



HYSYTECH
FILLING THE GAP

COMPANY PROFILE

HYSYTECH s.r.l. • Reg. Office: Strada del Drosso, 33/18 - 10135 Turin, ITALY • Tel: +39 011 3970273 • Contributed Capital € 65.000,00 fully paid-up • Tax/VAT No. 08682860013 - Reg. Imp. TO R.E.A.993108

FILLING THE GAP



HYSYTECH COMPANY PROFILE

OUR COMPANY



HYSYTECH is an engineering company founded in 2003, specialized in the design, development and industrial implementation of **new turn-key process technologies and equipment**.

Our skills start from the know-how in chemical and process engineering, up to commissioning, monitoring and maintenance.

We operate mainly in the field of **generation, treatment and recovery of industrial gases, organic liquids and energy**, according to the best engineering practices, also through the implementation of our technologies.

HYSYTECH COMPANY PROFILE

OUR CLAIM

FILLING THE GAP

When you're exploring a potential new project, it's easy to underestimate the size of the gap between where you are now and where you want to be. We help you to fill this gap.

This feature makes HYSYTECH a flexible and all-around resource, capable to provide high quality and competitive services.



HYSYTECH COMPANY PROFILE

TURNOVER BREAKDOWN

More than half of Hysytech’s revenue comes from the execution of industrial plants, demonstrating our direct experience on this branch.



**INDUSTRIAL
PLANTS**



**R&D
EQUIPMENT**



**ENGINEERING
CONSULTING**



MAINTENANCE





HYSYTECH COMPANY PROFILE

OUR PRODUCTS AT GLANCE 1/2



Hydrogen generation with
Fuel Processing technology
(3 Patents)



Biogas Upgrading technology
(2 Patents)



Micro Liquefaction
Technology
(1 Patent)

HYSYTECH COMPANY PROFILE OUR PRODUCTS AT GLANCE 2/2



LNG BOG Recovery



On-Site Cryogenic Plants

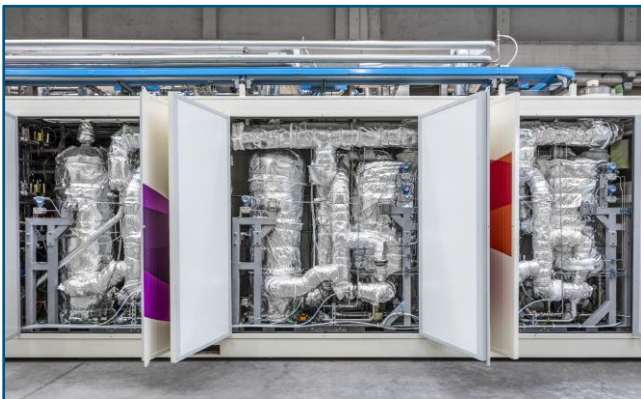


Special Plants and
Pilot Plants

HYSYTECH COMPANY PROFILE PLANTS IN ITALY, HYDROGEN FROM NG AND BIOMETHANE

Plug-&-Play solution for:

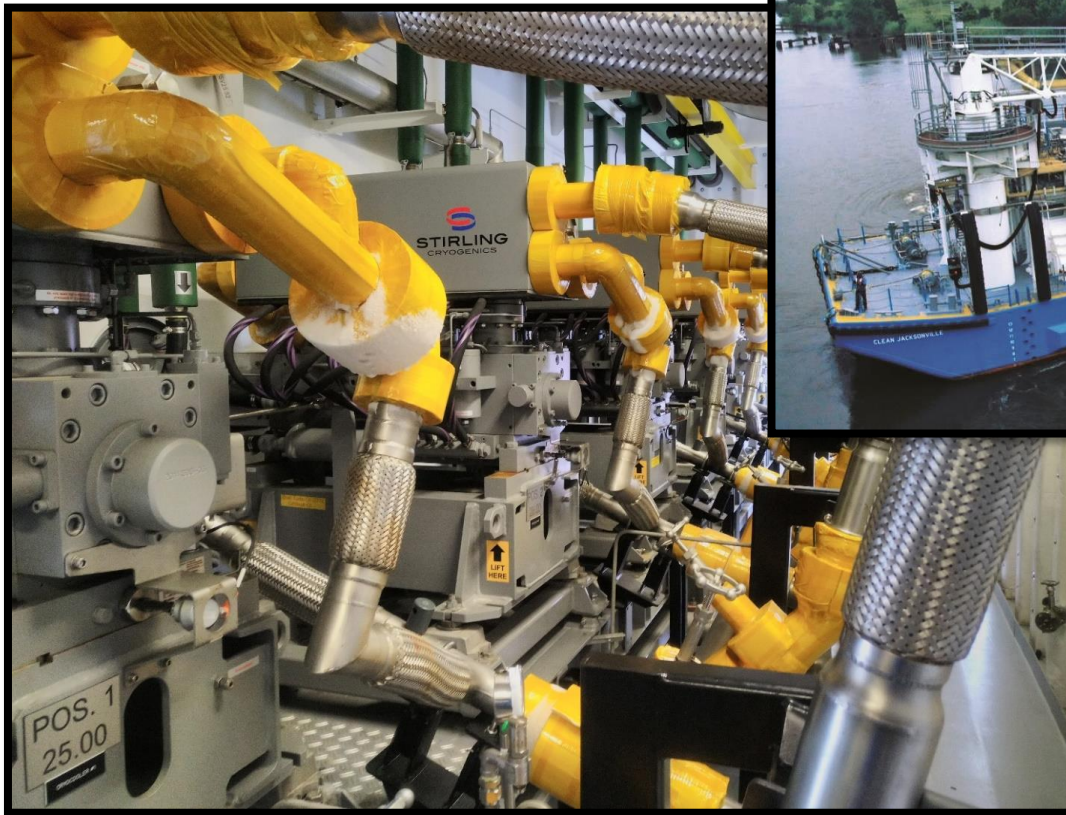
- High Purity Hydrogen (5-12 barg)
- Lowest Production Cost
- Lowest Installation Cost
- Low Power Consumption (<40 kW)
- Low pressure Natural Gas (20 mbarg)
- Fully automatic & ready to operate
- Small Scale (5-120 Nm³/h)



