine competitiveness, energy efficiency and decent work.*

## Low-carbon research and development and the market

Initially, the emissions rights market was supposed to finance investments by operators to reduce their CO<sub>2</sub> emissions. Neither the first nor the second period achieved this result for a number of reasons, the most important being the over-allocation of quotas, but also because the mechanism simply does not work.

The auctioning of emissions allowances planned from 2013 responds to other objectives. It is mainly considered by States as a new source of revenue. The bulk of the amounts collected will not be earmarked on a priority basis for financing the fight against climate change: the constraint of allocating these amounts to low-carbon investments would only concern 20% of these revenues. The auctioning of CO<sub>2</sub> emissions thus becomes a source of revenue for the States, on bases that include possibilities for speculation, which strongly resembles a tax reform without being labelled as such.

The determination of a minimum and maximum carbon price by period would make it possible to introduce visibility and anticipation possibilities capable of limiting speculation while safeguarding States' revenues, notably for giving incentive for and participating in low-carbon investments, with priority for R&D.

To date, Ulcos, in the steel sector, is the only technology platform allowing an evaluation of the method that we will call "pre-competitive cooperation at European level" and of its initial results after several years of operation. Developed under a public-private partnership, Ulcos gives industrial firms in the sector a base from which they can embark on the first stages of low-carbon technology transitions needed in the coming years.

However, not all carbon-emitting industries have pooled the research and development resources needed for their low-carbon transformation, sometimes for reasons of competition between several European industrial firms, sometimes due to a lack of means and incentives on the part of States.

As a result, the research currently under way in many sectors is proving clearly insufficient. That said, an initiative similar to Ulcos was launched recently in coal technologies with development of the ZEP platform. Taken as a whole, the situation is still far from sufficient, however.

How can the carbon market become an efficient and competitive tool to break this R&D stalemate, which is quickly becoming a handicap for European industry?

The solution of linking the allocation of emissions allowances to research and development expenditure on low-carbon technologies could prove effective in a competitive framework.

## Capture and storage: a multisectoral and territorial transitional technology

The capture, transport and storage of CO<sub>2</sub> have emerged today as essential technologies for many sectors with a view to achieving CO<sub>2</sub> emissions reduction targets in the coming years. This is the case for chemicals, refining, steel and cement production, as well as electricity generated from fossil fuel.

As transitional technologies preceding the introduction of green technologies, they imply the construction of new regional infrastructures shared by different industries. Indeed, capture will vary depending on the specific characteristics of each industry and remains in the competitive sphere, but transport involves





different industries based on the same territory and storage will come under the responsibility of the public authorities, at least as long as it has no known deadline.

This raises the question of the tie-up between private means exposed to competition and public means.

These strategic technologies for carbon capture, transport and storage are complementary to the development of renewable energy sources.

## A just social transition for an industrial Europe

Low-carbon policy has not to date been the cause of restructuring measures that eliminated jobs in 2009 or in earlier years. On the other hand, in the future, the prospect of a low-carbon economy will without a doubt contribute to the destabilisation of the workforce employed in carbon-intensive sectors.

By the same token, low-carbon investment policies will model employment of the future and will result in losses of existing jobs.

The employment issue must be studied from a dual point of view:

- ▶ the first is the transition from existing jobs and their characteristics to tomorrow's jobs;
- ▶ the second is the creation of jobs related to cross-cutting policies in the fields of energy (renewables), energy efficiency (energy-efficient products and materials in buildings: insulation materials, condensing boilers, heat pumps, thermal regulators), industrial processes (speed variators, cogeneration), or transport (electric vehicles) and smart grids.

A just social transition is at once indispensable to maintaining a competitive industry in Europe, possible through anticipation of the occupational conversion of the many workers concerned, and manageable if the framework in which it occurs:

- ▶ examines the questions of quality and location of the jobs concerned: while the employment balance is positive in certain sectors like renewable energy,

hybrid engines and new infrastructures, it cannot be taken for granted that these jobs will be created in Europe and that they will be qualified.

- ▶ defines the frameworks for essential social and societal dialogue: the domination of the trans-national logic applied by firms requires the building of counter-powers that make it possible to democratise strategic choices for employment and for tomorrow's societies. Attaining this goal will require the creation of new institutions that allow debate and enable the different players to express their views and interests so as to build consensus where activity and industrial employment are integrated into regional life;
- ▶ defines the place of the public authorities, the State and cities and regions in financing the transitions in terms of employment and infrastructures.

## The essential requirement of developing renewable energy

Among the different sources of renewable energy, four can be considered the most promising in terms of application and development potential: wind energy (particularly offshore), hydroelectric power, solar energy (thermal solar energy, photovoltaic solar energy and concentration of solar energy) and bioenergy.

Europe was a world leader in the field of wind energy with its production of turbines and installations long before the United States and China started producing large-scale installations in 2008. Offshore wind farm projects are creating real interest and could reach capacity of 8.7 GW off Europe's shores by 2015.

The investment costs per gigawatt (GW) needed for the construction of wind farms, hydroelectric plants or solar power stations until 2020 may seem high but they do not exceed the costs of conventional power stations. Cost estimates for the construction of new nuclear power plants can be even higher, from €4.2 to €7.6 billion per GW. The German electricity companies RWE and Vattenfall estimate the total investments needed for their carbon capture and storage (CCS) demonstration installations at between €1 and €2 billion, for capacity of 450 or 500 MW.

All forecasts show growth in jobs related to renewable energy in the coming decades. The corollary of the high level of investments needed to increase





renewable energy capacities will be more jobs in engineering, machinery and equipment, and other sectors.

## Review of sectors

### The electricity sector: the question of occupational transitions

While different technologies can be used for electricity supply for buildings and transport, this is not yet the case for industrial applications that require the supply of high intensity electrical current. This is the principal reason why attaining Europe's targets for reducing greenhouse gas (GHG) emissions by 2030 necessarily involves implementation of carbon capture and storage technology (CCS). Working from the scenarios studied (DG TREN as a baseline, DG Environment for NSAT), we introduced a deviation called "Syndex NSAT" that combines job creations in renewable energy with the dissemination by 2030 of CCS technologies.

#### Evolution of FTE jobs

*FTE average/year 2005-2030 (thousands)*

	2000-2005	Base line	NSAT	NSAT Syndex
Solids	5	85	39	13
Solids CCS	0	0	28	79
Oil	4	11	3	3
Nuclear	4	58	63	63
Gas	67	54	64	64
RES	147	191	452	452
<b>Total</b>	<b>227</b>	<b>399</b>	<b>650</b>	<b>676</b>

The impact of the financial crisis of late 2008 is very likely to delay the necessary investments.

The creation of jobs from investments in electricity production will come mainly from two sources:

- ▶ direct and indirect jobs in renewable energy and renovations of thermal power stations, of which more than 50% will have to be renovated. The number of such jobs is estimated at an annual average of more than 750,000 full-time equivalents (FTE) during the period 2005 to 2030, the vast majority of which in metallurgy, along with jobs in transport and distribution;
- ▶ jobs in the equipment sector, which would be similar in number.

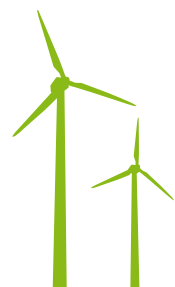
Conversely, in thermal power stations (coal and heavy fuel oil), job losses would amount to around 21,000 FTE (14,000 for coal and 7,000 for heavy fuel oil), a majority of which concentrated in European Union countries, where coal dominates in electricity generation. The introduction of CCS makes it possible to limit such losses.

The key question for jobs in electricity generation is that of the shrinking of employment in coal-fired power plants, which cannot be offset by the development of jobs in renewable energy, since the latter correspond to different occupations with different status: a wind farm operator does not practice the same activity as a thermal power station operator.

Maintenance occupations have become essential today for increasing the rate of capacity utilisation and make an important contribution to optimising production costs.

In parallel with the net creation of jobs related to investments in electricity production, it is also important to highlight the job losses in coal sectors to 2030, i.e. a decline of between 74,000 (business as usual) and 87,000 mining jobs (NSAT alternative linked to measures under the European Union's climate-energy package) for the period 2005-2030, added to which are job losses in the production of mining equipment. It can therefore be estimated that job losses in coal mining in Europe in the scenario linked to the European climate-energy package will add up to between 77,000 and 87,000 and that they partly reflect the impact of ongoing restructuring measures in the coal industry (77 000) and partly the effect of "decarbonisation" of electricity generation (10 000).

Irrespective of the question of the evolution of existing thermal power stations, the question of the European Union's long-term policy for security of supply is raised.





## Steel: a technological and occupational transition

Depending on the source consulted, the steel sector accounts for 6 to 7% of global CO<sub>2</sub> emissions, a figure that climbs to 10% if emissions from the mining and transport of raw materials are included.

The steel industry accounts for 30% of CO<sub>2</sub> emissions from all industries. China is the leading emitter, both because it is the world's leading steel producer and because its steel industry is 90% based on casting, which uses a wide range of technologies from the most modern to the most non-industrial type.

Up until 2020, the European steel industry will be protected by the allocation of free emissions allowances, like all the sectors identified by the European Commission as potential victims of carbon leakage, i.e. which must cope with international competition and are extremely energy-intensive.

On liquid steel integrated production sites, for production capacity of 200 million tonnes of steel, the number of jobs threatened in the short term by carbon leakage is estimated at 175,000. These job losses will be limited to between 24,000 and 45,000 for reasons other than climate adaptation to 2020

The European programme, Ultra-low CO<sub>2</sub> Steelmaking (UlcOs), the flagship project of the European Steel Technology Platform (ESTEP), is a one-of-a-kind initiative in Europe. Among the 80 technologies studied under this programme, research has offered the possibility of implementing a technology compatible with the emissions reduction requirements imposed on producers: the recycling of gases from blast furnaces matched with carbon capture and storage would allow a reduction of at least 50% of greenhouse gas emissions per tonne of steel produced. With the technology of recycling blast furnace gases, we can expect an increase in employment resulting directly from this transformation in all plants using the casting process.

According to the hypothesis developed by Syndex, the European steel industry:

- ▶ would balance its trade balance for steel and would therefore increase its production capacities to keep pace with consumption;
- ▶ would benefit from a combined increase in electric steel and cast steel.

In qualitative terms, several developments must be taken into account:

- ▶ the evolution towards an industry of blast furnace functioning processes will involve major changes in ways of working: where the collective know-how of teams used to be essential to the smooth working of the tool, the new technology will impose much more binding consistency, based on advanced and computerised measurement and control tools;
- ▶ the intensification of the functioning of the tool towards more energy efficiency, accuracy and diligence in functioning standards will also have the effect of imposing further tension on tools and materials, which will certainly have consequences for workers' safety.

## Refining

In the coming years, European refining will have to take up two major challenges:

- ▶ processing increasingly heavy crude oils while conforming to ever more demanding specifications (products and environmental);
- ▶ coping with increased consumption of diesel fuel in a context of overall decrease in demand, which cuts into margins.

These requirements will place serious constraints on the refining tool, which will be reflected in an increase in energy consumption and therefore of CO<sub>2</sub> emissions.

