
CARBON BIOTECH GMBH i.G.

What's **Carbon Biotech** about?

Biotech Startup close to Berlin, a spin off from Brandenburg University of Technology (BTU), Germany

**Green-Tech** process to manufacture **IMPCT protein**, the first Spirulina-based vegan protein with the following USP:

1. Complete vegan protein for human and animal nutrition, the „Best Food For Future" (WHO)
2. Superior quality validated on human cells at comptetive price
3. First colour and taste-optimized Spirulina protein = **Impct protein**
4. Proprietary technology to use atmospheric $CO_2$ for production leading to a **negative CO2 footprint** anywhere in the world

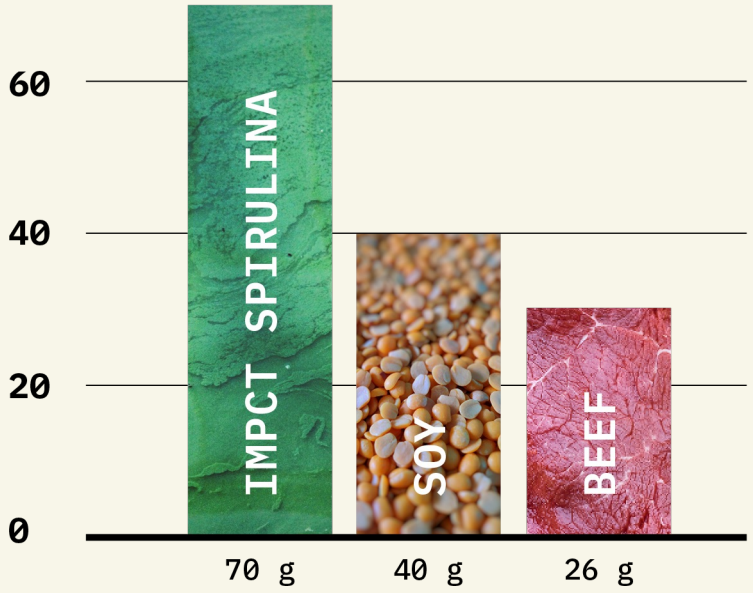
High Potential for both Revenues & Social-Ecological Impact

# Spirulina named best food for future by the WHO.

# „Impct" is good for people.

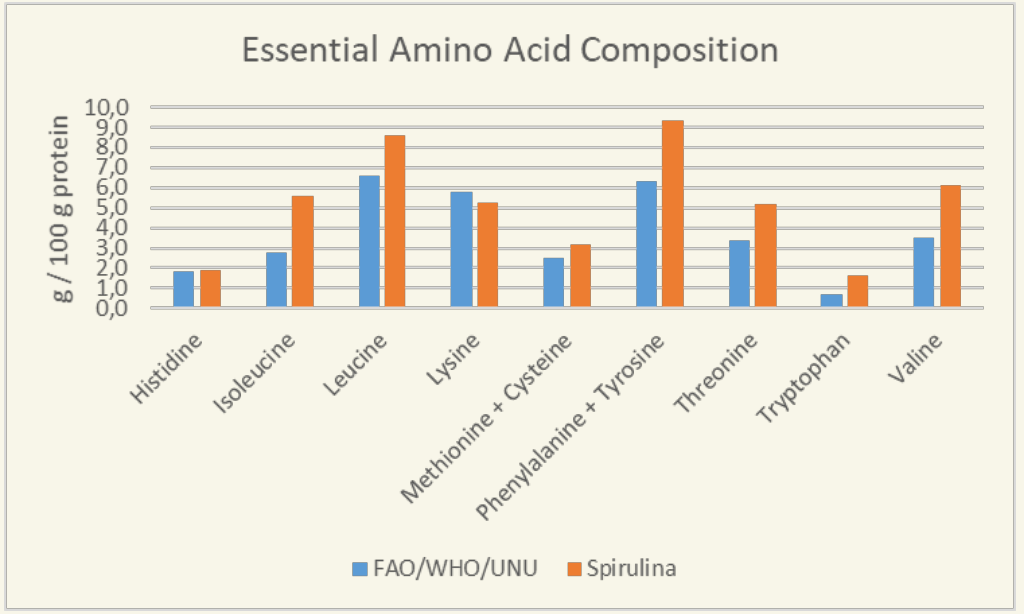
## PROTEIN SOURCE

Spirulina has maximum Protein density (per 100 g)




