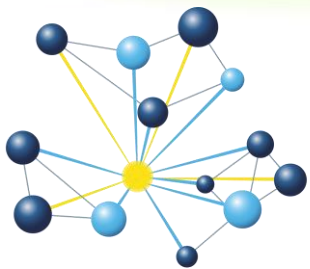

SMBio-LNG - Shaping the future of Sustainable Mobility



VANGUARD INITIATIVE

New growth through smart specialisation



LNG
VALTELLINA
LOGISTICA
SOSTENIBILE



Trucks' fact sheet in Europe

6,5 million

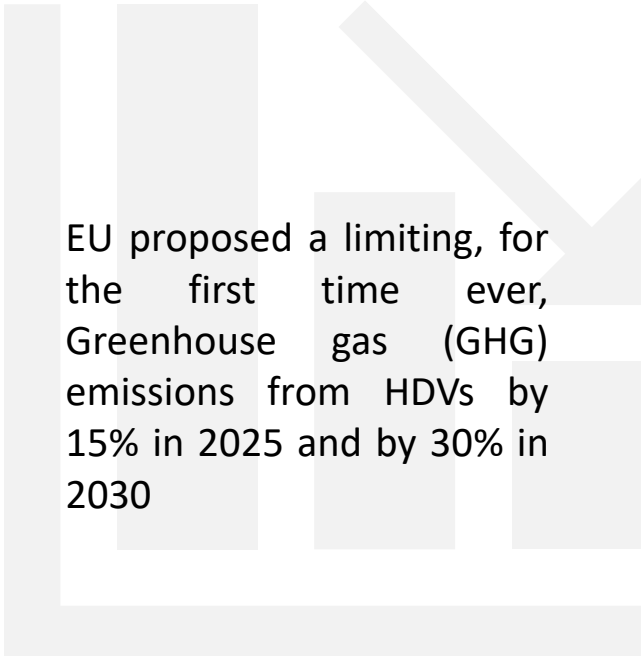


Trucks in circulation throughout the EU carry 76.7% of all freight transported over land, or almost 15 billion tonnes per year.

98 %



Of the heavy truck fleet is powered by diesel, and 1% by petrol.



EU proposed a limiting, for the first time ever, Greenhouse gas (GHG) emissions from HDVs by 15% in 2025 and by 30% in 2030

+ 14,3 %



Between 2000 and 2014 the performance of road freight transport (measured in billion tonne-kilometres) is growing.

- 1 %

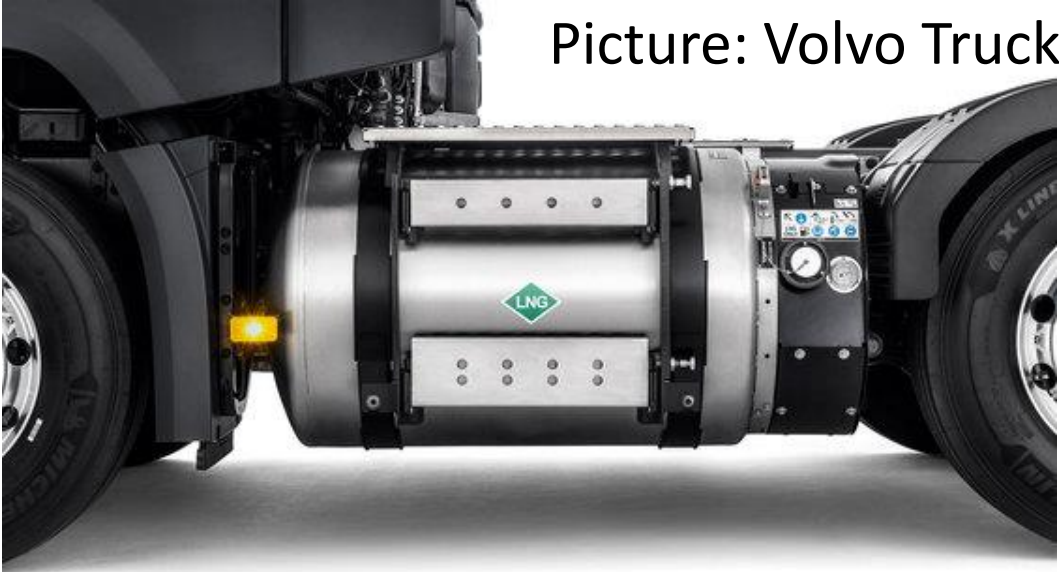


To date (2019), heavy trucks with alternative powertrains that represent the current heavy truck fleet.