Refining falls into the category of industries exposed to the risk of carbon leakage (since it is already very open to imports), which means it will continue to receive free allowances until 2018. However, the introduction of benchmarks will promote the most energy-efficient units at the expense of the least efficient.

There will therefore be a risk for tools in which investments to improve energy efficiency are not made, particularly because this constraint comes on top of the intrinsic weaknesses of certain units: low margins, lack of local outlets, energy performance (disadvantageous in case of an increase in crude prices), absence of petrochemical synergy, etc.



The main short-term lever lies in the widespread use of cogeneration installations, thanks to which efficiency gains of 20% to 30% can be obtained. Unfortunately, the conditions do not exist for such development: high costs, owners reluctant to make long-term investments in units that could shut down in the meantime and difficulty securing financing for projects of this type.

The conditions for the development of cogeneration include:

- ▶ the need for a long-term view of CO<sub>2</sub> prices;
- ▶ guarantees from the public authorities and regulators on feed-in tariffs for the electricity produced;
- ▶ financial support for the construction of units.

In the longer term, CCS represents the greatest potential for reducing CO<sub>2</sub> emissions from refining. However, its deployment is complex due to the specific characteristics of this industry. According to CONCAWE (association for environment, health and safety in refining), CCS is not expected to be viable economically until 2025 at the earliest. In our view, this timeframe could be shortened with the introduction of ambitious policies to speed up and increase the number of pilot and demonstration projects.

In terms of employment, we estimate that there is a risk of shutdown of around 10 small refineries by 2020, resulting in the short term from the impact of the crisis on demand and margins, and in the medium term from measures to reduce vehicle consumption. These shutdowns could lead to the loss of 6,000 jobs (direct and indirect).

The risks of job losses for the 2020-2030 period are difficult to estimate and will depend on the pace of introduction of electric vehicles (hybrid or all-electric) and competition from regions of the globe near Europe (Middle East and North Africa).

Positive effects on employment are to be expected from the development of cogeneration and CCS: everything will depend on the rate and volume of investments. These will be mainly jobs in equipment manufacturers and parapatroleum firms, rather than in refineries.

## Chemicals

The major risk in the chemicals sector is that enterprises may not meet the transformation challenges they are facing because the European chemicals industry is undergoing a profound transformation process under the effects of globalisation and financialisation. The current crisis is further clouding the issue. The risks of a restructuring of the European chemical tool is all the greater because it is old and because the investment and innovation strategies of the players operating on the old continent have not addressed these challenges (investments are tending to decline and are lower than investments in the sector in North America and Asia). The pressure on employment across Europe remains steady (-2% annually during the period 1997-2007).

Regulation through market forces alone cannot be effective in the field of chemicals considering:

- ▶ the diversity of technological, competitive and social situations in this industry;
- ▶ the multiple asymmetries that characterise this industry:
- ▶ different carbon intensity depending on the country and region (which raises the challenge of managing transitions and taking on the associated costs at geographical level),
- ▶ sectors or sub-sectors characterised by a defensive dynamic for some and offensive for others: sensitivity and exposure to the challenges of evolving towards a low-carbon economy are not the same (explaining the challenge of managing transitions and sharing the costs among the chemical branches),
- ▶ large groups and SMEs (raising the challenge of managing transitions and sharing the costs among different actors and in the territories).

The complexity and low intelligibility of the chemicals industry makes it all the more necessary to carry out impact studies and/or more reliable evaluations of the activity and employment challenges connected with the switchover to a low-carbon economy. The benchmarking tool (which is highly developed in the chemicals industry on technical, financial and social criteria) should be mobilised in a new and offensive way to promote social dialogue.

Available evaluations (McKinsey, AIE, etc.) show that the European chemicals industry has considerable potential to reduce GHG emissions, particularly through ongoing improvement of energy efficiency and greater use of renewable





raw materials. This potential will require significant investments but in exchange offers advantages that should be highlighted (savings in operating costs, notably through ongoing efforts to reduce energy intensity, develop new markets and new economic models built on alternative resources that do not compete with agriculture, etc.) and whose emergence would gain by being promoted if significant savings can be identified throughout the product life cycle.

The development of low-carbon products and technologies in the European chemicals industry represents an opportunity to give fresh impetus to strong sectoral cooperation (in R&D and vocational training) in a sectoral approach which, under the effect of the fragmentation and financialisation of this industry, has become severely distended.

The emergence of new competences required by a sustainable chemicals industry and management of the transition from the traditional to a sustainable chemicals industry are major challenges from the point of view of employment. The setting up of a structural fund organising and/or providing support for this dual movement could constitute a political response, provided there is a definition of the conditions for implementation, aid and support that are sufficiently offensive and verifiable (notably by the social partners and trade unions).

## Glass

The glass industry is an intermediary industry (80% of its production is earmarked for other industries in Europe) whose products can be likened to commodities. It is a much diversified industry in terms of both products and technologies. However, 75% of the volumes manufactured by this industry (at European level) concern the sectors of hollow glass (50%) and flat glass (22-25%). It is an industry organised primarily on regional bases, both for flat glass and for the bulk of production of hollow glass. For some segments which are smaller in terms of volume, the relevant economic area is more global (for example, hollow glass for consumer products, fibreglass, etc). Others are undergoing a transition from a regional economy to a global economy, including glass tableware items (domestic glass) and flat glass for the automotive industry (original glass and especially replacement glass), impacted by problems of migration of the automotive industrial system.

The glass industry generates 1% of GHG emissions from European industry although it accounts for 4% of industrial sites and 196,000 jobs. It is an energy-intensive industry that causes atmospheric pollution: these are its two major challenges. This industry has potential to improve its energy and environment performances, exploitation of which could be slowed by the strategies of players forming oligopolies in each of its sub-sectors (flat glass, hollow glass, fibreglass, tableware, etc.). The activism of these operators has led to recognition of a risk of carbon leakage for the glass industry, which will enable it to obtain an allocation of free quotas after 2012 on the basis of benchmarking. The switchover to a low-carbon economy represents an important opportunity for the glass industry, moreover, particularly in construction ("intelligent" glass from the standpoint of insulation and energy savings) and automotive applications. The glass industry is not one of the major industrial polluters; however glass melting is a high-temperature process and a source of atmospheric pollution. The main components of this pollution are those that result from combustion, notably NO<sub>x</sub>, SO<sub>x</sub> and particulates. The glass industry's manufacturing processes are also energy-intensive.

The glass industry's investment strategies give precedence to developing production capacities outside of mature zones and the streamlining of capacities in mature zones. The objectives focus more on accessing new markets than on relocating, since glass markets tend to be organised on regional bases. This is the case for most flat glass and hollow glass, which together make up nearly three quarters of volumes produced in Europe. Exposure to extra-European competition is high in a few sub-segments (tableware, reinforcement fibres, mass market glass packaging, etc.).

The crisis has not modified the basic strategic tendencies. Climate change is more of an opportunity than a threat for the glass industry. Indeed, several areas of application are impacted positively by the challenge of the migration towards a lowcarbon economy. Flat glass is most concerned. Its applications in construction are particularly sought after in the drive to improve energy performances (low-e glass, insulation, etc.). This also concerns automotive applications (lightening and reduction of consumption), as well as speciality applications (photovoltaic glass, solar panels). The fibreglass sector is also concerned in a complementary way through the development of certain energy applications (wind farms).





Sources of jobs appear to exist not so much in the production of flat glass (a capital-intensive sector representing around 16,000 people in Europe) as in processing (around 100,000), organised in SMIs, sometimes as subsidiaries of large glass groups, especially in low-energy construction applications.

## Cement

In 2006, the cement industry in the European Union's 27 Member States emitted an average of 0.8 tonnes of CO<sub>2</sub> per tonne of cement. This figure is said to account for between 2.5% and 3% of the Union's total CO<sub>2</sub> emissions. This industry employs more or less 45.000 workers.

Its level of emissions places the European cement industry among the sectors most directly threatened by the carbon constraint if such a constraint applies unequally to European producers and importers.

To exit the alternative of "insufficient effort to reduce emissions" versus "relocation" a border compensation mechanism for countries without carbon constraints would be effective at preserving employment while providing support for emissions reduction.

Recommendations to optimise alternatives to business as usual (BAU) up to 2020 and 2030 and for a European industrial policy for cement can include:

- ▶ pursuit of the efforts under way (reduction in clinker factor, greater use of alternative fuels, transition to dry process);
- ▶ stimulation of R&D and European demonstration and deployment projects for new processes (clinker-free cements, new binders, eco-cements, etc.), by giving fresh impetus to cooperation between players in the sector;
- ▶ involvement of the cement sector in European R&D and demonstration deployment projects for carbon capture and storage technologies carried out by other sectors (producers of fossil electricity, steel, refineries, etc.);
- ▶ mobilisation of all players in the decisionmaking chain (industry, administration and political leaders) to establish standards for cement composition, standards whose absence hinders the development of new processes;
- ▶ introduction of border compensation measures for imports not subject to carbon constraints before concluding a global sectoral agreement (negotiation of which was launched by an initiative of the World Business Council for Sustainable Development – WBCSD);

- ▶ development of sectoral schemes and tools for forward-looking management of the jobs and competences dedicated to new processes and products;
- ▶ appropriate training programmes for managers and workers of cement groups, but also for those of client sector enterprises (BPW), as well as individuals.

## Aluminium

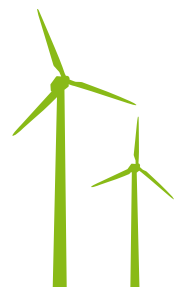
Like all non-ferrous metals, aluminium is not one of the sectors concerned by the first phase of application of the Kyoto Protocol, at least not directly. The first reason is the limited level of GHG emissions from non-ferrous metals, since CO<sub>2</sub> emissions from this sector are estimated at 3% of the total emitted by industry, i.e. a bit more than 0.5% of global emissions. Altogether, the production of a tonne of aluminium emits 5.2 t of CO<sub>2</sub> equivalent. As from 2013, the inclusion of direct emissions of CO<sub>2</sub> and fluorinated gases puts European aluminium in a new position.

Indirectly, aluminium producers – which are among producers of energy-intensive non-ferrous metals – are also concerned by the passing on of the price of CO<sub>2</sub> by electricity producers.

Higher electricity prices, due partly to the price of CO<sub>2</sub>, could lead to a substantial change in the European sector's competitive position due to the simultaneous occurrence of two phenomena:

- ▶ more than half the long-term supply contracts for low-price electricity for aluminium producers will be renegotiated in the next five years;
- ▶ electricity producers will have to acquire 100% of their emissions allowances from auctioning as from 2013, according to the European rules adopted in 2008, a decision justified by the possibility of passing on the price of CO<sub>2</sub> in their sale price.

The situation in 2009 nevertheless turns out to be hard to compare with the progression of recent years, since numerous production stoppages lowered the global production of aluminium by 15% to 20%, making the less competitive producers more vulnerable, particularly those that have access to the least favourable energy mix. Hydraulic energy offers a decisive competitive advantage in this industry given its permanence.







There are around 35,000 workers in aluminium production, from bauxite to aluminium, and 275,000 in processing in Europe.

