

# The BIOSURF Project

**BIN2GRID / BIOSURF Final Conference**

**Brussels**, 24 November 2017

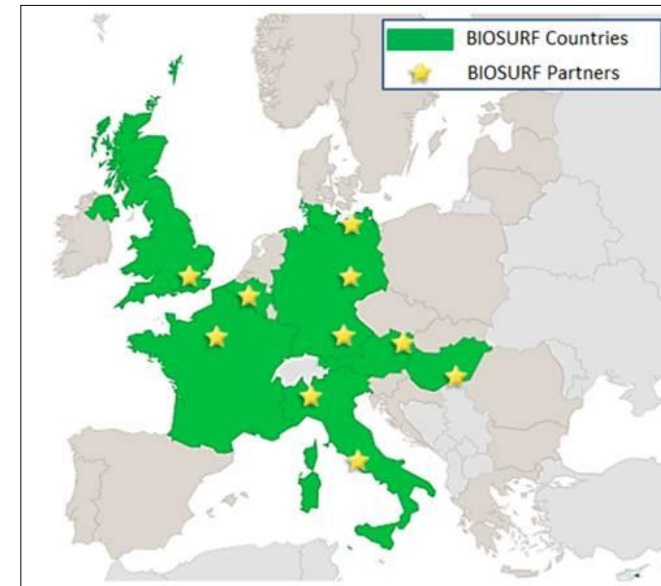
Stefano Proietti, **ISINNOVA**



- Research and consultant Institute founded in **1971**
- Consolidated experience in **energy efficiency, sustainable mobility, territorial systems, environmental sustainability**
- **15** members staff with **multidisciplinary background** in engineering, statistics, economics, politics and informatics
- Long story of collaboration at **national** (Ministries, Regions, Provinces and Municipalities) and **international** level (European Commission, World Bank, European Bank of Investments, foreigner Ministries, Regions e Municipalities, etc.)
- Specialised skills in **coordination** of projects, **analysis** of and support to policies, **impact assessment, evaluation** of policies and technologies energy efficiency, **monitoring** of participation processes to policies.