HYSYTECH COMPANY PROFILE PLANTS IN ITALY, BIOMETHANE FROM MSW AND BIOMASS



HYSYTECH COMPANY PROFILE LNG MICRO-LIQUEFACTION PLANT





HYSYTECH COMPANY PROFILE

MODULAR UNITS & PILOT PLANTS: DISTILLATION COLUMN PACKAGE UNIT



- PED (CAT I, II, III, IV)
- ATEX (including group IIC)
- Skid Mounted Units
- (ISO-20, ISO 30, ISO 40, HC)

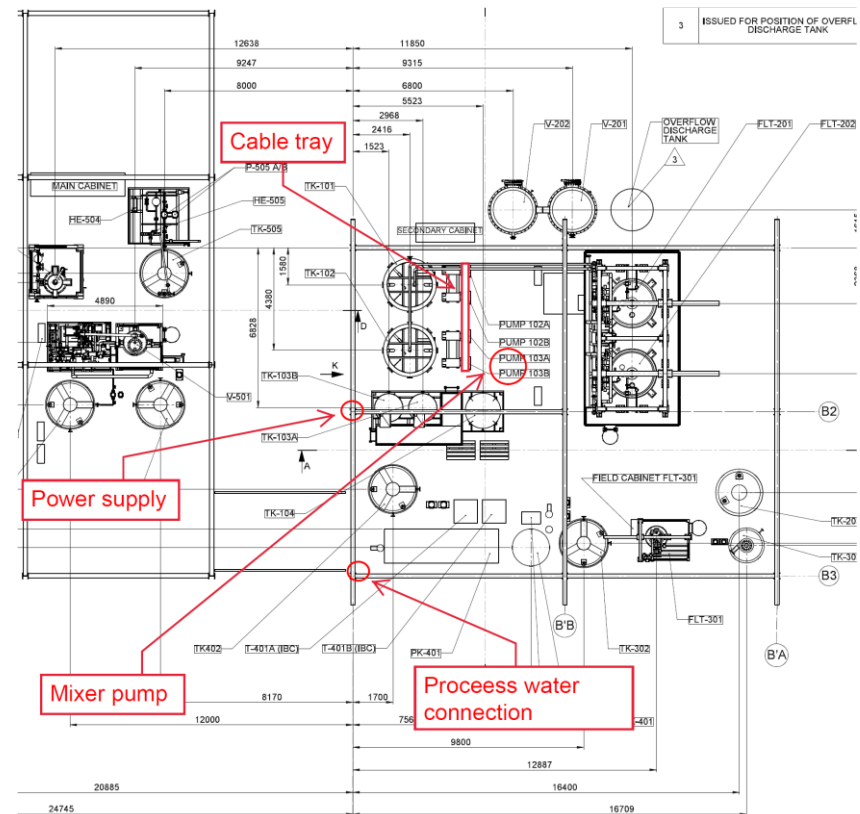


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PROCESS PLANTS: GLYCOL RECOVERY UNIT (SINGAPORE)