In our opinion, two dimensions should be favoured to safeguard an industry threatened with a major loss of competitiveness. Such a loss would have major negative consequences on employment in Europe. It is vital to:

- ▶ solve the issue of access to electricity at a competitive price through access to dedicated sources, since liberalisation measures have not succeeded in guaranteeing electricity at competitive prices;
- ▶ encourage technical solutions that reduce emissions of CO<sub>2</sub> and fluorinated gases through the development of precompetitive research: the example of the inert anode developed in certain research projects can prove promising in the short term.

The main handicap, even though it does not seem decisive, nevertheless resides in the weakness of European producers compared to the world's giants.

## Automobiles

The automotive industry is one of Europe's most important industrial sectors and constitutes one of the pillars of European industrial production. The European automotive industry represents 31.8% of global automotive production.

According to the European Automobile Manufacturers' Association (ACEA), the automotive and up-channel industries employ around 12 million people in Europe, around 2.3 million of whom directly in the production of vehicles in 2007 and 10 million in the upstream industry.

The objective of reducing CO<sub>2</sub> emissions applied to the automotive industry concerns two different aspects: the reduction of CO<sub>2</sub> emitted by cars and commercial vehicles in circulation and the reduction of CO<sub>2</sub> emissions resulting from the vehicle production process.

In 2008, new vehicles emitted an average of 154 g of CO<sub>2</sub> per km. In 1995, only 3% of new vehicles emitted less than 140 g of CO<sub>2</sub> per km, compared with 42% today.

The European Parliament and Council of Ministers adopted new regulations on emissions from passenger cars in December 2008. More than 65% of new vehicles registered will produce an average of only 130 g of CO<sub>2</sub> per km up to 2012. By 2015, all new vehicles registered will have to meet this requirement, through the development of effective technologies.

The automotive industry was seriously affected by the financial crisis and recession that struck in the second half of 2008. Most experts are counting on the presence of a growing number of hybrid vehicles on the market in the coming years.

Consequently, projections for the evolution of CO<sub>2</sub> emissions by 2030 show considerable differences. This results mainly from the different hypotheses as to the proportion of hybrid and electric vehicles in the total number of vehicles in circulation and the total number of vehicles.

Based on the different projections by the sector, three hypotheses have been developed for 2015, 2020, 2025 and 2030. Each corresponds to a degree of penetration of hybrid and electric vehicles: the low hypothesis, the median hypothesis and the high hypothesis.<sup>1</sup>

The employment impact on the engine assembly sector would remain limited in Europe up to 2030, in the case of a low penetration rate of all-electric vehicles and due to the hybrid transition, which guarantees a still important presence of conventional engines in tomorrow's vehicles.

Up to 2030, losses linked to the replacement of conventional engines by electric engines would represent, under the three hypotheses, from 17,000 to 34,000 jobs. Employment gains could make up for these losses, representing 80,000 to 160,000 jobs depending on the hypothesis<sup>1</sup>.

The compromise found with the automotive industry on the directive on emissions from vans (130 g of CO<sub>2</sub> per km) will have to be revised without delay to achieve the target of 95 g of CO<sub>2</sub> per km recommended by the Commission. Making combustion engines cleaner will require a greater effort, as recom-

<sup>1</sup> NB: The calculated impact is limited, to date, to vehicle production (direct jobs including parts manufacturers) and does not include the potential impact upstream or downstream from the sector.





mended by the T&E network at European level, with a target of 80 g of CO<sub>2</sub> per km by 2020 and 60 g by 2025.

Attaining this target implies a strengthening of technology platforms at European level, but also of clusters between industries and research and development centres.

Europe is lagging behind the Japanese on hybridisation and has to redouble its effort if it hopes to keep pace with powerful players like China in the field of electric vehicles. Without a powerful industrial player in batteries, the employment expected from the electric vehicle sector may not materialise.

### Mineral insulation materials

Employment in the tile and brick industry adds up to 84,300 people in around 3,000 companies.

All these materials suffered from the crisis starting in the second half of 2008 and went into recession at different rates:

- ▶ in response to the abrupt collapse of volume of sales, most players in the insulating materials sector reduced their production capacities by shutting down plants (Saint-Gobain in Ireland, Ursa in Hungary, etc.) and/or reducing employment (precarious and internal);
- ▶ the decline in the tile and brick industry accelerated from the second half of 2008.

According to Eurima<sup>2</sup>, the employment impact, including in the building sector, is between 220,000 (application of the European Energy Performance of Buildings Directive, EPBD) and 550,000 jobs (with an extended EPB Directive).

The potential for job creation can be estimated to fall within a range of 2.5% to 20%, i.e. between 1,000 and 8,000 jobs for the mineral insulation industry, between EPBD and EPBD extended to all types of housing.

In the third phase of the ETS mechanism, baked clay products will not be enti-

<sup>2</sup> European Insulation Manufacturers' Association – i.e. manufacturers of glass wool and mineral wool – which represents two thirds of production of thermal insulation in Europe.

led to so-called carbon leakage protection, unlike concrete products and mineral insulation.

### Capital goods

In the European Union of 27, the capital goods or machinery and equipment sector included around 164,000 enterprises and employed 3.7 million people in 2006.

With added value estimated at 50%, machinery and equipment are still a key sector on lead markets for energy efficiency and environmental technologies. The share of services is increasing significantly. The hypotheses that underpin employment potential are as follows:

- ▶ Germany (Europe's leading producer in the sector of mechanical and industrial engineering) will keep its 35% average share of added value until 2020. This coefficient will on the whole apply to the European Union of 27;
- ▶ Labour productivity will increase by 3% per annum (average for all sectors);
- ▶ There will be no major relocations to countries outside the 27 European Union states. The share of imports in upstream investments in both sectors will remain stable.

According to the McKinsey studies, the lead energy efficiency market, namely the market for innovative solutions for energy consumption or transformation, will expand by 13% per annum between 2008 and 2020. It presents a wide range of growth zones and development possibilities for enterprises in the sectors of machinery and electrical equipment.

As long as the European Union's share in global production remains constant and the conditions for greater labour productivity and regional integration exist, it will be possible to create 670,000 jobs up to 2020 in the two market segments studied, of which two thirds in the sector of energy production technologies and equipment.

The growth resulting from this intensive and intersectoral division of labour will represent a potential of 250,000 additional jobs, with the support of upstream investments by this sector and the services sector, i.e. potential for more than 900,000 additional jobs.





## 2.2. The impact of a European clean coal sector on the three pillars of sustainable development

Technologies for sustainable use of coal must be based on an optimal mix of clean coal technologies – advanced integrated gasification combined cycle (advanced IGCC), combined cycle and ultra-critical production, cogeneration (CHP) from coal – and carbon capture and storage (CCS) technologies. Implementing these technologies will make it possible to eliminate between 90% and 100% of CO<sub>2</sub> emissions from fossil fuel power stations. This supposes a considerable increase in research funding in order to set up pilot projects at national and European level.

In the area of CCS, the European Union has the aim of setting up and operating from 10 to 12 installations by 2015, at an additional cost of between €7 billion and €12 billion (€9.3 billion according to Eurelectric). A short list of projects will be published in mid-2010.

In parallel, there is a need to design and implement instruments and mechanisms for forward-looking management of the labour and competences dedicated to the coal technology value chain linked to CCS in order to facilitate social and occupational transition. Indeed, the ETP-ZEP platform does not take account of social and occupational issues.

The European ZEP technology platform integrating low-carbon technologies for coal-fired electricity production will have to involve trade union organisations in its governance system and take account of their evaluations and proposals in the work of its task forces.

The positive repercussions for European industry are related mainly to investments for the renewal of coal-fired power plants to include CCS. The Syndex scenario, a variation on the NSAT scenario, incorporates hypotheses for deployment of the ZEP platform, i.e. 80 GW by 2030 (24 for NSAT). This scenario counts

on 79,000 FTE jobs per annum until 2030 for construction (in the equipment industry). For the operation of power plants and maintenance of CCS installations, the positive impact could amount to 13,000 per annum in 2020 up to 31,000 in 2030 (+ 6,000 to 15,000 for maintenance).

Jobs in the equipment industry would total 834,000 by 2030 with distribution depending on qualifications and the stages of the value chain: production, engineering and R&D, installation equipment and civil engineering.

Clean coal and CCS technologies will be very innovative and capital-intensive. Their implementation will necessitate new qualifications and competences at an unequalled level. To illustrate the scale of the phenomenon, it has been said that, for the United Kingdom, this will create a new industry of the size of the petroleum industry. This explains the need to launch major training programmes on an unequalled scale, to organise the improvement in qualifications, failing which deployment will not be possible and could largely slip through the hands of the European industry.

The three country studies, namely the examples of Germany, Poland and the United Kingdom, reveal that the large-scale development of CCS projects must meet certain requirements at local level in terms of regulations, financing and social acceptance.

### Coal in Poland, major energy and social challenges

Coal is a key raw material for the Polish economy. Some 95% of electrical energy is produced from coal and the country's large reserves ensure its energy security and relatively low electricity prices.

Poland's energy sector is nevertheless confronted with sizeable challenges in the short term: meeting the obligations resulting from the climate-energy package, in particular for greenhouse gas emissions, and the need to modernise generating equipment that is more than 60% obsolete and to further develop this equipment to meet growing electricity demand.

The energy strategy developed by Poland in response to these challenges gives more than its due to the development of renewable energy and to





nuclear energy. More than half the electricity produced in Poland by 2030 is still expected to be based on coal, but there are no plans for the large-scale development of clean coal technologies (IGCC, CCS, Oxyfuel). On the contrary, primarily for reasons of cost, the different electricity producers are expected to rely on supercritical- and ultracritical-circle combustion technologies.

The productivity of the Polish energy sector is not high compared to standards in force in western European countries so these different changes are expected to lead to a decline of nearly 50% in the need for manpower in power stations (around 14,000 people in 2030, compared with more than 30,000 today). In parallel, the decline in the share of coal in the energy balance and the increased efficiency of future coal-fired power plants are expected to have negative repercussions on demand for hard coal and lignite and therefore to result in a decrease in employment in these sectors.

A large part of such job losses could be offset by those created in the sectors involved in the renewal of generating equipment (equipment manufacturers, assembly, civil engineering and others). According to estimates, this process could lead to the creation of around 26,000 jobs per annum up to 2030. However, it is difficult to determine the percentage of these jobs that will be created in Poland and the percentage in other countries. That will depend to a large extent on the Polish government's capacity to develop a clear industrial policy capable of fostering the development of local employment in the sectors concerned.

## United Kingdom: a clean coal industrial policy

Coal constitutes a key element of the country's energy security. The United Kingdom's objective as a coal producer is to stabilise production and guarantee the security of imports.

The very ambitious objectives in terms of reduction of CO<sub>2</sub> emissions (totally carbon-free electricity production by 2030) and the organisation of a regulatory framework offer interesting prospects for CCS.

The United Kingdom, which has substantial advantages for the deployment of CCS technologies - an industry present throughout the value chain and consid-

erable storage potential -, has the ambition of assuming leadership in these technologies and thus generating new jobs. To do so, the government plans to build four commercial-size (300 MW) demonstrators, while the industry and trade unions propose to develop such projects at all power stations.

