

Connecting**Chemistry**



BRENNTAG GROUP Oil and Gas Division



INTRO

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GLOBAL MARKET LEADER IN CHEMICAL DISTRIBUTION

Figures of the 2019 Financial Year

Global market leader with sales of **EUR 12.82 Billion**

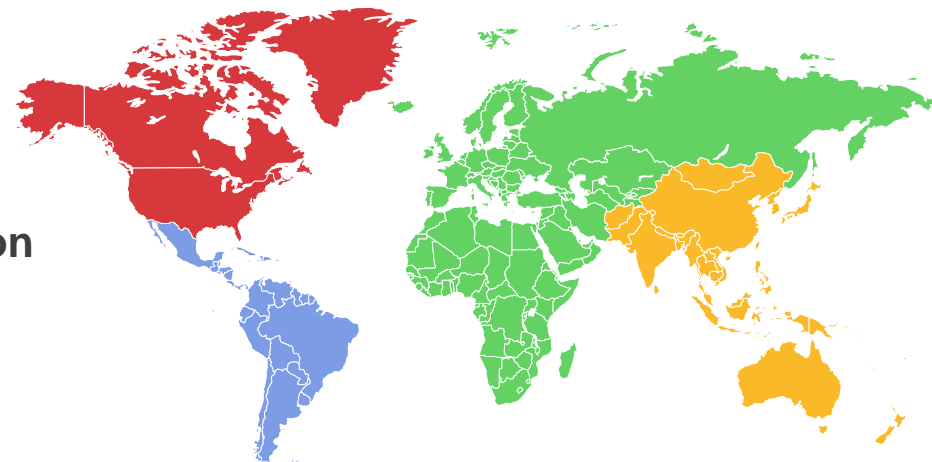
Operating EBITDA is over EUR 1.0 Billion

Network of > **640 facilities** across **77** countries worldwide

~17,500 employees

Full-line portfolio of over **10,000** products

products sold to over **195,000 customers globally**



GLOBAL MARKET LEADER IN CHEMICAL DISTRIBUTION

Oil&Gas Within Brenntag



ОТРАСЛЬ МЕДИКО-БИОЛОГИЧЕСКАЯ

Cosmetics

Food

Pharma

Animal Nutrition



ОХРАНА ОКРУЖАЮЩЕЙ СРЕДЫ

Water Treatment

Air Protection

Green Energy



МАТЕРИАЛОВЕДЕНИЕ

Cleaning

Coatings & Construction

Industrial Sales & Services

Oil & Gas

Metal

Polymers

Rubber

BRENNTAG'S OIL AND GAS DIVISION

Brenntag's Oil & Gas Research and Development Centres



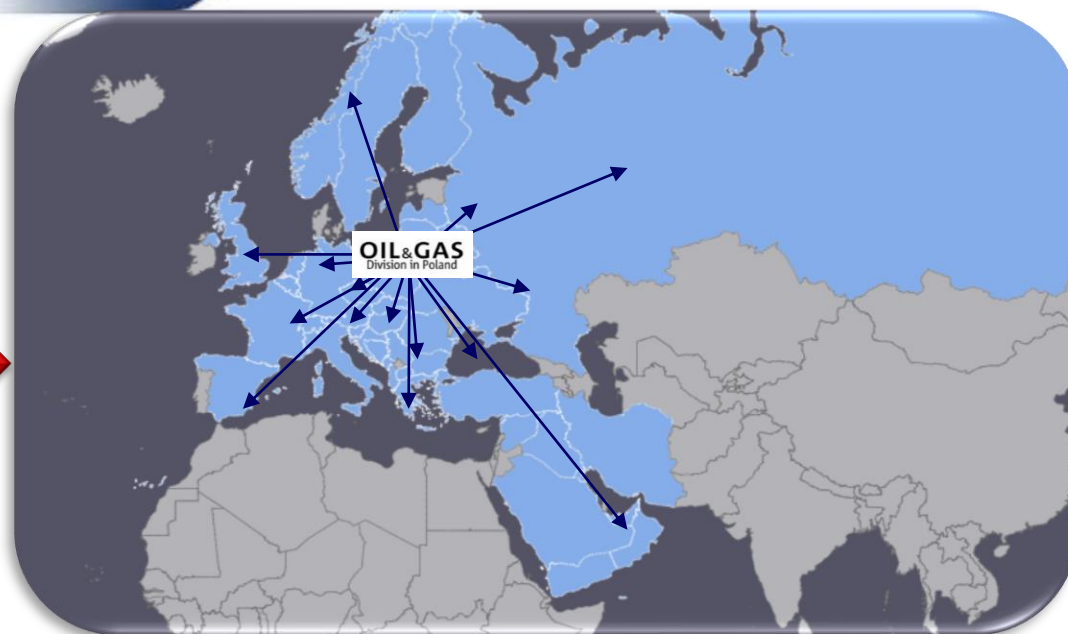
BRENNTAG'S OIL AND GAS DIVISION

Transfer of Technology and Experience between O&G and Chemicals

BRENNTAG



Know How



Coastal Chemical, since 1960th is the part of Brenntag Group

O&G Europe

BRENNTAG'S OIL AND GAS DIVISION O&G Center in Europe



Delivers a professional service and strong technical support to the Oil & Gas industry.

