

FROM RESEARCH TO REAL WORLD IMPACT

Algae as a Driver of Innovation,
Education and Social Good

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PureRaw Knufmann GmbH



20+ YEARS OF ALGAE INNOVATION

Food | Education | Research | Product Development |
Science Communication | Sustainability



Regional. Unternehmerisch. Stark.

Industrie- und Handelskammer
Magdeburg



**HOCHSCHULE
ANHALT** University
of Applied Sciences


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Gesellschaft für Wissenschaftskommunikation



WHY I STARTED WORKING WITH ALGAE



NUTRITION

How can we provide essential nutrients for a growing population?



HEALTH

How can we improve public health through sustainable solutions?



SUSTAINABILITY

How can we produce more with fewer resources?



EDUCATION

How can we turn scientific knowledge into practical action?



*For me, algae are not a product.
They are a tool for creating positive impact.*



WHY ALGAE?

One Resource.
Many Solutions.

KNOWLEDGE



EDUCATION



INNOVATION



SOCIAL IMPACT

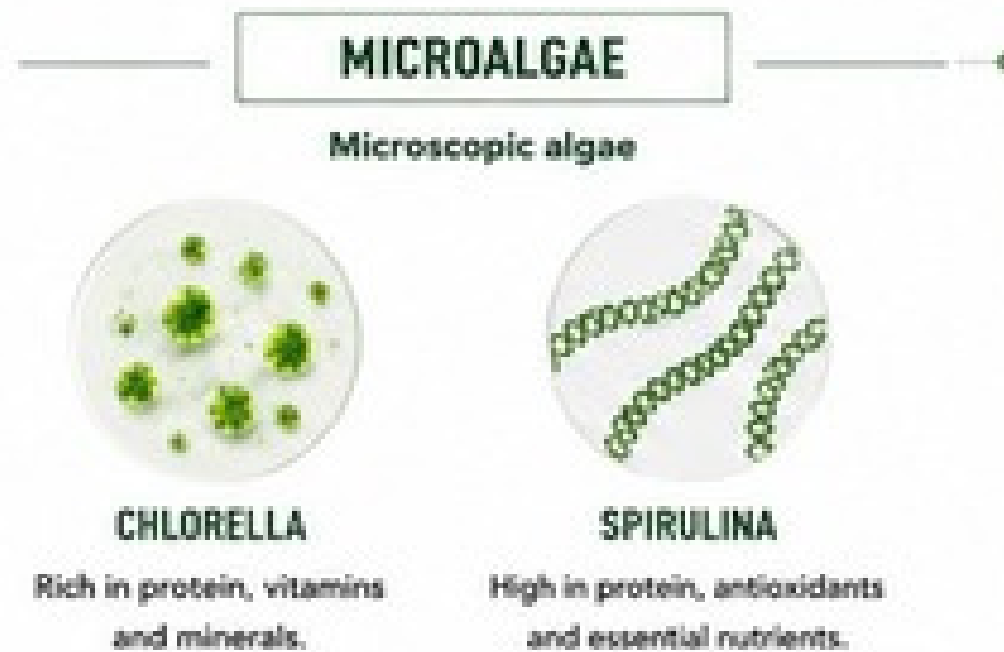


Over the last 20 years, algae
have become much more
than a food ingredient.

They have become a platform
for innovation, education and
social impact.

WHAT ARE MICRO- AND MACROALGAE?

Algae are a diverse group of photosynthetic organisms that exist in many shapes, sizes and colors.



MACROALGAE (SEAWEEDS)

Large, multi-cellular algae

GREEN ALGAE

Common in coastal waters, nutritious and versatile.



Ulva
(Meeresalat)



Chondrus
(Knorpeltang)

RED ALGAE

Diverse in structure and rich in beneficial compounds.



Porphyra
(Nori)



Palmaria
(Lappentang)

BROWN ALGAE

Often found in colder waters, rich in fiber and minerals.



Laminaria
(Kombu)



Undaria
(Wakame)



Himanthalia
(Meeresspaghetti)



PHOTOSYNTHETIC ORGANISMS

They use sunlight to produce energy.