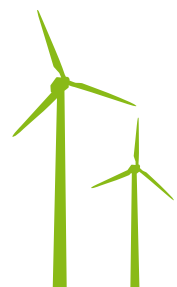
In terms of jobs, the construction of the four demonstrators is expected to create 8,000 jobs a year from 2010 to 2020, and the general introduction of CCS in all generating equipment between 2020 and 2030 could create 17,000 jobs a year.

Taking account of the possibilities created for export by British companies, the government estimates the employment potential to 2030 at between 30,000 and 60,000 jobs a year.

The construction of a CO<sub>2</sub> transport network and the management of storage (to treat emissions from coal-fired power plants but also from other industrial emitters) could create 20,000 jobs a year for ten years in construction and 10,000 jobs a year in operations management.

However, given the many challenges that Britain's energy sector must meet, companies could have difficulty recruiting or training the necessary staff. In that case, all the technologies would be faced with a downturn in activity, which could have harmful consequences for the development of CCS, making it less attractive than nuclear or renewable energy. Shortfalls are anticipated in areas like science, technology, engineering and mathematics (STEM), but could also emerge for management positions, which help facilitate the change of culture and functioning of enterprises.

The main difficulty for implementation of CCS can be ascribed to the negative image of coal exploitation (an old and polluting mode of electricity production), which creates opposition to new constructions. Most players (electricity producers, equipment manufacturers, public authorities) recognise that a real effort needs to be made to inform the public about these technologies.





## Germany: The Clean Coal technology and its perspectives on employment

The public debate on Clean Coal-technologies in Germany (CCS) started in 2003/2004. Only recently in 2008, Vattenfall launched the first CCS-pilot plant "Schwarze Pumpe" in the eastern parts of Germany, with a capacity of 30 MW. Other CCS-demonstration projects are in the planning phase and will be operated by RWE or Vattenfall.

The situation of the German energy sector is characterized by almost 47% of energy production in 2007 based on energy generation from lignite and hard coal<sup>3</sup> and the decision on the nuclear phase out. Therefore all scenarios for the future energy mix in Germany include a significant role of coal in energy generation. The German government and the large energy providers see CCS as a transitional technology to effectively reduce CO<sub>2</sub> emissions in coal fired power plants in order to make the use of coal "cleaner".

The study's main objective was to evaluate employment effects resulting from a deployment of CCS-technologies in Germany. According to two different scenarios for Germany developed by Prognos, the net employment effect for a fast introduction of CCS is expected to be positive with an increase of either 76.000 employees in scenario 1 or 102.000 employees in scenario 2 for Germany.

The German government, trade unions and the industry generally favour a rapid introduction of CCS, while the general public is only vaguely informed about this technology. The German trade unions IG Metal, IG BCE and ver.di commonly support research and development on CCS in Germany and consider CCS as solution to make coal "cleaner". At the same time they assume that CCS may prevent the relocation of energy-intensive industries from the production site Germany and forecast a potential positive employment effect resulting from the introduction of this technology.

The current debate on CCS has gained public attention with the reading of the draft act on capture, transport and permanent storage of carbon dioxide, which was initially scheduled for June 19, 2009 in the German Bundestag.

<sup>3</sup> German energy mix in 2007: 23,8 % lignite, 22,8 % hard coal, 22,1 % nuclear, 12 % natural gas, 14 % renewable energies and 6.3 % other energy sources.

However, due to a public rejection of CO<sub>2</sub> storage and increasing pressure on political stakeholders in Schleswig-Holstein, the act was postponed and will be discussed by the new German government from October 2009 onwards.

However, the introduction of Clean Coal technologies in Germany faces three main uncertainties. The first problem is the lack of public acceptance of Clean Coal. Second is the unclear political framework in Germany which can only be removed by a new attempt for legislation. Third problem are the costs linked to the introduction of CCS. So far there is no clear decision on who will finance the additional costs. In Germany Costs for constructing new CCS power plants or retrofitting existing power plants are estimated at 500 million € to 2 billion € per facility. In addition, costs for capture, transport and storage of CO<sub>2</sub> are estimated after a learning phase to 30 €/t CO<sub>2</sub> for lignite and 48 €/t CO<sub>2</sub> for hard coal, in new CCS-power plants. All of these costs indicate that rising costs for electricity generation are possible which might have an effect on electricity tariffs in Germany.

The new ETS is an important factor of influence. CCS might be economically feasible, if costs for CO<sub>2</sub> certificates correspond to costs for capture, transport and storage of CO<sub>2</sub>.





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*The complete report is available to be downloaded from the ETUC web site at [www.etuc.org/a/6787](http://www.etuc.org/a/6787)*



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# 3. Resolution on the climate change, the new industrial policies and the ways out of the crisis [ October 2009 ]



## Introduction

Weeks before the negotiations in Copenhagen on an international framework on the mitigation of greenhouse gas emissions, we find ourselves confronted by three mutually-impacting crises: the ecological crisis as a result of climate change and the loss of biodiversity, the global economic crisis and price instability in raw materials and food. From a trade union perspective, this situation presents itself as one of the largest and most difficult challenges of recent decades.

The European Trade Union Confederation, with its European federations, supports the International Trade Union Confederation' Statement to Copenhagen and also its proposals for G-20 meetings in Pittsburgh and gets involved with it, as an international framework and example of multilateral trade union cooperation and of just transition.

The economic and social crisis has intensified the need to find rapid solutions for agriculture and fisheries as well as rapid industrial solutions to the climate and raw materials crises. Unless addressed, there is a danger of the prolongation and worsening of the economic, social and environmental crises. There is therefore an urgent need to launch the 3rd European industrial revolution based on

green (see definition <http://www.ilo.org/integration/themes/greenjobs/lang-en/index.htm>), sustainable and decent jobs and massive investment in low carbon technologies to generate sustainable employment for this and future generations. This is the general background against which the Copenhagen negotiations will be held.

## A system mired in crisis and waiting for strong regulations

The European economy is suffering a severe recession brought about by the combined effects of the banking crisis, and the loss of millions of jobs and increase of precarious jobs.

The model of unleashed financial capitalism has collapsed. The world economy is in the deepest recession since the 1930's with the risk to turn into a longer lasting depression associated with high levels of unemployment and major economies falling into a deflationary trap. The causes of the crisis are complex and root in a number of policy failures over the last 30 years, dominated by the neo-liberal dogma. Blind faith in the efficiency and the ensuing deregulation of





financial markets made the emergence of a shadow banking system possible that promised to squeeze double-digit returns out of an economic system that is normally growing in the lower single-digit range. Similarly, the linkage between the trend towards deindustrialisation and shareholders' growing demand for quick returns on investments is a fact throughout the OECD area. Subsequent failure in micro-prudential supervision and risk management have been the result of the rapidly increasing number of complex structured investment instruments and other "products" of financial innovation which nobody could monitor.

In addition, the EU has still to address many of the industrial restructuring challenges facing new member states. New investment in low carbon technologies and skills must be accompanied by full consultation and negotiation between social partners, employers and trade unions.

All these points, which the crisis has thrown into sharp relief, have convinced the ETUC that the European Union must promote and implement fresh strategies consistent with a perception of its own economic, social and environmental development, shared internally and negotiated with the rest of the world. It must deliver on and strengthen the commitments it has adopted under the energy-climate package, as proposed in the ETUC resolution in March 2008 (see [www.etuc.org/a/4716](http://www.etuc.org/a/4716)). It must put people and the planet first, as stated by the Manifesto of the Spring Alliance ([www.springalliance.eu](http://www.springalliance.eu)). With millions of workers losing their jobs, this crisis will have dire consequences for working people and their families as well as for their trade unions. This comes after a period of staggering rises in inequality in Europe as wages remained subdued and top pay levels soared.

The ETUC demands:

- ▶ To find a way out of the current difficulties and head off any fresh crises, we have to improve European governance, support the ambition of the European recovery, specifically by implementing stronger Community policies in the industrial and research fields, assert a political determination to revise the systems and standards of production, reorient patterns of consumption and reduce social inequalities, redirect growth on to a path of sustainable development, and help to improve international economic and financial governance.

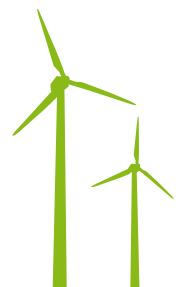
- ▶ This ambition derives notably from a European industrial policy based no longer on a cooperative intergovernmental footing, but on a dynamic of Community industrial coordination that will transcend intra-European divisions and the damaging effects of the demands for short-term profitability from industrial investments. This calls for a sweeping democratic ambition. The issue is not to argue the necessity for adapting to the consequences of a globalisation that is as inevitable as it is uncontrollable, but to map out the ways and means that will enable citizens and civil society organisations in the European Union to help to shape their outlines, and to organise and breathe life into the regulations governing them.

### **Binding the environmental and social dimensions: no resolution to environmental degradation without social justice**

As a confederation of trade unions on the scale of a major player in globalisation and development, it is our view that the Copenhagen negotiations must seek to bring about an ambitious process of transformation, in response to the urgent issue of reducing GHG (greenhouse gas) emissions, by calling into question how we produce our goods, how we consume them and how we cooperate internally and with the rest of the world. The ETUC pledges to act as a driving force, marrying together the economic, environmental and social dimensions of that change. For the union movement, strengthening the social dimension of climate policy is of primary importance. For the trade union movement such as ETUC sustainable employment is the supporting pillar of sustainability.

It is critical to review the economic decision-making, organisation and analysis, for the sake of taking account of the long term and marrying the environmental and social sides. With that in mind, the principle of the finite nature of our natural resources, and the idea of their running out, are now key economic constraints.

- ▶ Any kind of carbon transition will call for major efforts in R&D, innovation and technological deployments, and the rapid acquisition of new knowledge and skills by the workers, so as to enable technology transfers planned in the framework of cooperative agreements.







- ▶ In this field, it is necessary to reinforce cooperation between universities or research laboratories and businesses, but also between businesses and their subcontractors, or even between sometimes competing bodies, and to build new partnerships with local communities: these partnerships play a pivotal role in helping a sector to bounce back and prosper. The development of low carbon products and processes is an opportunity to develop strong cooperation sectorally (in R&D and demonstration as well as vocational education and training), in the context of the fragmentation of the industrial value-chain in Europe.

## A fair transition: a major challenge for every region in the world

Trade unions and their members are aware that a transition is never a simple process, and that the transition to an economy with low GHG emissions, allowing for ecologically responsible development in an approach seeking social justice represents a huge challenge for every region in the world.

Wherever transitions are badly handled, it is always the most vulnerable people who pay the highest price. Governments must pledge to promote a fair route for the transition between countries and within each country, for the path of social justice is also the path of effectiveness.

- ▶ To provide a stable framework on which governments and businesses can base their strategies and their investments, the agreement coming out of Copenhagen must express a broad and sustainable consensus on both the necessity for ambitious measures to reduce emissions and the determination to seek responsible cooperation agreements on the sectors where decisive breaks with technologies are required. This is the only way that the right to development can be combined with the controlled regulation of the changes affecting industry and employment.
- ▶ We reiterate our desire to see the negotiations result in an ambitious, binding and comprehensive international agreement to limit the global rise in temperatures to maximum 2°C, in accordance with the scenarios laid down by the IPCC, reducing at least 25%- 40% by developed countries by 2020 below 1990 levels, as stated in the 2008 ETUC resolution. Even if all coun-

tries bear some responsibility for reducing the effects of climate change, it is obvious that the greatest responsibility lies with the big industrialised nations when it comes to reducing global emissions of greenhouse gases and framing a global policy on climate issues.

