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# **A social impact assessment of the ETS proposal**

**The social partners of the chemical industry  
Special Plenary Meeting  
The European Union Greenhouse Gas Emission Trading Scheme (EU ETS)  
29 September, Brussels**

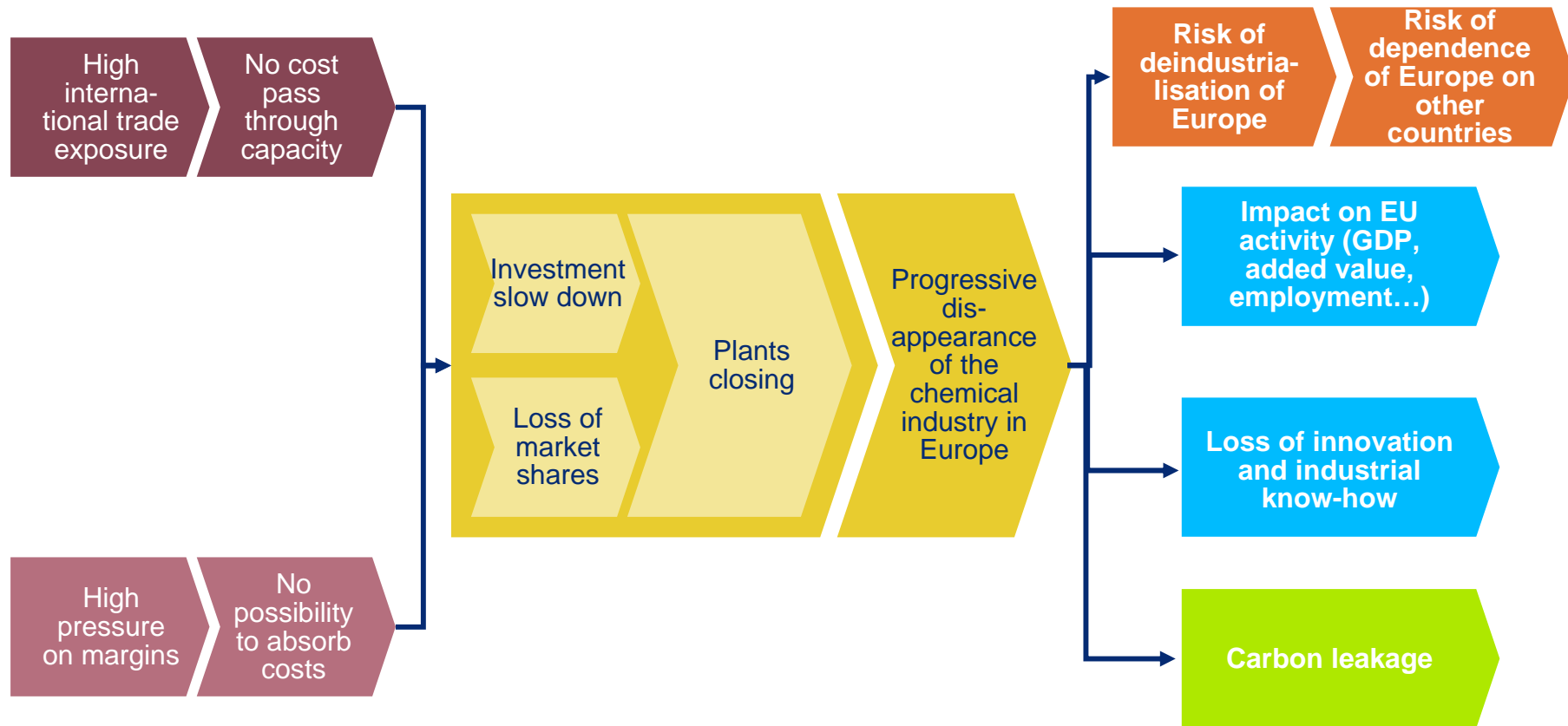
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# What does exposure mean?