FOUND IN AQUATIC ENVIRONMENTS

In oceans, seas, lakes and freshwater.



VALUABLE FOR FOOD, HEALTH AND SUSTAINABILITY

Rich in nutrients with great potential for a better future.



FOOD SECURITY



HEALTH & NUTRITION



SUSTAINABLE RESOURCES



CLIMATE ACTION



ECONOMIC OPPORTUNITIES

THE POTENTIAL OF ALGAE

A complete nutritional powerhouse with endless possibilities.



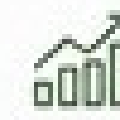
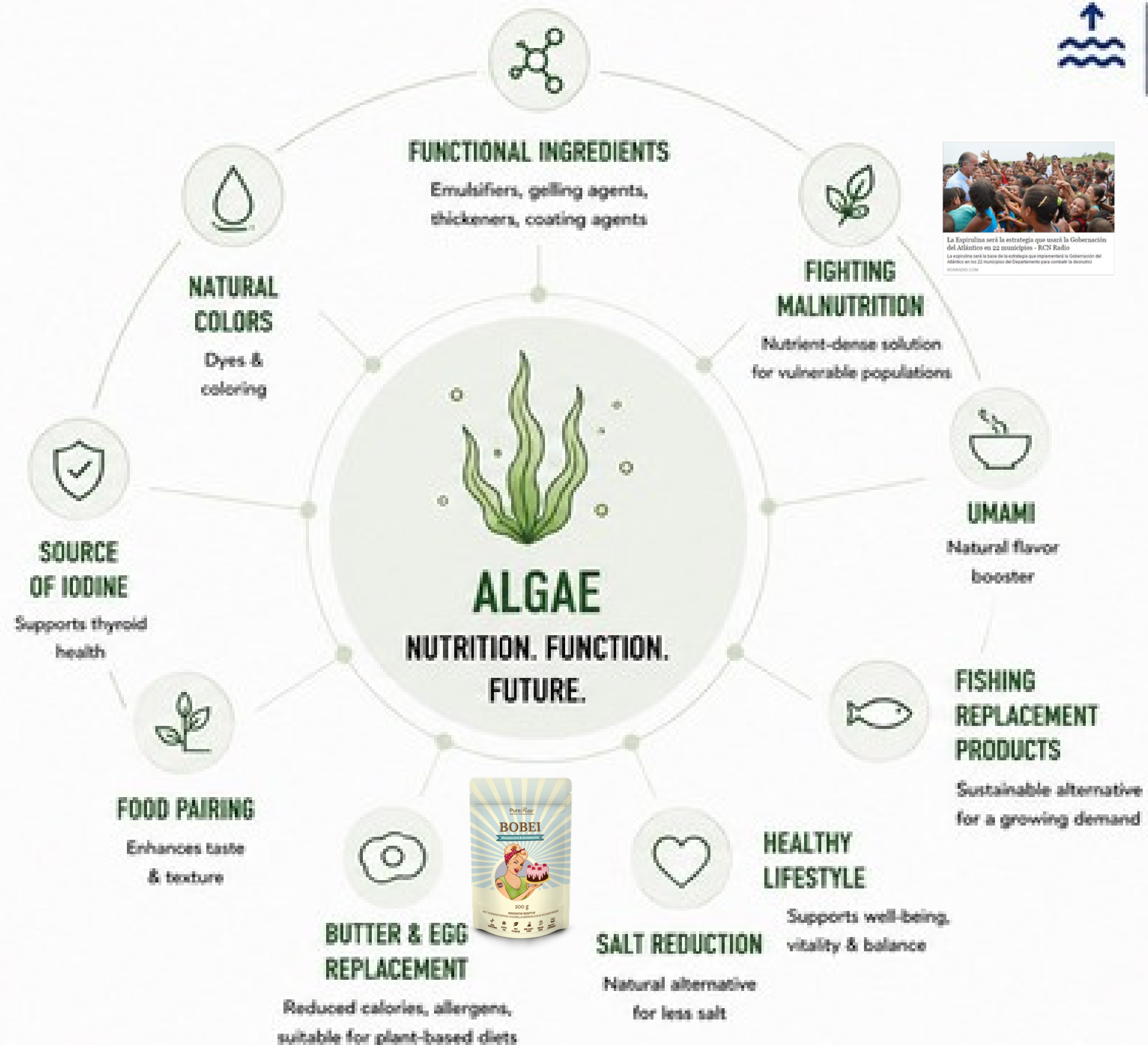
NUTRITIONAL PROFILE