Dedicated laboratories: **DRILLING, PRODUCTION** **CHEMICALS, CORROSION, FUEL ADDITIVES.**

Analytical Laboratory studies and testing according to ASTM, API, UOP and ISO.

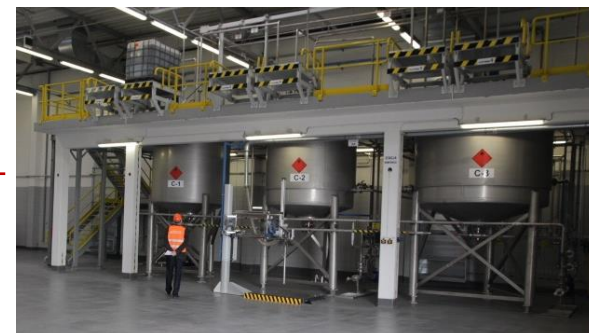


Enhances development of new products for drilling and oil & gas production.

Blending Facility: Powder to Liquid, Liquid to Liquid. Constant quality control of blended products.



Services. Technological support with Field trials and Application of specialty chemicals.



BRENNTAG'S OIL AND GAS DIVISION O&G Laboratories



Drilling



Production chemicals



**FOUR
SEPARATE
SECTIONS**



Corrosion



Fuel Additives



BRENNTAG'S OIL AND GAS DIVISION**European O&G Center in Numbers**

- ❑ **Number of employees:** 45 people, specialists in the oil and gas industry, chemists-technologists, laboratory assistants, sales department, production department, logistics, warehouse employees. Company has representatives in every major region.
- ❑ **Production and sales volumes in 2019:**
 - ❑ Produced approx. 3.2 thousand m3 of chemicals (60% of current production capacity)
 - ❑ Sold 170.5 thousand tons of chemicals for the oil and gas industry
 - ❑ Annual turnover 111.3 million euros.

: Поставка реагентов по странам:

- ❑ **Europe:** Austria, Belgium, Croatia, Czech Republic, Belorussia, Bulgaria, Denmark, Finland , France, Great Britain, Germany, Georgia, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Russian Federation, Romania, Serbia, Spain, Slovakia, Switzerland, Sweden, Turkey, Ukraine
- ❑ **Africa:** Algeria, Ghana, Nigeria, South Africa
- ❑ **Middle East:** UAE

