

UrbanBiogas

***“Urban waste for biomethane grid
injection and transport in urban areas”***



Version: July 2011

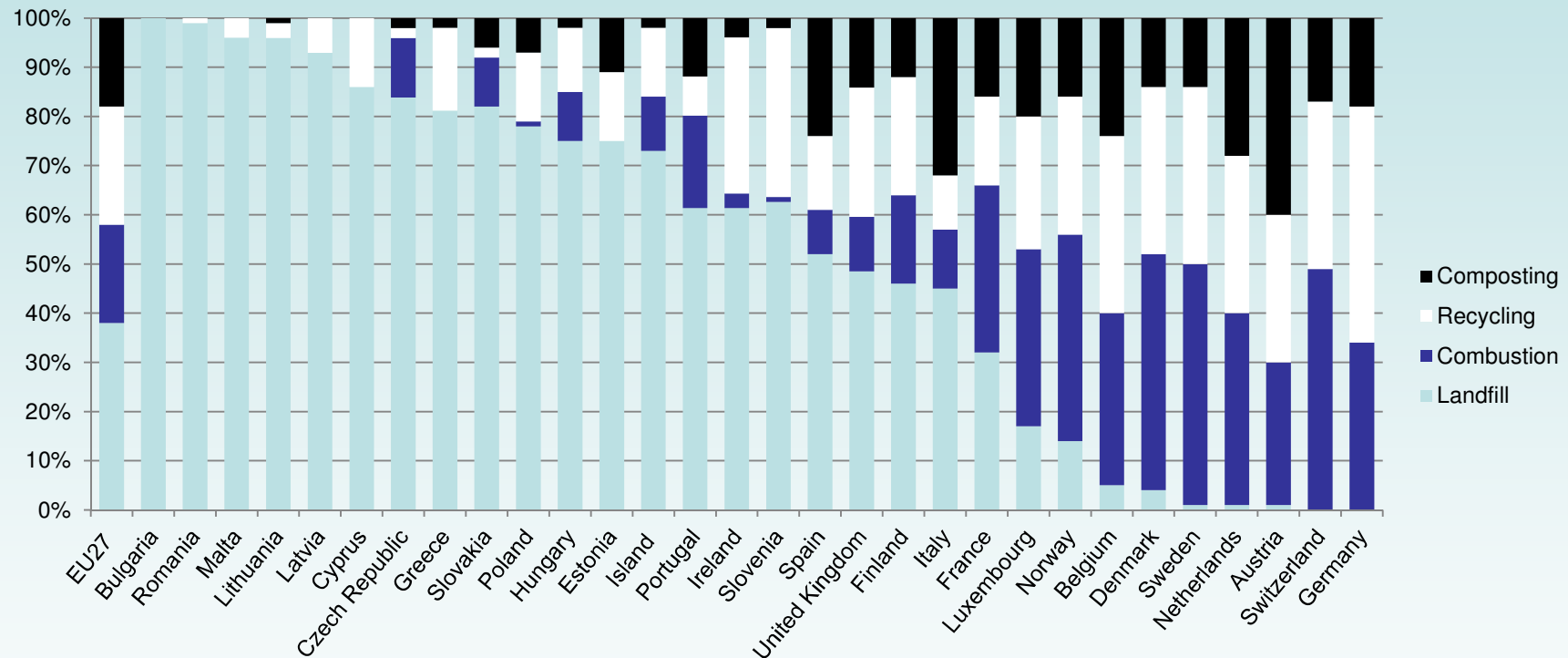
Contract No: IEE/10/251 May 2011-April 2014

Project Summary

- **Objective:**
to promote the use of organic urban waste for biogas production in 5 target cities in order to inject biomethane in the natural gas grid and to use it in transport.
- **Target cities:**
 - City of Zagreb (Croatia)
 - City of Graz (Austria)
 - Municipality of Abrantes (Portugal)
 - City of Rzeszów (Poland)
 - City of Valmiera (Latvia)



Background: Treatment of MSW in Europe



Options for Organic Waste Treatment



Landfill

- Reduction necessary to comply with Directive 2006/12/EC
- Landfill gas could be energetically used, but energy output is low
- No use of nutrients is possible



Incineration Plant

- + Energetic use
- "waste heat" is often un-used
- No use of nutrients is possible
- High investment costs and other barriers for new plants
- Long transport ways due to centralised plants



Household Composting

- + Common practice in many cases
- + High-value end-product: closed nutrient cycle
- + No sophisticated logistics needed
- No energetic output
- Not all waste is suitable for private composts
- Not possible in urban areas



