

EXPERTISE
RELIABILITY
FLEXIBILITY
**FOR YOUR
INVESTMENT**



**«Biogas and biomethane worldwide leading
technology provider»**

Tommaso Bazzaro, Head of Sales



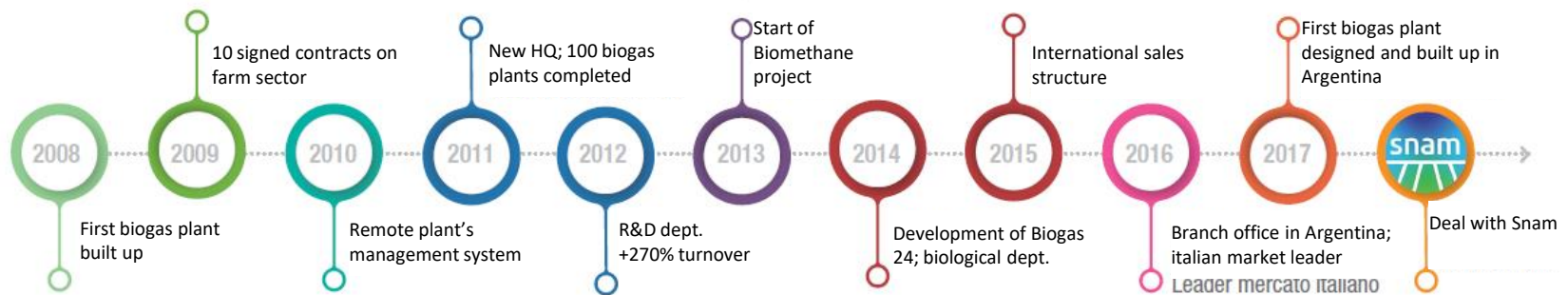
IES BIOGAS, founded in 2008, is an European leading general contractor in the biogas and bio-methane sector.

SNAM group: LEADER IN THE ENERGY TRANSITION



+ 10 years of well-proven experience
+ 220 designed and installed biogas plants
+ 300 under-service plants
+ 80 MWeq. pipeline to 2022

From July 2018 entered into **SNAM group** for the vertical integration of the biomethane supply chain, in the energy transition and decarbonization strategy.



TURNKEY DESIGN & CONSTRUCTION

IES Biogas assures comprehensive and precise delivery , assuring the client constant presence and support, from design to service & management

IESENGINEERING
Project Energy Solutions

PRELIMINARY CONSULTATION

- Technical feasibility
- Economic and financial assessment
- Production analysis and energy audit

PLANNING

- Preliminary design
- Detailed final design, as built
- Technical documentation

IMPLEMENTATION

- Turnkey solutions
- Thorough management of the bill of materials
- Precise control of materials and components
- Start-Up and commissioning

MANAGEMENT & AUTOMATION

- Remote control and monitoring
- Supervision and management software
- Training of plant personnel

TECHNICAL SUPPORT

- Routine and non-routine maintenance
- Service contracts
- Complete 24/7 management
- Process controls
- Biology and agronomy services
- Laboratory analysis
- Plants revamping

ASSISTANCE FOR FINANCIAL

- Permits and authorizations
- Support for financing solutions

FROM ITALY TO WORLDWIDE MARKETS

MAIN SALES & ENGINEERING OFFICE:

HQ in PORDENONE (ITALY)

SALES OFFICE / WAREHOUSE:

IESBIOGAS SRL in BUENOS
AIRES (ARGENTINA)

Thanks to our internal team
and a wide network of
partners we are able to cover
all the main and emerging
waste to energy markets.

Already constructed
agricultural biogas plants in
CROATIA, SOUTH KOREA,
ARGENTINA and ITALY.

On going projects in SERBIA,
INDONESIA, GREECE,
ROMANIA, POLAND, CHINA, ...