- Detailed Engineering
- Procurement
- Construction

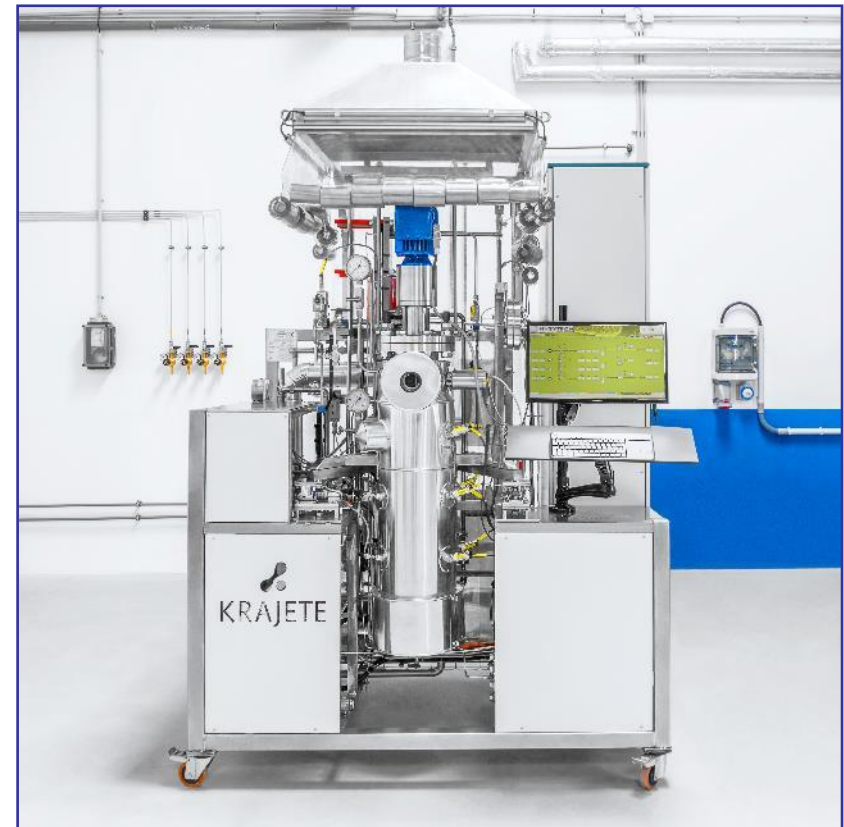


HYSYTECH COMPANY PROFILE

LAB PLANTS



Design, turn-key construction and certification of lab plants for the characterization of innovative processes aimed at collecting accurate and precise experimental data.



HYSYTECH COMPANY PROFILE

PRODUCT QUALIFICATION PLANTS



Design, turn-key construction and certification of product qualification plants to support the production processes, including automation for the execution of internal protocols or by certification bodies, including lot traceability.