Methane as a motor Fuel- CNG & LNG



BioMethane from Biogas



LNG truck cut emissions

CO₂ -15%

NO_x -70%

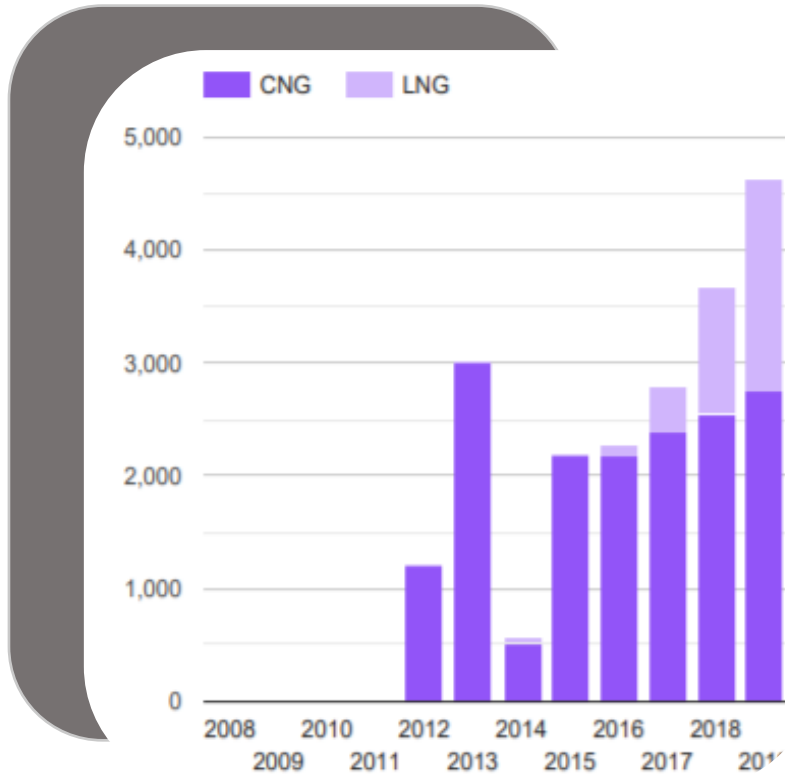
PM -99%

Data: Iveco

Pictures: Air Liquide

LNG - Liquefied Natural Gas is mature and available

Road transport for heavy duty: CNG/LNG in Italy



Source data: Alternative fuels fleet (CNG/LNG) (2019), EAFO

drivetrain	CNG	LNG	Total
2008	0	0	0
2009	0	0	0
2010	0	0	0
2011	0	0	0
2012	1200	0	1,200
2013	3000	0	3,000
2014	500	56	556
2015	2160	0	2,160
2016	2160	110	2,270
2017	2380	416	2,796
2018	2550	1111	3,661
2019	2750	1882	4,632

Truck-specific public filling stations for compressed natural gas (CNG) and liquefied natural gas (LNG) are currently present in some EU member states, but their distribution is still very patchy across Europe and the number of stations remains low (ACEA).



Introduction

INCREASE IN ECONOMIC BENEFITS

The use of LNG as an alternative fuel to diesel is based on its economic and environmental sustainability. Economic sustainability is due to its lower cost for the same energy content, which must at least offset the higher costs associated with the specific technology. Economic sustainability depends mainly on the annual mileage and the price difference between diesel and LNG.

CREATION OF SUSTAINABLE VALUE

There is a limited production capacity of fuels coming from renewable resources, related to the availability of feedstocks.

