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Improving EU ETS Data for Sector-Level Analysis

Challenges, insights, and opportunities from EUTL-based research

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The EUTL: a compliance tool—not an analytical dataset

EUTL = Designed for compliance, not analysis

- Data reported at installation–compliance-year level
- Single “Main activity” code per installation (~40 categories)
- Good for regulatory monitoring
- **But insufficient for sectoral understanding**
  - No sector/NACE information
  - No links between installations within industrial plants
  - Missing context for supply-chain interactions

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Why this matters: the steelmaking case, missing the real emissions

- EUTL categories ≠ Industrial sectors
- Lack of upstream–downstream supply chain links
- The steelmaking example: installations labelled as “Iron and steel production” → mainly stand-alone finishing installations.
- Steel sector emissions appear fragmented and underestimated
- Activity codes do not represent real production systems

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Our approach: a sector-level analysis based on geolocation + industrial context

- We re-attributed emissions from installations that operate as part of steel plants:
  - Combustion of blast furnace / converter gas in nearby power plants
  - Coke ovens
  - Ferro-alloy manufacturing
  - Lime kilns producing lime for steelmaking
- Method:
  - Spatial matching of installations to steel plant locations
  - Identification of functionally integrated units
  - Reclassification of their emissions into the steel sector

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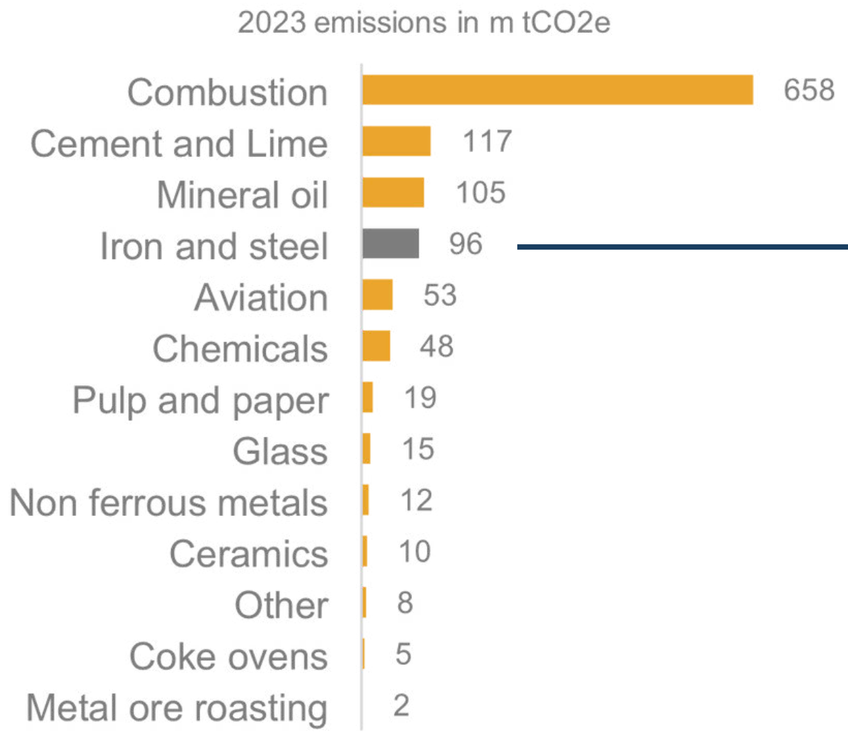
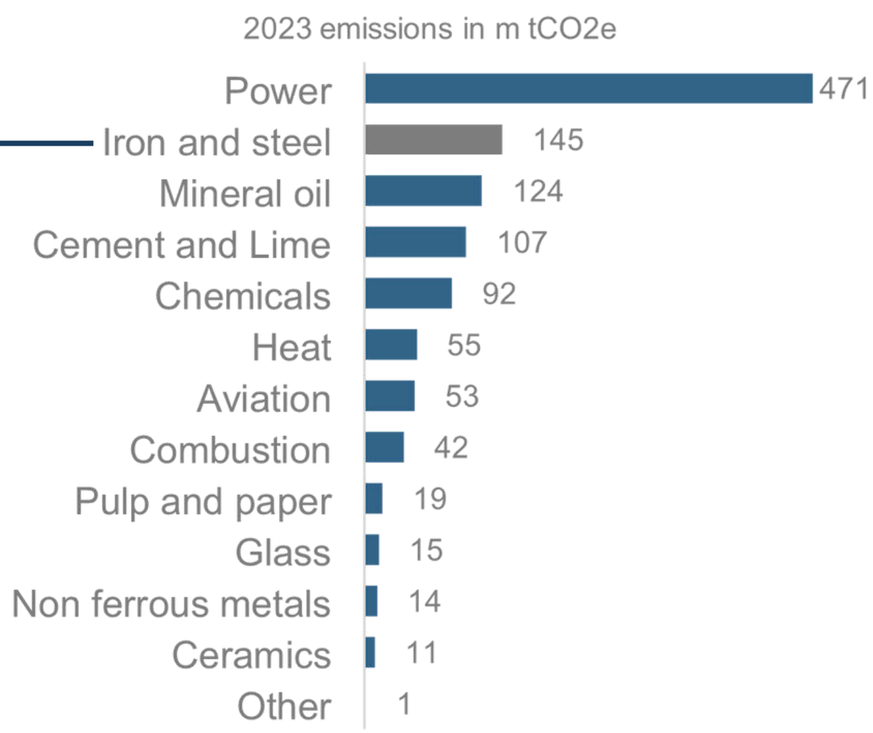
Key Findings: Steelmaking = ~25% of all industrial ETS emissions in 2023

EUTL-based Activities



Sandbag Sectors



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Check our dashboard: sandbag.be/eu-ets-dashboard/

The Question of Responsibility

Who is responsible for transferred emissions?

- Example:
  - Blast furnace gas originates in steel plant
  - But emissions are reported by utility combusting the gas
- Questions this raises:
  - Do these emissions “belong” to steelmaking?
  - Should they affect free allocation benchmarks?

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What Would Improve ETS Data Usability?

Three practical improvements

1. Add sector identifiers (e.g., NACE mapping) –previously done for carbon leakage list preparation
2. Provide relational metadata
    - Plant/site identifiers
    - Company groupings
    - Links between installations on same industrial site
3. Tag transferred emissions
    - Identify when emissions originate from one installation but are reported by another

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The EUTL: a compliance tool—not an analytical dataset

The EU ETS is maturing. The data should, too.

- EUTL is robust for compliance
- But insufficient for system-level analysis
- Integrating industrial context, and relational data reveals a more accurate emission landscape
- Better metadata would support:
  - Policymakers
  - Researchers
  - Industry
  - Transparency in carbon pricing

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Thank you

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