Industry's low-carbon transition and the role of the EU ETS

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Industry's emissions have declined significantly since 1990

Emissions from the chemical sector have decreased by almost 60%

- From over 300 Mt CO_2-eq in 1990 to less than 150 Mt in 2013
- Most of this mitigation due to reductions in process emissions

Emissions from the steel sector have decreased by almost 40%

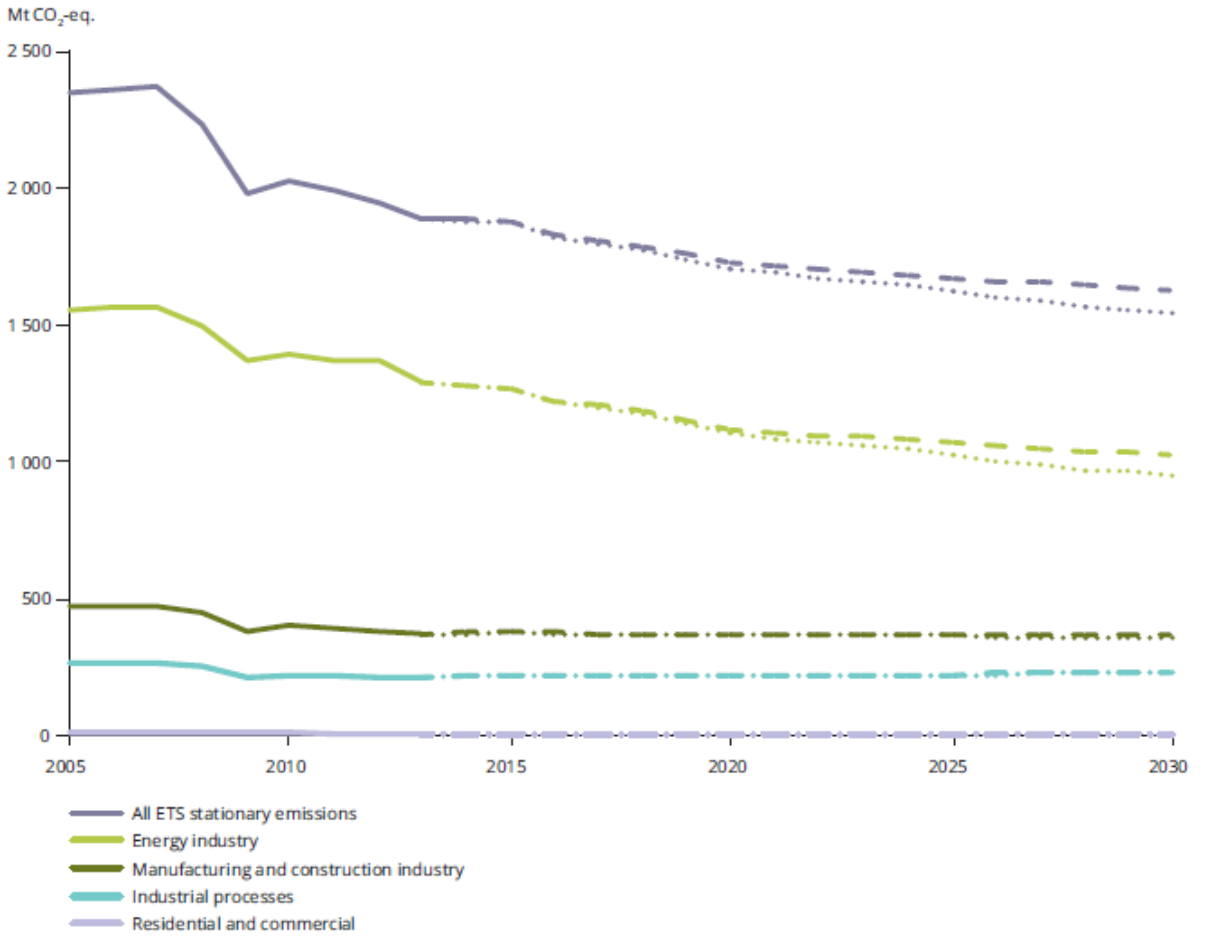
- In 2013, total EU emissions from steelmaking were 166 Mt CO_2-eq
- Recent decarbonisation efforts contributed to the mitigation, but the recession and closure of steel plants also played a role

