



Messer moves forward

Company Presentation

Contents



Profile / Markets

Short profile: Messer in brief



Company

Messer is the world's largest privately held specialist for industrial, medical and specialty gases and a highly professional and sustainable global player.



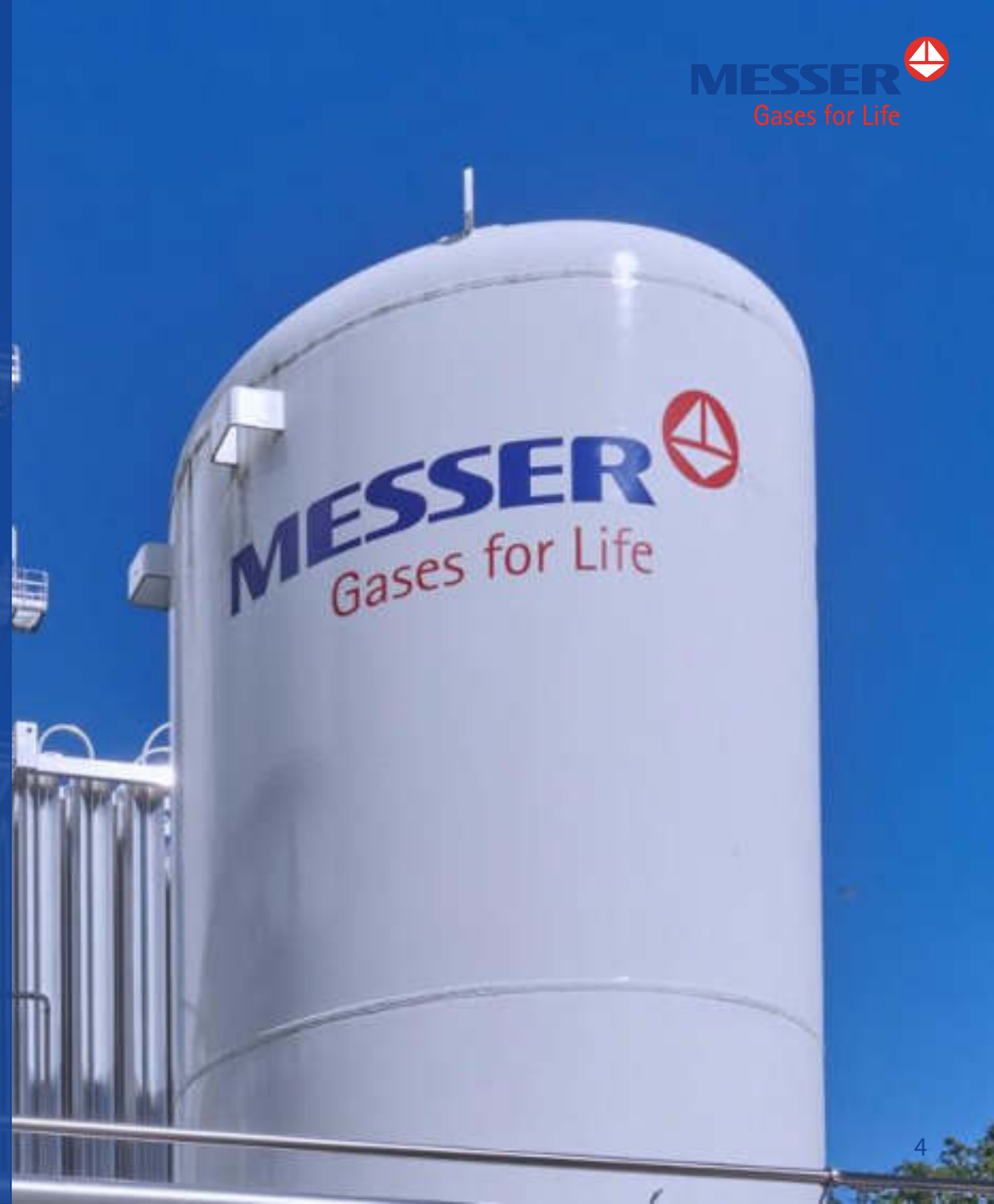
Products

Messer manufactures and supplies oxygen, nitrogen, argon, carbon dioxide, hydrogen, helium, shielding gases for welding, specialty gases, medical gases and food gases as well as many different gas mixtures.

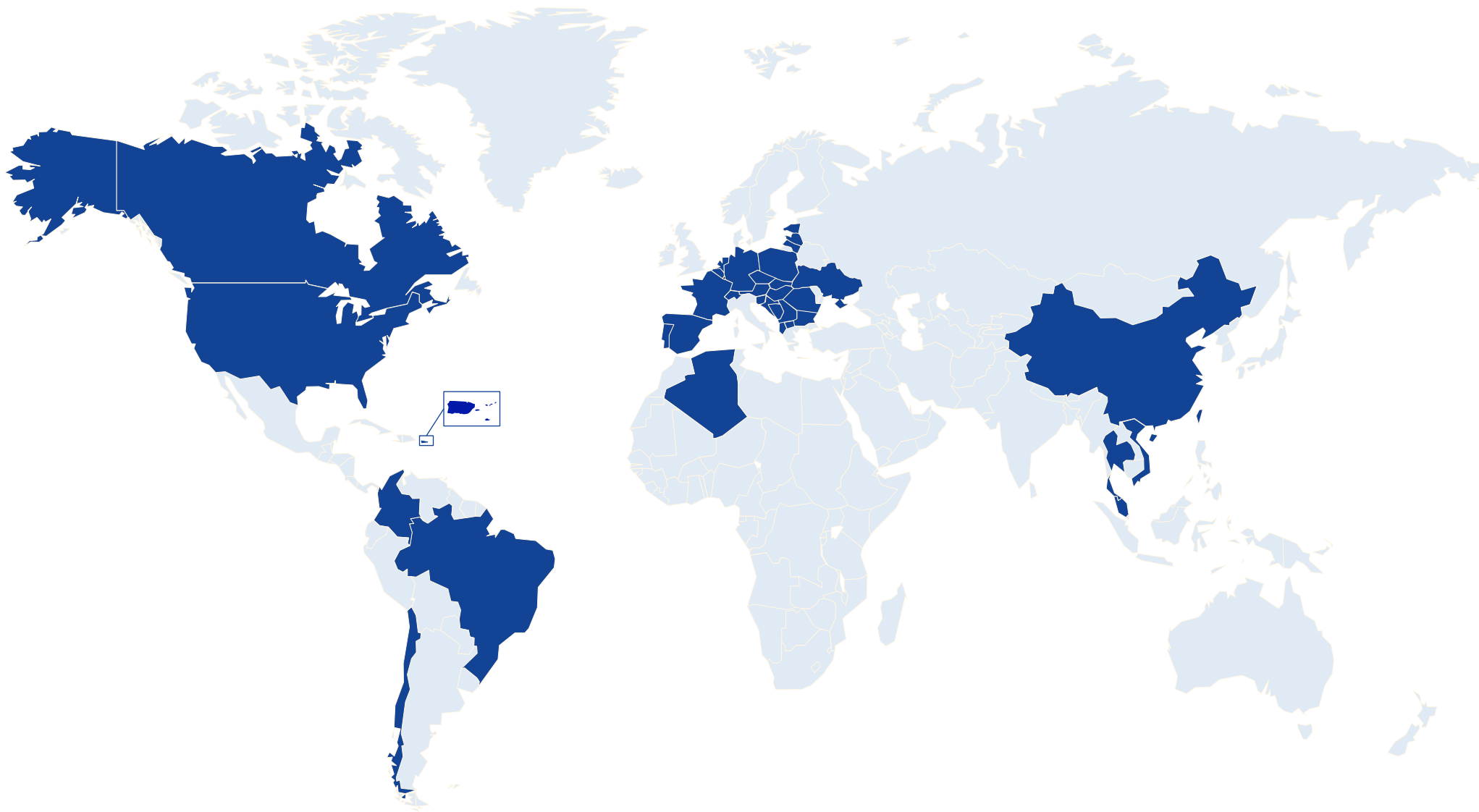


Customers

Our products are used in industry, environmental protection, medicine, the food and beverage sector, electronics industry, welding and cutting technology, 3D printing, construction and research & science.



