

CASE WATCH 20 : WASTE PLASTIC VALORISATION IN CEMENT

Use plastic waste as raw material in cement industry.

Reduce primary resources by valorising secondary waste in another sector.



BUILDING PLASTIC SOLUTIONS

KEY INSIGHTS

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

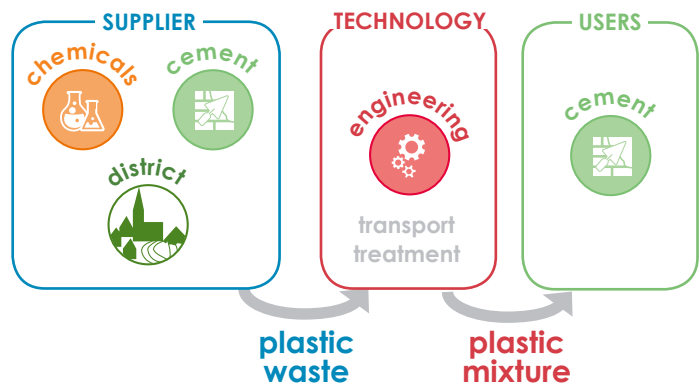


Figure 1: Synergy scheme ¹

CROSS-SECTOR COLLABORATION

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

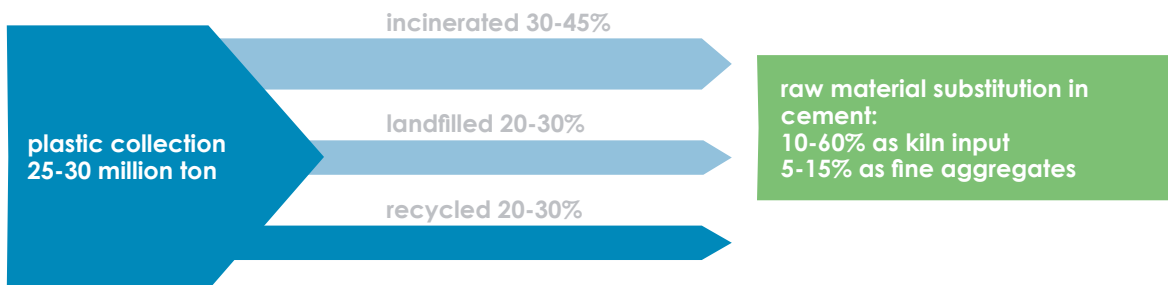


Figure 2: Cross-sector potential ^{1,2,3,4,5,6,7}

SUSTAINABILITY IMPACT

Wins for industry

- › for suppliers: disposal cost reduction (0-50%)^{7,8}
- › for cement: 0-200 €/ton plastic waste^{7,8,9,10}

Environmental gains

- › primary resource savings:
20-22 GJ saved/ton waste plastic¹⁰

Wins for society

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

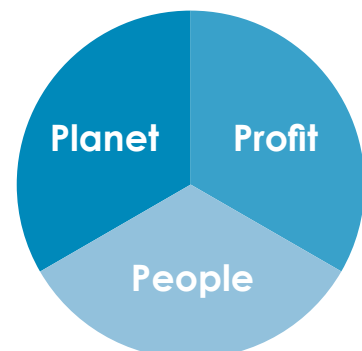


Figure 3: Sustainability ¹

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