



Circular Biomanufacturing based on liquid feedstocks

Dr. Frank Kensy



Circular Biomanufacturing based on liquid feedstocks

Introducing our versatile, resilient and scalable biomanufacturing platform from CO₂

➤ € 2.5M Seed Funding Pitch Deck

The uncomfortable truth behind our everyday products

Where do our products really come from?



Predominant origins
Oil fields, strip mines, and animals



Consequences
Severe environmental degradation



The challenge
Decoupling of consumption from resource exploitation and degradation is imperative for our future

Source: 1) IEA, 2022 2) FAO, 2022 3) Nature Communications, 2021



7.1 Gt

CO₂ emissions in 2021 originate from fossil-based chemicals and materials¹⁾

4.2 Gt

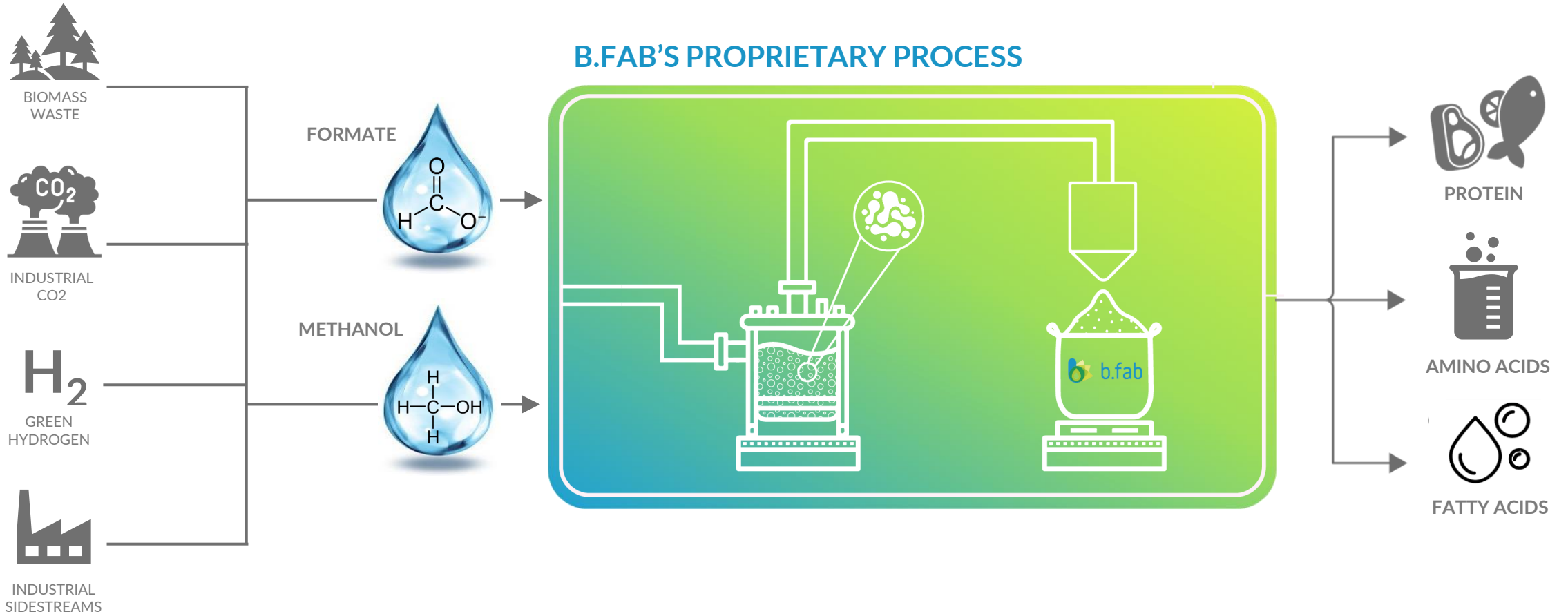
CO₂ emissions in 2021 caused by animal feed production²⁾

