



BIOGAS

in-depth competence. flexible and superior.

IN-DEPTH COMPETENCE

Biogas technology since 2000

Biogas & Bioenergy India – B2B

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By: Youldos Sallem, International Sales agriKomp GmbH



agriKomp – who we are!

Our goal:

We want to make it possible for agricultural businesses to enter the energy market, quickly and with minimum outlay.

We stand for in-depth competence

- Biogas technology since 2000
- Own product development
- Components Made by agriKomp
- Implemented approx. 1.000 biogas plants
- Approx. 650 employees in the agriKomp network



Robert Bugar,
Founder and Managing
Director



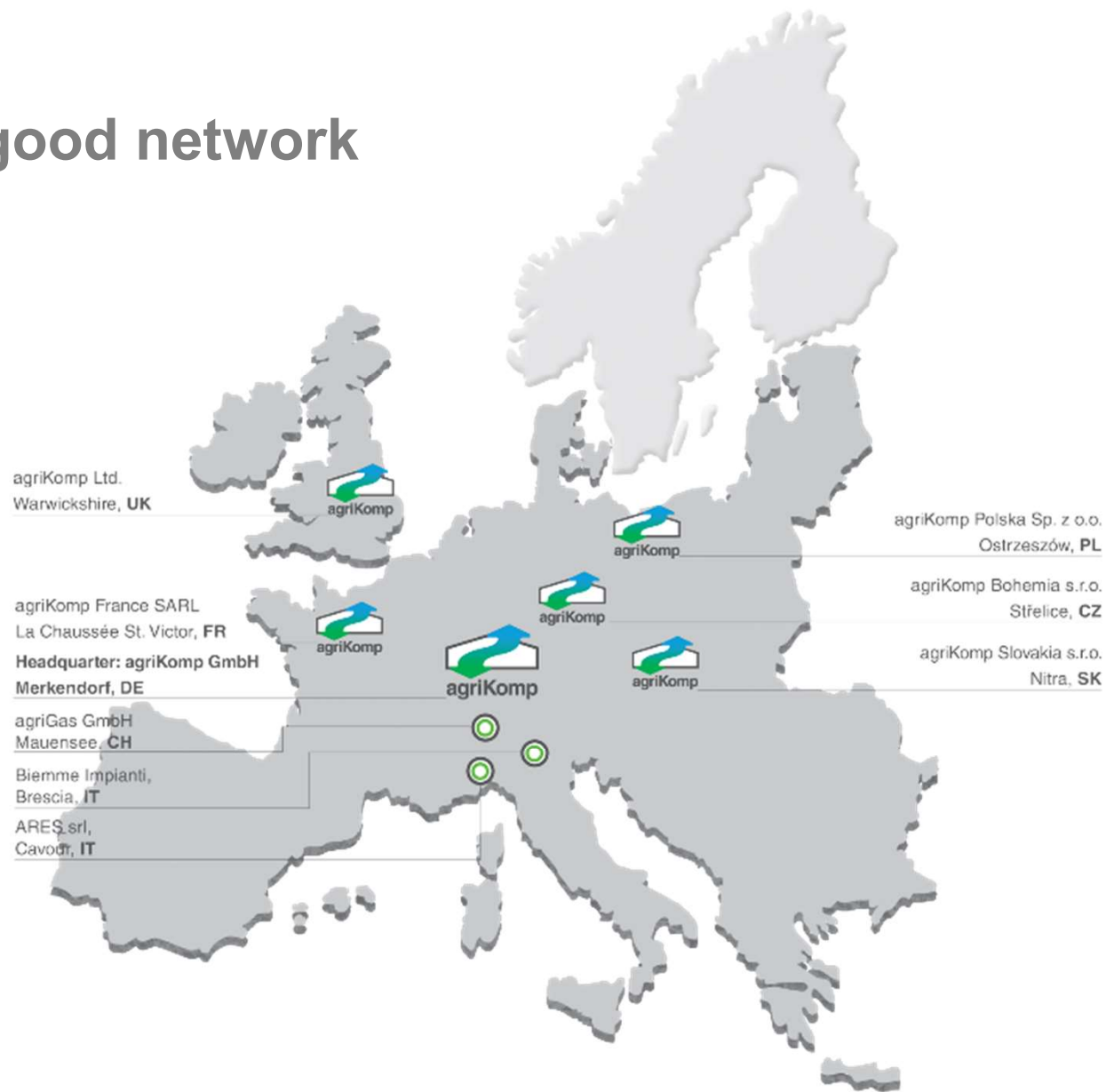
Michael Engelhardt,
Founder





A good network

always close by,
always at your side!



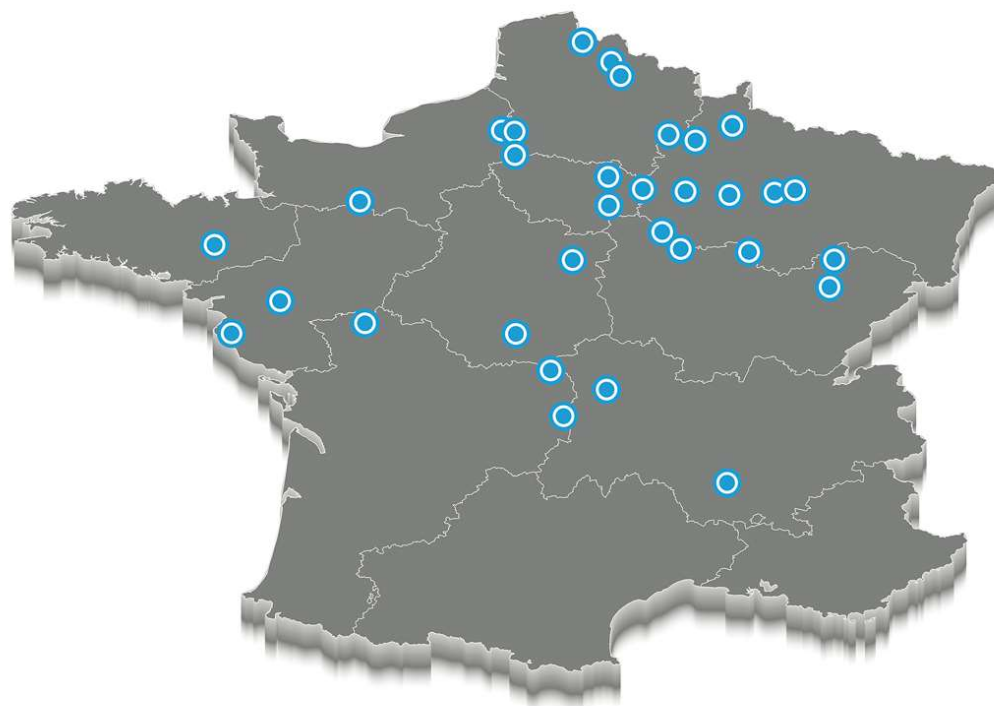
**Worldwide more
than 950 plants!**

International successful!