Successful in Asia, Europe and the Americas





Executive Management Board

Optimal division of responsibilities: the Executive Management Board of Messer*



Bernd Eulitz | CEO



Helmut Kaschenz | CFO



Dr. Werner Hickel | COO Asia



Virginia Esly | COO Europe



Elena Skvortsova | COO Americas

Sustainable and responsible

Bernd Eulitz, CEO, and **Stefan Messer**, Chairman of the Supervisory Board, rely on many years of experience and mutual trust.

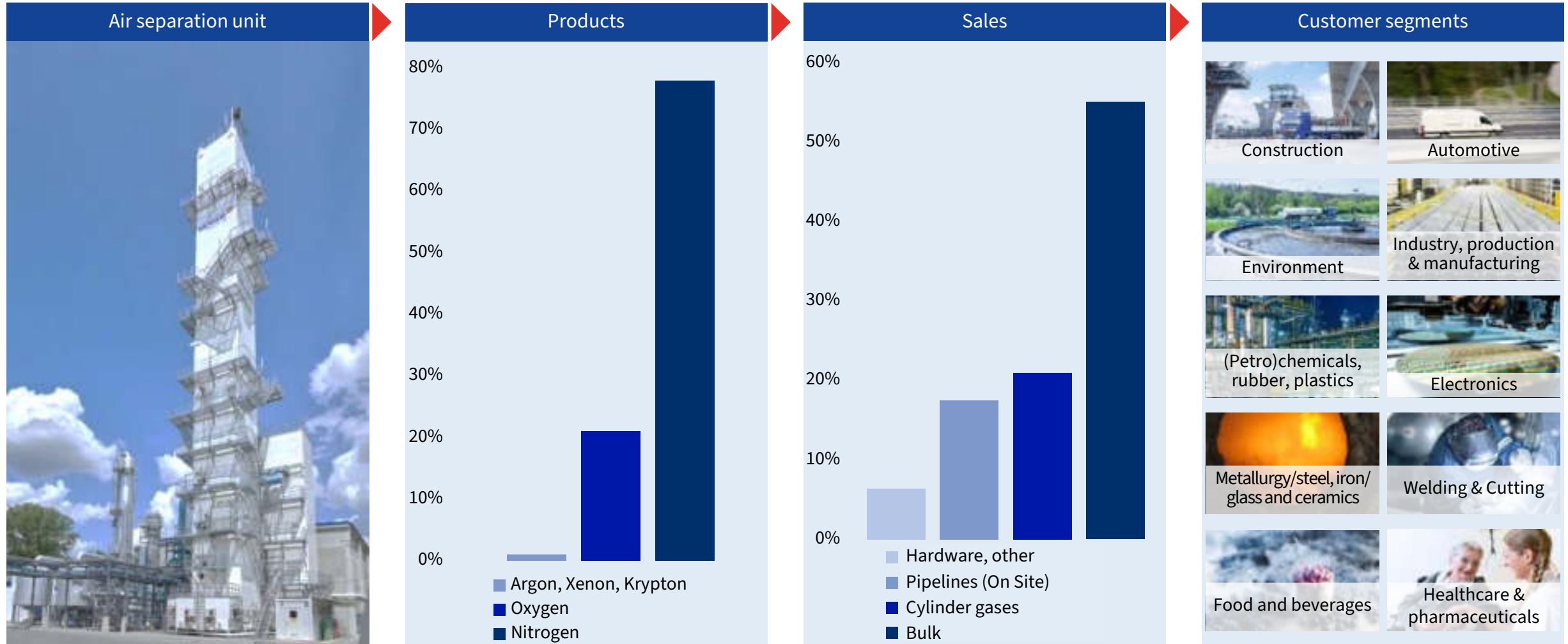
The management is supported by a team which acts respectfully and safely in the relevant markets in Asia, Europe and the Americas.



