Development of indicators to develop energy efficient policies

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Overview

- Energy efficiency indicator development in Ireland
- Indicators for energy efficient policies
  - Transport
    - New private car CO_2 g/km
  - Industry
    - Energy cost ratios

Energy efficiency indicator development in Ireland

- 1994 Irish representative attended the 2nd meeting of the ODYSSEE project
- Indicators developed since 1994 but unreliable data sources
- Some indicators used in the1999 Green Paper on Sustainable Energy
- Need for an energy statistics unit highlighted in the Green Paper
- Energy Policy Statistical Support Unit (EPSSU) formed in 2002 following the establishment of the Sustainable Energy Authority of Ireland in that year
- Publish a report – Energy Efficiency in Ireland (2007 & 2009)
- Update annual energy efficiency indicators
- Develop energy efficiency indicators

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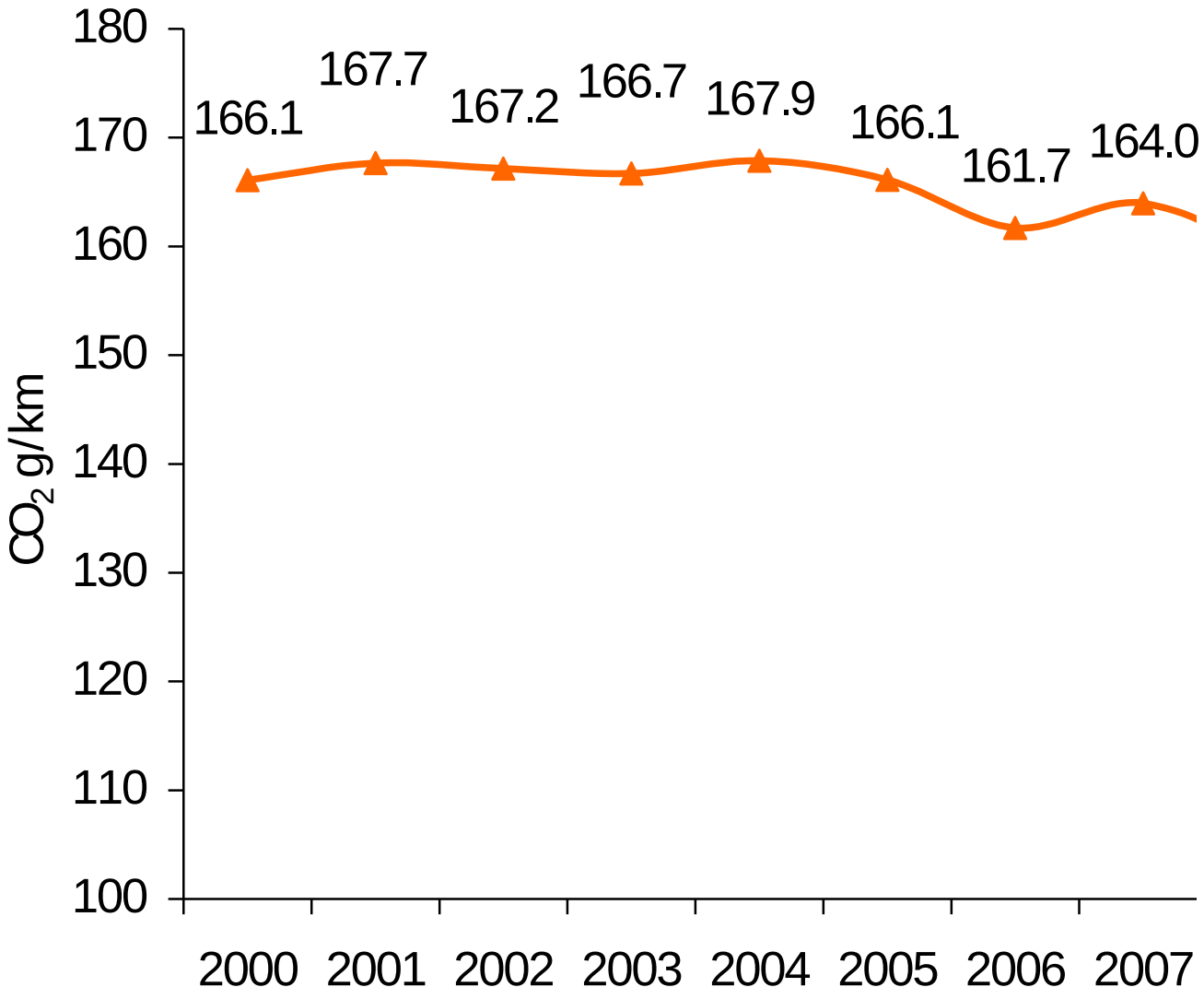
Transport

