



BIOGENIC CO₂ FROM BIOMETHANE PLANTS: TECHNOLOGIES AND APPLICATIONS

Eng. Giangiacomo Caldara and Eng. Francesco Maestri

Engineering

Technical gases



LPG and Natural Gas

Healthcare

SIAD Group is one of the major Italian chemical Group with plant and offices in Europe and worldwide.

International presence

16

Countries with company offices in the Industrial Gases sector

11

Countries with company offices in the Engineering sector

40

Engineering sector service centers

People and Safety

2.278

Employees 2023

50.502

Hours of training 2023

15.871

HSE training 2023

Group results

1.008
million €

2023 turnover

47%

International turnover

283
million €

EBTDA

Sectors



Industrial Gases



Engineering

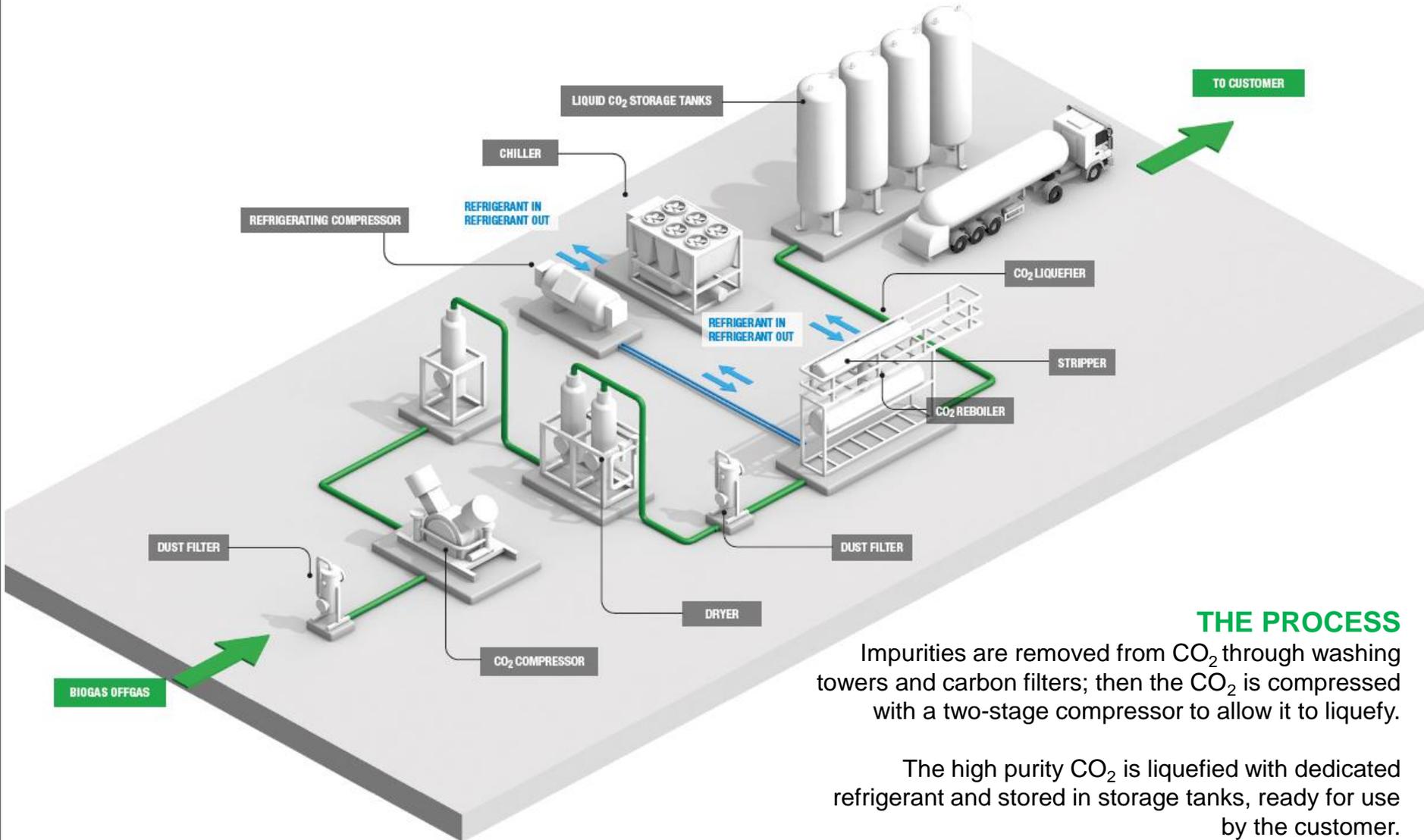


LPG and Natural Gas



Healthcare

CO₂ Liquefaction Plant



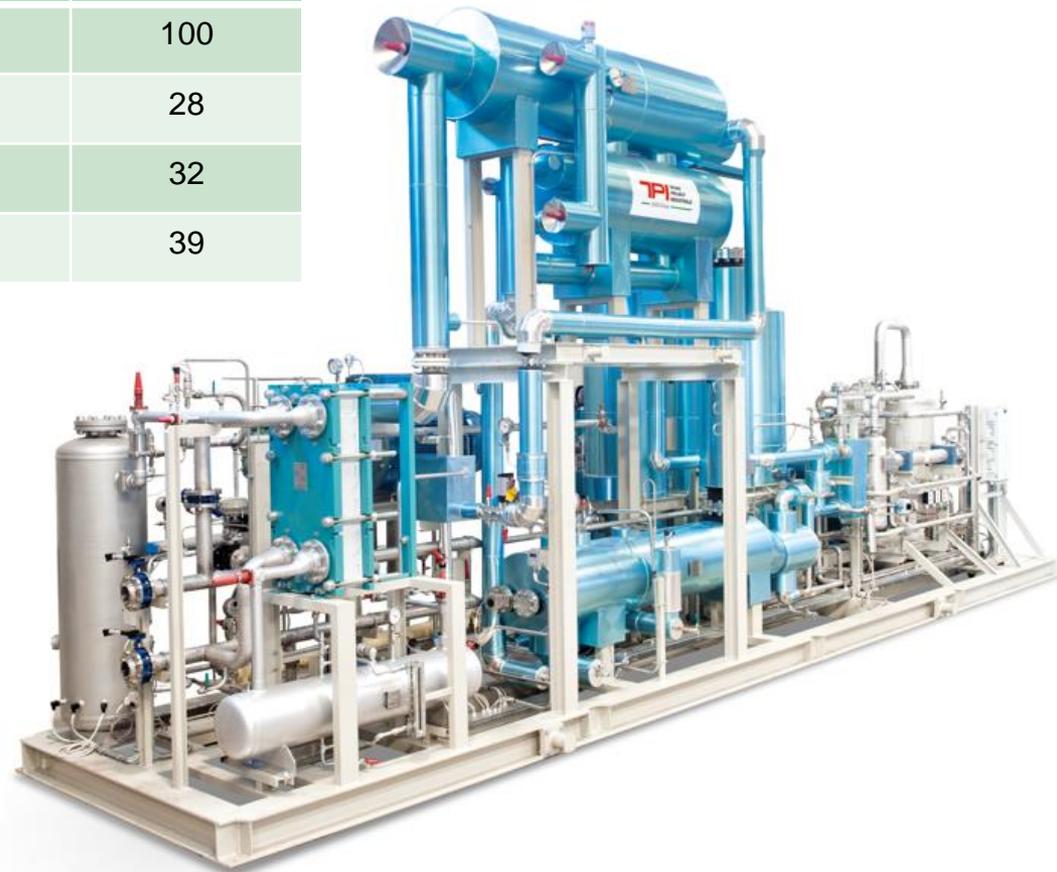
THE PROCESS

Impurities are removed from CO₂ through washing towers and carbon filters; then the CO₂ is compressed with a two-stage compressor to allow it to liquefy.