- High-quality protein
- Complete amino acid profile
- Omega-3 fatty acids
- Essential minerals (iodine, iron, calcium)
- Vitamins (A, B12, C, D, E)
- Pigments & secondary compounds



SENSORY & HEALTH BENEFITS

- Great taste & umami
- Natural salt reduction
- Functional benefits for a healthy lifestyle



THE WORLD IS CHANGING.



10 BILLION
People by 2050



-50%
Arable land per capita
compared to 1960



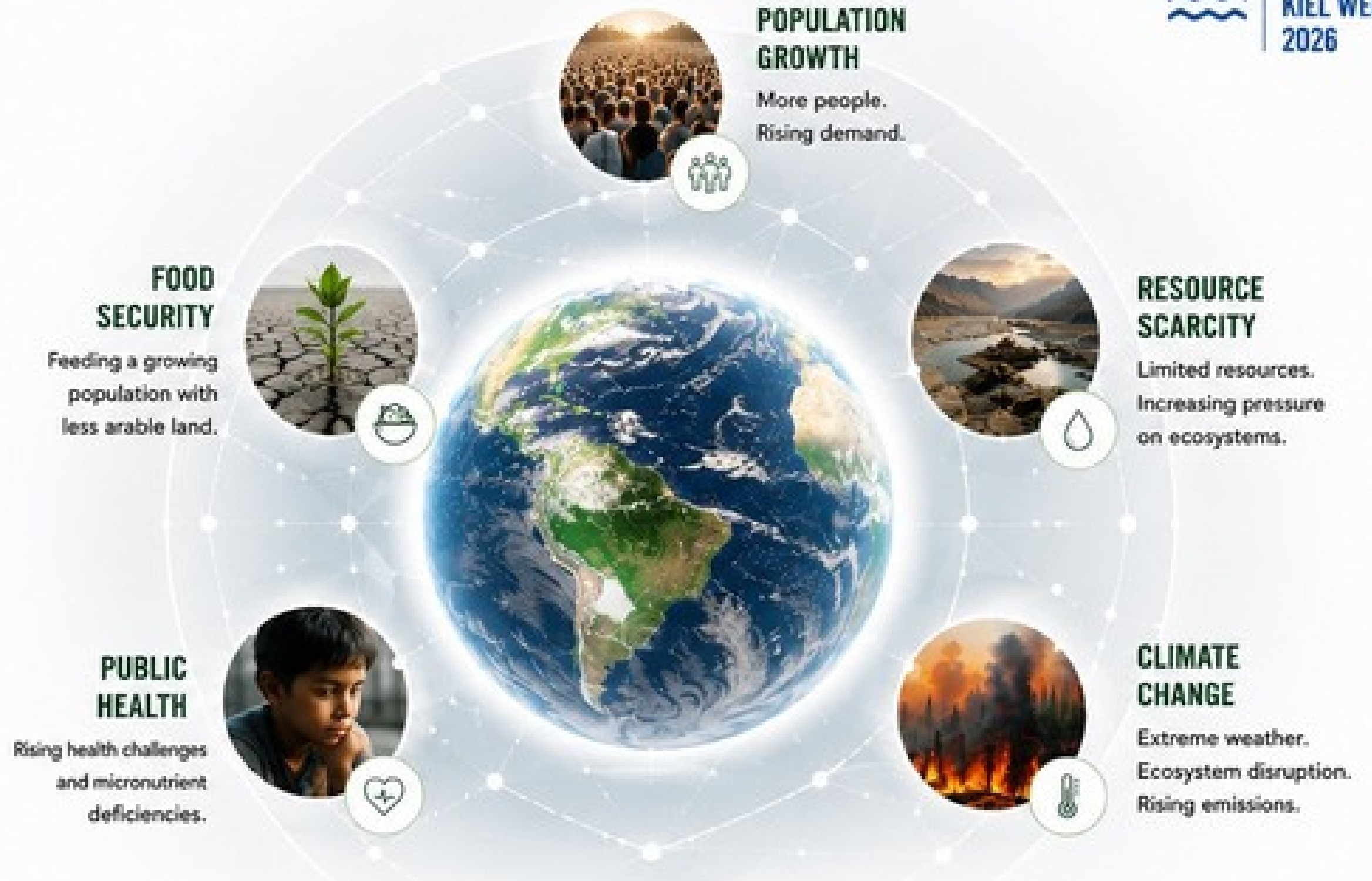
1 IN 3
People affected by
micronutrient deficiencies