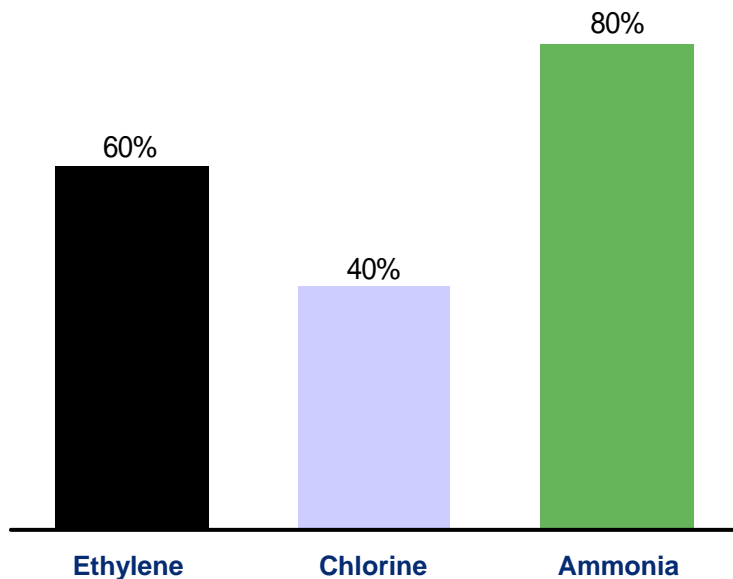


CO2 costs, which the chemical industry could neither pass on nor absorb, would erode Europe as a chemical production platform and would also have wider consequences on Europe and the environment.

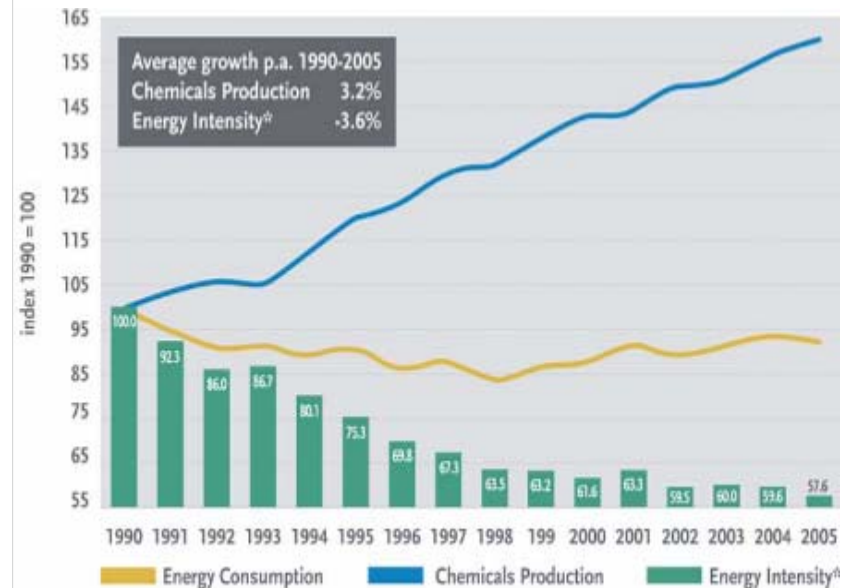
# Energy intensity and awareness



Energy costs as part of total production costs<sup>(1)</sup>



Energy intensity of EU chemical industry<sup>(2)</sup>



\* Energy intensity is measured by energy input per unit of chemicals production  
 \*\* Including pharmaceuticals

The EU chemical industry and especially its building blocks are energy intensive, therefore energy efficiency has always played an important role. There is a double impact from direct and indirect emission cost.

Sources: (1) Prochemics "Impact of electricity price on the competitiveness of the European Chlor-Alkali Industry" 2007  
 IEA (2007) "Tracking energy efficiency and CO2 emissions", Technon "Parpinelli Report"  
 (2) Cefic, Eurostat