## NUTRITION VALUE

Impct is a complete protein, rich of all essential amino acids
(AAs compared to FAO/WHO/UNU reference)



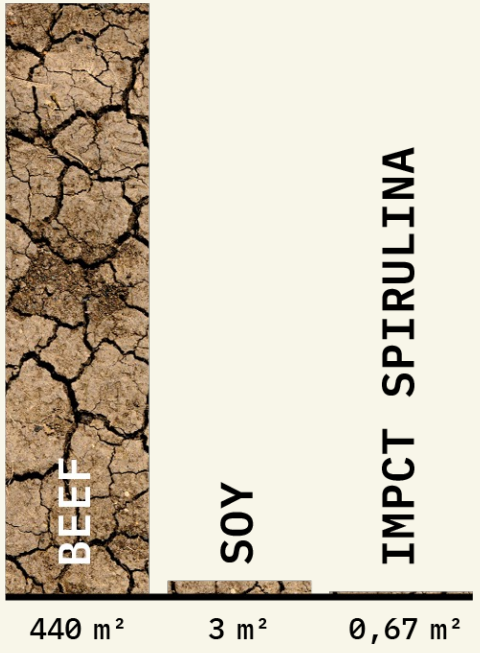
# „Impct" is good for the planet.

## REQUIRED WATER

Spirulina has minimal
water footprint
(water per 1 kg protein in l)


## REQUIRED LAND

Minimal arable land
required for Spirulina
(land use per 1 kg protein in $m^2$)




## EMISSIONS

Spirulina has no greenhouse
gas emission levels
($CO^2$ emissions per 1 kg protein in kg)

SOLUTION

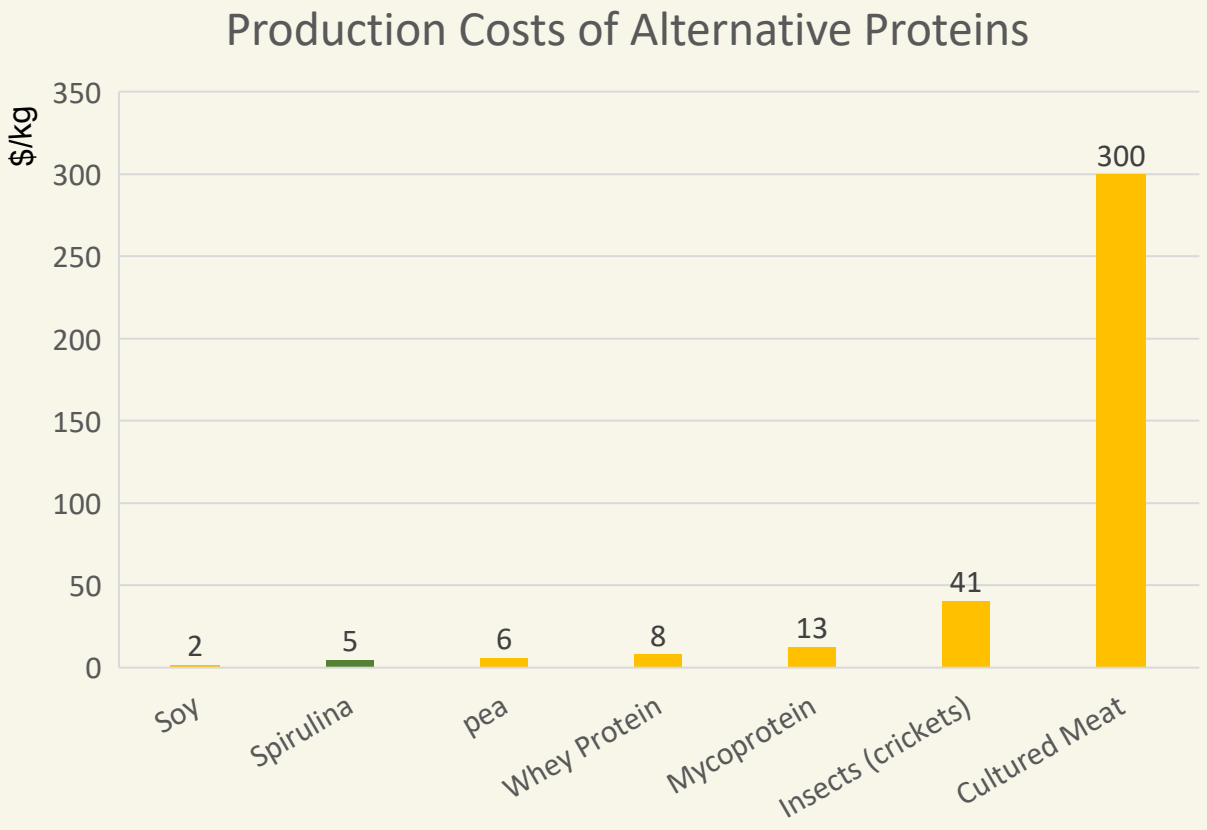
# The world's first alternative protein that is complete

