



Intelligent Energy  Europe

“If you can’t find a way, make a way”
(Aut Inveniam Viam aut Faciam): Hanibal

The concept and objectives of PROBIOGAS

By

Teodorita Al Seadi, MSc

Principal scientist

PROBIOGAS co-ordinator

University of Southern Denmark

Department of Bioenergy

Niels Bohrs Vej 9, 6700 Esbjerg

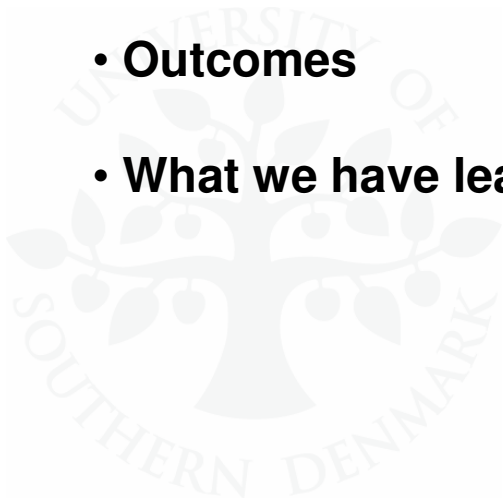
Denmark





CONTENT:

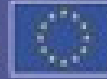
- **What is PROBIOGAS**
- **Promoters and target groups**
- **Outcomes**
- **What we have learnt**





What is PROBIOGAS

Intelligent Energy



Europe

PROBIOGAS:

Promotion of Biogas for Electricity and Heat Production in EU Countries - Economic and Environmental Benefits of Biogas from Centralised Co-digestion

Project duration: 30 months (January 2005 – June 2007)

Budget: EUR 887,178

EC contribution: 50%

WHY PROBIOGAS?

- Project idea based on three decades of RD&D of biogas from centralised anaerobic digestion in Denmark
- Danish study from 2002 quantified socio-economic and environmental effects of co-digestion
- Similar quantification needed in other European countries
- Need to share and further develop biogas knowledge at European level
- Lack of awareness about environmental benefits and business opportunities
- Many biogas projects abandoned at an early stage



What is PROBIOGAS

WHAT? PROJECT AIM: To promote biogas from anaerobic co-digestion of animal manure and suitable bio-wastes in Europe by knowledge transfer and awareness raising

HOW?

- Assessing and quantifying environmental and socio-economic effects of co-digestion in selected European case study regions
- Identifying incentives and barriers
- Proposing solutions
- Disseminating the results

WHERE? In six European regions (case studies), where biogas is not developed:

1. Ireland: **North Kilkenny County**
2. The Netherlands: **Bladel, region De Kempen, North Brabant**
3. Belgium: **Province of Liege, Wallonia**
4. France: **West Aveyron, Midi-Pyrénées**
5. Spain: **Pla d'Urgell, Catalonia**
6. Greece: **Sparta, Tsikakis-Yiannopoulos pig farm**



What is PROBIOGAS

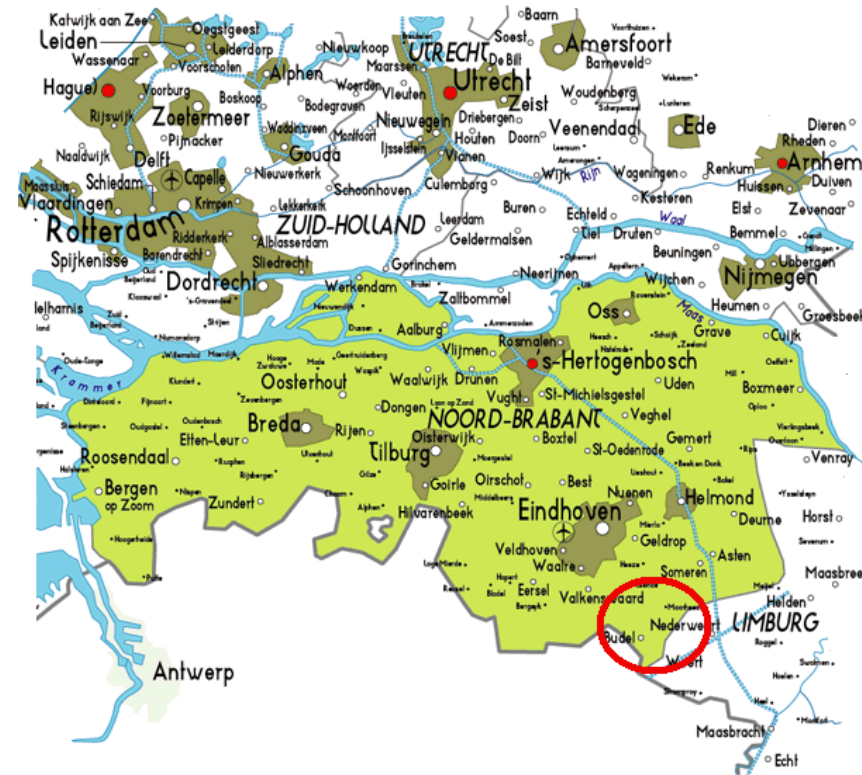
SELECTION CRITERIA FOR THE CASE STUDY REGIONS:

- Intensive animal breeding activity / large amounts of manure and slurries
- Availability of digestible bio-wastes (from agriculture and food industry)
- Environmental problems related to handling and utilisation of manure and bio-wastes
- Interested farmers
- Possibilities of CHP generation and of selling the produced energy
- Possibilities of using digested biomass as bio-fertiliser
- Short transportation distances and good road systems



What is PROBIOGAS

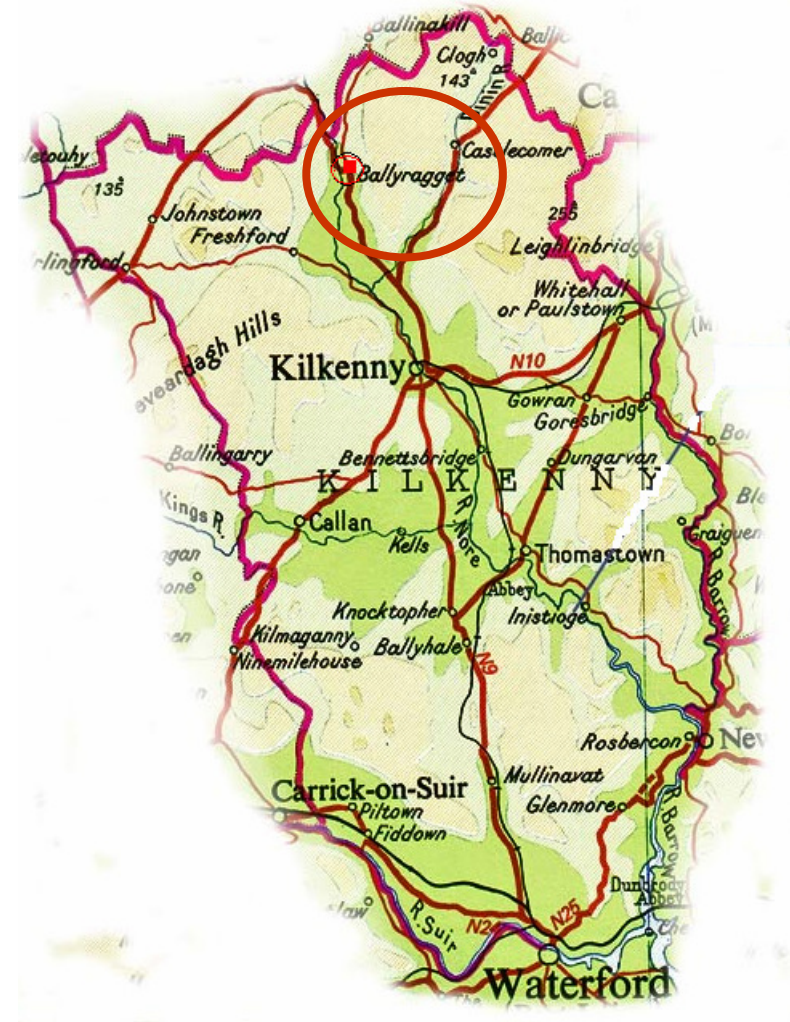
The Netherlands: **Bladel, region De Kempen, North Brabant**