OPPORTUNITIES

Transition
from fossil
fuel to
biomethane

LIMITS

IMPROVEMENTS TO THE ENVIRONMENT

The aim is creating the leading logistics system in Europe with low environmental impact: compared to traditional diesel, using BML as biofuel to powering the fleet, results in a reduction of pollutants, less noise, smell and visual pollution.

PROVISION OF INCENTIVE

The regulatory framework (Biomethane Decree 2/03/2018) limits the production of first-generation biofuels; in fact, the provision of incentives for the development of a business model in the transport sector generates a value advantage, but the limit is more related to the capacity of the liquefaction plants and the availability and prices of imported supplies.

Maganetti Spedizioni Spa

1

Maganetti Spedizioni Spa, a logistic leader, is made up of many companies, mainly linked to the world of transport and logistics.

2

In collaborations with other partners, Maganetti promotes an ambitious project: promoting an environmentally sustainable road haulage service, using liquefied natural gas as an alternative fuel to diesel and gasoline.

3

The LNG project was born with the aim of promoting environmental sustainability, thanks to the collaboration of two companies present in Valtellina: Sanpellegrino with its plant of mineral water Levissima, and Maganetti Spedizioni Spa. Sanpellegrino supported the development of the project both from the formal and logistical point of view, and Maganetti Spedizioni Spa created the necessary infrastructure and skills so that all industries and all provincial transport can access this technology in a direct and economical way. The heart of the project is connected thanks to Iveco Stralis LNG vehicles, the first truck in the world to be powered by LNG.