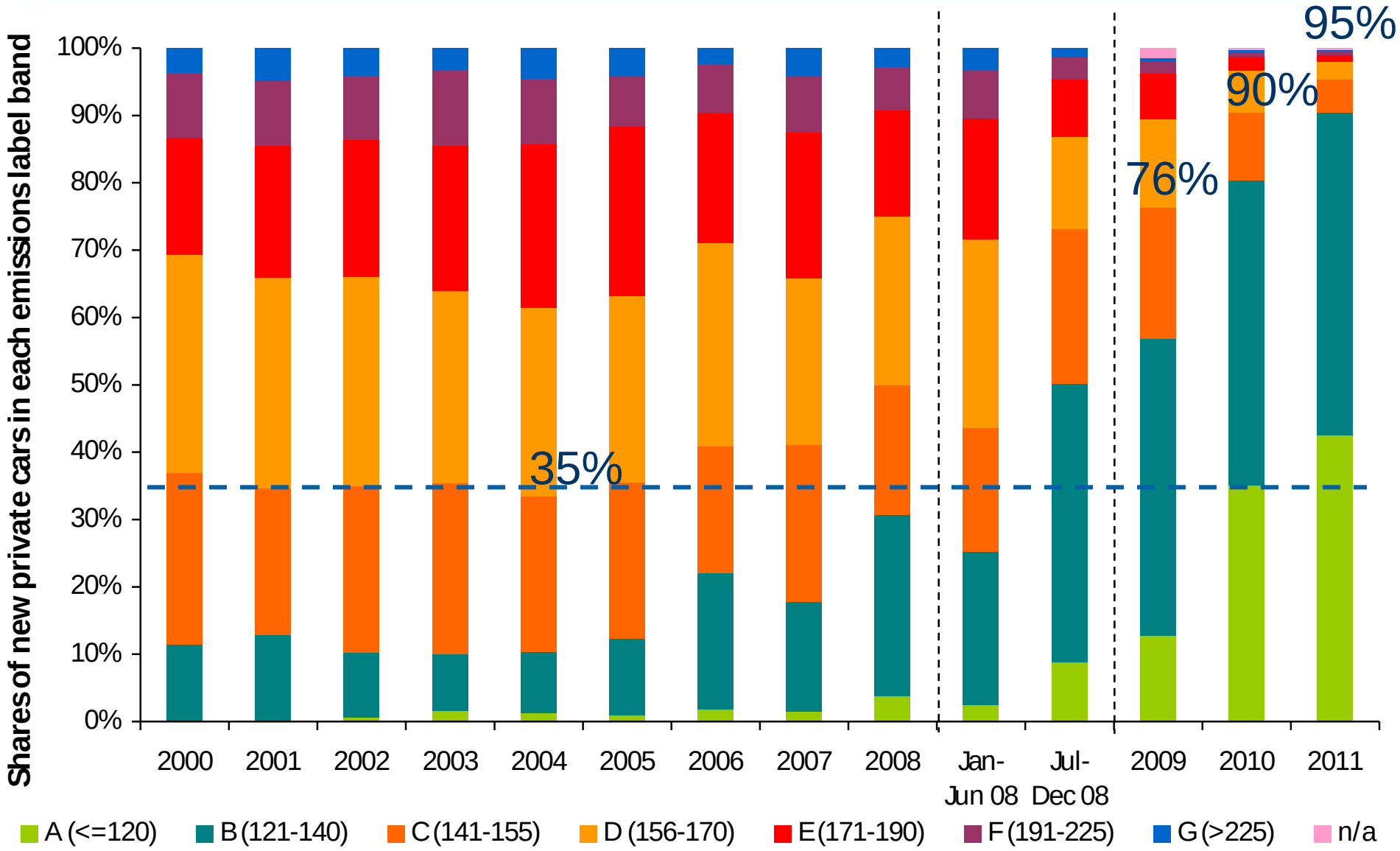
Timeline of policy change

- SEAI sought and secured detailed data in 2002
- SEAI demonstrated purchasing trends offsetting energy efficiency gains in 2004 using a new car g/km CO_2 indicator
- Policy consultation in 2006 - 3 options proposed
- SEAI recommended a complete change to a system that was solely based on emissions - basis of SEAI proposal adopted
- Policy implemented in July 2008 (Announced in Dec. 2007)
- SEAI monitored significant policy response in Dec. 2008
  - Jan – Dec 2007 41% of new cars < 155 g/km CO_2
  - July – Dec 2008 84% of new cars <155 g/km CO_2
- No significant change in engine size purchasing trend
- Within each size band more efficiency cars are being purchased & a switch to diesel cars