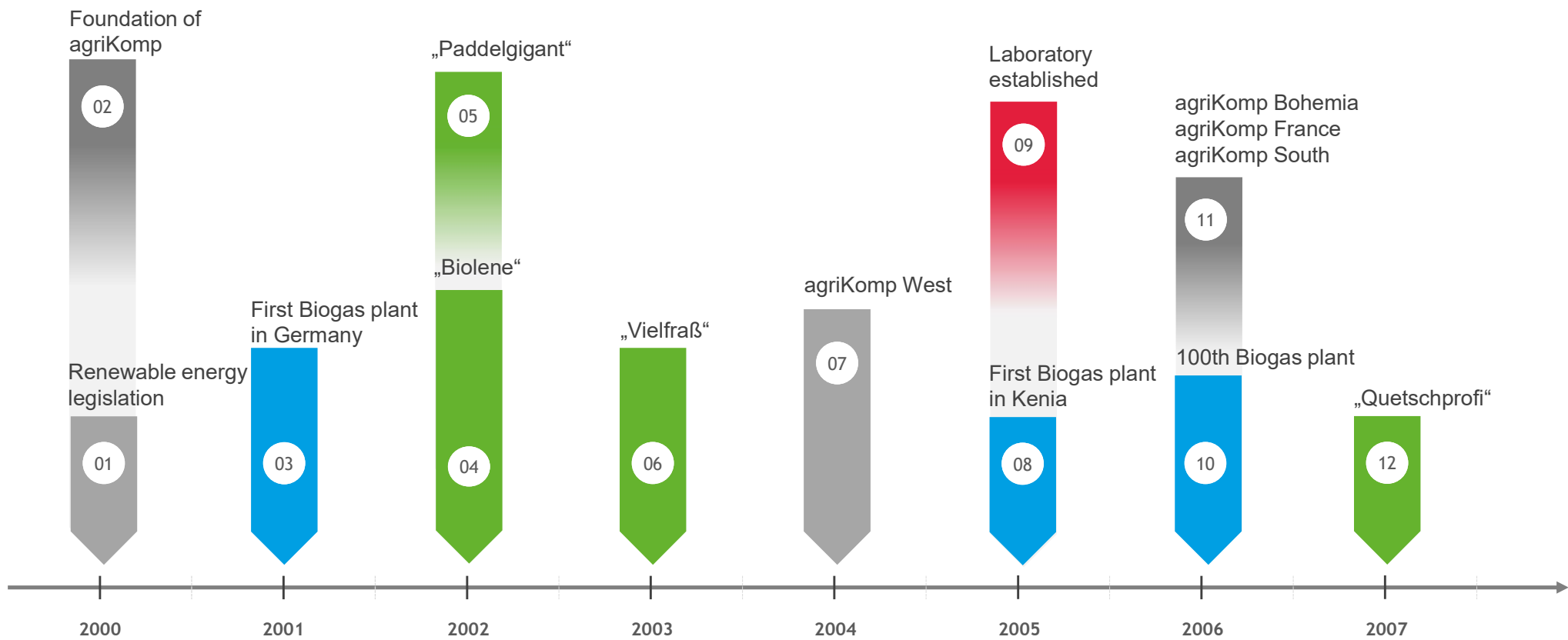


✓ **Operating & Under Construction**

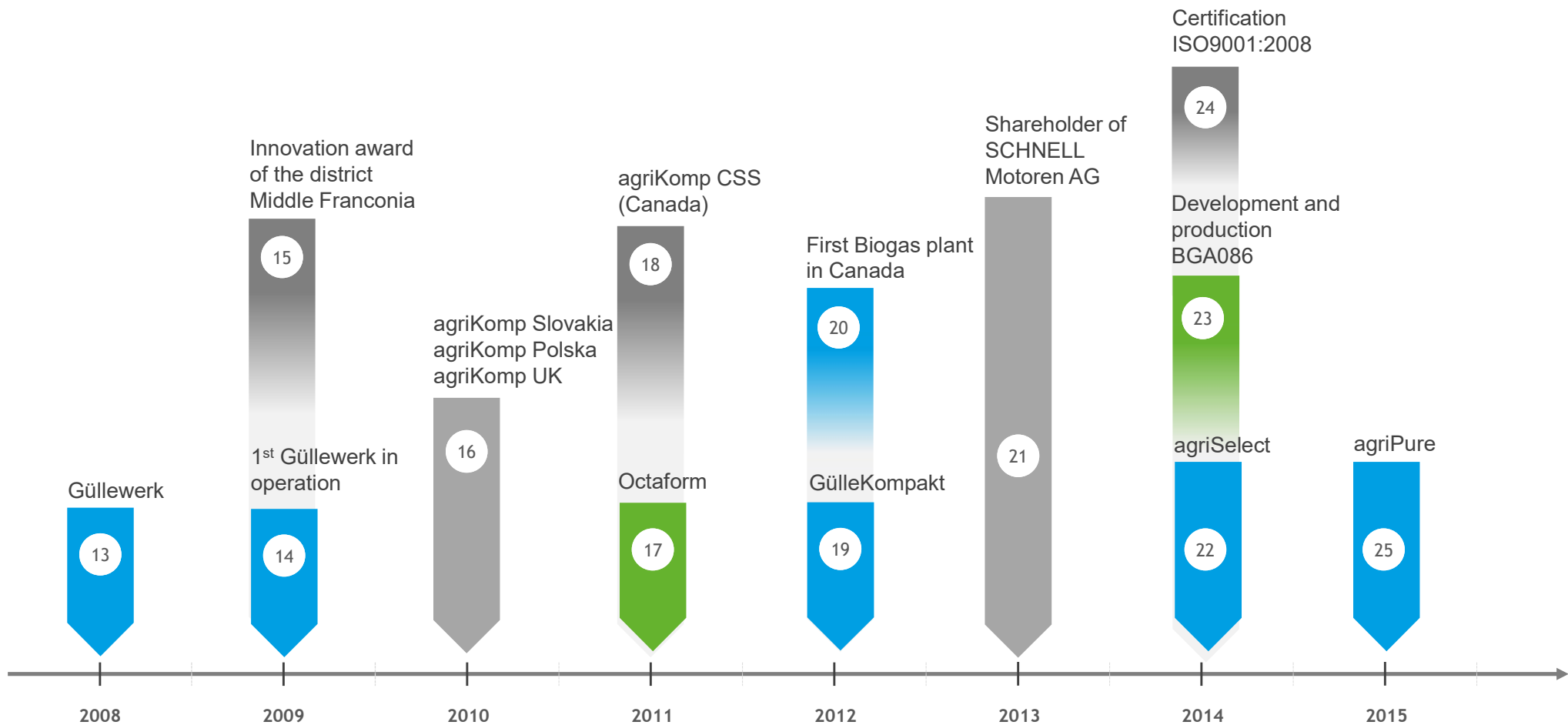
Biomethane AD Projects – agriKomp France



