



AGROBIOGAS: Evaluate your Biogas Project

A Decision Support Software Toolkit for Agricultural Substrates in Europe

Collective Research Project supported by the European Union under the 6th Framework Programme

www.agrobiogas.eu



USER INPUTS

General Info:


- Company details
- Country considered
- Biogas plant owner or Potential Investor

Toolkit:

- Substrate type
- Substrate quantity (Kg/day) – up to 8
- Reactor configuration
- Operational conditions

Investment Decision tool – IDT

- Substrate type
- Quantity (Kg/day)
- Gate fees income / expenses
- Products for sale + prices
- Financial parameter



USER OUTPUTS

- Toolkit Simulation Report
- Economical/ Investment Report
- List of technology/consultancy suppliers
- Check list of authority's approval and legislation text
- Estimation of national biogas production and utilization
- Operational Guidelines
- Recommendations for AD sludge utilisation

SUBSTRATES CHARACTERISATION

Based on Literature Substrates Database and Experimental Results

- Location
- Physical characterization
 - Yield data
 - Digestion information
 - Storage information
 - Handling information
- Chemical characterization
 - Chemical composition
 - Trace elements
 - Methane Yield
- Biological characterization:
 - Communities
 - Inhibition
- Biogas potential (CH₄)

HELPDESK

www.adhelpdesk.eu




TOOLKIT



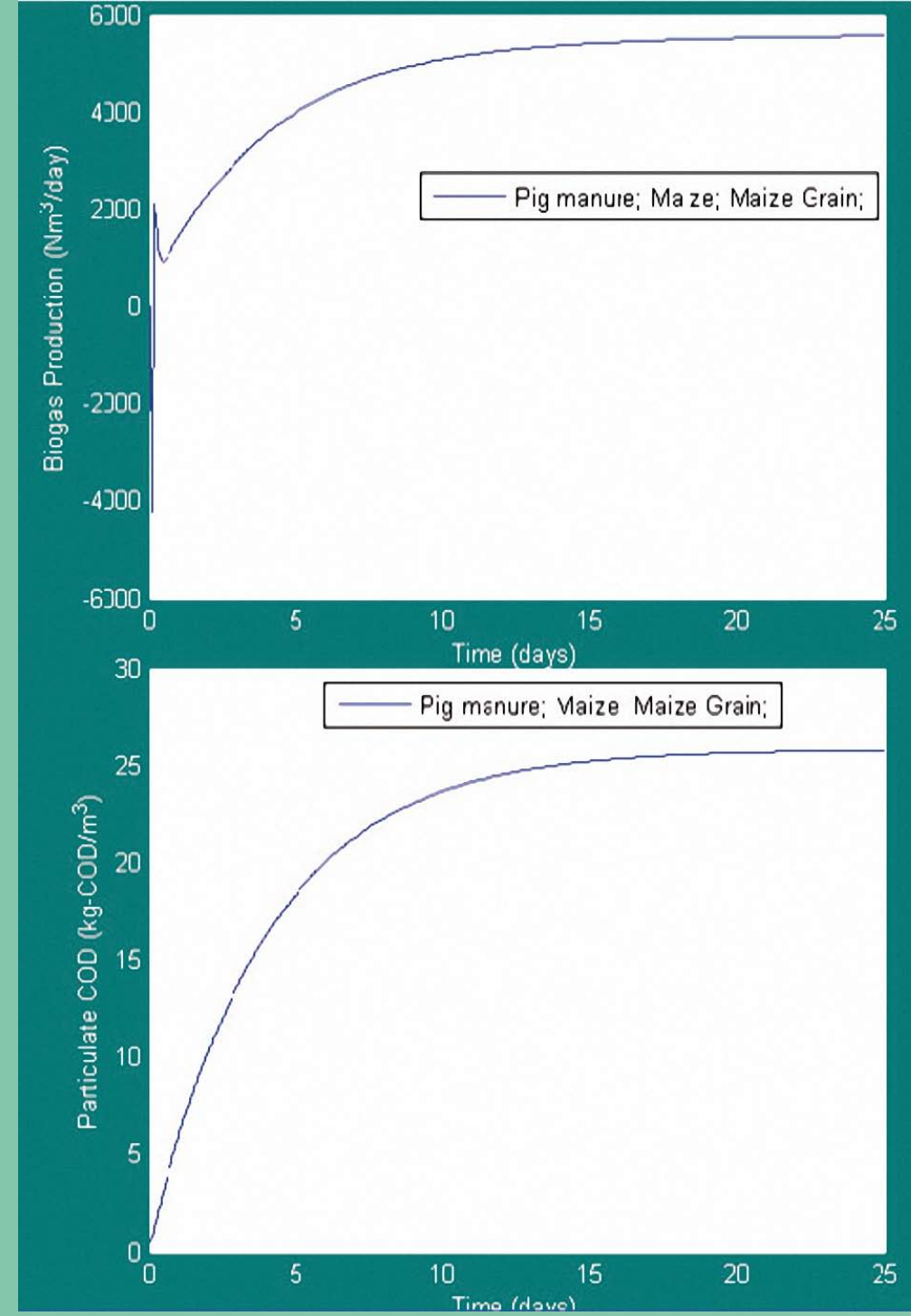