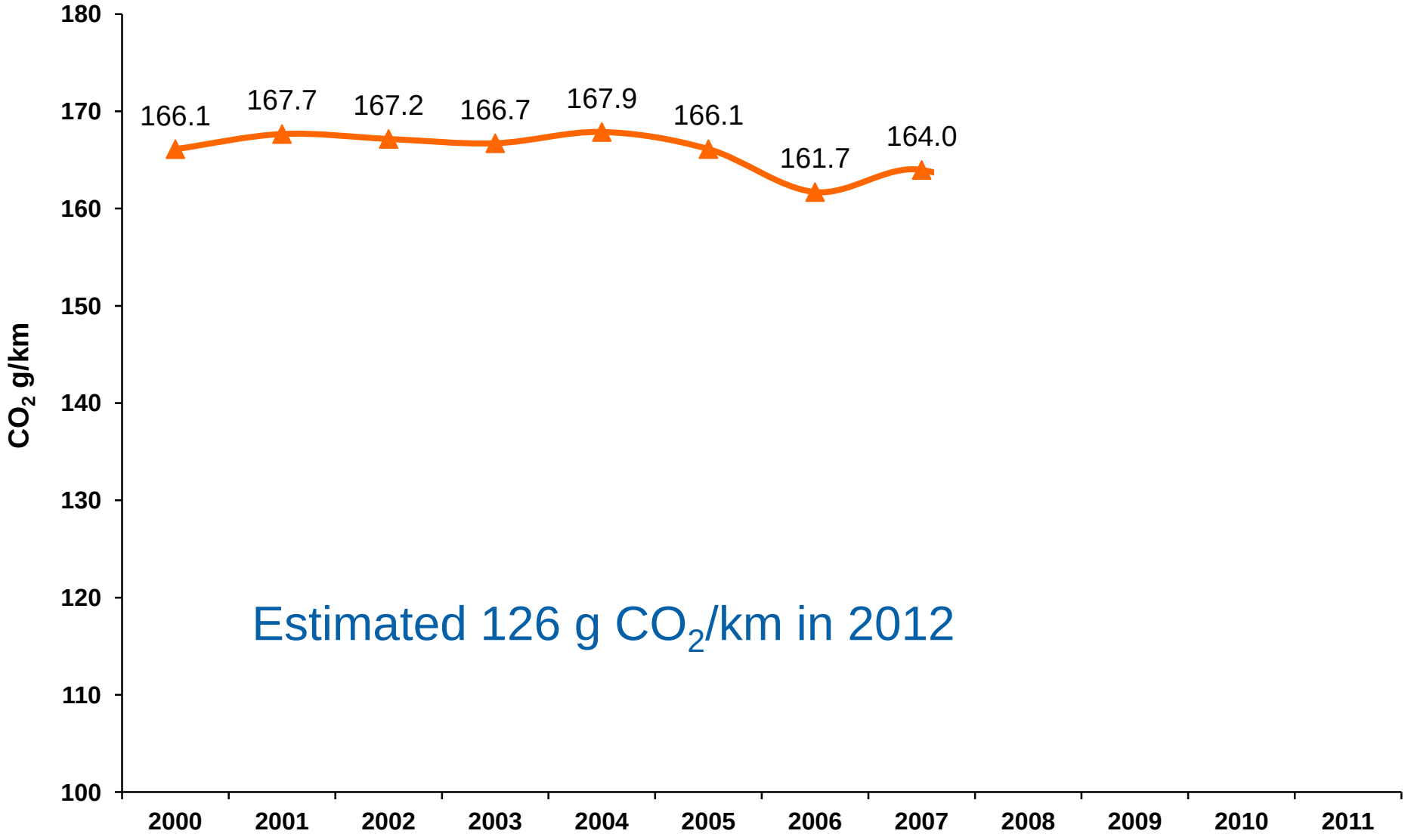
CO_2 intensity of new cars



Shares of Cars by Emission Bands