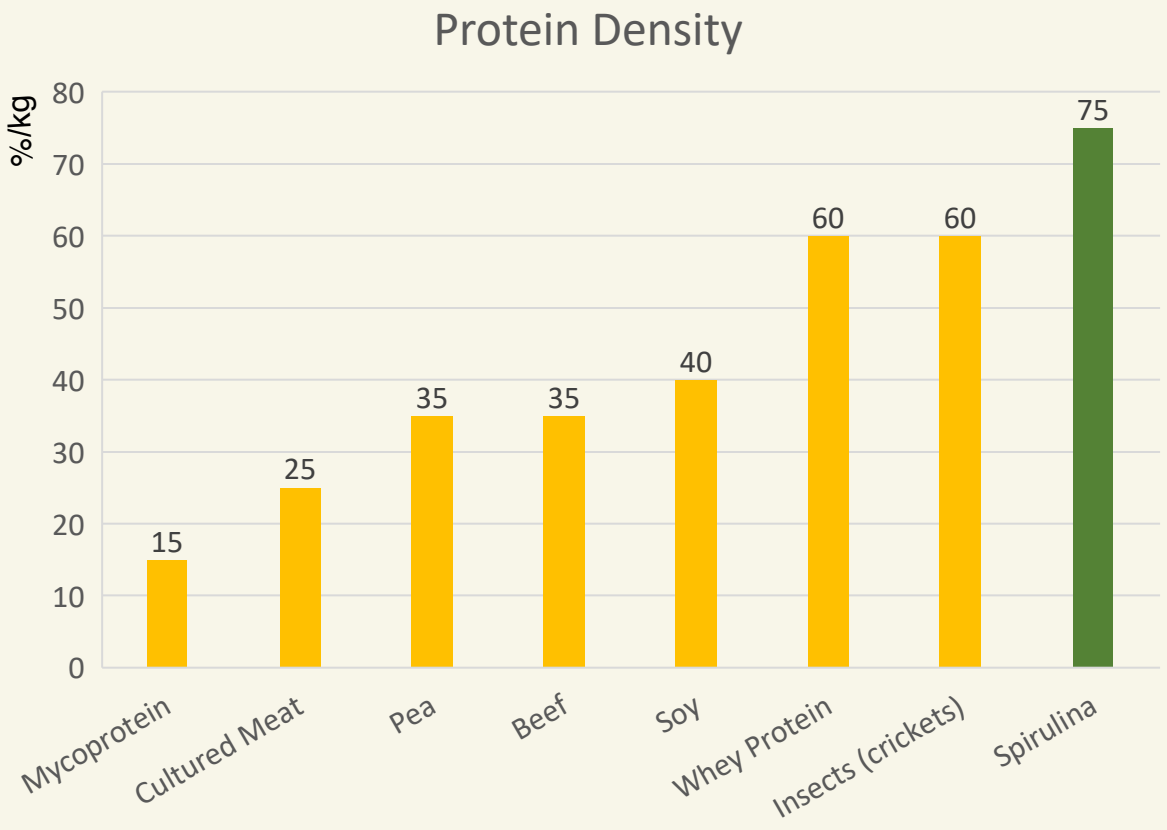
- Enriched
- Colour-neutral
- Taste-neutral
- Universal protein source