## Developed and emerging economies: bearing common and differentiated responsibilities

We would, however, point to the fact that a simplistic dichotomy between the developed countries and the developing countries is not satisfactory. Each of these two categories is very heterogeneous, and every country has seen inequalities tending to be exacerbated in recent decades. Above all, such an argument fails to accommodate the big 'emerging' countries whose size gives them characteristics close to those of regions with a sizeable domestic market but where structural social inequalities continue to maintain features common to the developing countries (a large-scale move away from rural areas; informal, underground and/or Mafia-like economies; fragile human rights; corruption tolerated or even institutionalised, etc). Such countries have also a responsibility and growing capacities in the promotion of forms of sustainable development. In the context of the social dimension, the promotion of the ILO fundamental norms in the world must remain a common objective in order to reinforce the decent work.

We support the Bali Road Map's approach of:

- ▶ Measurable, reportable and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives, by all developed country Parties, while ensuring the comparability of efforts among them, taking into account differences in their national circumstances (in accordance with the IPCC scenarios, reductions of at least 25%-40% by developed countries by 2020 below 1990 levels);
- ▶ Nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner;





## Going green, tracking the carbon and avoiding carbon leakage

Climate change challenges the energy sector directly. The transformation from fossil-based energy production to an energy sector mainly based on renewable energies and energy efficiency is the crucial issue for achieving the carbon reduction aims. Municipal and decentralized structures will replace partly energy production from central plants. This is a crucial challenge for workers in this sector where green jobs can be created. Just transition must mitigate on the other hand the negative effects for employment.

Businesses, and in particular Multinational businesses likewise need to be strongly called to account on climate change questions. This requires reinforcing the social dimension in the design of clean developments projects. One of the key challenges is reducing uncompetitiveness in the short term as a result of the imposition of a domestic carbon price which has to take into account the period of transition towards a global emissions trading scheme. Climate change legislation must contain strong provisions dealing with international competitiveness to avoid “carbon leakage” in order to ensure that nations that lack a strong emissions programme do not receive an unfair advantage. As already stated in the ETUC resolution of March 2008<sup>1</sup>, such provisions should include:

- ▶ Social dialogue between government, industry and trade unions at national and EU levels
- ▶ Investment in low carbon production technologies and skills
- ▶ Free allocations of quotas to energy intensive industries exposed to international competition, provided that they are based on the best available technologies and are complementary and not alternative to a border compensa-

<sup>1</sup> The ETUC would reiterate that the directive must include an import adjustment system for the energy intensive industries that are exposed to international competition (whether a carbon tax or the inclusion of importers/exporters in the carbon market) with the possibility of activating such a mechanism from 2013 if the other industrialised countries do not regulate emissions in an equivalent way. The impact of carbon pricing on the electricity prices paid by those industries should also be taken into account. Free allocation is supported by the ETUC provided that: a) it is based on the best available technologies; b) it is complementary and not alternative to a border compensation mechanism. In the absence of a compensation mechanism, enterprises could sell their free quotas on the European carbon market and still relocate their production in countries where production costs are lower. The free allocation of quotas would amount to a subsidy to these industries without any guarantee on activity and jobs<sup>1</sup>. (ETUC Resolution March 2008)

tion mechanism to be activated from 2013 if global distortion of competition is not corrected. According to the conclusions of its common report with the UNEP (26 June 2009), this would be compatible with the WTO rules.

- ▶ This requires the introduction of genuine carbon traceability for those products covering every stage in their production and transport. The search for international sectoral agreements is the main solution, but carbon traceability constitutes a technical condition for their establishment and a powerful incentive for their implementation.
- ▶ The ability of many developing countries and some developed countries (as Mediterranean countries for example) to adapt to the effects of climate change may be boosted in various ways. It implies at the very least the sharing of the scientific knowledge allowing the developing countries to effectively measure and reduce their emissions. It is equally important to try to discourage company relocations and to demand that companies relocating should use the best available technologies. A balance must be found between the need to rapidly develop and disseminate green technologies globally for social and environmental reasons and the social and economic objectives of those financing the R&D. Technology transfer policies and intellectual property law should take this reality into account. It must be recognised that the emergence of these technologies will depend on coordinated global R&D initiatives.
- ▶ The drafting at global level of strategies to drive down carbon emissions is a necessity for example on carbon capture and storage. This is indeed unavoidable in the transitional phase, both in connection with the production of electricity, which will remain partly dependent upon coal and gas, and in connection with the conditions for the survival of and ensuring adequate access to high voltage electricity for many sectors of industry. The deployment of carbon capture and storage depends on certain conditions: coordinated European investment in R&D and demonstration programmes, specific worker training programmes, and initiatives to promote public awareness and confidence which will be best ensured through public regulation of carbon transport and storage facilities.
- ▶ Public investment and reorientation of financial flows towards sustainable development are keys. By 2020 developing countries are likely to face annual costs of around €100 billion to mitigate their greenhouse gas emissions and adapt to the impacts of climate change. Much of the finance needed will have to come from domestic sources and an expanded international carbon market, but international public financing of some €22-50 billion a year will





likely be necessary. The creation of an international fund and of a European fund to facilitate the development of technologies producing low carbon emissions and of technologies based on energy efficiency and renewable energies in the developing countries, as well as to develop employment policies based on social protection, the promotion of decent work and public services. The Commission has just proposed that industrialised nations and economically more advanced developing countries should provide this public financing in line with their responsibility for emissions and ability to pay. In this line, EU has decided to contribute with €2-15 billion a year by 2020. The ETUC supports this decision but considers that this will not be sufficient in the framework of an ambitious agreement to reach in Copenhagen.

## Building strong European instruments

The role of the 'carbon market' still remains to be clearly and solidly specified. The risk of seeing it besieged by the financial system as is the case with food products and raw materials is real. In no case can it be a reliable and effective allocation mechanism. The stakes are too high and the interconnections too complex to enable a regulation in that area to result fundamentally from a price signal. It is necessary to examine political, economic and fiscal CO<sub>2</sub> policies in the EU based on best technologies and not exclusively focused on the market and trade.

This is why the ETUC believes it is necessary:

- ▶ to create a European agency charged with setting the benchmarks and the generalised carbon traceability of all products, agency open to the social partners.
- ▶ To fix clear rules for the carbon market with appropriate legislative instruments, in order to avoid speculations on rates, and excessively erratic fluctuations, and to forge ties between the European market and the other regional markets. These rules should be enshrined by a directive.

## Development of new jobs and transformation of existing jobs

While it supports these lofty ambitions, the ETUC is realistic as to the difficulty posed by the transformation of such objectives into political realities. This makes it all the more necessary to carefully define just what is, or should be, covered by the underlying notions in the policies to be developed. The notion of green employment is one of these. The ETUC, believing that the pursuit of the objective of green growth will imply that virtually all jobs will gradually become classified as green jobs, recalls that this classification currently refers all too often to precarious jobs, of low intensity and involving low skills levels, and lacking in attractiveness.

Many industrial sectors represent essential underpinnings for the transition. They must be safeguarded to move towards a low-carbon economy bringing to market new, innovative products which offer improved energy efficiency and generate low carbon emissions. It is illusory, pointless or even actually counter-productive to make distinctions, or worse, conflicts, between what is dubbed the 'green' economy and the conventional economy, because crucial links, both economic and industrial, bind them unshakeably together. The new 'green' economic sectors in the field of renewable energies could not exist without the participation or the products of the conventional industrial sectors and also depolluting procedures dismantling and recycling industries. Solar technology would be inconceivable without the chemical industry, just as wind power would be inconceivable without steel.

The concept of a fair transition means that the costs and advantages of the decisions taken in the public interest – including the decisions necessary to protect the climate and the planet – must be shared fairly. A fair transition to a low-carbon economy is possible, and it can make climate action into the engine for sustainable economic growth and social progress.

More than the process of job creation or destruction, the transition towards a low carbon economy will transform existing jobs. This is the reason why the path towards a sustainable world economy and the transition to industrial jobs that are more respectful of the environment are closely tied to an effective social and employment policy leading in all sectors to development, recognition and validation of new qualifications and skills of the workers for sustain-





able production and consumption. Education and training must increasingly factor in environmental aspects such as the promotion of energy efficiency through “greening the workplace” initiatives which promote behaviour change at work, and the use of new technologies, as part of the existing professional training and instruction programmes. This demands substantial investments in educational and training systems, including trade union education programs, as well as in the fields of research and development and innovation.

Some resistance to the measures necessary to protect the climate within the trade union movement is largely attributable to fears of job losses in certain sectors or certain regions. Workers should not have to choose between their jobs and the protection of the environment. This is the reason why ETUC is strongly against such a pressure by enterprises. However, the figures available show that the fights against climate change can potentially have a positive overall effect on employment. The ETUC considers that this fight against climate change needs to be grasped for the opportunities it offers for both the development of new jobs and the transformation of old ones.

- ▶ A just transition may be a real opportunity, but we have to explore the conditions making it possible to move to protected mobility in the context of a deeper social dialogue incorporating the sectoral and territorial dimensions.
- ▶ The point is to create sustainable jobs and high-quality jobs as part of the new economy. A fair transition will guarantee, for example, the creation of bridges designed to help workers in shrinking sectors to find jobs in expanding sectors, while protecting their wages, their working conditions and their trade union organisations.
- ▶ Every workplace can be a green workplace. There is mounting evidence that unions are taking action to tackle climate change. Unions have the proven ability to deliver progressive change on working conditions, safety and equality. Their effectiveness would be greatly strengthened with the provision of more basic entitlements. Therefore, we ask for new and extended rights relating to the protection of health and of the environment at work, and for the provision of training and skills related.
- ▶ The priority should be given to energy efficiency, as stated in the ETUC resolution from March 2008 and more recently in the Manifesto of the Spring Alliance. The targets for the reduction of emissions will be hard to attain at a reasonable cost, if energy consumption continues to grow. That is why the ETUC regrets the absence of binding energy savings objectives in the legis-

lative package. Given the insufficient results of the Action Plan for Energy Efficiency adopted in 2006, the European authorities and the Commission should set a legally binding target for energy efficiency by 2020, broken down into national targets, and promote ambitious policies in the transportation and building sectors through a European Renovation and Restoration Plan and a sustainable Mobility Directive.

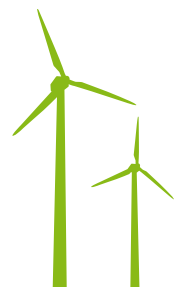
- ▶ The public authorities must be an example in their administrations and public services.

## All the countries in the Union need a European industrial policy

The Lisbon strategy has failed to reach its goals, therefore a redoubling of efforts is needed to ensure that the EU is not left behind in the development of new and transformation of existing industries and technologies.

