

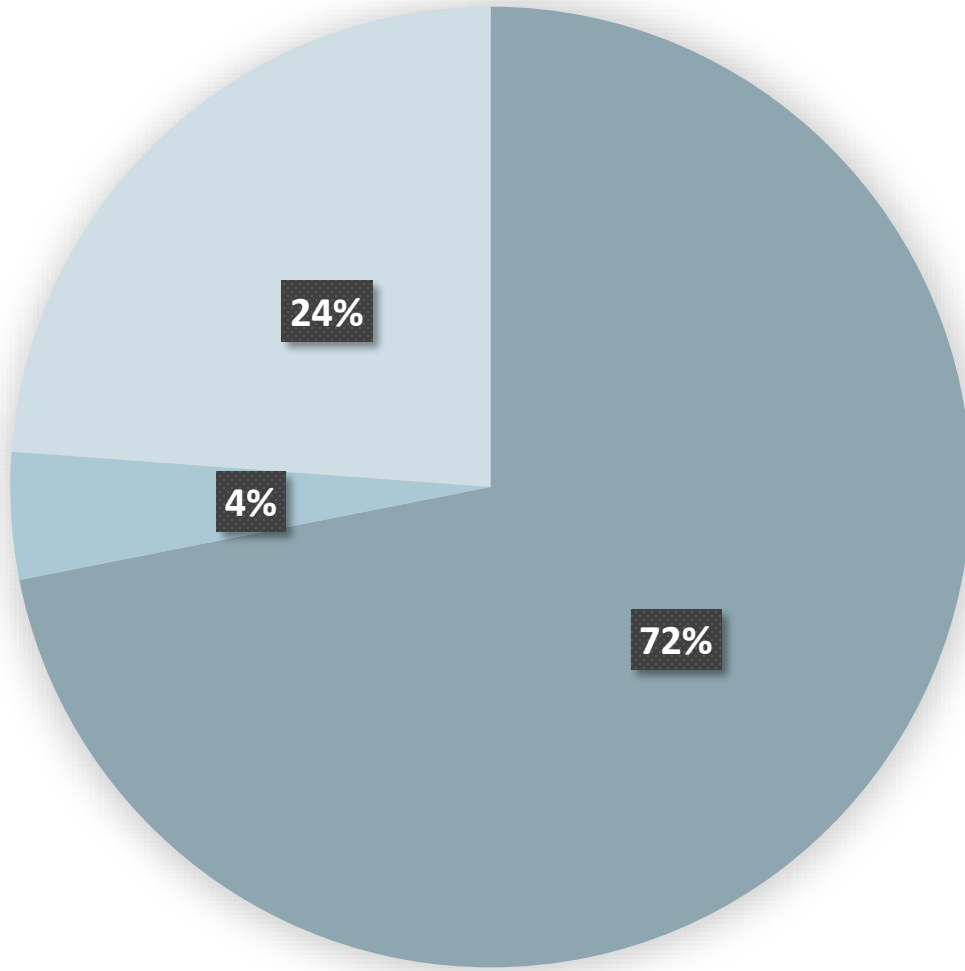
**Decarbonising the steel industry in Europe –
Technology and Economics**

