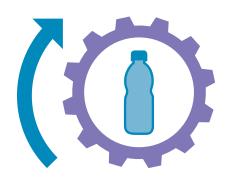


CASE WATCH 17: **WASTE PLASTIC VALORISATION IN STEEL**

Use plastic waste as raw material in steel industry.

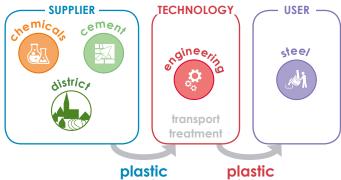
Reduce primary resources by valorising secondary waste in another sector.



CLOSING PLASTIC LOOPS

KEY INSIGHTS

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



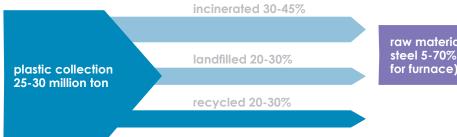
waste

mixture

Figure 1: Synergy scheme ¹

CROSS-SECTOR COLLABORATION

Process industries (and districts) have a high potential to better valorise plastic waste. Steel industries have a growing incentive for contributing to the circular plastics economy.



raw material substitution in steel 5-70% (coal and heavy oil

SUSTAINABILITY IMPACT

Figure 2: Plastic waste potential 1,2,3,4,5

Wins for industry

- > for suppliers: diposal cost reduction (0-50%)^{6,7}
- > for steel: 0-200 €/ton plastic waste^{6,7,8,9}

Environmental gains

primary resource savings: 0.4-0.8 ton heavy oil saved/ton waste plastic³

Wins for society

- > social benefits due to plastic waste disposal reduction1
- > improved business relations in regional clusters
-) job creation and new skills development



Figure 3: Sustainability





CASE WATCH 17: WASTE PLASTIC VALORISATION IN STEEL

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