# Identifying sectors deemed to be exposed to a significant risk of carbon leakage

# Direct CO2 cost calculation and preliminary results

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European Commission Enterprise and Industry

## Issues

- Scope of assessment
- Approach
  - Data sources
  - Reference Period
  - Confidentiality
  - Data Coverage and Gaps

- Remaining challenges
- Preliminary Results

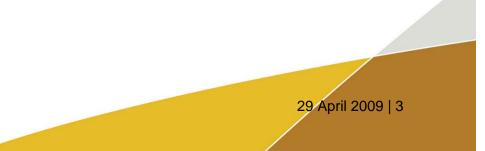


## Scope of assessment – "SECTORS"

## NACE-4

 258 NACE4 sectors covering Sections C (Mining and Quarrying) and D (Manufacture).





Approach I: data sources (1)

### Sectors that are already in the ETS

- Installation sector matching: using emissions and company information data from CITL records on one hand, and company information from business data bases (Dun & Bradstreet, Kompass, Amadeus and national databases) on the other hand
- For non-matched installations: Consultation with industry and Member States



#### Approach I: data sources (2)

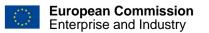
New ETS activities and greenhouse gases (as listed in Annex I of the revised ETS Directive)

- Direct emissions of CO2 from their combustion installations
  - a) Already in ETS and hence reported in CITL
  - b) Request from MS for data on fuel consumption; use of fuel specific emission factors to derive C02 emissions from their combustion installations for means of comparison
     → Requested from MS; to be evaluated at EUROSTAT due to confidentiality
- Process emissions: emissions of CO2, N2O and PFC for activities listed in ANNEX 1 of the revised ETS Directive
  - a) Request from MS; to be evaluated at EUROSTAT due to confidentiality
  - b) National greenhouse gas inventories and reports: matching of emission categories from inventories with activities in ANNEX 1 and corresponding NACE-4 sectors (ongoing)



# **Approach II: Reference Period**

	2004	2005	2006	2007
GVA	SBS	SBS	SBS	Х
Direct CO2	X MS	CITL MS	CITL MS	CITL MS
Indirect CO2	MS	MS	MS	MS



## **Approach III: Confidentiality**

- Gross Value added (GVA)
  - GVA from SBS is confidential, at least for one of the considered years, for many sectors.
  - When this is the case, results are only reported with respects to thresholds using three categories: below 5%, between 5% and 30% and above 30%.

- Fuel consumption data
  - Mostly confidential at Member States level
  - EUROSTAT did aggregations



### Approach IV: Coverage (1) CITL

- CO2- process emissions for current (*i.e. before the revision*) activities explicitly mentioned in Annex I of the existing ETS Directive and combustion related emissions for all sectors
- 96.3% of total emissions have been attributed to a sector at NACE4 level.
  - For 2.7% only the attribution at NACE-3 level is known
  - For 1% no attribution has been made
  - Sectors with missing allocations include, among others, 262, 273, 171, 294, 211, 182, 261, 281, 172, ...
- A list with sectors for which not all emissions have been attributed, will be circulated to stakeholders as soon as possible in order to facilitate further attribution of emissions to sectors at NACE-4 level



Approach IV: Coverage (2)

New ETS activities and greenhouse gases (as listed in Annex I of the revised ETS Directive)

- Direct emissions of CO2 from combustion installations reported in CITL
  - included in the preliminary results
- **Fuel consumption** and use of fuel specific emission factors to derive C02 emissions from their combustion installations for means of comparison
  - to be evaluated at EUROSTAT due to confidentiality of MS data
- **Process emissions:** emissions of CO2, N2O and PFC
  - MS data to be evaluated at EUROSTAT due to confidentiality
  - National greenhouse gas inventories and reports: matching of emission categories from inventories with activities in ANNEX 1 and corresponding NACE-4 sectors yet to be finalized



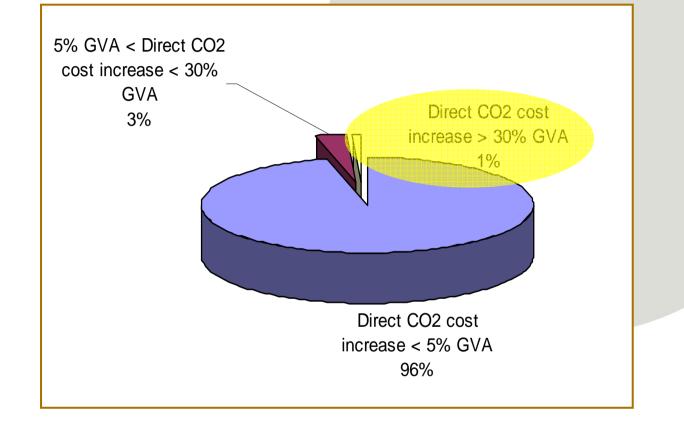
#### **Approach V: Remaining challenges**

- Consultation with Member States and Industry Organizations to identify sector for missing emissions
- Work in progress to include process emissions for new activities and and the new greenhouse gases
- Work in progress to include emissions from temporary excluded ("opted-out") installations (BE, UK, NL)
- Therefore, reported results should be considered lower bounds to actual emissions in particular for sectors with emissions of N2O and PFC or activities, newly mentioned in Annex 1 of the revised ETS Directive.





### **Preliminary results (1)**



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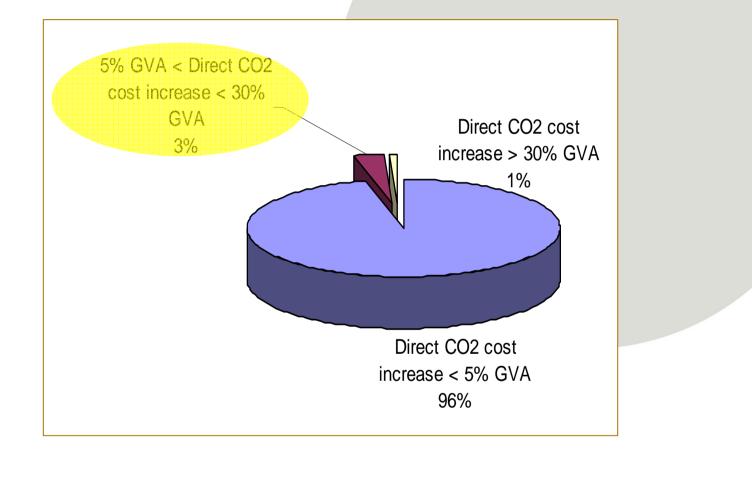
 Three sectors are above 30% CO2 cost with respect to GVA

23.10 Coke Oven Products26.51 Cement26.52 Lime





### **Preliminary results (3)**



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#### **Preliminary results (4)**

- Three sectors are above 30% CO2 cost with respect to GVA
  - 23.10 Coke Oven Products26.51 Cement26.52 Lime
- Seven sectors are above 5% CO2 cost with respect to GVA

10.20 Mining and agglomeration of lignite
15.83 Manufacture of sugar
23.20 Manufacture of refined petroleum products
26.11 Manufacture of flat glass
26.13 Manufacture of hollow glass
27.10 Manufacture of basic iron and steel and of ferro-alloys
27.52 Casting of Steel



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