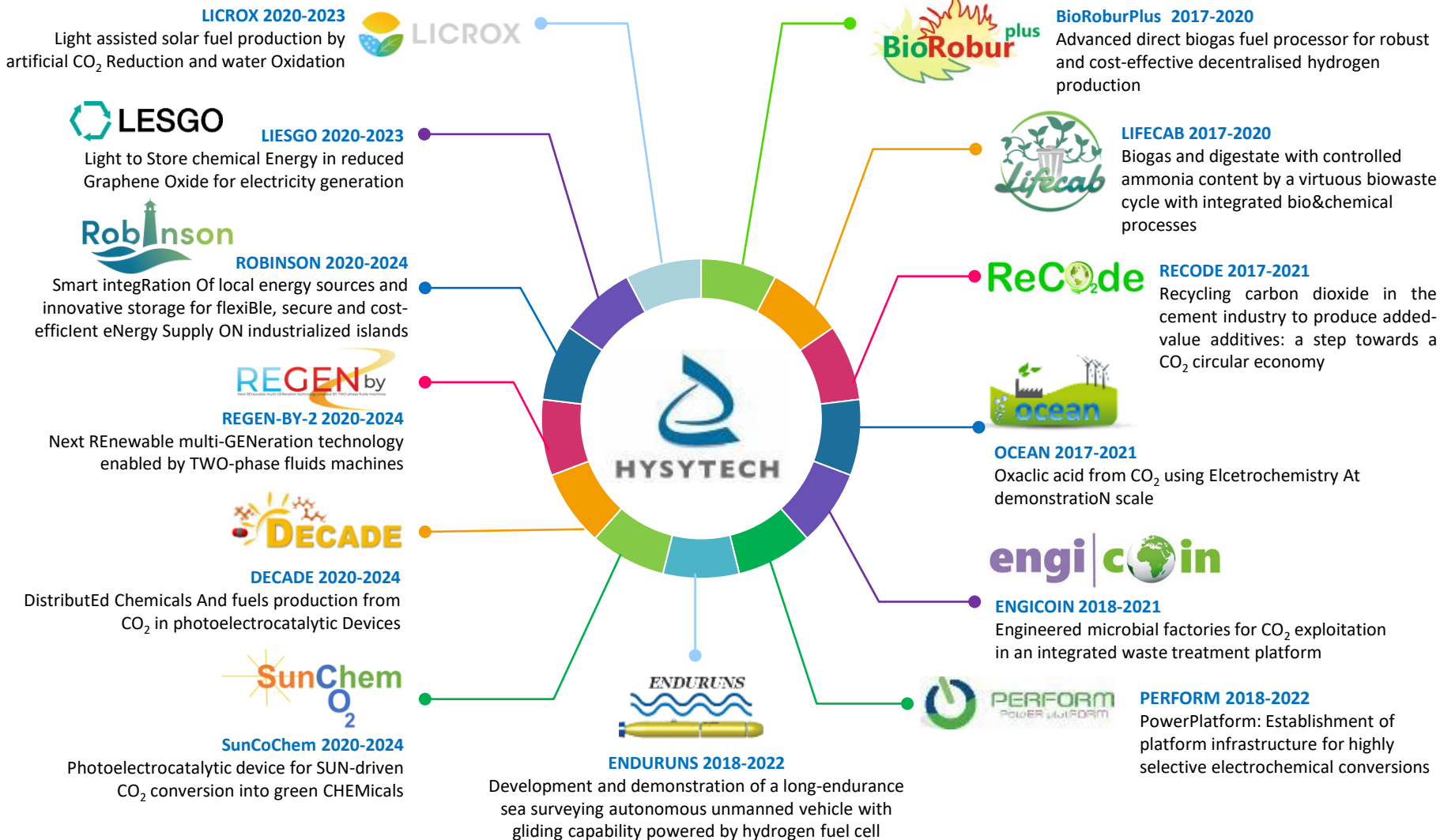
HYSYTECH COMPANY PROFILE

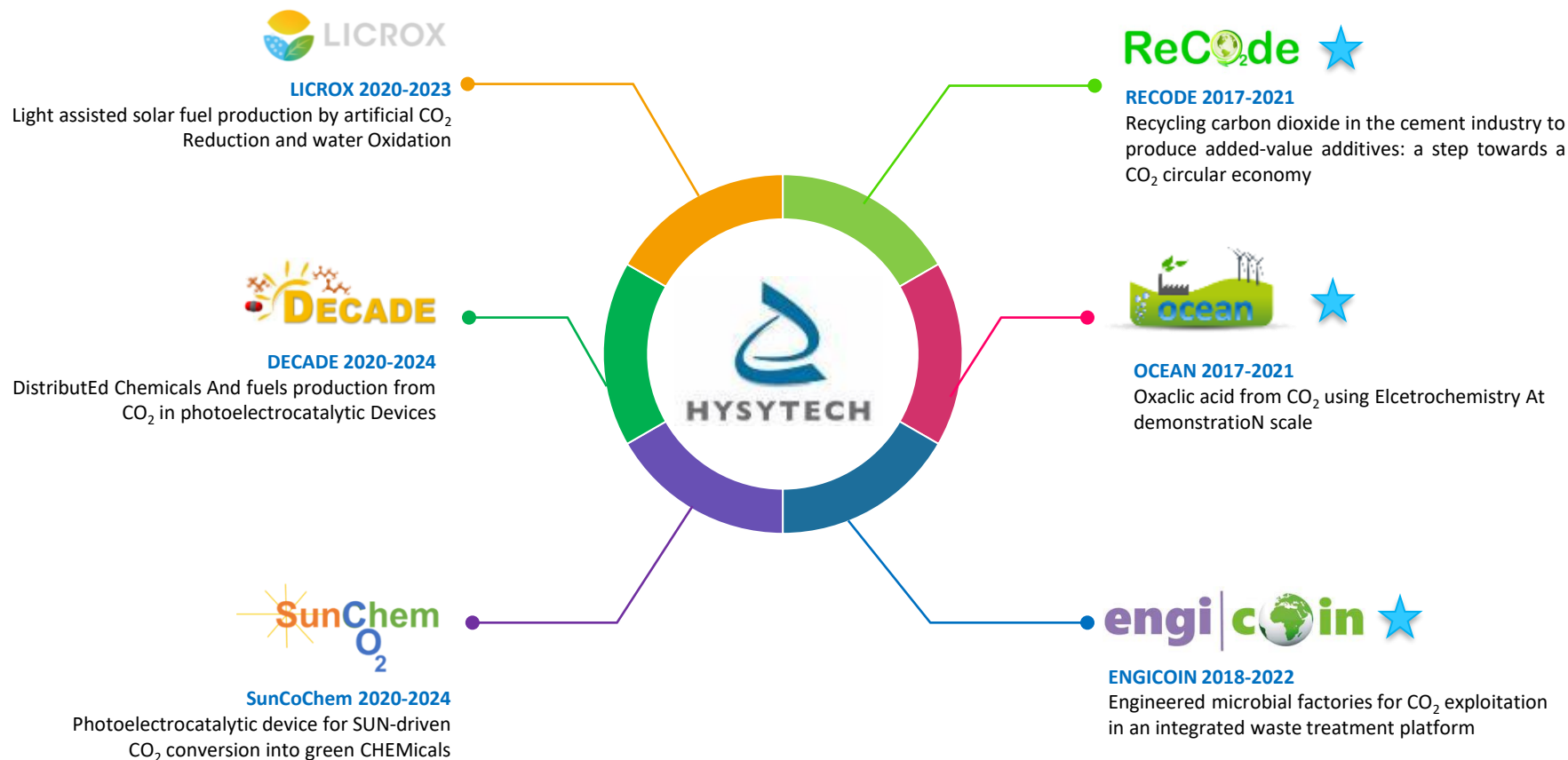
GAS FEEDING STATIONS FOR STEEL MILL FURNACES



- PED (CAT I, II, III, IV)
- ATEX (including group IIC)
- Skid Mounted Units
- Container Units
(ISO-20, ISO 30, ISO 40, HC)









HYSYTECH COMPANY PROFILE ENGINEERING



- Project Development and Project Management
- Economic and Technical Due Diligence
- Contract Negotiation Assistance
- Technical and Economic Feasibility Assessment of Facilities Configuration, Projects, Patents or competing alternatives
- Business Plan Development and Support in order to obtain debt and/or capital from third parties
- Technology Transfer Assistance (UE, North America and BRIC countries)
- Technical and Legal Risks Analysis
- Conceptual Development
- EPC & EPCM
- Permitting Process Support (EIA, IPPC, Seveso, others)
- Energy Auditing & Process Troubleshooting
- General Engineering Services

HYSYTECH COMPANY PROFILE CONSULTING



Our experience converges in the technological development of production processes, in the optimization of energy production and recovery, in environmental treatments and in the exploitation of by-products.

