



Ludoil Energy

Company Profile
2022

#WeAreEnergy

We are an integrated energy company, active at every stage of the value chain: from logistics and supply to distribution, including renewables and circular economy projects.

We operate at all market levels, right down to the end user, and **9** manage strategic infrastructures necessary for the Italian **17** competitiveness, in order to create lasting shared value.

7 **12** We invest in innovative projects related to the energy transition, according to the world's evolution, to be one of the leaders of the new global energy scenario.

13 **15** With a view to preserving the planet, by 2050, all our products and processes will be completely decarbonised.

Global Goals for a sustainable development

Ludoil Energy's 2021-2025 Action Plan is a practical measure taken by the Group to contribute to the achievement of the 17 Sustainable Development Goals (SDGs) signed by the United Nations. These objectives guide our activities and the transformation of our business model.



Ludoil Energy Company Profile 2022

COMPANY	4
Who we are	4
Financial and economic highlights 2021	5
History	6
Subsidiaries	8
▶ Sodeco	9
▶ Ludoil Energia	9
▶ Iperstaroil	9
▶ Luce	10
Strategic infrastructures	12
Action plan 2021-2025	15
OPERATIONS	17
Energy logistics	18
Extranet: wholesale	27
▶ Bunkering	28
▶ Aviation	30
Retail: service stations	33
Renewables	37
▶ Solar	38
▶ Wind	39
▶ Hydrogen	40
▶ Biomethane	41

Who we are

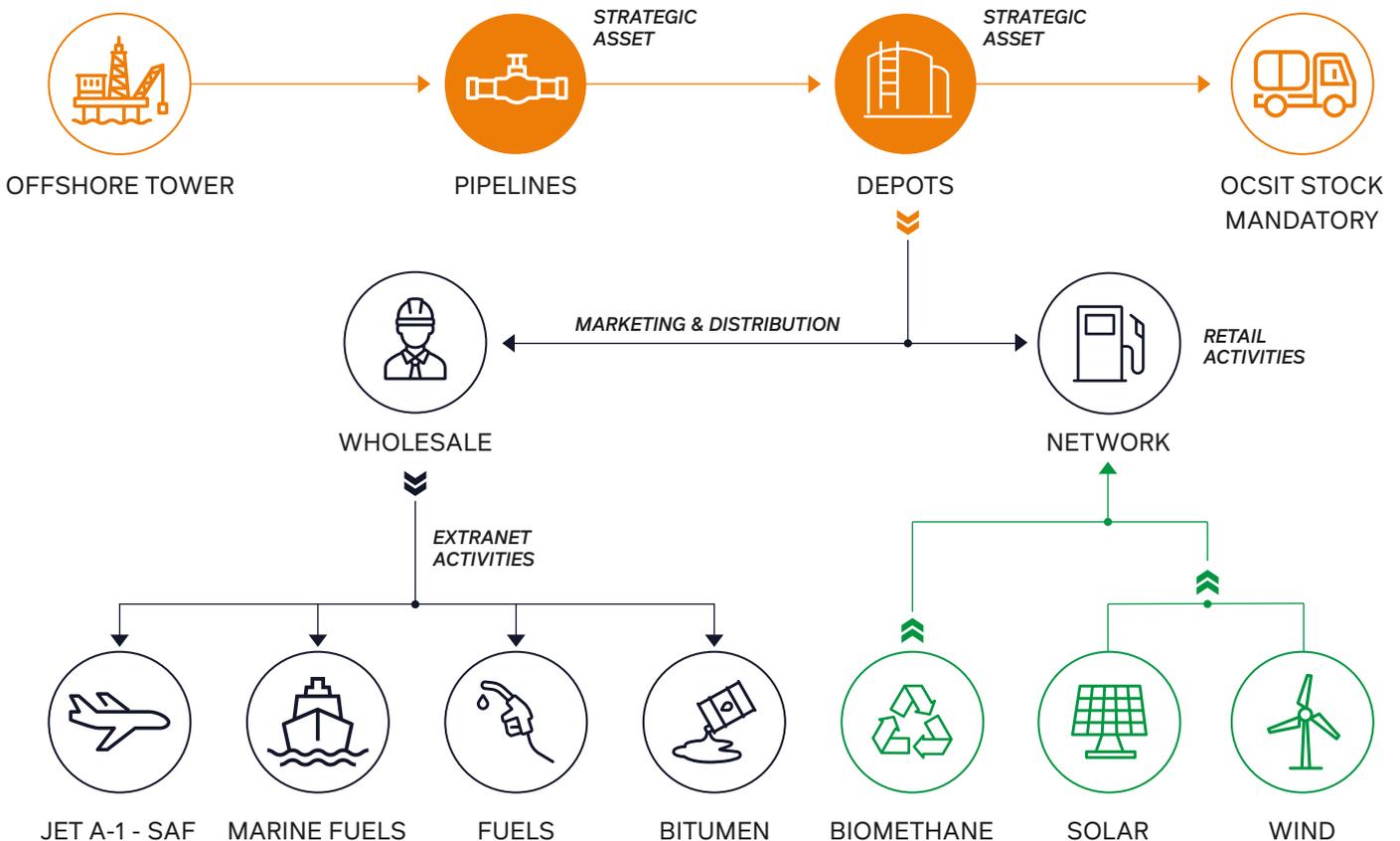
We are an **integrated energy company** with expertise in the exploration, production, storage, logistics and marketing of oil products. We also invest in **power**, including from low-carbon sources such as wind and solar; and new fuels for transport, such as advanced biofuels, biomethane and green hydrogen.

We manage **strategic infrastructure**, according to the Italian Law No. 239 of 23/08/2004. Through our assets, and thanks to the storage capacity of the whole Ludoil Energy Group, we are included in the **short-list** of the **Italian Central Stockholding Entity (OCSIT)** with the role of storing the emergency oil stocks.

► ENERGY IS OUR BUSINESS

The integrated planning of infrastructure and services

- Energy logistics
- Marketing
- Renewables



Financial and economics highlights 2021

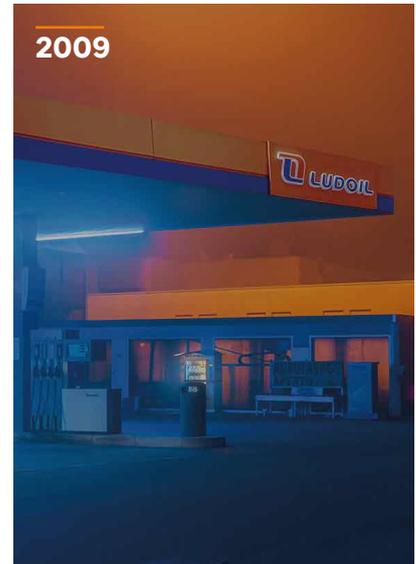


Our history

Acquisitions, partnerships, successful transformation: *we have changed our skin*, abandoning the conventional energy production models, which are **no longer sustainable**, to move with the times and cater for **new energy requirements**.



Donato Ammaturo, thanks to the commercial experience gained since the first steps as an entrepreneur, founds Ludoil Energy mainly focused on diesel wholesale.



The network channel grows substantially *with the acquisition of new service stations*: 54 from *Shell Energy Italia* and other 22 from Q8.

Ludoil Energy acquires the *Darm Petroli Group* and consolidates two major selling channels: the **retail network channel**, which consists of owned service stations, and the **extranet channel**, which focuses on selling oil products independently.



In the context of **renewable energies**, through the subsidiary Windfinder, **wind farms** are built in Sardinia and Sicily, as well as investments are made in **small photovoltaic energy parks** all over Italy. Ludoil Energy starts moving more and more in the direction of the **green economy**.

OUR HISTORY

Our journey, from our founding through to the present day, described step by step.

2014

2018

2020

2021



2014

Ludoil acquires from *UniCredit* all the oil assets of the company *Italpetroli S.p.A.*, now managed by three subsidiaries: *Sodeco* and *Petroli Investimenti* in Civitavecchia, *Meridionale Petroli* in Vibo Valentia.



2020

Ludoil becomes the leading provider of marine services and *Very Low Sulphur Fuel Oil* supplier in the Port of Civitavecchia.

Ludoil purchases the Civitavecchia jet fuel coastal depot from *Eni*, as well as the 63 km pipeline linking the terminal to *Pantano di Grano*, tri node fuel avio to the international airports “Leonardo da Vinci” of Rome Fiumicino and “G. B. Pastine” of Rome Ciampino.