April, 12th 2021

Marlene Arens

Fraunhofer Institute for Systems and Innovation Research

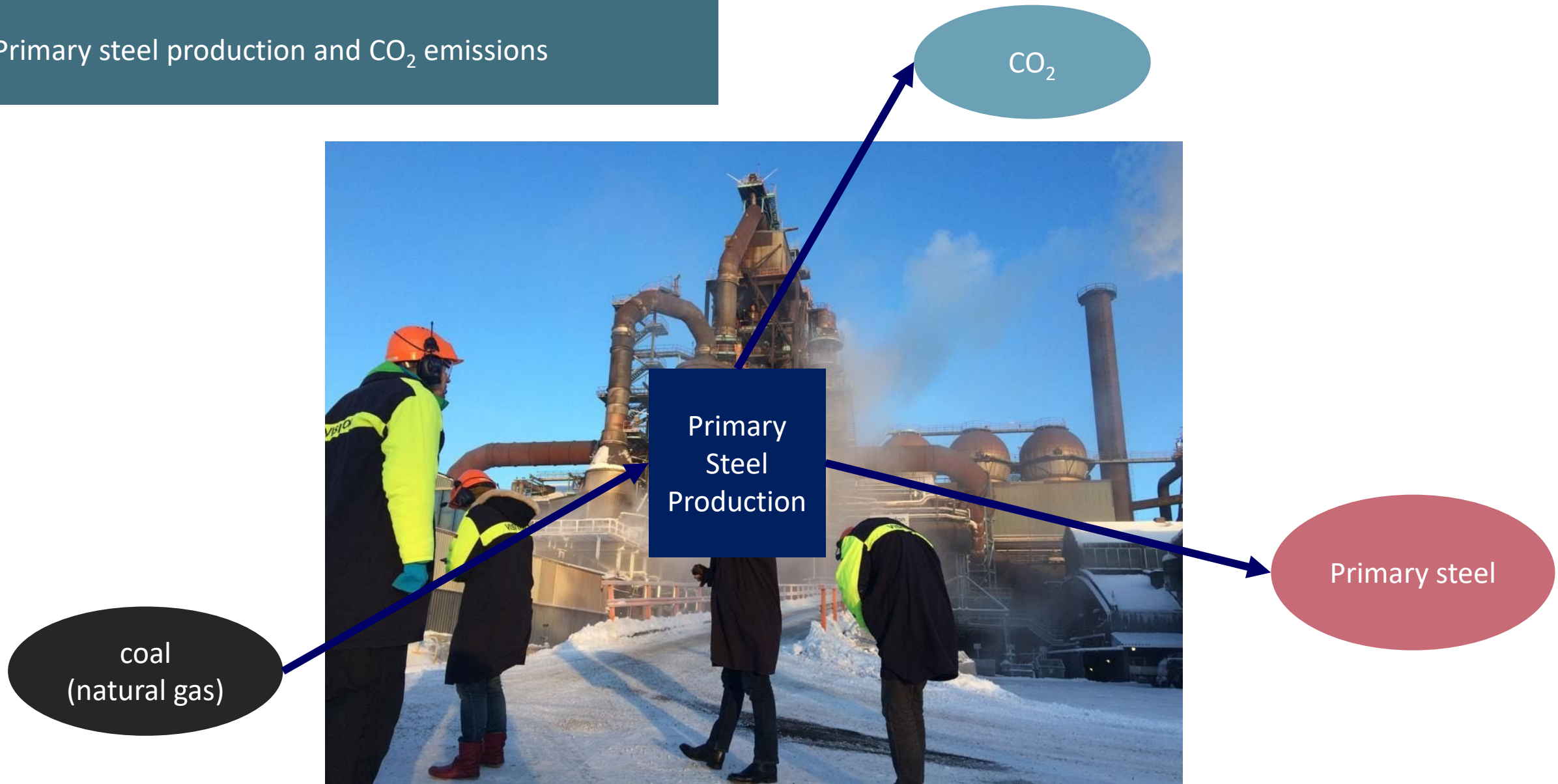
Global Steel production



