



S.F. IMPIANTI

Group

the company team

Design and Construction of
renewable energy production plants

Company Profile

Since 2006 in Italy there was a strong development of technologies related to energy savings, especially after the introduction of the Kyoto Protocol and activation, in 2014, of the European program "Horizon 2020".

As a result of experience gained individually in specific areas, such as cogeneration, photovoltaic technology and energy consulting, a small group of Italian engineers and entrepreneurs joined their forces to create SF IMPIANTI GROUP company, able to bring together all the individual experiences and offer a global service of high professionalism, also involving leading companies in specific sectors of the energy industry, creating the right synergies to provide to customers, of all types and size, a refined, accurate and high performance service.

To achieve that goal, we keep working, seeking the best technical solutions, to fathom the world to find those solutions or ideas, even in start-ups, which have an interesting development potential, striving to combine and integrate multiple solutions to achieve a sole result: efficient plants, easy to maintain and handle, that adapts to meet every need and is geared primarily on efficient energy use, on the use of renewable fuels and maximum reduction of emissions into the air and soil.

Currently we are located in Bulgaria, our headquarters, Latvia and Poland, where we aim to northern Europe market, the Balkans and the ex-Soviet Union republics, which, in our view, are the countries with the most growth potential and improvement, and where the market of energy and services is growing rapidly.. With humility and dedication we are ready to transfer our experience in the countries where we operate, serving the people and institutions that are looking for reliable solutions to improve energy efficiency, reduce consumption and improve everyone quality of life.



Vision

To consolidate the union between Professionals, Researchers and Companies who operate in the tech plant field, seeking and providing to the final client the best technical solution and the most efficient service up to the specific needs.

Mission

Face every request with a professional approach to precisely respond to the specific needs:

STANDARD DOESN'T EXIST!!