HYSYTECH COMPANY PROFILE

MONITORING, ASSISTANCE & MAINTENANCE



HST monitors the performance of plants from its own Control Room, located in the workshop in Turin.

- Remote monitoring and Assistance
- Scheduled Maintenance Service



HYSYTECH COMPANY PROFILE

GREEN CHEMISTRY & BUILDING BLOCKS



Complete plants for the **production of basic chemical compounds** from biological origin, starting from extraction from stabilized biological substrates to synthesis and purification

HYSYTECH COMPANY PROFILE POWER-TO-GAS & METHANATION



Production of Biomethane and Renewable Gas from CO₂ e H₂. The plants are available both on the basis of biological and single-stage catalytic methanation.

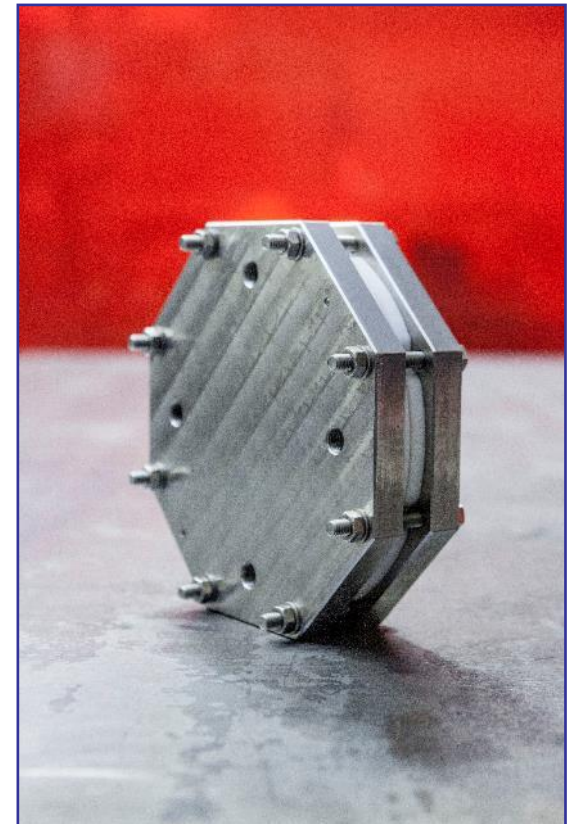
HYSYTECH COMPANY PROFILE

HUMIC & FULVIC ACIDS \ ELECTROCHEMICAL REACTORS



Plants for the extraction, purification and packaging of humic and fulvic acids from stabilized biological substrates.

Design and construction of electrochemical plants and reactors used both for advanced hydrogen generation and for the electrochemical synthesis of renewable substances.



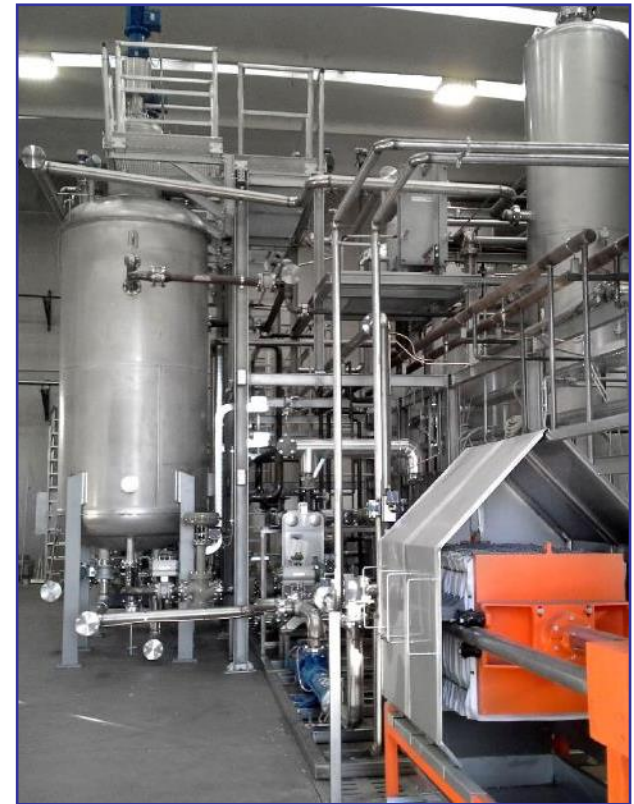
HYSYTECH COMPANY PROFILE

FLUIDIZED BED GASIFICATION/TREATMENT OF VEGETABLE OILS & ANIMAL FATS FOR FUEL



Fluidized bed gasification of waste and industrial by-products directly at the production site, generating gas to reduce consumption of methane, for the production of electricity or Biomethane.

