



**TECHNOLOGIES AT THE SERVICE
OF THE ENVIRONMENT**



COMPANY PROFILE





THE BEST
COMPETENCES
AT THE SERVICE
OF THE **ENVIRONMENT**

Idro Group is specialized in the design and construction of water treatment plants and clean energy production. By applying innovative technologies Idro Group develops: mobile and compact plants, systems for water purification, civil and industrial wastewater treatment and reuse, air deodorization plants and plants for biogas and biomethane production.





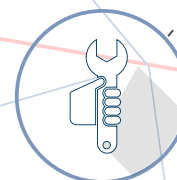
Financing

Thanks to this activity Idro Group provides financing for the construction of its plants, in the form of long-term rental or project financing, aimed at the realization of the same.



Maintenance

The Idro Group offers both extraordinary and scheduled maintenance service, which also includes control analysis.



Consulting

The Idro Group offers its consultancy for general and executive projects, for the feasibility study of the plants, for the technical specifications and the coordination of all purchases with technical and commercial supervision on supplies.



Assistance

The Idro Group's assistance services include technical assistance in plant management, supervision of installation and start-up, supervision of masonry works, personnel training, repair, refurbishment or extension of existing plants and the supply of products and reagents for water/waste/biomass treatment.



NATURAL RESOURCES MANAGEMENT



IDRO Group intends to establish it self more and more as a reference point in the field of treatment of natural resources (water, air, energy), with the precise intent of providing **solutions** at the forefront for the protection of the territory and its resources.

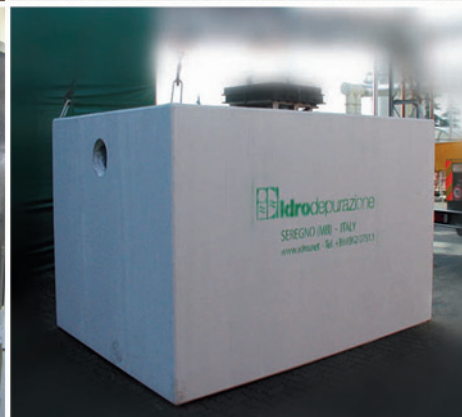
The research activity promoted by the Group is aimed at achieving an **eco-sustainable** future. The corporate policy of the member companies is to provide environmental and regulatory expert solutions, taking the front line.

For this reason, IDRO Group's companies, which have solid experience, are constantly engaged in the research of **innovative** and **cutting-edge technologies**.

The Group intends to provide suitable solutions to any type of customer: from the public to the private sector, to the industrial sector, to governmental and non-governmental bodies, guaranteeing its support also for interventions on already existing plants and ensuring an effective after-sales service.

The group's headquarters itself respects the values of the companies, which aim to create the conditions for an eco-sustainable future: the headquarters building has been designed with a solar panel system that makes it energy self-sufficient and with the use of construction materials with low environmental impact.

THE IDRO FIELDS OF APPLICATION



PRIMARY WATER

WELL, RIVER AND LAKE WATER TREATMENT
BRACKISH WATER PURIFICATION
SEAWATER DESALINATION
DEMINERALISATION
SOFTENING OF WATER
INDUSTRIAL WATER TREATMENT

TYPES OF PLANTS

SAND AND CARBON FILTRATION
RESIN FILTRATION
CHEMICAL-PHYSICAL TREATMENTS
LAMELLAR PACKS
ULTRAFILTRATION
REVERSE OSMOSIS
DISINFECTION

WASTEWATER

CIVIL WASTEWATER TREATMENT INDUSTRIAL
WASTEWATER TREATMENT
FIRST RAINFALL WATER TREATMENT
WASTEWATER RECOVERY AND REUSE
RECOVERY AND REUSE OF RAINWATER
GREYWATER RECOVERY AND REUSE BALLAST
WATER TREATMENT

TYPES OF PLANTS

CHEMICAL-PHYSICAL PLANTS
FLOTATORS
OIL AND HYDROCARBON SEPARATORS
FIRST RAINWATER PLANTS
RECOVERY AND REUSE FACILITIES
ACTIVATED SLUDGE PLANTS
SBR BIOLOGICAL PLANTS
MBR BIOLOGICAL PLANTS
MBBR BIOLOGICAL PLANTS
BIO DISC PLANTS
ELECTROPERCOLATOR SYSTEMS



PRIMARY WATER

FILTRATION, SOFTENING, DISINFECTION SYSTEMS



PRIMARY WATER TREATMENT

Idro Group has become more and more specialised in the design and construction of drinking water treatment plants for civil and industrial use.