Production

We make the most out of air

Air gases at the heart of the value chain





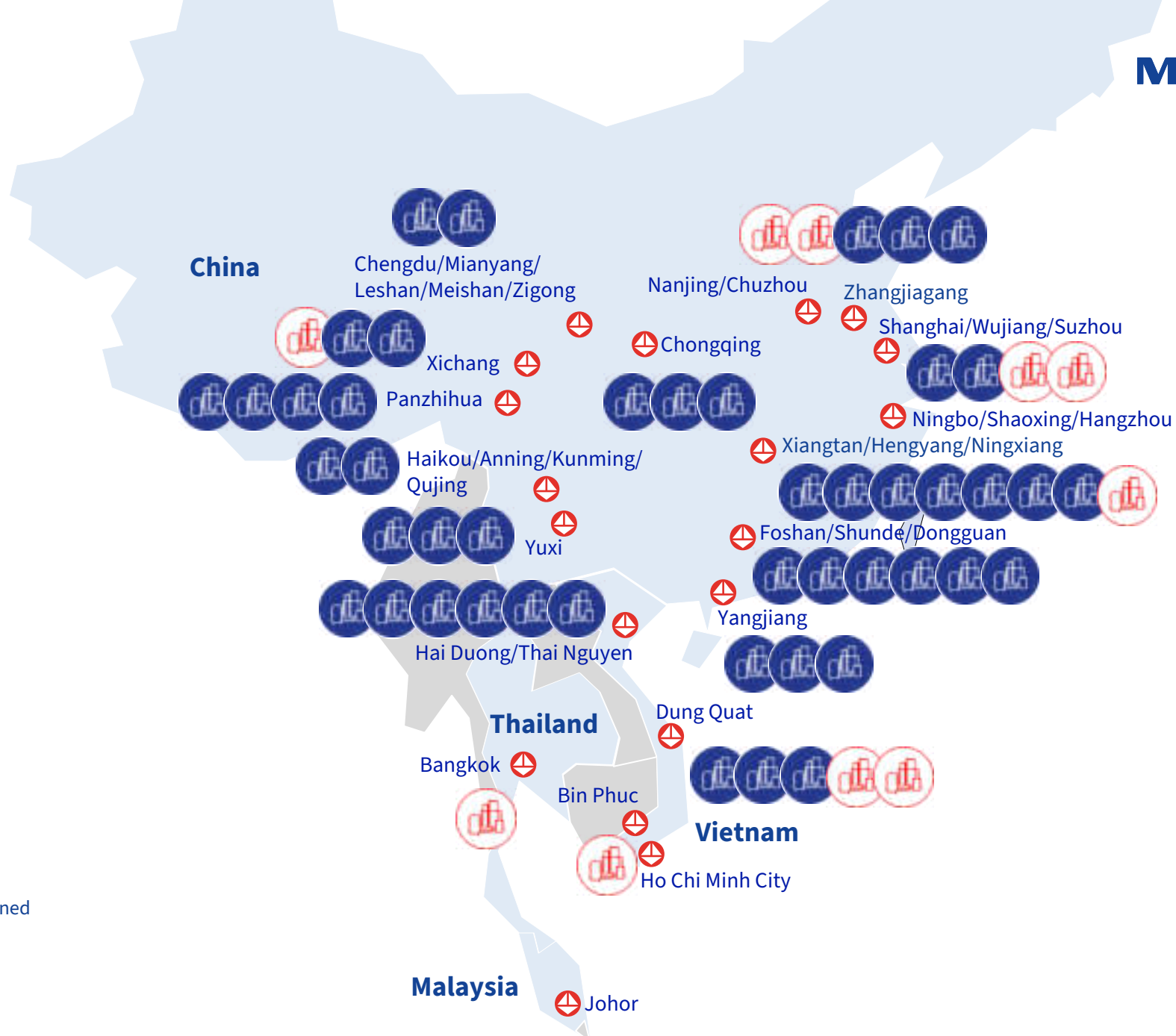
Existing air separation units



Air separation units under construction or planned



Country Unit / Local Office



Western Europe



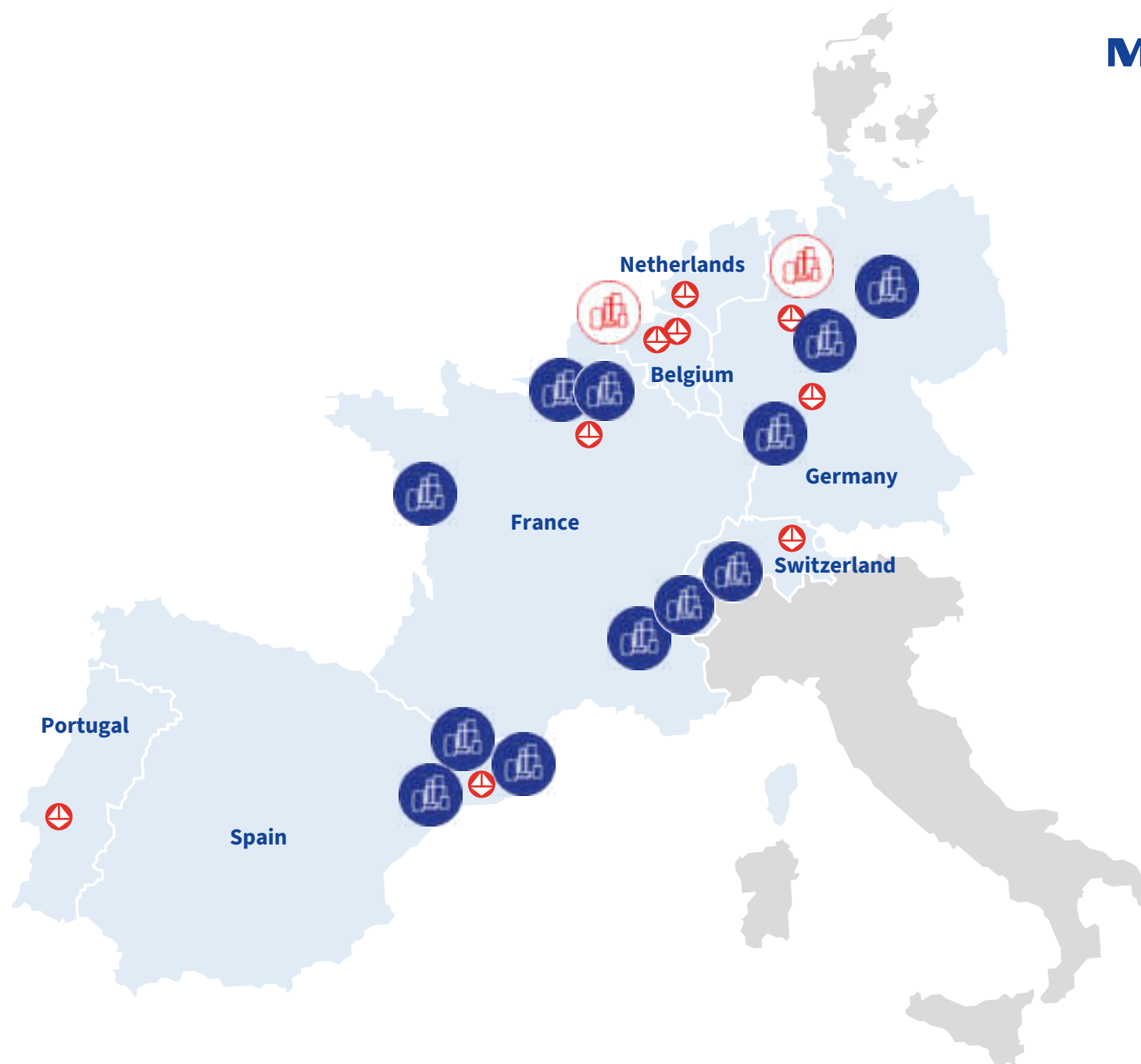
Existing air separation units



Air separation units under construction or planned



Country Unit / Local Office



Central Eastern Europe



Existing air separation units



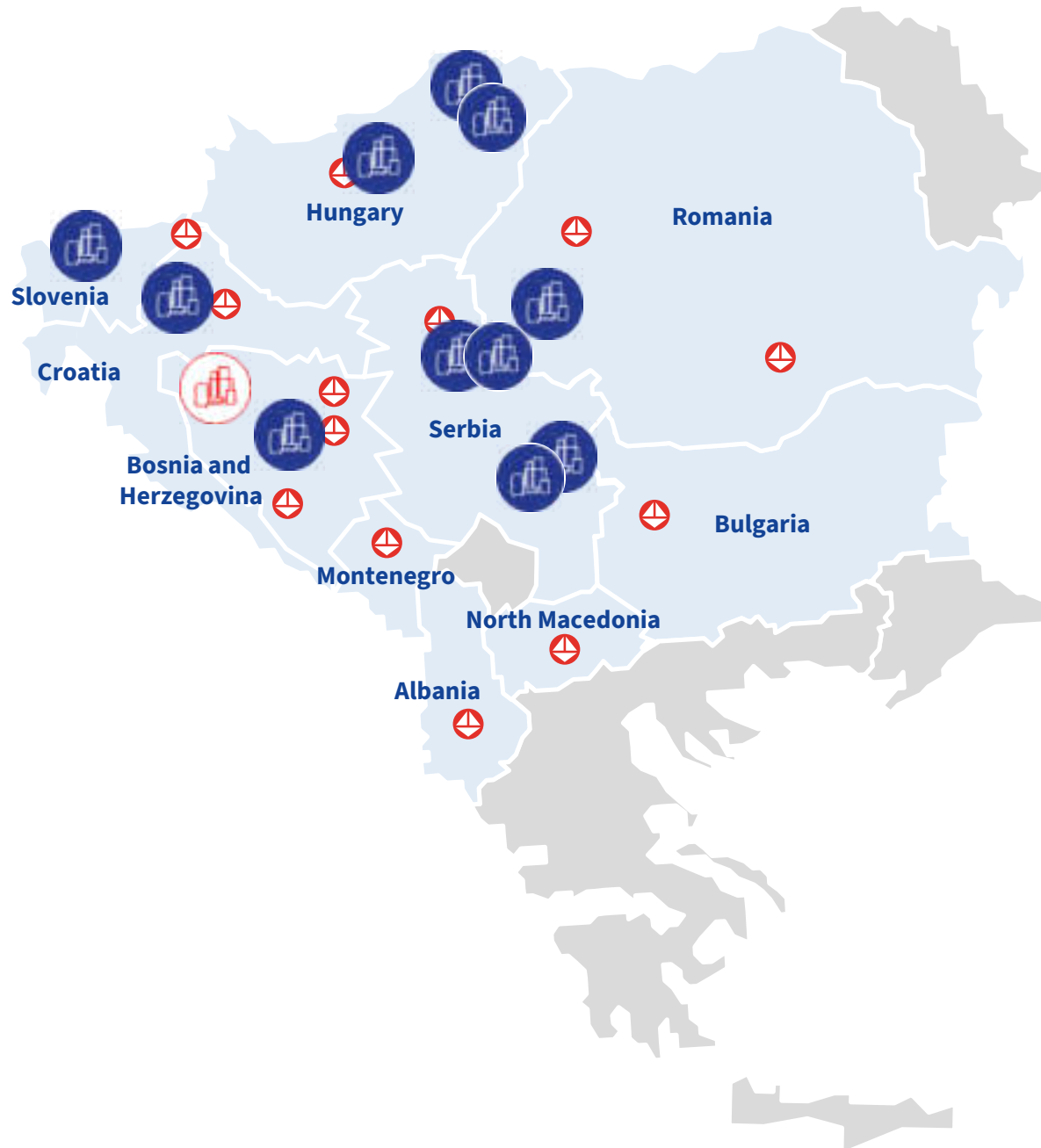
Air separation units under construction or planned