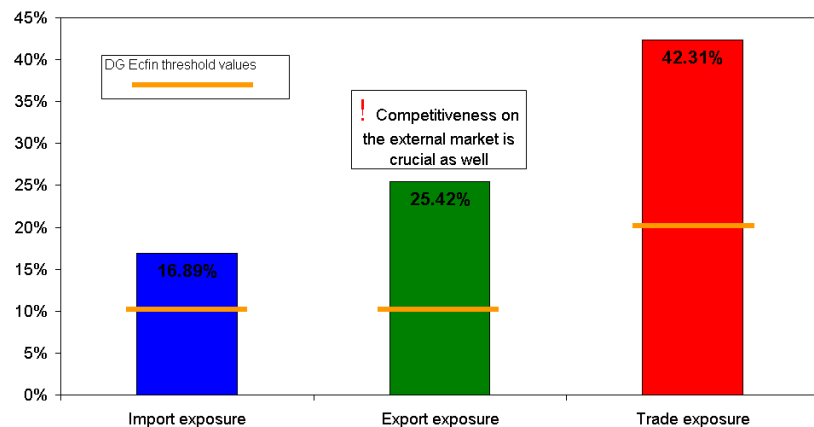
# Exposure to international competition



## Chemicals are exposed to international trade

- Competition takes place on the domestic and external market

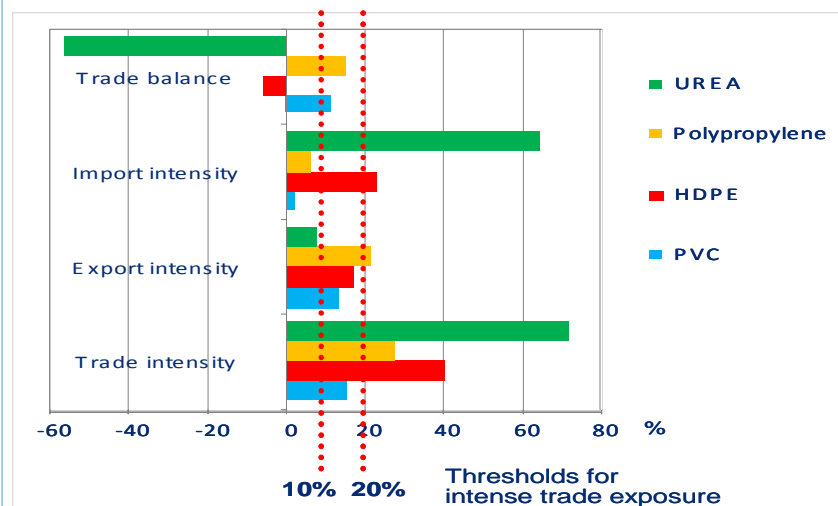
Trade exposure of the EU chemical industry (excl pharmaceuticals)



Source: Eurostat and Cefic

## Downstream products are exposed to international trade

- This exposure is revealed through intense trading (>20%) of downstream products which impacts markets for base products



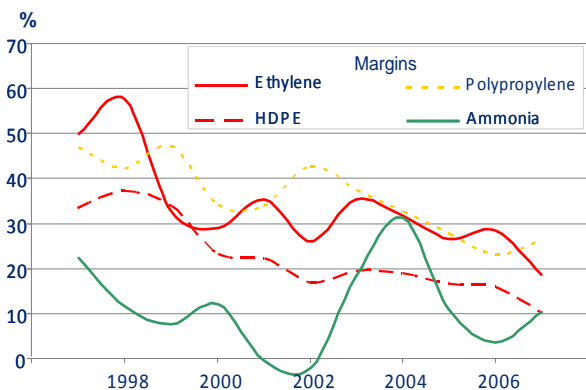
Trade and production data indicate that the EU chemical industry is exposed to a competitive global market.

