Symbergy

for a healthy planet

Denis Aschwanden
+41 79 281 10 91
denis.aschwanden@symbergy.ch
www.symbergy.ch

Problem

1 Crop failures & climate change

Climate change is affecting the conventional agriculture business and crop failures are likely to increase

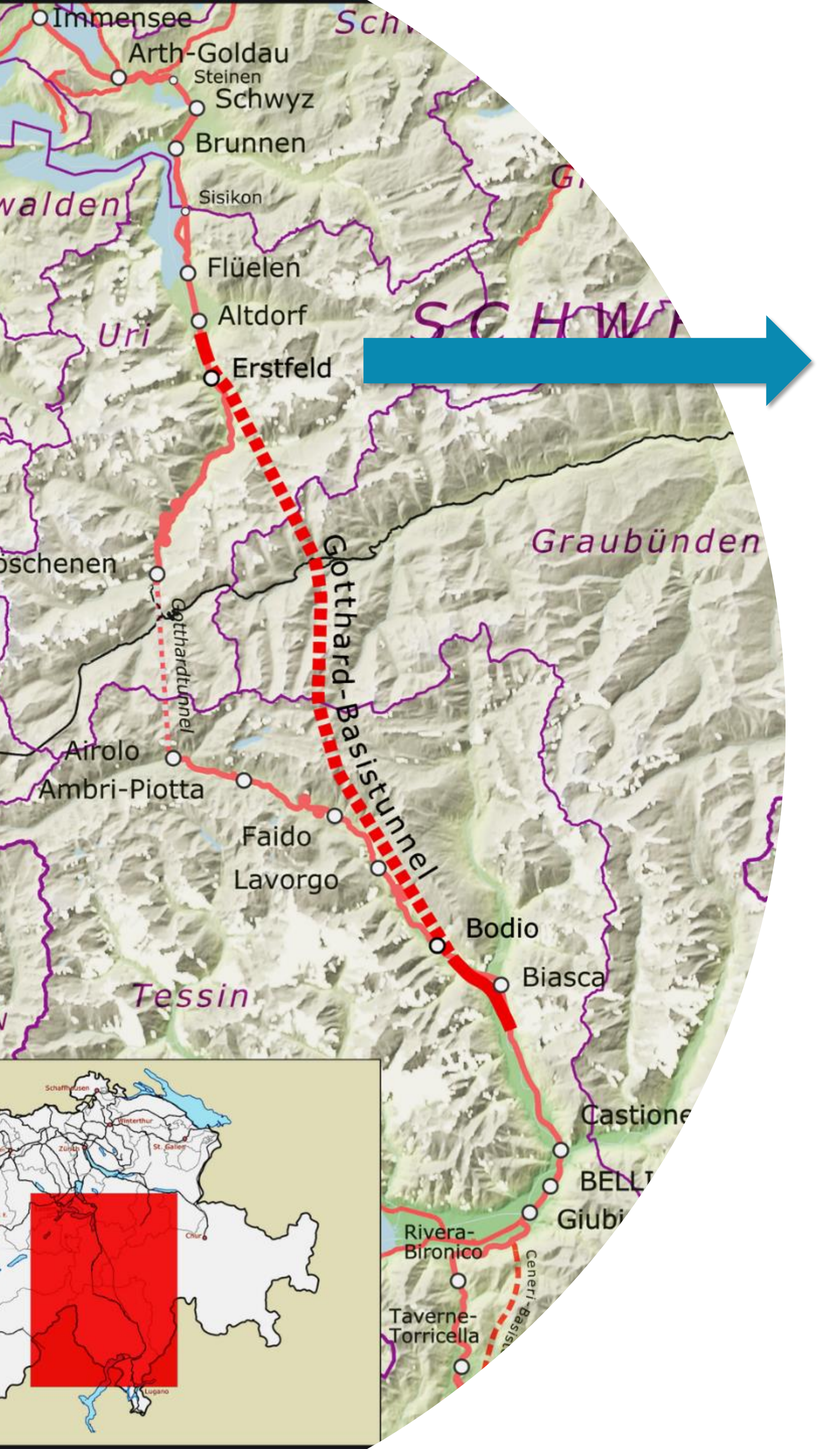
2 Fertilizer scarcity/pollution

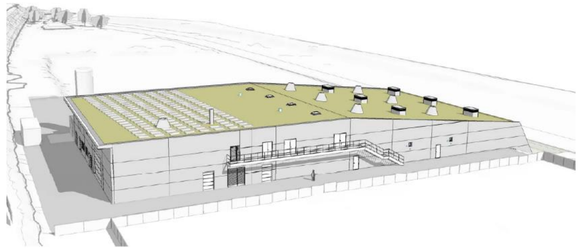
Fertilizers are pressured to become more strongly regulated as they pollute our ground water sources, while the conflict in Ukraine has increased their prices

3 Consumer pressure

Various products are continuously imported, as they cannot be grown in colder climates. Consumer behaviour is more likely to change if they can still choose from sustainable options

Value proposition





- Extract nutrients from the **effluents** of the largest fishfarm
- with them produce **8000** Plants/d in a 12’000 m^2 **hydroponic-system**
- **Transfer** technology globally to other effluent sources

Our unique position

1 Lower costs

We are less dependent on fertilizers as we use waste effluents and extract the nutrients from it. Additionally, cleanliness standards make pesticides and herbicides obsolete. This lowers the overall costs.