2018

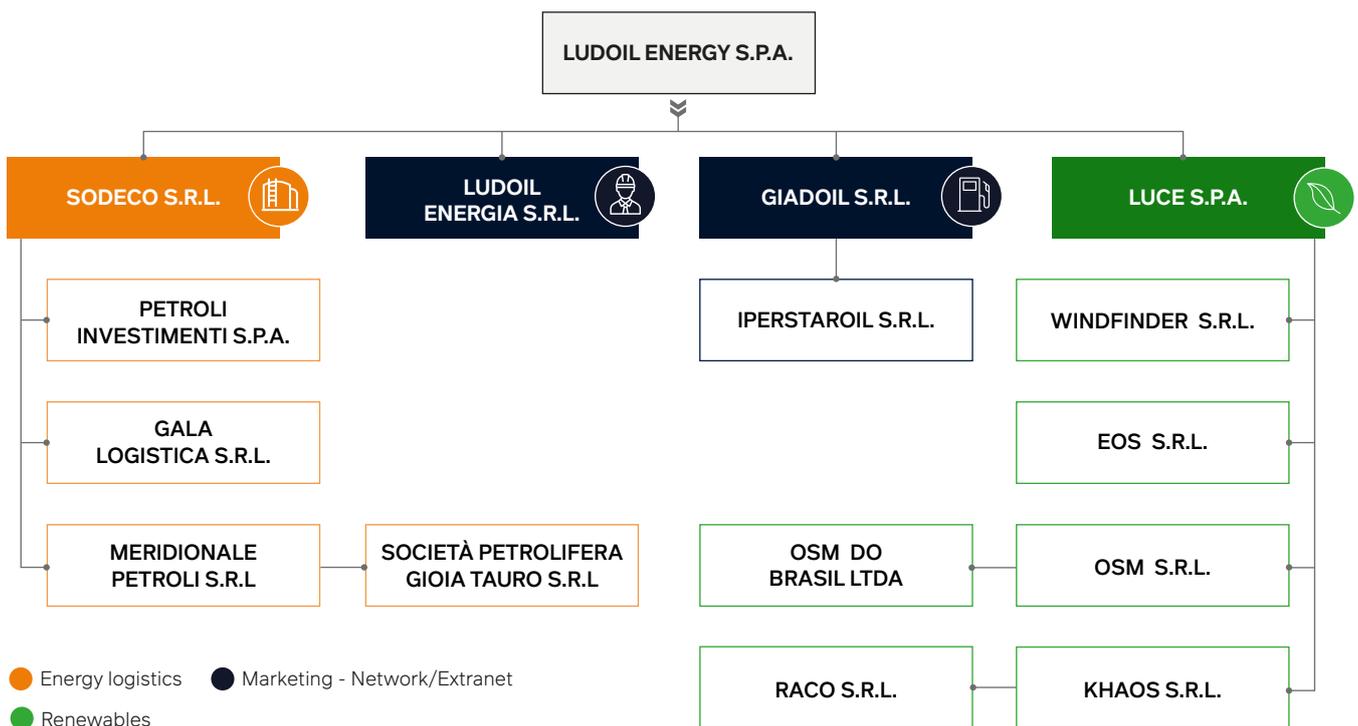


2021

- ▶ Luce S.p.A. becomes the holding company for all Ludoil green investments.
- ▶ Luce acquires *Raco S.r.l.*, a company equipped with a composting plant for the production of biomethane from OFMSW.
- ▶ Ludoil purchases the *Auchan self-service station network*, located in the malls of 9 Italian regions.
- ▶ Ludoil, through *Sodeco*, acquires *Kri Logistica*, today **Gala Logistica**, a company that manages logistics infrastructure on the Trieste-Udine route.

Subsidiaries

We operate in national and international markets, all along the energy supply chain, through a wide range of subsidiaries.



FOCUS ON

BUSINESS MODEL

- ▶ The **energy logistics department** is managed by the subsidiary *Sodeco S.r.l.*, which in turn owns the shares of *Petroli Investimenti S.p.A.*, *Gala Logistica S.r.l.*, *Meridionale Petroli S.r.l.* and *Società Petrolifera Gioia Tauro S.r.l.* Those companies operate in primary energy logistics with proprietary infrastructure.
- ▶ The **marketing department** is managed by the subsidiary *Ludoil Energia S.r.l.*, which are involved both in the extranet and in the retail market, and *Iperstaroil S.r.l.* - recipient of the acquisitions of the *Newco Giadoil S.r.l.* - that operates on the retail and owns a share of the Group's service stations. The remaining stations are owned by *Ludoil RE S.p.A.*, a related company but outside the scope of consolidation.
- ▶ The **renewables department** is managed by *Luce S.p.A.*

SUBSIDIARIES

Sodeco

Sodeco operates in the downstream sector, focusing on the supply, logistics and distribution of refined products. The whole Sodeco Group, *made up of the companies Petroli Investimenti S.p.A., Gala Logistica S.r.l., Meridionale Petroli S.r.l. and Società Petrolifera Gioia Tauro S.r.l.*, benefits from a total storage capacity of more than **600.000 m³**, thanks to a logistics infrastructure located from northern to southern Italy: coastal and in-land depots, pipelines and an offshore oil tower (see p. 5). In addition, Sodeco runs one of the most important **Bunker Terminals** in the Mediterranean,

close to Docks No. 22 and 23 of the Port of Civitavecchia.



Ludoil Energia

Through the logistics infrastructure of the Sodeco Group and a dedicated fleet of oil tankers, **Ludoil Energia** manages the commercial activities of the Group. The company is involved in the wholesale trade of energy products in the **network** channel, *characterised by the service stations of the whole Ludoil Group*, and in the **extranet** channel. In the extranet, we count the marketing activity of petroleum products and marine diesel oil “VLSFO” for ships and ferries. Furthermore, Ludoil Energia manages an oil depots in **Nola (NA)**, linked to the foundation of the Ludoil Energy Group.

Iperstaroil

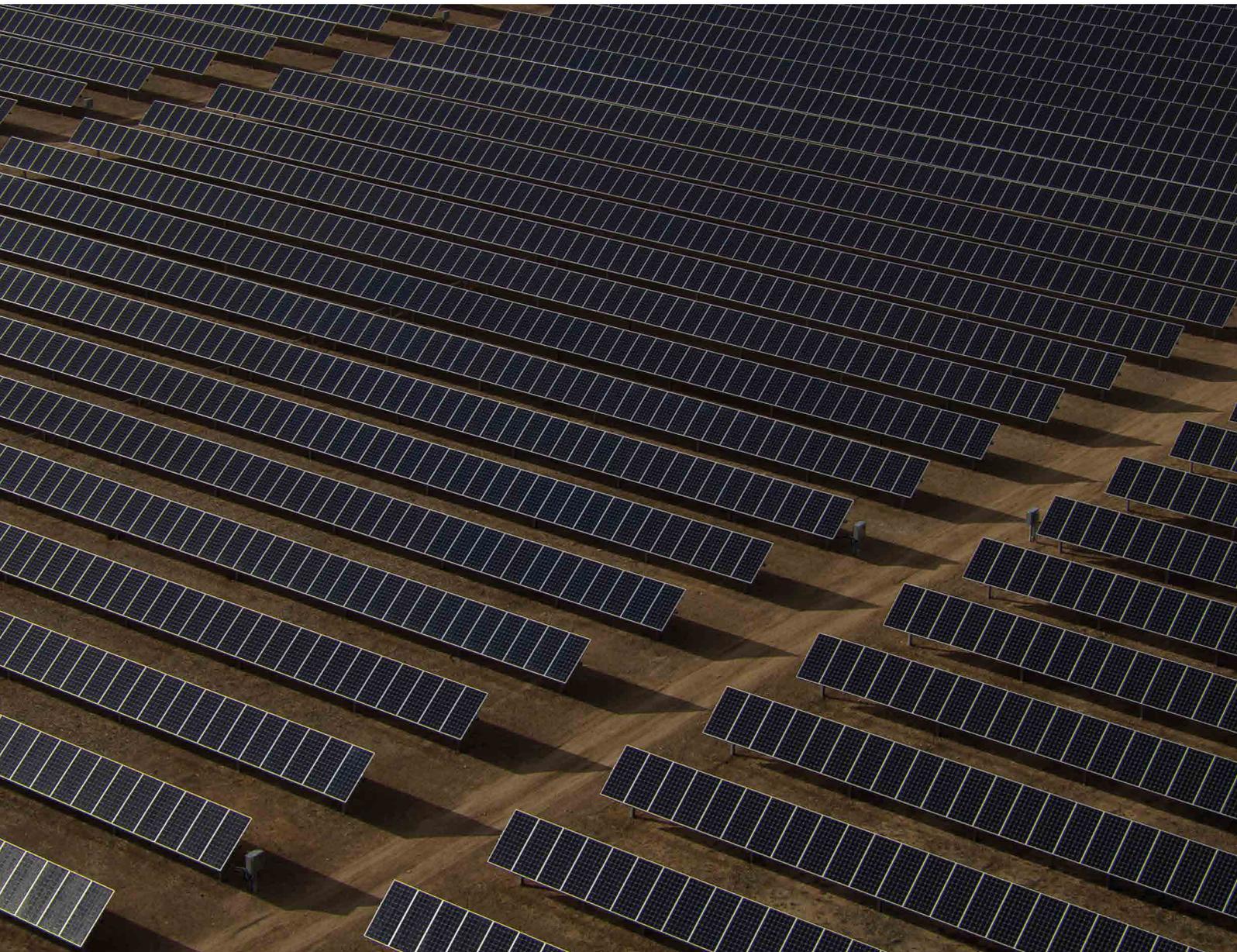
Iperstaroil is the company benefiting from the acquisition of Giadoil, *Newco specially set up* for the purchase of service stations located in all Italy. In April 2021, through Giadoil, we acquired the entire network of self-service stations under the trademark Auchan owned by of *Margherita Distribuzione S.p.A.*, located in Italian superstores and supermarkets in 9 regions: 30 service stations with an average distribution of 8 million liters - about 8 times the average in Italy. The Auchan network, **today called Iperstaroil**, accounts for 1% of the Italy's market share.