# Margins and ETS cost

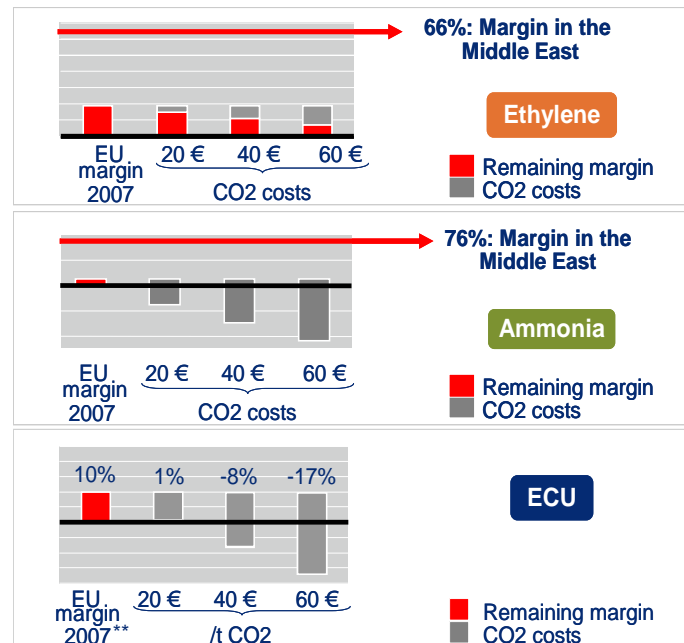


## 2002 marks the beginning of a downwards slope for the chemical industry

- The pressure on margins is due to the influence and negotiating power of suppliers and customers. Higher costs and a limitation on prices result in lower margins and lower profitability for the chemical industry



## The EU chemical industry cannot afford to see its margins reduced by 25 to 50%, well below the level of its competitors\*



The extra CO2 costs resulting from the ETS deteriorate European margins, which are anyways low in an international comparison. This puts the European chemical production platform under serious threat.

\* Detailed impact for all products is given page 32 and following of Cefic's document submitted for DG Enterprise on April 18<sup>th</sup> 2008

\*\* Margin in Germany considered most representative

Sources: Appe, EFMA, Eurochlor, DG Enterprise

# Characteristics of employment in the chemical industry



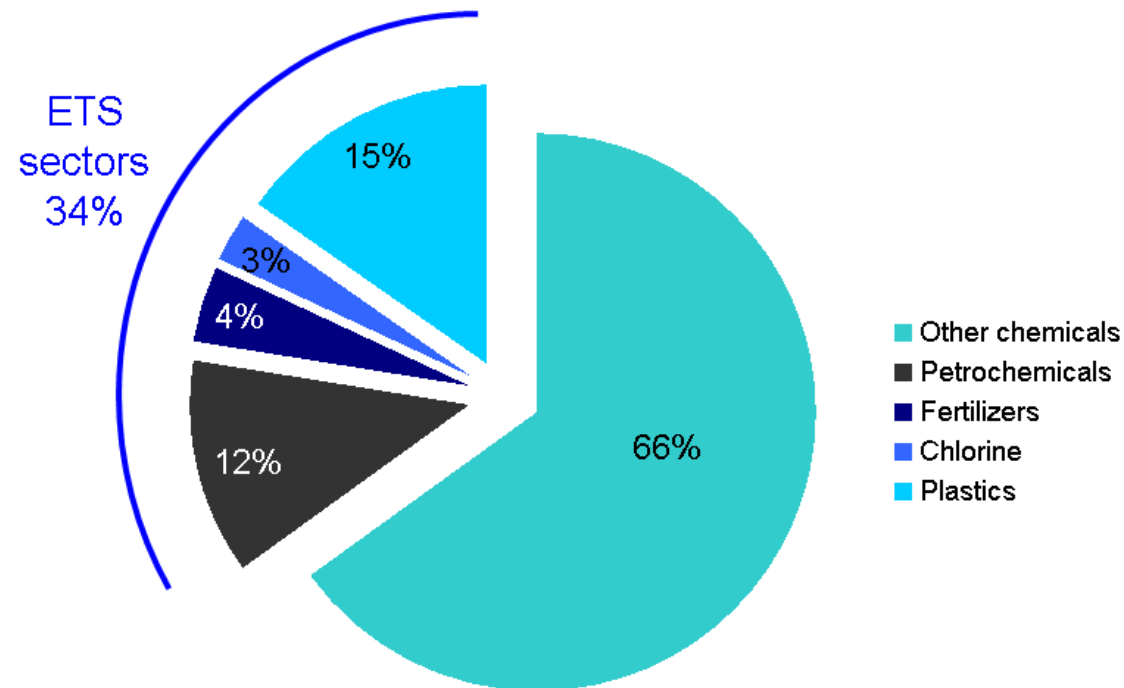
- The European chemical industry employs 1.3 million people and creates twice that number indirectly in its downstream sectors.
- Highly qualified employees from science subjects
- Investment per employee above industry average and among leading sectors
- Value added and productivity per employee above industry average and among leading sectors
- Older employees than non financial business average, which leads to lower re-employability
- Regions in France and Germany occupied fourteen of the top twenty places for high employment percentage in chemicals. However chemicals account for an important part of employment in many regions over Europe.
- Chemical companies on average employ more people than manufacturing companies.
- Restructuring efforts have led to a decline in employment over recent years, but the industry is still doing an effort to capture and retain talent.