Complete plants for fuel production, without chemical modification, suitable for cogeneration, starting from vegetable oils or animal fats, with high acidity.



CAPABILITIES AND ORGANIZATION



HYSYTECH COMPANY PROFILE

CUSTOMERS & PARTNERS

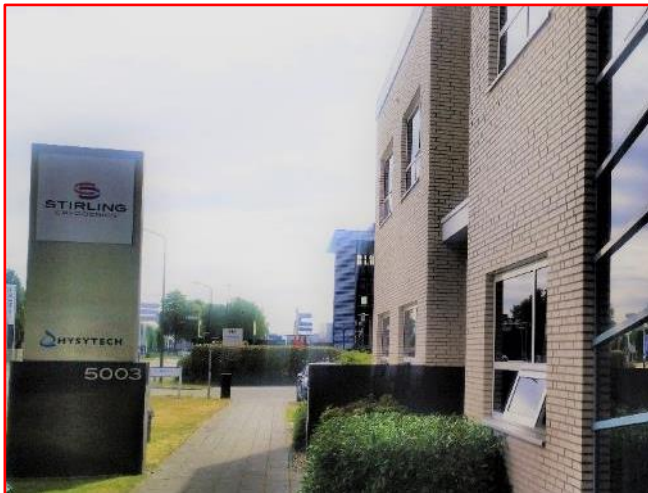


STIRLING CRYOGENICS B.V.