>1/3

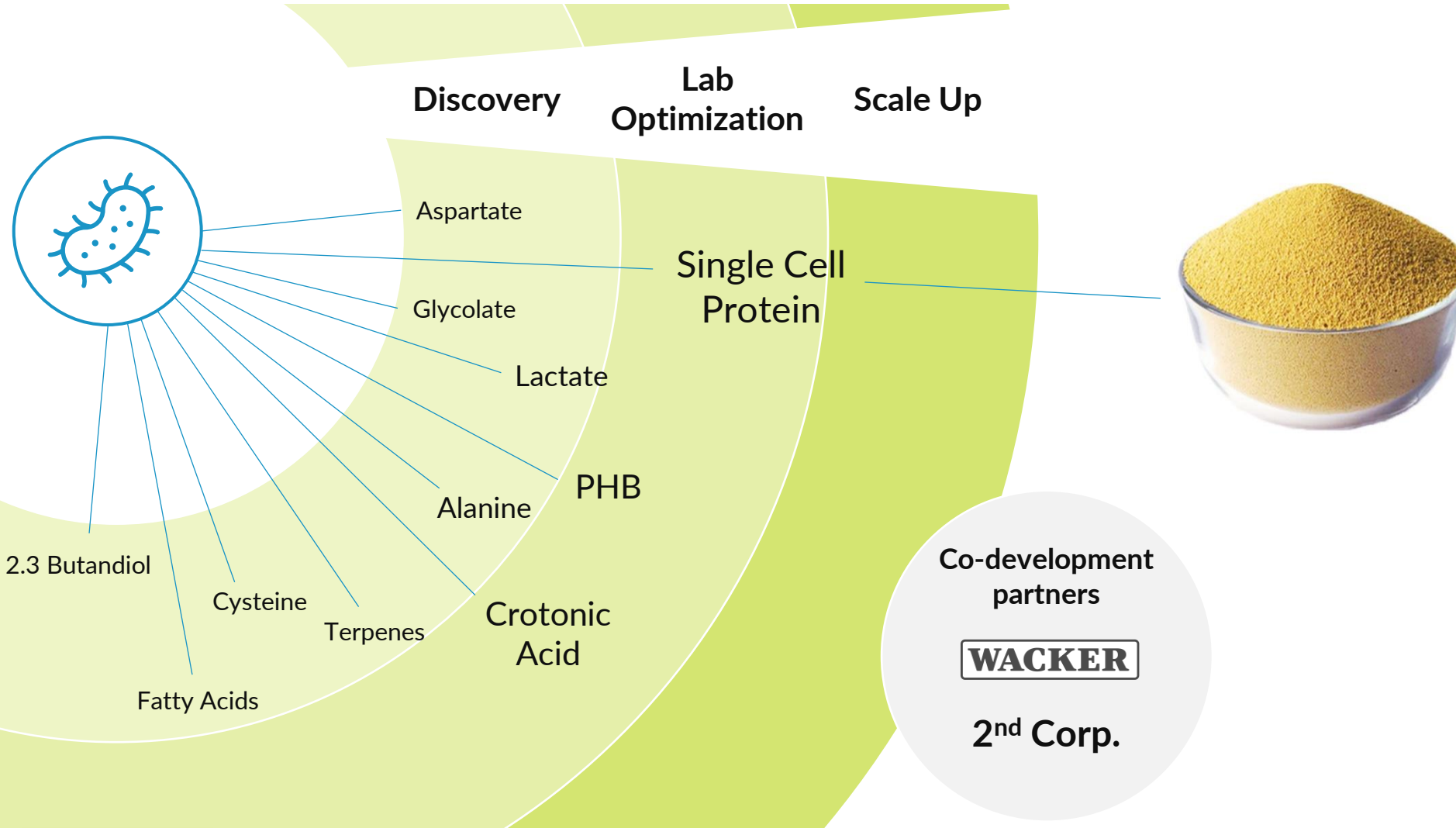
of global land surfaces have transformed since 1960³⁾

b.fab's biorevolution on liquid CO₂-based feedstocks

FLEXCarbon Technology



Focus on solid margins, megaton scales, and sustainability



Sustain™ – our first scalable product

A game-changing amino-acid rich and price competitive protein for the global aquaculture feed market

Co-development partners

WACKER

2nd Corp.

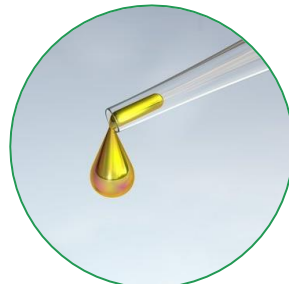
Enabling our customers to substitute traditional fossil- and animal-based products across global categories



Replacing animal-based feed and animal-based products as protein source for food and feed



Replacing animal-based and unsustainable, plant-based specific amino acid sources for food and feed