Emissions from the cement sector have decreased by almost 40%

- From over 160 Mt CO2-eq in 1990 to over 100 Mt in 2013
- Reductions occurred mainly due to lower production levels

Industry's emissions are not projected to decline in the coming 15 years

Figure 3.1 Historic and projected EU emission trends in the ETS, by main source category



Without a change of the rules, the European Environment Agency (EEA, 2015) projects that **industry's emission reductions will stall over the next 15 years**

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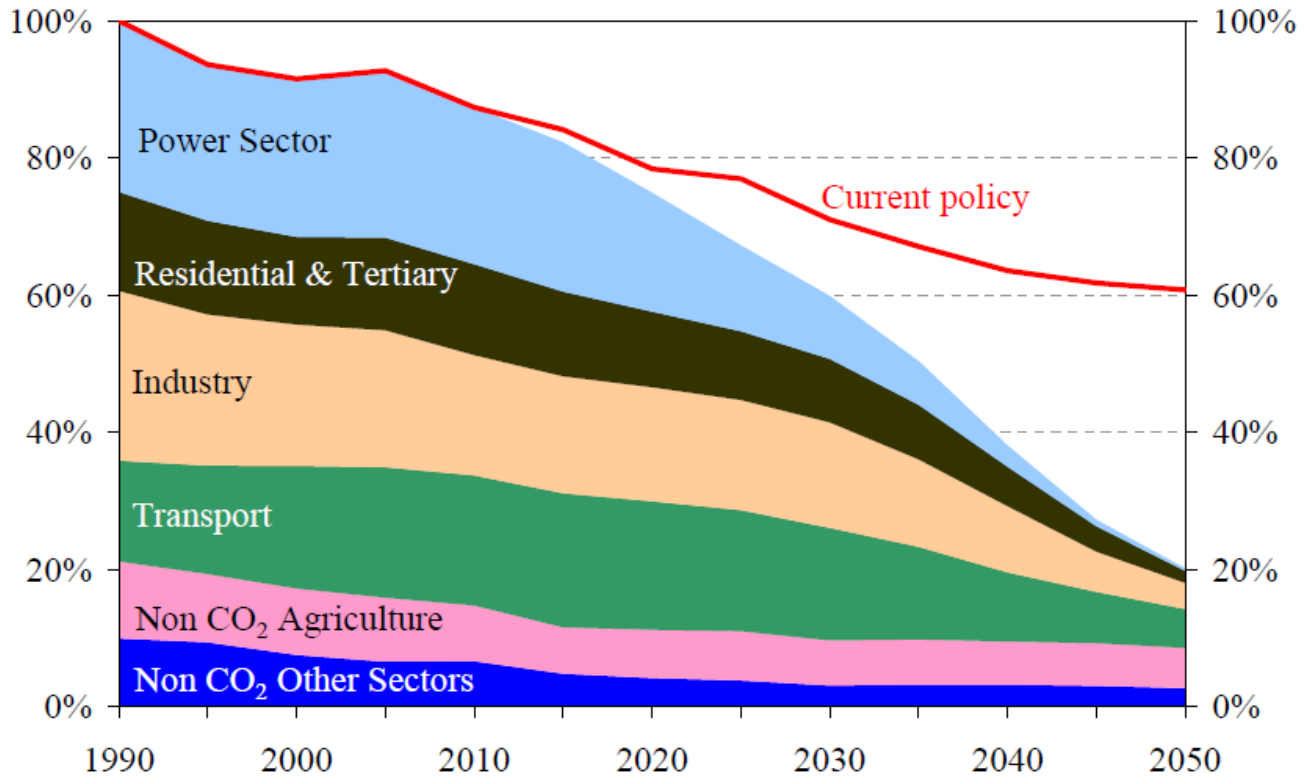
Decarbonising the EU's economy still requires significant emission cuts in industry

Figure 1: EU GHG emissions towards an 80% domestic reduction (100% =1990)



The EC's 2050 low-carbon roadmap: **83-87%** emission reductions in industry (compared to 1990) needed to reach domestic economy-wide reductions of 80% by 2050

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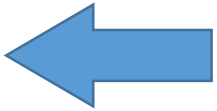
Emission reductions of over 80% by 2050 are possible in the EU's manufacturing sectors

