WE OFFER COMPLETE SERVICES

**We offer complete services –
technology agnostic and from a single source**

As an independent engineering service provider, we offer our customers the entire range from engineering and consulting services to system delivery, as well as support during all phases of the implementation of microalgae projects – from plant design to commissioning of the cultivation systems.

- Project development of stand alone and integrated microalgae cultivation systems
- Process development and concept design
- Comprehensive consulting services
- Engineering services through all planning stages
- Cross-technology planning and process development of commercial production plants
- GICON®-PBR as small-scale units (ready-for-connection system solution) and commercial plant size

CONTACT INFORMATION

Dr.-Ing. Stefan Matthes
Head of Departement Biosolar
T: +49 176 2443 3338
E: s.matthes@gicon.de

Dr. Martin Ecke
Head of Process Engineering
T: +49 170 3816 848
E: m.ecke@gicon.de

GICON®
Grossmann Ingenieur Consult GmbH

Tiergartenstraße 48
01219 Dresden | Germany
T: +49 351 47878 0
F: +49 351 47878 78
E: info@gicon.de

www.gicon.de

Industrial member of EABA

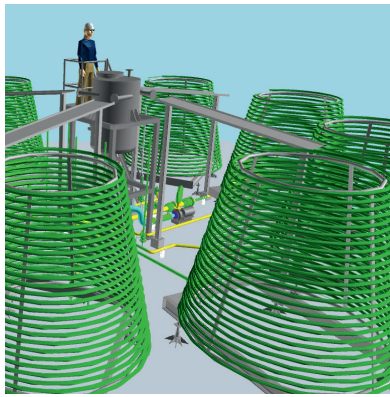
EUROPEAN ALGAE BIOMASS ASSOCIATION
10 YEARS

Ein Unternehmen der GICON® Gruppe

GICON®-Grossmann Ingenieur Consult GmbH is part of the GICON® Group, a group of companies providing independently operating engineering services. The companies together employ about 500 people and draw on the expertise of several thousand projects at home and abroad.

as of 9/2022

GICON®
Großmann Ingenieur Consult GmbH



MICROALGAE TECHNOLOGY

Consulting and Engineering

LONG-TERM EXPERTISE AND INNOVATION

GICON® engineers have planned a broad variety of photobioreactor plants ranging from R&D to commercial-scale systems for 25 years as independent and cross-technology provider using their detailed expertise in:

- Plant design
- Approval planning
- Process engineering
- Biotechnology, biology, and bioenergy systems

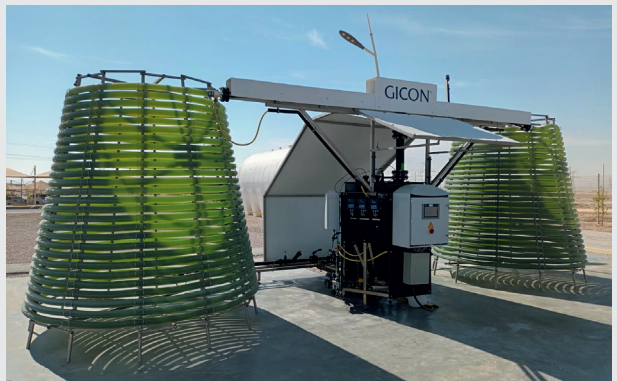
In addition to experience and expertise, GICON® also stands for innovation and technology development.

One of the technological developments is the GICON® photobioreactor technology (GICON®-PBR) allowing for real outdoor production of microalge (no green house necessary). Europe's largest photobioeactor system made of glass tubes in Klötze/Germany (photo) was designed by GICON® engineers.

CONSULTING SERVICES

GICON® provides tailor-made project and process development and consulting services in broad applications using its profound expertise in microalgae cultivation and photobioreactor design.

- Process development of algae cultivation concepts
- Technology development and efficiency enhancement
- Tailor-made process concepts
- Repowering of existing cultivation systems
- Integration of microalgal cultivation systems, e. g.
  - Coupled temperature management of microalgae culture
  - Use of alternative substrates from fluid and gaseous by-product streams)
- Operational management of microalgal systems
- Application concepts for and integration of microalgae
  - … for food and feed purposes
  - … for aquaculture
  - … for soil improvement
  - … for the production of high-value compounds



ENGINEERING SERVICES

GICON® offers plant and process engineering using GICON®-photobioreactor and custom reactor technology:

- Project development of microalgae cultivation systems as stand-alone and incorporated units
- All planning stages for complete or partial systems for commercial scale production as new built systems, conversion and expansion
- Process engineering for pilot plants for R&D tasks with instrumentation and control equipment according to customer requirements
- Stand-alone small-scale systems for agriculture and aquaculture with integration to existing infrastructure and bio processes
- Coupled plants for algae technology and biogas production using the biorefinery principle
- Tailor-made concepts according to customers requirements

Cross-technology plant and process engineering