The technologies used range from softening, filtration, lamellar sedimentation, ultrafiltration, disinfection and reverse osmosis systems for the treatment of salt and brackish water.



PRIMARY WATER

COMPACT&MOBILE SYSTEMS



MOBILE DRINKING WATER INSTALLATIONS

Mobile installations are designed to produce drinking water in areas with limited and/or contaminated water.

The mobile drinking water treatment units are easy to use and versatile, they can be easily mounted on trailers and moved, making them ideal for emergency intervention (e.g. following natural disasters or in refugee camps).

These same mobile units can be installed permanently or semi-permanently with minimal on-site intervention. This option makes the units ideal for medium or long term water supply systems.





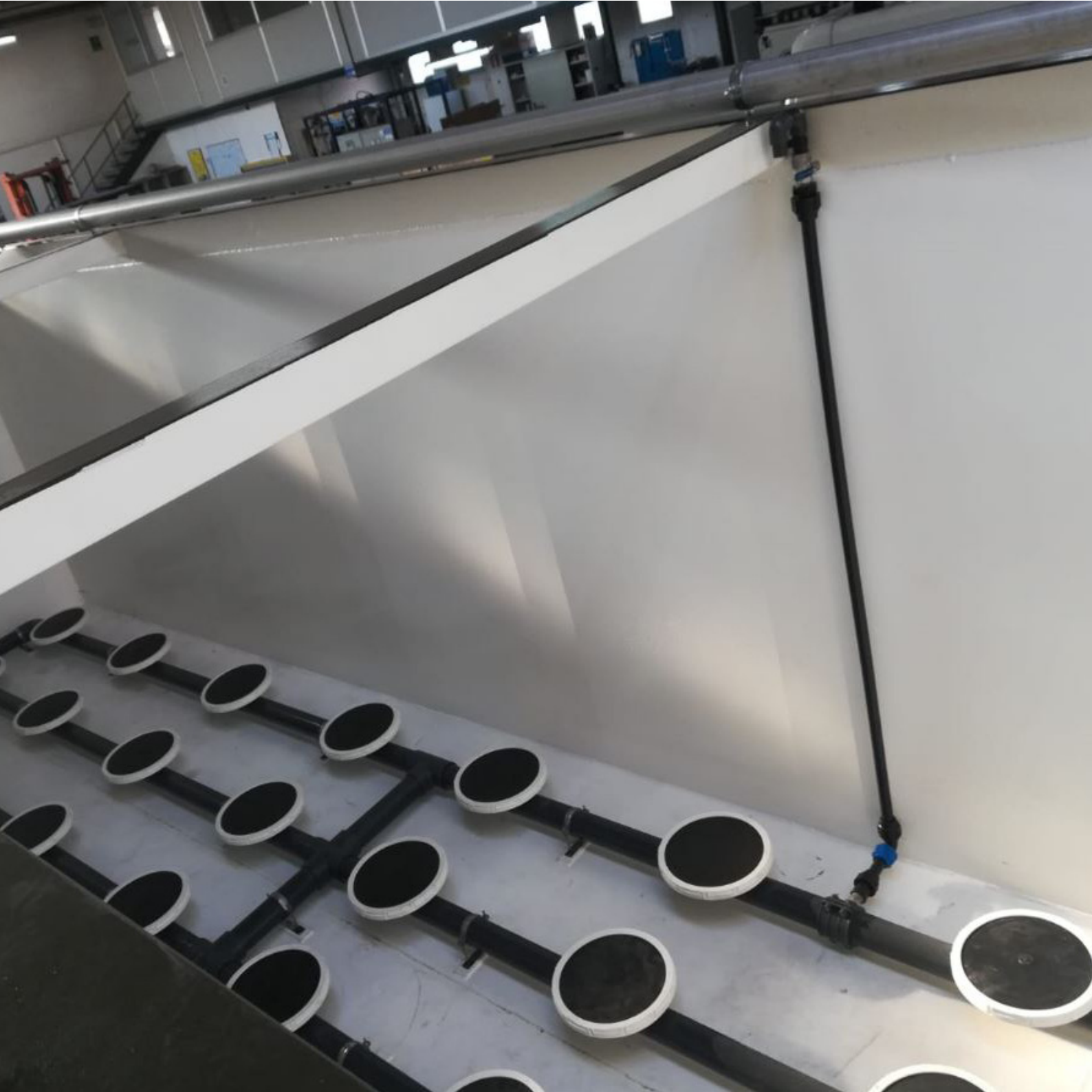




A white, rectangular container, likely for water treatment or storage, is shown outdoors. The container has several square ventilation ports along its side. The Idro Group logo is prominently displayed in the center. The background features bare trees and a cloudy sky.

