

# UrbanBiogas

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



Version: November 2012

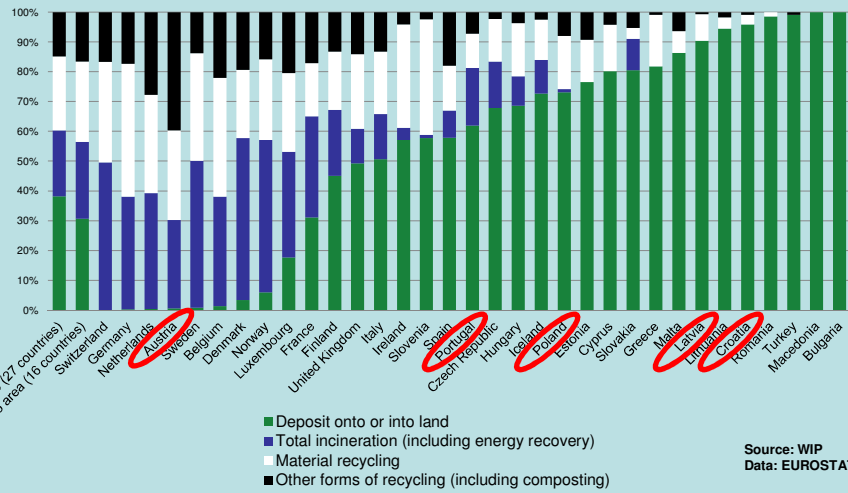
Contract No: IEE/10/251 May 2011-April 2014

## Project Summary

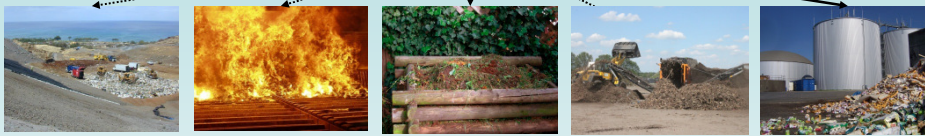
- **Objective:**  
to promote the use of organic urban waste for biogas production in 5 target cities in order to inject biomethane in the natural gas grid and to use it in transport.
- **Target cities:**  
City of Zagreb (Croatia)  
City of Graz (Austria)  
Municipality of Abrantes (Portugal)  
City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



## Background: Treatment of MSW in Europe

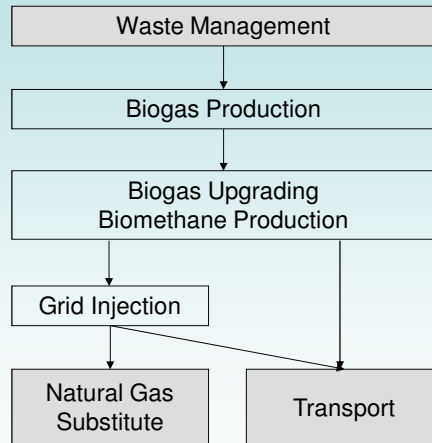


## Options for Organic Waste Treatment



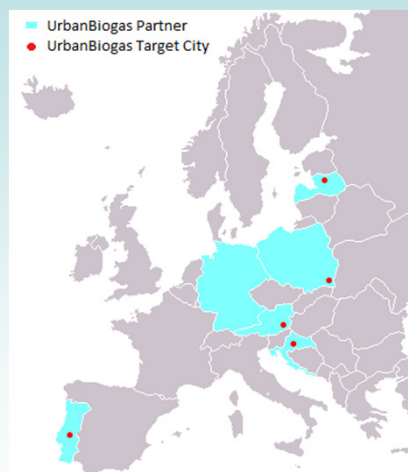
<u>Landfill</u>	<u>Incineration Plant</u>	<u>Household Composting</u>	<u>Industrial Composting</u>	<u>Anaerobic Digestion</u>
<ul style="list-style-type: none"> <li>- Reduction necessary to comply with Directive 2006/12/EC</li> <li>- Landfill gas could be energetically used, but energy output is low</li> <li>- No use of nutrients is possible</li> </ul>	<ul style="list-style-type: none"> <li>+ Energetic use</li> <li>- "waste heat" is often un-used</li> <li>- No use of nutrients is possible</li> <li>- High investment costs and other barriers for new plants</li> <li>- Long transport ways due to centralised plants</li> </ul>	<ul style="list-style-type: none"> <li>+ Common practice in many cases</li> <li>+ High-value end-product: closed nutrient cycle</li> <li>+ No sophisticated logistics needed</li> <li>- No energetic output</li> <li>- Not all waste is suitable for private composts</li> <li>- Not possible in urban areas</li> </ul>	<ul style="list-style-type: none"> <li>+ Common practice in many cases</li> <li>+ High-value end-product: closed nutrient cycle</li> <li>- No energetic output</li> </ul>	<ul style="list-style-type: none"> <li><b>+ High energetic output</b></li> <li><b>+ High-value end-product: closed nutrient cycle</b></li> <li><b>→ Still needs non-technical support</b></li> </ul>

## 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**



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## 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



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# Contact

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