2 Scalability

By understanding and modelling nutrient extraction from effluents and up-take by plants, we can use this technology at other sources of wastewater/nutrients and expand globally.

3 Cleantech revenue

Being able to recycle water at lower costs than water treatment plants opens up the opportunity for additional revenue streams, as fishfarms are required to take care of their own wastewater.

Business model

KEY PARTNERS

Basis 57

ZHAW

SBU

energieUri

SISAG

Migros

KEY ACTIVITIES

Development of sustainable resource usage systems for food production

KEY RESOURCES

Effluents

Production infrastructure

Staff

Knowhow

VALUE PROPOSITIONS

Reliable production

Constant quality

CO_2 neutral

Local production

Fresh products

CUSTOMER RELATIONSHIPS

Direct sales

Social-Media

CHANNELS

Distributors (e.g. Migros

Hospitality (e.g. Restaurants)

Online-shop (e.g. households)

CUSTOMER SEGMENTS

Large distributors

Hospitality

Households

Later:

Further fishfarms & Pharma

COST STRUCTURE

Labor, Production facilities, vehicles

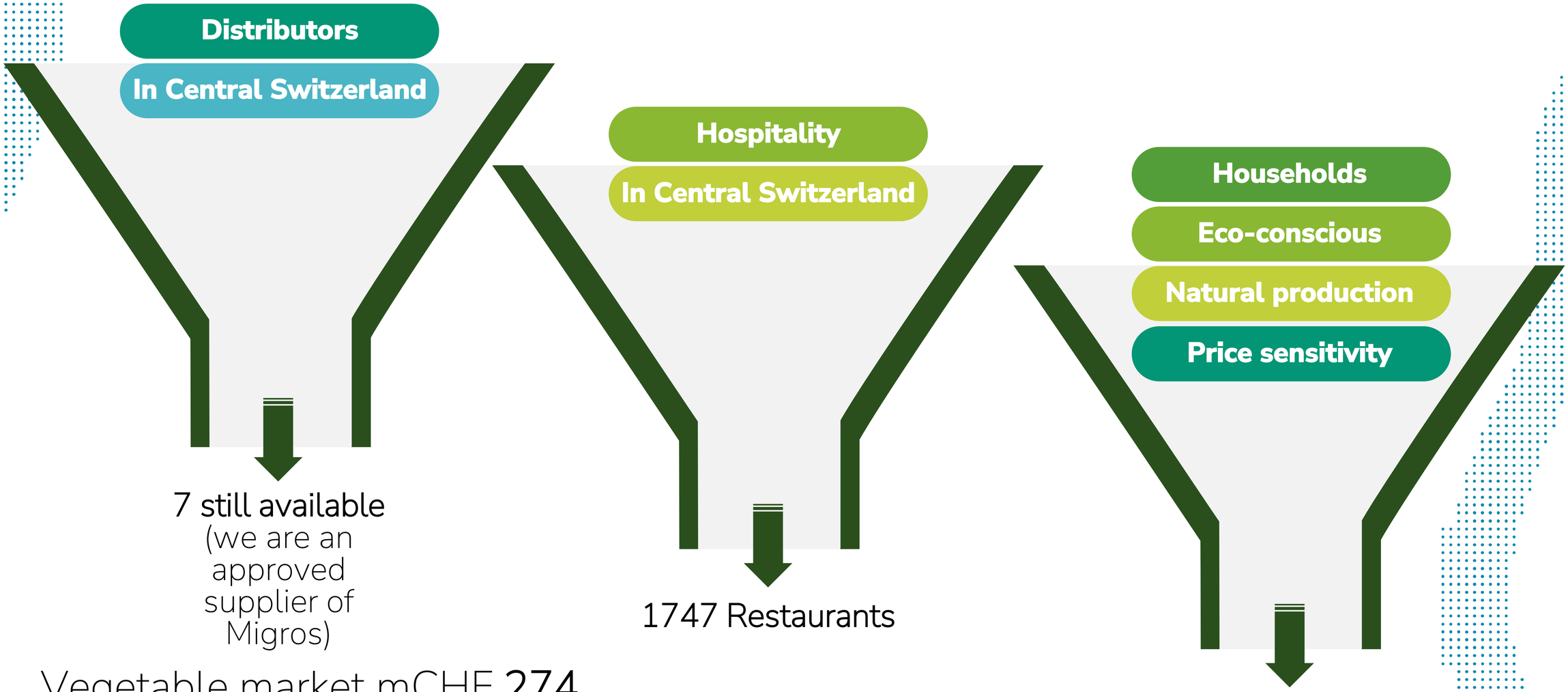
Staff and equipment

REVENUE STREAMS

Sales of herbs, salads and vegetables (phytopharmaka)