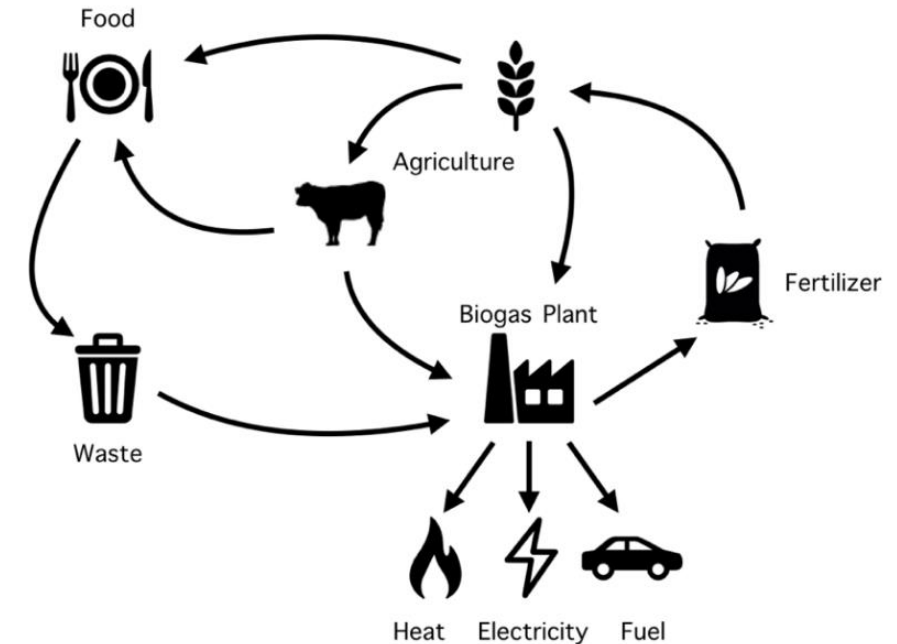


- **BIOSURF: BIOMethane as SUstainable and REnewable Fuel (HORIZON 2020);**
- **36** months (since January 2015);
- **11** partners in 7 countries: ISIS, CIB (IT), EBA (BE), REA (UK), GBA, FNR, DBFZ (DE), HBA (HU), AKB, AGCS (AT), ATEE (FR);
- **1.873.000 €** of EC funding (**100%**);
- **Activities:**
  - National/domestic biomethane **registries**
  - **Cooperation** among the national biomethane registries
  - European **mass balancing system** for biomethane
  - Free market biomethane **trade**
  - **Sustainable** raw material supply
  - Methodology for entitlement to **CO2 certificates**
  - **Regional** specificities (IT, AT, FR);
  - **Networking** and **cooperation**;
  - **Transferability** of results beyond the project countries
  - Dissemination & Communication.

