

CEPS TF BENCHMARKING

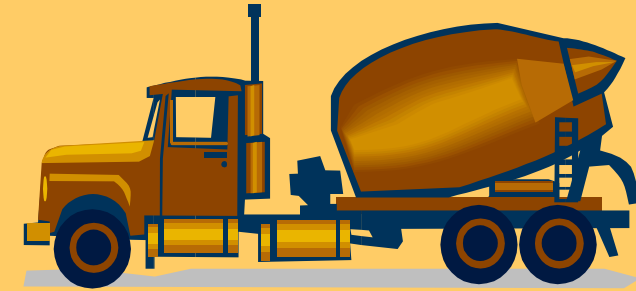
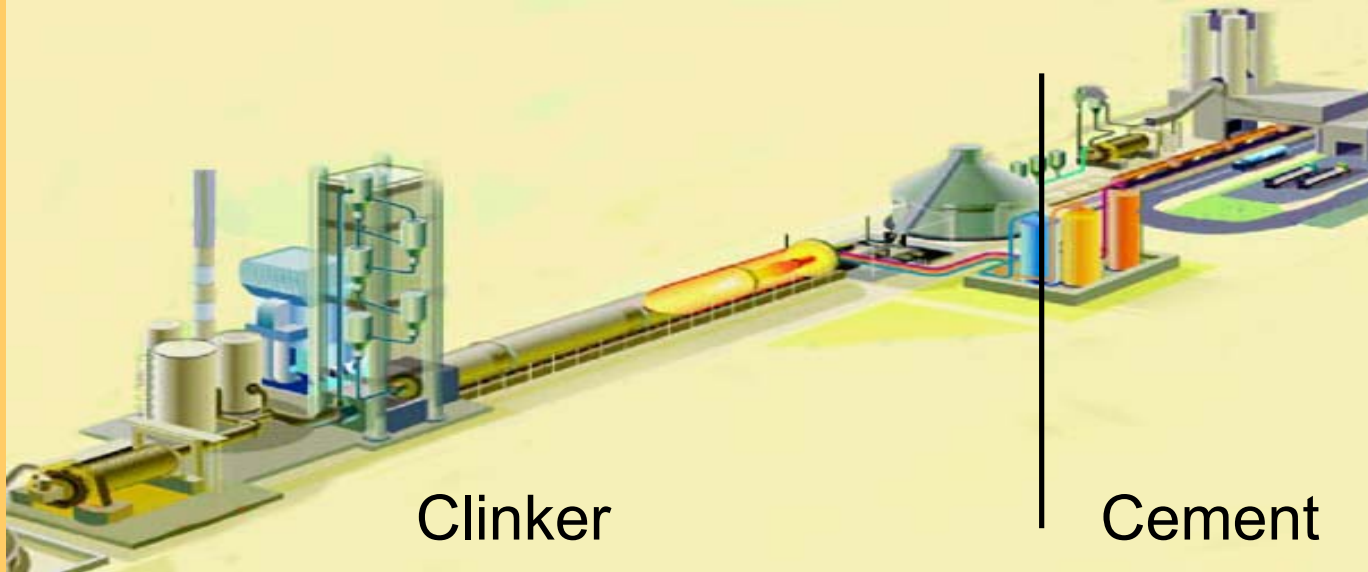
BENCHMARK IN THE CEMENT INDUSTRY

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The “concrete” value chain: CO₂ emissions and products

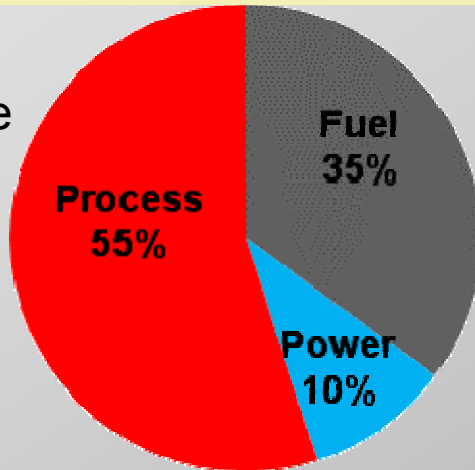


Clinker

Cement

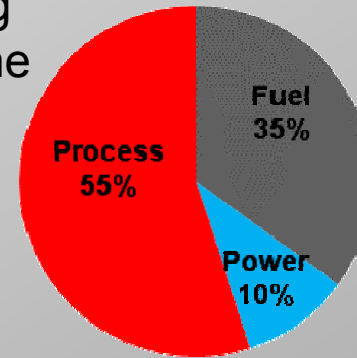
Concrete

≈ 865 kg
CO₂/tonne
clinker



1 tonne
clinker

≈ 650 kg
CO₂/tonne
cement



1.25 tonne
cement

≈ 70 kg
CO₂/tonne
concrete



1.87 tonne
concrete

! Allocation = Benchmark x Volume

LEVERS TO REDUCE CO₂ EMISSIONS IN CEMENT PRODUCTION

- Energy efficiency
- Alternative fuels / biomass
- Clinker substitution, blending
- CCS ?