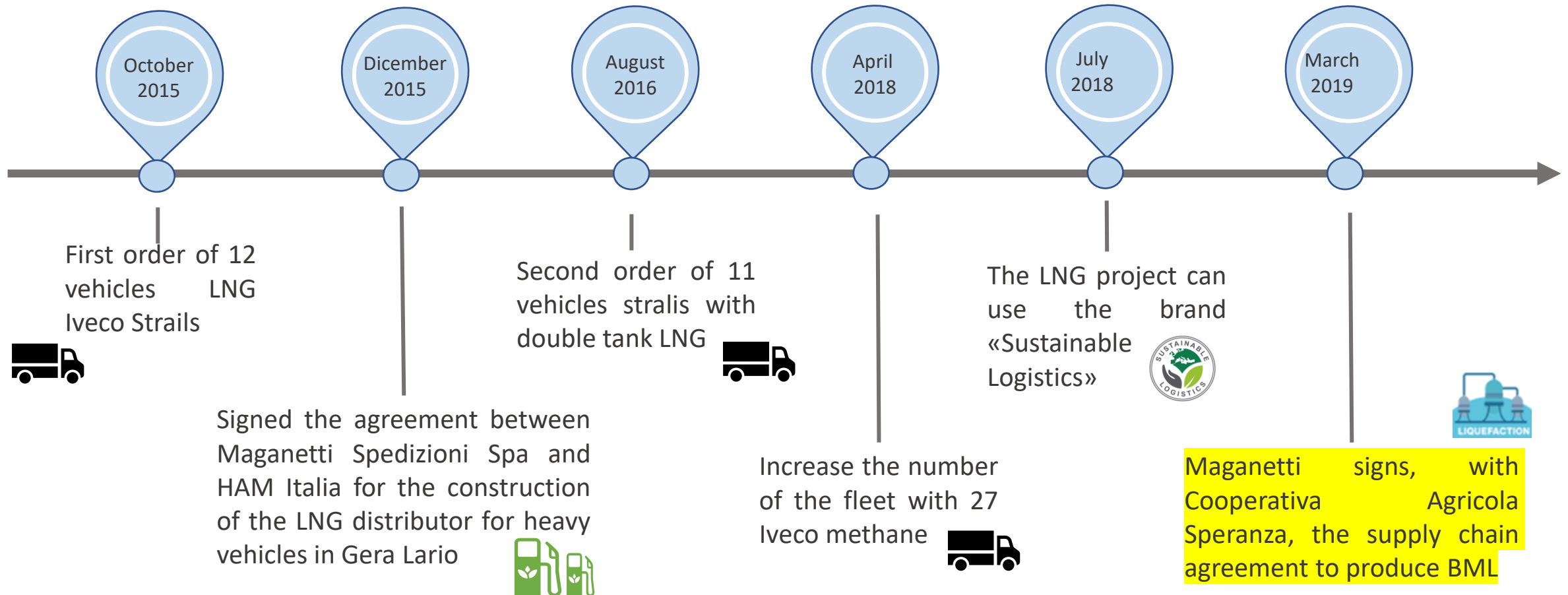


LNG
VALTELLINA
LOGISTICA
SOSTENIBILE

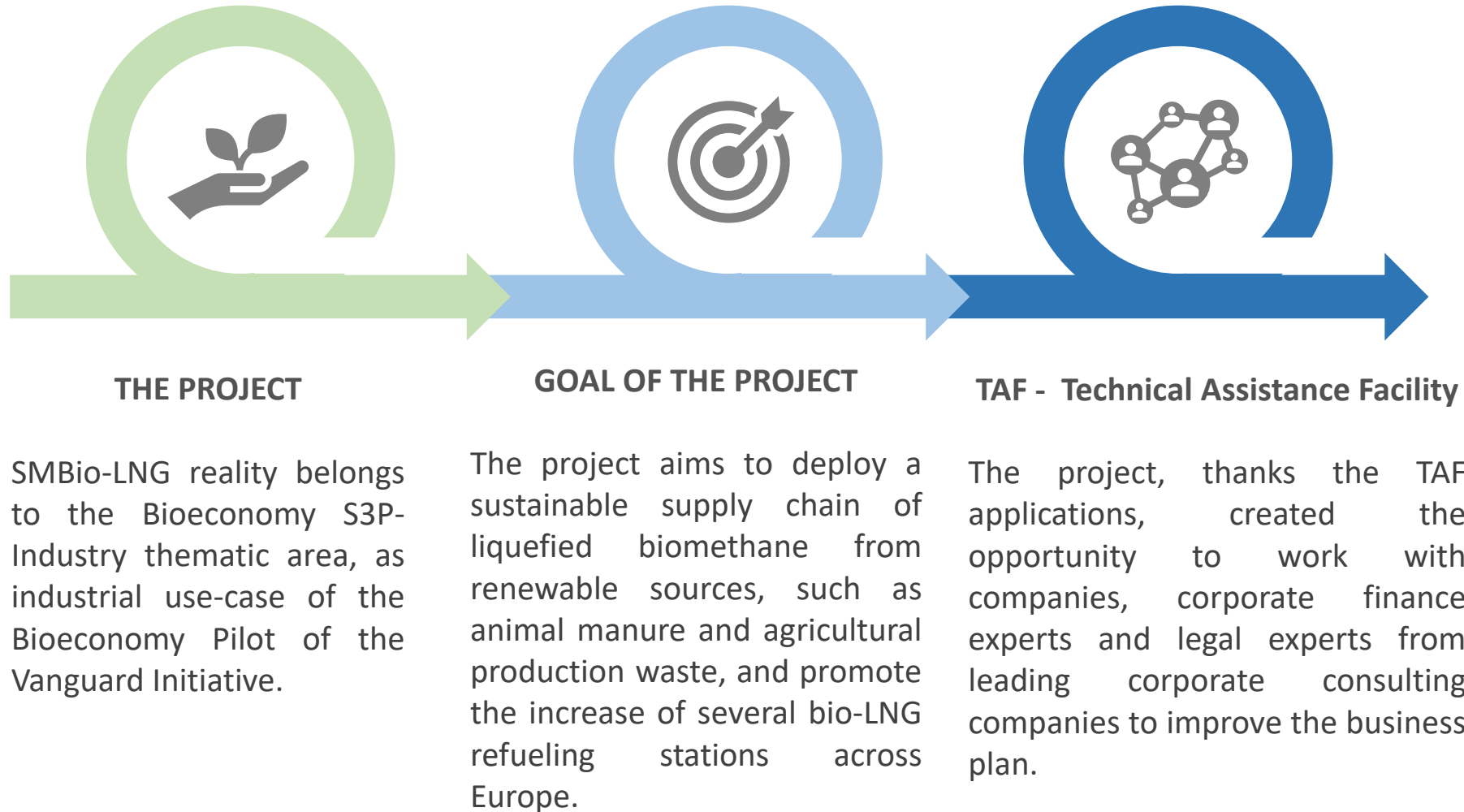


The stages of the project

Transport and innovation: the strategy for boosting competitiveness and promoting sustainable economic and environmental freight transport growth



SMBio-LNG - Shaping the future of Sustainable Mobility



The SMBio-LNG Joint venture

The partners thought the SMBio-LNG initiative intends to establish a business network that allows participants to pool activities and resources to improve operations and competitiveness.

PRODUCER

SOCIETA' AGRICOLA COOPERATIVA SPERANZA

The Società Agricola Cooperativa Speranza, Candiolo (TO), produces biogas and liquid biomethane from animal manure and residues from agricultural production, with the aim of creating value from waste. In addition, the Cooperative is also in charge of the construction of liquid biomethane filling stations in two different regions.

INTERMEDIATE USER

MAGANETTI SPEDIZIONI SPA

Maganetti Spedizioni Spa is the first logistics company in Italy to use liquid biomethane for automotive, which has converted 25% of heavy vehicles to biomethane and will manage the filling stations.