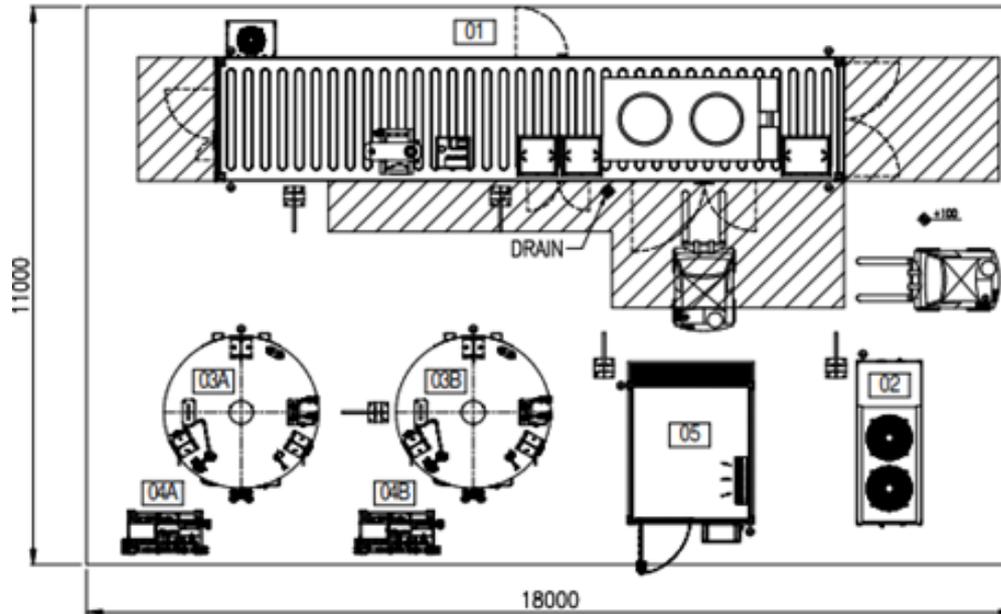
The high purity CO₂ is liquefied with dedicated refrigerant and stored in storage tanks, ready for use by the customer.

TPI CO₂ Liquefaction Plants

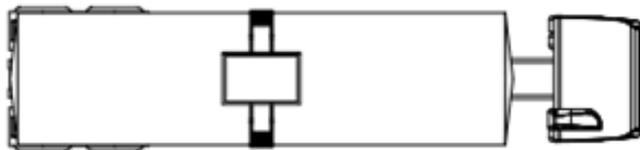
CO ₂ Plant	Nr.
Breweries	100
Liquefaction from Biogas Upgrading	28
Carbon Capture	32
Gas Companies	39



