

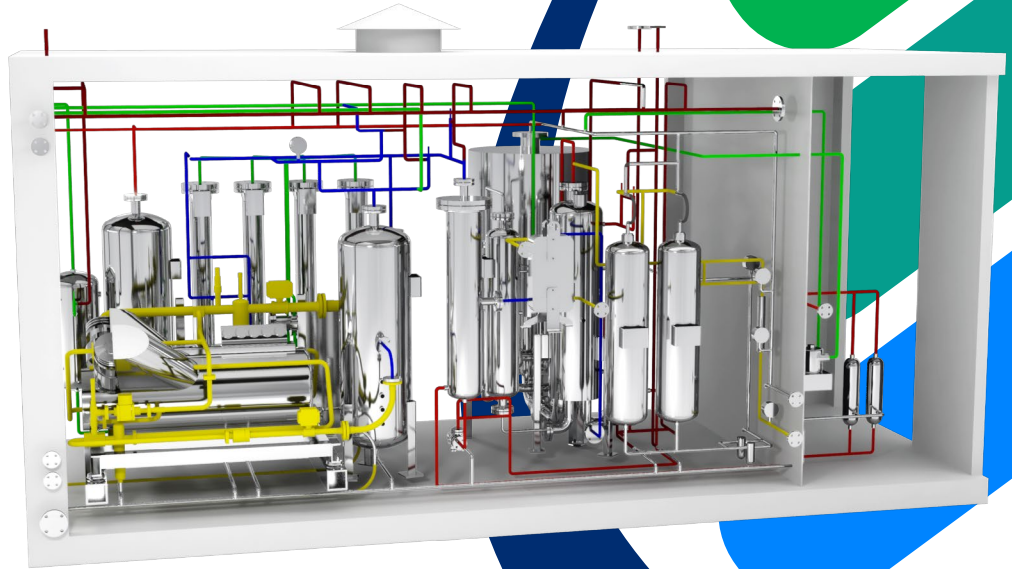


S.A.T. S.r.l.

Scandiuzzi **A**dvanced **T**echnologies



There is a new, clean and renewable energy vector, which reduces sharply the environmental impact of your process.



Discover the hydrogen generator **Bio-HyGS** by **Scandiuzzi Advanced Technologies.**

Hydrogen is the only fuel which does not produce waste during its combustion. The products are heat, electric energy and pure water. It is the most important way to reach the Net- Zero Carbon target imposed by UE Commission by 2050.

WHY Bio-HyGS?