SUBSIDIARIES

Luce

Founded in September 2021, Luce is the Ludoil Energy Group company dedicated to the development and management of **power generation from renewable sources worldwide**. Through Luce, we have fostered an increasingly integrated approach to sustainability in our strategic and operational vision, in an effort to increase the benefits to all stakeholders and to the local com-

munities in which we operate. Luce foresees investments of €1.2 billion in the **four-year plan 2021-2025** (see pages 15-16). Already in November 2021, a few months after its inception, the company acquired 100% of the shares of Raco s.r.l, company equipped with a composting plant in Belpasso (Sicily), allowing us to integrate the **biomethane from Forsu** into the Snam network.



We manage **strategic infrastructure** necessary for Italian competitiveness and intelligent mobility

Regulatory framework, identification of infrastructure and security stocks.

PAGES 12 - 13 →



Strategic infrastructure

Some of our assets are considered **strategic** by the Italian Government that, through the adoption of a program prepared by the **Ministry of Infrastructure and Transport**, identifies the critical infrastructure necessary for the competitiveness of the Country. The identification of infrastructure, accor-

ding to the Italian Law No. 239 of 23/08/2004, must ensure **strategic security**, including the adaptation of the national strategy to the Community energy infrastructure and its use in terms of **supply of the Country**.

Integrated logistic systems of the Group: *strategic infrastructure to move Italy*

The logistical infrastructure of the Sodeco Group is one of the Italy's strategic strengths. Especially: the four depots and the offshore oil tower of Civitavecchia, managed respectively by Sodeco S.r.l. and Petroli Investimenti S.p.A., the depot of Vibo Marina, managed by Meridionale Petroli S.r.l. and the two terminals of Muggia and Visco, managed by Gala Logistica S.r.l. These logistics systems, located from northern to southern Italy, can supply more than 50% of the energy needs of the Italian regions.



STRATEGIC INFRASTRUCTURE

Transmission oil pipelines to connect infrastructures

We are equipped with over 150 km of oil pipelines, partly onshore and partly offshore (*those located along the seabed*). Two lines fall between the national strategic assets: the **57 km line in Friuli Venezia-Giulia**, connecting Trieste coastal depot with Visco terminal, and the **63 km line in Lazio**, connecting Civitavecchia coastal depots with “Leonardo da Vinci” Rome Fiumicino International Airport. Through this line, we provide more than half of the airport’s energy needs.

FOCUS ON

OCSIT EMERGENCY STOCK

Through our strategic infrastructures and thanks to the storage capacity of the whole Sodeco Group (see page 9), we are included in the short-list of the Italian Central Stockholding Entity (OCSIT) with the task of maintaining the emergency oil stocks.

- ▶ As a member of the EU and the International Energy Agency (IEA), Italy must comply with EU Directive 2009/119/EC imposing Member States the obligation to maintain stocks of crude oil and/or petroleum products to ensure their availability in case of a national or international crisis. To date, we hold 132,000 tons of oil products for **OCSIT** divided between: 47,000 tons of Jet Fuel and 85,000 tons of Diesel.



An industrial **transition** based on sustainability

We made a commitment: to transform our energy production into a mix of energy generation that includes the main renewable sources.

Through our holding company Luce, we will invest to accelerate the energy transition in the world with major investments in the period 2021-2025.

PAGES 15 - 16 →



Action Plan 2021-2025

The Action Plan 2021-2025 of the Ludoil Group foresees a profile of hydrocarbon production in progressive growth until reaching a plateau by 2025, which will follow a **decreasing** trend mainly in the oil component.

Faced with a scenario that goes through structural changes, our investment portfolio has proved, flexible and resilient and opens the way to a constant growth that puts us, already today, among the *most dynamic independent players* in a mature and consolidated sector.

Creazione di
valore per tutti
gli stakeholder



DRIVERS OF DEVELOPMENT

The new strategy is based on 4 key pillars

CONSOLIDATION

- ▶ **1.** The four-year plan previews an ulterior and significant development in the **energy logistics** - *as can be seen from the latest acquisition by the Q8 Group of coastal depots in the North-east of Italy located in Muggia and Visco* - with the acquisition of new infrastructures and the revamping of those already existing.

BUSINESS COMBINATION

- ▶ **2.** In order to concretely support our **decarbonization targets**, we will use the Group's capillarity *to bring the renewable energy products in the service station network*. The integration will enable us to increase the range of services at Ludoil service stations, through **charging columns for e-mobility** and **advanced biofuels**.

DIVERSIFICATION

- ▶ **3.** An important contribution to sustainability will come from partnerships and entry into new markets, *as highlighted by the November 2021 acquisition of Raco s.r.l.*, company equipped with a composting plant for **OFMSW processing** that allows us to introduce biomethane into the network.

DECARBONISATION

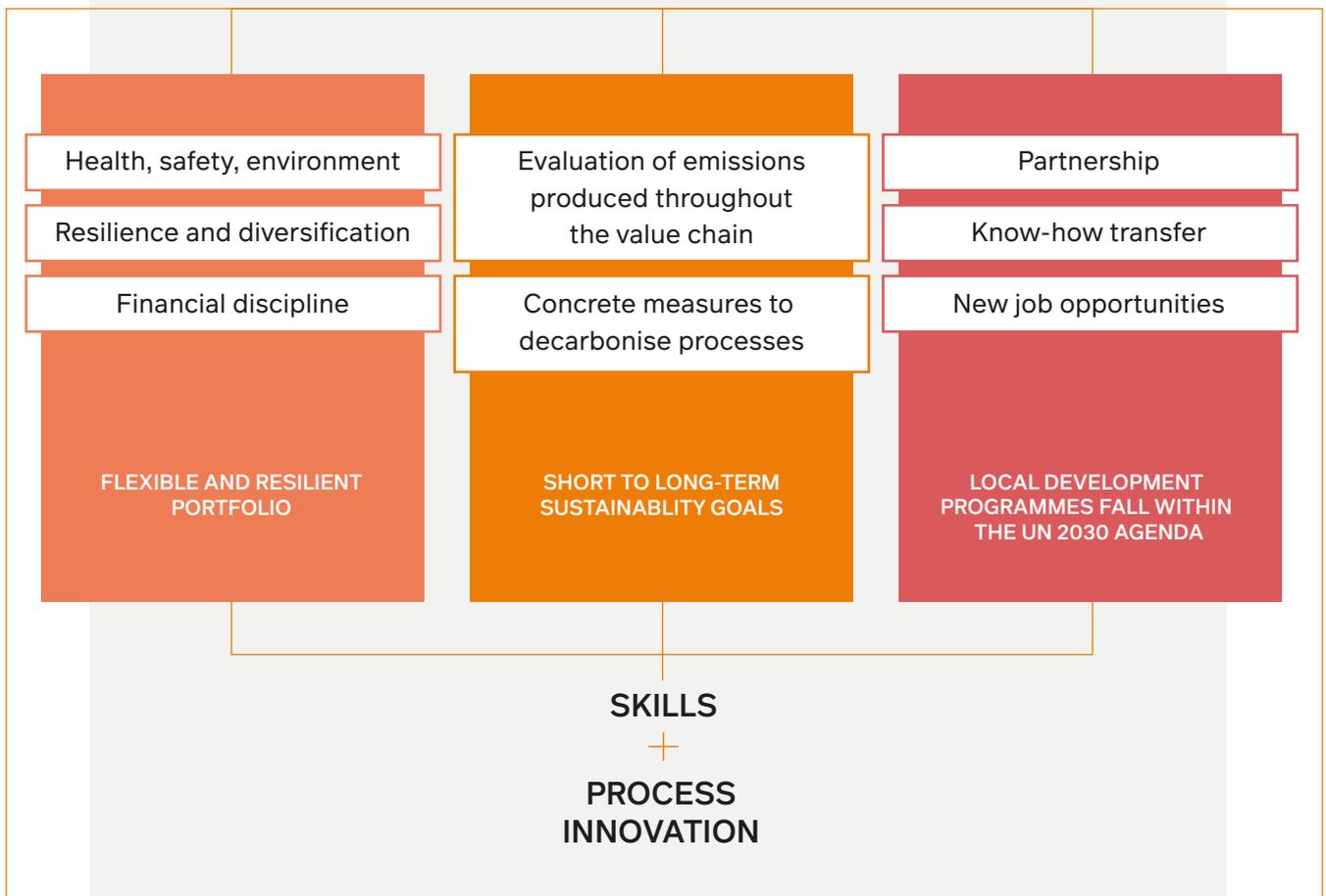
- ▶ **4.** Minimizing the Group's impact on the environment combines economic sustainability and industrial implementation. We will **reduce the carbon footprint of our activities** in accordance with the United Nations Sustainable Development Goals, while creating value for all stakeholders.





