

Huge unutilised biogas potential is spread over Europe: millions of farms, municipalities and food processing centres produce biowaste at relatively small-scale, where a 100 kWth digester is sufficient to convert the waste to biogas.

Solid oxide fuel cell stacks (**SOFC**) allow to generate value from these resources at unmatched efficiency and negligible emissions. Making Europe's energy production more renewable, reducing waste and bringing cutting-edge technology to farms all over Europe.

The **EU-project "Waste2Watts"** aims to develop a one-stop solution for the conversion of biogas from



erep  
Traitement et valorisation de déchets et d'effluents organiques

The project will demonstrate SOFC's intrinsic advantages, compared to alternatives (engines):

- by achieving twice as high biogas-to-electrical efficiency, especially for small scale;
- by an intrinsically very low level of polluting emissions (NOx, CO, HC, SOx)
- by exploiting dilute LFG and bio-waste streams (farms, OFMSW) avoiding GHG emissions
- by complementing bio-methane upgrading, which currently needs very large flows of biogas >100 m<sup>3</sup>/h

**Project Team**



**Industrial Advisory Group**

[www.waste2watts.eu](http://www.waste2watts.eu)

*Bringing clean electricity and heat to small-scale farms in Europe*



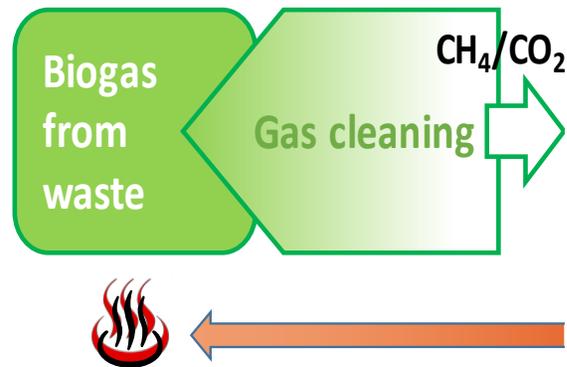
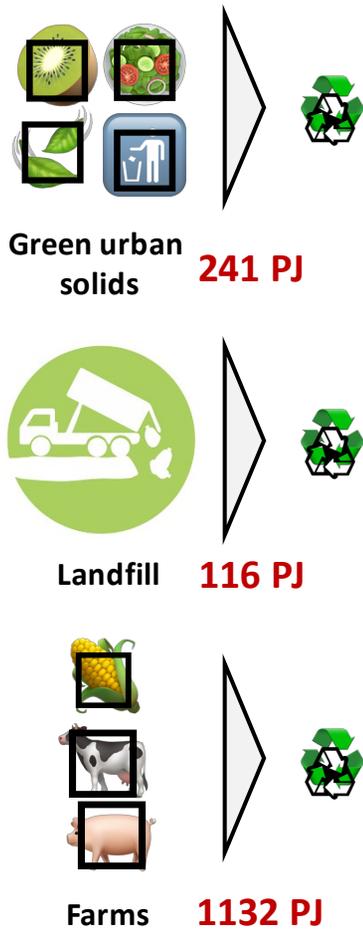
**“Unlocking unused bio-WASTE resources with loW cost cleAning and Thermal inTegration with Solid oxide fuel cells”**

*An FCH JU project*

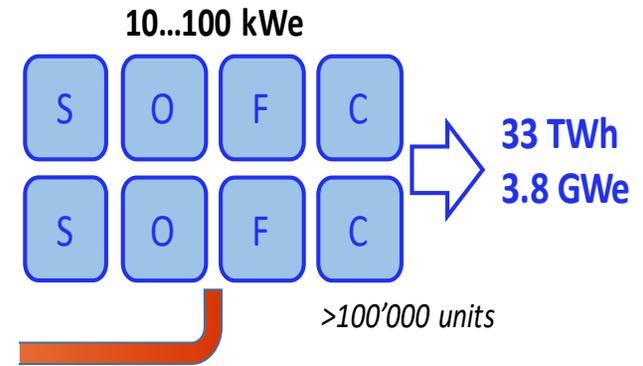


Jan. 2019 – Dec. 2020

# Waste2Watts converts biogas from local renewable by products to clean energy



A single, low-cost cleaning unit will be developed in Waste2Watts to purify the biogas from sulphur, siloxanes and other harmful components



The clean biogas will directly convert to electricity and heat in a solid oxide fuel cell system, without noise, harmful emissions and at unbeatable efficiency

1500 PJ of clean energy potential every year lies hidden in Europe's farms, municipalities and waste collection

[www.waste2watts.eu](http://www.waste2watts.eu)

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