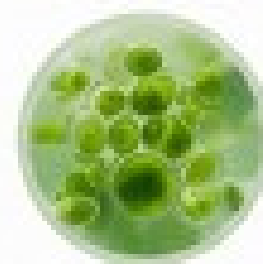
+70%
More food needed
by 2050



BLUE ECONOMY
KIEL WEEK
2026



THE CHALLENGES ARE CONNECTED. THE SOLUTIONS MUST BE CONNECTED TOO.



WHY ALGAE?

ONE RESOURCE.
MULTIPLE SOLUTIONS.

TURNING RESEARCH INTO ACTION.

From algae to applications –
closing the gap between
science and society.



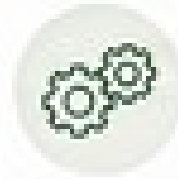
RESEARCH & DISCOVERY

Exploring algae.
Understanding potential.



DEVELOPMENT & INNOVATION

Developing solutions.
Optimizing applications.



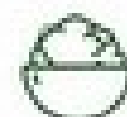
APPLICATION & IMPLEMENTATION

Bringing solutions to market.
Driving real-world impact.

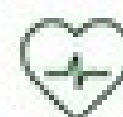


IMPACT & VALUE CREATION

Creating value for people.
Protecting our planet.



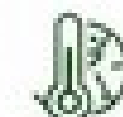
FOOD & NUTRITION



HEALTH & WELL-BEING



SUSTAINABLE RESOURCES



CLIMATE ACTION



ECONOMIC OPPORTUNITIES

THE POWER OF COLLABORATION.

Complex challenges need strong partnerships.

ACADEMIA & RESEARCH
Generating knowledge.
Driving innovation.

INDUSTRY & STARTUPS
Bringing ideas to market.
Creating solutions.

COMMUNITIES & SOCIETY
Local impact.
Global relevance.

POLICY & INSTITUTIONS
Enabling frameworks.
Scaling impact.



**TOGETHER
WE TURN POTENTIAL
INTO IMPACT.**



ONE GOAL.

ONE PLANET.

ONE FUTURE.



FOOD SECURITY



HEALTH & NUTRITION



SUSTAINABLE RESOURCES



CLIMATE ACTION



ECONOMIC OPPORTUNITIES

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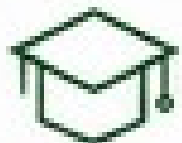
TOGETHER, WE CAN TURN ALGAE INTO A FORCE FOR GOOD.

For people. For the planet.
For generations to come.



RESEARCH

We explore.
We create knowledge.



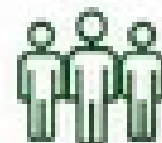
EDUCATION

We empower.
We inspire.



INNOVATION

We develop solutions.
We drive change.



IMPACT

We improve lives.
We protect our planet.



Kirstin Knufmann

Founder & CEO
PureRaw Knufmann GmbH

www.pureraw.de

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THANK YOU.