Country Unit / Local Office



South Eastern Europe



Existing air separation units



Air separation units under construction or planned



Country Unit / Local Office

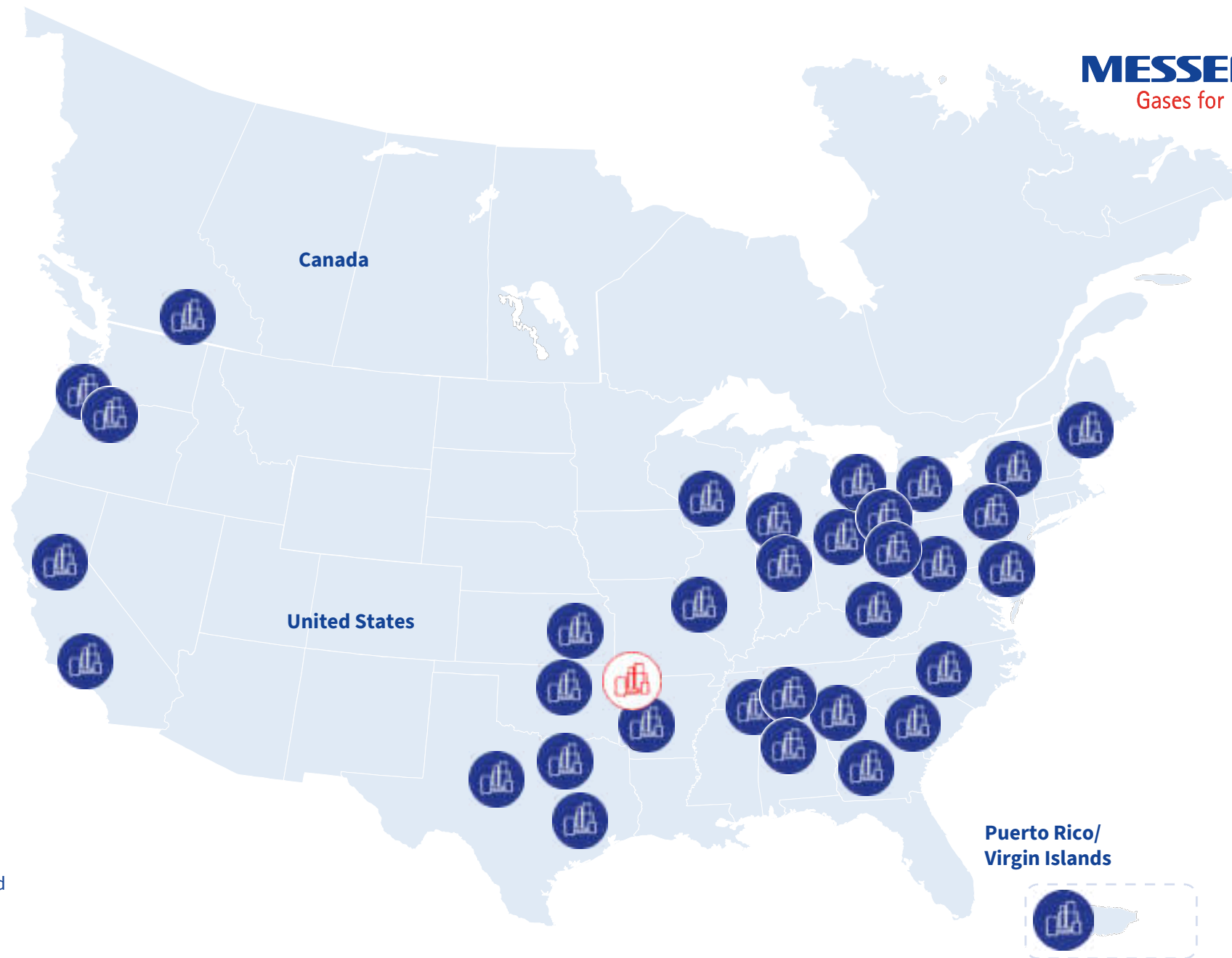
North America



Existing air separation units



Air separation units under construction or planned



South America



Existing air separation units



Air separation units under construction or planned





Products / Applications

We supply gas just the way you need it

The right solution for every application

Reliable

for smaller jobs

- Gas cylinders or cylinder bundles
- Local distribution partners or directly from the filling plant



Optimal

for large jobs

- Gas production at the customer's site
- Air separation units
- PSA, VPSA or membrane plants
- Hydrogen and synthesis gas production facilities



Effective

for medium-sized jobs

- Storage tank on site with gas supply from a road tanker
- Small dewar solution, supplied by Messer service vehicles



Perfect

for very large jobs

- Pipeline systems directly to the industrial area or to the bulk consumer

We make the gases which life can't do without



Shielding and fuel gases, highly developed welding gas mixtures

Welding and cutting gases

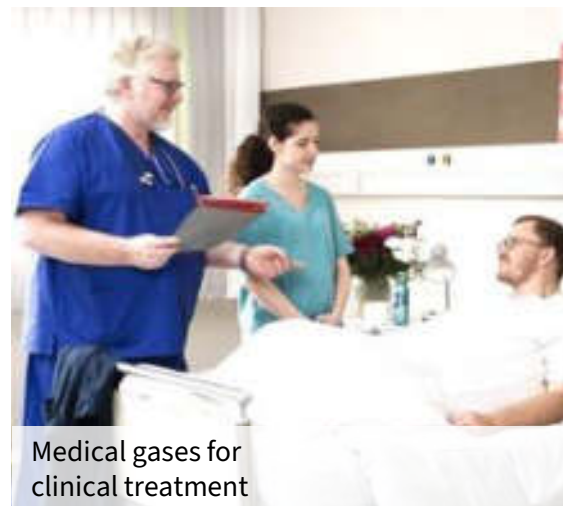
- TIG, MIG and MAG welding
- Forming
- Laser welding and cutting
- Gases for additive manufacturing
- Gases for oxyfuel technology
- Gases for surface treatment such as thermal spraying

Specialty gases

- Liquid helium for cooling superconducting magnets in MRI scanners
- High purity process and calibration gases for analytics
- Gases for the electronics industry
- Krypton and xenon for ion engines
- Specialty gases fittings and supply systems



Our wide range of specialty gases



Medical gases for clinical treatment

Medical and pharmaceutical gases

- Anesthesia
- Pain management
- Diagnosis
- Respiratory therapy
- Surgery
- Cryotherapy
- Biobanks

Food gases

- Cryogenic freezing
- Transport refrigeration systems B2B and home delivery
- Modified atmosphere packaging
- System solutions to optimize mixing and kneading processes
- High pressure extraction
- CO₂ enrichment in greenhouses



Pure gases and gas mixtures under the Gourmet brand

In detail: welding and cutting gases

Shielding gases for welding

are distributed under standardized group-wide names, which are based on the materials being worked:

Ferroline

for plain and low-alloy steels

Aluline

for aluminum and non-ferrous metals

Inoxline

for high-alloy steels and Ni-based alloys

Addline

for additive manufacturing of metals

Other gases

for welding and cutting:

Forming gas

protects the back of the weld against oxidation

Hycut, Nitrocut and Oxycut

for laser cutting

Lasline

for processing laser material and generating the laser beam

Combustion gases

for oxyfuel technology



In detail: specialty gases

Messer offers an extensive range of pure gases, standard mixtures and (on request) individual gas mixtures produced to each customer's specification.