S.F. IMPIANTI GROUP



S.F. IMPIANTI GROUP Ltd



S.F. IMPIANTI

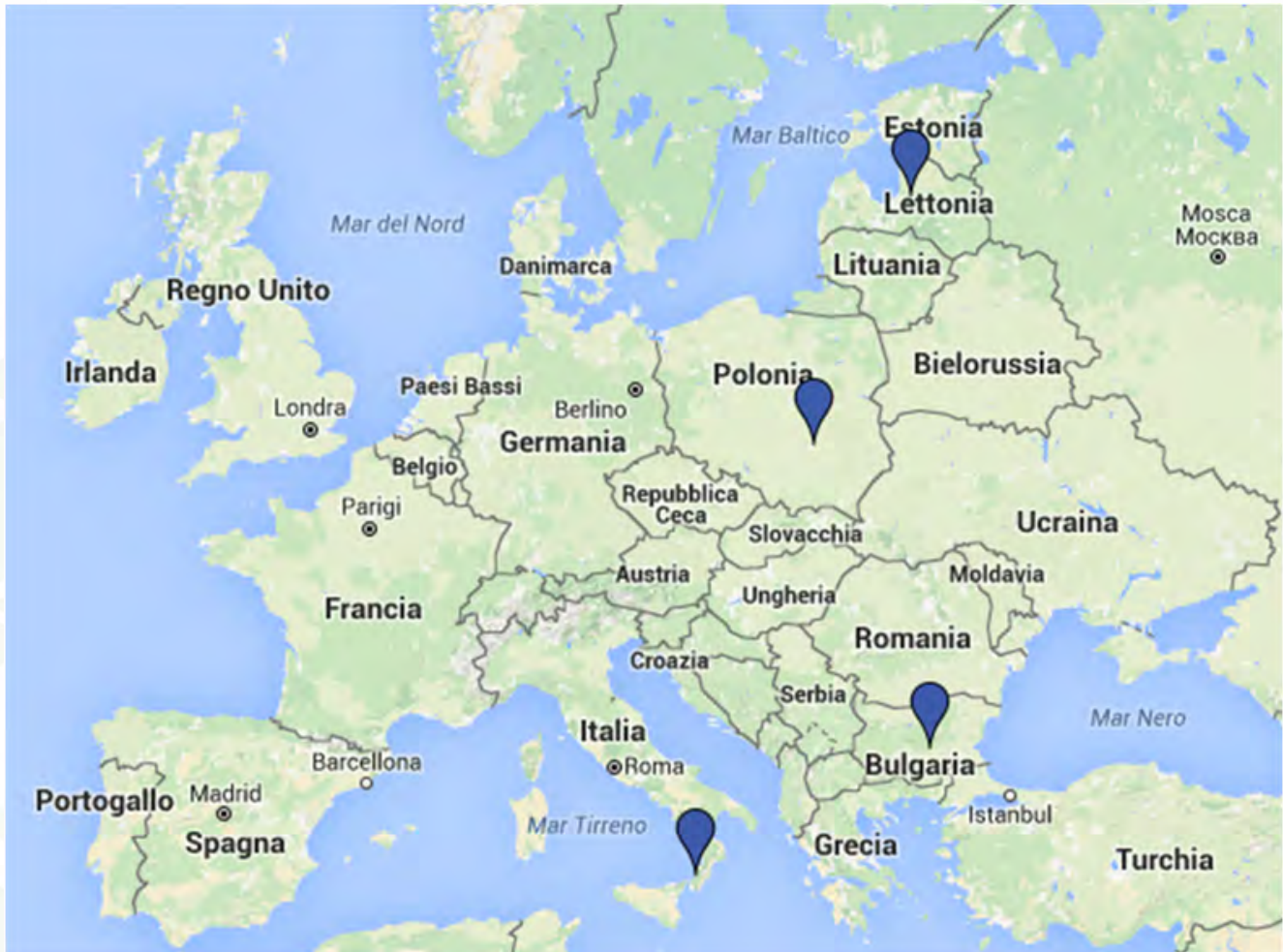


S.P. IMPIANTI SIA



S.H. IMPIANTI

Where you can find us



The areas of interest

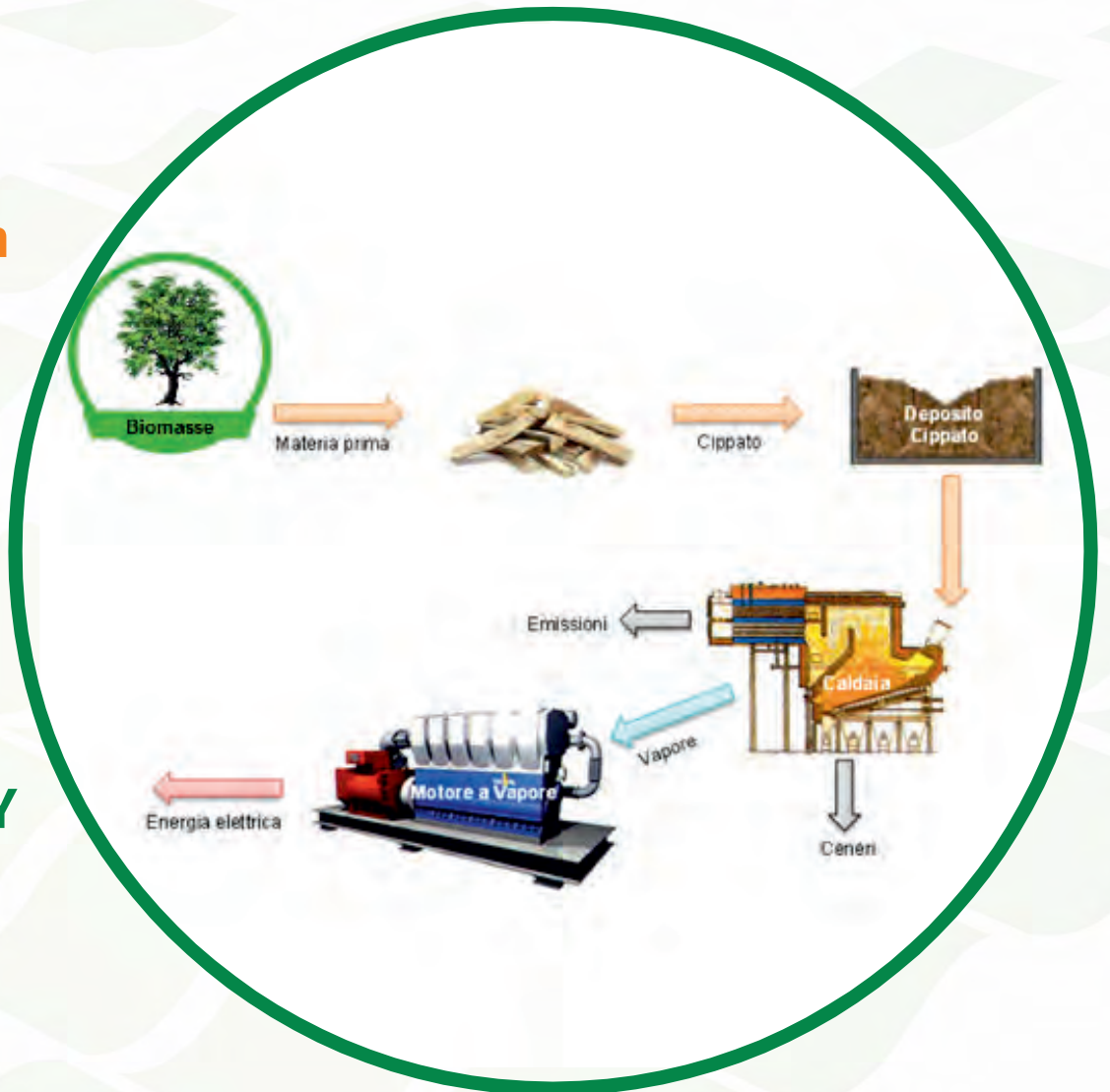
**Biomass
cogeneration
plants**



ELECTRICITY

HEAT

COOLING



Biomass cogeneration plants

- Small plant from 100 kWe
- Plug and play solution
- Stand alone solution for hospital, school, village, ...
- Big plant greater than 1 Mwe

- Totally growing own wood

- NO air pollution
- NO noise

The areas of interest

Biogas
cogeneration
plants



ELECTRICITY

HEAT

COOLING



Biogas cogeneration plants

- Small plant from 100 kWe
- Plug and play solution
- Stand alone solution for farm, remote village, ...
- Big plant greater than 500 kWe

- Fertilizer for agricultural available

- NO air pollution
- NO noise

The areas of interest

W T E
Full
waste to energy
plants

ELECTRICITY
HEAT
COOLING





INNOVATIVE Full Waste to Energy plants Patented

- Landfill remediation
- Totally land-cleaning
- Unsorted waste, urban, industrial and hazardous

- Totally waste re-cycling: glass, metals, plastic
- Electrical and Thermal Energy
- Hydrocarbons (Diesel), CH₃OH (Methanol), Syngas

- NO air pollution
- NO water pollution

BIOPDG[®]

EXAMPLES OF MATERIAL IN ENTRY



URBAN AND INDUSTRIAL WASTE



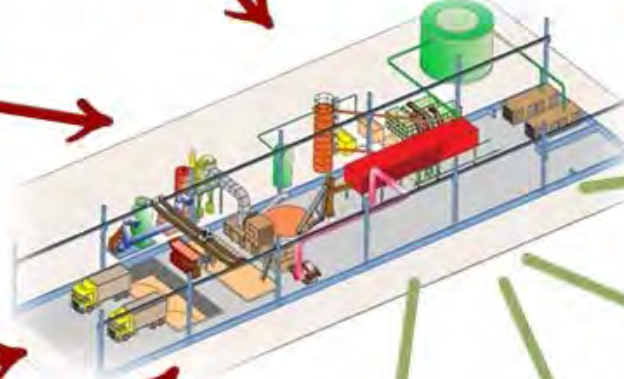
USED TIRES AND VARIOUS



BIOMASS



PLASTIC WASTE



WHAT PRODUCE



HYDROCARBONS (DIESEL) CH₃OH (METHANOL)