Certain major industrial issues have a strategic character, either for reasons of independence (defence, energy, aerospace) or because of their knock-on effect on tomorrow’s sustainable growth (New Information and Communication Technologies, biotechnologies, nanotechnologies, sustainable transport and our energy intensive industries). These strategic sectors of European interest need common interventions (research, infrastructures) and an adaptation of the European framework (regulation, standardisation, competition, etc) to their characteristics: contributing to improvements to the business environment, ensuring greater coordination of economic policies, reassessing and reorienting competition and internal market policies which have absorbed all the energy of the building of Europe.

The need for a new industrial policy is making itself felt today in all the countries in the Union: in those countries which are lagging behind and need major investments in order to modernise, in the powerful industrialised countries which are big exporters but are hard hit by the crisis in some very volatile sectors, in the States with a policy of industrial ‘laissez faire’, which chose to pin their hopes to sectors which today are permanently tainted with suspicion and mistrust; in industrial States long faced with the need to upgrade their productive apparatus and address the territorial management of its malleability. In this





context the states should be able to activate the public investments in order to facilitate the creation of new markets and new employment, investment in our energy and energy intensive industries, to secure their long term future.

Climate change and the economic crisis ramp up even further the urgent need for a transition to a less 'carbon-heavy' economy that will use less energy. At the same time, the impact of the recession is considerably weakening sectors essential to the proper operation of the European economy. The automobile sector, which accounts for 1/3 of industrial employment, is emblematic of this state of affairs. The recession is facing it with serious short-term difficulties as well as painful restructuring operations.

In this case, and in other similar cases, it is a matter not of artificially helping out 'lame ducks', but of enabling a whole sector, which has performed well overall in comparison to its global rivals, to weather the crisis by technologically and strategically integrating all the dimensions of the transition to a sustainable low carbon economy in Europe.

- ▶ An aid plan, negotiated with unions and conditional on the respect of criteria in the allocation of funds, is essential for the short to medium term; both for the sake of not creating distortions within the internal market and for the sake of guaranteeing their effectiveness, these aid packages would benefit from being awarded in a European framework. The Aid plan should be conditional upon the company's achieving a given share of its output with low carbon, socially sustainable goods.
- ▶ The European Union must demonstrate leadership and make sure that it has access to the instruments necessary to the organisation of R&D, innovation and investments, education and training, at both sectoral and national level. In many cases it is SMEs within industrial supply chains that bear the greatest burden for R&D and innovation (e.g. over 70% of R&D spending in the automotive sector alone).
- ▶ Far greater use should be made of binding standards, public-private partnerships for research, development and demonstration, greater use of green and social procurement criteria to create market access for new technologies, and state aid rules.
- ▶ European training programmes on low-carbon technologies need to be swiftly rolled out so as to give workers, technicians and engineers the skills they need. A veritable Erasmus programme should be directed to this end.

## Moving towards a real anticipation agenda in the social dialogue

Social dialogue needs to move beyond a quality threshold, assert itself as a serious and decisive instrument enabling the interests of all the stakeholders to be brought into a constructive, creative balance. The information/consultation/negotiation procedures and processes at both company and sector level need to be as rich as possible and to interact to deliver mechanisms for anticipation and controlled regulation of the industrial changes and all the elements of industrial policy, as well as verification of the application of the concerted policies.

Job movements will occur across all sectors, but the social transition will need to be anticipated and organised essentially within the sectors, something that automatically makes it more readily achievable.

Anticipation makes it possible to sidestep the two types of stalemate: the resistance to change with no prospect, and passive adaptation to the inevitable. It needs to be perceived as the emergence, in every sector and at every territorial level, of collective players well informed and structured in such a way as to act on the strength of a facility for vigilance and a capacity for construction and evaluation of alternative scenarios.

Forward-looking management of employment and skills is too often restricted to the organisation, just before it is too late, of restructuring operations that are as debatable as they are little debated. This is particularly the case today, when certain groups are using the crisis as a pretext for some dubious restructuring operations.

The ETUC is not naïve. The obstacles we are liable to encounter in the fields raised more particularly by the consequences of climate disturbances are not (and will not be) any different from those currently being encountered in the framework of the changes of all kinds and the restructuring operations they are constantly generating.

Whatever the employers' take on the ecological crisis, the trend towards headlong flight, through a refusal to name the risks will remain a fraught area, and secrecy will continue to be cited for the sake of reducing visibility and opposing





transparency. Likewise, the preference for a nonparticipative interpretation of corporate governance is encouraged by the fear of the systemic risks and costs of an early announcement. Moreover, investing in active policies to reduce the risks of climate change or mitigating its consequences will remain limited or sensitive to the economic circumstances where it is justified by profitability alone.

On the basis of the fact that the European Union was born out of a transitional Treaty (the ECSC), the ETUC underscores the necessity and the feasibility of setting up procedures and instruments to allow a socially fair and negotiated transition to a low-carbon economy.

- ▶ National, regional and sectoral studies on the policies linked to climate change and their impact on employment and labour markets need to be systematically conducted, by consultation with the social stakeholders, and based on widely accepted criteria for assessing the vulnerability of workers, countries and regions.
- ▶ Skills monitoring and matching policies should be reoriented towards the anticipation of these changes.
- ▶ Creation of a permanent instrument to ensure the anticipation of socio-economic transition is urgently needed, to coordinate existing instruments such as sectoral councils and reinforce dialogue between the social partners and public authorities. The aim being to:
  - to catalogue the areas at risk across all industrial sectors
  - to prioritise these areas from an economic and social policy perspective
  - to develop means of professional and territorial transition as part of a developed social dialogue
  - to respond to socio-economic warnings coming from the social partners.

It will be made up of the social partners and the public authorities, and would receive sustainable development impact studies and will be able to participate in the definition of the specification of legislation as well as the implementation and follow-up.

In this framework the EU must commit itself to the challenges of industrial restructuring with which the new member states are confronted.

- ▶ European technology platforms developing low-carbon technological products and processes should ensure the participation of trade unions in their

governance systems, their task-forces, evaluations and proposals to anticipation structures as defined.

- ▶ Systematic analysis should be performed of how existing European policies and instruments to support the just transition can be mobilized (including structural funds), of the resulting gaps between needs and available resources and institutions, and of the addedvalue of additional European instruments and institutions.

## Organise – Educate – Agitate

The ETUC demands that workers and their representatives be considered as crucial players with whom the European Union must engage in a dialogue and negotiate the transition to a low-carbon economy that will provide sustainable jobs and social progress.

Therefore, in summary, the ETUC demands:

- ▶ An ambitious, binding and comprehensive international agreement aiming to limit the global rise in temperatures to maximum 2°C, in accordance with the scenarios laid down by the IPCC, reducing at least 25%-40% by developed countries by 2020 below 1990 levels.
- ▶ An enhanced European contribution to finance the global mitigation of climate change.
- ▶ To improve European governance, support the ambition of the European recovery, specifically by implementing stronger Community policies in the industrial and research fields.
- ▶ Climate change legislation must contain strong provisions dealing with international competitiveness in order to ensure that nations that lack a strong emissions programme do not receive an unfair advantage:
  - Free allocations of quotas to energy intensive industries exposed to international competition, provided that they are based on the best available technologies and are complementary and not alternative to a border compensation mechanism to be activated from 2013 if global distortion of competition is not corrected. The introduction of genuine carbon traceability for those products covering every stage in their production and transport. The search for international sectoral agreements is the main solution, but carbon tracea-





- bility constitutes a technical condition for their establishment and a powerful incentive for their implementation.
- To create a European agency charged with setting the benchmarks and the generalised carbon traceability of all products. This agency should be open to social partners.
  - To fix clear rules for the carbon market with appropriate legislative instruments, in order to avoid speculations on rates, and excessively erratic fluctuations, and to forge ties between the European market and the other regional markets. These rules should be enshrined in a directive.
  - To promote global and coordinated R&D initiatives, to share scientific knowledge, to develop and to spread green technologies in the whole world through policies of technological transfers and through rules on intellectual properties, also taking into account the social and economic objectives of those financing the R&D dedicated to green technologies.
- A European low carbon industrial policy based on a dynamic of Community industrial coordination that will transcend intra-European divisions and the damaging effects of the demands for short-term profitability from industrial investments.

### **Just transition and high quality jobs**

- A European low carbon transition strategy must be based on Just Transition principles: dialogue between Government, industry and trade unions and others on the economic and industrial changes involved; green and decent jobs; investment in low carbon technologies; new green skills.
- National, regional and sectoral studies on the policies linked to climate change and their impact on employment and labour markets need to be systematically conducted, by consultation with the social stakeholders.
  - At European level the creation of a permanent instrument to ensure the anticipation of socio-economic transition is urgently needed, to coordinate existing instruments such as sectoral councils and reinforce dialogue between the social partners and public authorities. In this framework the EU must commit itself to the challenges of industrial restructuring with which the new member states are confronted.
  - This coordinating instrument would receive sustainable development impact studies and will be able to participate in the definition of the specifi-

- cation of legislation as well as the implementation and follow-up.
- European technology platforms developing low-carbon technological products and processes should ensure the participation of trade unions in their governance systems, and also take into account, in their task-forces, the evaluations and proposals to anticipation structures as defined.
  - The creation of an international fund and of an European fund to facilitate the development of technologies producing low carbon emissions and of technologies based on energy efficiency and renewable energies in the developing countries, as well as to develop employment policies based on social protection, the promotion of decent work and public services.
- Green growth based on maintaining and creating high quality jobs and social progress, across the whole economy:
- A much stronger social dimension in European policies towards the development of low carbon industrial strategies and the development of industrial policies is urgently needed through a modern demand-side European employment strategy guaranteeing job creation and protected mobility not a strategy based solely on labour market deregulation.
  - Skills monitoring and matching policies should be reoriented towards the anticipation of these changes.
  - A fair transition guaranteeing the creation of bridges designed to help workers in shrinking sectors to find jobs in expanding sectors, while protecting their wages, their working conditions and their trade union organisations.
  - Every workplace can be a green workplace. There is mounting evidence that unions are taking action to tackle climate change. Therefore, we ask for new and extended rights relating to the protection of health and of the environment at work, and for the provision of training and skills related.

*Resolution adopted by the Executive Committee on 21 October 2009*





# 4 Climate policies: State of play after the Copenhagen Summit

**T**he Copenhagen climate conference delivered a political, non-binding accord that has no legal value and does not oblige States to reduce their CO<sub>2</sub> emissions. Negotiations will continue in 2010, however.

In this context, the ITUC and the ETUC will continue to assert their views and demands, particularly relating to the just transition included in the texts being negotiated. The participation of trade unions and the activities of the ITUC and the ETUC - such as the very successful "World of Work" Pavilion at the Copenhagen conference - will remain a basis for work in 2010. We must nevertheless identify our priorities and take account of the Copenhagen Summit conclusions and of the difficulties ahead for the UN, which emerged weakened from the summit.

Climate change and its impacts, in the developed world and the developing countries alike, represent challenges at political level and for the trade union movement at the highest levels.

The ETUC will therefore continue to contribute to the drive for adoption, in December 2010 in Mexico City, of a fair and binding agreement capable of meeting the challenges of climate change worldwide.