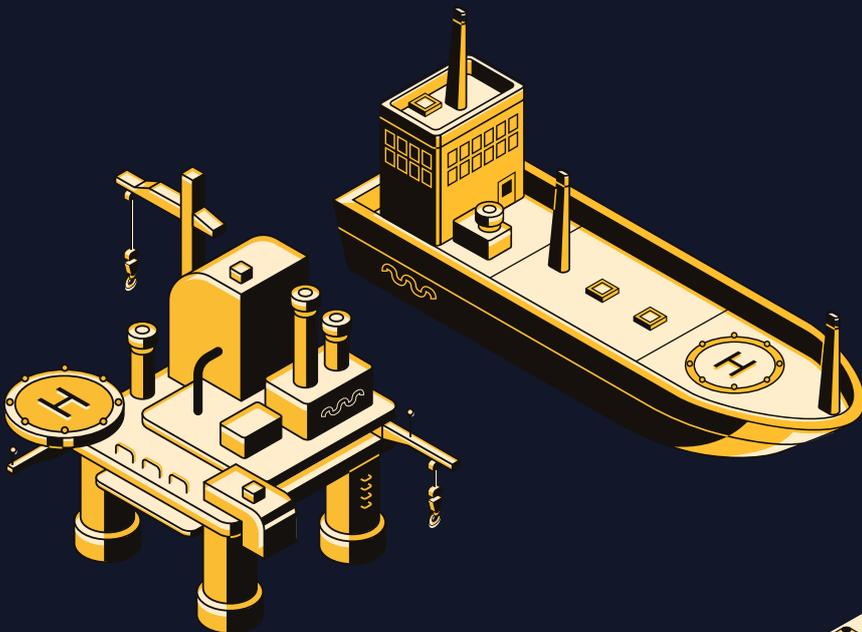
Donato Ammaturo
FOUNDER AND CEO

“Changing our business model is the real challenge in front of us. The Action Plan 2021-2025 is strongly focused on **creating value** for all of our stakeholders, *bringing together economic, financial, social and environmental sustainability*. On the basis of these principles, we are differentiating and expanding our renewable energy activities, strengthening *the Ludoil Energy road map* towards total decarbonisation by 2050.



The Group's operations

LOGISTICS | EXTRANET | RETAIL | RENEWABLES



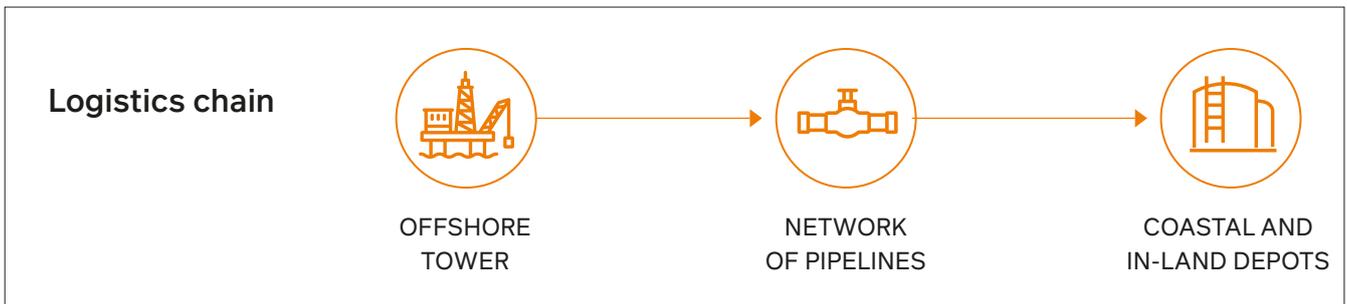
Logistics

We are among the main operators in Italy in the storage and transportation of energy products, having an **integrated logistics infrastructure** composed of an offshore tower, a network of pipelines and a system of eight directly managed depots throughout Italy for the storage and marketing of final products.

The Ludoil Group logistics is organized on a **hub structure**, with four main areas that

ensure a greater recovery of efficiency through the monitoring and centralization of the handling flows.

Our assets cover the energy needs of more than 50% of Italian regions and, some of them, are part of the **Italian strategic infrastructure** (see page 12). Moreover, we hold OCSIT emergency oil stocks for 132,000 tons (see page 13).



Ludoil Group's logistics is organized into four main areas

LOGISTICS HUBS			
FRIULI-VENEZIA GIULIA	LAZIO	CAMPANIA	CALABRIA
Italy North-East logistic system is made up of the coastal depot in Muggia (Trieste) and the in-land depot in Visco (Udine), connected through a pipeline around 60 km.	Four coastal depots, an oil tower in open sea and different pipelines feature the hub of Civitavecchia, among the biggest of the Mediterranean Sea.	Nola's depot is tied up to the founding of the Group Ludoil and serves the regions of Campania, Puglia and Basilicata.	The coastal terminal in Vibo Marina (Vibo Valentia) represents a crucial hub for the oil supply of Calabria and the entire southern Italy.

GALA LOGISTICA

Friuli-Venezia Giulia

Gala Logistica, a company of the Sodeco Group, has a logistics system located in the north-east of Italy, in Friuli-Venezia Giulia. *Thanks to its strategic location*, it can supply a large market area, including Slovenia, Carinthia, part of the Triveneto and northern Croatia.

The logistic system is made up of the **coastal depot** in **Muggia**, in the province of Trieste, and the **in-land depot** in **Visco**, in the province of Udine. The depots are connected through a 10" and around 60 km **pipeline**. Their total **storage capacity** is of over **187,000 m³**, *with a turn around four times greater than this capacity*. The main handled and sold products are petrol and diesel.

MUGGIA COASTAL DEPOT

The **coastal depot**, on the areas of the ex-refinery Aquila, covers an area of 170.000 m², of which half in state concession and half of Gala Logistica property. It has a storage capacity of 5,000 m³ for petrol and 90,000 m³ for diesel. The product, supplied by tankers that dock directly at the pier of the marine terminal, is stored in the tanks and later transferred to the Visco oil terminal through a 60 km oil pipeline that connects the two terminals. An important and

Company: Gala Logistica S.r.l.

MUGGIA COASTAL DEPOT

▶ Address: Via Flavia di Acquilinia, Muggia (TS)

▶ Storage capacity: 95.000 m³

▶ Products: PETROL - DIESEL

VISCO IN-LAND DEPOT

▶ Address: Via Gorizia, Visco (UD)

▶ Storage capacity: 97.000 m³

▶ Products: PETROL - DIESEL - BIODIESEL



complex plan is nearing completion and it will allow to send the petrol unloaded from the ships directly to the Visco oil terminal, without transit for the tanks of Trieste.



GALA LOGISTICA

VISCO IN-LAND DEPOT

The Visco in-land depot covers an area of 130,000 m² fully owned and has a storage capacity of 20,000 m³ of petrol, 58,000 m³ of diesel and 4,000 m³ of biodiesel. It is mainly supplied by pipeline, but if necessary, it can also receive product through tankers.

The product stored in the depot, according to market demands, *can be blended* with **biodiesel** or with **performance additives**. The products are loaded from the tankers at the six loading bays of the depot, which are managed via an automated system. Such configuration allows, given the opening

times of the depot, the easy loading of 150 tankers per day. The entire logistic system, today, **would be able to enliven a million tons of fuel per year.**



FOCUS ON

VISCO AND MUGGIA DEPOTS ACQUISITION

In October 2021 Ludoil Energy, through its subsidiary Sodeco, purchased the storage and handling depots of the triestine port from the *Group Q8*, acquiring 100% of the quotas of Kri Logistica - **now Gala Logistica**. The depots are added to the logistical assets already controlled by the Group and insist on a territory, the North-East Italy, where Ludoil Energy intends to implement a massive improvement strategy of primary energy logistics services, acting in complete harmony with all operators present and ensuring ever greater reliability in the supplies.



SODECO

Lazio

In Civitavecchia, in the province of Rome, we have an integrated logistics system with four **coastal depots** and several lines of pipelines, connecting the sorting areas with the offshore oil tower (see page 24) and with the International Airport of Rome Fiumicino. With a total storage capacity of more than 400,000 m³, the coastal depots belong to the subsidiary **Sodeco**, operating

in the storage and distribution of energy products. Moreover, Sodeco manages one of the most important **Bunker Terminals in the Mediterranean Sea**, with a concession area of about 2,000 m² close to the Docks no. 22 and 23 of the **Port of Civitavecchia**.

“SODECO 1” COASTAL DEPOT

Sodeco 1 is a crucial hub for the entire logistics system of Civitavecchia. It receives petrol and diesel from the offshore platform (see page 24), through a 12” pipeline more than 4 km long. It is also connected to the depot Sodeco 2 through two other lines of 8” and 12” pipelines for two-way transfers. The coastal depot stores petrol and diesel through 12 tanks. The oil products are loaded from the tankers at a platform with eight top loading bays, which are managed by an automated system.