- Liquid helium (in dewars)
- High purity gases (helium, argon, oxygen, nitrogen, hydrogen)
- Noble gases (krypton, xenon, neon)
- Standard mixtures (argon/methane, laser mixtures, etc.)
- Custom-made mixtures (calibration gases)
- Electronic gases for the manufacture of semiconductors
- Hydrocarbons (methane, acetylene, ethylene, etc.)
- Carbon dioxide and carbon monoxide
- Inorganic gases (ammonia, chlorine, sulphur dioxide, etc.)
- Classical and natural refrigerants
- Pressure cans
- Specialty gases fittings and supply systems



In detail: gases for healthcare



The most important medical gases at a glance:

- Oxygen
- Nitrous oxide
- Carbon dioxide
- Nitrous oxide/oxygen mixture (50% / 50%)
- Nitric oxide

Further medical gases are amongst others:

- Argon
- Gas mixtures
- Helium
- Air
- Nitric oxide in nitrogen
- Nitrogen

Use in these important areas of expertise:

- Anesthesia
- Intensive care/emergency medicine
- Pulmonology
- Gynecology

In detail: gases for healthcare

In addition, medical gases are used in the following areas of expertise:

- Occupational medicine
- Nursing Outpatient Clinics
- Biobanks/cryobanks and research institutes
- Surgery
- Dermatology
- Obstetrics
- Cardiology
- Neonatology
- Ophthalmology
- Endoscopy
- Rheumatology
- Sports medicine
- Veterinary medicine
- Dentistry
- Pediatrics
- Radiology
- Gastroenterology



In detail: gases for the pharmaceutical industry

Pharmaline: gases for the pharmaceutical industry

Messer's Pharmaline range includes specially tested gases that are geared to the needs of the pharmaceutical industry. They are designed to help manufacturers of medicinal products comply with the stipulations of EU Directive 2001/83 and adhere to GMP guidelines (good manufacturing practice).

The most important gases and applications:

Pharmaline A: Argon (Ar)

e.g. for inertisation

Pharmaline C: Carbon dioxide (CO₂)

e.g. for the production of drugs in powder form

Pharmaline N: Nitrogen (N₂)

e.g. for packing in modified atmosphere

Many more highly diverse applications exist for gases in the pharmaceutical industry in addition to those mentioned here.



In detail: food gases



Gourmet is the brand name under which Messer supplies pure gases and gas mixtures for the food industry.

Gourmet gases meet the highest quality requirements and fulfill all food regulations, such as those contained in the European regulations for EU countries or the FDA guidelines for the USA. In addition to the above examples, a wide range of food-grade gas mixtures is available.

Name	Gas	E-Nr.
Gourmet C	Carbon dioxide	E 290
Gourmet A	Argon	E 938
Gourmet He	Helium	E 939
Gourmet N	Nitrogen	E 941
Gourmet L	Nitrous oxide	E 942
Gourmet B-n/iso	n/Isobutane	E 943 a/b
Gourmet P	Propane	E 944
Gourmet O	Oxygen	E 948
Gourmet H	Hydrogen	E 949



Hydrogen: climate-friendly energy supplier



We focus on developing technologies that make our customers' production processes more efficient and environmentally friendly. This includes clean (green, renewable) **hydrogen (H₂)** as a key lever for decarbonizing industry and mobility.

Our solutions for the use of hydrogen

- **H₂ On Site Concept**
Demand-driven, cost-effective on site H₂ generation, including use/marketing of all by-products (e.g. O₂ as well as network services) for optimized plant operation.
- **H₂ One Stop Shop**
Comprehensive operating solution for hydrogen-powered buses in collaboration with the Toyota Group
- **H₂ Refueling Station**
Comprehensive services and high-performance technology for refueling fuel cell electric vehicle fleets (e.g. buses and industrial trucks)
- **On-demand delivery**
of green, blue and gray H₂ by trailer

Hydrogen: examples of applications

Emissions-free logistics processes

Since 2004, Messer has been the technology and hydrogen supplier for one of the largest fleets of forklift trucks and other industrial handling equipment in the USA.



Emission-free inner cities mobility

In Germany, Messer has been the technology and hydrogen supplier for REVG since November 2024, which uses it to operate its fleet of fuel cell electric buses (FCEBs).



Environmentally friendly fuel gas alternative for oxyfuel technology

With the help of hydrogen, Messer is making oxyfuel technology more cost-effective, as well as more environmentally friendly and safer. Extensive development work has been carried out in collaboration with Messer Cutting Systems. The result: HyCut.



Emission-free fuel for heavy industry

Messer has developed emission-free technologies for melting applications, is involved in several EU-funded H₂ research projects and manufactures H₂-approved burners and burner control systems.

All about CO₂: ASCO Carbon Dioxide AG

Provider of individual and complete CO₂ solutions

CO₂ recovery plants (“Carbon Capture”):

- CO₂ recovery from stack gas
- CO₂ recovery from gas by-products
- CO₂ recovery from dry ice productions

CO₂ equipment and accessories:

- Transfer pumps, vaporizers
- Detectors, flowmeters
- CO₂ testers
- CO₂ storage tanks, both stationary and transportable

Dry ice technologies

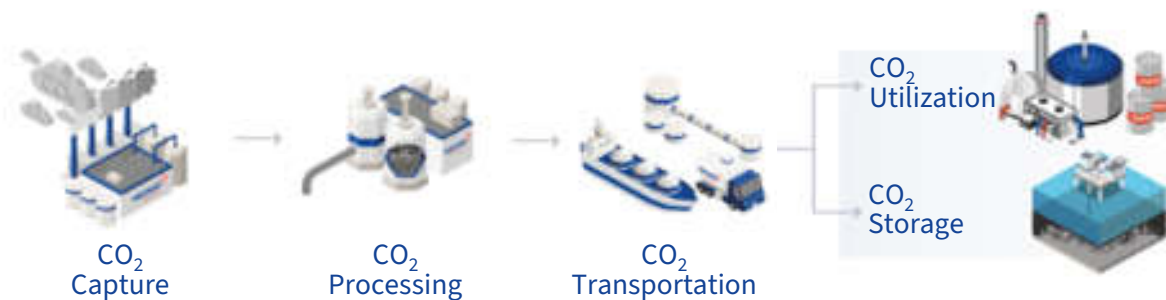
- Dry ice production technologies for pellets, slices and blocks
- Automated dry ice packaging and dosing solutions
- ASCO dry ice blasting equipment and accessories



ZeCarb: Carbon Capture as a Service

“ZeCarb” is our service brand for “Carbon Capture as a Service” (CCaaS) solutions.

- With “ZeCarb”, Messer is responding to the growing global demand for solutions to decarbonize industrial processes, also known as "Carbon Capture Utilization & Storage" (CCUS). We cover the entire CCUS value chain and offer customers single source approach.
- With ZeCarb, we help various industries such as steel, cement, glass, paper or chemical production or from fossil-fired power plants to achieve their "net zero" climate targets by capturing CO₂ emissions at the source. Here we can rely on decades of experience in the field of CO₂ recovery.