Office & Manufacturing

Science Park Eindhoven 5003, 5692 EB Son, NL



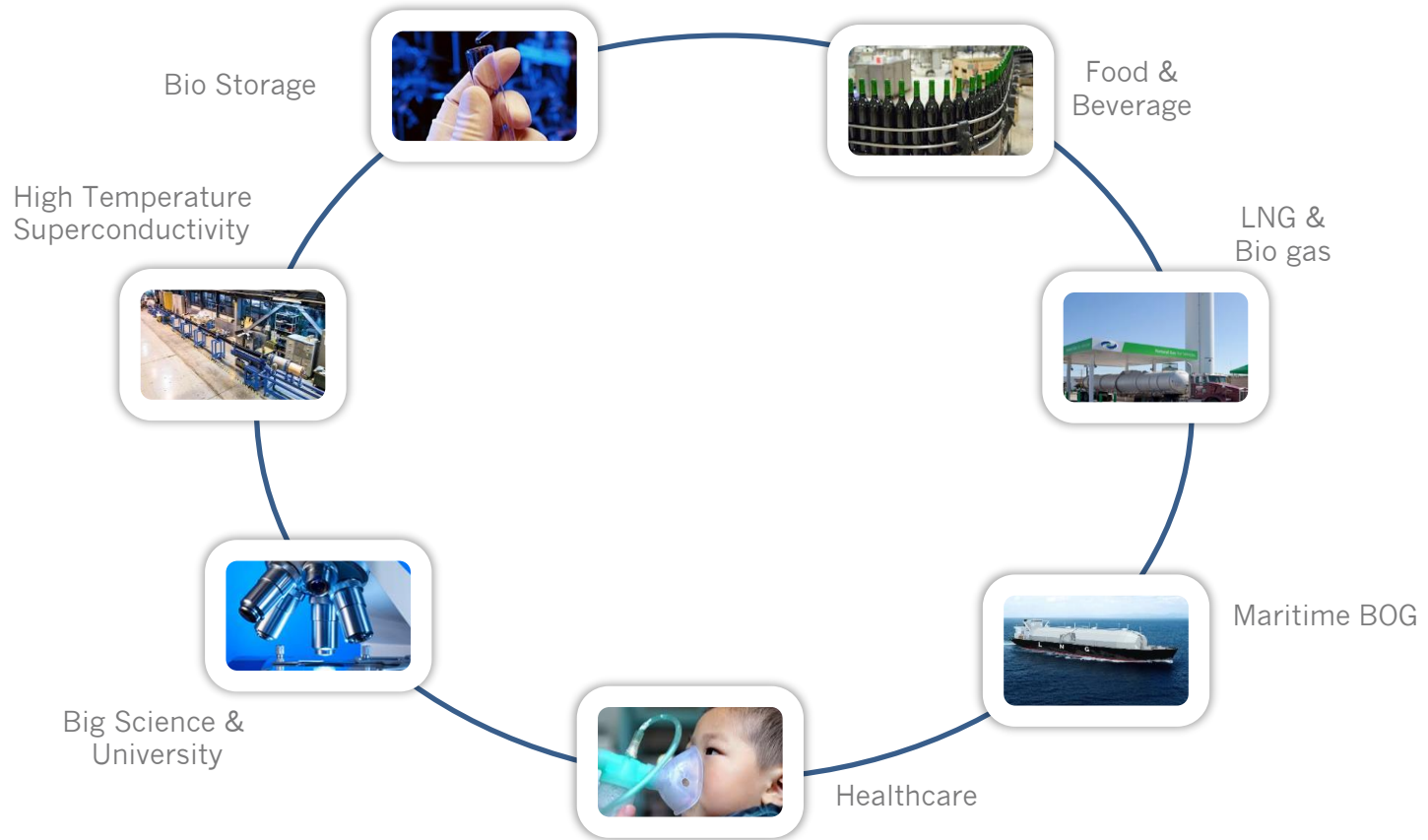
Cryogenic Solutions

Stirling Cryogenics designs, builds and supplies cryogenic solutions based on the (reversed) Stirling thermodynamic cycle. Our Cryocoolers have a long history, a highly reliable track-record and efficiency, with **over 3,000 installations worldwide**, and they are considered a technological reference in the field of cryogenics with applications down to 15K (-258° C).

The application fields cover the liquefaction of gases such as N₂, O₂, Ar, Ne, H₂ and, more recently, CH₄. In addition, we also provide applications for the subcooling of cryogenic liquids (i.e. sub-cooled LNG). Some of these typical applications are:

- High Temperature Superconductors (HTS)
- MRI magnet cooling
- Space simulation chambers & Space Observatories
- Nuclear applications and Research
- Biotech (Cryo-storage: Cell, Tissue, insemination)
- Healthcare (on-site LOX)
- LNG/Bio-gas liquefaction, Boil-off recovery and Maritime

Cryogenics Markets

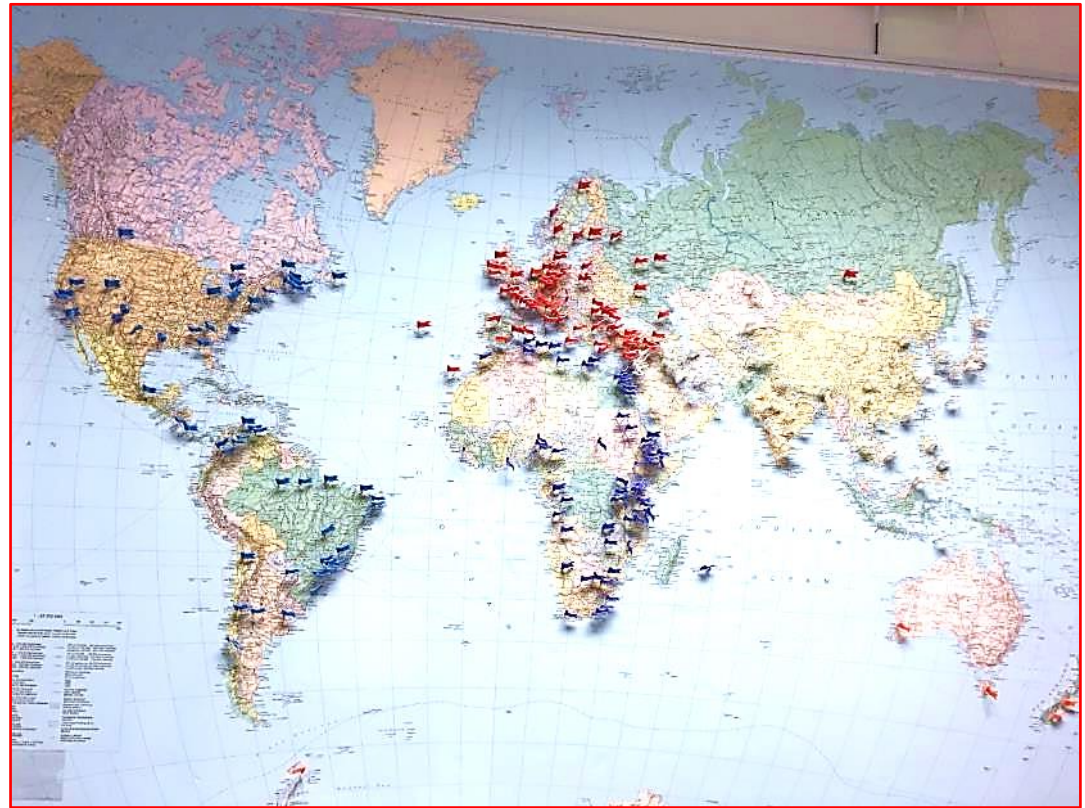


HYSYTECH COMPANY PROFILE

STIRLING CRYOGENICS



Cryogenic Solutions
Over 3,000 installations
worldwide.



