

Evaluating waste incineration as treatment and energy recovery method from an environmental point of view

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During the last 10-20 years, several research groups as well as consultants have been analysing the environmental impacts of incineration in comparison to other waste treatment options. Methods and models for describing these systems have been developed. System studies on local, regional and national level have also been performed using a wide range of different modelling approaches.

This project maps out the above research field in order to gather relevant system studies made on local, regional and national levels in Europe. By thoroughly analysing these studies, this project describes the environmental performance for incineration with energy recovery in comparison with other options for both waste treatment/recovery and energy production. The project focuses on mixed waste and on waste fractions where there has been a lot of controversy whether the material should be recycled, incinerated or treated biologically (e.g. paper, plastics, compostable material).

Furthermore, this project describes the differences between the studies and points out why results differ between the studies. This results in a set of key factors that largely determines the outcome from the studies. Based on these key factors, we discuss and draw conclusions on the environmental benefits and drawbacks from using waste incineration in Europe today and in two alternative scenarios for Europe 2030.