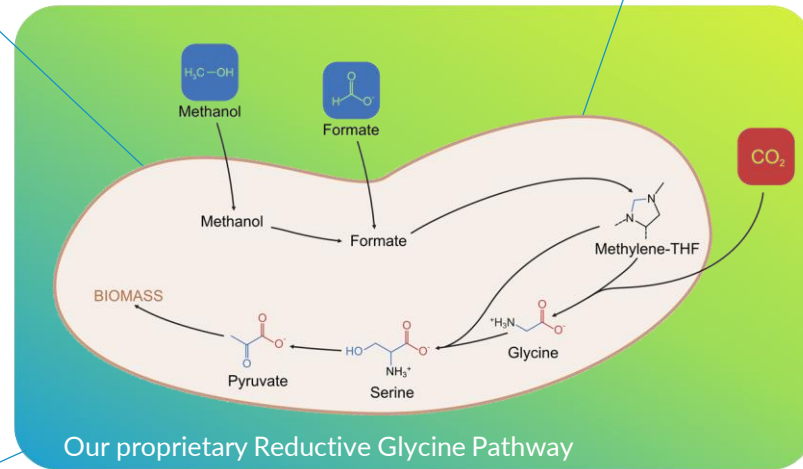
Replacing fossil- & plant-based fatty acids for food, feed, and consumables



We outcompete based on microbial efficiency, low CapEx, fast scale-up times, and sustainable impact

CO2 negative manufacturing of proteins, 15x less land use

Patented, +35% microbial efficiency pathway – our production highway



Achieving economic viability and scalability from day 1

Two patent families in place to protect platform

Use of existing fermentation infrastructure – **3-4x faster scale-up time**

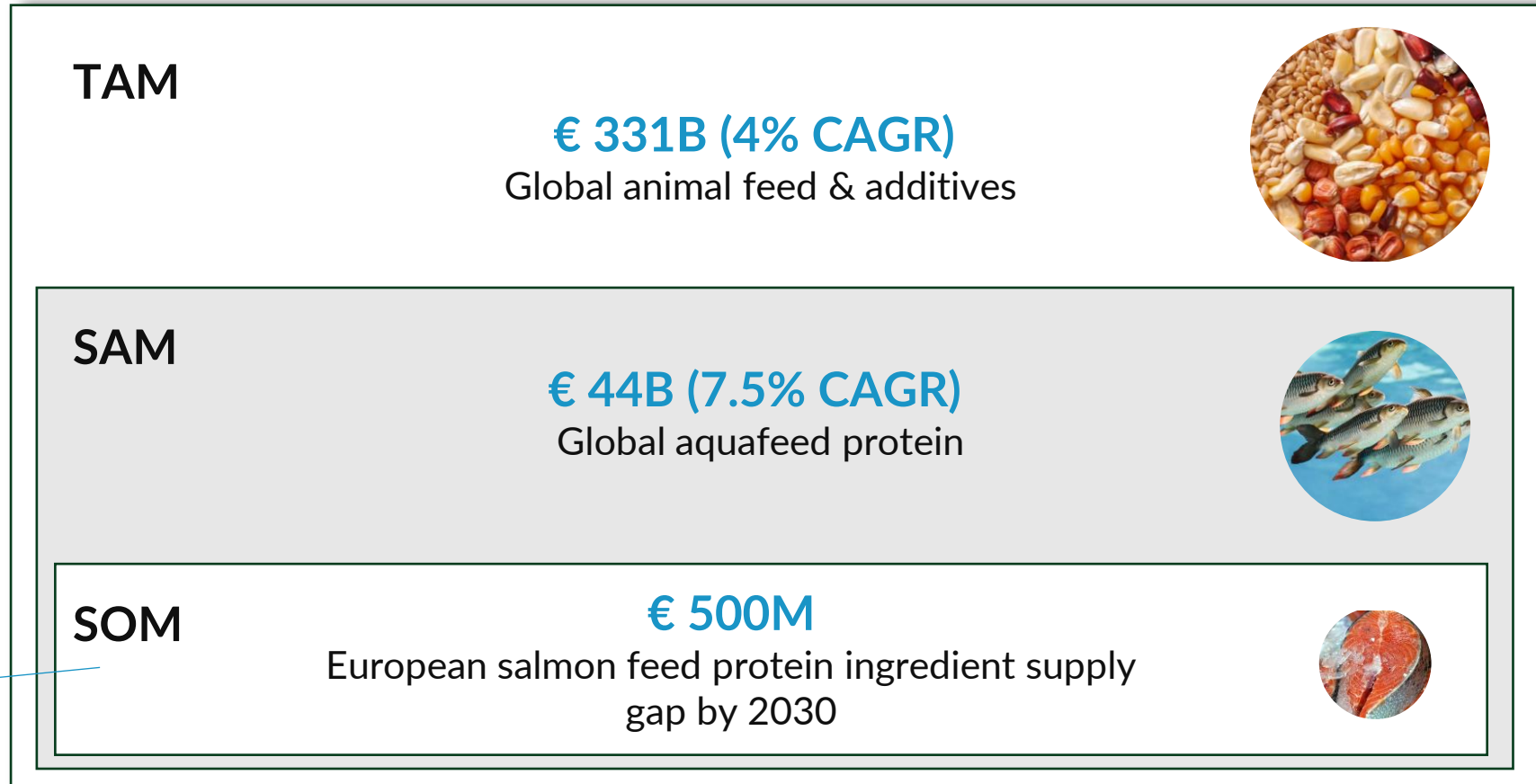
2x lower CapEx vs. alternative technologies