BRENNTAG'S OIL AND GAS DIVISION

The areas of BRENNTAG's specialty chemicals application



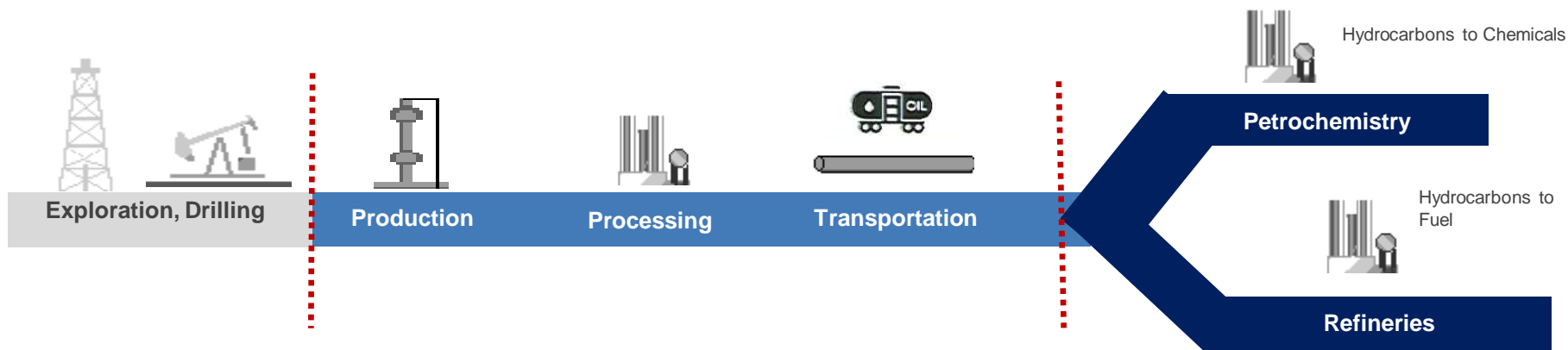
Upstream



Midstream

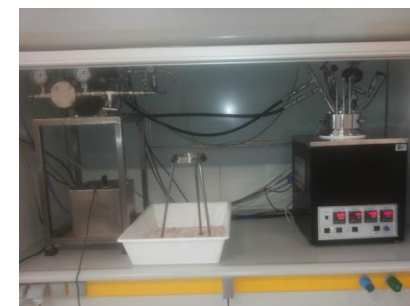


Downstream

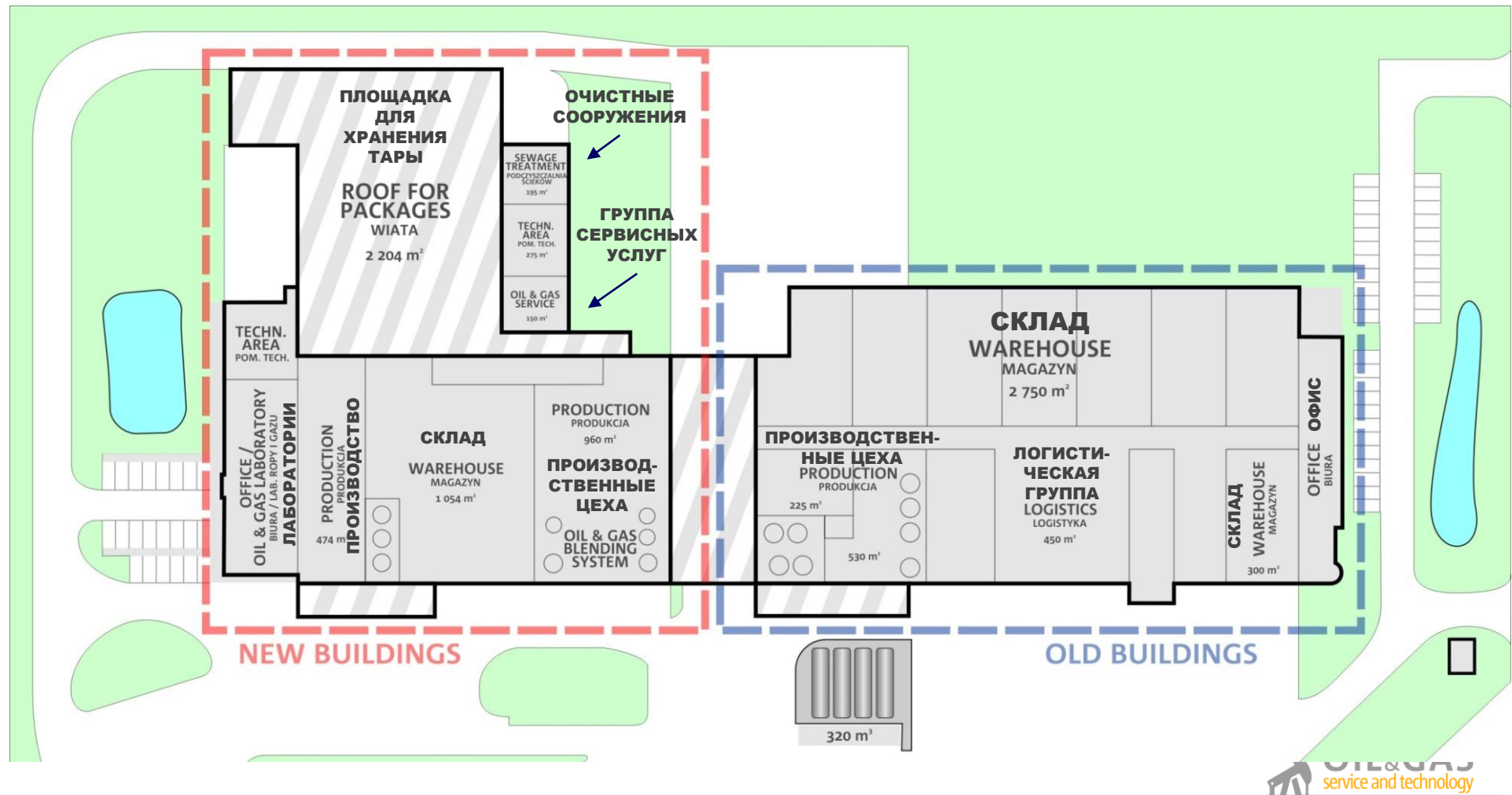


BRENNTAG'S OIL AND GAS DIVISION**Analytical and R&D Laboratories**

- Cold Fingers
- Scale Loops
- Wax Loops
- Autoclaves
- LPR lab unit
- Ion Chromatograph
- Spectrophotomer UV-ViS
- FTIR Spectrometer
- Turbiscan
- Microscopes