On-site Solution

Production exactly where you need it



Plug & Play

Fast and completely autonomous start-up



Turnkey

Integrated solution



High energy efficiency

More than 75% heat recovery
operative cost reduction



Transportable

The plant is placed in a container



Compact & Modular

Optimized layout and plants can operate in parallel



Reliable & Quality

Hydrogen grade in accordance with SAE J2719 and ISO14687



Safe

Dedicated control loop and no hydrogen storage



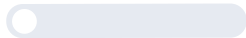
Remote control

Prompt fault diagnosis and predictive maintenance



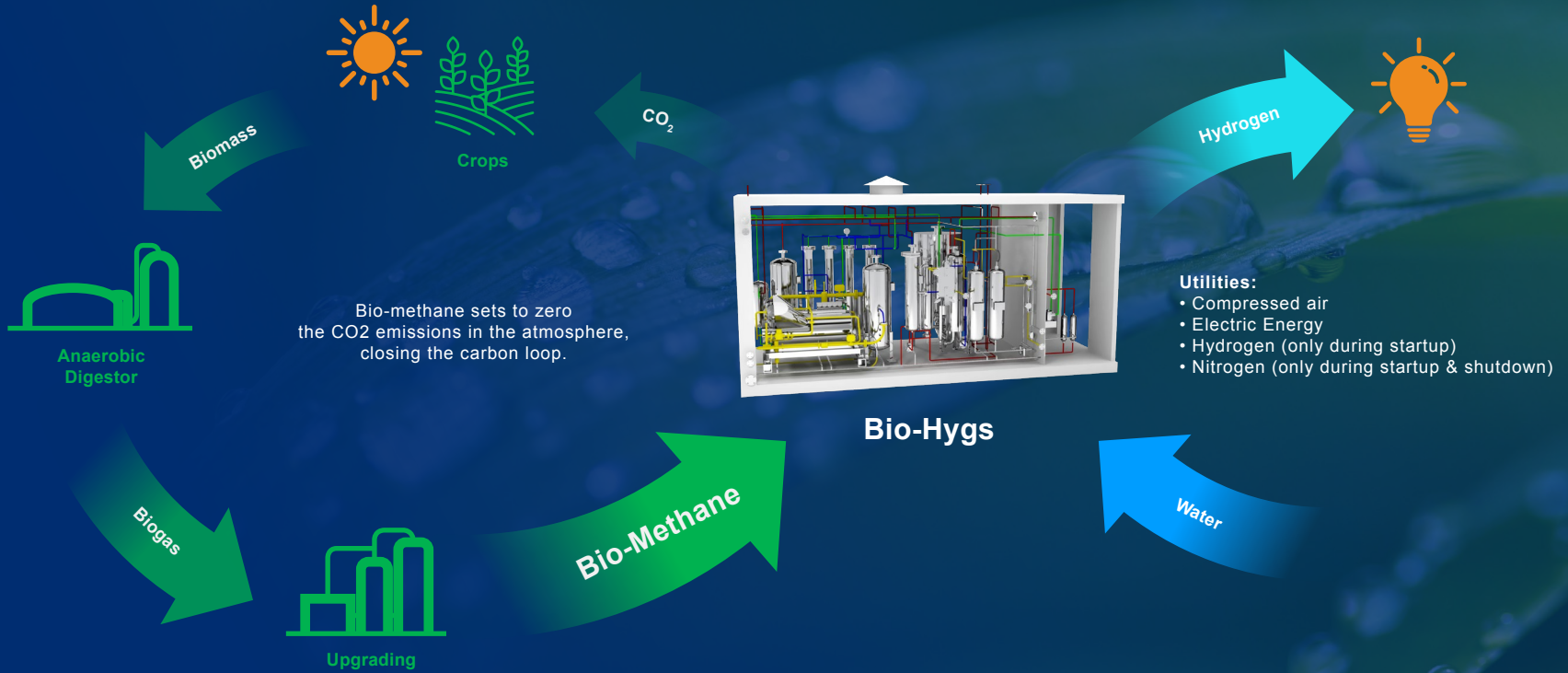
Flexible Production

Production aligned with the user's needs

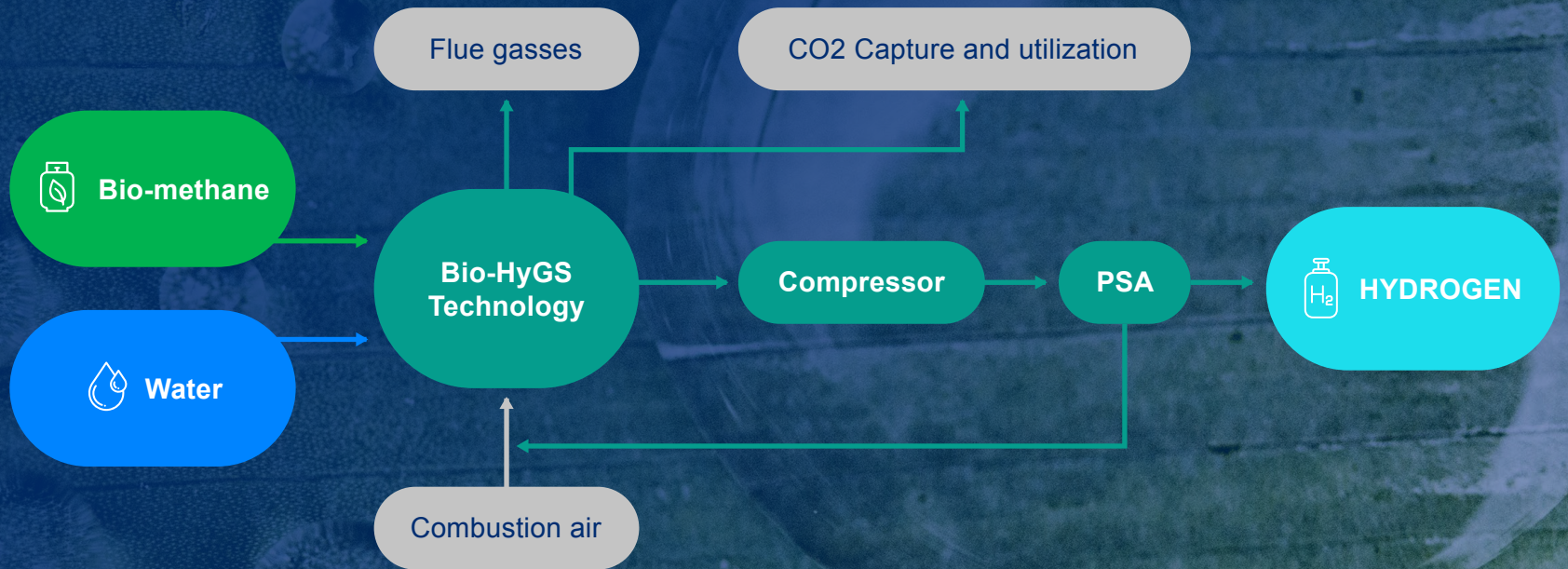


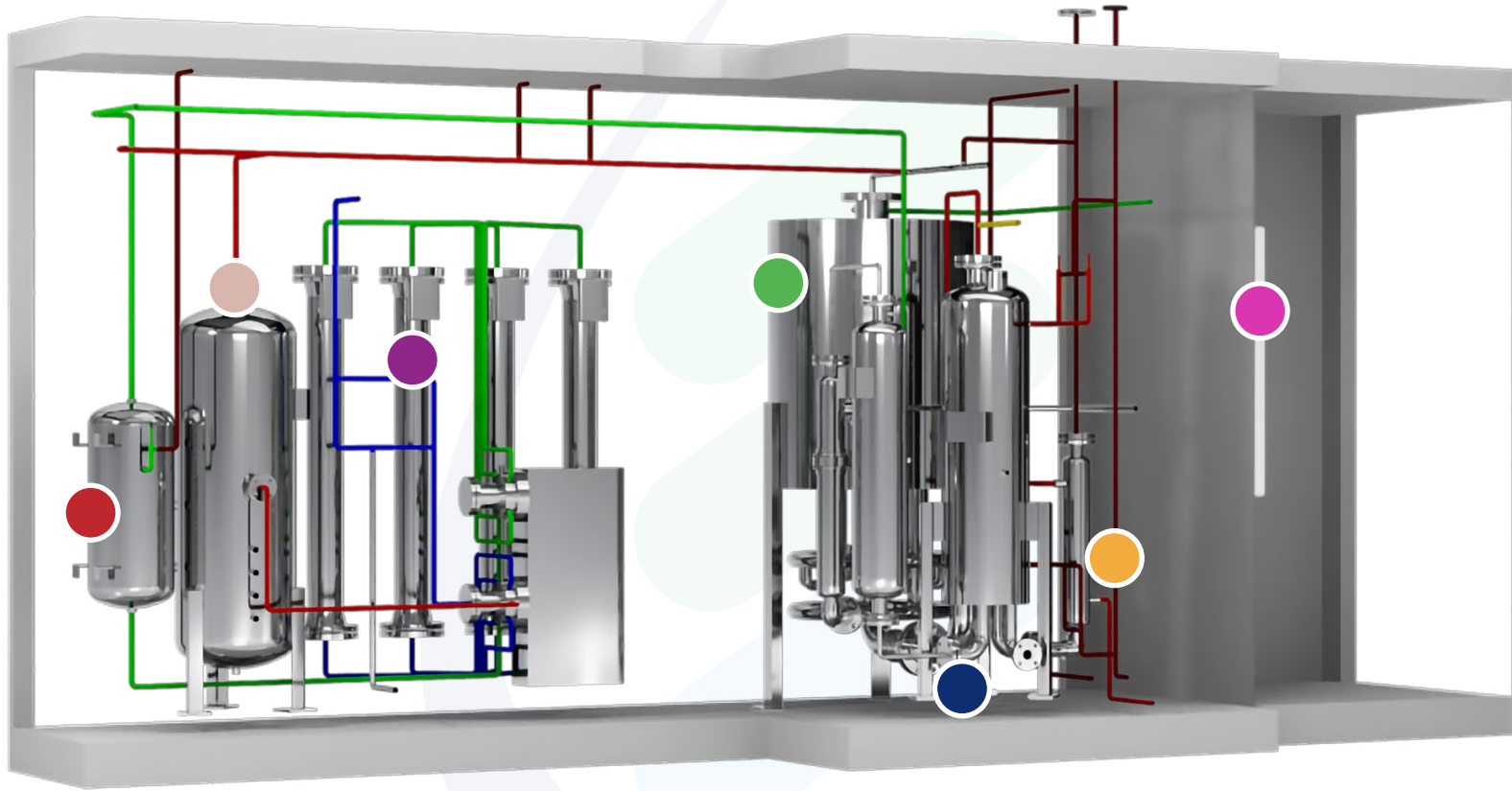
Renewable technology

Net zero impact process