NATURAL GAS (SYNGAS)
FOR ANY KIND OF USE



ELECTRICAL / THERMAL
ENERGY

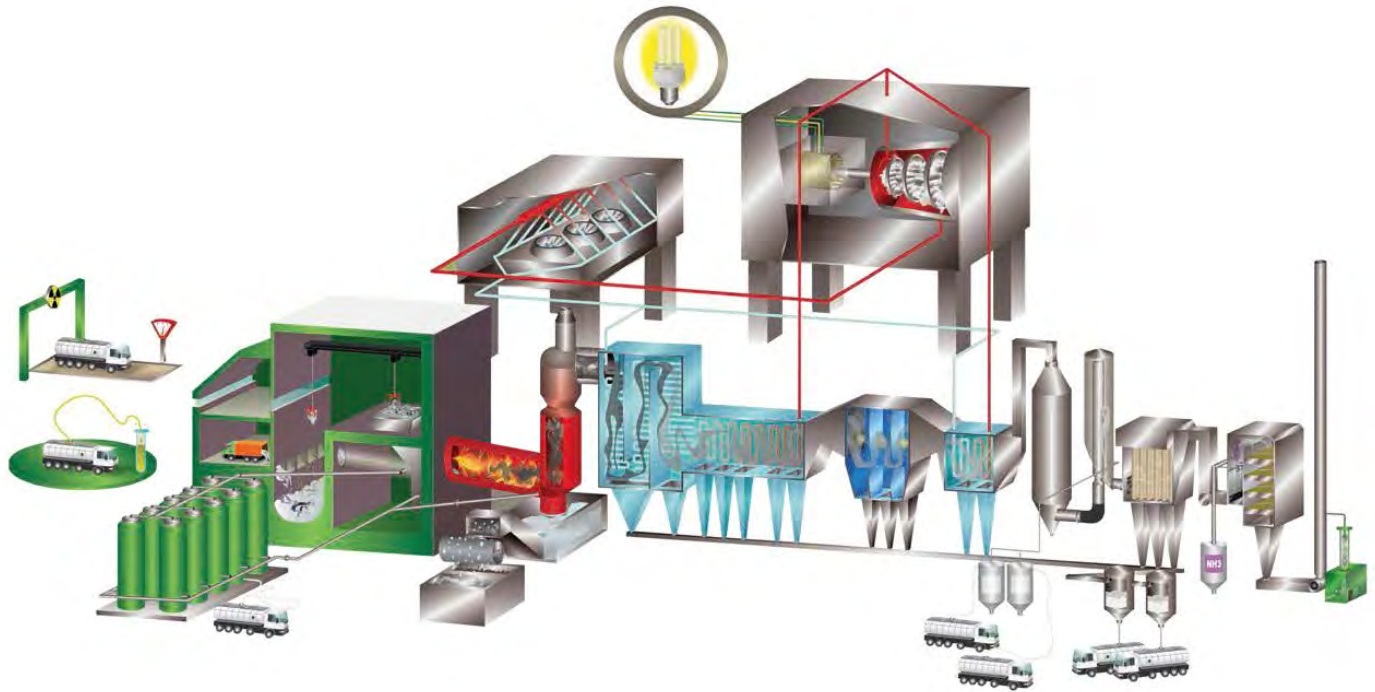


CARBON FOR
ANY KIND OF USE



RECYCLING METALS
AND OTHER MATERIALS

BIOROT®



 **BIOROT[®]**

 **100**

 **200**

 **300**

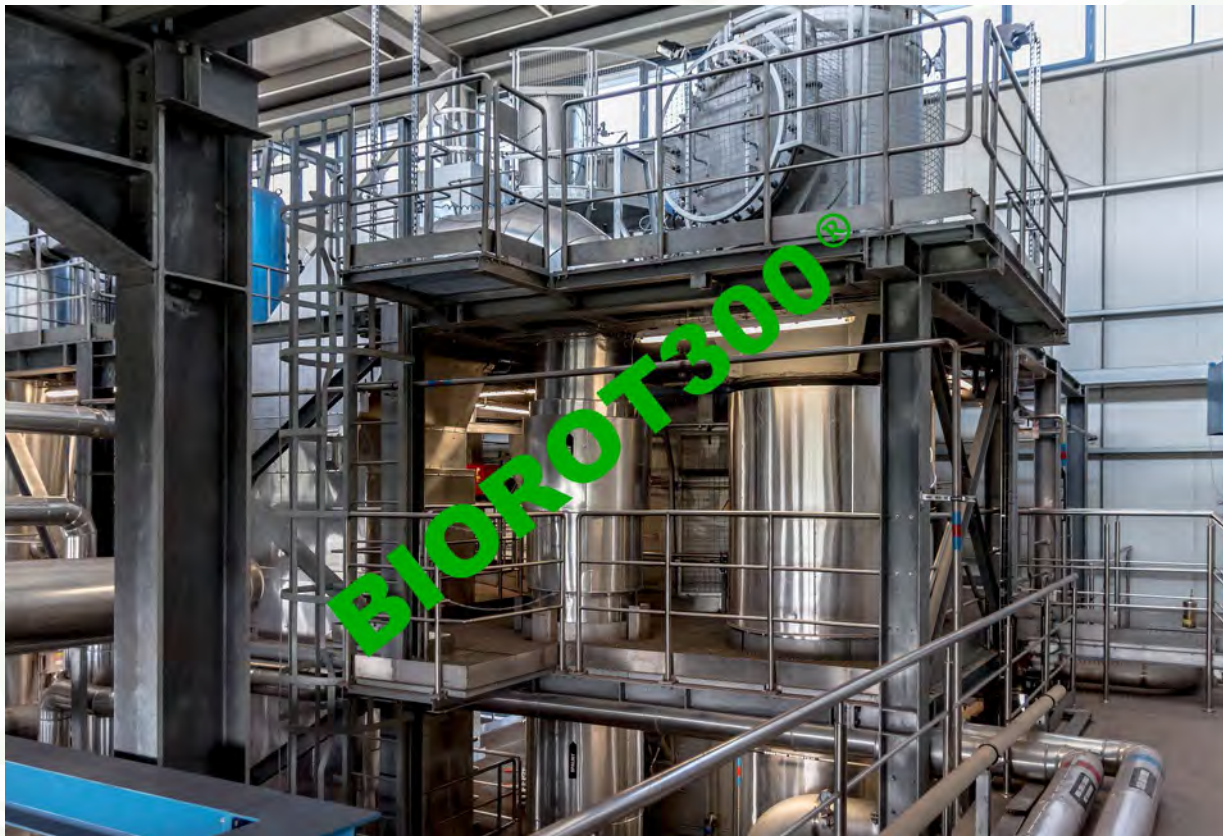
**INNOVATIVE patented
Full Waste to Energy plants
unit from 10 tons/h up to 45 tons/h**

- Landfill remediation
- Totally land-cleaning
- Unsorted waste from:
 - Urban;
 - Industrial;
 - Hazardous Hospital waste.

- Electrical and Thermal Energy
- Totally waste re-cycling: glass, metals, plastic

- NO air pollution
- NO water pollution

BIOROT300[®]



FLUE GAS CLEANING PLANTS AF

"DRY" system"

"WET" system

"MIXED" system

DRY SUPER-BIODEPURATION SYSTEM

with near to zero emissions (NZEP)

(ALSO WITHOUT CHIMNEY STACK)

We design and produce DRY, WET or MIXED flue gas cleaning systems, of our own design (some systems are patented); each system can be then implemented, in case of necessity, by means of the new RETROFIT system of SUPERDEPURATION, which allows to reach emission level largely below the actually permitted limits by 2000/76/CEE norm (NZEP system, "near to zero emission plant").

The flue gas plume of the "DRY" system appears in any working condition clean and transparent. The emission levels are always below the permitted limits by the European Environmental Regulation nr. 2000/76/CEE (see pictures below).

Small and medium size furnaces, for slaughter houses or small hospitals, can also be equipped with the "WET" system, which allows sometimes to reduce the installation costs; our wet system is usually based on a Venturi scrubber of our own design, normally coupled in series with a wet gas absorber (tower) which can be of the packed type (PAL, RASHIG rings type) or of the "floating spheres type", or of the "plates" type, depending on the technical specifications of the plant; the Venturi scrubber can be "wet bottom" or "dry bottom" type, according to the necessity of the design.

The performance of the scrubber is foreseen by means of a calculation software. In any case the emissions are returned conform to european norms 89/369/CEE, and the system, if well regulated, it is capable to work without visible plume in any weather condition.

The "WET" system is produced in different sizes and types depending on the model of the furnace and on the requested results.