Weizmann Institute of Science



Max Planck Institute of Molecular Plant Physiology

Launch market in aquafeed: € 500M feed protein supply gap in salmon aquaculture in Europe waiting to be served



Market entry:
Feed protein
for salmon
aquaculture

Source: 1) AllAboutFeed, 2023

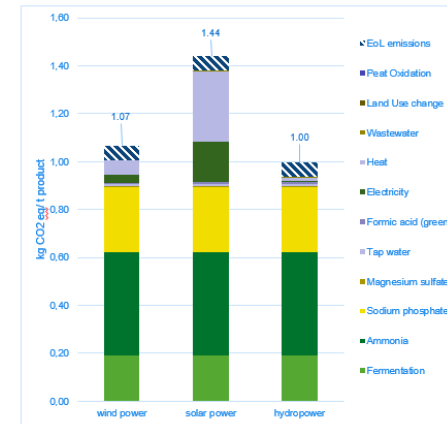
Beachhead Market - Aquaculture feed

Our Offer: Revolutionizing aquaculture with our microbial protein made from abundant CO₂ emissions

Sustain™	
Natural, microbial protein meal	
Protein	> 80%
Complete, amino acid-rich protein	
Contaminant-free, vitamin-rich	
Net-zero fish feed	

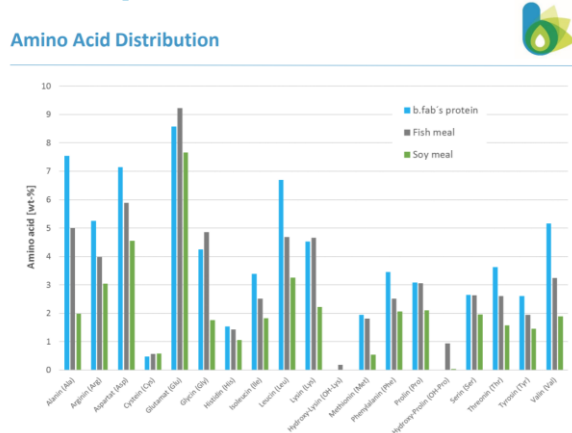


Preliminary LCA by Blonk Sustainability



1.0 - 1.44
kg CO₂ /
kg Protein

All amino acids present, concentrations > soy and fish meal



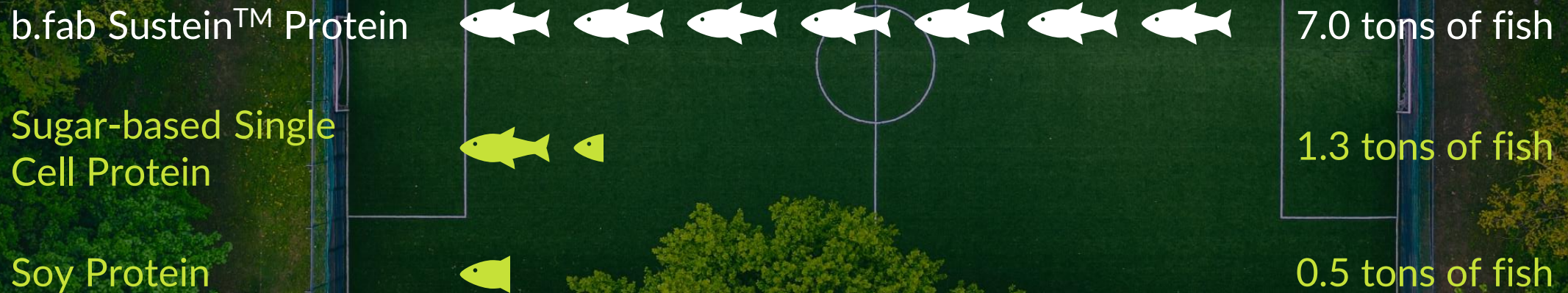
- ✓ Protein content
- ✓ Amino acid profile
- ✓ Life cycle analysis
- ✓ Land use



Decoupling production from resource exploitation

Replacing fossil-based, resource exploiting products with sustainable, net-zero alternatives – example of aqua feed