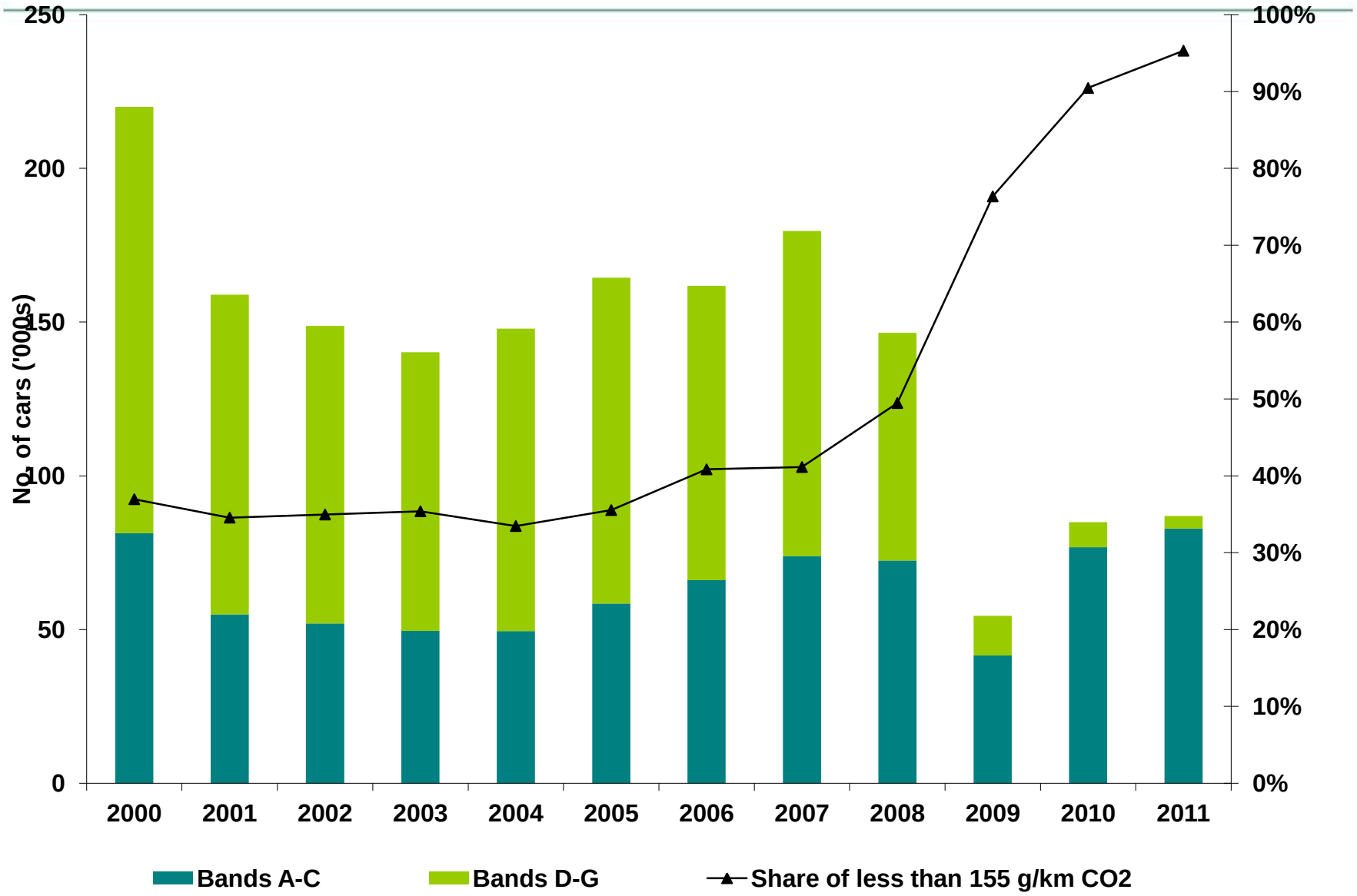


CO_2 intensity of new cars



Estimated 126 g CO_2/km in 2012

Sales of new cars by emissions band