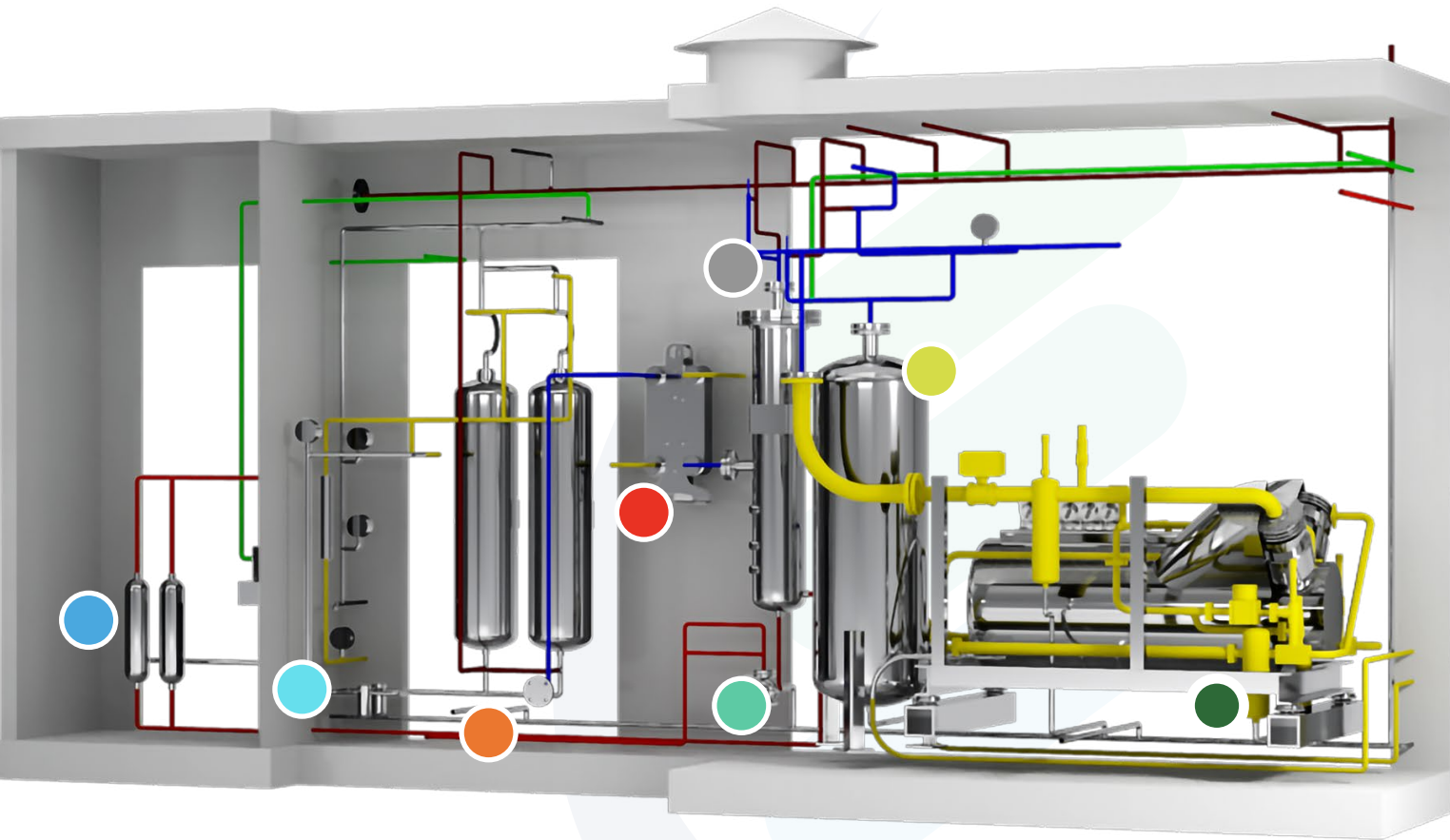
Steam Bio-Methane Reforming





- CO2 capture
- Pressure Swing Adsorption
- Hydrogen surge tank
- Steam generator

- Reactor
- Control Room
- Water pre-heater
- Reverse osmosis system



- Condenser
- Pump
- Bio-methane inlet
- Desulfurizers
- Separator
- Snubber
- Compressor



Available models

Model	Bio-HyGS 35	Bio-HyGS 50	Bio-HyGS 100	Bio-HyGS 200
Output				
Nominal Hydrogen flow	35 Nm ³ /h	50 Nm ³ /h	100 Nm ³ /h	200 Nm ³ /h
Hydrogen purity range	99,97 – 99,995 %	99,97 – 99,995 %	99,97 – 99,995 %	99,97 – 99,995 %
Pressure range	7 barg	7 barg	7 barg	7 barg
Typical Compsumtion Data				
Natural Gas / Bio Methane	14 Nm ³ /h	20 Nm ³ /h	40 Nm ³ /h	80 Nm ³ /h
Electric Energy	12,25 kW	17,5 kW	35 kW	70 kW
Water	31,5 lt/h	45 lt/h	90 lt/h	180 lt/h
Compressed Air	8 Bar	8 Bar	8 Bar	8 Bar