TECHNOLOGY PROVIDER

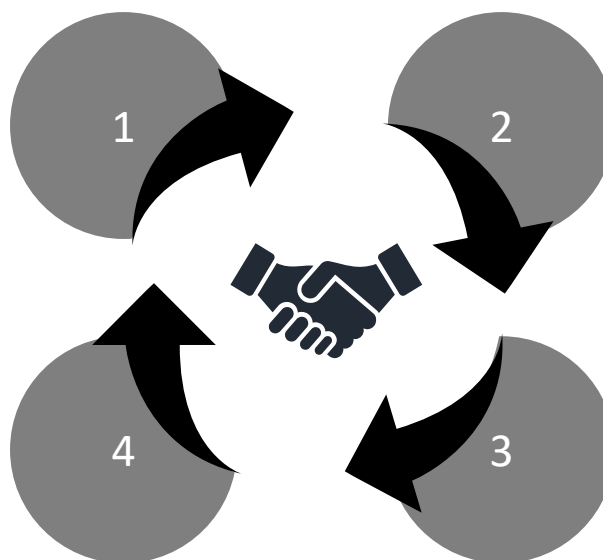
CRIOTEC IMPIANTI SPA

Criotec Impianti Spa is in charge for the design, production and installation of the purification and liquefaction plant for biogas from anaerobic fermentation.

TECHNOLOGY PROVIDER

HAM ITALIA

Ham Italia is an Italian-Spanish company specialized in the design, construction and maintenance of plants, in the transport and marketing of Liquefied Natural Gas (LNG). HAM is the only European Industrial Group able to operate with its own personnel on the entire LNG sector.



Key Figures

Maganetti Spedizioni Spa

- ❖ Converts its fleet from fossil fuel to bio-LNG
- ❖ Guarantees the purchase of liquid biomethane at a fixed price for 12 years

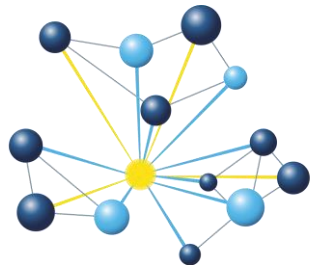
Società Agricola Cooperativa Speranza

- ❖ A liquid biomethane production plant for road transport, that produce 2.000 tons/year
- ❖ An advanced liquefied biomethane distribution system in the area owned by Maganetti, located in Carpiano (MI).

Today and Tomorrow

Facilities are built and ready for start-up

New Business Plan is being prepared with TAF support to replicate the model



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