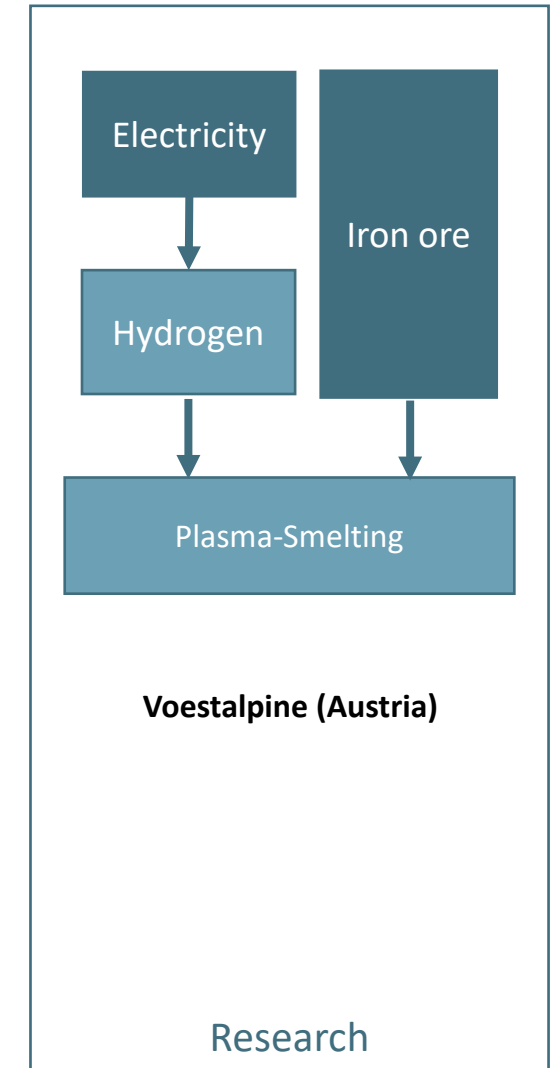
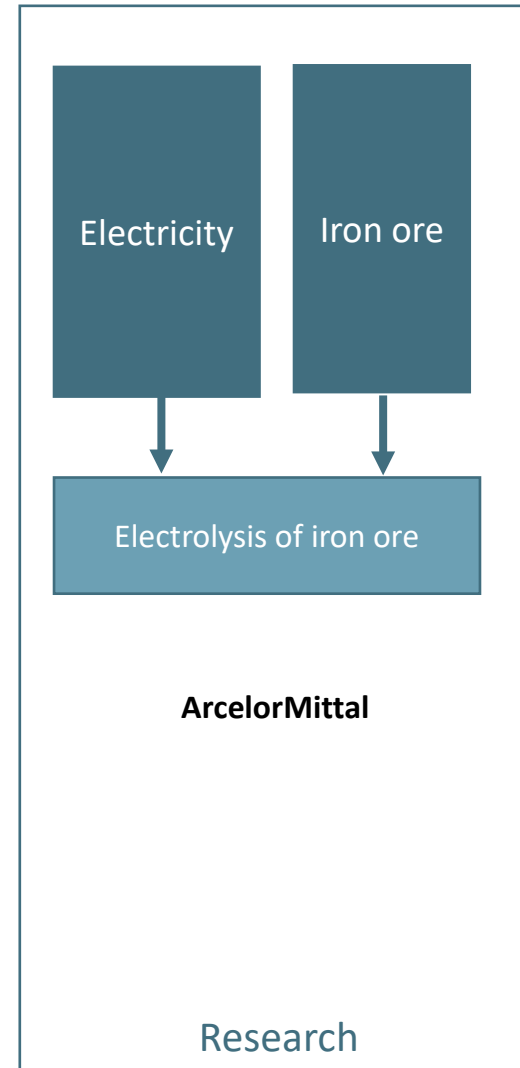
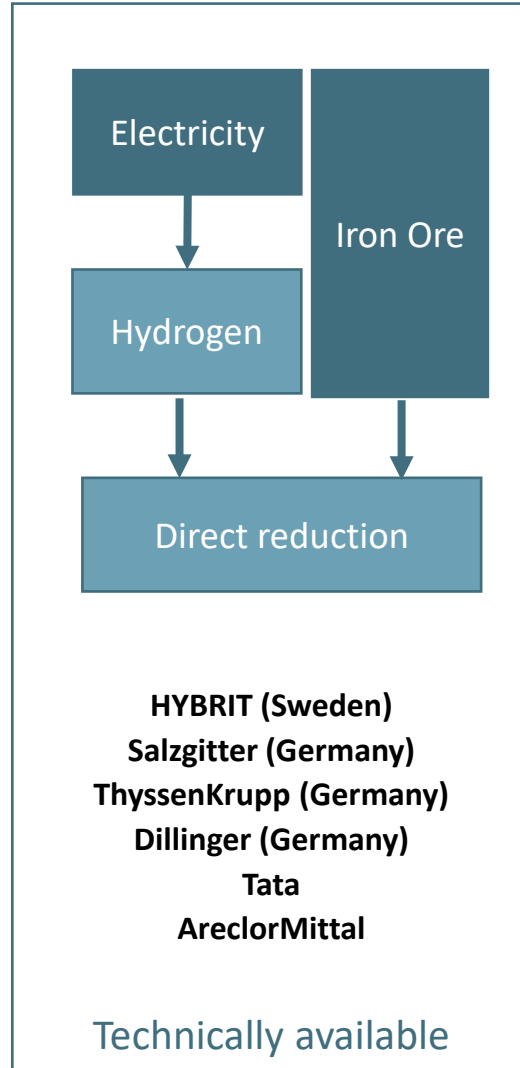
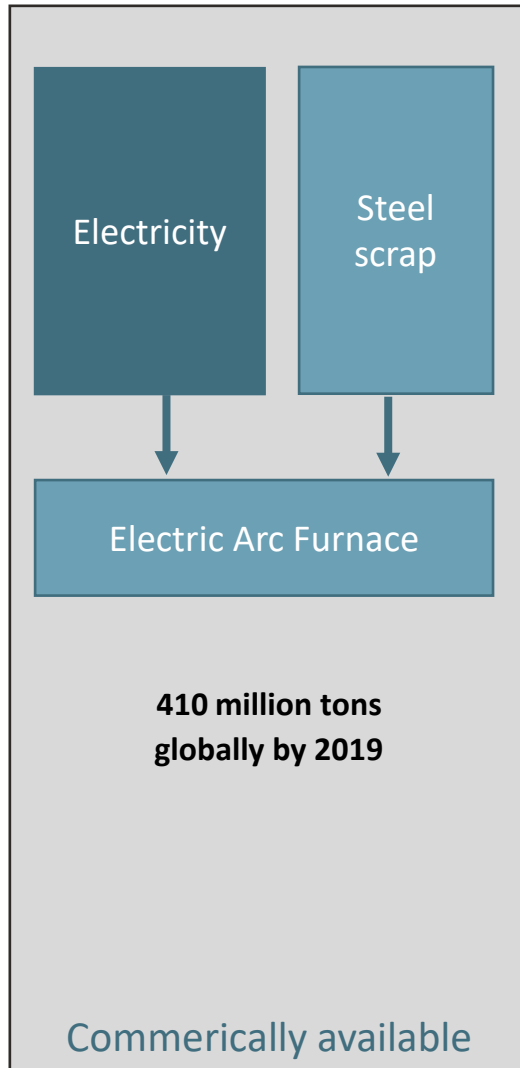
1870 Mio t steel (2019)