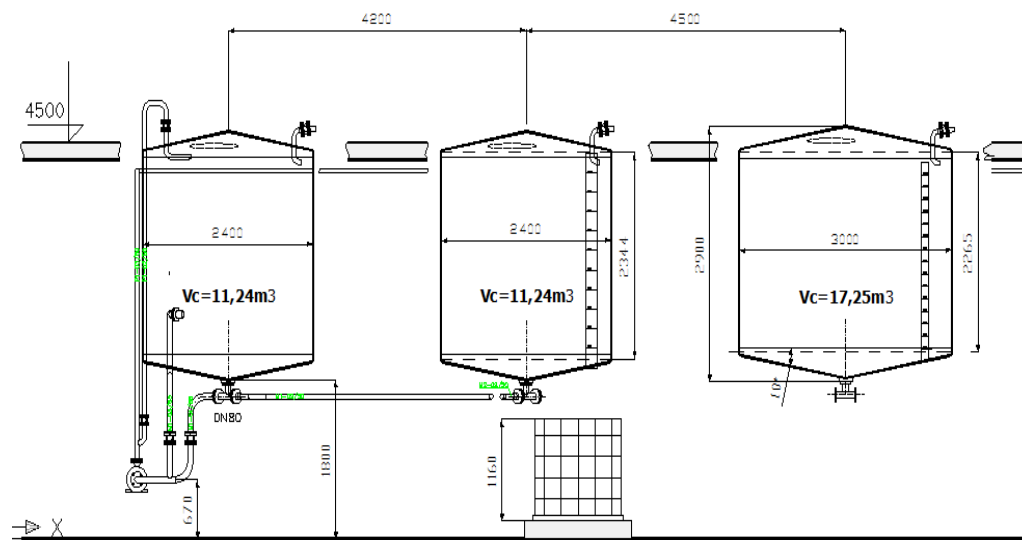
Европейский Научно-Производственный Центр



BRENNTAG'S OIL AND GAS DIVISION

Blending facility

- EX, stirrer rotational speed 0-500 RPM
- Connected to the filling and packaging line - IBC's or drums
- Cooling / heating jackets
- Cleaning – possibility to flush the system with solvents
- Sampling possibility
- High accuracy weighing system

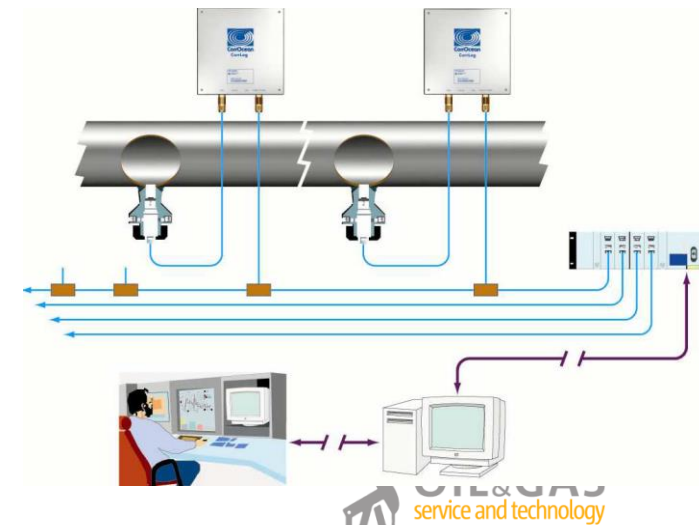


Blending vessel #	Product's solvent type	Capacity [m ³]
1	Non-polar, organic (e.g. xylene)	11
2	Polar (e.g. water-glycol, methanol)	11
3	Water based	17
4	Foamers	12
5	Mixer for small production in IBCs	-



BRENNTAG'S OIL AND GAS DIVISION Services (Europe)

- Own trucks to deliver chemistry directly to storage tanks next to wellhead
- Own skid pumps for injection
- Staff responsible only for technical service within the division
- Chemical injection rate control, maintenance, online corrosion monitoring, reservoir fluid analysis, troubleshooting, engineering modelling



BRENNTAG'S OIL AND GAS DIVISION

Customers and Partners

DRILLING



Schlumberger



tacrom



PRODUCTION AND EOR



REFINERIES



BRENNTAG'S OIL AND GAS DIVISION

Specialty chemicals for Oil & Gas Upstream / Midstream

Foaming Agents TN-01XXX

- ☐ Foaming sticks / Acid sticks
- ☐ Liquid foaming agents
- ☐ Foaming sticks with corrosion inhibitor (dual function)