The chemical industry is an attractive employer for highly qualified employees, offering very good conditions.

# Employment figures for the ETS sectors in the chemical industry



450 thousand people are employed in the scope of ETS in the chemical industry



Source: Eurostat, Eurochlor

About 1/3 of the employment is in the ETS sectors of the chemical industry and is therefore put at risk.



# What does ETS mean for employment in the EU chemical industry, under auctioning



- **COST INCREASE:** Full auctioning of CO2 certificates leads to significant cost increase, especially in the base chemical sector.
- **SQUEEZED MARGINS and LACK OF INVESTMENT:** Depending on the margin and capacity to pass through cost to customers, the chemical industry will suffer from high cost, squeezed margin, lack of profitability and problems to invest.
- **PLANTS CLOSURE:** The plants with the highest cost will be forced to shut down, due to losses and pressure from local competition and importers.
- **DIRECT EMPLOYMENT LOSSES:** Depending on the profile of workers and economic activities employees from the closed plants will remain unemployed temporarily or permanently.
- **INDIRECT EMPLOYMENT LOSSES:** As the chemical industry is highly interlinked and stands at the beginning of the value chain, employment will also be lost in non exposed chemical sectors and in downstream industries. It has been analyzed that every employment in the chemical industry creates twice the employment in its downstream industries.
- **SPECIAL VULNERABILITY:** Romania, Bulgaria, Czech Republic and Poland are the New Members States with a high importance of base chemicals\*. They can be considered particularly vulnerable.

\* Base chemicals sales in relation to total chemical sales >25%.

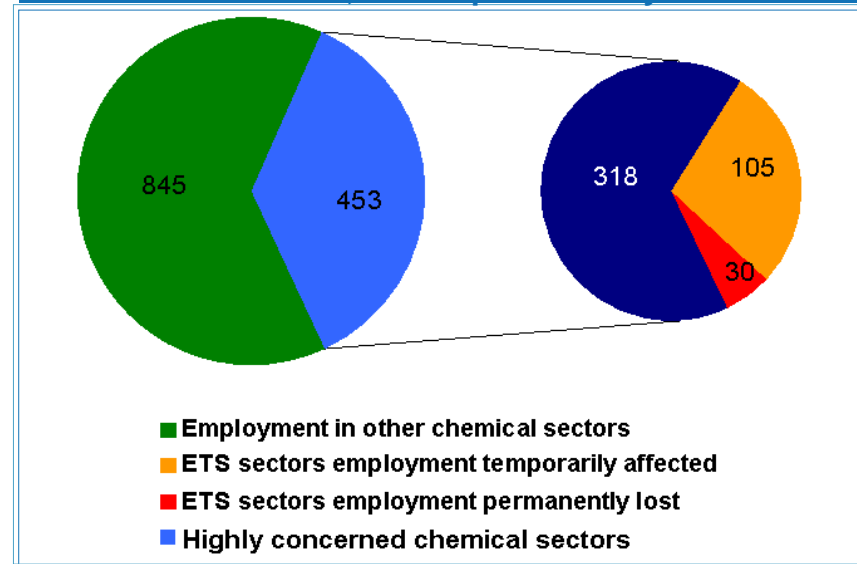
# An example: ETS effects on employment



## ➤ Under following prudent assumptions:

- ✓ Under auctioning, there will be 450 thousand employees in ETS chemical sectors
- ✓ On average 50% of cost can be passed through
- ✓ 50% of companies have significantly higher cost and suffer from squeezed margins and are forced to shut down.
- ✓ 20% of the market are taken up by more competitive local producers
- ✓ 30% are taken up by importers, which are not faced with the additional carbon cost
- ✓ 30% of employment in Europe are lost in the chemical industry= 135 thousand employees

