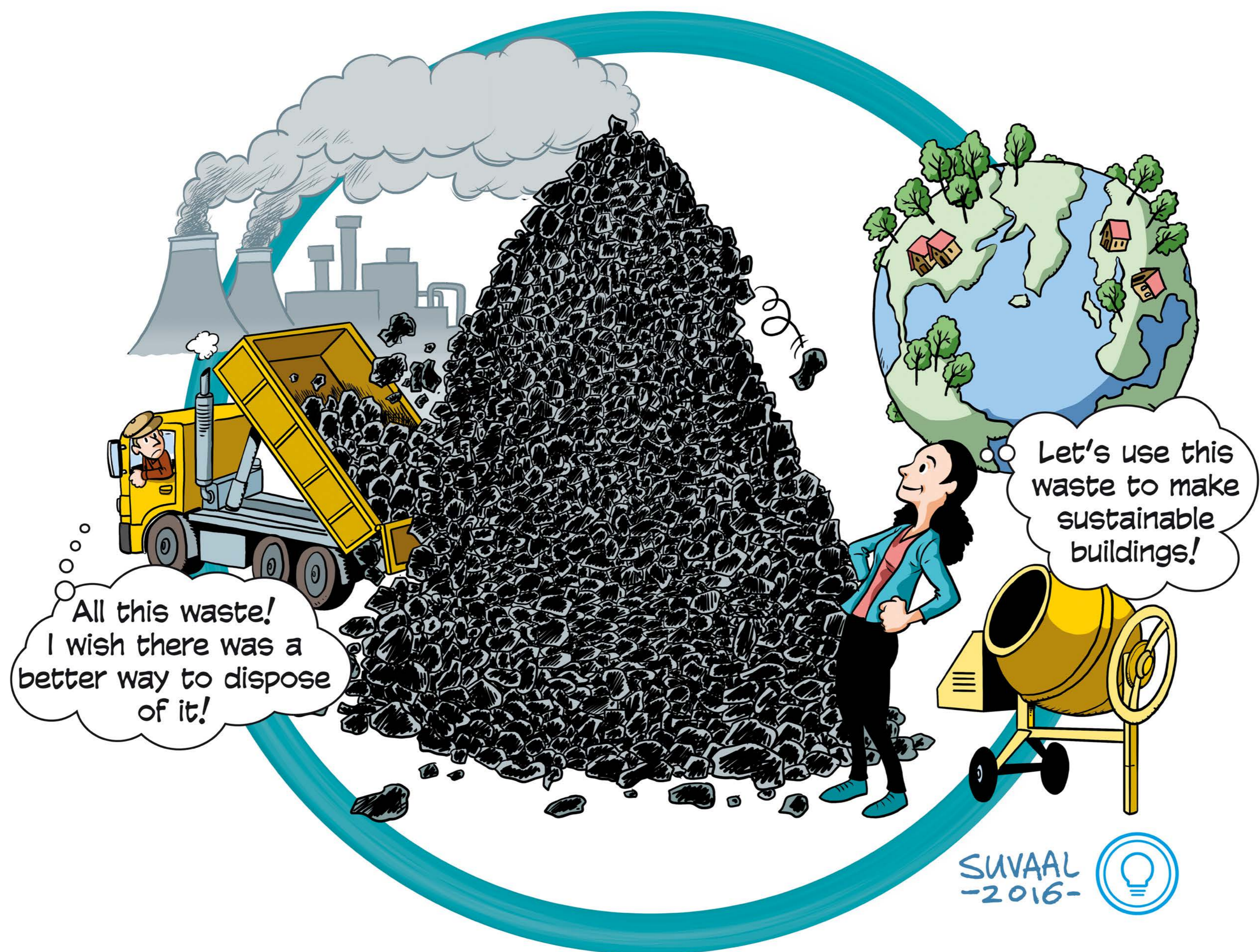


Geopolymer concrete systems for production of environmentally friendly building materials

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TRL ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

WHY

Ordinary Portland Cement based concrete involves “virgin” resources and an energy-intensive production process. Geopolymer concrete uses industrial by-products, reducing CO2 footprint significantly while offering improved mechanical properties. Still, its durability is unknown.

HOW

The TU Delft Geopolymer team has developed concrete mixtures and is performing experimental and numerical investigation of the various degradation mechanisms. The ultimate goal is to bring the geopolymer concrete to a level where it can be tested in real life applications

WHEN

In the end of this project, industry will be able to use optimized mixtures in structural applications, with provided recommendations for in situ testing. Regarding that, by-products will get added value through sustainable and durable building, reduced CO2 footprint and energy consumption.