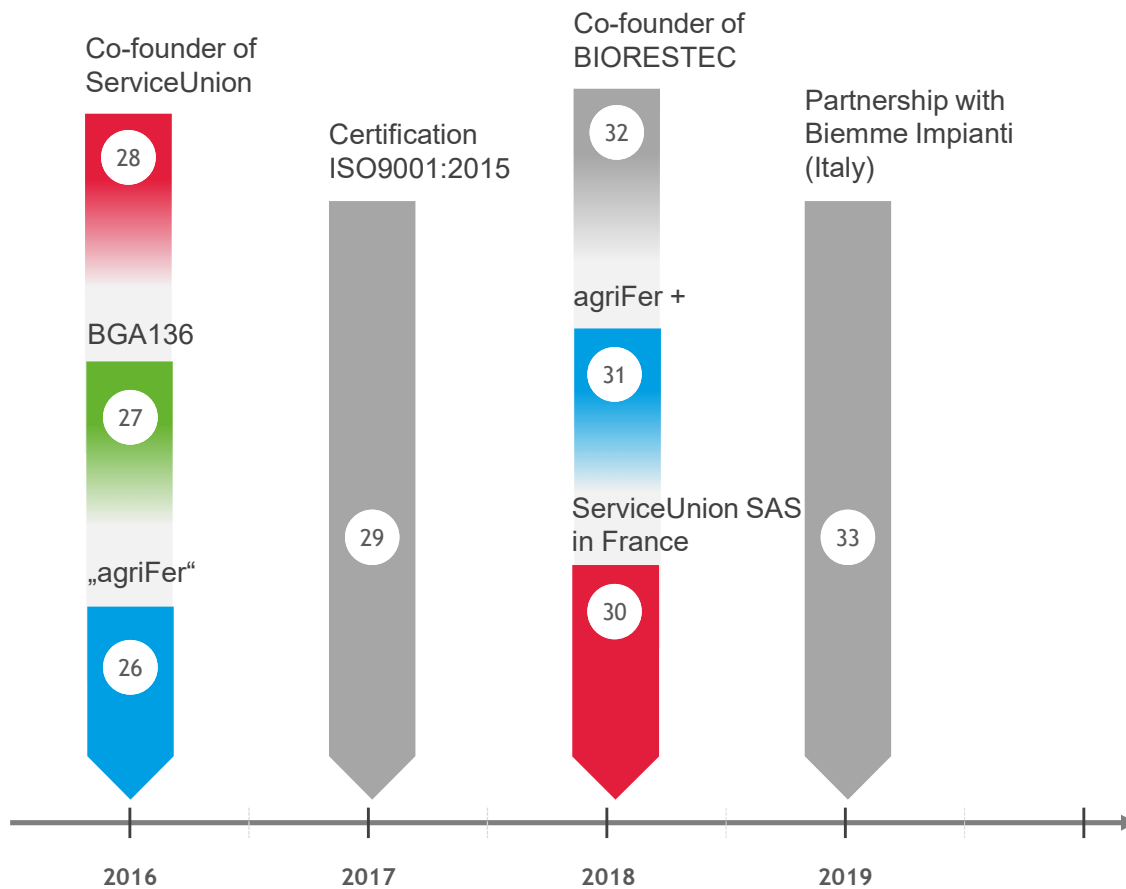
Our history – the milestones



Our history – the milestones



Our history – the milestones



agriKomp in the Top 3!

A current survey run by the Deutsche Landwirtschaftsgesellschaft (dlg - German Agricultural Society) results in agriKomp is among the top 3 companies in the renewable energy sector in Germany! Only considering the biogas industry agriKomp is the brand with the best image in 2018.

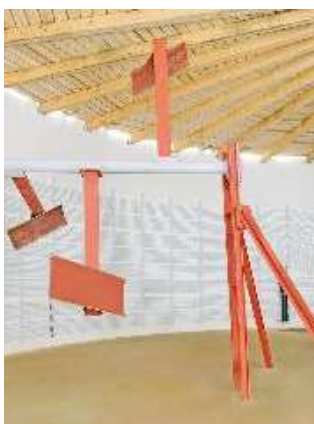
Rely on the Originals!

Built to last. Since 2002.

Quetschprofi®
the modern separation technology



Paddelgigant®
the strong agitator



Vielfraß®
the reliable solid material feeder



Biolene®
the flexible gas store



Double membrane
the high-quality and durable air cover



Formprotect®
the clever tank construction system



Rely on the Originals!

Paddelgigant® – the strong agitator

- ✓ Especially for substrates with a high fibre content
- ✓ Four tilted paddles
- ✓ Different directions of flow
- ✓ Optimal mix of coarse fibred materials
- ✓ Optimum gas yield
- ✓ Avoidance of sink-and-float layering



Rely on the Originals!

Digester Heating

- Proven reliability and operational flexibility

- ✓ High quality and durable materials
- ✓ Ease of installation
- ✓ Low profile to digester wall promoting unimpeded internal liquid flow
- ✓ Aluminium foil barrier within pipe wall construction to prevent biogas ingress
- ✓ Individual heating circuits for operational integrity
- ✓ Design philosophy to install sufficient heating circuits to allow flexibility in operational temperature of digester to optimise process





COMPONENTS

powerful. proven. in demand.