FLUE GAS *SUPER-BIODEPURATION* PATENT

SYSTEM APPLICABLE TO ANY INCINERATOR KILN

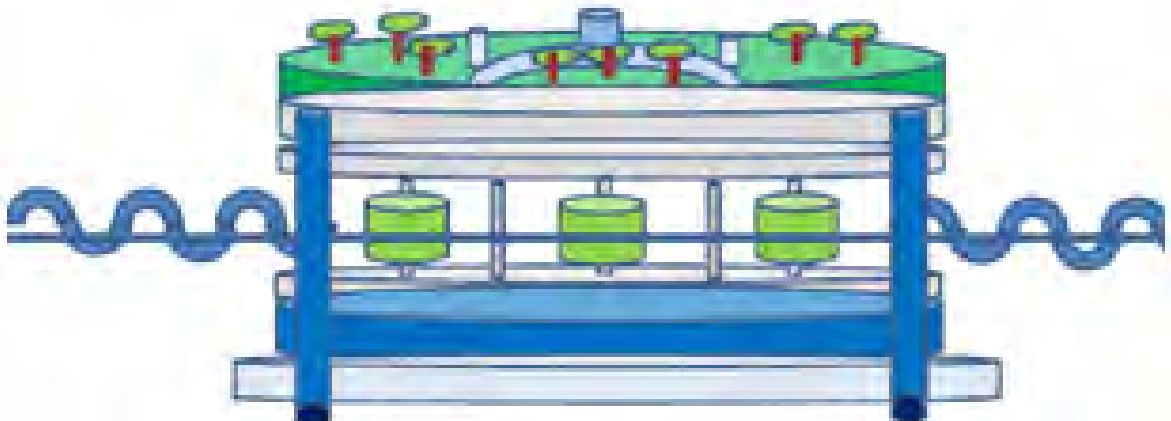
- ❑ MEDICAL HOSPITAL WASTE
- ❑ CIMITERIAL WASTE
- ❑ MUNICIPAL WASTE or GARBAGE
- ❑ TRASH
- ❑ WASTE LIQUIDS



The areas of interest

INNOVATIVE patented

**An offshore platform for the
production of electricity
and drinking water
by means of sea waves,
self-leveling, self-propelled,
self-stabilizing, self-positioning,
controlled remotely
by a virtual dashboard**

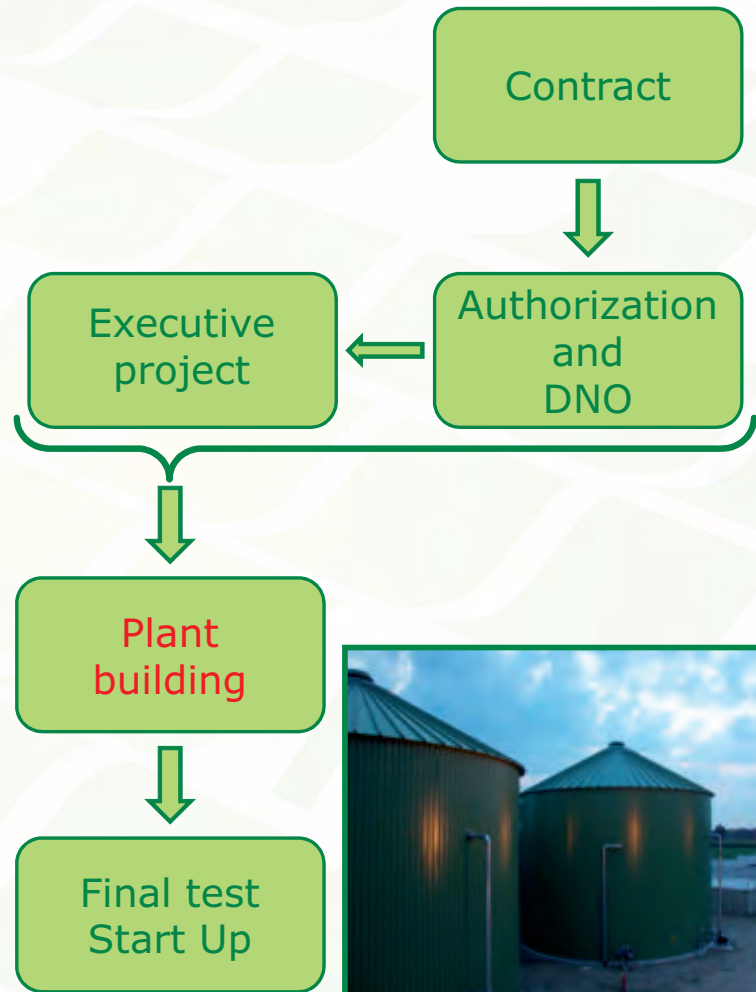
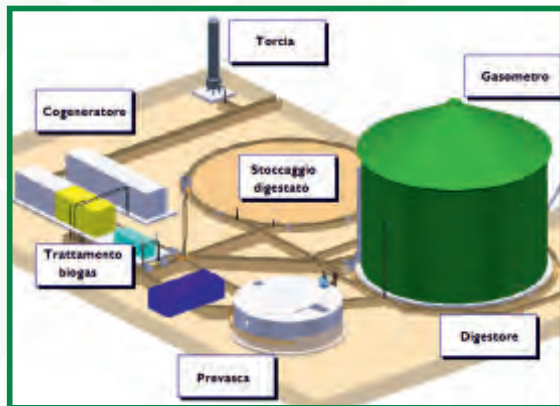


The areas of interest

Combined
renewable
energy
production
system
for heat
and cooling



From Idea to Completion: the work plan



Direct references

Roof photovoltaic plants

Between 2008 and 2011 has been realized in Italy roof photovoltaic plants for a total of **13.340 kWp** distributed in **23 sites**, 6 of them with power output higher than **100 kWp**