Atmospheric $CO_2$ used for production

VALIDATED ON HUMAN CELLS

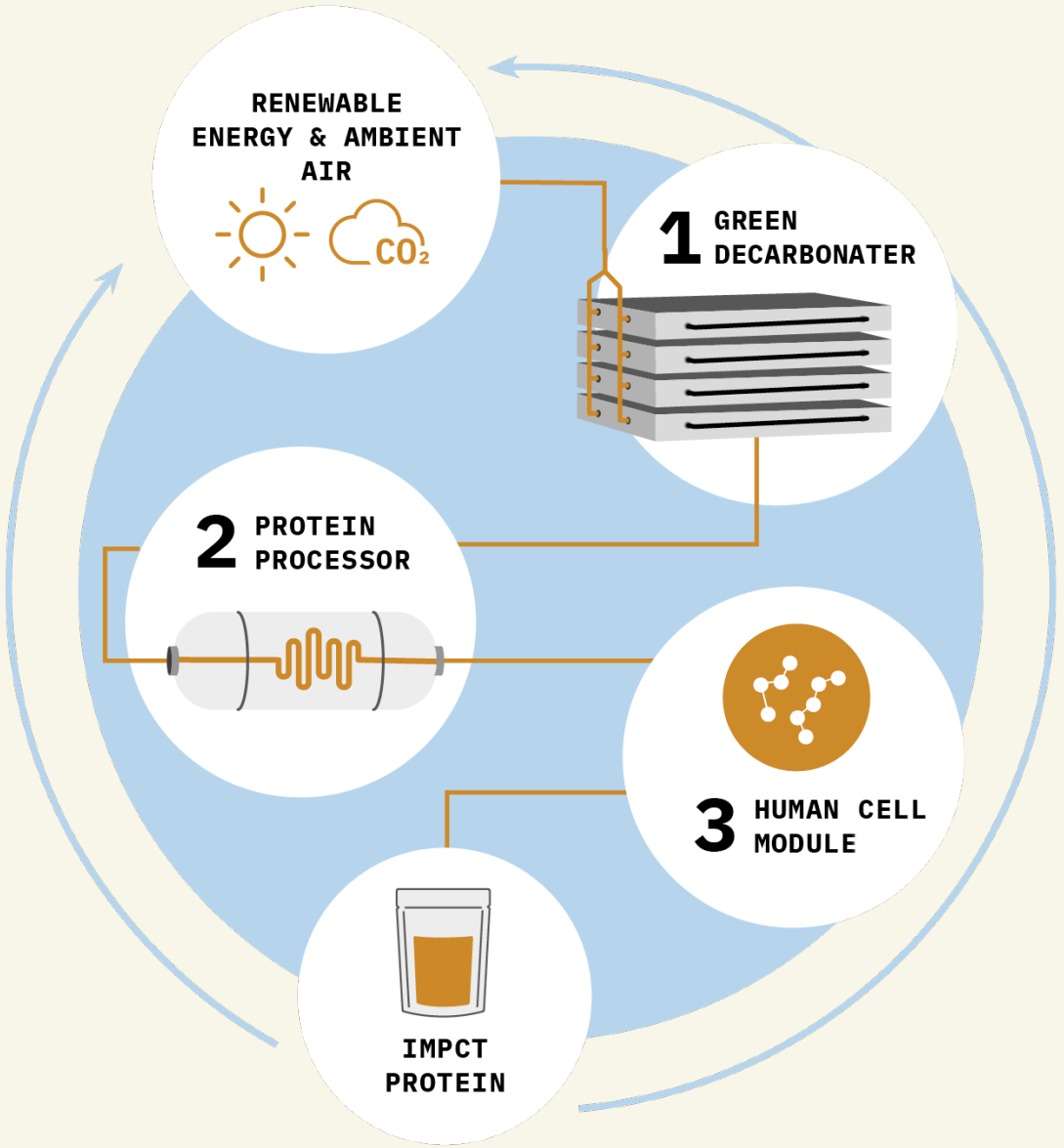
> 70% PROTEIN, All essential Aas, VITAMINS, Minerals


Production Costs of Alternative Proteins
$/kg
350
300
250
200
150
100
50
0
2
5
6
8
13
41
300
Soy
Spirulina
pea
Whey Protein
Mycoprotein
Insects (crickets)
Cultured Meat