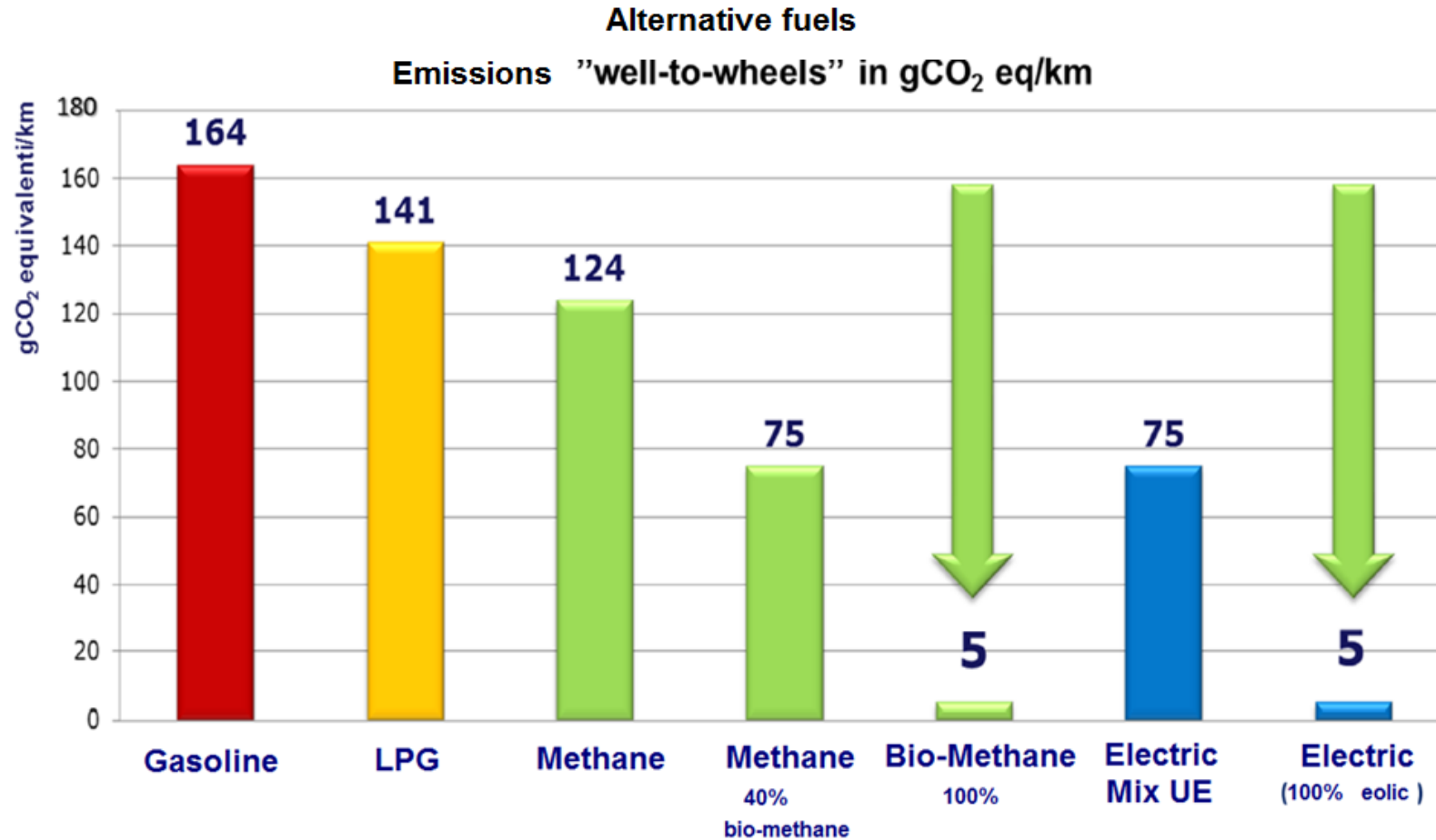


## Why Biomethane?

- Perfect example of **circular economy**
- Renewable, efficient, flexible, versatile and programmable
- **Diverse** and **ample** feedstock: sewage sludge, municipal bio-waste, residues and crops from the agro-food sector
- Biogas production helps to **improve environmental efficiency** of waste treatment processes
- **High productivity** per hectare of biogas from crops, decreasing competition for land use
- Upgraded biogas as **equal to natural gas**:
  - CNG infrastructures and vehicles can be used
  - Natural gas can be complementary in security of supply
  - Upgraded biogas can be injected in and transported by the natural gas grids



# Comparison of Alternative Fuels



(\*) Ref. Vehicle: Gasoline - emissions CO<sub>2</sub> (Tank-to-Wheel): 140 g/km

NGV System Italia su dati DENA - Agenzia Governativa Tedesca per l'Energia

# Supplies are unlimited ...

## ORGANIC RESIDUES

Sewage sludge  
Energy crops  
Slaughterhouse waste  
Manure  
Organic household waste

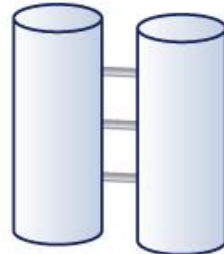


Digestion



Rawgas

Upgrading



CNG-Quality



Bio Fuel



Fertilizer



Fonte: Progetto CIVITAS TRENDSETTER – [www.civitas.eu](http://www.civitas.eu)

Disegno: FGM-AMOR

# Supplies are unlimited ...



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# Cross-Border Trade of Biomethane

- Comprehensive **guidelines** for establishing national biomethane registries;
- **Guidelines** to determine the conditions, rules and parameters of **GoO**;
- **Cooperation** among the national biomethane registries: creation of **ERGaR** (European Renewable Gas Registry), non-profit international association aiming for the recognition of its biomethane mass balancing voluntary scheme by the EC under the RED;
- Technical-administrative **proposal** to EC for declaring natural gas network as a single, closed mass-balancing system with respect to biomethane cross-border transactions;
- Technical-economic analysis and market survey for determining the **feasibility threshold** for tradable biomethane certificates;
- Inputs to elaborate the European Biomethane **standards**.



# Sustainable Raw Material Supply & GHG Emission Reduction Certification

- **Guidelines** on sustainable raw material supply for a European biomethane market;
- **Guidelines** on calculating GHG mitigation effects from biomethane production.

## “Embryonic” European Biomethane Market

- A biomethane **draft register** for Italy;
- **MoU** between Austria, France and Italy for virtual exchange of **GoO**;
- **Bilateral agreements** among the biomethane registries from Italy, France and Austria, including mutual acceptance of biomethane **Guarantees of Origin** issued in the country of production;
- **One willing customer** interested to buy imported biomethane and **one willing biomethane producer** in the three countries interested to produce biomethane for export.

## Transferability of Results beyond the Project's Countries

- Proper exploitation and transferability of project results through the organisation of **five** workshops in non-partner countries (in **Sweden, Belgium, Romania, Czech Republic** and **The Netherlands**).
- These workshops represented, through the involvement of the main national and local stakeholders, the opportunity to discuss concepts elaborated within the project (registries, guarantee of origin, tradable certificates, sustainability, GHG emissions reduction, etc.), with the aim to produce a **replication effect** outside it.

## And the Future?



Thank you for attention!

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