Tons of fish raised using feed sourced from just one football field's area¹⁾



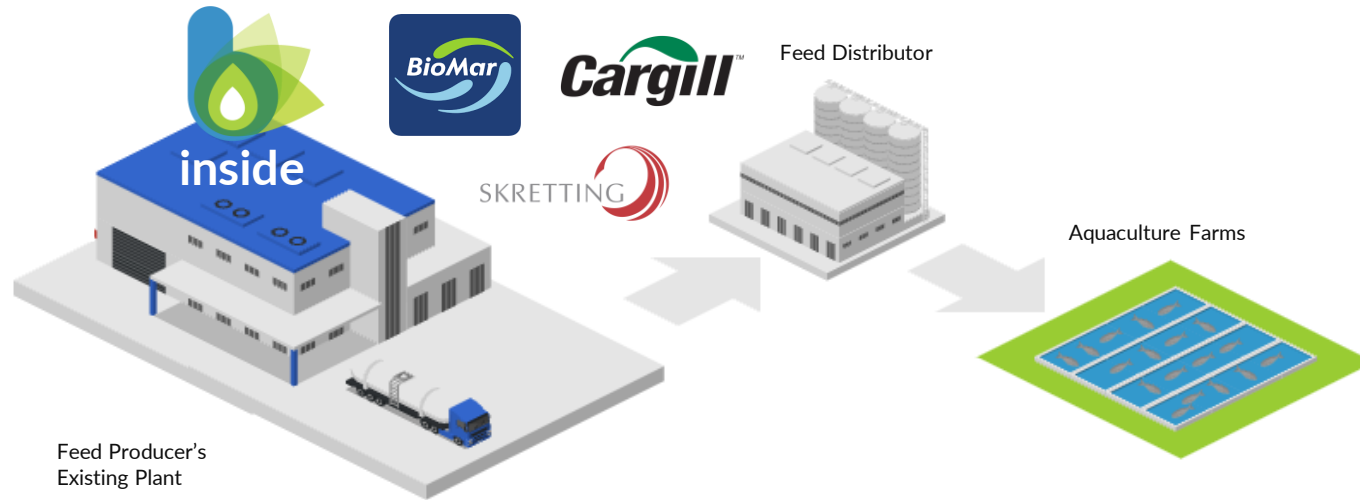
Source: 1) Max Planck Institute, 2021

Market interest validated with LOIs – Next step: joint fish feeding trials and discussion of off-take agreements



b.fab licenses technology or builds joint ventures

➤ **Fast track to production using existing fermentation plants**

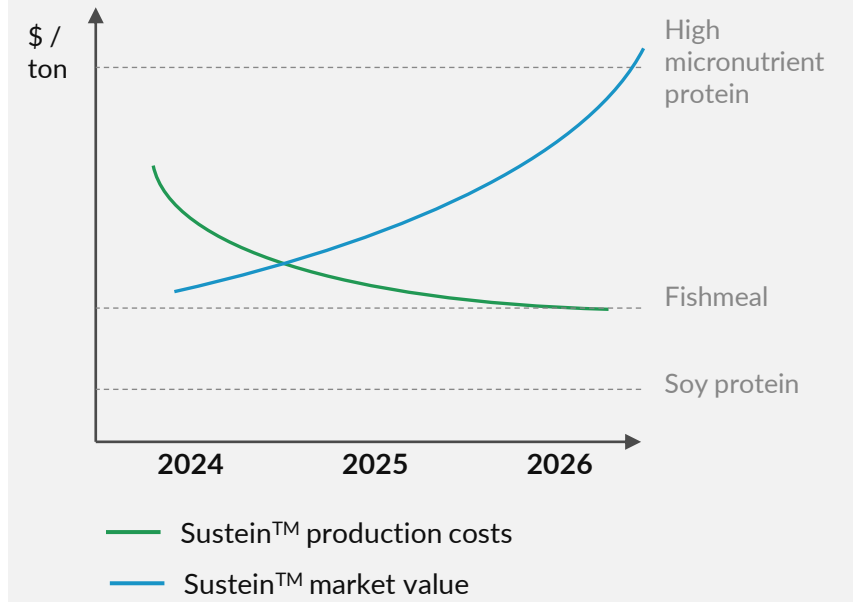


Local production partners for **fast & CapEx light scale-up** of production volumes