Rely on the Originals!

Viefraß® – the reliable solid material feeder

- ✓ Capable to process most feed inputs
- ✓ Made of V2A stainless steel, as protection against aggressive substrates
- ✓ High number of variants in the Viefraß® family
- ✓ Basic units are available from 7 – 13 m³
- ✓ Separation sumps from 25 – 40 m³
- ✓ Milling attachment for manure bedding
- ✓ Ascending worm screw with heights of 4 – 6 m



Rely on the Originals!

Quetschprofi® - Separator

- Your benefits at a glance:

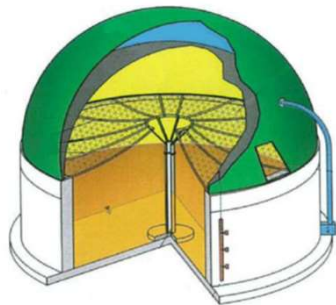
- ✓ Separation of high-quality nitrogen and phosphate fertiliser
- ✓ Optimising storage capacities
- ✓ Lower investment costs for digestate stores
- ✓ Reducing the costs of transportation and spreading
- ✓ Marketing opportunities of the digestate
- ✓ Saving electricity



Biogas Double Membrane Storage

– the flexible gas store

- ✓ High-quality RPVC
- ✓ Longevity
- ✓ UV- and ozone stability
- ✓ Large storage volume
- ✓ Ideal for modern, flexible biomethane generation



Rely on the Originals!



agriclean 150-600

- Gas treatment

Highest efficiency
& maximum cleaning

The agriClean product range has the task of processing the gas produced in a biogas plant for the operation of the CHP unit. Gas cleaning can be used for the fuel gases biogas, sewage gas and landfill gas. It is designed for outdoor operation, continuous operation and frost-proof operation with continuous flow.