- Coal based steelmaking
- Natural gas based steelmaking
- Scrap based steelmaking (Recycling)

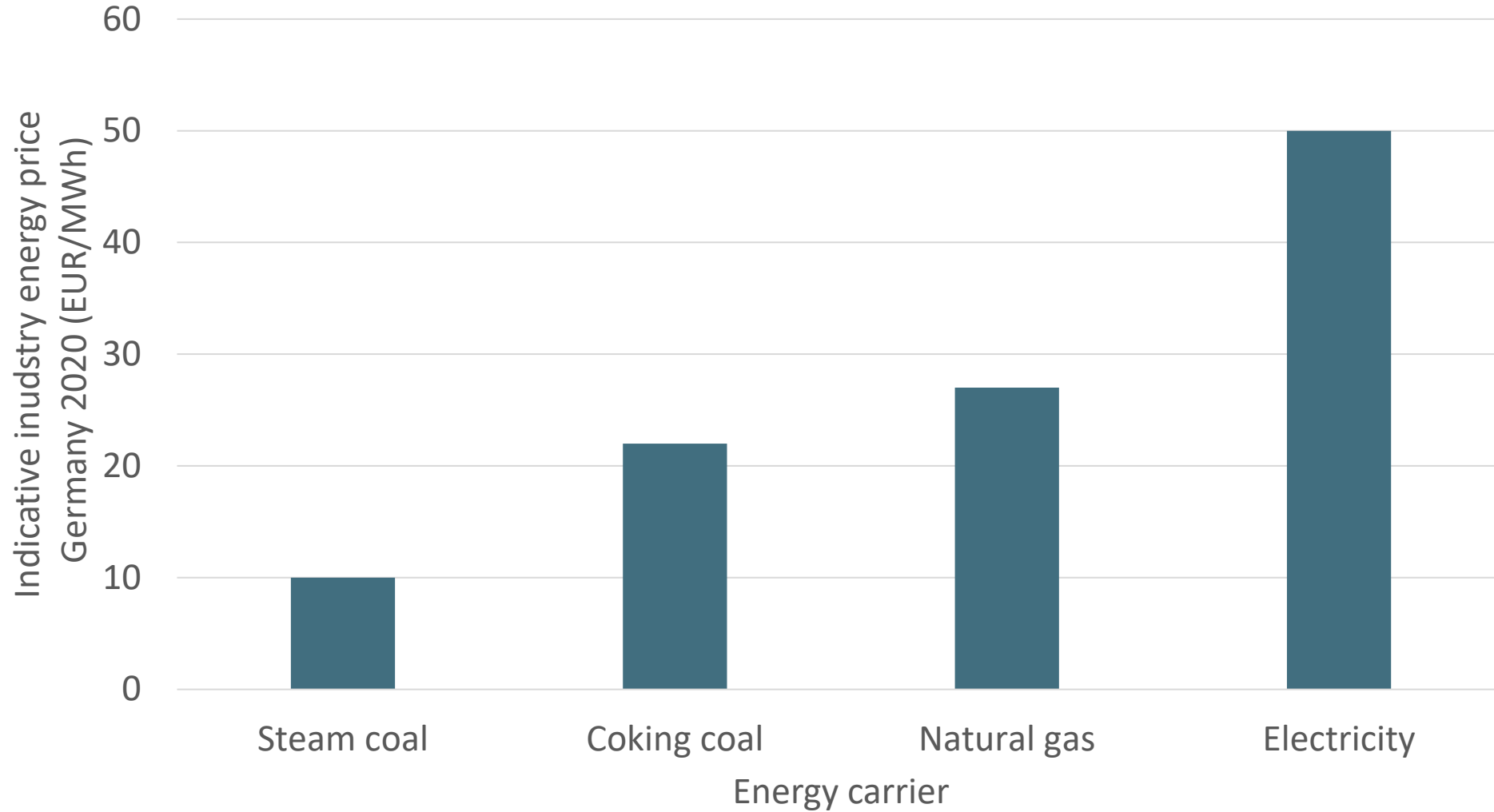
Primary steel production and CO₂ emissions



Electricity-based steel production



Indicative industrial energy prices, Germany 2020



Thank you for your attention.

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