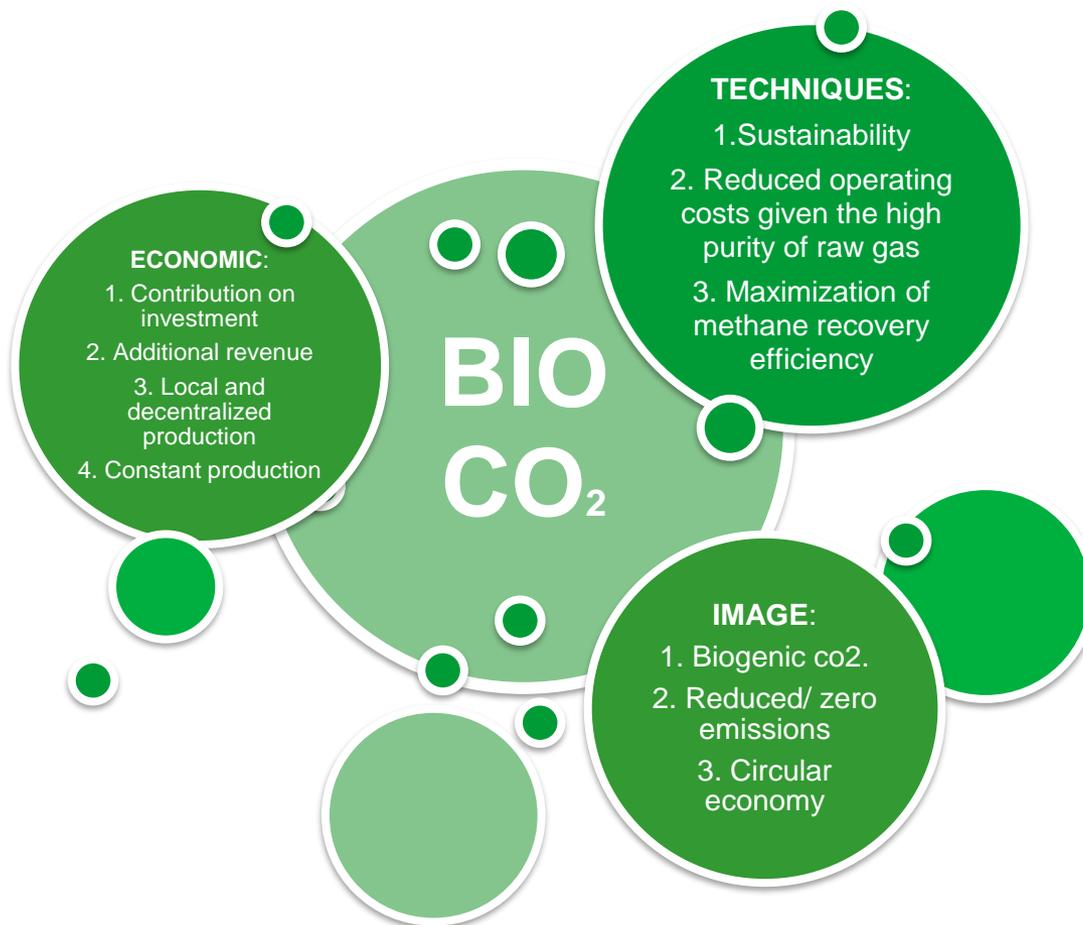
CO₂ Layout and Capacities



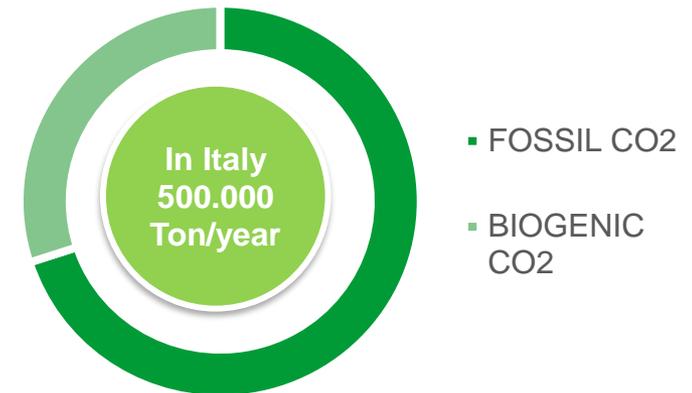
POS.	QUANT.	DESCRIPTION
01	1	RECOVERY CO2
02	1	CHILLER
03A/B	2	LIQUID CO2 TANK
04A/B	2	TRANSFER PUMP
05	1	CO2 ANALYSIS CABINET
NOTE:		EARTHING PLATE SERVICE AREA DRAIN



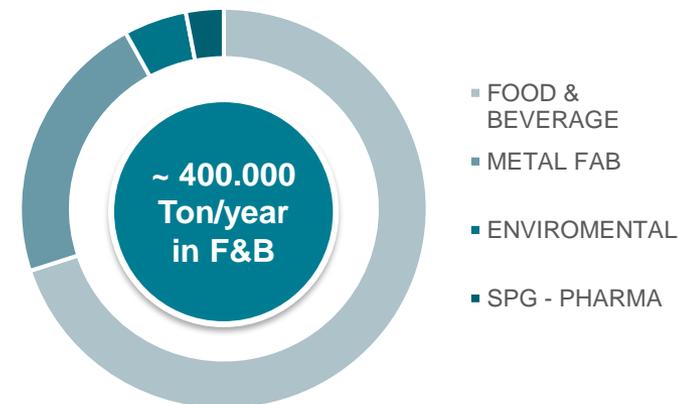
CO ₂ Standard Plant Size	Correspondent Biogas Upgrading Plant	Capacity
550 kg/h	250 Sm ³ /h biomethane	1 MWh
1000 kg/h	500 Sm ³ /h biomethane	2 MWh



PROVENANCE *



DESTINATION *



* Value to be understood as estimate by geographic area Italy



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