Biogas Engines / CHP

Made by agriKomp
Solid & reliable





System agriKomp

- for successful businesses

Sophisticated Biogas plants

agriSelect[®] – the compact biogas plant with 55 kW – 100 kW

Indi plant – the individual solution

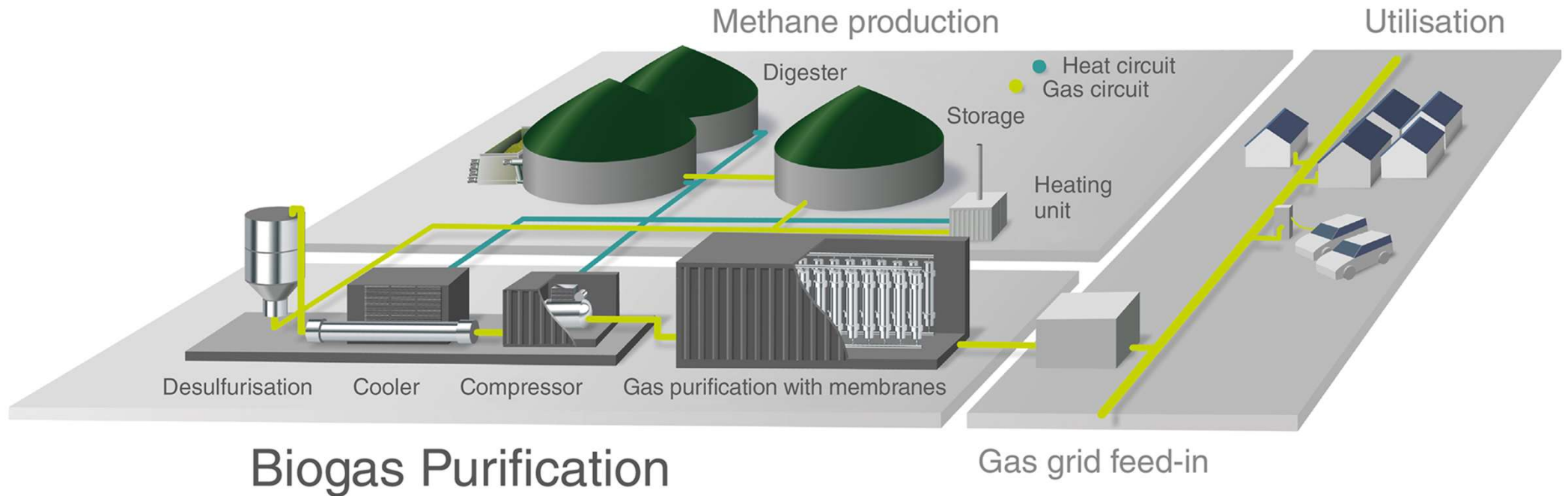
agriPure[®] – upgrading for biomethan

agriFer[®] Plus – digestate treatment innovation



Rely on the Originals!

✓ Indicative Biomethane Plant Concept



Rely on the Originals!

agriPure®

– biogas upgrading technology

- ✓ Low operating costs
- ✓ Easy to operate
- ✓ Methane slip <0.5%
- ✓ Very good energy efficiency (0.27kWe/Nm³ biogas including desulphurisation, gas cooling and pre-compression)
- ✓ No use of cleaning chemicals
- ✓ No waste water to be treated
- ✓ No process heat required
- ✓ Modular system suitable for expansion
- ✓ Dry product gas
- ✓ Fast system re-start to grid quality gas
- ✓ Expected membrane durability: >7 years



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Biomethane Compression