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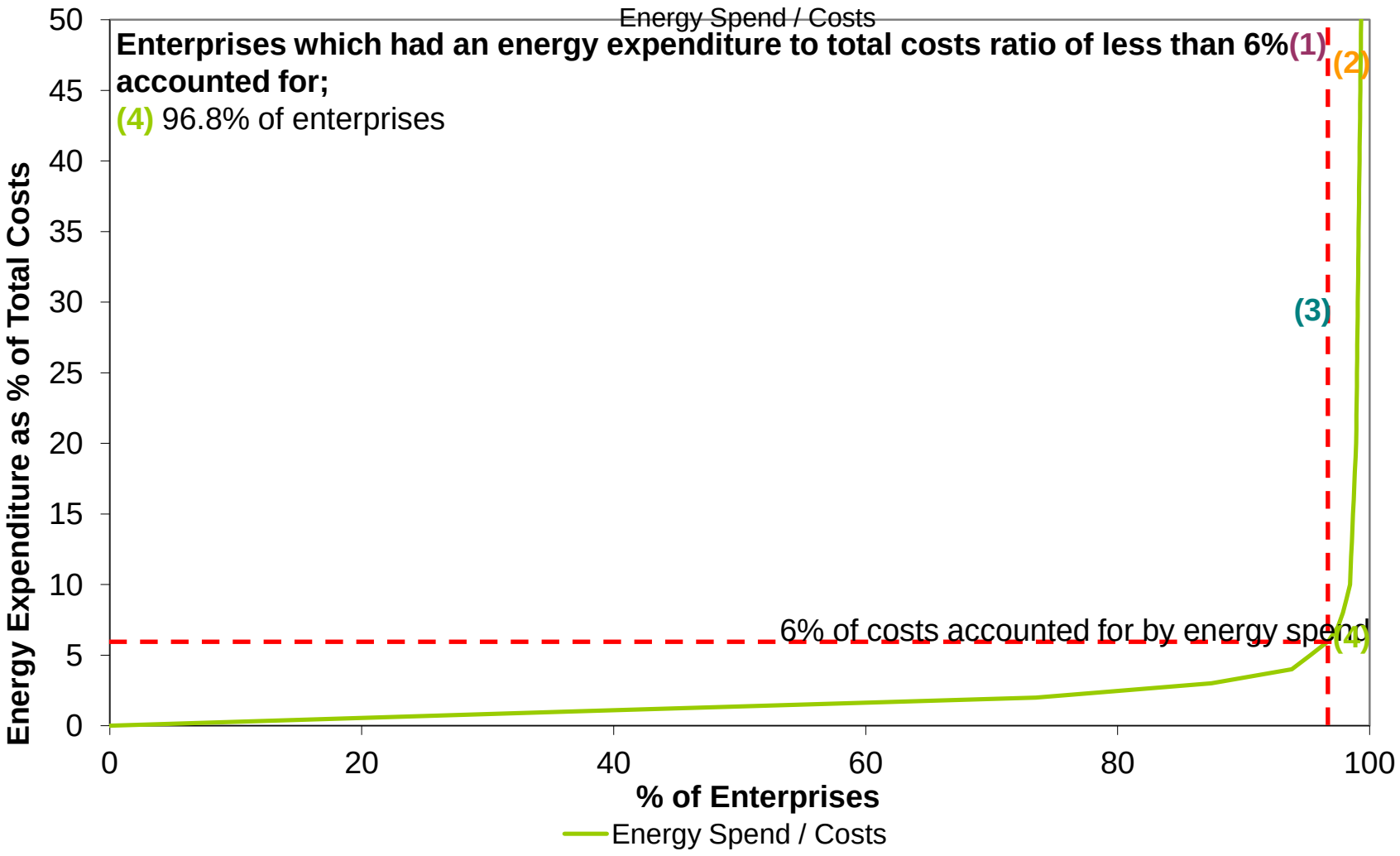
Industry