Industries / Competence Centers

Gases are present in almost all industries



Environmental technology

Our technologies and gases help with decarbonization, with wastewater treatment in sewage treatment plants, with treating drinking water, with neutralizing alkaline wastewater and process water, and with exhaust air purification in large-scale industrial facilities.



Chemical industry

Messer supplies gases for chemical and synthetic processes, for example for reactor cooling and for the inerting of containers and reactors.



Paper production

Carbon dioxide from Messer reduces chemicals in pulp washing, pH control and is used for environmentally friendly removal of stickies.



Plastics, rubber and specialty chemicals

Messer provides gases for processing and recycling plastics and rubber, including cryogenic grinding for 3D printing powder and pyrolysis of waste. Advanced cryogenic applications like solvent recovery and reactor cooling enable emissions control and precise temperature regulation in specialty chemical processes.



Gases are present in almost all industries



Construction industry

We supply gases to cool down fresh concrete and cement before processing or to reliably stabilize soil during drilling work. We support the decarbonization of the industry by neutralizing wastewater with CO₂.



Mobility

We supply gases for airbags, air conditioning and tires, for emission control and cleaning, and for fuel cell electric buses (FCEB) and industrial trucks.



Research

We support research institutes, universities and development centers with our high purity and laboratory gases, test gases, operating gases and gas mixtures.



Microtechnology and electronics assembly

Our portfolio also includes gases that are used as filling or protective gases in tablet displays or processor boards. We support electronics assembly industry with our inerting know-how.



Gases are present in almost all industries



Food

Under a modified atmosphere, foodstuffs in their packaging retain their shelf life for longer. In addition, gases preserve optimum product properties during cooling and freezing, and ensure a perfect cold chain during transport and delivery of food "to the door".



Beverage industry

Messer supplies carbon dioxide to make lemonade or beer fizz refreshingly and keep for longer.



Healthcare and pharmaceuticals

Gases of the highest purity are needed for a wide variety of medical applications. Ultra-pure gases are also required for pharmaceuticals and medical products, for applications in the pharmaceutical industry, as process aids and inactive ingredients. Messer supplies them.



Gases are present in almost all industries



Metalworking industry

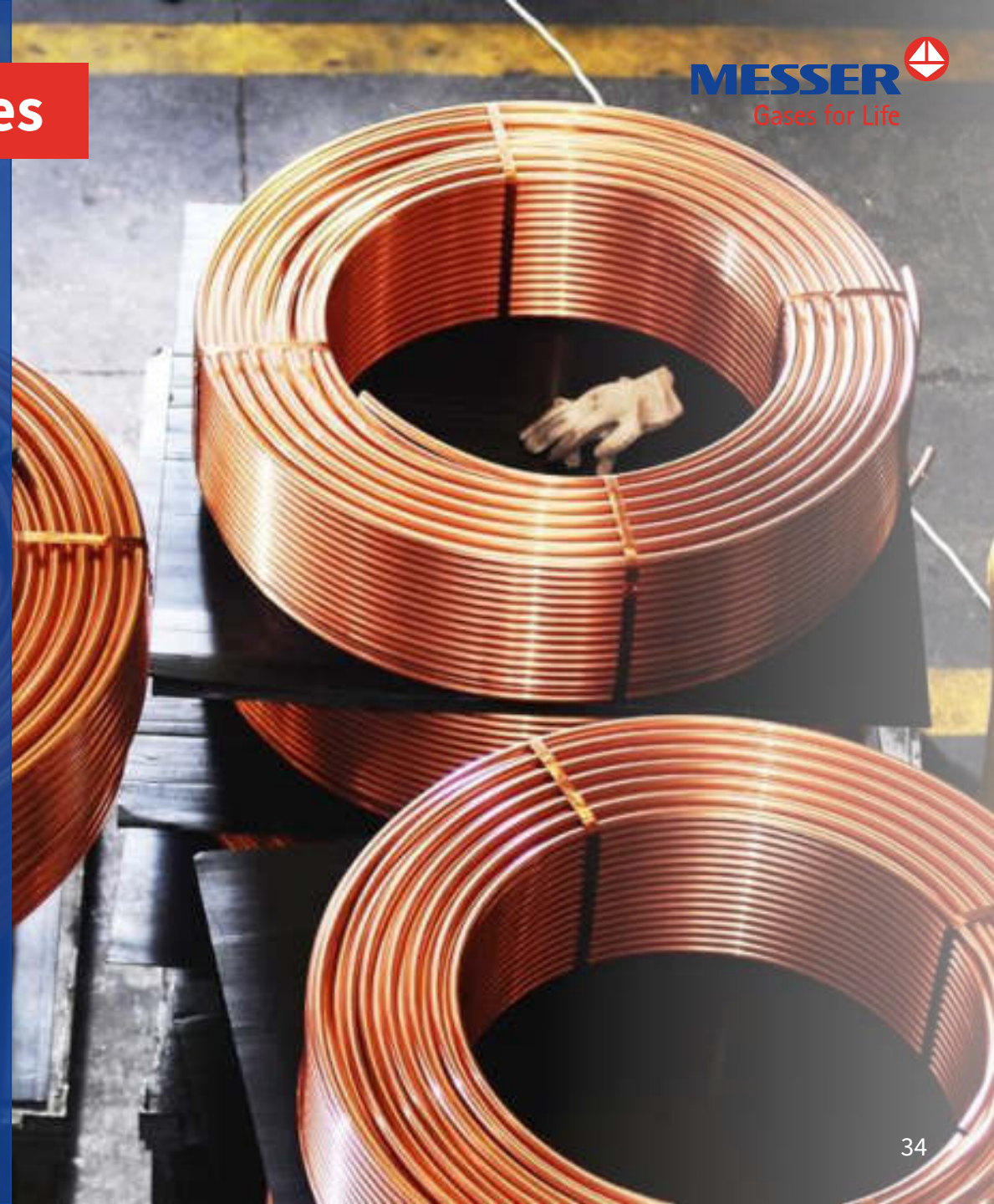
Messer supplies, for example, shielding gases and gas mixtures for material processing and finishing, 3D printing of metals, thermal spraying, laser welding and cutting, and MAG welding of unalloyed steels.



With a wide range of gases and applications, Messer helps improve productivity in the production of iron, glass, steel, copper and aluminum, as well as other non-ferrous metals. Our Oxipyr burners, with both oxyfuel and H_2-O_2 combustion, help decarbonize processes.



Annealing, hardening, tempering, carburizing or sintering - processes based mainly on the application of nitrogen and hydrogen - give metals the properties required by the stringent standards in this industry.





OXIPYR: burners and burner control systems

- Decarbonization and process optimization
- Production increase and reduction of emissions
- Oxyfuel burners for hydrogen, natural gas and liquid fuels
- Gas supply and furnace control systems

BIOX: capacity increase for wastewater treatment plants

- Cutting of peak loads
- Reducing foaming or odor issues
- High oxygen transfer rate (up to 100%)
- Different options
- Plug & play



Grinding with cryogenic technology

- Low temperatures for efficient production
- High throughput
- Fine and uniform powders
- No melting or sticking
- Inert atmosphere
- No loss of aromas
- Suitable for various materials

DuoCondex

- Emissions control and solvent recovery with cryogenic condensation
- Efficient waste gas purification
- Compliance with regulations
- Cost-effective recovery
- Tailor-made systems
- Pilot plants available for trials



Focus on competences



Sustainability

Messer statement and sustainability commitments

Messer statement: vision, purpose and values shape our action

Our vision:

As the leading privately-held provider of industrial, medical and specialty gases solutions, we are the first choice for customers and employees.