Industry Partner

- ✓ agriKomp works with an experienced industry partner, for biomethane compression technology
- ✓ – if required after agriPure® upgrading for grid injection, CNG vehicle fuel or road transport



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Biomethane Compression and Filling Station



Rely on the Originals!

CO₂ capture and re-use through liquefaction



The operating company SAS Métha Treil was founded near Nantes in France by two livestock and vegetable farmers in 2019. They developed an agriKomp biomethane plant configuration, unique in France, which fully utilises the generated biogas through upgraded biomethane for grid injection plus recovery and use of the CO₂ component.

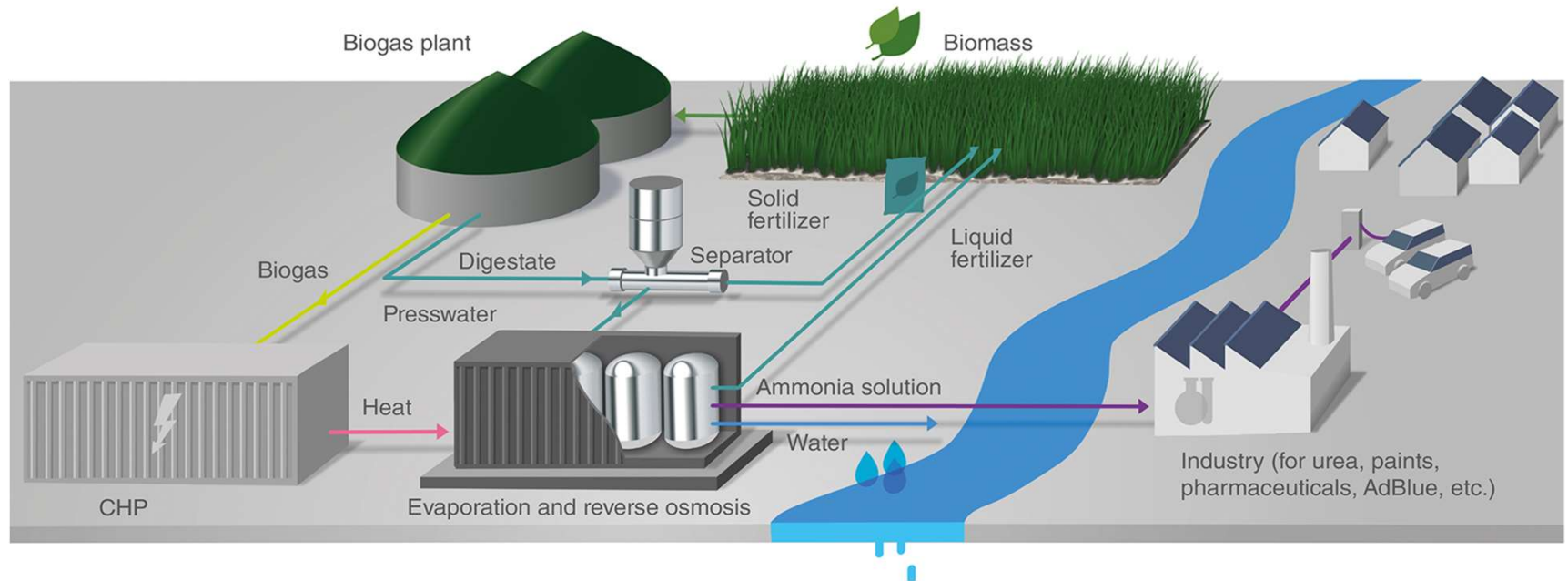
The separated CO₂ from the biogas upgrading process is liquefied and sold to vegetable growers to improve plant growth in their greenhouses. Approximately 1,500 tonnes are produced per year.

