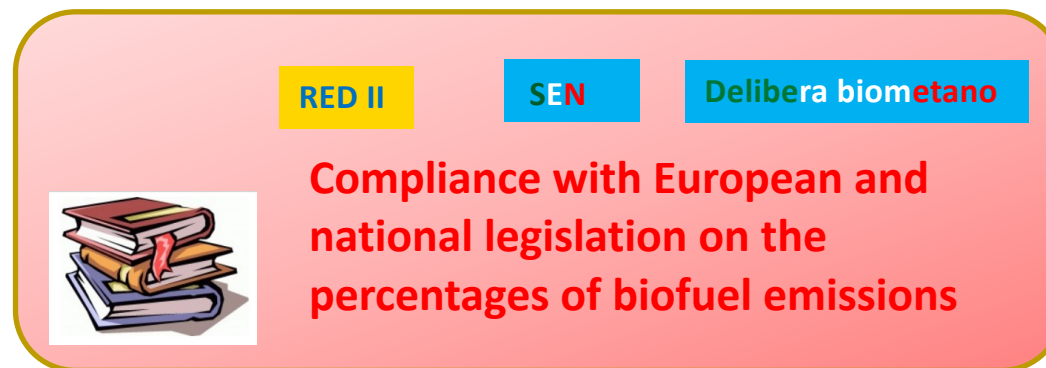


Eni strategy for the development of biomethane

WBA Webinar

13 ottobre 2021

Initiative Introduction & Background



DUTIES

Chances

Eni distribution network for biofuels

Chances

Supply security

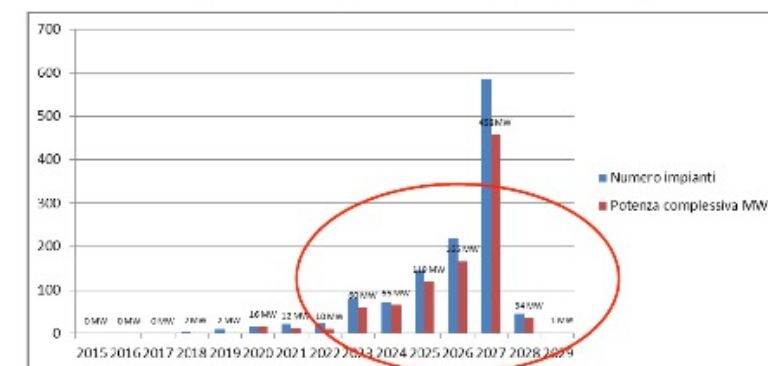
Avoid biogas induced phasing out

Availability of programmable bio energy

Presence in the biofuel market



Le scadenze delle tariffe incentivare (TO)



A partire dal 2023, in assenza di altri interventi, potrebbero venir meno fino a 1000 MW di rinnovabile da biogas!



