



# Increasing Social Awareness and ACceptance of biogas and biomethane

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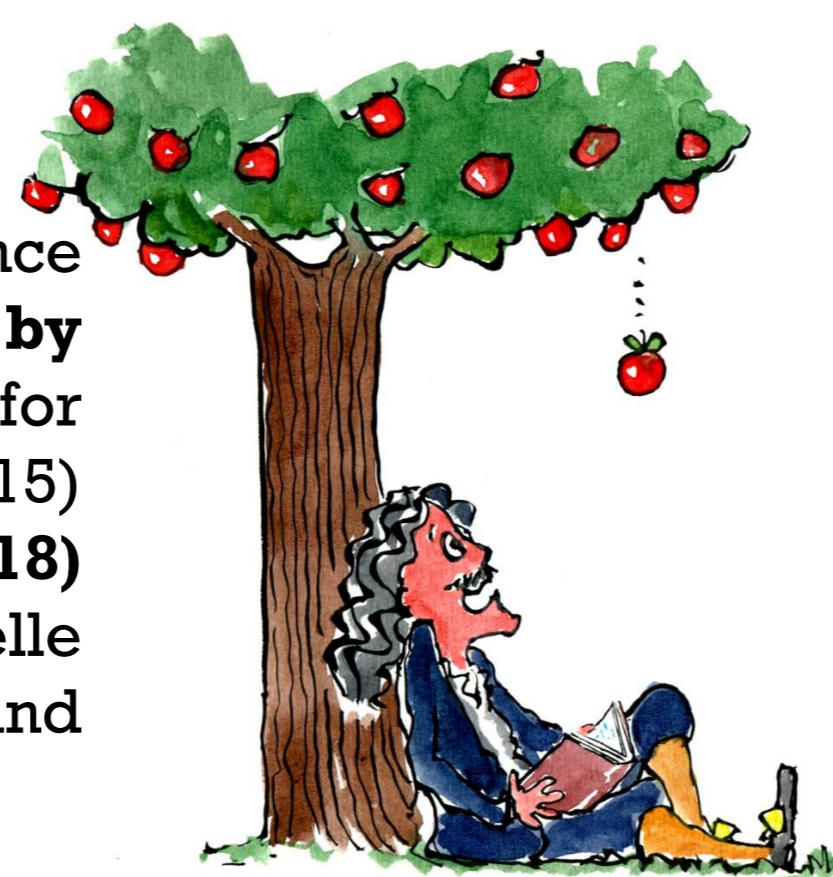
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## INTRODUCTION

Although Italy is the second European biogas producer after Germany, counting more than 1650 plants and a total installed capacity of around 1400 MWe [1], there still is a great potential for biogas production and market expansion; however there are some non-technical barriers that prevent it from a more widespread diffusion.

### THE ISAAC PROJECT

ISAAC ("Increasing Social Awareness and ACceptance of biogas and biomethane") is a project financed by Horizon 2020 Programme under the Call for Competitive Low-Carbon Energy (topic LCE-14-2015) and coordinated by AzzeroCO2 (01/2016 – 06/2018) in collaboration with Consiglio Nazionale delle Ricerche, Legambiente, Chimica Verde Bionet and Consorzio Italiano Biogas.



The main aim of ISAAC is to remove non-technical barriers to widespread production and use of biogas/biomethane in Italy.

### WHAT ARE THE NON-TECHNICAL BARRIERS

Social	Legislative	Economic
<ul style="list-style-type: none"> <li>Lack of information among citizens, farmers and breeders</li> <li>NIMBY Syndrome</li> <li>Lack of interaction between different stakeholders</li> <li>Reluctance of farmers, especially in Southern Italy, to cooperate in energy plants management</li> </ul>	<ul style="list-style-type: none"> <li>Lack of a clear national legislation for grid injection of biomethane and for the use of digestate</li> <li>Fragmentation and multiplicity of regulatory framework on authorization and installation procedures</li> </ul>	<ul style="list-style-type: none"> <li>Lack of specific and efficient schemes of financing</li> <li>Low profitability of small biogas plants and uncertainty about future incentive schemes</li> </ul>

### HOW TO OVERCOME THEM - THE ISAAC APPROACH

- ❖ Participatory processes in two pilot territories (interested in implementing biogas plants)
- ❖ Information campaigns in seven Italian regions
- ❖ Public meetings with experts for open confrontations

Barrier tackled: Social

- ❖ Use of a calculation tool for residual biomass availability assessment and biogas/biomethane production potential definition
- ❖ Use of innovative funding schemes (such as crowdfunding) to create new opportunities

Barriers tackled: Social, Economic

- ❖ National law proposal on participation processes related to local energy policies
- ❖ Technical round tables for the correct interpretation of the national legislation on themes such as by-products/co-products/waste (not yet fully defined in Italy)
- ❖ Improvement of the actual Italian regulation on biomethane use
- ❖ Training courses for municipal and regional technicians

Barrier tackled: Legislative

- ❖ Socio-economic study on the implementation, impacts and acceptability of biogas/biomethane in local areas

## OVERCOMING SOCIAL BARRIERS

Biogas production is not homogeneously distributed in the Italian territory (Fig.1). Therefore actions to address social barriers will be implemented in the critical regions (Fig.2)

