

R&D Services

Our R&D team consists of highly experienced scientists and technicians who have many years of experience in a variety of chemical industries, particularly complex and multi-stage chemical reactions, organic chemistry, industrial technologies and scale-up processes.

We can provide you with tailor-made research services:

- Literature search
- Evaluation and route scouting
- Early phase lab trials, process development and optimization
- Pilot plant trials for first 10 kg to several 100 kg
- Quantities and preparation of full-scale production including investigations on safety and materials of construction
- Whole work is done considering ISO 9001 and 14001 and ensuring full confidentiality

Analytical Services

Our analytical department has a comprehensive spectrum of state-of-the-art analytical techniques and equipment.

Our services include:

- Quality control, structure determination and method development
- Determination of safety data
- Analyses of hazardous substances in workplace atmospheres
- Maintenance of an integrated quality management system (ISO 9001/14001, EKVO, GLP, GMP)

Markets

We are a specialized service provider in a broad range of markets. Our systems in place allow us to support the highest quality and regulatory demands of our customers.



Agro
Chemicals



Cosmetic
Ingredients



Pharma
Intermediates



Plastics
& Additives



Ligands
& Catalysts



Electronic
Chemicals



Specialty
Chemicals

This brochure does not constitute any representation or warranty and may not be treated as an offer to supply Product. We would be pleased to provide you a binding offer to supply Product meeting your individual needs and requirements.

For your enquiries please contact:

WeylChem International GmbH
Alt-Fechenheim 34, 60386 Frankfurt, Germany
services@weylchem.com
Europe: +49 69 506 820 2223, US: +1 803 438 4485
www.weylchem.com



Custom
Manufacturing

Custom Manufacturing Services

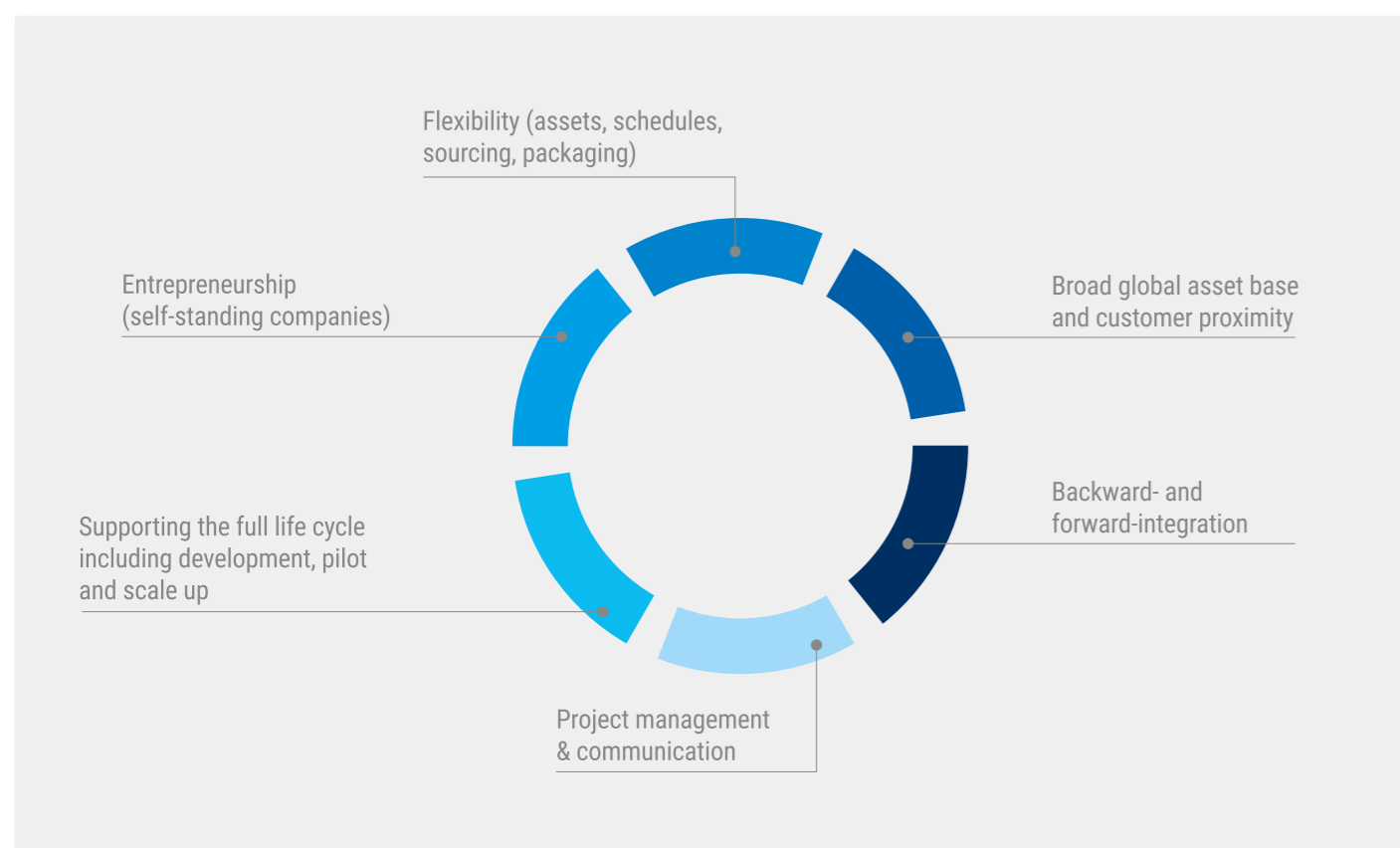
Bridging the gap between challenging chemistry
and unique solutions