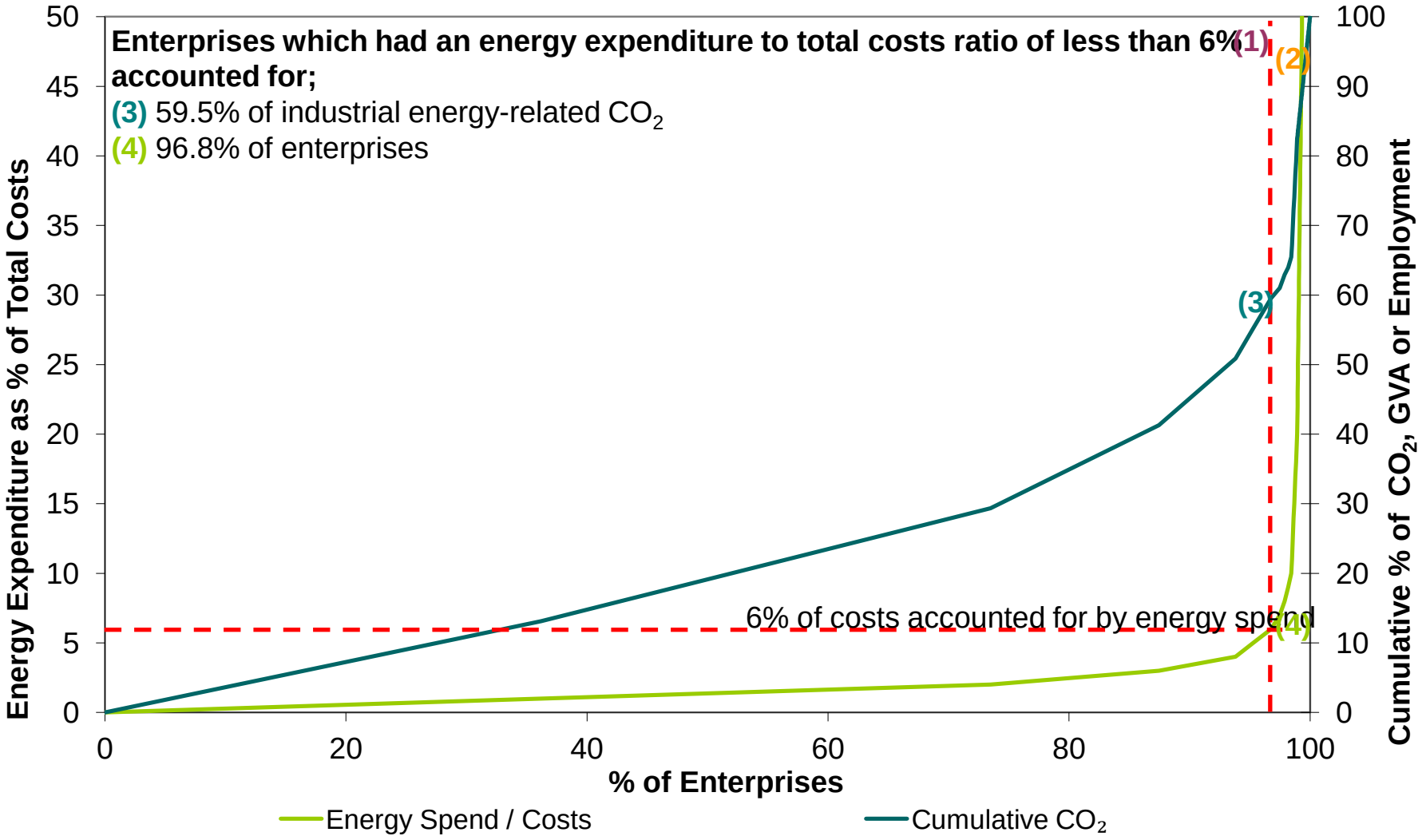
Development of cost ratios

- SEAI identified a need to analyse the cost structure of Irish industry
- SEAI built up cost ratios from an enterprise level based on Census of Industrial Production survey conducted by the Central Statistics Office
- Inform where to target energy efficiency policy in industry
- Analyse the impact of tax changes or levies on industry energy costs