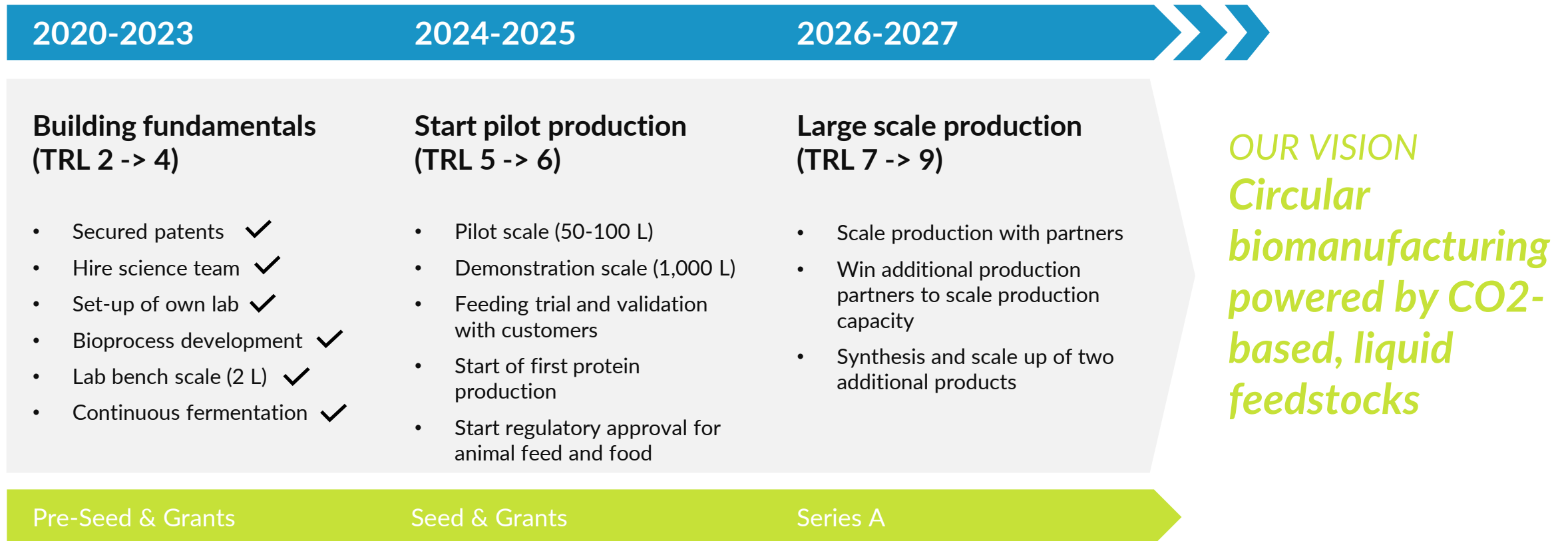
Licensing bio-manufacturing technology

b.fab

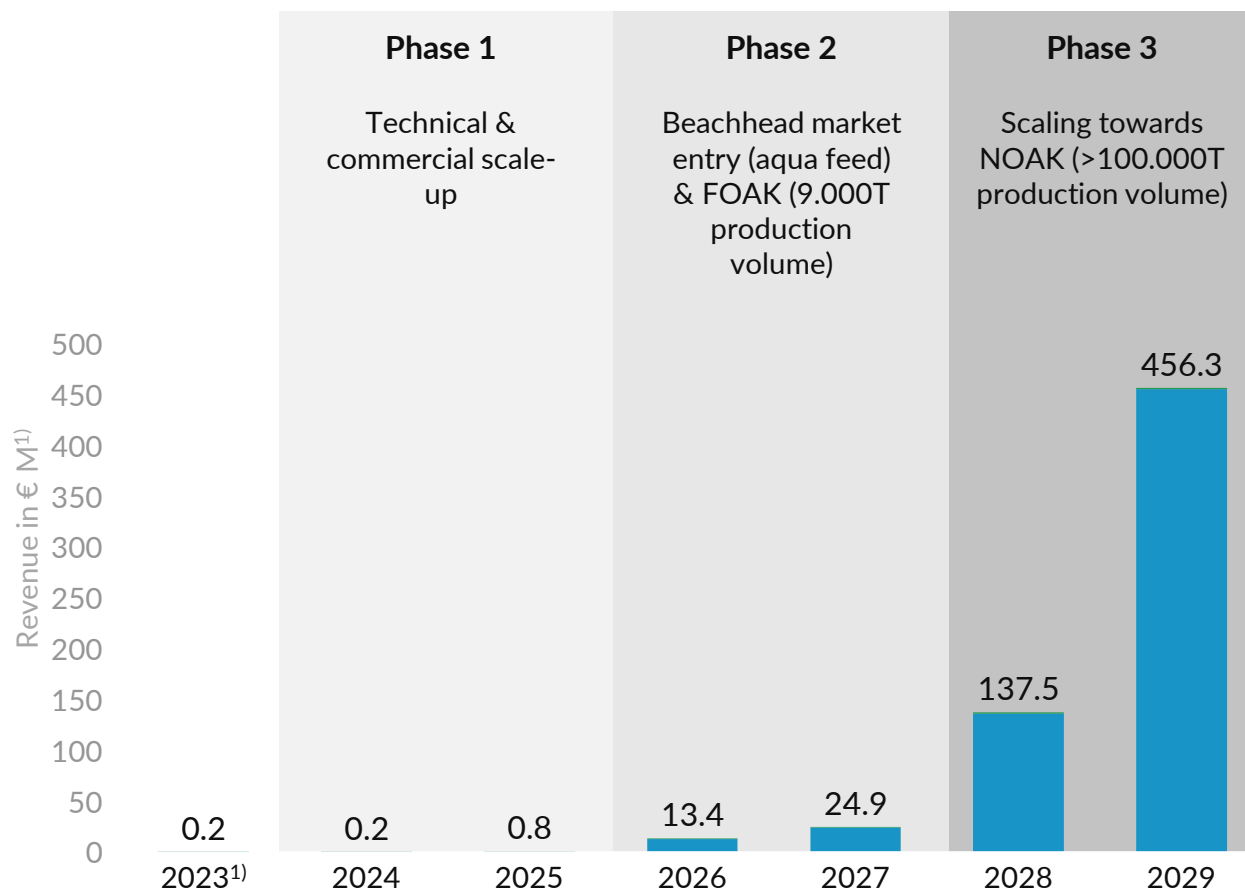
Cost parity with fishmeal, amplifying margins through our added-value supplements amino acids and fatty acids