- Not easy, as most of the low-hanging fruit has been picked already
- Industry faces other major challenges (capacity surpluses, competition with regions that have better access to raw materials & larger domestic markets)
- Also an opportunity: focus on climate-friendly solutions with co-benefits that increase the economic performance of industries and reduce the reliance on imports
- New process technologies need to be market ready by 2030 for deployment across the EU before 2050
- Also think outside the box beyond process innovations
- Key issues: circular economy (use more recycled scrap steel, increased recycling of plastics), bio-based economy (bio-based chemicals, fertilisers from bio-waste), transition to high-value-low-volume

How to reap these opportunities of the industry's low-carbon transition?

Smart public policies are crucial:

- Public procurement
- Targets (recycling, use of bio-waste in chemical sector, CO_2 standards, limits on the use of fertilisers)
- Product standards (eco-design)
- Innovation support
- Carbon price signal



Role EU ETS

Avoid regulatory misalignment, such as:

- RES target for transport (biomass used for transport rather than for higher—added-value use in chemicals)
- Higher regulatory costs for making steel from recycled scrap than from imported iron ore (over-compensation of direct carbon costs)
- Perverse free allocation rules under the EU ETS that have caused an increase in cement emissions by over 15 Mt CO_2-eq (see Sandbag report)

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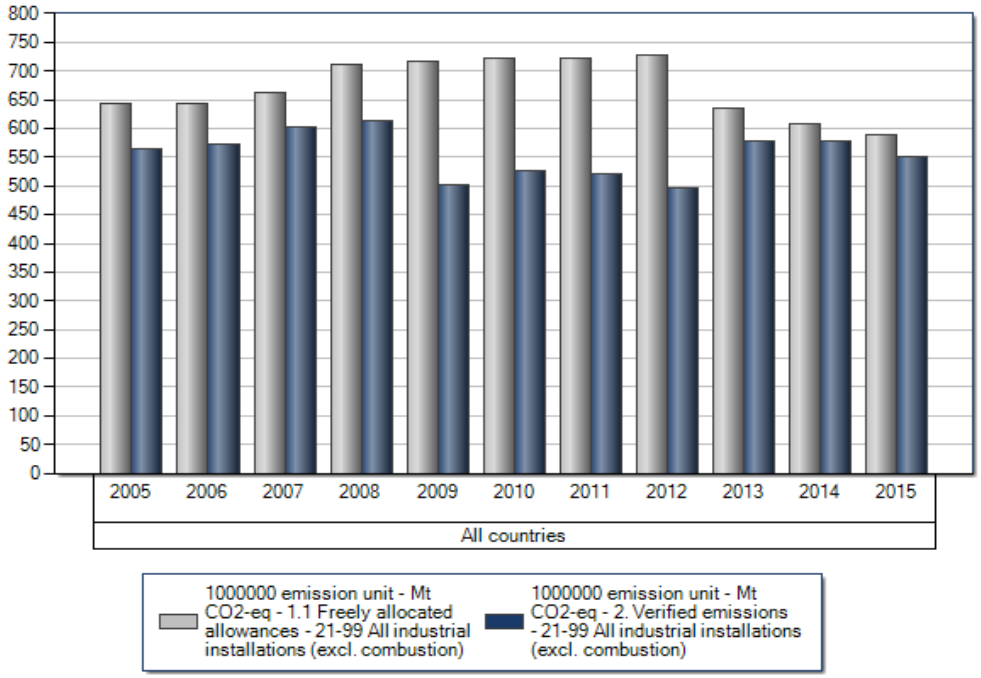
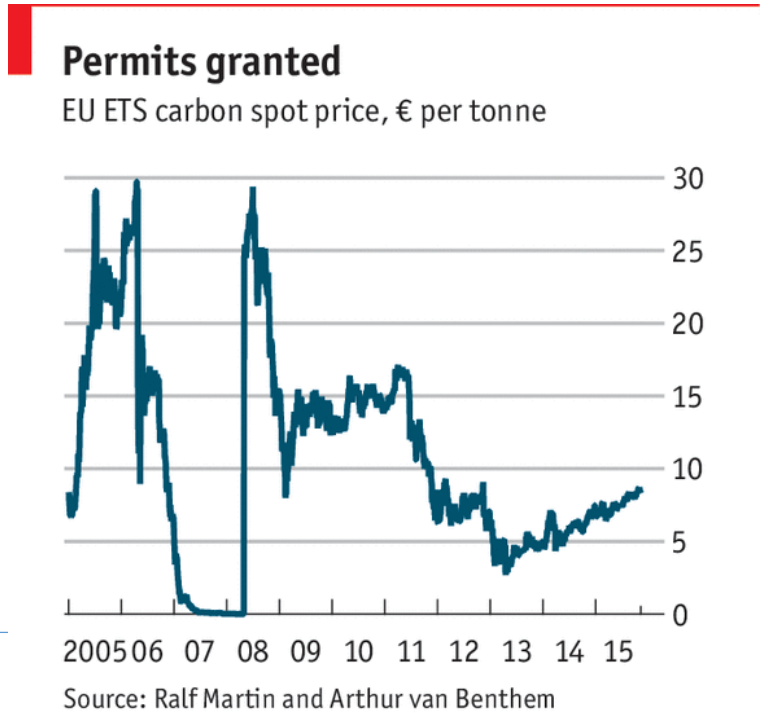
The EU ETS does not provide a carbon price signal to industry at the moment