Demulsifiers TN-02XXX

- ☐ For light, medium and heavy oils
- ☐ For high / low water cut
- ☐ For low / high temperatures
- ☐ Water clarifiers

Anti-Foam TN-03XXX

- ☐ Polymer based
- ☐ Silicone based
- ☐ Alcohol based

H2S Scavengers TN-04XXX

- ☐ Triazine based
- ☐ Glyoxal based
- ☐ MBO based
- ☐ Others

Oxygen Scavengers TN-05XXX

- ☐ Disposal water treatment
- ☐ Drilling fluids treatment
- ☐ Ammonium bisulfite based
- ☐ Others

Scale Inhibitors TN-06XXX / 07XXX

- ☐ Continuous / Squeeze application
- ☐ Downhole / Topside injection
- ☐ Carbonate / Sulphate type scales
- ☐ Iron sulphide
- ☐ Salt (NaCl) inhibitors TN-07XXX

Corrosion Inhibitors TN-08XXX

- ☐ Continuous / Batch application
- ☐ Downhole / Topside injection
- ☐ Oil / Gas production (sweet & sour)
- ☐ Produced / Sweet water injection
- ☐ Closed circulating water systems

Paraffine and Asphaltene Inhibitors

- ☐ Paraffine and asphaltene Inhibitors TN-09XXX
- ☐ PPD TN-09XXX
- ☐ Paraffine dispersants TN-12XXX

Hydrate Inhibitors TN-10XXX

- ☐ Thermodynamic hydrate inhibitors
- ☐ Kinetic hydrate inhibitors
- ☐ Combined corrosion & hydrate inhibitors