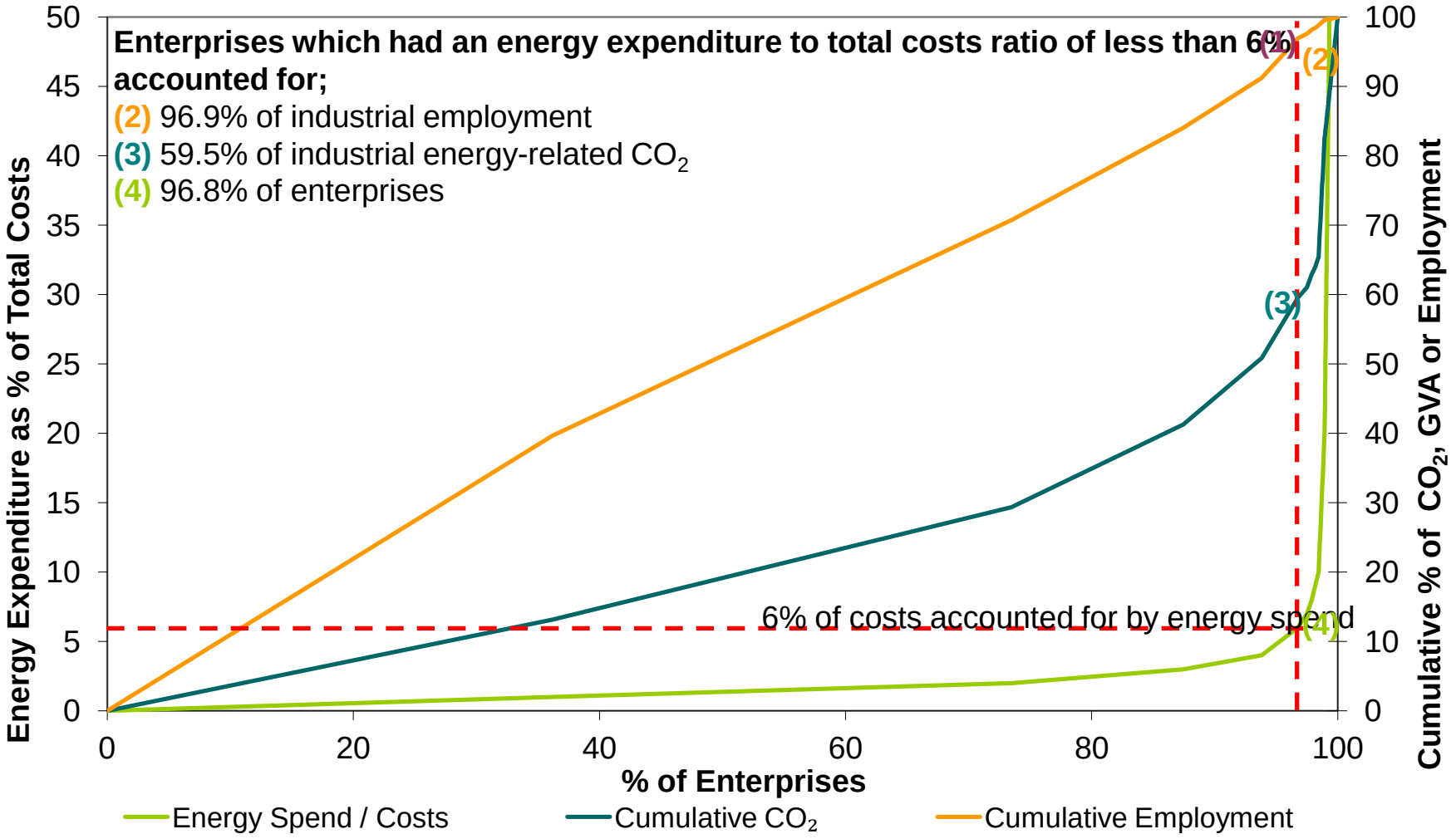
Energy Expenditure to Direct Costs Ratio (1)