Problems:

- Over-allocation of free emission allowances
- Low carbon price

The EU ETS currently does not send the right signals for the climate friendly transition, nor does it reward the frontrunners that have invested in low-carbon technologies





Proposed EU ETS reform does not sufficiently reward low-carbon industry solutions

Pay-outs to industry in form of free carbon permits are over 15 time the amount the EU plans to spend on innovation after 2020

Subsidising industry pollution:
6.3 billion allowances,
± €160 billion

Supporting industry innovation:
400 million allowances,
± €10 billion

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EU ETS reform: getting it right

- **Set a stronger carbon price signal** by cancelling surplus emission allowances, introducing a steeper decarbonisation pathway (LRF>2.8%) and starting in 2021 at actual emission levels.
- **Invest more revenues in climate friendly innovation** and support the frontrunners that want to invest in breakthrough technologies.
- **Phase out the free allocation of emission allowances** by gradually increasing the share of allowances to be auctioned from the current 57% to 100% in the future.
- **Do not give free emission allowances to industries that do not have significant carbon leakage risks** by introducing a focused tiered approach to leakage based upon the ability to pass-through costs.
- **Introduce an incentive to innovate** by annually reducing the amount of free allowances that an installation receives (the benchmark) in line with the overall decarbonisation pathway of the EU ETS

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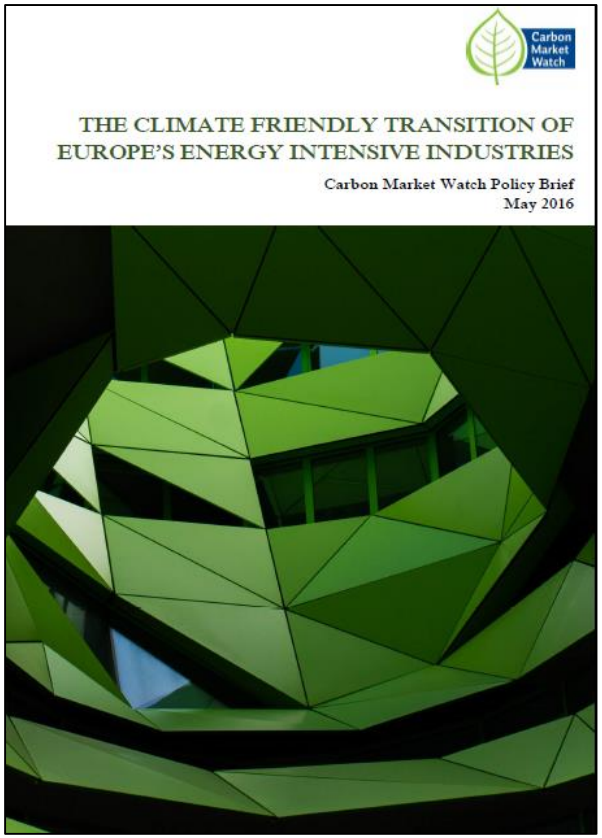

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Thank you!

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Read summary briefing here

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