Experienced Partner in Custom Manufacturing

WeylChem is a recognized custom manufacturer that delivers exclusive products and services according to customer requirements and specifications.

Our services provide our customers with thorough know-how in chemical synthesis and access to a very extensive range of technologies. We have several thousands of developed processes in our archives, derived from our long experience in chemical synthesis.



Technologies

WeylChem has a wide spectrum of key technologies that are unique in the market. They are available at many different scales from lab samples to pilot quantities up to full industrial volume.

A detailed equipment overview (www.weylchem.com/key-technologies.html) and a list of support reactions (www.weylchem.com/key-technologies.html) are available.

Equipment Overview

Our multipurpose equipment is at the highest quality level and regulatory standards. Additionally, WeylChem has implemented latest state-of-the-art technology like tube reactor and microreactor technology to improve the efficiency of both up-scaling and production processes.



Our Custom Manufacturing facilities

WeylChem US Inc. in Elgin, SC, USA

Core technologies

- Friedel-Crafts
- Grignard chemistry
- Halogen Exchange
- Halogenation
- Ullmann coupling

Special equipment

- Extensive solid handling equipment
- 3 Hastelloy Centrifuges
- 6 Wiped-film evaporators (235 °C; 1 mbar)

WeylChem Lamotte SAS in Lamotte, France

Core technologies

- Oxidation (e.g. Glyoxal, Glyoxylic Acid, Oxalic Acid)
- Multistep Synthesis, including sophisticated distillation equipment
- Low Temperature Chemistry (LiAlH₄, NaBH₄, BuLi...) – Metallocenes – Chiral Chemistry
- Industrial Process Development Labs & Advanced Analytical Techniques
- Microwave Technology

Special equipment

- 3 Nutsche filter-dryers (4 m² and 1.5 m²; SS, Hastelloy)
- 3 SS Centrifuges
- 1 SS Nautamix dryer
- 1 SS Guedu dryer
- 1 Microwave Unit 20 bars 180 °C 30 kW
- 1 SS Wiped film evaporator 0.4 m² 5 mbar; 215 °C
- 1 SS continuous acid catalyst fixed bed reactor 1.5 m³

Vynova PPC SAS in Thann, France

Services sold and marketed by WeylChem Group of Companies

Core technologies

- Bromination
- Halogenation
- Hydrobromination
- Transhalogenation

Special equipment

- Aerorefrigeration tower
- Bromine recycling
- Chilling network system
- GL bi-cone dryers
- Halar coated centrifuge
- HBr ovens
- HCl ovens
- Drumming station for lachrymatory chemicals

Allessa GmbH in Frankfurt, Germany

Core technologies

- Bromination
- Alkylation
- Chlorination (SOCl₂, PCI₃)
- Diazotization
- Nitration
- Polymerisation
- Sulfonation
- Low-Temperature Chemistry

Special equipment

- Thin film evaporator
- Filter drier Hastelloy
- Paddle dryer
- Membrane filtration
- Flaking roll



WeylChem Höchst GmbH in Frankfurt, Germany

Core technologies

- Side Chain Chlorination
- Oxidations with O₂ to Carbonylic Acids: Esterification & anhydrides
- Sulfonations

Special equipment

- Four Chlorination lines for UV radical Chlorination
- Two continuous dedicated lines with column/bubble reactors
- Two Hydrolysis lines and various distillation units
- Sulfonation: one continuous line in a dedicated plant
- 20 bar Oxidation reactor

WeylChem InnoTec GmbH in Frankfurt, Germany

Core technologies

- Boronic acids chemistry
- Grignard reactions
- Low-temperature chemistry
- Reactions with BuLi, HexLi, MeLi, etc.
- Carbonylations and Hydroformylations
- Special reductions, e.g. chiral hydrogenations
- Air oxidation
- Organophosphorus reactions
- Brominations
- Coupling reactions like
 - Suzuki
 - Buchwaldt-Hartwig
 - Sonogoshira
 - Heck

Special equipment

- Low-temperature vessels down to -100 °C
- High-pressure vessels up to 200 bars and 200 °C
- High-temperature vessels up to 350 °C