Our purpose:

Gases for Life

Our values:

Customer focus: make customers our focus.

Employee orientation: enhance employee orientation.

Responsibility: sustain safety and responsibility.

Entrepreneurship: empower entrepreneurship.

Trust and respect: raise trust and respect.



Commitment to inclusion

Our commitment to inclusion is driven by our values of employee orientation, responsibility, trust and respect. This commitment is also anchored in the International Human Rights Principles and anti-discrimination practices, aligned with internationally recognized frameworks:

- The Ten Principles of the UN Global Compact
- The Labor Standards of the International Labor Organization (ILO)
- The International Bill of Human Rights (UN)



Our vision for inclusion is to foster a culture where all employees are heard and feel their talents are valued, nurturing an environment where everyone can thrive.

An environment where inclusivity is present and employees feel they belong is paramount for our business. It enables innovative solutions to our customers and enhances the experience of our employees. In that way, we attract, keep and develop the best talent in the market.

Our global approach is structured in three main pillars: education, engagement and process. As part of the program, regional and local teams are responsible for developing and implementing tailored strategies, respecting cultural aspects and complying with local legislation.

Our corporate sustainability commitments



How we help protect our planet

Environment

- Reduce Scopes 1 and 2 emissions intensity worldwide by 40 percent by 2030 compared with 2019. This ratio is expressed in kg of CO₂e per euro of EBITDA and calculated using the market-based method.
- Optimize energy consumption.
- Identify and mitigate climate-related risks to our assets and operations.
- Increase the use of renewable energy.
- Increase fuel efficiency and optimize our logistics.
- Develop innovative gas applications that help our customers use resources more efficiently and reduce their carbon footprint.
- Manage water, waste, and refrigerants in our operations responsibly.



How we value people

Social

- Practice behaviors that prevent accidents and injuries to achieve zero accidents among our employees, in logistics and among our customers.
- Support the health, safety, and rights of our employees and workers across our value chain.
- Promote diversity and inclusion.
- Increase the proportion of women to 30 percent at first and second management levels by 2030.
- Provide employees with opportunities for education, training and career development.
- Be a dependable and responsible member of the communities in which we operate.
- Engage in discussions with our stakeholders about Messer's ESG programs and progress.



How we operate

Governance

- Rely on global frameworks for Compliance Management, Risk Management, and Internal Controls.
- Promote compliance, good governance and ethical business conduct both within Messer and among its business partners.
- Ensure mechanisms are in place to report incidents and protect whistleblowers.
- Safeguard data and promote cybersecurity.
- Handle personal and business data in a legally compliant manner.

Key figures

Messer is more than you expect

Key figures 2024

		Total, approx.
Sales	In billion euro	4.5
Americas	In billion euro	2.4
Europe	In billion euro	1.3
Asia	In billion euro	0.8
EBITDA	In billion euro	1.4
EBITDA Margin	In percentage	31
Investments	In million euro	878
Employees	Contractual employment relationships in FTE*	More than 11,800