Rely on the Originals!

agriFer® Plus

- digestate treatment

- ✓ The process is a utilisation of the CHP heat with vacuum evaporation
- ✓ Digestate volume reduced significantly
- ✓ Output of concentrated high-quality liquid fertilizer and ammonia water (basic chemical for industry)
- ✓ Minimizing emissions (Ammonia)
- ✓ Removes nitrogen from agriculture
- ✓ Stable market demand for process products



Biomethane

France, Nantes

Operator:	Metha Treil
Model:	agriPure 500
Commissioned:	2019
Installed capacity:	500 Nm ³ /h biogas
CO ₂ Liquifaction plant	
Injected capacity:	260 Nm ³ /h biomethane
Material used:	Vegetable waste, grass, silage, cattle slurry, FYM, poultry manure, maize silage



Biomethane

France, Normandy

Operator: SAS Methabio
Normandie

Model: agriPure 400

Commissioned: 2017

Installed capacity: 350 Nm³/h biogas

Injected capacity: 180 Nm³/h
biomethane

Material used: Grass silage, cattle
slurry, FYM, poultry
manure, maize
silage



France, Beauvoir

Operator: Raimiluc
Model: agriSelect
Commissioned: 2018
Installed capacity: 195 kWel
Material used: Cattle slurry/manure,
agricultural residues
Components: 1x Vielfraß® BT 40 m³
2x Paddelgigant®, 2x
Biolene®



Germany, Prichsenstadt

Operator: Schloßberg Energie
Model: agriSelect
Commissioned: 2015
Installed capacity: 75 kW_{el}
Material used: Cattle slurry and manure, pig slurry, feed remains and cereals residues
Components: 1x Vielfraß® 10 m³, 1x Paddelgigant®, 2x Biolene®, 2x Formprotect®
Specialities: The heat produced in the process supplies 3 private residential buildings and workshop





BIO

in-depth competence. flexible and superior.



REFERENCE

optimal solved



Czech Republic, Knapovec

Operator: AVENA, spol. s r.o.

Model: Indi-plant

Commissioned: 2011

Installed capacity: 1,500 kWel

Material used: Grass and maize
silage, pig slurry

Components: 1x Vielfraß® 50 m³
1x Paddelgigant®
1x Biolene®



Future Business Development

Finding reliable and strong
partnerships
in new markets



New partnerships to

- provide the construction of turn-key systems. Ideally with local manpower
- distribute our components as a customer - supplier relationship
- Alternatively: partners / consultants to establish relationships with companies in the local market



Thank you for your attention

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