Company: Sodeco S.r.l.
SODECO 1 COASTAL DEPOT
▶ Address: Via Vigna Turci, Civitavecchia (RM)
▶ Storage capacity: 169.000 m ³
▶ Products: PETROL - DIESEL

“SODECO 2” COASTAL DEPOT

Sodeco 2 is connected both to the offshore tower - from which it receives petrol and diesel - and to the coastal depot Sodeco 1 for two-way transfers. The main activities of the depot include the loading/unloading of fuel oils (VLSFO - HSFO) and biodiesel. The depot is also connected to the quays no. 22 and 23 of the Bunker Terminal through three dedicated 6”, 8” and 10” pipeline lines. Thanks to these lines, Sodeco carries out bunkering service in the Port of Civitavecchia (see page 28).

Company: Sodeco S.r.l.
SODECO 1 COASTAL DEPOT
▶ Address: Via Aurelia Nord 8, Civitavecchia (RM)
▶ Storage capacity: 93.000 m ³
▶ Products: PETROL - DIESEL/BIODIESEL - FUEL OILS

SODECO

“SODECO 3” COASTAL DEPOT

Sodeco 3 receives the heads and tails of the liquid hydrocarbons (kerosene, Jet A-1) from the offshore tower. The products are stored in two dedicated tanks. After the reception and storage phase, the Jet A-1 is transferred via pipeline to the coastal depot Sodeco 4, in charge of the shipment to Rome Fiumicino Airport. Two other tanks of the terminal, instead, are destined for the reception of the wastewater coming both from the same and from the other Sodeco oil terminal. The industrial wastewater is purified and discharged into surface water bodies in a dedicated tank, having obtained the Single

Environmental Authorization (AUA), a provision established by Italian DPR 59 of March 13, 2013, No.12719 of February 8, 2018, which includes all permits for the treatment and removal of contaminants from organic and inorganic pollutants.

Company: Sodeco S.r.l.

SODECO 3 COASTAL DEPOT

- ▶ Address: Via Aurelia Nord 6, Civitavecchia (RM)
- ▶ Storage capacity: 46.000 m³
- ▶ Product: PETROL - DIESEL - JET A-1 - KEROSENE



SODECO

“SODECO 4” COASTAL DEPOT

Sodeco 4 is dedicated to the storage and handling of Jet A-1 and SAF (Sustainable Aviation Fuel) for airports, oil and air companies, in accordance with the recommendations by JIG 1530 standards on aviation fuel quality and related operating procedures. The coastal depot is connected by a 12”

pipeline and about 63 km to the *Pantano di Grano Terminal*, a hub for the sorting of aviation fuels for the Rome Fiumicino International Airport, the largest in Italy and the third in Europe.

Company: Sodeco S.r.l.

SODECO 4 COASTAL DEPOT

▶ Address: Via A. Molinari 4, Civitavecchia (RM)

▶ Storage capacity: 148.000 m³

▶ Products: JET A-1 - SAF



FOCUS ON

ENVIRONMENT MANAGEMENT SYSTEM

Sodeco has implemented an **Environment Management System (EMS)** based on the Deming cycle: a four-step iterative management method (*plan, do, check, act*) used, in this case, for the control and continuous improvement of logistics processes and products moved. The Environmental Management System has also obtained the international certification UNI/EN/ISO 14001 by **Kiwa**, accredited third party, global leader in Testing, Inspections and Certifications sectors (TCI). Through the EMS, **Sodeco** depots pursue increasingly high environmental performance, by implementing a policy which focuses on the ecosystem, pollution and major accidents prevention.



PETROLI INVESTIMENTI

OFFSHORE TOWER

Petroli Investimenti manages an offshore oil tower for the unloading and sorting of oil products from petroleum tankers. To the tower, ships with a gross capacity up to 100,000 tons can dock. The terminal, placed in the roadstead of Civitavecchia and consisting of a single-point mooring and swivel platform, is connected to the Sodeco

coastal terminals by a line of pipelines *partly offshore and partly onshore*: the unloaded products, are transported to the sorting area by first passing through a **sealine** - 22" offshore pipeline that winds for 2.2 km on the seabed - and then through an **onshore pipeline** located on the coast.

FOCUS ON

FROM UNLOADING OPERATIONS TO COASTAL DEPOTS



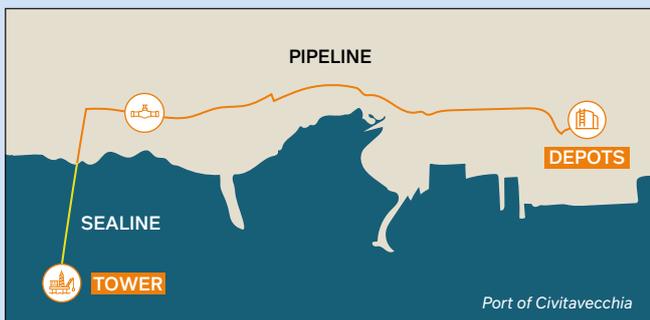
Tanker during mooring operations

Moring cable allowing the operations of mooring and unmooring

Load cell, that can detect and transit in real time the amount of load in tons

The unloaded products pass through a swivel joint connected to the sealine

Sealine that winds for 2.2 km on the seabed till reaching the onshore pipeline located on the coast



Offshore (sealine) and onshore pipelines are destined for the transport of light products (petrol, gas oils, Jet A-1). The pipes are made of steel API-5LX-X53, with a thickness of 9.52 mm and a working pressure of 15 bar. The onshore section is 4.8 km long and reaches the sorting areas of the Sodeco coastal depots.

LUDOIL ENERGIA

Campania

The in-land depot in Nola, in the province of Naples, is linked to the foundation of the Ludoil Energy Group. It is managed by **Ludoil Energia** and is intended for storage and handling of oil products under suspension of excise duty. The Nola depot leverages on a group of **internal drivers** and a fleet of owned vehicles. With a storage capacity of more than 300 m³, the terminal handles oil products for the network of distributors of the Ludoil Group located in Campania, Basilicata and Puglia, as well as public and private institutions.

Company: Ludoil Energia S.r.l.

NOLA IN-LAND DEPOT

▶ Address: Via Taranto, Nola (NA)

▶ Storage capacity: 300 m³

▶ Products: PETROL - DIESEL



MERIDIONALE PETROLI

Calabria

Meridionale Petroli manages a coastal depot next to the unloading dock of the Vibo Valentia Port. The depot has a storage capacity of over **29,000 m³**, *with a turn-around well over twelve times greater*, and guarantees more than 50% of oil consumption in Calabria. It is provided with a roof loading platform through tankers, with an automatic closed-circuit system for the recovery of vapors. Moreover, it is also provided with a blending system, in compliance with the regulations for the introduction of biofuels into the network.

Company: Meridionale Petroli S.r.l.

VIBO MARINA COASTAL DEPOT

▶ Address: Via A. Vespucci, Vibo Marina (VV)

▶ Storage capacity: 29.000 m³

▶ Products: PETROL - DIESEL/BIODIESEL



A flexible and innovative distribution for the **extranet market**

We sell and distribute fuels and specialty products to industries, resellers, service companies, Public Administration, small-medium companies, shipping companies, airlines and airports.

FROM PAGE 27 TO 31 →



Extranet

Leveraging on our integrated logistics structure, which includes owned oil terminals, pipelines and fleets of committed tankers, through the subsidiary **Ludoil Energia** we distribute and market fuels and specialty products for the extranet market, which includes all infrastructure and supply chan-

nels other than our network of service station. **We move** over 600,000 m³ of products, *equivalent to the refueling of 2 liters of fuel for every car in Europe*. The oil products are **highly innovative**, since are obtained thanks to the use of advanced refining technologies and formulation strategies.

The main products marketed into the extranet channel are:

FUELS, PETROL AND DIESEL	MARINE FUELS	AVIATION FUELS	BITUMEN
Intended for oil companies and independent operators that resell them to their network of service stations.	Intended for shipping companies, we offer a complete range of high-quality marine fuel oils at low sulphur content.	We market Jet A-1 and SAF Biojet (Sustainable Aviation Fuel), intended for airports and aviation companies.	Intended for industries for infrastructural investments such as roads and highways construction and/or ordinary maintenance.

FOCUS ON

BITUMEN UNLOADING IN "SHIP TO TRUCK" MODE

In June 2022 the Ludoil Group successfully completed the import and unloading operations of a ship Bitumen Tanker in "**ship to truck**" mode. *For the first time in Italy*, there has been an unloading of bitumen directly from ship to truck, without going through a coastal depot. By eliminating the intermediate stage of storage, **CO₂ emissions** – caused by the storage of bitumen in a depot at temperatures higher than 150°C - **have been reduced to zero**. This project defines a new logistics chain in the name of **sustainability** that, to regime, will carry between 70.000 and 90,000 tons of bitumen per year to the docks of the port of Lazio.



EXTRANET

Bunkering

Starting from the 1st of January 2020, we do **bunkering operations** for the wholesale of maritime fuels in specific areas of the Port of Civitavecchia. We offer a **complete range of Very Low Sulphur Fuel Oils**, *in line with the new European regulations and of marine gas oils*, intended to be used as fuel for cruise ships, passenger ships and frei-

ght vessels. These products meet all engine requirements, in compliance with current emission limits. The marketing activity is carried out by **Ludoil Energia** that supplies every year fuel to more than 1000 ships and hundreds of customers *24 hours a day, 7 days a week*.

THE BUNKER TERMINAL

Our Bunker Terminal is located on a state-owned area of about 2,000 m² close to the Docks no. 22 and 23 of the Port of Civitavecchia.