What is PROBIOGAS

Ireland: North Kilkenny County





What is PROBIOGAS

Spain: Pla d'Urgell, Catalonia





What is PROBIOGAS

Belgium: **Province of Liege, Wallonia**





What is PROBIOGAS

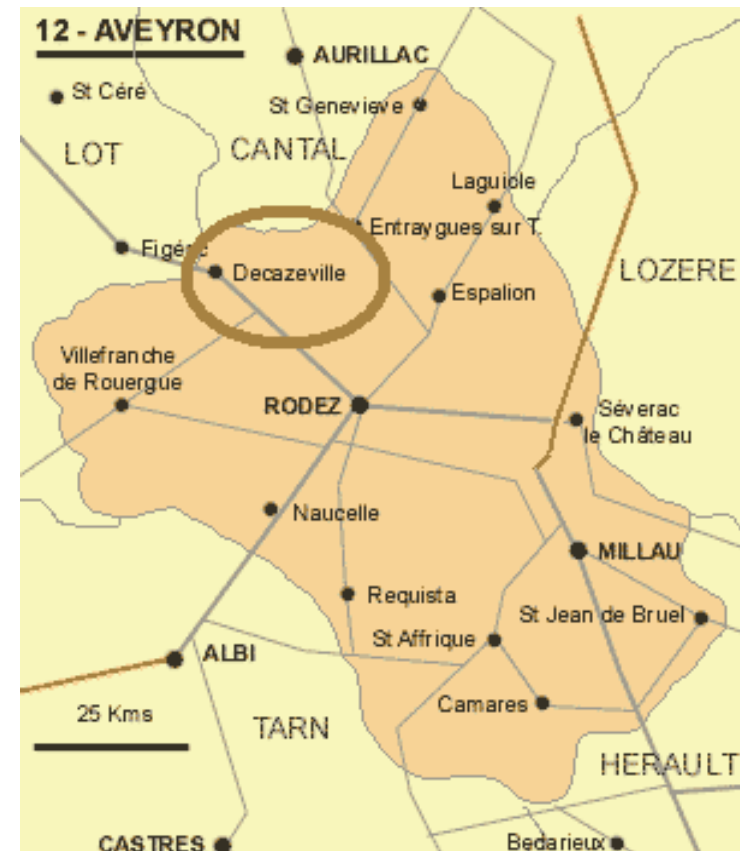
Greece: **Sparta, Tsikakis-Yiannopoulos pig farm**





What is PROBIOGAS

France: **West Aveyron, Midi-Pyrénées**





Promoters and target groups

MANAGEMENT

1. **SDU**: University of Southern Denmark, Denmark - Coordinator

CORE GROUP OF EXPERTS

2. **FOI**: Danish Research Institute of Food Economics, Denmark
3. **RISOE**: Risoe National Laboratory, Denmark
4. **DIAS**: Danish Institute of Agricultural Sciences, Denmark
5. **DAAS**: Danish Agricultural Advisory Centre, Denmark

NATIONAL PARTNERS

6. **SOLAGRO**: Association Solagro, France
7. **CRES**: Centre for Renewable Energy Sources, Greece
8. **SNovem**: SenterNovem, The Netherlands
9. **UB**: University of Barcelona, Spain
10. **MOG**: Methanogen Ltd, Ireland
11. **CRA-W**: Agric. Research Centre of Wallonia - ValBiom Asbl, Belgium

TARGET GROUP NETWORKS



Promoters and target groups

WHO ARE THE MEMBERS OF TARGET GROUP NETWORKS

- Local farmers, farmers associations
- Policy and decision makers
- Local and regional authorities
- Energy and energy trade companies
- National energy and environmental agencies
- Local food processing industries
- Biogas specialists

Target group networks will form the organisational structure for project generation



Expected outcomes

- **Awareness raising**
- **Incentives and the barriers for target groups identified**
- **Removal of non technical barriers by new policy initiatives**
- **Creating a overall favourable frame for biogas from co-digestion**





What we have learnt

- Considerable biogas potential
- Many environmental problems – management of animal manure and digestible bio-wastes
- Variation of availability and accessibility of data
- Frequent barriers: legislation, policies, public perception, poor economy

Great international interest for the PROBIOGAS project and its outcomes

More information about PROBIOGAS is available at www.sdu.dk/bio
and by contacting the project coordinator Teodorita Al Seadi (tas@bio.sdu.dk; tel: +45 6550 4168)



Thank you !