## Analysis of the Copenhagen Accord

### The Accord's advances

- ▶ One advance of the accord lies in **the fact that the two largest emitters of greenhouse gases (United States and China) as well as the large emerging countries (South Africa, Brazil and India) are now involved in combating climate change**, with the result that the accord is expected to cover more than 90% of global emissions.
- ▶ The accord recognises **the necessity of limiting the average increase in the global temperature to 2°C at most**.
- ▶ **Commitment of industrialized countries to set a target figure** at the latest by the end of January 2010 for their mitigation efforts by 2020.
- ▶ **Increased new and additional financing** is provided as well as improved access for the developing countries to support stronger emissions reduction actions, including **substantial financing for reducing emissions from deforestation and forest degradation (REDD-plus)**, for adaptation, capacity building and technology development and transfers.





- ▶ **“Fast start”:** Collective commitment by the developed countries to release new and additional resources, including forests and investments channelled through international institutions, approaching \$30 billion for the 2010-2012 period (\$10 billion per year). A balance will be struck in the allocation of such resources between adaptation to climate change and emissions reduction. Priority in the use of resources released for adaptation will be given to the most vulnerable developing countries, such as the least developed countries, Small Island developing states and Africa (which has received relatively little aid to date).

In this framework,

- The European Union decided in December 2009 to contribute \$10.3 billion by 2012 for these short-term financing needs (2.4 billion € a year, including 1.26 billion € financed by France and 1.65 billion € financed by Great Britain).
- Japan decided in December 2009 to contribute \$ 19.3 billion by 2012, including \$ 15 billion of public financing.
- The United States has thus fallen into step with this agreement.
- ▶ **Mid term financing:** Commitment by the developed countries to meet the objective of raising together \$100 billion a year by 2020 to cover the needs of developing countries, provided the latter launch substantial and transparent mitigation actions. The funds will come from a variety of sources, private and public, bilateral and multilateral, including alternative financing sources (to be specified). New multilateral financing will be provided for adaptation, through arrangements (to be specified) via effective funds, with a governance structure that ensures equal representation of developed and developing countries.
- ▶ Decision to set up a **“Copenhagen Green Climate Fund”** (based on the Mexican proposal) as an operational entity of the Convention's financial mechanism. This fund will support projects, programmes, measures and other activities in the developing countries, related to the reduction of emissions from deforestation and forest degradation, adaptation, capacity building and technology development and transfer. It will be financed by a large part of the new multilateral financing described in the previous point.
- ▶ The emerging countries and the developing countries accepted an obligation for biennial publication of their greenhouse gas emissions inventories

and their mitigation policies, which will be measured, listed and checked (China nevertheless got its partners to agree that this monitoring would be carried out by domestic authorities).

- ▶ Energy transition efforts (which include the transition efforts of OPEC member countries) that receive financial or technical support from third countries will be listed in a global register and subject to international monitoring.
- ▶ An international technological mechanism is planned (the United States proposed to create an international network of experts; China and the G77 proposed the creation of a multilateral instrument to accelerate technology development and transfer to the developing countries).

### The negative points of the Accord

- ▶ The commitments are non-binding and have no legal status.
- ▶ Many arrangements still need to be specified (the agreement is no more than 3 pages long).
- ▶ There is no reference to the Kyoto Protocol and consequently no confirmation of the continuation of commitments until 2012 or of commitments to conserve its achievements.
- ▶ No date is set for a global emissions peak.
- ▶ The accord does not commit the countries to reduce their emissions by half by 2050.
- ▶ The accord does not provide for an international compliance mechanism comparable to the Kyoto Protocol mechanism.
- ▶ Forests: Target figures, arrangements and amounts to be allotted to the fight against deforestation and forest degradation are not specified (although the target of 50% reduction in the rate of deforestation by 2020 was negotiated). The United States, the United Kingdom, France, Japan, Australia and Norway nevertheless promised to provide \$3.5 billion for the start-up phase (included in the package of \$30 billion) by 2012.





- ▶ The reduction of emissions from maritime transport and international air transport is not addressed.
- ▶ The questions of the distribution of funds for adaptation actions in the most vulnerable developing countries and of climate refugees remain unanswered.
- ▶ On the other hand, a concession was made to OPEC countries, which demanded financial compensation for their decline in revenues caused by the global energy transition (they secured recognition from their partners of this impact and of the necessity of establishing an adaptation programme that includes international financial support),
- ▶ **During the negotiations, the international trade union movement convinced all the states and obtained an international consensus recognizing that it was important for the agreement to mention the necessity of a just transition, but the final text contains no reference to this subject.**
- ▶ While the negotiations were partly dedicated to the definition of a shared vision, nothing remains from it in the accord.

### Main conclusions

Although certain (non-binding) commitments were agreed, the result of the Copenhagen climate negotiations constitutes both an environmental and social failure, but is first and foremost the reflection of the institutional failure of the international negotiation system.

A few weeks after the failure of the WTO negotiations, the UN institutions are in crisis, while they were at the basis of the Kyoto Protocol.

While tremendous amounts of money were able to be raised during the financial crisis to save banks and guarantee financial assets, the climate crisis was not entitled to the same treatment. In Copenhagen, the different parties were in lowest-bidder mode and the economic interests of sovereign States did not allow for decisions coherent with an approach aiming the general interest.

What is more, the European Union was weakened by these negotiations, because the final text was negotiated by the United States, China, India, Brazil and South Africa.

### Attempted explanations

- ▶ **Confirmation of the influence of the Sino-American discussions:** President Obama had already said in July 2009 that the relationship between China and the United States would shape the 21st century. In Copenhagen, he acted in keeping with this statement. The dialogue was nevertheless tense partly because of non-climate issues (China announced in mid-December the completion of a 5,000 km tunnel to house its military arsenal, etc.). On climate change, the stalemates resulted essentially from:
  - China's demand for a more ambitious emissions reduction by the United States (which agreed to reduce its emissions by only 4% by 2020 from 1990 levels, whereas the G77 sought a reduction of 25 to 40% by the developed countries given their historic responsibility), although the US could not yet make a greater commitment (pending the adoption of new legislation)
  - The United States' demand to be able to verify China's compliance with its commitments, whereas China does not yet have a satisfactory and uniform method within its structures and rejected international monitoring
  - The US announcement of its refusal to provide financial support for China in the framework of climate change. This called back into question the future of clean development mechanisms from which China currently benefits, even as H. Clinton announcement that the United States would contribute to the financing of \$100 billion a year in 2020 for the developing countries. Following Clinton's announcement, China had said it was willing to accept an emissions reduction target (whereas the emerging countries had until then refused to commit to a target figure for 2050, which could jeopardize their development, as long as the industrialised countries failed to adopt satisfactory binding objectives for 2020 given their historic responsibility) and a dialogue on verification issues.

In spite of these blockages, President Obama concluded that the agreement renewed American leadership in the climate negotiations (important for him in the context of adoption of new American legislation and in the hope of obtaining wide support for his proposals) and marked the start of a new age of international cooperation<sup>1</sup>.

<sup>1</sup> Source : la note de veille n° 162 du Centre d'analyse stratégique, "Analyse ou la nouvelle donne climatique internationale" janvier 2010, pp 4-5





- ▶ **Global governance is not adapted to reality.** It had created the hope that a global contract among all nations was possible, at least with regard to the "global collective goods" that include the Earth itself and its climate. The following predominated, however:
  - states' determination to preserve their sovereignty (China, for instance, refused to sign a treaty laying down international obligations)
  - the diversity (or even incompatibility) of approaches, particularly regarding the model of society and growth to be developed under the global climate constraint
  - the economic and industrial stakes, including the challenge of leadership in the development of green technologies
  - the affirmation and evolution of political balances and alliances, with the large emerging economies becoming more powerful and the multipolar world becoming increasingly complex
  - the mutual lack of confidence
  - the difficulty to move forward with unanimity rules
  - etc.
- ▶ **European governance is too weak:** The European Union was pushed into the background possibly for the following reasons:
  - Difficulty building awareness and a European project (see in particular opposing views on carbon tax). Europe does not really have a common low carbon industrial and societal project. In fact, it did not adopt a real green growth strategy.
  - Diverging priorities and concerns between new and old Member States.
  - Determination of certain Member States to play "solo" to the detriment of the image of a strong and united Europe (France, Germany, ...)
  - Europe was isolated on the Kyoto Protocol, which the other signatories don't want any more
  - Europe announced short-term financial commitments but waited too long before taking a stand on the medium term (2020)
  - etc.
- ▶ The fact that the United States and the emerging countries had not made binding commitments under the Kyoto Protocol explains that they do not refer to it.

- ▶ The initiative of the Danish conference presidency to negotiate and publish a draft agreement worked out exclusively by the developed countries strained the negotiations.
- ▶ The developing countries were very claiming and tough in the negotiations.

## The ETUC's positions: Adopt a development strategy, not just a negotiation strategy

- ▶ Good intentions alone are not enough. **We need new regulation instruments to progress** and we also need to learn the lessons of the financial crisis and of the disastrous consequences of "soft law". There is a need for binding commitments that will lead to an effective reduction of greenhouse gas emissions in order to keep global warming to 2°C at most.

The European Union must therefore **reiterate the need for an ambitious and legally binding negotiated agreement**. With that aim in view, it must push the United States and China, among others, to make ambitious commitments to reduce emissions and to finance the fight against climate change, whether through UN negotiations (Bonn, Mexico, etc.) or in another context (G20, etc.), by setting a good example.

- ▶ Europe must **implement a development strategy, not just a negotiation strategy**.  
It must convince other countries, including the developing and emerging countries, of the importance of social and environmental transparency, of control and regulation instruments and of standards and sanctions to break out of social and environmental lowest bidding, and on the contrary to enter into a virtuous circle.
- ▶ It must therefore
  - Contribute to the definition at international level, on an urgent basis, of a financial, economic, environmental and social system that allows for new development, particularly for the poorest countries.
  - Ensure that this system is transparent and steered by good governance, in everyone's interest, and that it leads to the creation of new financial instruments such as the taxation of financial transactions.





- **Take initiatives during the 2010 negotiations and play its role to the full**, with an eye to securing serious commitments on ambitious target figures. Its current position of not increasing its emissions reduction target to 30% unless other countries agree to follow up on the Copenhagen Accord will have to be reviewed at an early date depending on the evolution of the context.
- Help ensure that the “fast start” \$30 billion is distributed as early as possible in 2010 to the least developed countries (while establishing criteria for transparency, participation and just transition).
- Increase its contribution for financing the global fight against climate change and by combining the climate change drive with the fight against poverty and social inequalities. **The medium-term funds to be contributed by 2020, in the amount of around \$100 billion a year, should be increased and the European Union should provide one third of global assistance (following the European Parliament's latest resolution) by setting up appropriate mechanisms to ensure this financing (particularly through the introduction of a tax on financial transactions, etc.).**
- **Support the requests of the ITUC and the ETUC and ensure that the final agreement includes the objective of guaranteeing a just transition and decent jobs.**
- Help ensure that trade unions (and civil society in general) continue to participate in the UNFCCC negotiations, with clear procedures and transparent mechanisms.

Failure to move in this direction risks aggravating conflicts related to resource management, due to their scarcity in certain regions of the world, and an increase in migratory flows that will often prove to be disastrous for the populations concerned.

