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

# Indirect CO2 cost calculation and preliminary results

DG ENTR B.1

**Ingmar Juergens,** Jesus Barreiro Hurle, Marek Przeor, Jean Bemelmans



## Issues

- Approach
  - Data sources
  - Confidentiality
  - Data quality, coverage and gaps
  - Remaining challenges
- Preliminary Results

#### Approach I/II: data sources/confidentiality

#### Data request to member states for indirect emissions:

- Electricity consumption in MWh for each sector at NACE 3 level and NACE-4 level.
- Data largely confidential, aggregates for average electricity consumption over GVA received from EUROSTAT
- Working session with EUROSTAT in Luxemburg mid-May

#### Fallback option for calculation of indirect emissions at NACE-3:

- Use sector specific electricity purchase data available at NACE-3 sectoral level for most Member States in Eurostat
- Divide by average electricity price at MS level from Eurostat
- Use average EU-27 emission factor to get CO2 indirect emissions
- Prices in principle available for different consumption classes, which could be matched with sectors
- Data partly confidential, aggregates for average electricity consumption over GVA received from EUROSTAT
- Working session with EUROSTAT in Luxemburg mid-May

#### Approach III: Data quality, coverage and gaps (1)

### Data request from MS: feedback

Data received: 18 MS

```
\mathsf{AT}
         BG
                  C7
                           DE
                                            ES
                                                     FI
                                   DK
                                                              FR
IT
                                                     SE
                                                              SI
         ΙT
                 LV
                           NL
                                   PT
                                            RO
SK
         UK
```

Electricity data received: 14 MS

```
    CZ DE DK ES FI FR IT LT NL
    PT RO SE SI UK
```

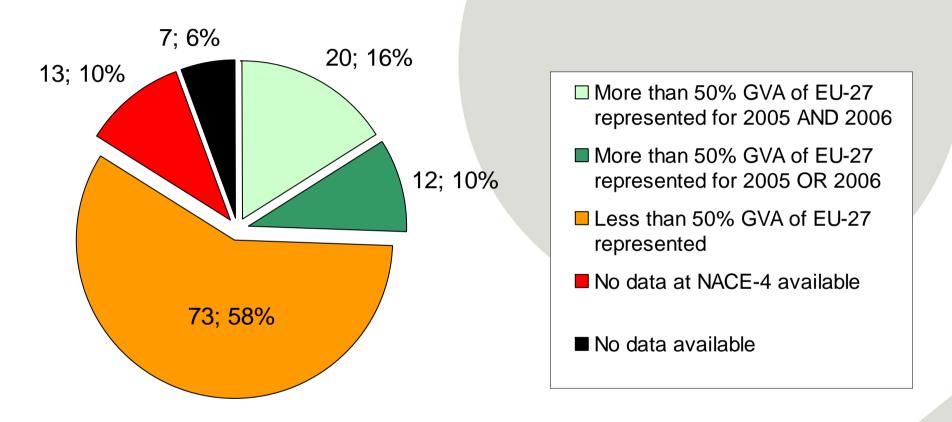
- Received later and not yet included:
  - BE, IE, PL
- Test for completeness:
  - Total EU-27 for any given NACE-4: n/a
  - → GVA of countries for which data was received for a given sector divided by total EU-27 GVA for that sector: %

#### Approach III: Data quality, coverage and gaps (2)

- Limited coverage
  - For some only 2005 or 2006 data available
  - For some only limited representativity (coverage of GVA of EU-27 of a given sector)
  - For some only NACE-3 data is available
  - For some no data is available
- Quality check of underlying MS data yet to be finalized

#### Approach III: Data quality, coverage and gaps (3)

#### NACE-4: Data quality and availability for indirect cost



**Note:** Percentages refer to the total no. of sectors that are not already over the threshold through trade intensity > 30%: 125 (Grand total: 258)

#### **Approach IV: remaining challenges (1)**

## Sectors subject to ongoing further scrutiny of electricity data:

1	1562	Manufacture of starches and starch products
2	2415	Manufacture of fertilizers and nitrogen compounds
3	2020	Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre
4	2416	Manufacture of plastics in primary forms
5	2751	Casting of iron
6	1542	Manufacture of refined oils and fats

#### **Approach IV: remaining challenges (2)**

### **Further assessment, Quality control**

- Data sent by MS not complete
- Data of additional MS which has been received in the meantime, to be integrated
- Quality of underlying MS data: to be assessed with EUROSTAT and MS in May
- Some sectors where indirect emissions are most relevant, are being further scrutinized using all available and adequate data sources

#### **Preliminary results**

Sectors that get over 5%
 CO2 cost due to indirect cost (with trade intensity > 10%)

2112	Manufacture of paper and paperboard
1562	Manufacture of starches and starch products

 Sectors that get over 5% CO2 cost due to indirect cost (but with trade intensity < 10%)</li>

1412	Quarrying of limestone, gypsum and chalk
2640	Manufacture of bricks, tiles and construction products, in baked clay

Sectors that have > 30% trade intensity are not included here.

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