CEMBUREAU PROPOSAL: SINGLE EU WIDE CLINKER BENCHMARK

- Calculated on the basis of
 - 10% best installation average performance in terms of energy efficiency, with fixed fuel mix
 - Fixed process emissions factor
- No correction factors for technologies, moisture content of raw materials, ...
- Fuel CO₂ intensity on the basis of EU-average fuel mix, 0% biomass
- Benchmark of 837 kg CO₂/tonne clinker

WHY NOT A CEMENT BENCHMARK?

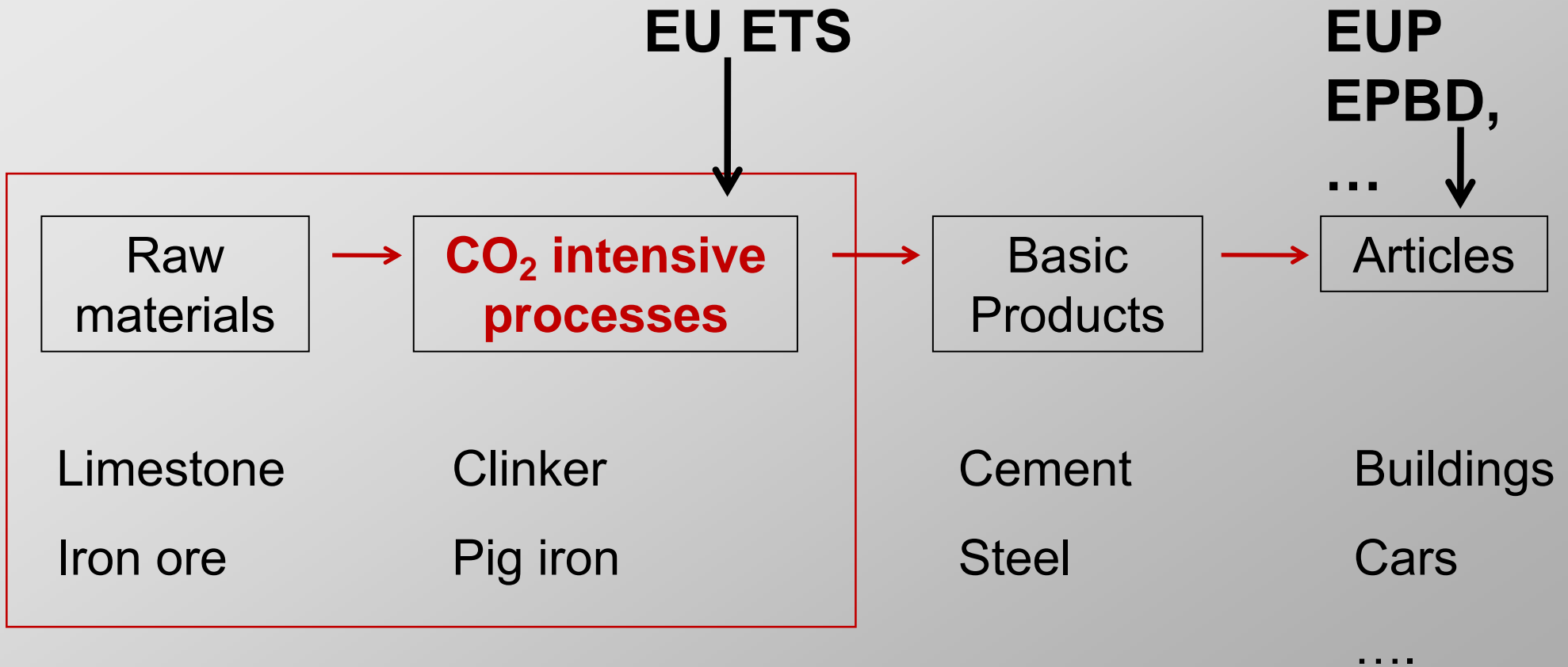
- Not in line with scope of EU-ETS Directive
- Would not meet requirement of simplicity
- Would not trigger additional reductions
- Would raise boundaries issues
- Would create complexities and potential loopholes in relation to international trade
- Available sectoral data (GNR) does not allow the establishment of a cement benchmark
- Not covered by EU Monitoring and Reporting Guidelines

ALLOCATION AT INSTALLATION LEVEL

Clinker production covered by free allocation in tonnes

	Plant 1	Plant 2	Plant 3
Clinker production (in tonnes)	1000000	1000000	1000000
Equivalent Cement production (in tonnes)	2000000	1333333	1111111
Clinker to Cement ratio plants	0.5	0.75	0.9
Allowances under “Clinker” benchmark (tonnes CO ₂)	837000	837000	837000
Allowances under “EU Equivalent Cement” benchmark (tonne CO ₂)	1200000	860000	670000

BENCHMARK IN A VALUE CHAIN?



CONCLUSIONS

- Debate clinker versus cement under the EU-ETS is a “purely distributional issue”
- Levers to reduce **global** CO₂ emissions are equally rewarded (except early actions)
- Only CO₂ intensive process shall be benchmarked under the EU-ETS – limited to direct emissions
- Benchmark is
 - not a question of product substitution
 - an indicator of « efficient » production in CO₂ intensive processes



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