Scaling Solvents TN-13XXX

- ☐ Carbonate scales
- ☐ Sulphate scales
- ☐ Inhibited

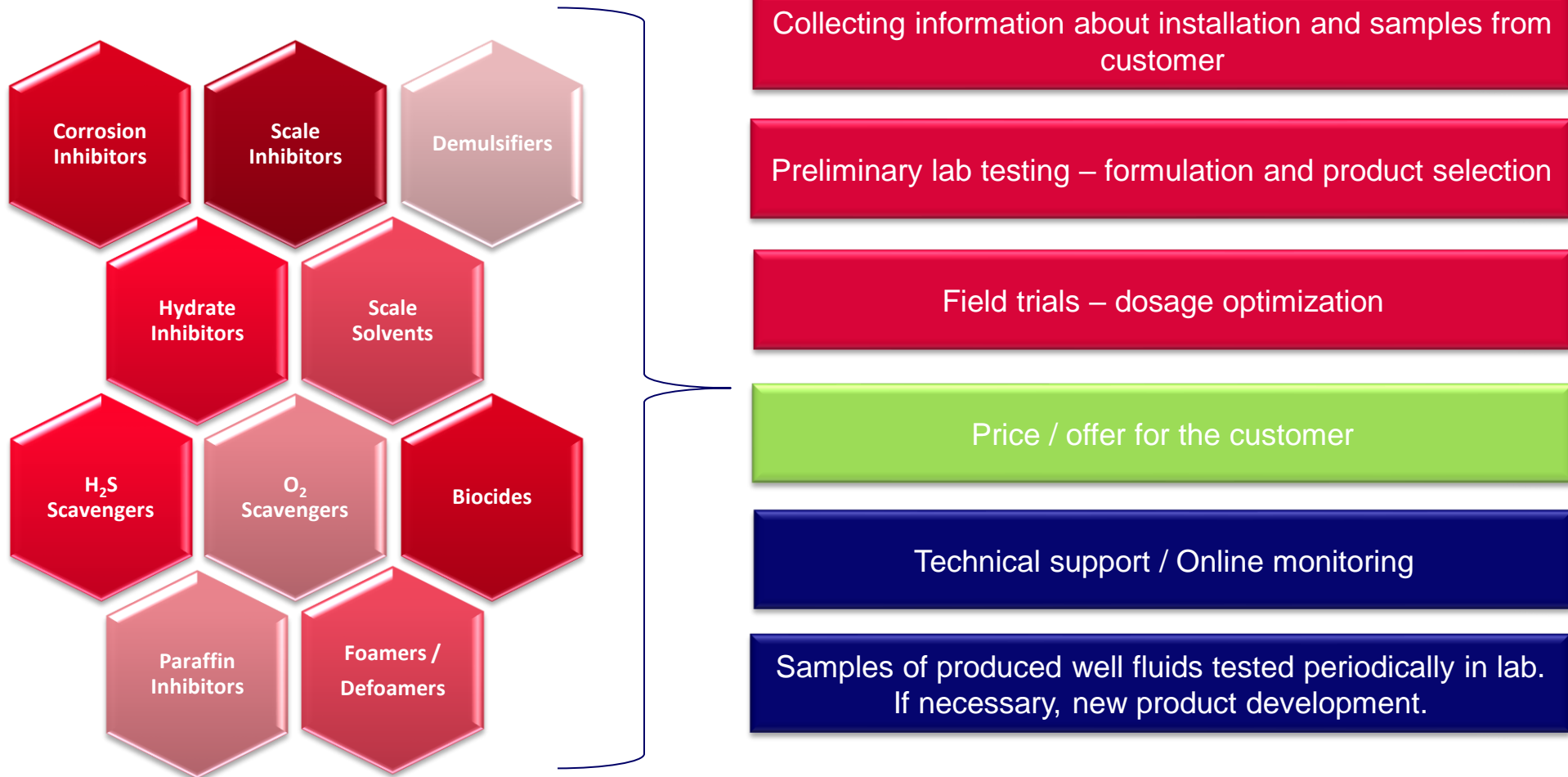
Paraffine and Asphaltene Solvents

- ☐ Paraffine and Asphaltene solvents TN-130XX
- ☐ Drag reducers TN-17XXX
- ☐ Pipeline cleaners

Others

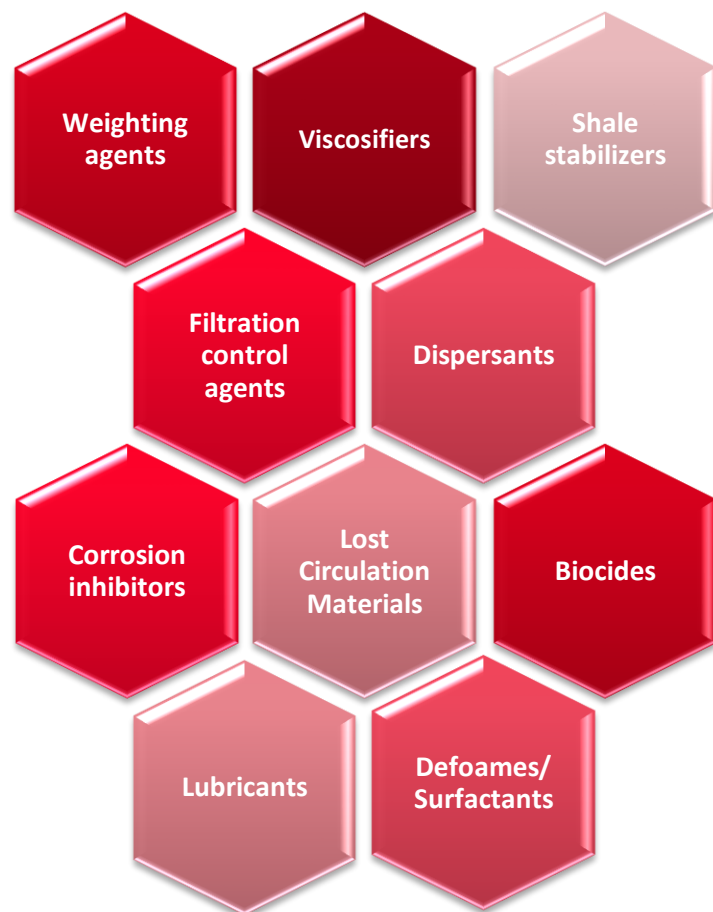
BRENNTAG'S OIL AND GAS DIVISION

Chemicals selection / customization: How does that work?



BRENNTAG'S OIL AND GAS DIVISION

Drilling Additives – Basic Product lines



BRENNTAG'S OIL AND GAS DIVISION**Cementing additives – Basic Product Lines****ACCELERATORS**

- Calcium chloride (flakes – various conc)
- Sodium chloride
- Potassium chloride

RETARDERS

- Brenntathin 8200
- Brenntaret 1501
- Brenntaret 9007

DEFOAMERS

- Brenntaskim 7015 (silicone based)
- Brenntaskim 7160 (mineral oil based)
- Brenntaskim 7200 (TIBP based)

FLUID LOSS

- D-2500 (based on low-vis HEC)
- D-2565 (based on medium-vis HEC)
- D-3012 (synthetic polymer, up to 150°C)
- D-3015 (synthetic polymer up to 120°C)
- D-3018 (polymer blend up to 200°C)
- Brenntight MB15 (amorphous silica slurry)

GAS MIGRATION

- D-3018 (polymer blend up to 200°C)
- Brenntight MB15 (amorphous silica slurry)
- Brenntight 5000 (latex)
- Latex stabilizers
- Brenntight EXC-186 (expanding agent)