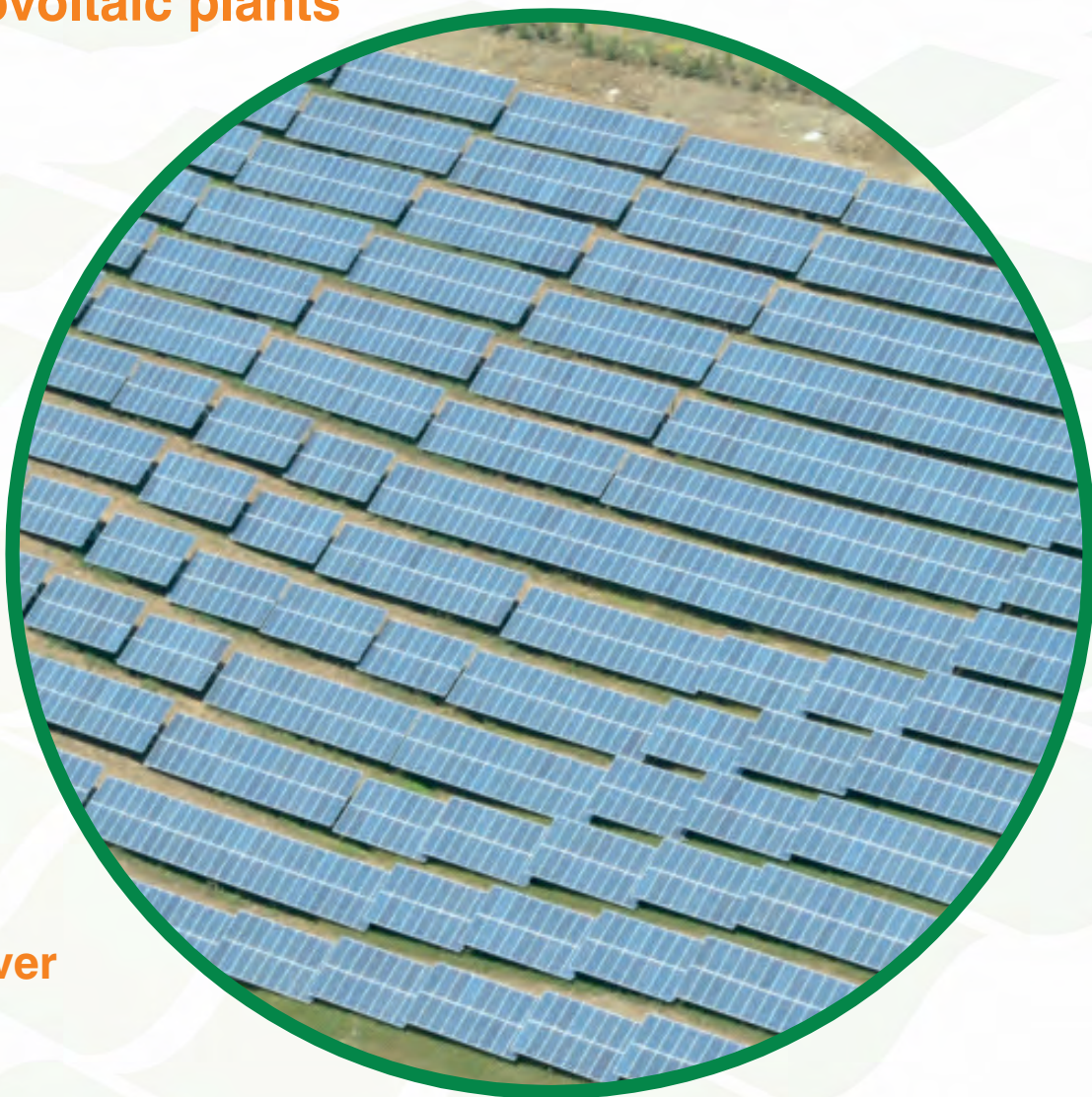




Direct references

Ground photovoltaic plants

Between 2008
and 2011
has been
realized in
Italy ground
photovoltaic
plants for
a total of
8.252 kWp
all plants with a
power output over
500 kWp





1.15 MWp



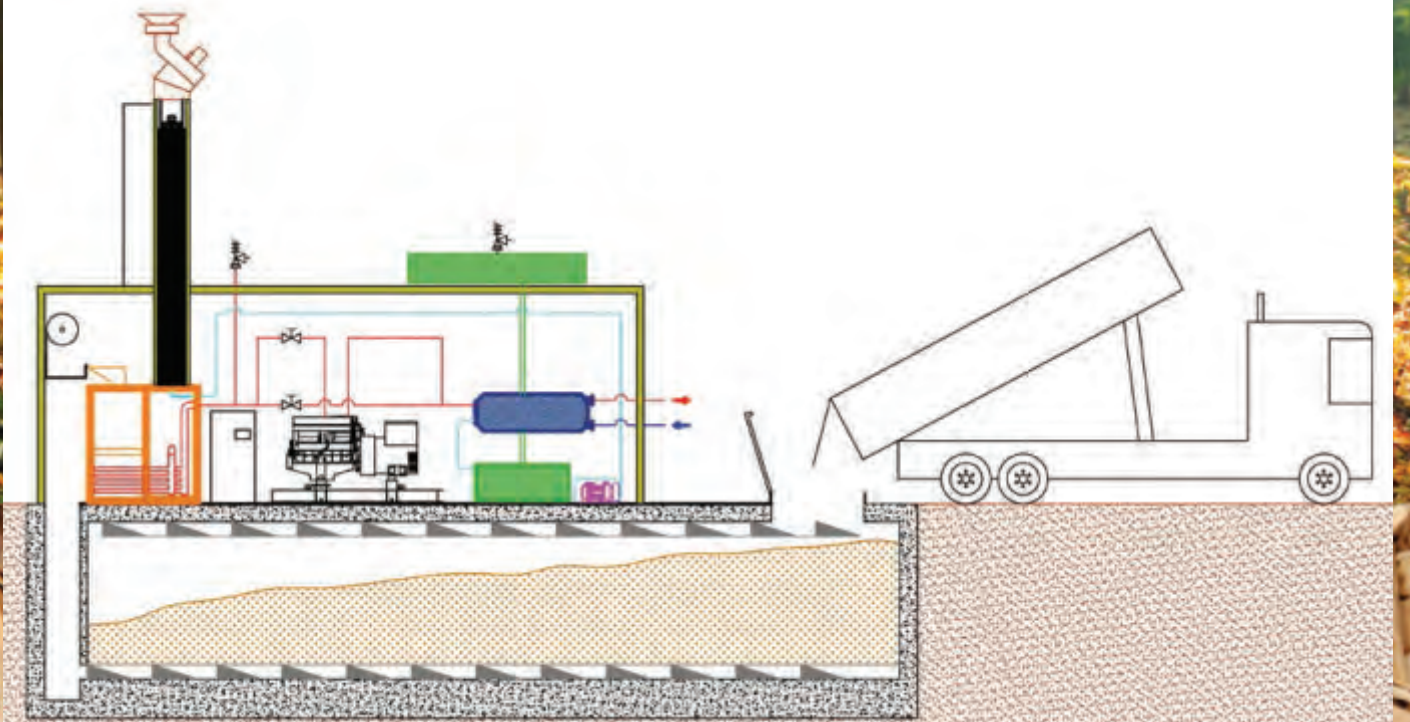
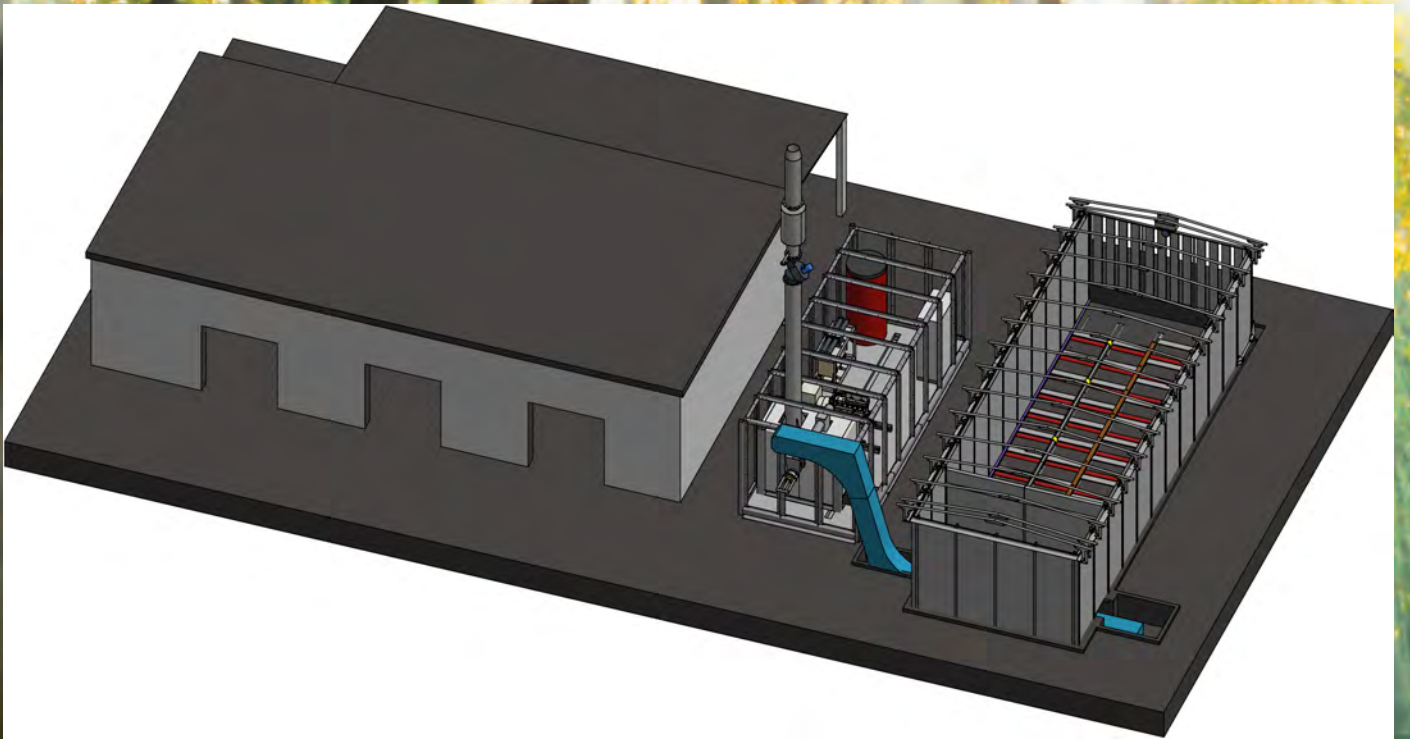
996 KWp