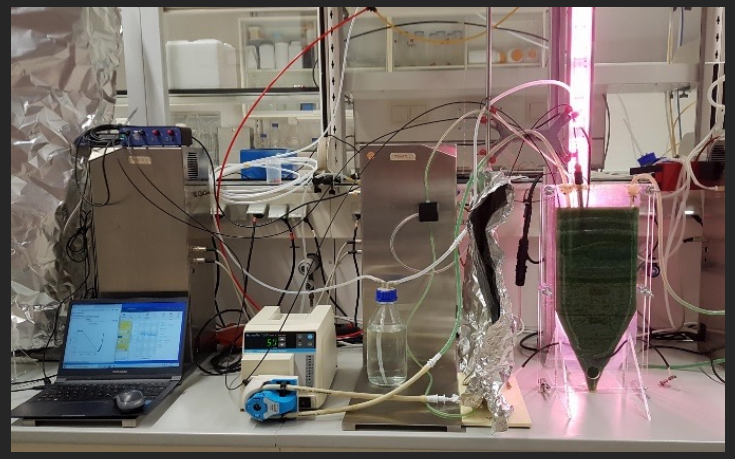

Protein Density
%/kg
80
70
60
50
40
30
20
10
0
15
25
35
35
40
60
60
75
Mycoprotein
Cultured Meat
Pea
Beef
Soy
Whey Protein
Insects (crickets)
Spirulina

# Unique Technology

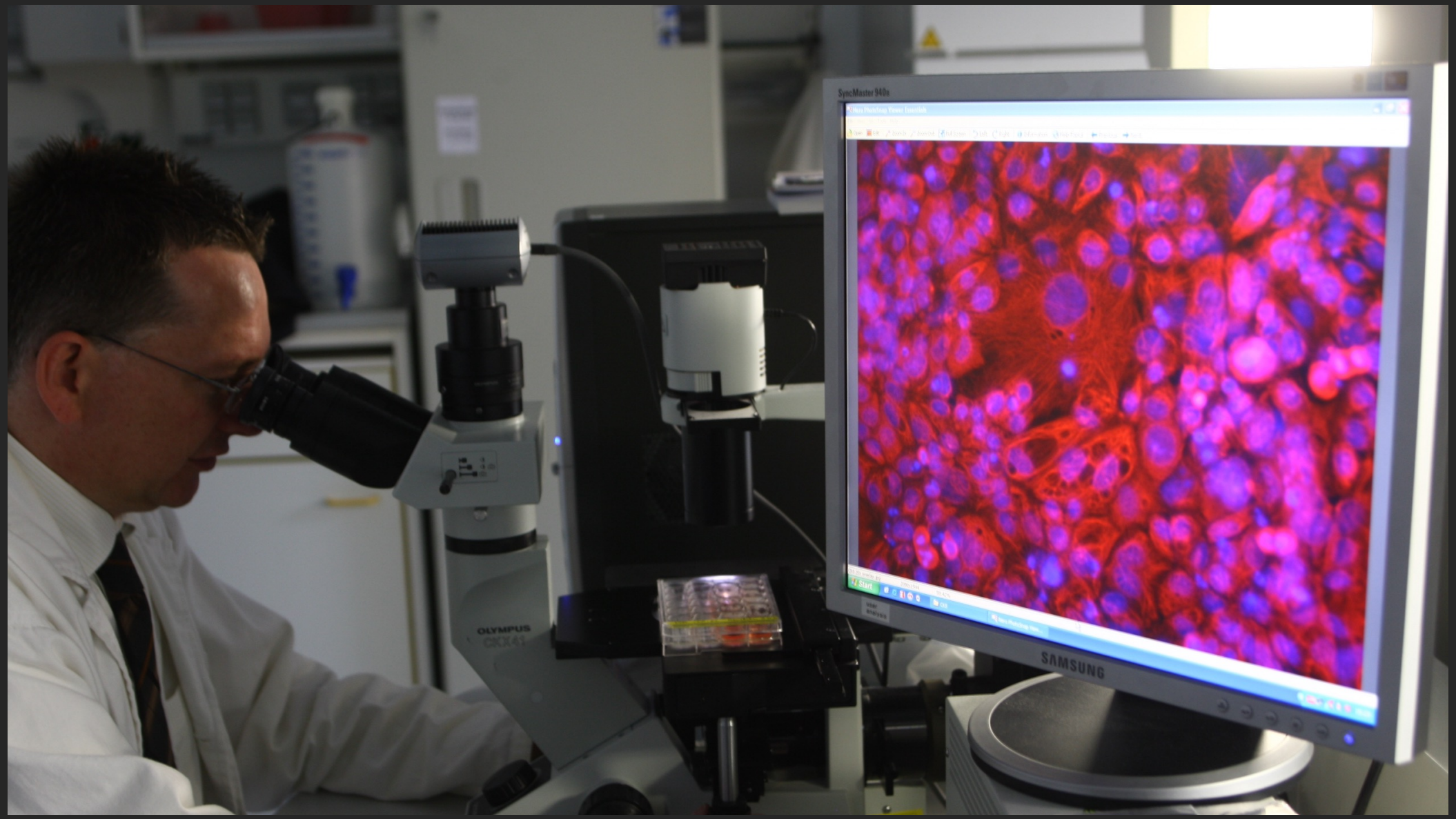
1. Technology for cost-effective and clean production of Spirulina biomass and use of atmospheric $CO_2$
2. Protein processing to optimize IMPCT protein color, taste & nutrient content for integration into various food products
3. Validation on human cell cultures (colon, blood, liver)