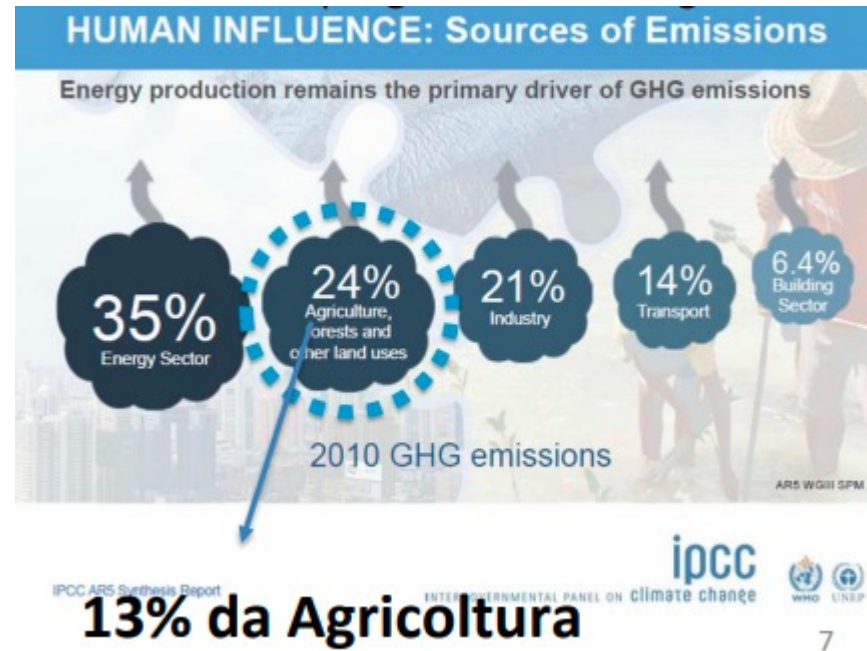
Recovery of degraded areas



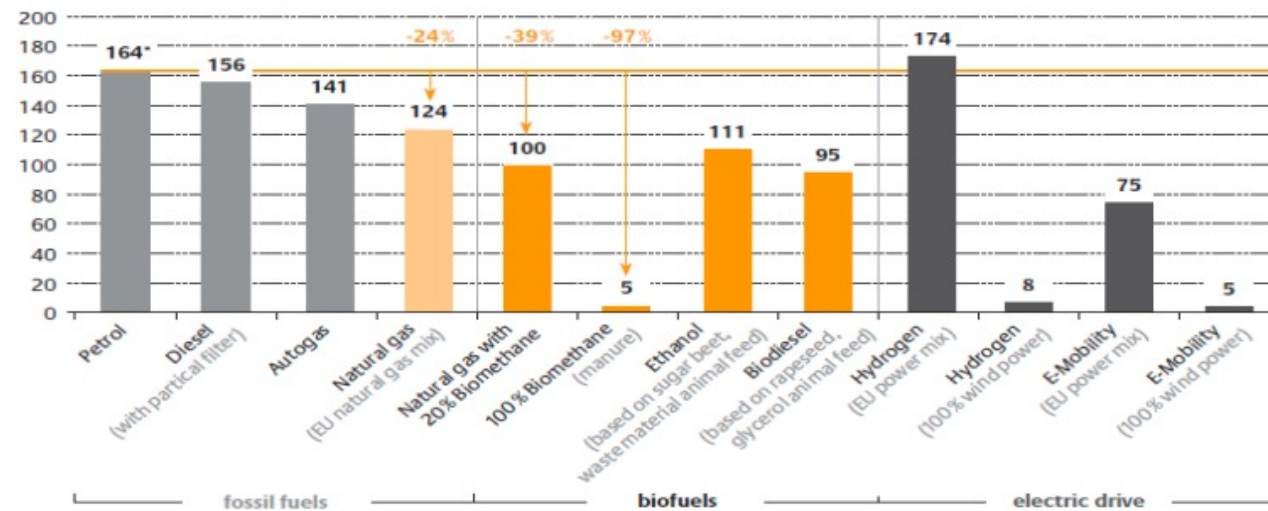
Environmental aspects

Riduce notevolmente l'impatto ambientale:

- - 25% CO2 emissions
- - 50% nitrogen oxides
- absence of sensitive powders
- it does not generate the emission of toxic and carcinogenic compounds



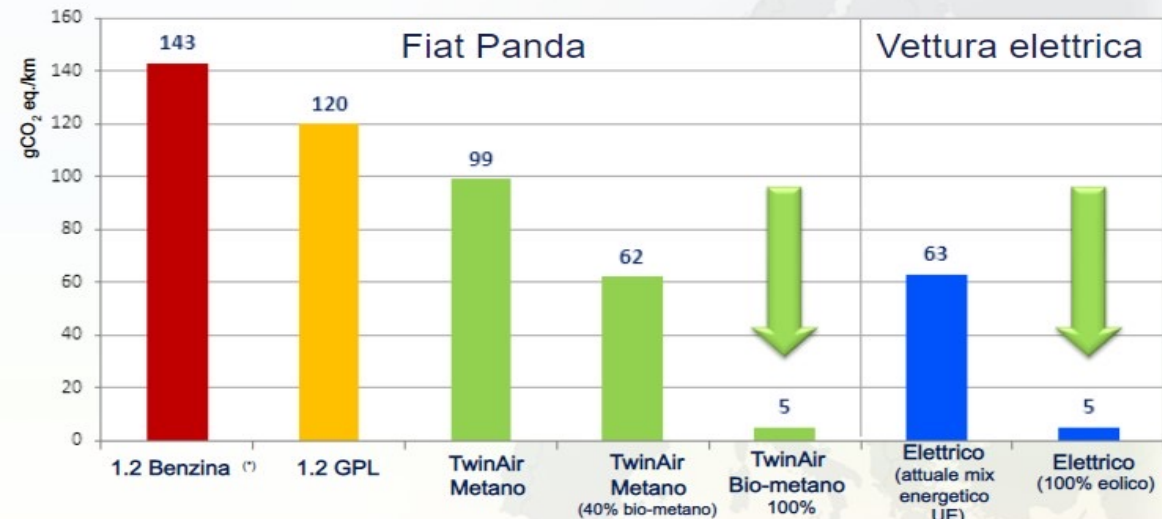
WTW GHG emissions in g CO₂ eq./km



* reference vehicle: gasoline engine (induction engine), consumption 7.1 per 100 km