BUSINESS LINES



Liquid manure
Solid manure
Energy crops
Agro by-products



Food & beverage
processing waste



Kitchen/domestic waste
OMSW
Unsorted waste



Division dedicated
to plant facility
management and O&M

KEY WINNERS



- **FLEXIBILITY**
- **TAILOR MADE SOLUTIONS**
- **STRONG TRACK RECORDS WITH HIGH EFFICIENCY RATE**
- **CONTINUOUS TECHNICAL INNOVATION**
- **GUARANTEED AND SHORT DELIVERY TIME**

RECORD-BREAKING PERFORMANCE

	POWER	FUNCTIONING	PRODUCED ENERGY	EFFICIENCY
Azienda Agricola Mandre s.n.c.	999 kW	8.694 <i>hours / year</i>	8.665.542 kWh	99,77%
Il Dominio di Bagnoli s.s. di Lorenzo Borletti & C	999 kW	8.662 <i>hours / year</i>	8.527.121 kWh	98,54%
Società Agricola Cavallaro s.s.	999 kW	8.732 <i>hours / year</i>	8.636.513 kWh	99,01%
Società Agricola La Maddalena s.s.	999 kW	8.711 <i>hours / year</i>	8.575.448 kWh	98,54%
Allevamenti Perin Società Agricola Coop.	999 kW	8.742 <i>hours / year</i>	8.597.875 kWh	98,45%
Azienda Agricola Eredi Carioni Francesco s.a.s.	999 kW	8.621 <i>hours / year</i>	8.589.156 kWh	99,73%
Società Agricola Belluco Gabriele e Mauro	526 kW	8.738 <i>hours / year</i>	4.566.530 kWh	99,35%
Azienda Agricola Sartor Antonio	330 kW	8.701 <i>hours / year</i>	2.864.567 kWh	99,76%

IN HOUSE ADVANCED AUTOMATION

Our VISION is to empower the **efficiency, profitability and easy to use** of our waste to energy plants with 4.0 industrial automation solutions.

All plant operations are automated and supervised by **IESBIOEYE**, our proprietary software, which provides **facility management** and displaying of the **operating/control parameters** both locally and remotely.

The operator has a **continuous check** of all parameters with statistics / scenarios and historical tracks (data-logger) with an **instant and predictive diagnostics**.

Any type of fault or tracked parameters is directly displayed or sent by instant messaging, making the **resolution of potential issues or malfunctions fast and easy**.

The flexibility of our software provides for the **integration** of machines and **open communications** with all installations and devices enabling **centralised management and reporting**.



200
PLANTS
DELIVERED AND
OPERATIONAL

250
PLANTS IN
SERVICE

EUROPA
OPENING NEW
BRANCHES
AND SERVICE
CENTERS

WORLD
STRENGTHENING
THE BUSINESS
NETWORK

DEVELOPING
COOPERATION
PROJECTS WITH
INTERNATIONAL
PARTNERS

CUSTOMIZED PLANT SYSTEM

IES BIOGAS plants envisage the installation of a tailored-made automation system based on specific client's requirements.



IES BIOEYE

USER BENEFITS:

- Simplified management
- Error reduction
- Less downtime
- Predictive biological & electro-mechanical analysis
- Remote control and monitoring
- Data visualization from any device
- Operating systems: Windows, OS, IOS, Android

IES SERVICE, division dedicated to plant facility management and assistance, provides **condition monitoring and training** also with **virtual reality (VR)** headset for an **augmented reality experience**. This ensure complete and fast reaction at worldwide levels with precision maintenance practices, root cause **failure analysis** and **constant remote assistance** from our control room in order to reduce at **minimum the stop losses and increase the performance rates**.



Technical assistance



Plant management



Revamping



Biological assistance



Spare parts warehouse



Remote control and monitoring



CASE STUDY: OSTELLATO PLANTS 4 X 1 MWe

Plant C.B.O. 1/2/3/4 – Ostellato (FE)

AD WET BIOGAS PLANT

Engine power: 4 x 999 kW_e

Feedstock:

Corn & triticale silage
Sugar Beet pulp silage
Beetroot molasses

Annual electricity production:
33,03 mil KWh (FIT sold to the
electrical grid)

Construction time: 4 months



MEDINCI Plant– Croatia

AD WET BIOGAS PLANT

Engine power: : 1.125 kW_e

Feedstock:

40t/d corn silage

30 t/d cattle manure

40 t/d milking cow slurry

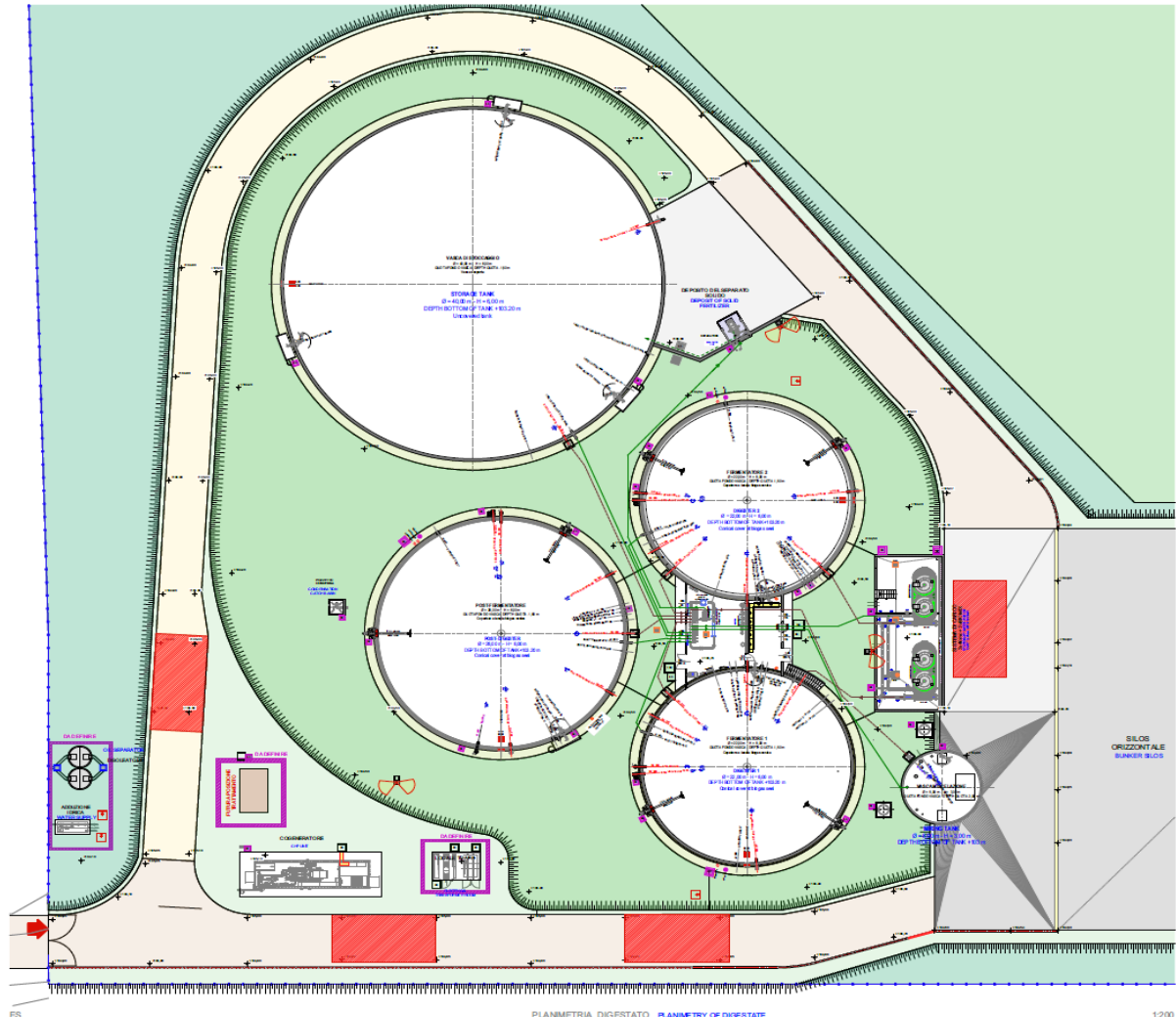
Annual electricity production:

9,05 mil KWh (FIT sold to the electrical grid)

33.000 t/y di liquid digestate (5% TS)

11.000 t/y di solid digestate (20% TS)

Construction time: 6 months



AD WET BIOMETHANE PLANT UPGRADING station

Feedstock:
120 t/d citrus fruit processing waste
96 t/d agro-industrial byproducts
51 t/d livestock effluents
40 t/d 2° harvest energy crops

Annual production:
4,3 mil. Sm3 biomethane(inject
to national gas grid)

Construction time: 9 months
(on going project)



CASE STUDY: BIO-CH₄ WASTE PLANT

IMPIANTO ENERSì - Italy

OFMSW pre-treatment system
AD SEMI-DRY BIOMETHANE PLANT

Composting area
UPGRADING station

Bio-CH₄ output: 350 Sm³/h
(≈1,5MW equiv.)

Feedstock:
100 t/d OFMSW

Annual production:
3 mil. Sm³ biomethane (inject to
national gas grid)

Construction time: 12 months
(on going project)













1 MW Biogas



1 MW Biogas



1 MW Biogas



6,8 MW Biogas



500 m³ Bio methane



750 m³ Bio methane



**THANKS FOR
YOUR
ATTENTION!**

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