At the Terminal it is allowed to dock to ships up to 180 meters, to which we provide **bunkering service by barge** through the loading and unloading of marine Very Low Sulphur Fuel Oils. These products come from our coastal terminal Sodeco 2 (see page 21) and are transported to the Bunker Terminal via three lines of 6", 8" and 10" pipelines located on the coast.

The service uses the most efficient and innovative techniques of the sector, is configured to meet the needs of ships in arrival and departure, as well as to offer additional supply possibilities to the numerous ships that transit along the Port of Civitavecchia.

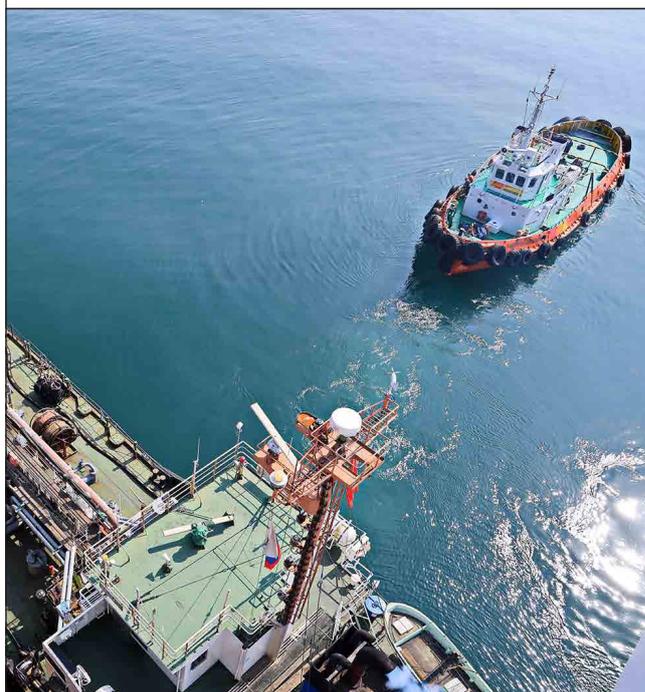
Company: Sodeco S.r.l.

CIVITAVECCHIA BUNKER TERMINAL

▶ Address: E840 - Porto di Civitavecchia (RM)

▶ Docks: no. 22 - 23

▶ Products: MARINE FUEL OILS - VLSFO



BUNKERING**VERY LOW SULPHUR FUEL OIL**

For the maritime sector too, we offer solutions for more sustainable mobility. In particular, we sell VLSFO - *Very Low Sulphur Fuel Oil* - a 0.5 S Fuel Oil (with a sulphur content below 0.5%), which meets IMO 2020 requirements and represents a strong innovation in terms of environmental impact. Compared to Heavy Fuel Oils (HFO), which contri-

bute to the acidification of oceans and release Sulphur in the area, VLSFO gas oil *reduces by 77% the naval emissions of Sulphur oxides*. The worldwide use of this fuel would be equivalent to about 8,5 million metric tons less released into the atmosphere each year.

FOCUS ON**THE PORT OF CIVITAVECCHIA**

Every year in the Port of Civitavecchia around 11 million tons of goods are handled: it is configured as a multi-functional port and, for the management, it has been divided into **two macro areas** by different market dynamics. To the south the area is dedicated to tourism, yachting and cruises; to the north the area for the commercial traffic, the fishing and the cabotage. Today it can count on about 1,900,000 square meters of docks, 25 operational berths from 100 to 400 meters long, for about 13 km of approaches. **The Port of Civitavecchia is located at the center of the logistics system that connects Rome and central Italy with the rest of the world.** In addition to the Lazio area, the Port of Civitavecchia is a linking point for other regions with their markets and for access to the most important Italian tourist areas.



EXTRANET

Aviation

Our commitment in the aviation sector consists mainly in the storage and wholesale of **Jet A-1 and Biojet SAF**. We focus our efforts on finding the highest quality of delivered products and the related operating procedures, in accordance with the guidelines recommended by the **JIG 1530 standards**. The storage and transportation activities take place in “Sodeco 3” and “Sodeco 4” depots (see page 22-23). This last one is connected by a 12-inch pipeline of about 63 km, which runs along the **A12 Rome-Civitavecchia highway**, to the Pantano di Grano plant: sorting area for the International Airport “Leonardo da Vinci” of Rome Fiumicino, the largest in Italy and the third in Europe.

Currently, through this pipeline - identified as an Italian strategic asset - we can provide more than half of the airport’s needs.



Our logistics system allows us to serve the following airports:

AIRPORTS	TRASPONENT WITH
AdR - Fiumicino	PIPELINE
AdR - Ciampino	TANKERS
Napoli Capodichino	TANKERS
Firenze Peretola	TANKERS
Umbria-Perugia	TANKERS
Pisa San Giusto	TANKERS



AVIATION

BIOJET SAF

We started a partnership with *Eni* to supply the main airlines with alternative fuels for aviation, the so-called **Biojet SAF** or **Sustainable Aviation Fuel**. The bio quantity contained in SAF allows a typical reduction, compared to used feedstock of GHG, higher than 90% of the reference standard for the fossil mix. These fuels are produced using

waste and residues and represent, in the short to medium term, a way to contribute significantly to decarbonization of air transportation.

A first batch of SAF of 3,500 tons was supplied to ITA Airways and AdR in March 2022 through the Sodeco logistic system of Civita-vecchia (see page 21).

FOCUS ON

WHAT IS SUSTAINABLE AVIATION FUEL AND WHY IS IT IMPORTANT?



From fuels to non-oil products: **service station** that look to the future.

More than 200 points dedicated to mobility,
people and cars, with a wide, innovative and
convenient offering.

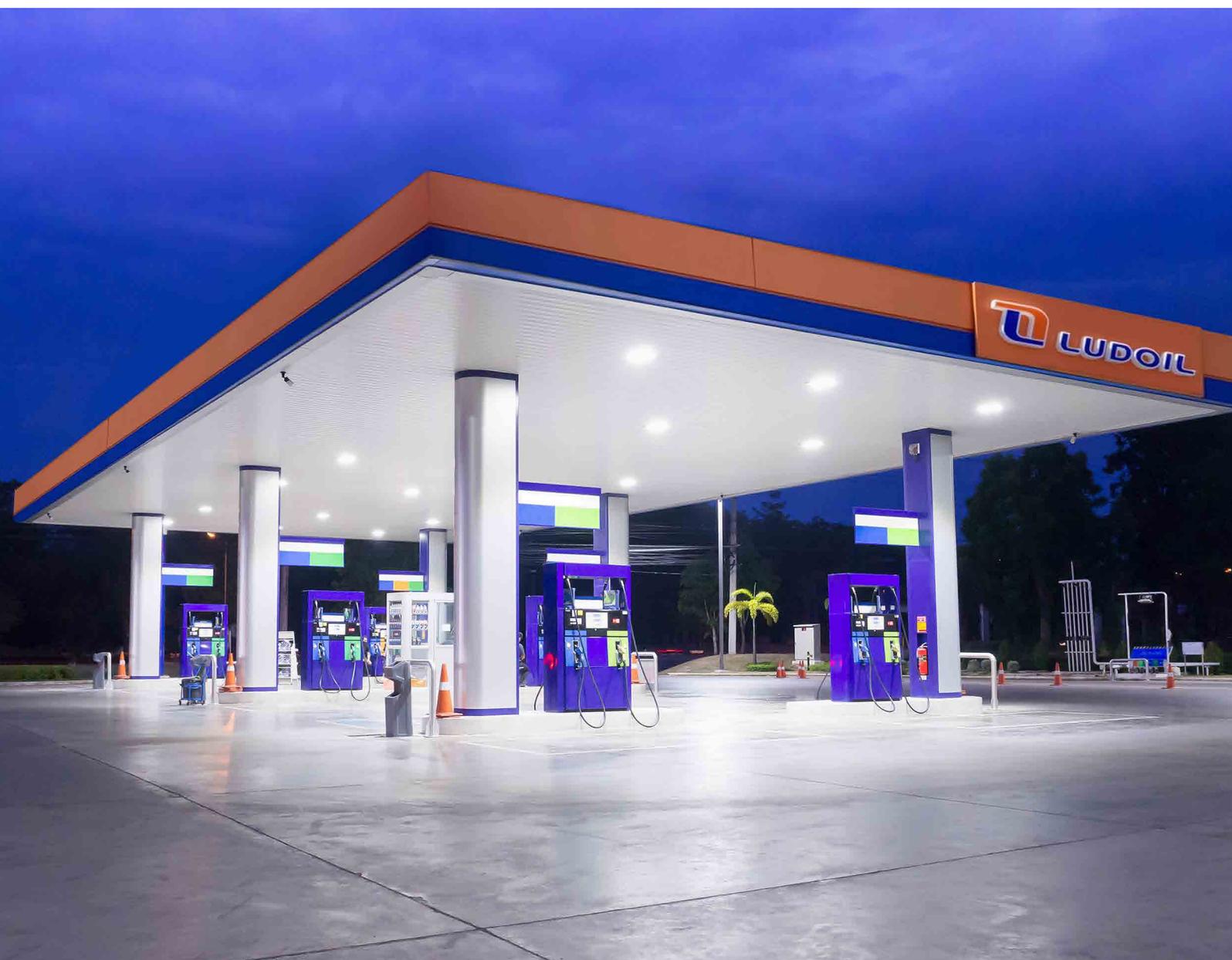
FROM PAGE 33 TO 35 →



Retail

Our network of **service stations** is a reference point for travelers: **over 200 Ludoil Energy stations** throughout Italy, located both in the urban and suburban areas along the most important roads. The extensiveness of the network allows the Group to promote a commercial strategy strongly focused on people, *to be at the side of*

Italians wherever they need **energy and services to move**, with a wide, innovative and convenient offering, characterized by innovative and high-quality fuels, bio-fuels, a wide range of lubricants and columns for electric mobility.