WTW greenhouse gas emissions for different fuels (CONCAWE et al. Well-to-wheel analysis of future automotive fuels and powertrains in the European context. 2007)

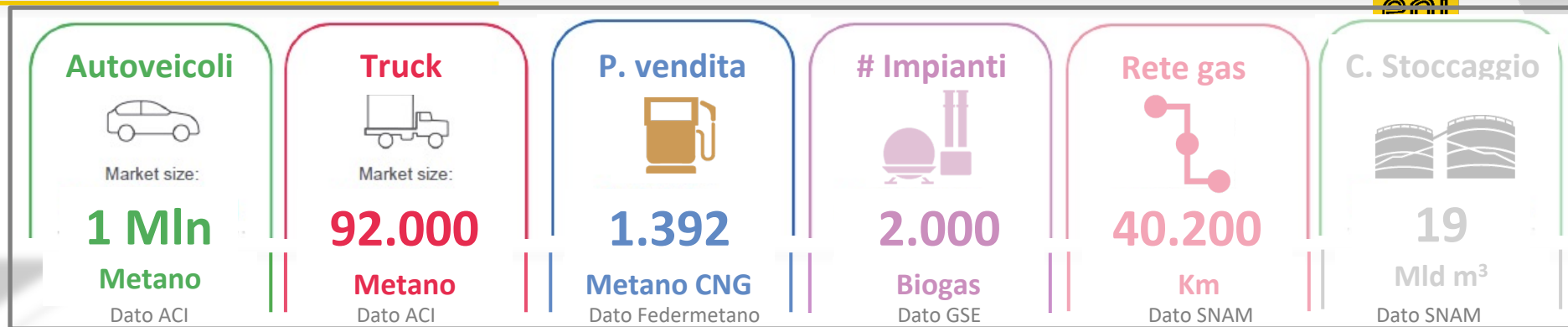
Alimentazioni alternative - confronto emissioni «Well-To-Wheel»