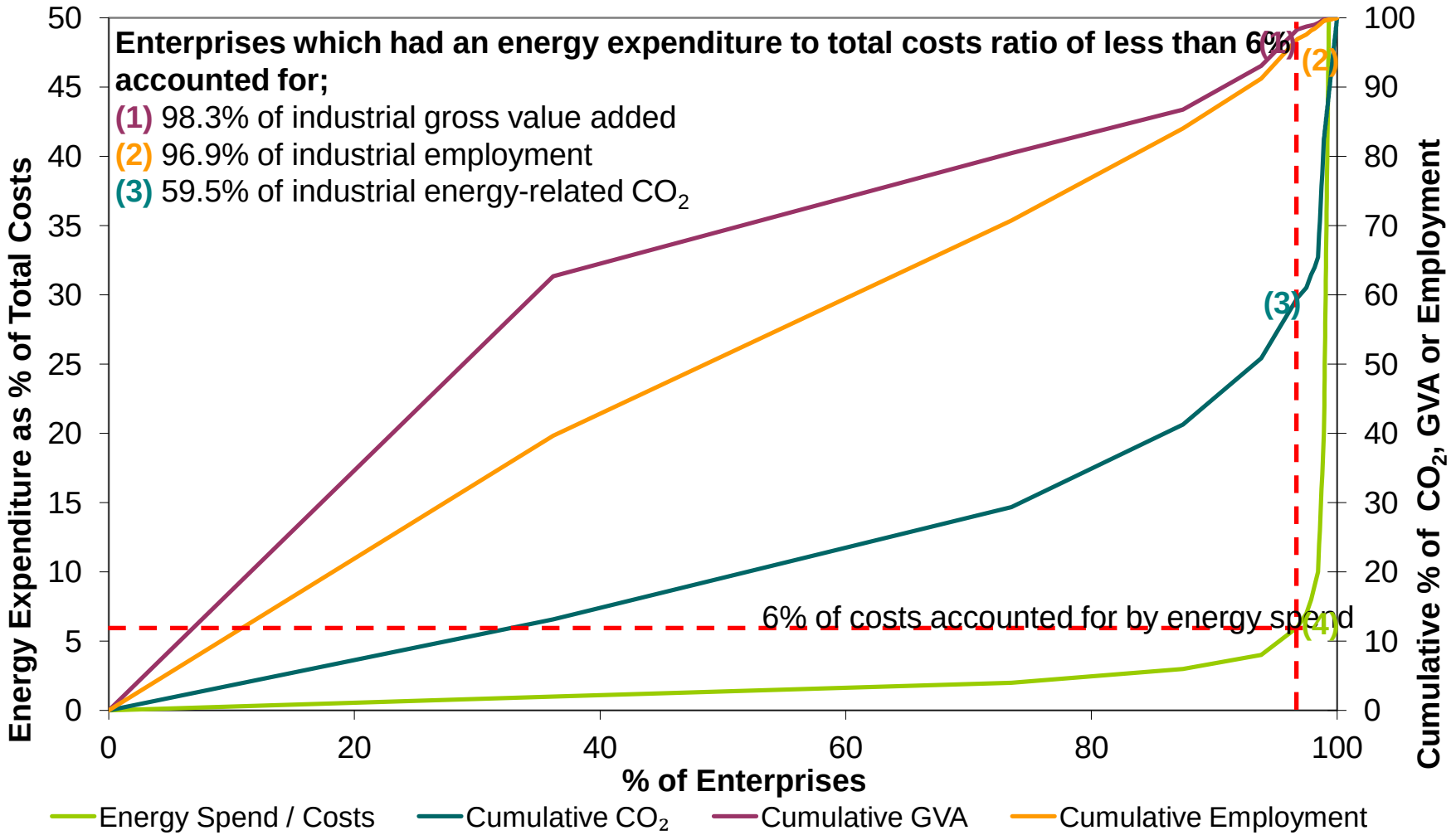
Energy Expenditure to Direct Costs Ratio (2)



Energy Expenditure to Direct Costs Ratio (3)



Energy Expenditure to Direct Costs Ratio (4)



Impact of industry cost ratios

- Inform where to target policies
  - Small number of large energy users
    - Emissions Trading Scheme
    - 1 enterprise switched to CHP
    - More renewables used by cement manufacturers
  - Large number of enterprises where energy is low cost
    - Accelerated Capital Allowance Scheme
    - Energy management systems
- Note indicators have been updated to 2007
  - Unpublished
  - Same pattern applies
  - Analysing 2008 & 2009 data in the second half of 2012

seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

www.seai.ie/statistics

www.dcenr.ie

Ireland's EU Structural Funds Programmes 2007 - 2013

Co-funded by the Irish Government and the European Union

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