Our journey to become a leading biomanufacturing player at global scale



Projected €456 M revenue by 2029 - Our technology allows us to generate break-even economics early on



■ Joint Development & R&D ■ Sustain Sales

1) Revenues incl. grants in 2023



Expected economics for FOAK Sustain™ production (as of 2026)

Plant Level Data for FOAK	
Feedstock Type	Methanol
Production (ton per year)	9,000
Unit Economics (€/ton)	
Revenues	€ 2,500
Feedstock Costs	€-1,429
OpEx Costs	€-678
Total Cash Costs	€-2,107
Cash Margin (€/ton)	€ 493
Annual Cash Margin (€M per year)	€4.44 M

Unparalleled biotech expertise driving innovation



Dr.-Ing. Frank Kensy
CEO & Technology Lead

Serial entrepreneur, bioprocess R&D expert, m2p-labs CEO, 24-year biotech veteran



Tim van der Linden
CFO & Business Lead

12-year consultant, investor, startup, CFO, commercial scaler



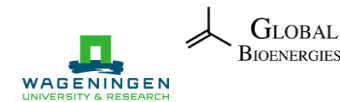
Dr. Armin Kubis
Head of Synthetic Biology

Synthetic biology specialist, PhD Max Planck, Bar-Even fellow



Dr. Florent Collas
Head of Process Engineering

C1 Bioeconomy expert, Syngip leader, PhD IFP, 10-year biotech veteran



Partners



Advisors



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Professor Applied Microbiology, RWTH Aachen



Franziska Grabenkamp
ex-CFO LenioBio



Dr. Georg Lentzen
MD b.value, ex-CSO bitop AG



Dr. Carsten Krome
Managing Partner at HATCH

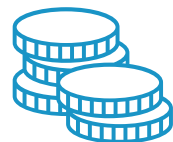
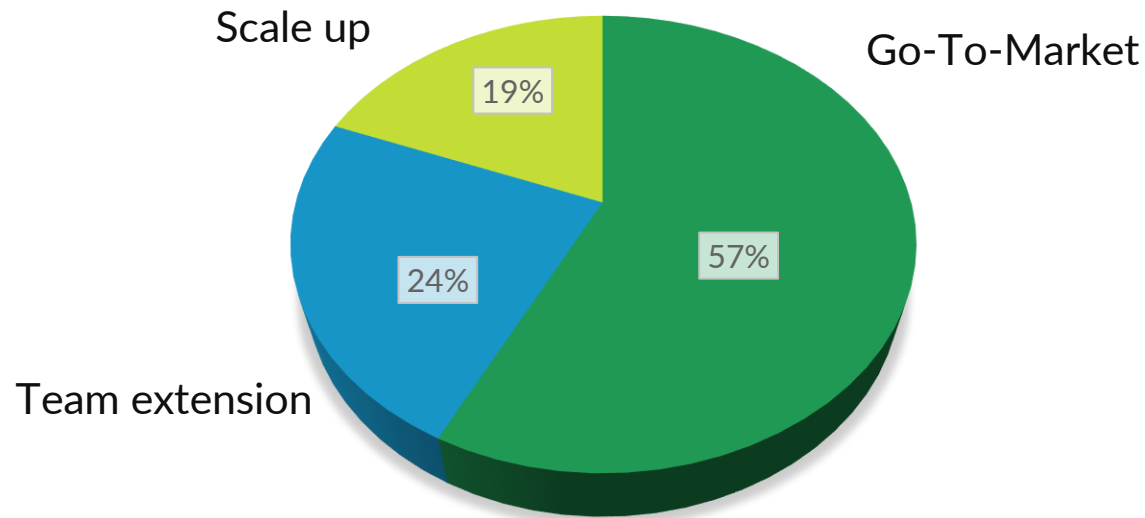