* Full Time Equivalent

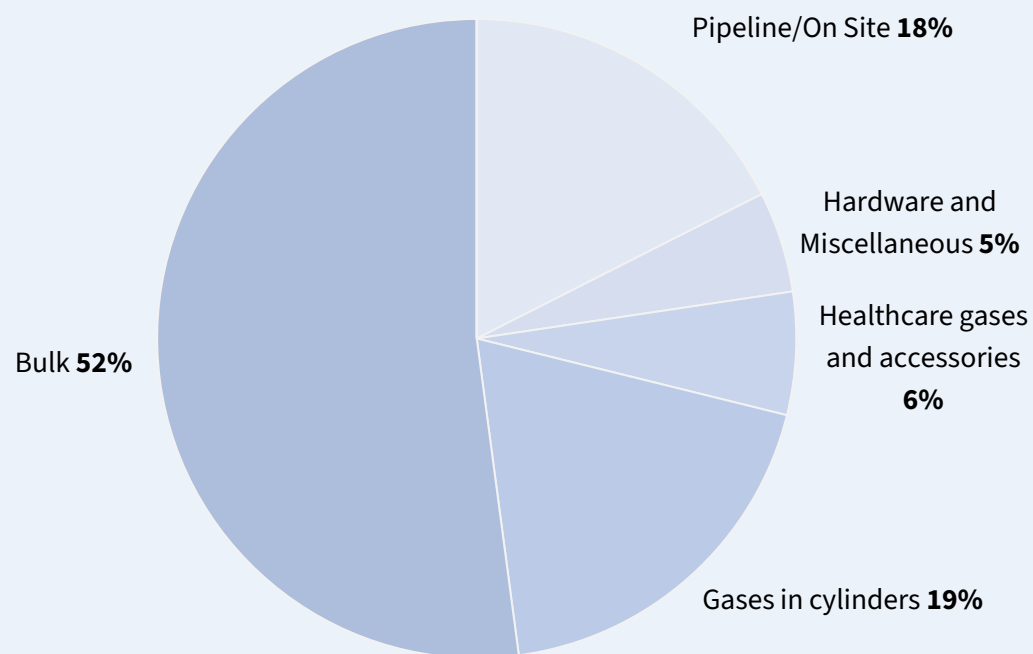
Source: Annual report 2024



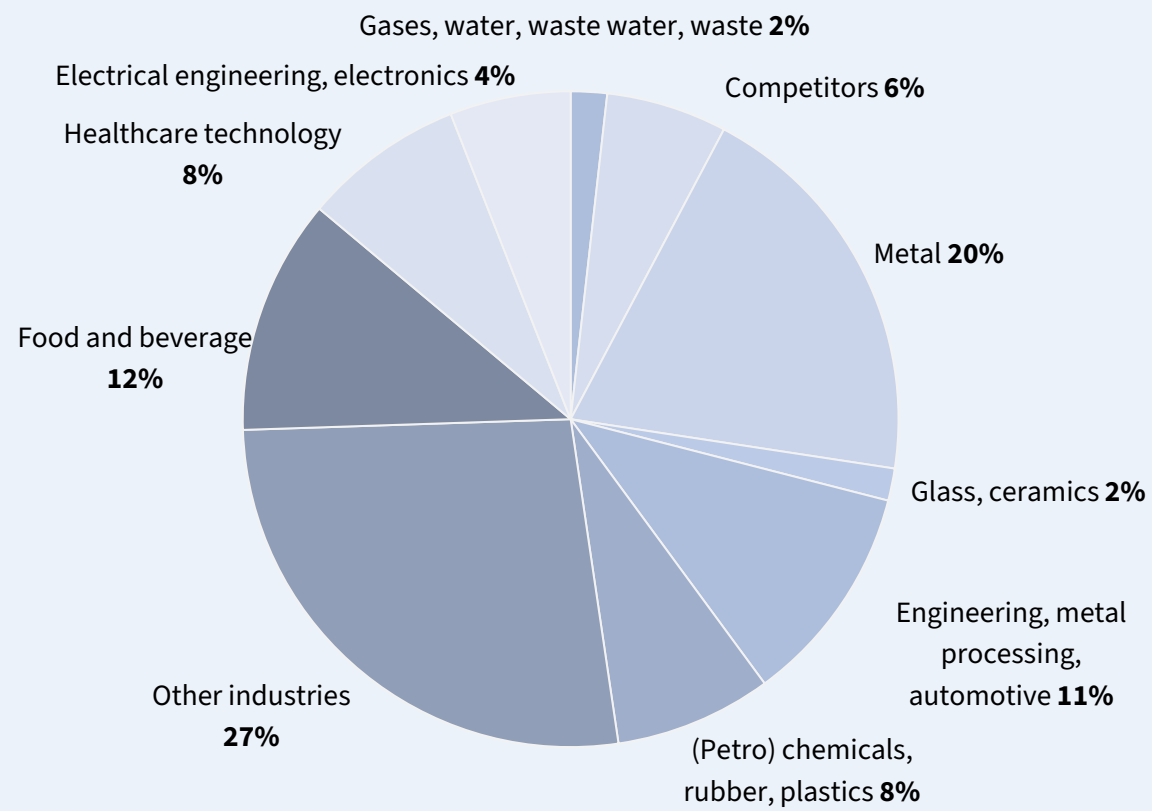
Sales by distribution mode and industry

2024: Sales approx. 4.5 billion € overall

By distribution mode



By industry

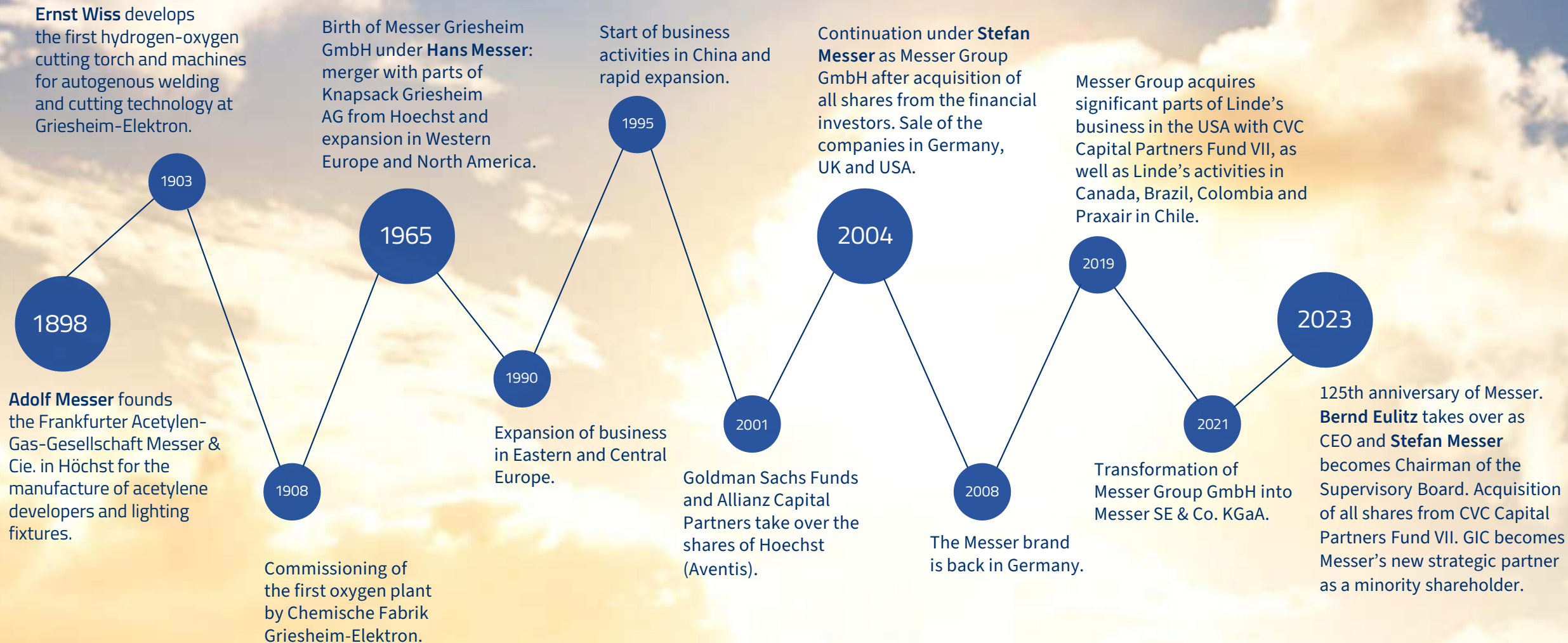




Structure

A global player

Since 1898: this history has a future



Ready to meet any challenge: the Supervisory Board of Messer

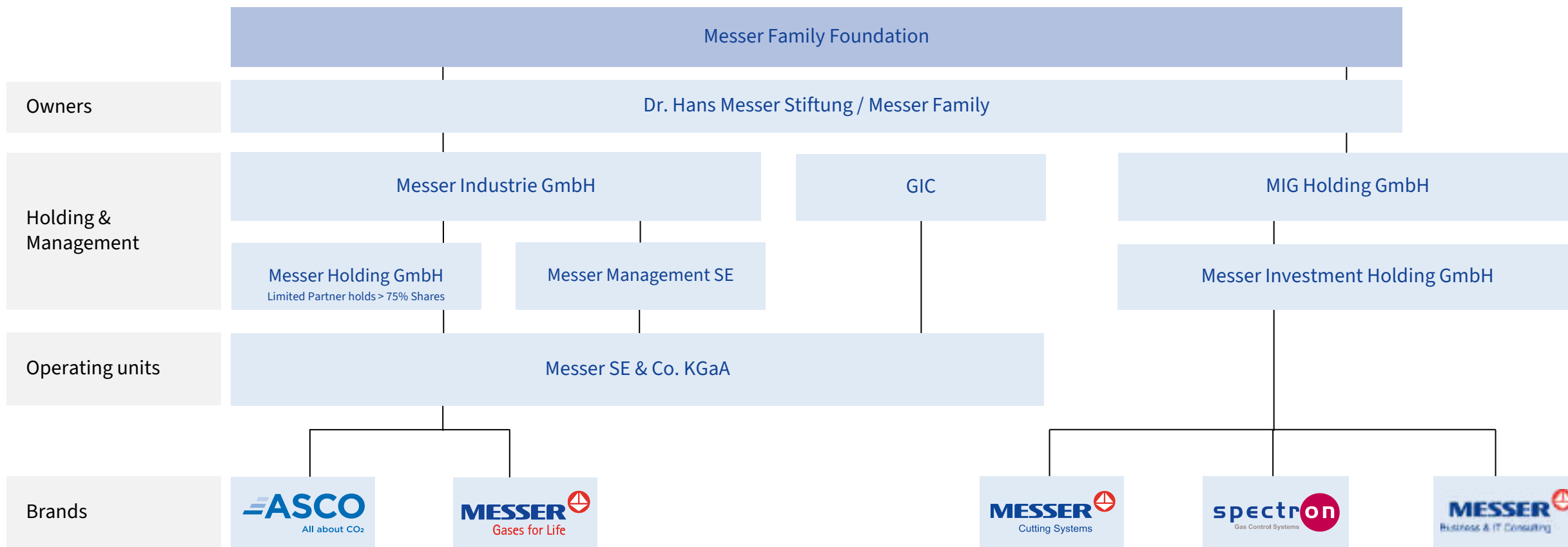


Maureen Messer-Casamayou

Observer Messer: Marcel Messer

Observer GIC: Henry Ormond

Shareholder structure*



Partnership for profitable growth

GIC is a leading global investment firm established in 1981 to secure Singapore's financial future. As the manager of Singapore's foreign reserves, GIC takes a long-term, disciplined approach to investing and is uniquely positioned across a wide range of asset classes and active strategies globally.

In 2023, GIC became a strategic partner and long-term minority shareholder in Messer. GIC has a track record of partnering with family businesses around the world and supports Messer's strategy for sustainable, profitable growth.





Messer moves on

We look forward to working with you.