Direct references

Biomass cogeneration plant

Between 2013 and 2015 has been realized in Italy biomass cogeneration plants for a total of 400 kWp distributed in 2 sites





Direct references

Anaerobic digestion biogas cogeneration plants

Between 2010
and 2014
has been
realized in Italy
anaerobic
digestion
biogas
cogeneration
plants for a total of
5.733 kWp
distributed in 8 sites

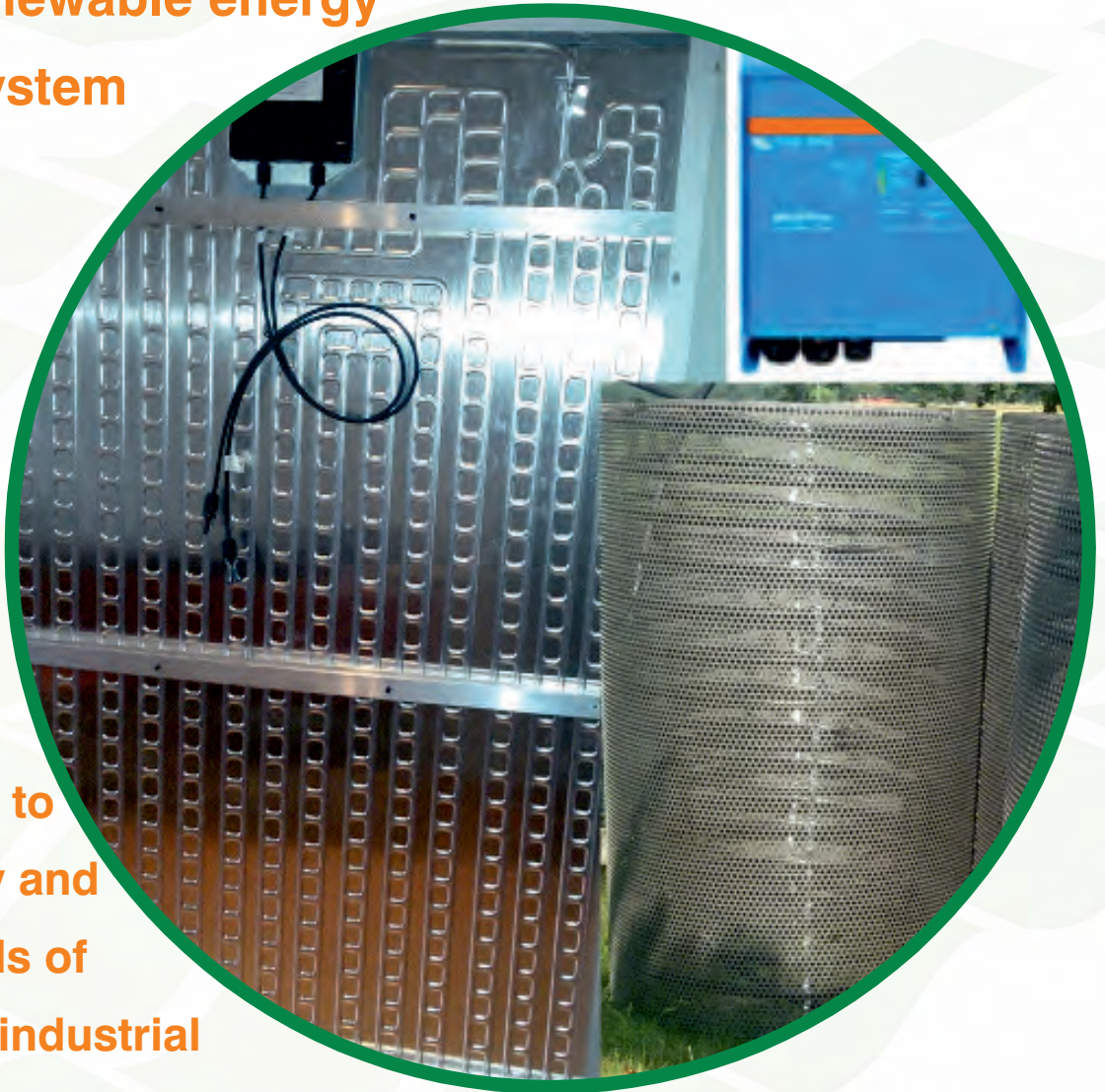




Direct references

Combined renewable energy production system

Between 2010 and 2015 has been built many plants that exploit different renewable energy sources to produce energy and satisfy the needs of residential and industrial buildings