RETAIL

LOW-COST POLICY

Over the years, in response to the economic difficulties of the Country, we have promoted a tight low-cost policy by distributing homogeneously and throughout the Italian territory a network of service stations of “social brands” belonging to the Ludoil Group. Ludoil brands pursue a strongly lowered price policy: an initiative that has

not only achieved significant commercial success but has gained social support in the areas and communities in which we operate.



FOCUS ON

IPERSTAROIL STATIONS

Iperstaroil network, acquired in April 2021 from *Margherita Distribuzione S.p.A.*, has 30 self-service service stations located in the main shopping centers in Italy.

In the last year it has sold 225,841,789 liters of fuel, with a turnover of Euro 324,201,431 (VAT included). Iperstaroil service stations are present in 9 regions of Italy, including the last opening in Sicily of the point of sale of Misterbianco. **The average disbursement is 8 million liters**, 8 times the Italian average. In addition, the volumes of these stations represent about 1% of the Italy market share.



Together with the **Ludoil** and **Iperstaroil** brands, the network of service stations of the Ludoil Energy Group can count on many *Eni-branded stations*, because of an agreement signed in 2015.

RETAIL

SUSTAINABLE MOBILITY

In order to make a concrete contribution to the sustainable mobility goals, Ludoil stations are integrating the current offer with **alternative energy carriers**. The transformation includes the enhancement of the offer for e-mobility with the setting up of columns, as well as increasingly sustainable fuels, such as biomethane, compressed and liquefied, and hydrogen. To further accelerate the reduction of CO₂ emissions in the transport sector, the supply of biofuels will also be increased.



CHARGING STATIONS

Through **EOS**, a company belonging to our subsidiary *Luce*, we have signed an agreement with *Scame Parre S.p.A.*, company manufacturer of components and systems for electrical facilities in low voltage.

With this partnership, we are installing charging columns of the latest generation at the Ludoil Energy Group's service stations.

The goal is to install **1000 columns within 2025**: an important number considering that today, in Italy, the active charging points are about 13,700. *The Luce branded columns* exclusively renewable (see page 39): a circular solution for 100% sustainable charging.



Innovation and sustainability to be among the most important players in the **renewables**

Luce is the holding company of the Ludoil Energy Group dedicated to the development and management of energetic generation activities from renewable sources at an international level.

FROM PAGE 37 TO 42 →



Renewables

We are strongly committed to covering a key role in the **energy transition** to support the achievement of SDGs and, at the same time, to fully grasp the opportunities it offers. In the course of the last 10 years, we have built a business model oriented to a **low-carbon future** and, year after year, there has been an increase in the investments that the entire Group has made to face the crucial challenges of the energy sector: the transition to a low CO₂ emissions future and access to energy for a constantly growing

World population. In line with our transition strategy, in 2021 **Luce S.p.A.** was born, the green holding company of Ludoil Group, dedicated to development and management of energy generation activities from renewable sources at an internal level. With Luce, *we are developing an innovative and sustainable value chain*, to minimize our carbon footprint by combining natural resources and creating long term value for all stakeholders.

ONGOING INVESTMENTS

Luce adopts a strategy that operates on **two levels**: on the one hand, **areas of intervention have been identified** along the entire supply chain, potentially synergistic with the infrastructures of the Ludoil Energy Group, to create increasingly efficient and sustainable business models; on the other hand, it

concentrates its investments in a **mix of energy generation** which includes the main renewable sources. From wind to solar, from biomethane to green hydrogen up to electric mobility: Luce, at only one year from its establishment, has already carried out **relevant operations** in Italy and worldwide.



100 MW
SOLAR - WIND



+250
EV CHARGING



50 MW
HYDROGEN



450 kton
FROM OFMSW

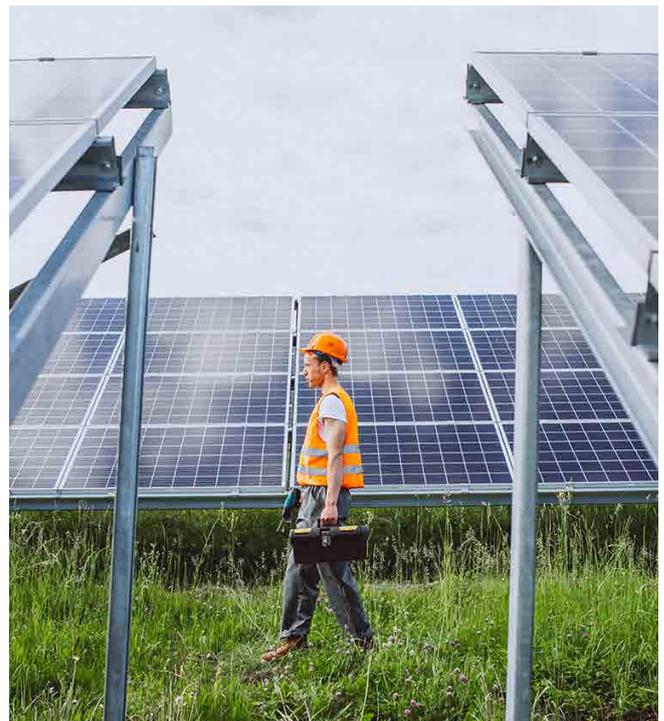
RENEWABLES**WHAT WE ARE AIMING FOR**

Luce represents a cornerstone in our decarbonisation strategy and a fundamental step of the ongoing Ludoil Energy transformation. Through targeted acquisitions of companies already active in renewable energy,

provided with efficient and sustainable systems, but also through investments in infrastructure and revamping activities, we *bring to Italy and to the world green energy* entirely produced from alternative sources.

SOLAR

With **OSM**, company belonging to Luce Group, we invest in the construction of **solar energy systems** worldwide, *classified as utility-scale*. We use innovative technologies, which allow the connection with **storage systems**, storing energy at peak times and then redistributing it as needed. We will install more than **2 GW of photovoltaic systems within 2030** and we predict the company could become a point of reference for the sector already by 2025. OSM also has a subsidiary in Brazil - *OSM Investimentos Ltda* - which invests in projects of more than 400 MW.



RENEWABLES

WIND

Windfinder is the company belonging to Luce Group that invests in **wind technology** and in the creation of **wind farms**. We produce and sell energy both to the GSE and through Corporate PPA. As of today, we have wind farms both in Sicily, in the city of Troina, and in Sardinia, between the cities of Villanovaforru, Sardara and Sanluri. In the short period, we have planned investments in new wind farms, for a total of **150 MW**, distributed in huge projects.



FOCUS ON

ELECTRIC MOBILITY? THE FUTURE THROUGH RENEWABLES

To support the development of e-mobility the energy used for recharging *must come from renewable sources for the entire chain to be truly sustainable*. The electric vehicles are born with the aim of abandoning fossil fuels - today used for mobility by road - in favor of more sustainable forms of power. However, to ensure this, an electric vehicle not emitting pollutants is not sufficient. To make the mobility of today and tomorrow really green, it is necessary that the energy produced at the source, i.e., the one that from the columns is transferred to the batteries of electric cars,



gets produced sustainably. **This is why EOS comes into play.** EOS is a company belonging to Luce that deals with the installation of electric columns in Ludoil Energy service stations (see page 35) using exclusively the energy produced by OSM and Windfinder, i.e., by the Group's wind and photovoltaic plants.