Idro
GROUP









CONTAINER INSTALLATIONS FOR THE PURIFICATION OF WASTEWATER

For more than 40 years Idro Group has been designing and building civil and industrial wastewater treatment plants using the most modern technologies; total oxidation wastewater treatment plants, Biodiscs, MBBR, MBR, percolator beds, and Physico-chemical treatment techniques are some of the solutions in the product portfolio of Idro Group.





Hydro[®]
GROUP

CONTAINER INSTALLATIONS FOR THE PURIFICATION OF WASTEWATER



GREEN MBR

The **GREEN MBR** modular plants are wastewater treatment plants that combine a denitrification, nitrification and oxidation phase with a second ultrafiltration compartment with MBR-type membranes.

The GREEN MBR systems are made in containers and therefore easily transportable and installable. Thanks to the technology used, Membrane Bio-Reactor (MBR), the water produced by the system can be reused (e.g. for irrigation, car washing, fire service).

STRENGTHS

- MODULARITY
- RAPID INSTALLATION
- RAPID DELIVERY TIMES
- EASY TRANSPORT



CONTAINER INSTALLATIONS FOR THE PURIFICATION OF WASTEWATER

GREEN MBBR

The **GREEN MBBR** plants in containers are easily inserted in the environmental context: the reduction of the volumes needed for the treatment minimises the overall dimensions, and their modularity allows for possible extensions after some time. They can be manufactured in a short time, easily transportable and quick to install.

The architectural layout of the plants has been designed to minimise the overall impact of the works. In fact, projects that include the GREEN MBBR plants require the realisation of small civil works.

MBBR PROCESS COMBINES ACTIVATED SLUDGE AND ADHESIVE BIOFILM PROCESS TECHNOLOGIES

The plants can be customized according to the characteristics of the wastewater to be treated (hydraulic load and pollutant load).



CIVIL AND INDUSTRIAL PLANTS



WASTEWATER TREATMENT

The treatment of industrial or civil wastewater, containing high concentrations of grease, oil, hydrocarbons, sludge and suspended solids or, in any case, with high organic or inorganic loads, has always presented considerable problems. In fact, these substances are difficult to separate both with traditional chemical-physical systems and by using biological processes, because they are poorly biodegradable. Traditional systems have various management and maintenance problems, resulting in high costs and poor treatment results. Idro Group can respond to these problems by building water treatment plants with high flexibility technologies.



IDRO REUSE COMPACT PLANTS



FOR WASTEWATER RECOVERY

The compact plants for the recovery and reuse of WASTEWATER are tertiary treatment modules made in containers, transportable by land and sea, easy to install, with concrete ancillary works reduced to a minimum. The solution **Idro Reuse** is ideal especially in cases where space is limited, or where there is an existing wastewater treatment plant where reuse is necessary due to water scarcity or high disposal costs (strict limits on wastewater).

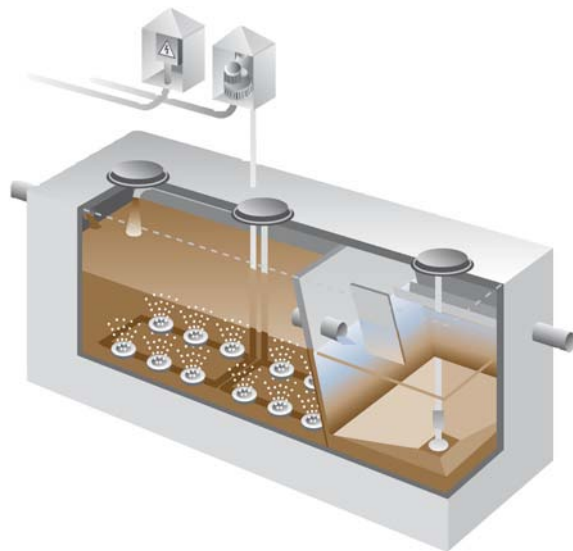


WASTEWATER 



PREMANUFACTURED PLANTS IN REINFORCED CONCRETE, POLYETHYLENE, STEEL

CIVIL WASTEWATER TREATMENT PLANTS

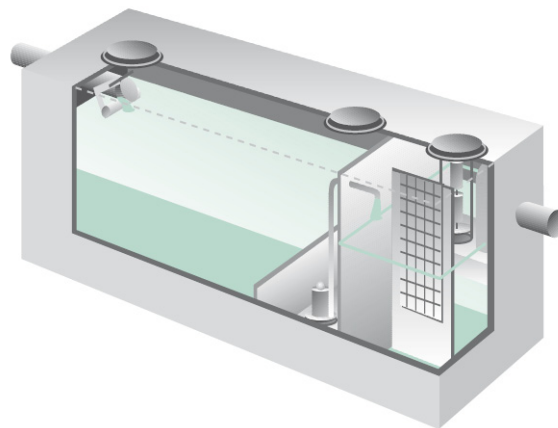


WATER SYSTEMS FOR FIRST RAINWATER

PLANTS FOR THE RECOVERY AND REUSE OF WASTEWATER,
RAINWATER AND GREY WATER

APPLICATIONS:

- CIVIL WASTEWATER TREATMENT
- INDUSTRIAL WASTEWATER TREATMENT
- FIRST RAINFALL WATER TREATMENT
- WASTEWATER RECOVERY AND REUSE
- RECOVERY AND REUSE OF RAINWATER
- RECOVERY AND REUSE OF GREY WATER
- HYDROCARBON SEPARATORS

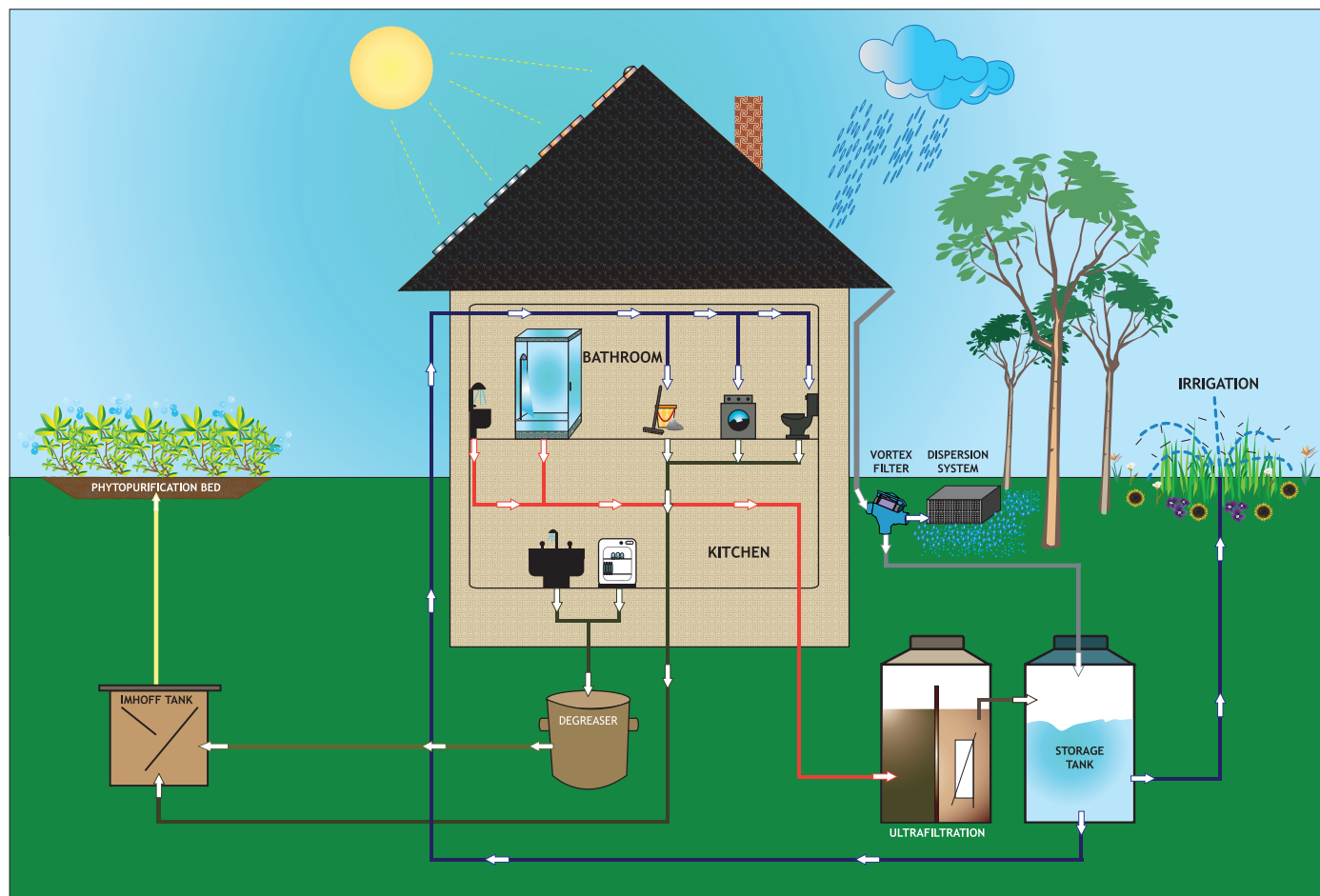


WATER

STORMWATER RECOVERY, AS WELL AS **GREY WATER REUSE** ARE AN IDEAL SOLUTION TO IMPLEMENT A POLICY TO SAFEGUARD THE RESOURCE AND MEET THE NEED TO HAVE A **WATER SOURCE AVAILABLE** FOR DAILY NEEDS.