Industrial Composting

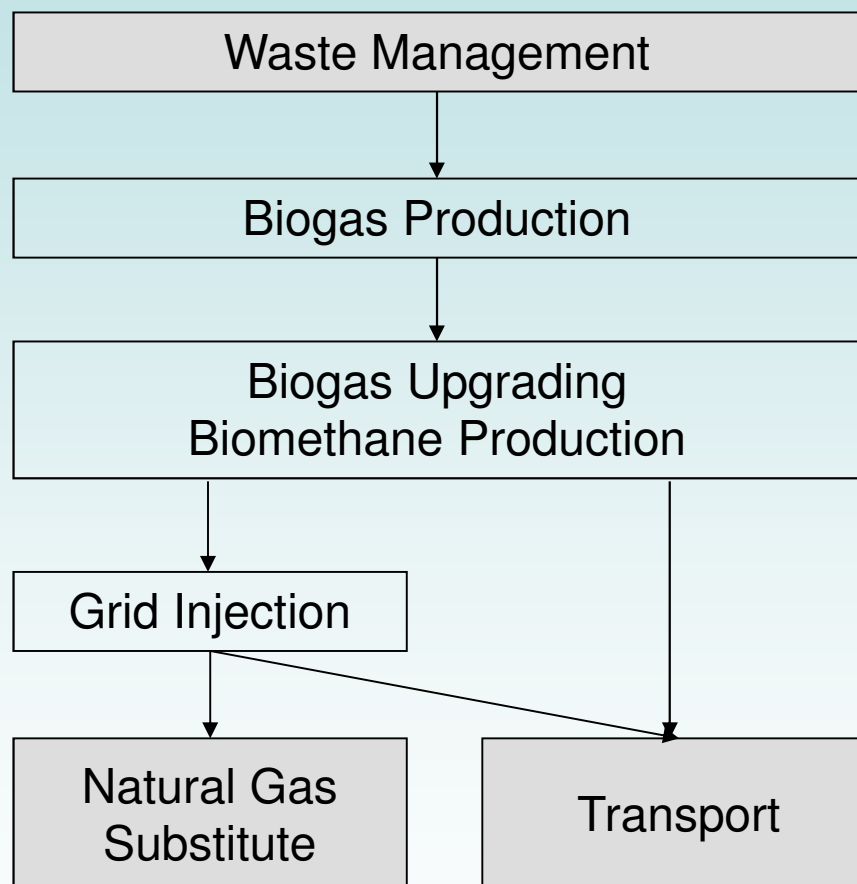
- + Common practice in many cases
- + High-value end-product: closed nutrient cycle
- No energetic output



Anaerobic Digestion

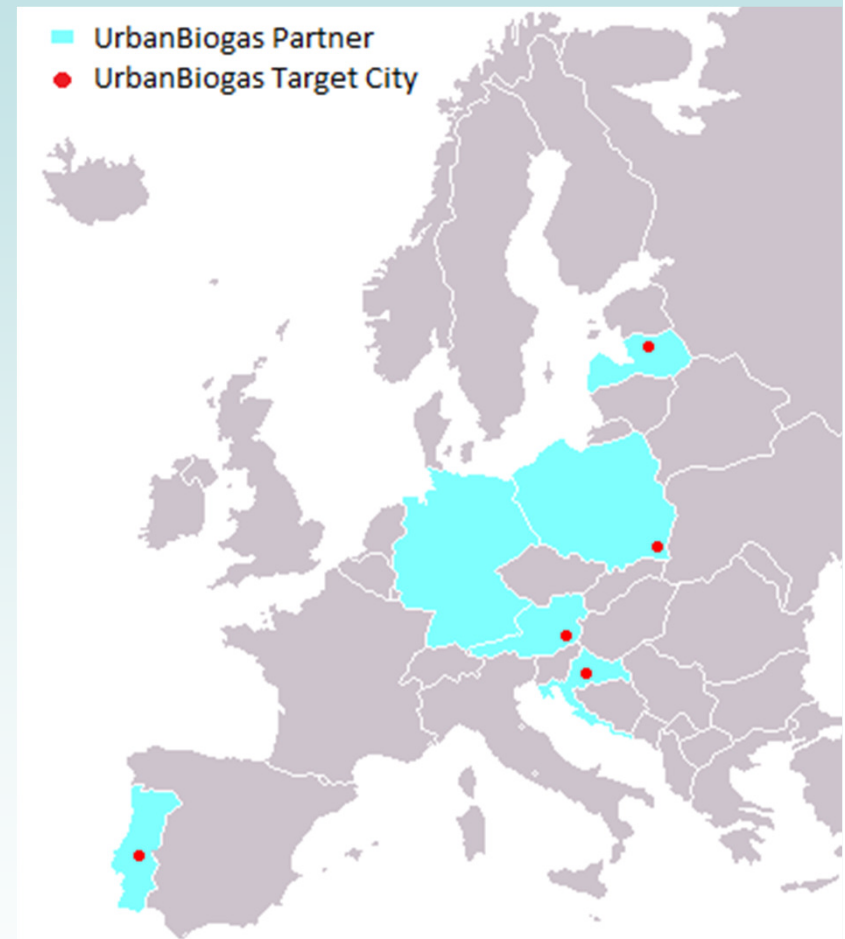
- + **High energetic output**
- + **High-value end-product: closed nutrient cycle**
- **Still needs non-technical support**

WtB Supply Chain



UrbanBiogas Target Cities

- City of Zagreb (Croatia)
- Municipality of Abrantes (Portugal)
- City of Graz (Austria)
- City of Rzeszów (Poland)
- City of Valmiera (Latvia)



Selected Activities and Outcomes

Main objective:

- **5 concepts** for the target cities on urban waste management, biogas and biomethane production and use
- **5 business agreements** for WtB projects in the target cities

Main activities:

- **90 Task Force meetings** in the 5 target cities to elaborate concepts
- **15 training courses** on urban waste management, biogas and biomethane production and use for city representatives
- **5 events for biogas plant companies** to promote their technologies
- **5 National expert consultation meetings** on the use of biomethane
- **9 WtB promotion events for other European Cities**

Project Partners

- **WIP – Renewable Energies**, Germany
- **Fraunhofer IWES Institute**, Germany
- **Energy Institute Hrvoje Požar**, Croatia
- **City of Zagreb (Zagrebački Holding)**, Croatia
- **Polish Biogas Association**, Poland
- **IrRADIARE**, Portugal
- **Municipality of Abrantes**, Portugal
- **EKODOMA**, Latvia
- **North Vidzeme Waste Management Company**, Latvia
- **Graz Energy Agency**, Austria
- **Podkarpacka Energy Management Agency**, Poland



Contact

WIP Renewable Energies

Dominik Rutz

Dominik.rutz@wip-munich.de

www.wip-munich.de

www.urbanbiogas.eu