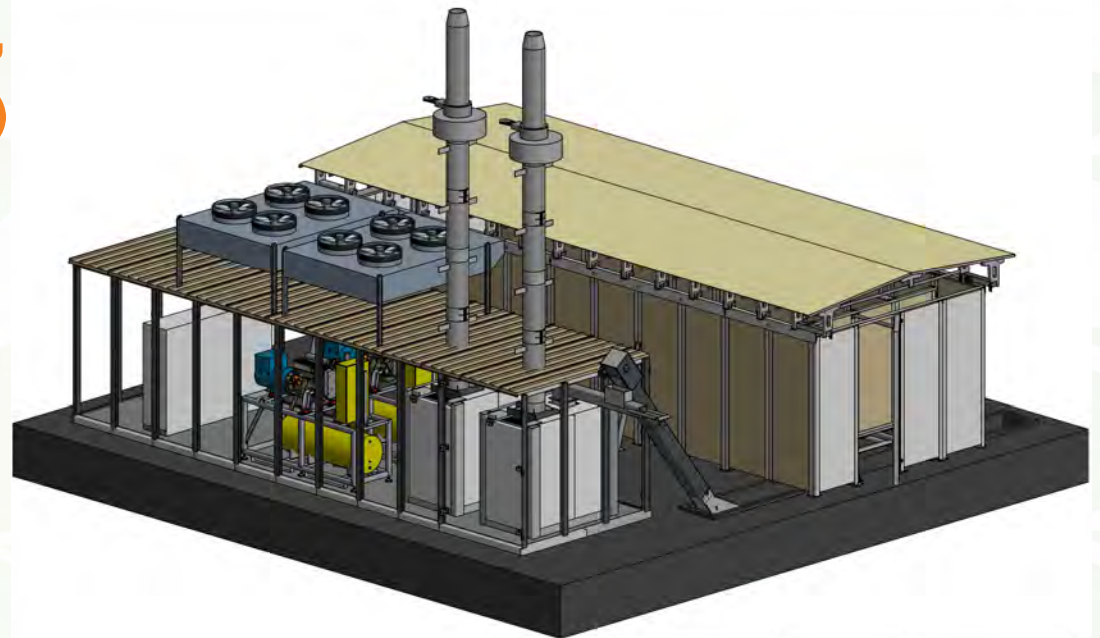
HIGHLY HAZARDOUS WASTE TREATMENT PLANT



The plant is equipped with an analysis laboratory for the determination of the hazardousness of waste by companies that produce paints and / or products for the industry whose waste derived from production are highly dangerous to dispose of

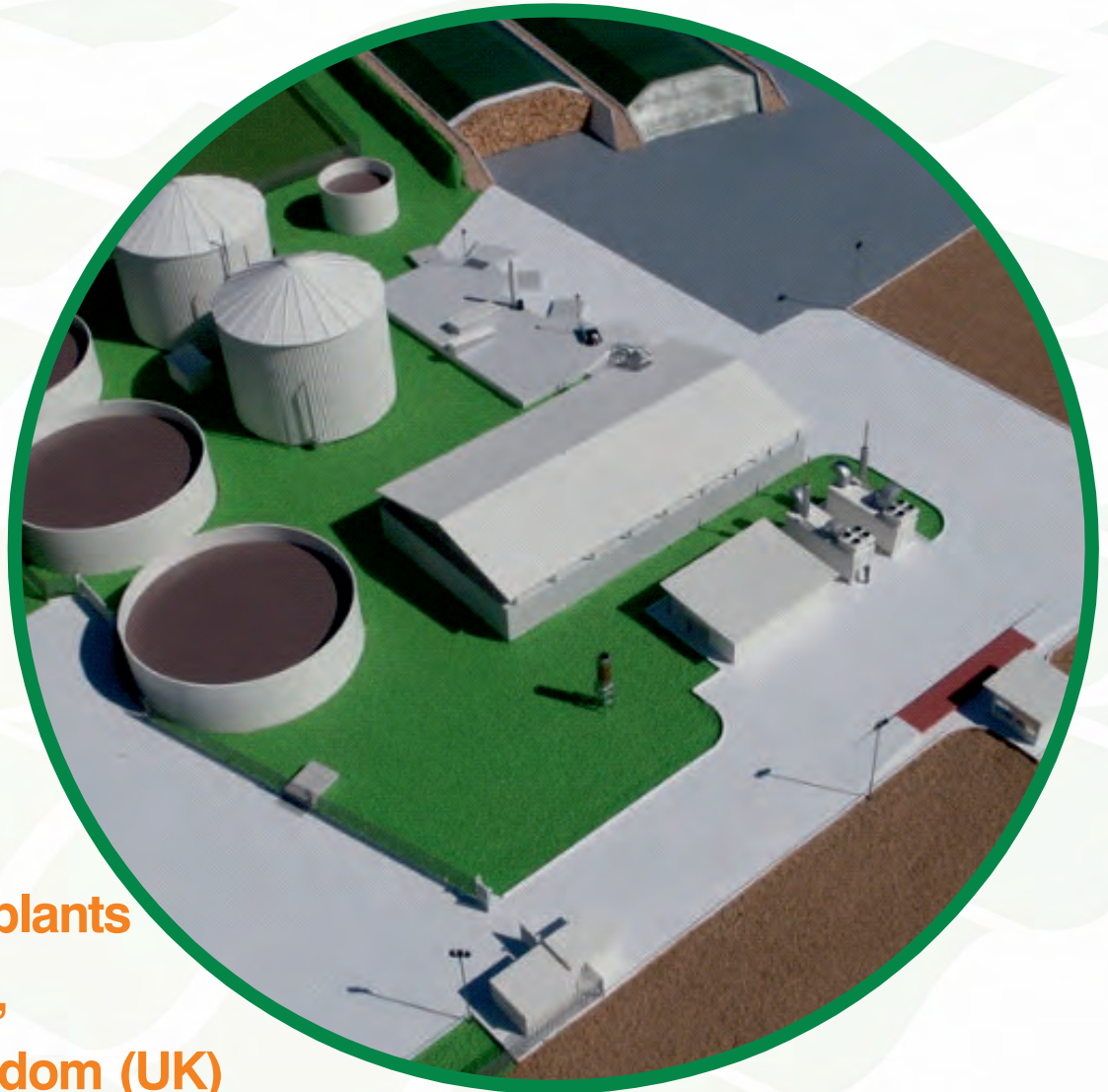
Work in progress

N. 10
Biomass
cogeneration plants
200 kWe each,
in Calabria (IT)



N. 4
Biomass
cogeneration plants
200 kWe each,
in Emilia-Romagna (IT)

Work in progress



N. 3
AD biogas
cogeneration plants
600 kWe each,
in United Kingdom (UK)

Work in progress

N. 1

preliminary project
waste to energy plant
in Freetown (SL)



N. 1

preliminary project
waste to energy plant
in Abidijan (CI)

