CASE WATCH 19 : STEEL SLAG VALORISATION

Transform steel slag into raw materials for the chemical and cement industries.

Reduce primary resources by valorising secondary materials in another sector.

VALORISING SLAG

KEY INSIGHTS

- value waste streams
- reduce primary resources
- reduce CO_2 emissions
- create new markets

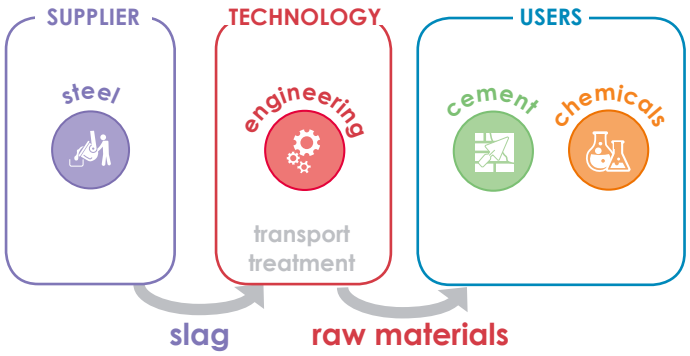
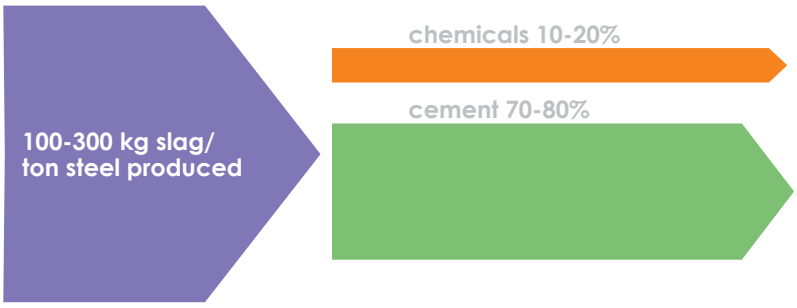


Figure 1: Synergy scheme [1]

CROSS-SECTOR COLLABORATION

Steel industries have a high potential to valorise slag in chemical and cement industries.
Chemical and cement industries have a growing demand for (secondary) raw materials.



applications:

- high value material recovery
- waste water treatment
- mineral CO_2 sequestration
- thermal storage
- innovative binders
- aggregate material in cement & construction industries

Figure 2: Cross-sector potential [1,2,3,4,5,6]

SUSTAINABILITY IMPACT

Wins for industry
- for suppliers: 20-50% disposal cost reduction[1,4]
- for industry: 20-60 €/ton slag as raw material cost[1]

Environmental gains
- CO_2 emissions reduction: 0.5-0.6 ton CO_2 saved/ton slag[7]

Wins for society
- public health benefits due to emissions reduction[1]
- improved business relations in regional clusters
- job creation and new skills development

Figure 3: Sustainability [1]

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