- ▶ **For its own growth, the European Union must develop an internal strategy – otherwise it will become weaker at global level – by improving European governance, reinforcing the ambition of European recovery in particular through the implementation of enhanced industrial and research policies, and adopting appropriate climate change legislation.**

It will be essential to **develop a low-carbon European industrial policy based on a dynamic of EU industrial coordination** that transcends intra-European rifts and the perverse effects of requirements of short-term profit-

ability for industrial investments, and to tackle the challenges of industrial restructuring faced by the new Member States.

This European low-carbon strategy must be based on just transition principles: dialogue among government, industry, trade unions and other interests on economic and industrial change and their anticipation; green and decent jobs; investments in low-carbon technologies and new "green" qualifications.

The European Union must commit to a concerted policy of green growth that contributes to maintaining and creating quality jobs and social progress throughout the economy.

In short, for the European Union, Copenhagen is a strong alarm signal to **demand that its Member States develop genuine European policies, failing which it will no longer be able to make its voice heard at global level over the longer term and will contribute to an historic weakening of Europe.**

## The ETUC work programme

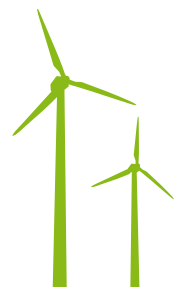
The ETUC explained its positions at a meeting with the European Union environment Ministers in SEVILLA on January 16, in the framework of their informal meeting aimed at evaluating the Copenhagen Summit.

In the coming months, the ETUC will work to

- ▶ continue to support the International Trade Union Confederation in its climate actions
- ▶ make heard the positions developed above
- ▶ contribute to the deployment of the measures it seeks to get adopted.

It is currently holding discussions with the European Commission with a view to creating an instrument to ensure the anticipation of socio-economic transitions and reinforcing climate dialogue between the social partners and the public powers.

It will take advantage of the different opportunities that arise to take part in the debate, including





- ▶ the announced publication of a white paper on the climate in July or August 2010
- ▶ the Belgian Presidency of the European Union in the latter half of 2010.

It will continue its actions with its partners of the Spring Alliance, in order to have the priorities of the Spring Alliance Manifesto heard, given that these priorities relate to the European Union 2020 Strategy, and include climate policies.

Finally the ETUC is also working on the setting up of social dialogue as regards climate and employment. In this context, there will soon be an enquiry and a conference on this matter will be organised in 2011.





# 5. Position on the financing and management of climate policies

[ Adopted by Executive Committee on 1-2 June 2010 ]



## Context

The ETUC adopted a resolution in October 2009 on “climate change, new industrial policies and the ways out of the crisis” including strong and ambitious policy recommendations. The ETUC called on the European Union to consider workers and their representatives as crucial players with whom the European Union must engage in a dialogue and negotiate the transition to a low carbon economy that will provide sustainable jobs and social progress.

Following the Copenhagen negotiations, the ETUC steering committee of 4 February 2010 again called on the European Union to “commit to a concerted policy of green growth that contributes to maintaining and creating quality jobs and social progress throughout the economy.”

The position that follows intends to develop further the ETUC policy recommendations made in the resolution adopted in October 2009 as well as in the previous ones, in particular on the financing and management instruments to be used in climate policies in order to contribute reaching our priorities.

It intends to allow the ETUC to react as precisely and focused as possible to the Communication that the European Commission is about to publish on the future European Union climate policies to be developed.

This position was prepared by the ETUC sustainable development working group which gathered the 7 May, following a joint seminar ETUI-ETUC on these issues which took place in March 2010."

## Further developments on climate policies

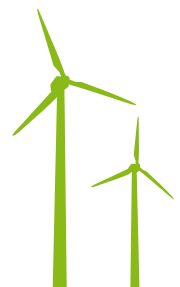
Although China and the United States were not willing to agree to binding targets in CO<sub>2</sub>-reduction in Copenhagen, they in particular are investing massively in low-carbon technologies.

This is not being done sufficiently in Europe, which is consequently in danger of losing quickly its current position as world leader in this decisive economic sector.

Europe, apart from enhancing the pressure on the other global CO<sub>2</sub> emitters to agree to ambitious binding targets on CO<sub>2</sub> reductions, must urgently develop a strategy ensuring innovation in clean technologies in Europe while preserving and reinforcing the European social model at the same time.

It must invest urgently in technologies ensuring its energy security of supply, including through increased energy efficiency and diversified energy supply.

This race for technological innovations cannot be at the expense of social gains.





Government intervention is needed to achieve these goals as well as a portfolio of more efficient public and private instruments.

The instruments to be activated by public authorities, such as support for R&D, support for demonstration and deployment of technologies, predictable and right scale support to energy intensive industries to facilitate their necessary investments, standards setting, regulation, public investments, diffusion of technologies to the South, good management of green jobs and skills resulting from education, training and life long learning frameworks, etc. require that **public authorities should have important budgets available**, at the European, territorial and sectoral levels.

### Financial instruments are key

Existing European financial instruments can be used to finance these policies but they are currently insufficient: the EU general budget; the European recovery plan ; the structural funds under the European cohesion programme 2007-2013.

Current financial instruments must be reinforced and further mobilised to the benefit of a European Union development strategy.

The European Investment Bank is an important budget instrument not tied to the EU general budget, and adopted in 2009 a "Statement of Environmental and Social Principles and Standards", including the ILO core labour standards, now included in its strategy for project selection and implementation. This bank, possibly by establishing special (national) funds, should be used more to finance European climate policies, to support R&D efforts not only in large firms but also in small enterprises, and should develop further the implementation of its sustainable development strategy through dialogue with the trade unions and civil society, and through a representation of social partners on the board of this bank.

The European Bank for Reconstruction and Development also offers interesting prospects.

To tackle the climate challenge, the European Union must

- ▶ Mobilise and reinforce existing resources,

- ▶ Reform its system of governance of funds used to combat climate change, including through integration of social and environmental principles as requirements for providing support to projects.
- ▶ Use new and innovative sources of financing, such as a tax on financial transactions.

### Carbon pricing is a key instrument for achieving the objective of green growth

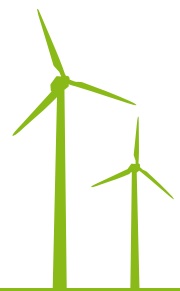
Among the different instruments that fall within price signals on emissions is the **CO<sub>2</sub> tax, which should meet a number of conditions:**

- ▶ There must be further analyses of the introduction of a CO<sub>2</sub> tax
- ▶ **The ideal level for introduction of a CO<sub>2</sub> tax is the global level, or otherwise the European level** (some countries may however implement such a tax in the meantime)
- ▶ It should **be part of a coherent set of measures and be part of a global approach aiming at reducing emissions while pursuing fiscal and social justice**. This requires that counterproductive measures to this end (such as environmentally damaging subsidies) should be dismantled, that there should be no increase in the taxation burden on households and that it would be implemented in the framework of a social redistribution set of measures.
- ▶ **It must cover several complementary objectives:**
  - Furthering the objectives of the Energy-Climate Package by increasing energy efficiency, reducing CO<sub>2</sub> emissions, raising the share of renewable energy and reducing dependence on fossil fuels;
  - Stimulating research and innovation;
  - Not compromising the competitiveness of the European economy
  - Contributing to a fair transition by reinforcing social cohesion.
- ▶ The possible introduction of a tax on CO<sub>2</sub> emissions **can be contemplated in terms of its effectiveness at changing behaviours and investments** from goods and services with high carbon content to those with lower content, and at compensating for the costs of CO<sub>2</sub> emissions.





- ▶ For these reasons, the amount of the tax must reflect (at least partially) the external costs of pollution resulting from CO<sub>2</sub> production ; be set at a level and via a process (phased in and foreseeable) that brings about changes of behaviour over the longer term and can influence investment decisions on a lasting basis.
  - ▶ The introduction of any CO<sub>2</sub> tax must **form part of an environmental approach aimed at giving a price signal**, rather than being conceived of in a budgetary logic.
  - ▶ **The basis of assessment for the tax should be enlarged to cover both CO<sub>2</sub> and energy.**
  - ▶ **A tax on energy and CO<sub>2</sub> could apply to all sectors of activity (households, transport and enterprises), with the exception of ETS enterprises, provided several conditions are met:**
    - **The ETS system should be revised because in its present version**
      - it may not contribute to real reductions of CO<sub>2</sub> considering that a significant share of emissions allowances will be distributed for free and that, due to the economic crisis, an additional surplus of emissions allowances will be generated. Consequently, **the price of CO<sub>2</sub> in the emissions trading scheme might fall constantly too low, making thereby the ETS offer too few incentives to reduce CO<sub>2</sub>**
      - it is a victim of **speculation and fraud**
      - **it gives rise to uncertainty as to the future price and industry needs to know what to expect** (anticipation required for a period of 30 to 50 years) before adopting investment decisions.
    - **A European regulator should therefore be established** and placed in charge of setting a minimum price, ensuring a degree of price stability (essential for the necessary investments), preventing financial speculation, ensuring transparency and social and environmental traceability, etc.
    - **Sustainable alternatives must exist**, such as effective, regular and outstanding public transport systems, energy-efficient housing, etc. and must **be available at accessible prices.**
  - **Targeted compensation measures should be put in place**, sector by sector, such as targeted aid for disadvantaged households to enable them to renovate their housing, targeted aid for non-ETS sectors threatened by international competition due to introduction of the tax, etc.
  - ▶ **Social and environmental criteria must be built into all the public authorities' decision-making processes (definition of benchmarking in ETS; public investments; public aid for private investments; etc.)**
  - ▶ **The tax revenues must be spent transparently and totally on internal investment measures to reduce emissions, on climate support for the developing countries and to finance the necessary compensating measures for low income households.**
  - ▶ The discussion on the revenues from a CO<sub>2</sub> tax must be matched with the debate on revenues from the auctioning of CO<sub>2</sub> quotas.
  - ▶ It is **essential to make such a tax visible, acceptable and comprehensible** to households and enterprises
- Good management of green jobs and skills is also a key instrument for achieving the objective of green growth**
- It can only happen in a just transition framework requesting social dialogue instruments at all levels: European, sectoral, national, regional, etc.
- All sectors of activities -industry, building, transport, services are concerned.** Following just transition principles, for each key sector, the common agenda of priorities includes: social partner representation, issues of capacity and demand, finance for investment in low carbon technologies, and appropriate skills and training strategies.
- All should contribute significantly to emissions reductions and will require initiatives and councils including social partners to manage the transition to a low carbon economy.**
- For example, there is a need for a European automotive sectoral council to manage the transition (EMF demand)







- Dealing with existing over-capacity in the car industry
- Adopting a comprehensive approach to mobility not just a ‘green car’ agenda
- Coherent support for new technologies, putting the accent on training (the sector is currently lacking people specialised in training staff for the production of electric vehicles)
- European industrial policy considering the potential for negative spillovers from a national industrial policy approach.

The flagship initiative “An agenda for new skills and jobs” of the Europe 2020 Strategy does not pay enough attention to the need to create quality jobs nor to provide new skills through adequate, on time and well designed education, training and lifelong learning programs.

This can only happen through social dialogue and through such councils at all levels – including at the global inter-sectoral European level – that can better anticipate and manage the transition to a low carbon economy.

The communication to come from the commission on climate policies should fully integrate these social aspects and needs.









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