# Indoor Bioreactors for Spirulina Research & Production: Lab Scale and Prototype



# Human Cell Module



# Our vision is to feed the world sustainably

## HUGE MARKET POTENTIAL

The world population needs 550 k tons protein per day. This demand could be served with 91 Gigafactories.
Market potential EUR 12.7bn.
Production at competitive costs.

## WITH SUPERIOR PRODUCT

Nutritional benefits
First customer feedback exremely positive.
LOI from Unilever & Eckes-Granini.

## AND MINIMAL Footprint

In case of Germany, 0.2% of state area sufficient to provide the population with daily protein.
Net negative emissions, no arable land required and environmentally friendly.

# Team Members

**JAN-HEINER KÜPPER**
Founder & CSO

**TASSILO KÜPPER**
Founder & CEO

**Caren Genthner-Kappesz**
Company Building &
strategyFINANCIALS

**DANIEL SCHRAMM**
COO

**STEPHANIE HOLZER**
CMO

# Advisory board

## Norbert Schebesta, MBA

Industry advisor. Until his re-tirement, N. Schebesta was CFO of an internationally operating automotive supplier with annual sales of 2 bn EUR and 10.500 employees.

## Thomas R. Loster

The geographer and climate expert represented the global reinsurer Munich Re and later Munich Re Foundation in more than 20 world climate summits (COPs). He is lecturing about sustainable solutions for global challenges at a University in Munich.

## Prof. Dr. Karl Hermann Steinberg

Industry advisor concerning large-scale microalgae production. Prof. Steinberg was research director of Preussag AG and later on established
the microalgae farm Kloetze, at this time the largest commercial in Europe.

## Uli Bunk

As a member of the Executive Board of Eckes & Granini AG, he was responsible for the supply chain as well as human resources and organizational development. His holistic sustainability strategy contributed to the business success even in difficult times. Uli Bunk now has 32 years of experience in international business and organizational responsibility.

## Erwin Feldhaus

Erwin is an entrepreneur, investor, networker, non-executive, and coach with extensive international, cross-industry experience in different phases of the company life cycle. His mission is to achieve sustainable, positive results through innovation and a high degree of empathy.

EDUCATION & EXPERIENCE:

# Scientific Advisory board

## Prof. Dr. Friedrich Jung

Scientific advisor concerning Spirulina bioeffects in human cells. Prof. Jung is a leading expert in the field of Biomaterial's hemocompatibility with more than 600 peer-reviewed publications in scientific journals.

## Dr. Martha Kandawa Schulz

Political and scientific networker in regard to the development of microalgae production in Southern Africa. Since many years, Dr. Kandawa-Schulz has leading academic positions at the University of Namibia, Faculty of Science.

## Prof. Dr. Dr. hc. mult. Hans-Joachim Schellnhuber

Founder and Director Emeritus of the renowned Potsdam Institute for Climate Impact Research (PIK). Schellnhuber is a highly-cited researcher (Clarivate) and published some 300 scientific articles & books in fundamental physics, complex systems analysis, climate-change research, sustainability science, and other fields. As member and author of the IPCC, member and chairman of the German Advisory Council on Global Change (WBGU) and Scientific Chief Advisor of former Chancellor Angela Merkel with respect to climatology, he made a strong impact on climate politics and sustainability until today.


# Join our journey for a better future.

Interested to find out more about this opportunity and see the full business plan for an initial financing?

Please reach out to:

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