

CASE WATCH 11 : CO-PRODUCT VALORISATION (CEMENT)

Transform industrial co-products into raw materials for the cement and construction sector.

Reduce use of primary resources by valorising secondary materials in another sector.



REUSING OUR WASTE

KEY INSIGHTS

- value waste streams
- reduce primary resources
- reduce CO₂ emissions
- create new markets

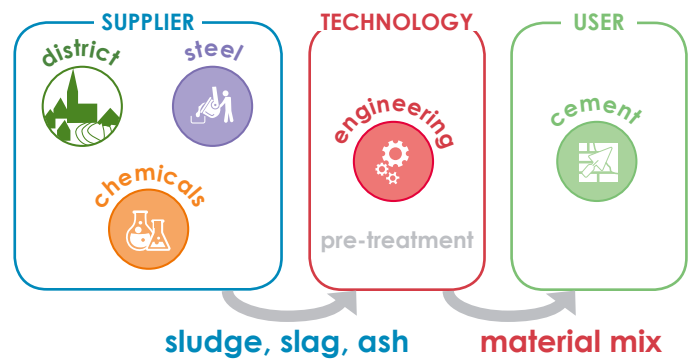


Figure 1: Synergy scheme ¹

CROSS-SECTOR COLLABORATION

Process industries have a high potential to better valorise co-products such as ash, slag and sludge.

Cement industries have a growing demand for (secondary) raw materials.

- Steel sludge, Fly ash
- Sludge, Fly ash
- Urban sludge

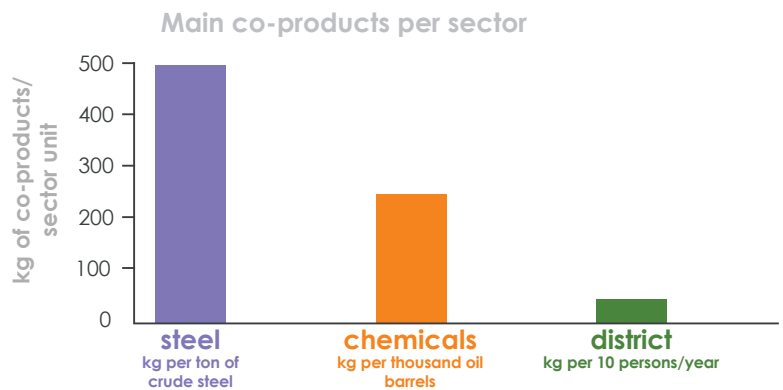


Figure 2: Cross-sector potential ^{2,3,4,5,6,7,8,9}

SUSTAINABILITY IMPACT

Wins for industry

- > for suppliers: reduction in waste
- > for construction industry: reduction in raw materials^{6,8}

Environmental gains

- > CO₂ emissions reduction in cement: 0.4 - 0.7 ton CO₂ saved/ton steel co-product use⁸

Wins for society

- > public health benefits due to emissions reduction
- > improved business relations in regional clusters
- > job creation and new skills development^{1,8}

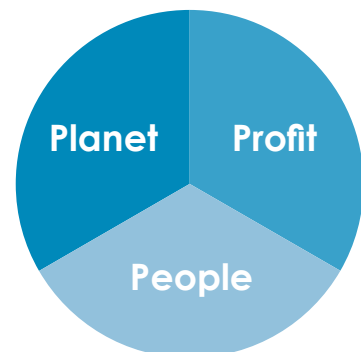


Figure 3: Sustainability ¹

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