Scaling our FlexCarbon Biomanufacturing Platform for commercialization with € 2.5M

Raising
€ 2.5M
Seed



Use of funds:



On Top: € 1.8M
secured, non-dilutive funding

Milestones:

- Process scale up to Demonstration Scale (1000 L)
- Perform feeding trials
- Start production and launch of first product Sustein™
- Further develop Biomanufacturing platform

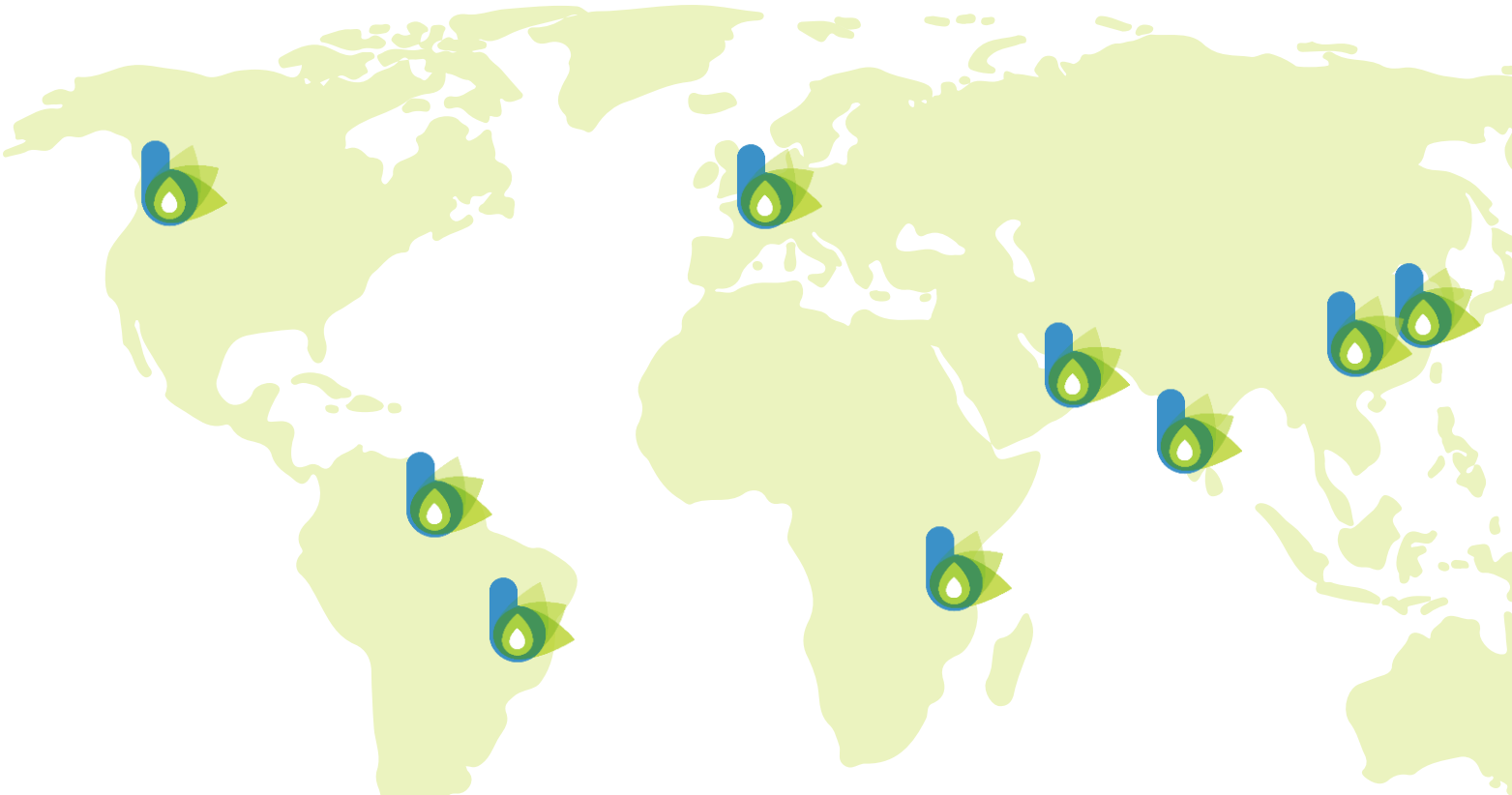
Get in touch and meet at stand SNo1



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Thank you for your attention!