ETS will put employment in the chemical industry at risk. Some employees will be only temporarily affected, others permanently



- ✓ 50% of people are living in structural difficult regions, of which another 50% have a low employability
- ✓ Around 30 thousand workers might suffer from a permanent employment loss
- ✓ 30-135 thousand employees risk to lose their jobs, which accounts for more than 10% of the EU chemical industry employment
- ✓ In a worst case this might affect also twice this number in the downstream industry, so up to 270 thousand employees more

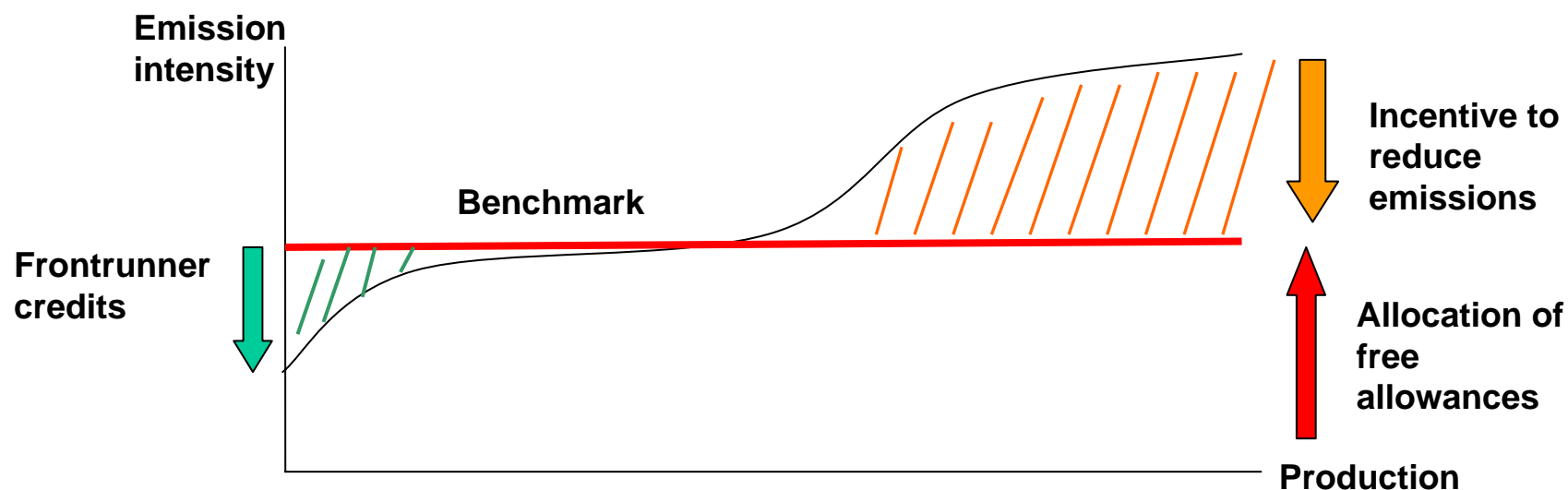
30 - 135 thousand people employed directly by the chemical industry risk to lose their jobs

# A proposal for an effective ETS that safeguards European industry's competitiveness



EU industry endorses the objectives of the EU climate change policy, but wants a workable and efficient implementation.

- ✓ Benchmarking: Free allocation based on performance ensures that the EU target is met whilst avoiding excessive cost for industry, loss of competitiveness and carbon leakage.
- ✓ Exposure: Sectors exposed to international competition should be exempted from auctioning and use benchmarking as allocation method.
- ✓ Small emitters: Threshold for small emitters must be raised to 50 Kt CO<sub>2</sub>/a



# Conclusion

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- The chemical industry is an exposed sector, especially base chemicals are vulnerable to the effects of ETS.
- The chemical industry in Europe is an attractive employer.
- The analysis describes clearly the channels which put employment in the exposed chemical sectors and also further down the value chain at risk.
- Benchmarking is the right approach to reduce emissions and safeguard European industry's competitiveness.

**ETS needs special provisions for exposed sectors, such as the chemical industry, so that Europe remains a strong industrial base which creates welfare and employment for its citizens.**