RENEWABLES

HYDROGEN

The energy transition can rely on **ION**, a company belonging to Luce investing in the development of technologies for the production and commercialization of **green hydrogen**, the one produced 100% by renewable energy. The reason we are investing in hydrogen, and we consider it so important, lies in its great potential as a clean energy carrier in some sectors that cannot easily move to electrification: the chemical and steel industries, heavy trans-

port, mining. Hydrogen, therefore, is the ideal complement to support electrification in the ongoing energy transition. Nowadays the 97% of the hydrogen consumed in the world is gray, i.e., extracted from fossil sources. With ION, instead, we focus on green hydrogen, extracted from water by electrolysis using energy only from renewable sources. *By 2030, we will launch a pilot project for green hydrogen production and sale.*



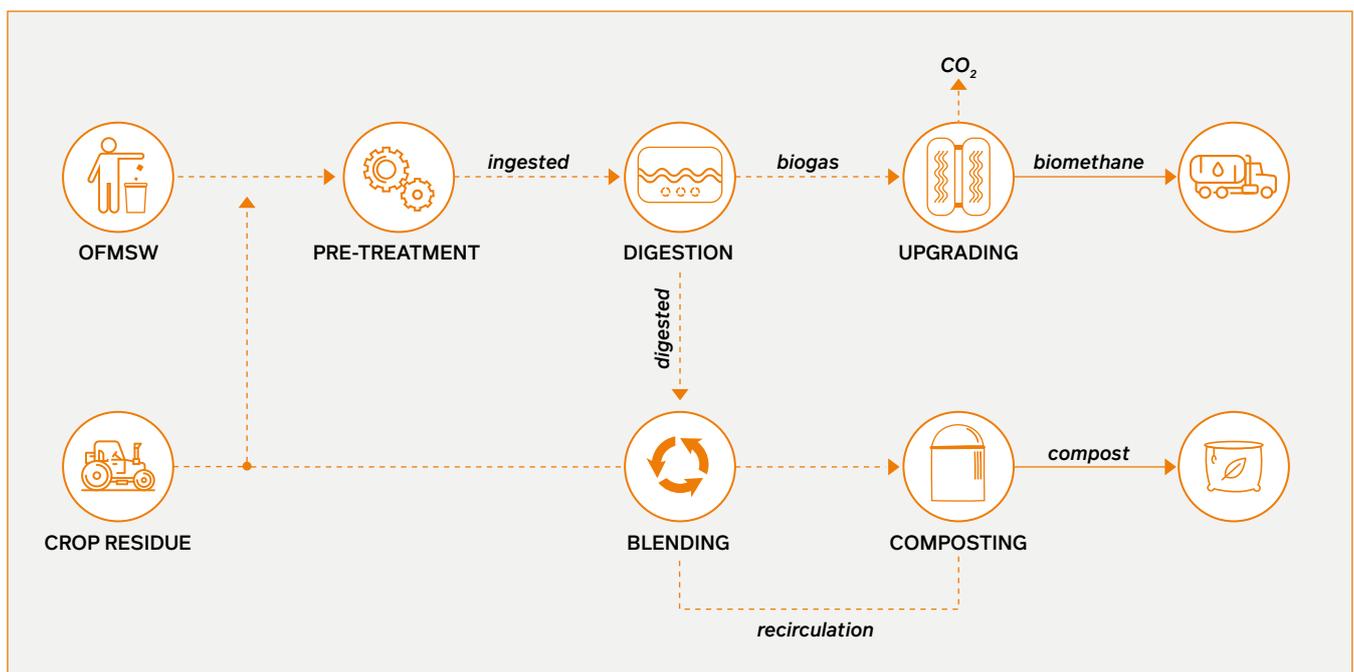
RENEWABLES

BIOMETHANE

Khaos is the Group's company dealing both with the construction and the revamping of composting plants for **OFMSW** transformation into advanced biomethane and quality compost. By **OFMSW (Organic Fraction of Municipal Solid Waste)** means the organic material, otherwise called wet, collected by separate collection: these are mainly food residues or food preparations and fractions comparable for genre, such as the food paper soiled with food residues. A very significative data from a statistical point of view is that OFMSW counts today for 30 to 40 per cent of the urban solid waste weight. Thanks to the **separate collection**

of organic material, not only it is possible to greatly reduce greenhouse gas emissions in landfill, but also to transform waste in bio-methane. The latter has the same characteristics and conditions of use as those of methane gas and is allowed for the input in the natural gas network. From the recycling of organic waste to the generation of energy, **with Khaos we promote projects of circular economy**. Both through Ludoil service stations and through gas sales infrastructures connected to the Snam network, *from 2023 biomethane will be available to end consumers.*

► PRODUCTION CHAIN



FOCUS ON

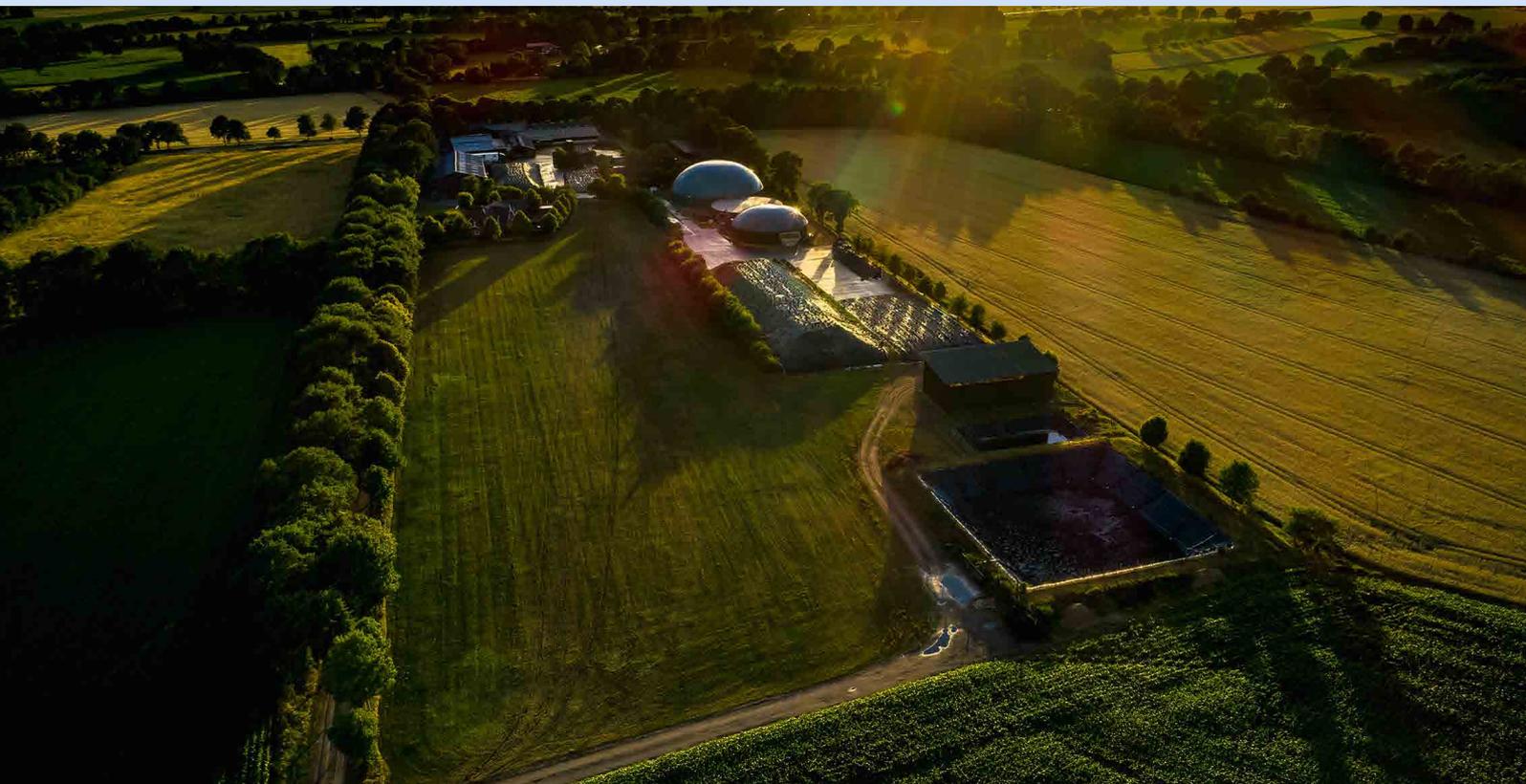
BIOMETHANE, RACO S.R.L. ACQUISITION

In November 2021, we completed the acquisition of **Raco S.r.l.**, a company equipped with a composting plant for the treatment of the Organic Fraction of Municipal Solid Waste (OFMSW) located in Belpasso, in the province of Catania (Sicily). Right after the acquisition, we have worked on a project to modernize the plant that involves the implementation of the **anaerobic digestion technology**, with the aim of adding biomethane production to compost production. **The revamping works** will allow to remodelate the OFMSW treatment capacity of the plant, *bringing it from 150 thousand to over 195 thousand tons annually*, equivalent to the annual production of organic waste from the waste sorting of 1,2 million inhabitants. By November 2023 we will be able to

inject **14.500.000 Sm³** of biomethane into the network, enough to travel 290 million km by car. In addition, Raco has been authorized to carry out **waste intermediation activities** for 200,000 tons which, in addition to the treatment capacity of the plant of 195,000 tons, *allow us to process more than 400,000 tons of OFMSW per year.*

Company: Raco S.r.l.**COMPOSTING PLANT**

- ▶ Address: Via Contrada Gesuiti, Belpasso (CT)
- ▶ Treatment capacity: **200.000 ton OFMSW**
- ▶ Products: **BIOMETHANE - COMPOST**





Ludoil Energy S.p.A

Registered Office

Via Taranto 40, Nola - Napoli

Shared capital at 31/12/2021 €15,000,000 fully paid-up

Register of companies in Napoli

VAT number 7104471219

Contacts

ludoil.it

lucenergy.com

info@ludoil.it

Linkedin

<https://it.linkedin.com/company/ludoil>

<https://it.linkedin.com/company/gruppo-luce>

#WeAreEnergy