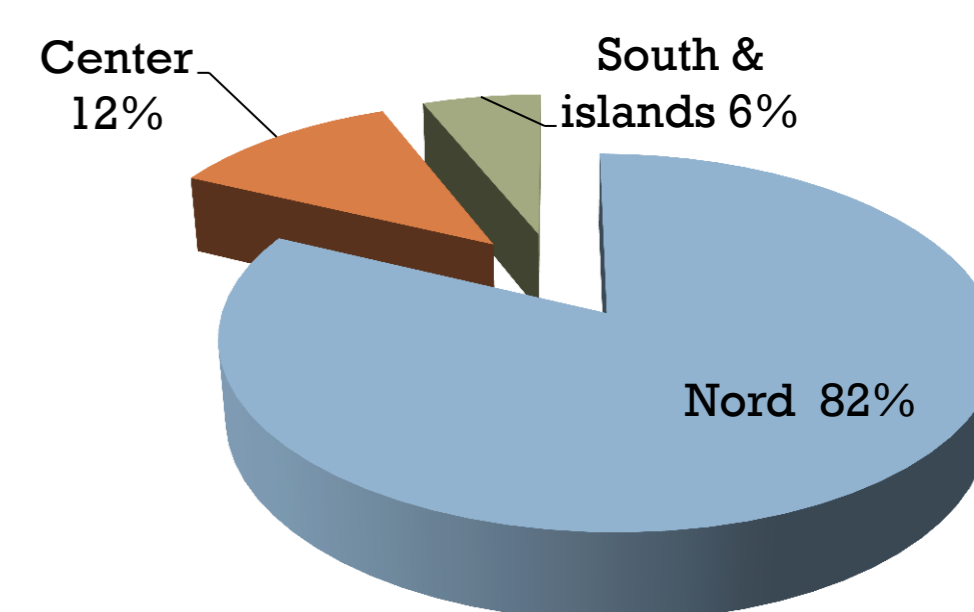


Fig. 1 – Biogas production distribution

### 1) Awareness raising

Awareness campaigns will be conducted in seven regions in the centre and south of Italy (Fig.2), with the aim of promoting discussion, information sharing and co-planning among stakeholders.

Each campaign will foresee:

- ❑ two local awareness events,
- ❑ guided visits to existing biogas plants,
- ❑ educational tours in schools.

A specific calculation tool to assess residual biomass availability and biogas/biomethane production potential will be developed and applied in the selected territories for communication and dissemination activities.



LEGEND  
 ★ Pilot territories (participative processes)  
 ■ Involved regions (information campaigns)

Fig. 2 - Involved areas

### 2) Overcoming fragmentation

Tailored workshops are foreseen during the local awareness event to foster meetings between farmers, breeders and other stakeholders (investors, authorities, etc.). The calculation tool can help producers to put together their sub-products in order to collect larger quantities of biomass and maximise economic advantages.

In order to encourage the participation and acceptance of citizens in plant of public interest, a crowdfunding action will be proposed.

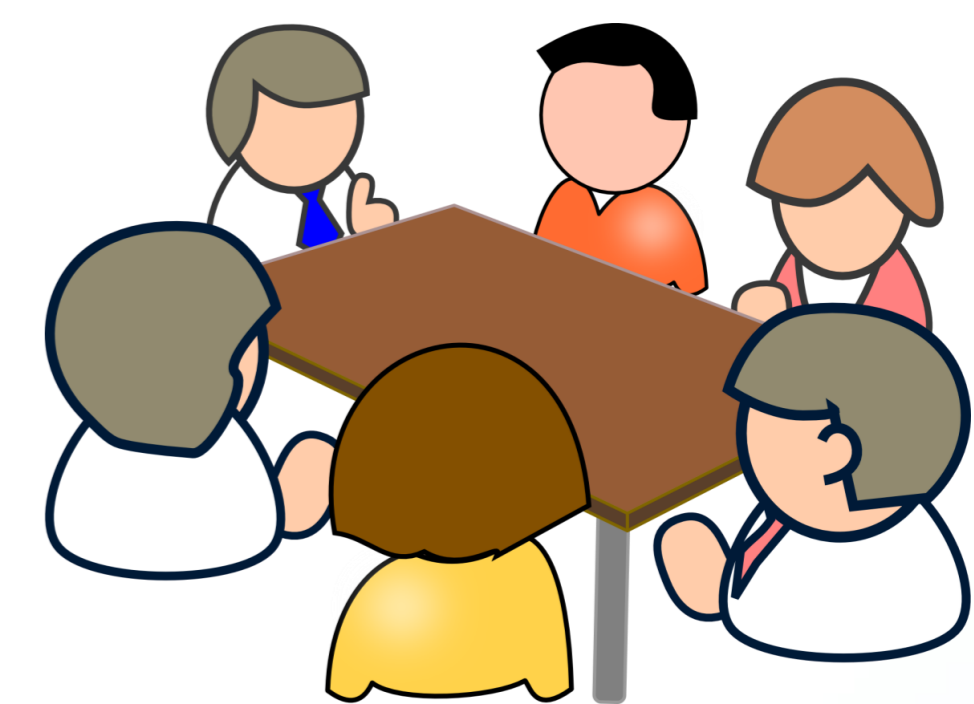


### 3) Participatory process

A participatory process model will be developed and implemented in two pilot territories (that have expressed the interest of implementing one biogas plant) to include all actors in important common decision-making processes and reduce social conflict.

These areas will be (Fig.2):

- ❑ Sardegna region where the process will lead to a liquid biomethane plant from manure;
- ❑ Marche region where the process will lead to an organic fraction of MSW biogas plant.



## EXPECTED RESULTS

- Increased knowledge, among stakeholders, of the social, environmental and economic benefits of biogas and biomethane production
- Increased public acceptance of the plants
- Support to the realization of 2 AD plants through a participatory process
- Increased cooperation among farmers and the other stakeholders

## References

[1] Terna, "Dati statistici sull'energia elettrica in Italia 2014 - Impianti di generazione"