Work in progress

**N. 1
carpentry factory
in Sigulda (LV)
with annex
biomass
cogeneration
plant,
600 kWe**



Work in progress

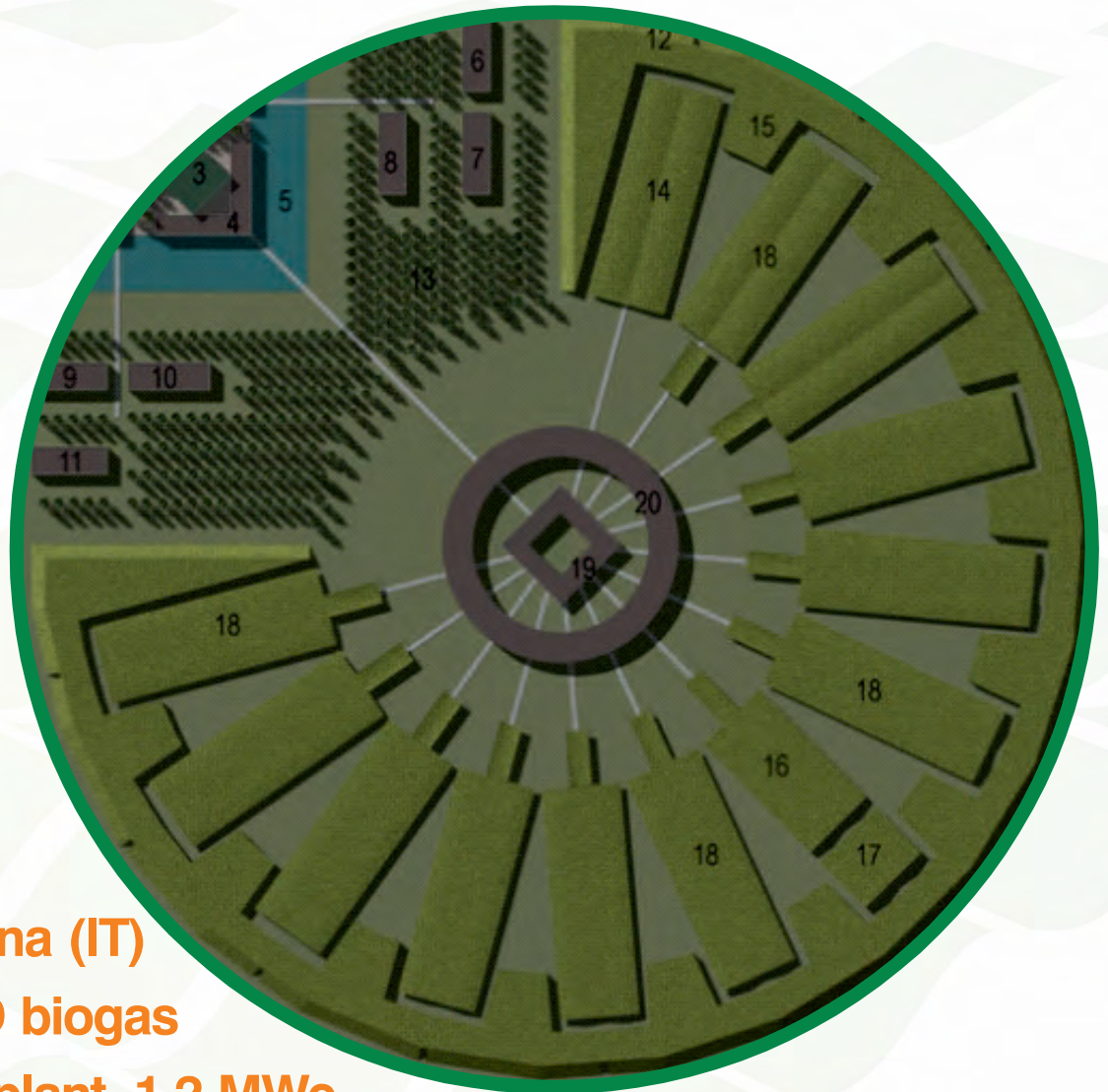
N. 1

**Touristic - Ricreative
building complex
in Sigulda (LV)**

**with annex
biomass
cogeneration
plant,
600 kWe**



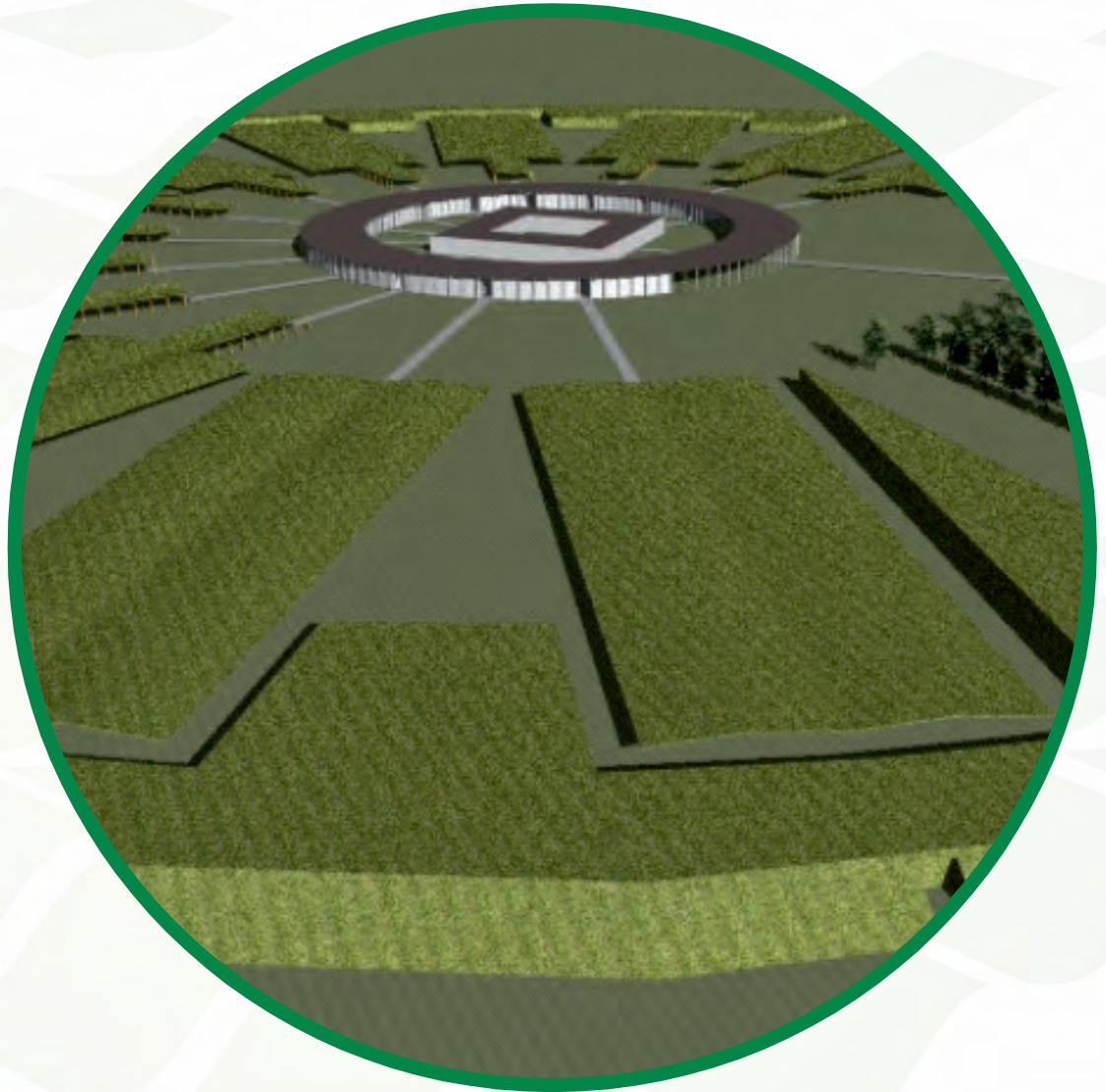
Work in progress



N. 1
Dairy Farm
of 4800 heads
of cattle in
Emilia-Romagna (IT)
with annex AD biogas
cogeneration plant, 1.2 MWe

Work in progress

**N. 1
Dairy Farm
of 5600 heads
of cattle in
Tebourba (TN)
with annex
AD biogas
cogeneration
plant,
1.4 MWe**



Our contacts



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