ITALIAN METHANE MARKET

Domanda metano
trazione 2019:
1,2 Mld m³

Dato MISE



Eni methane sales points

Eni and affiliates
107

- sold: 40 Mln m³



New projects
PS 21-24
48

- Needs : +63 Mln m³



Eni LNG points of sale

Eni and affiliates
7

- sold: 10 Mln m³



New projects
PS 21-24
33

- Needs : +78 Mln m³



Largest Italian CNG distribution network in Europe

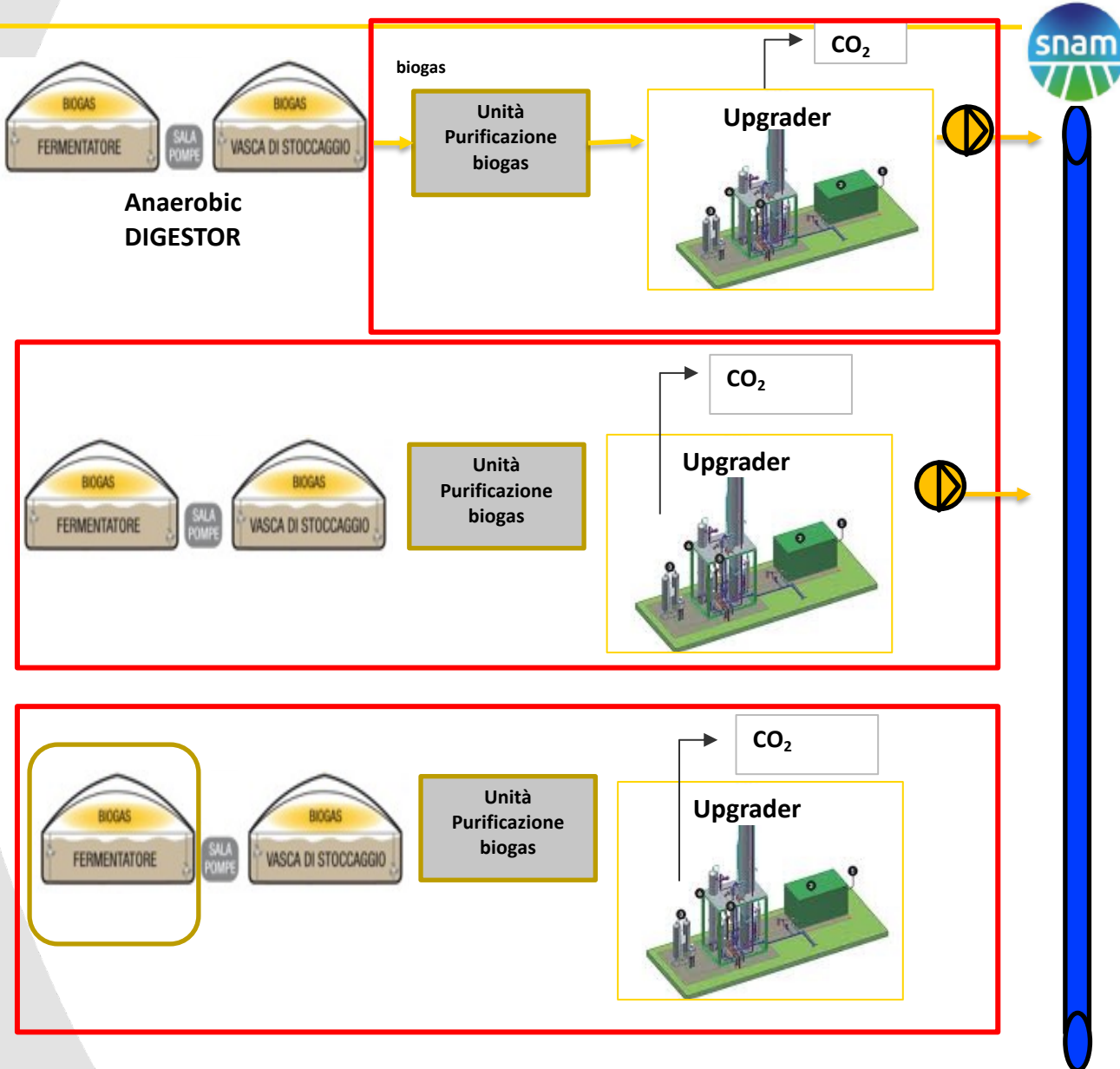


82* distributori LNG Italia

Eni's share of the methane traction market 2019: 5%

* Fonte: Federmetano Gennaio 2021

Type of project



Eni buys the raw biogas from the producer and builds the upgrading plant on the producer's area, transports the advanced biomethane produced by pipe and feeds it into the distribution network at the point of sale

Eni buys the 100% operating plant that produces biogas for electricity and builds the upgrading plant, transports the advanced biomethane produced by pipe and feeds it into the distribution network at the point of sale

Eni buys the X% plant in operation that produces biogas for electricity and builds the upgrading plant, transports the advanced biomethane produced by pipe and feeds it into the distribution network at the Point of Sale

Anaerobic DIGESTOR

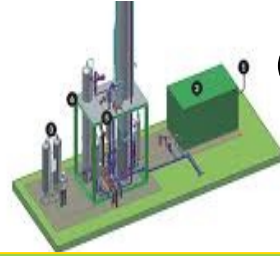
biogas

CO₂



Unità
Purificazione
biogas

Upgrader



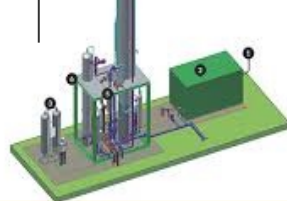
Anaerobic DIGESTOR from composting plant



Unità
Purificazione
biogas

CO₂

Upgrader



CO₂

Upgrader

Unità
Purificazione
biogas



Eni buys the project for the construction of a biogas plant and builds both the anaerobic digestion plant and the upgrading plant, transports the advanced biomethane produced by pipeline and feeds it into the distribution network at the point of sale

Eni buys the FORSU treatment plant at X% in operation that produces biogas for electricity and builds the upgrading plant, transports the advanced biomethane produced by pipe and feeds it into the distribution network at the Point of Sale :

Eni buys the area and the authorization for the FORSU X% treatment plant and builds the FORSU treatment and upgrading plant, transports the advanced biomethane produced by pipe and feeds it into the distribution network at the Point of Sale

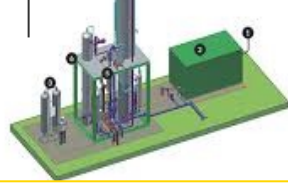
**Anaerobic
DIGESTOR from composting plant**



Unità
Purificazione
biogas

CO₂

Upgrader



Eni sets up an ATI and participates in the tender for the award of the authorization and the land to then build a biogas production and upgrading plant that transports the advanced biomethane produced by pipeline and feeds it into the distribution network at the Point of Sale