INVESTMENT DECISION TOOL



TOOLKIT OUTPUTS

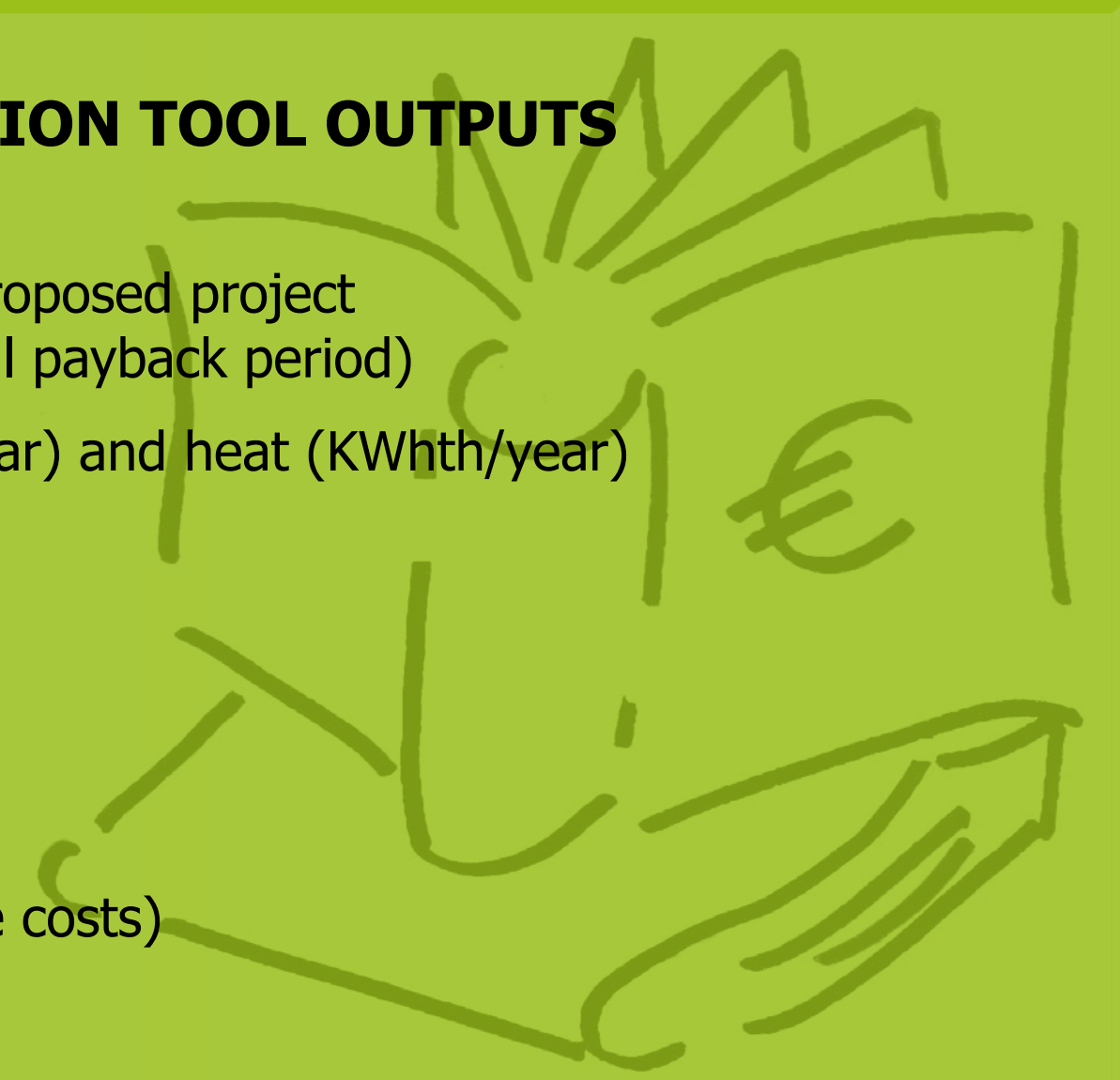
- Engineering parameters
 - Total COD influent and effluent
 - Volatile Solid influent/effluent
 - Total Solids
 - Alkalinity
 - Total Kjeldahl Nitrogen (TKN)
 - pH
 - Organic loading rate (ORL)
 - Methane yield
 - Biogas yield
- Biogas Characteristics
 - Normal Biogas production
 - Normal CH₄ production
 - Normal CO₂ production
- Inhibitions parameters
- Pressure parameters
 - Total Pressure (bar)
 - H₂ pressure (bar)
 - CH₄ pressure (bar)
 - CO₂ pressure (bar)
 - Steam water pressure (bar)
 - H₂S pressure (bar)

Each criteria can be given with variability during time running

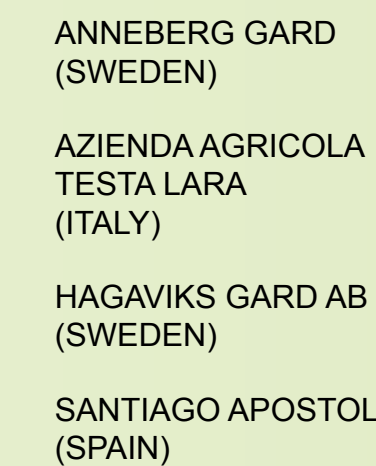


INVESTMENT DECISION TOOL OUTPUTS

- First economic evaluation of the proposed project (internal rate of return, own capital payback period)
- Generation of electricity (KWhe/year) and heat (KWth/year)
- Estimated revenues from:
 - Electricity sales,
 - Thermal energy sales,
 - Sales of fiber fraction.
- Operating costs (fixed and variable costs)
- Capital costs



24 Consortium Partners (10 Countries)



The sole responsibility for the content of this poster lies with the authors. It does not necessarily reflect the opinion of the European Communities. The European Commission is not responsible for any use that may be made of the information contained therein.