WEIGHTING AGENTS

- Barite
- Hematite
- Ilmenite
- Manganese oxide

CEMENT SPACER SYSTEMS

- Brenntawet P2300 (versatile preflush)
- Brenntawet P6500 (surfactant blend for OBM spacer)
- TN-MS 10 (mutual solvent for OBM spacer)

LIGHTWEIGHT/ EXTENDERS

- Bentonite
- Brenntavis SWG (attapulgite)
- Cenospheres
- Glass Beads
- Pozzolanic materials
- Brenntight ML20 (amorphous silica slurry)

DISPERSANTS/ FRICTION REDUCERS

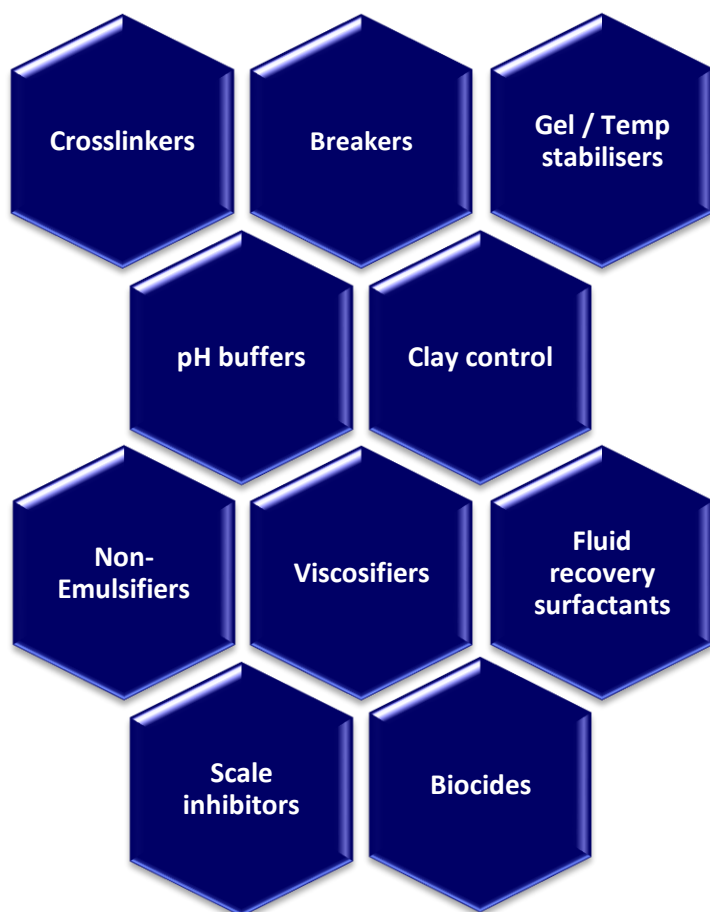
- Brenntathin 8200
- Brenntathin 9100
- Brenntathin 9150
- Brenntathin 9200

LOST CIRCULATION MATERIALS (LCM)

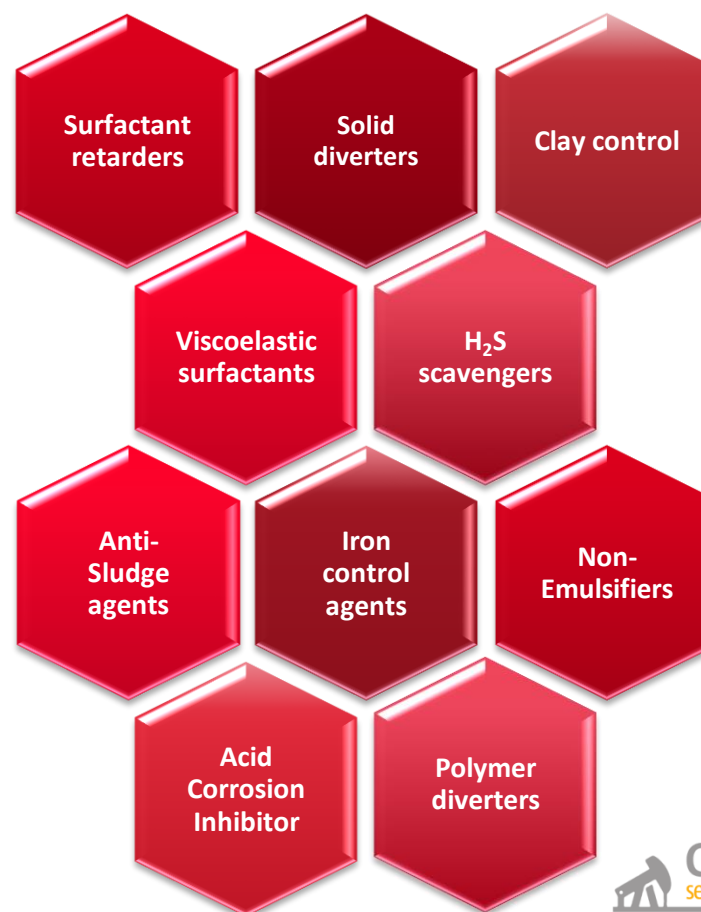
- Fibers (PP and acrylic)
- Mica (various grades)
- Nut shales
- Calcium carbonate (various grades)