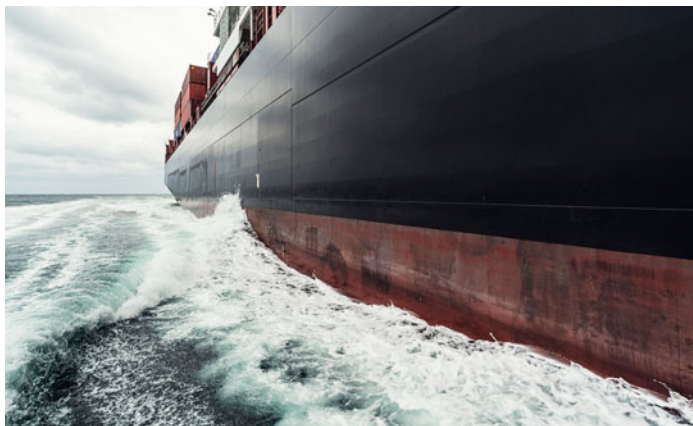
THE ECOLOGICAL HOUSE



WASTEWATER 



TREATMENT PLANTS BALLAST WATER



OUR GOAL:

MINIMISE AND ULTIMATELY ELIMINATE THE TRANSMIGRATION OF HARMFUL AND PATHOGENIC AQUATIC MICRO-ORGANISMS FROM ONE PART OF THE GLOBE TO ANOTHER

**BALLAST
SKID**

**BALLAST
CO.**



WATER

AIR

APPLICATIONS | **Odour abatement** from:

Wastewater treatment plants
 Treatment plants for the organic fraction of municipal solid waste
 Processing of meat and fish waste
 Coffee processing
 Tobacco processing
 Leather processing
 Food processing In general

AERNET: Monoblock biofilters for odour reduction



**SCRUBBER +
BIOFILTRATION**



**PKA
IN STEEL OR ALUMINIUM**



**PKC I
IN CEMENT**



**BIOMAT
MATERIAL
VEGETABLE**



**BIOPOR
INERT MATERIAL**



AIR



Idro Group is an Italian company specialised in the design, construction, management and assistance of plants for the production of biogas and biomethane as a renewable energy source from urban, agricultural and agro-industrial waste.

Idro Group provides systems that optimally meet technical, construction and safety requirements by combining automation and ease of management.

Recovery and processing **biomass** and composting from:


- Food waste
- Green waste
- Sewage sludge
- Sorted organic waste







ENERGY FROM NATURE


A hand is holding a large, vibrant green leaf against a blurred background of green foliage. On the surface of the leaf, there are white line drawings representing various elements of a sustainable energy and community system: a sun with rays at the top, two wind turbines on the left, a multi-story building in the center, a small family (two adults and a child) at the bottom, and a cluster of trees on the right.

BIOMETHANE is the gas obtained from renewable sources: it derives from biogas and has characteristics and conditions of use corresponding to those of methane gas and is suitable for feeding into the natural gas network. It is a bioenergy vector with enormous potential and can be used without any mixing and without having to modify the equipment currently fuelled by natural gas in any way.

Biomethane consumption takes place without releasing carbon, almost without further emissions that alter the environment.

The use of this energy source can be flexible and programmable. It can be transported and stored to respond to the different territorial and temporal conditions of energy demand in each sector of use.



The future of
renewable energy
is called **BIOMETHANE** 

APPLICAZIONI | Produzione di **BIOMETANO** da:

- Organic waste from separate collection
- Food waste
- Canteen scraps
- Fruit and vegetable residues
- Slaughterhouse waste
- Fish processing residues
- Blood
- Serums
- Slurry and livestock manure
- Poultry dung
- By-products

WHY CHOOSE A PLANT IDROGROUP

- ✓ TURNKEY SOLUTIONS
- ✓ INNOVATIVE TECHNOLOGIES
- ✓ GUARANTEE OF FUNCTIONALITY
- ✓ MADE IN ITALY











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