Dimension				
Size	2,4 x 9 x 2,7m	2,4 x 9 x 2,7m	2,4 x 10 x 2,7m	2,4 x 10 x 2,7m
Weight	8200 kg	8900 kg	9900 kg	10000 kg
Operation Conditions				
Start up time (warm)	1,50 h	1,50 h	1,50 h	1,50 h
Start up time (cold)	3 h	3 h	3 h	3 h
Modulation (H2 Product flow)	14-35 Nm ³ /h	20 - 50 Nm ³ /h	40 - 100 Nm ³ /h	80 - 200 Nm ³ /h
Modulation reformer (output)	40 – 100%	40 – 100%	40 – 100%	40 – 100%
Ambient temperature range	-10°C + 40°C	-10°C + 40°C	-10°C + 40°C	-10°C + 40°C

All data and values are indicative and based on nominal and non-frost conditions. Values might differ due to local circumstances and feedstock characteristics. Normal condition (Nm³) is defined at a temperature of 0°C and pressure of 1.013 bar(a).



Why is remote control essential?

Remote control allows:

- Easier data analysis;
- Real time fault diagnosis and prompt technical support;
- Predictive maintenance which minimized the operation costs and plant downtime.



Hydrogen Refueling Station



**1000 km/
refueling***



**Zero CO₂
emission**



**Refuel
in under
5/15 min***



**15 to 75 car
refuelings
per day**

*Data based on reports from vehicle manufacturers



Other Applications

Bio-HyGS is suitable for a wide range of applications. Its flexibility allows the hydrogen supply to both the

TRADITIONAL USERS

and the

NEW HARD TO ABATE SECTORS



Scandiuzzi Group



Scandiuzzi

Advanced Technologies srl

Via Marie Curie SNC 72100 Brindisi (BR) – Italy



Scandiuzzi

Steel Constructions spa

Via Piave 14 31040 Volpago del Montello (TV) – Italy

info@scandiuzzi.it
hydrogen@scandiuzzi.it
0423 8723



Follow us on LinkedIn, Facebook, Youtube



www.scandiuzzi.it