BRENNTAG'S OIL AND GAS DIVISION Stimulation Portfolio

FRACTURING



ACIDIZING



BRENNTAG'S OIL AND GAS DIVISION

Wellbore Stimulation – SlickWater System

Friction Reducers

Clay Stabilizers

Non-Emulsifiers

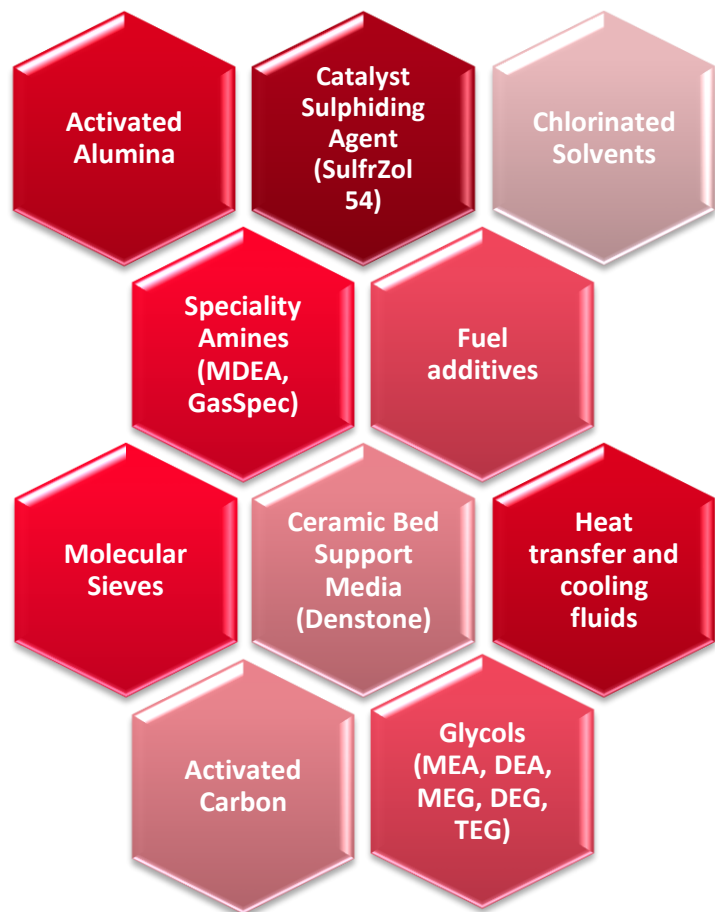
SLICKWATER

Scale Inhibitors

Surfactants

Biocides

BRENNTAG'S OIL AND GAS DIVISION Refineries & Petrochemical & Gas Treatment Plants – Portfolio



BRENNTAG'S OIL AND GAS DIVISION**Application portfolio – Main Processing Problems in Refineries**

Energy additives	Improves cetane number in diesel fuels <ul style="list-style-type: none">• 2-EHN cetane improver• DTBP cetane improver
Biocides	Maintaining the integrity of fuels at all points during storage, distribution and usage
Antioxidants	Protection against free-radical reactions in gasoline, biofuel and jet fuel
Corrosion Inhibitors	To prevent corrosion on steel and copper
H ₂ S and O ₂ Scavengers	Neutralizing and removing gases selectively
Demulsifiers	Breaking water-in-oil emulsions and remove water
Anti-Foam Agents	Controlling the foam and preventing the potential spillage
Dewaxing Aids	Polymeric additives which offer advantages in the solvent dewaxing of residual feed stocks

Cooperation Advantages



Brenntag is committed to providing world-class services to its customers



Brenntag offers a broad logistical network in Europe with magazines in almost all European countries



Stocks are available on-hand



Modern blending facility able to blend own formulations of products adopted for the client's needs



State-of-the-art laboratory equipment



Professional research services and technological support



QC lab for confirmation of the highest quality of blended products



All tests dedicated to Oil & Gas



Internal and external sample testing



Connecting**Chemistry**



THANK YOU FOR YOUR ATTENTION!

Your focal point in the region: Albert Gaysin

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