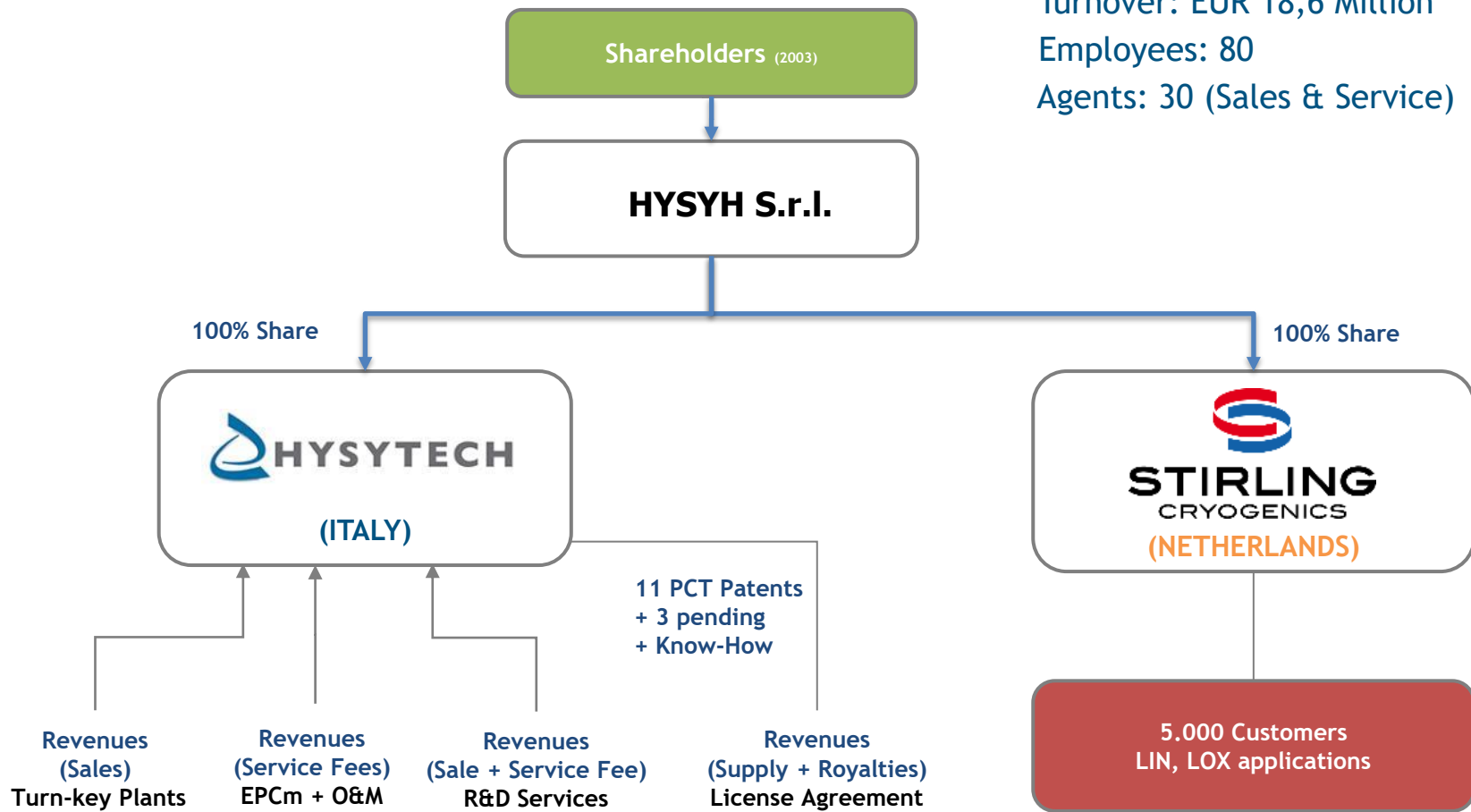
ORGANIZATION

Group Performance (2021)

Turnover: EUR 18,6 Million

Employees: 80

Agents: 30 (Sales & Service)



HYSYH S.r.l. - Holding company

OUR SHAREHOLDERS



Massimiliano Antonini
Chemical Engineer
Founder, CEO
HR, Administration



Simone Solaro
Chemical Engineer
HSE, Procurement,
Quality



Andres Saldivia
Chemical Engineer
Business Development,
Communication



Corrado Farina
Mechanical Specialist
Design, Construction



HYSYTECH

F I L L I N G T H E G A P

Massimiliano Antonini

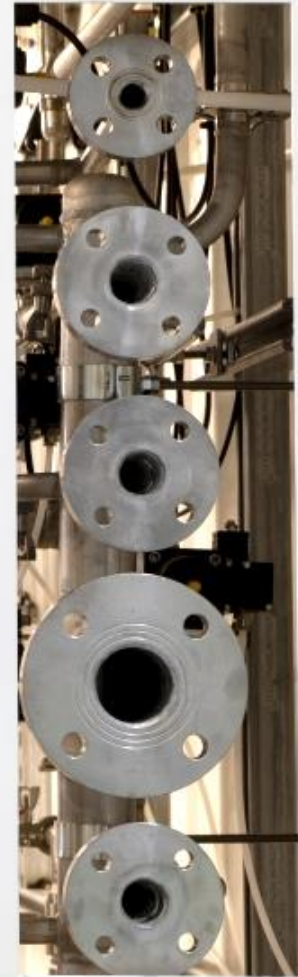
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Andres Saldivia

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mobile: +39 338 4912301



Decarbonizzare?

IMMEDIATAMENTE



- + fotovoltaico
- + eolico
- + biometano/bioLNG

MEDIO - LUNGO



- + cattura e riciclo CO2
- + elettrificazione
- + idrogeno
- + efficienza e circolarità processi