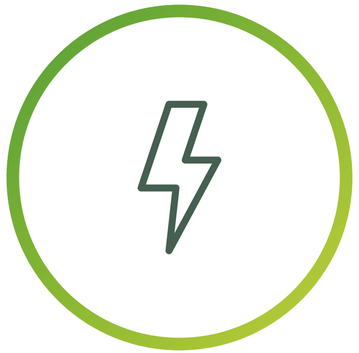
Fees for water recycling

Initial market focus Central Switzerland



Vegetable market mCHF **274**
Organic market mCHF **61**

Competitive analysis



Who are we challenging

Conventional producers and exporters from the Mediterranean. They come in all shapes and sizes but suffer from the effects of climate change. We can reliably grow indoors despite hail, droughts or rain.

Who are the other challengers

Hydroponic projects like Yasai & Umami use comparable technologies and produce similar products. However, their existence helps spread the word and raise additional awareness while we enter slightly different geographical markets. Main difference is that they must buy the water and the nutrients and cannot build revenue streams from recycling said water.

Symbergy Team

We fight for a healthy planet and the SDGs

David Imhof

Co-founder

Geosciences

Production

R&D

Philippe Hess

Biologist

BSc Horticulture

Aquaponics Master-student

R&D

Denis Aschwanden

Co-Founder

Agile innovation

Entrepreneurship

Business Architecture

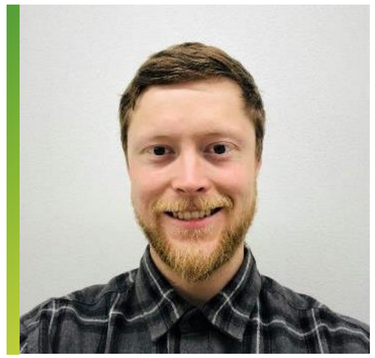
Andreas Walker

Engineer

Electrical engineering

Automation

Sensor technology



Samuel Walker

Technician

Construction design

Sanitation

Applied mechanics

CO2-impact

After scaling up

Symbergy's total impact per year

eco-costs of human health euro	-44806
eco-costs of eco-toxicity euro	-305242
eco-costs of resource depletion	-289159
eco-costs of carbon footprint	-660708

	Carbon footprint CO_2eq.
Impact per kg of herbs	-42.68 kg
Impact of 58400 times kg of herbs	-2493 t

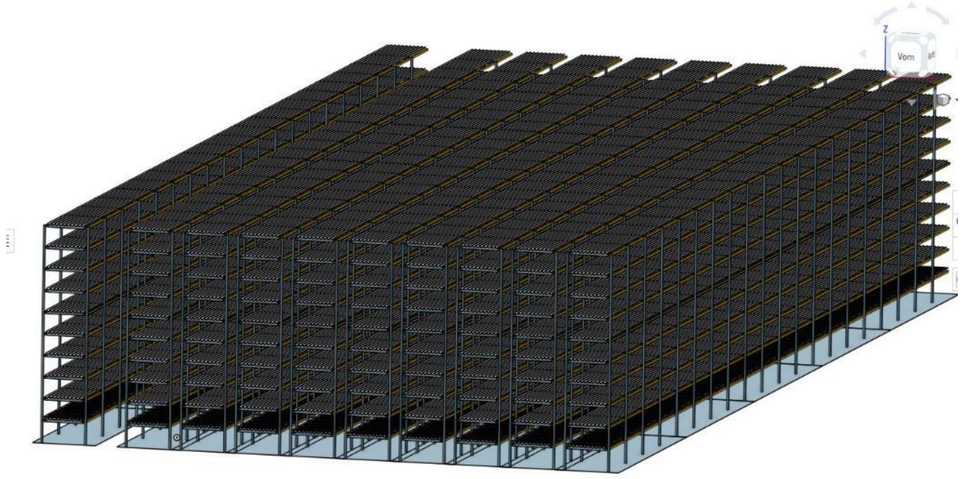
Impact-forecast.com
http://www.fao.org/faostat/en/#data/EP/visualize
Internal data
Distances averaged with maps.google.com measurement tools

Project phases and costs

12 Months (2022)

Innovation
mCHF 1.2
400 Plants/d

48 Months (2023+)



Scaling up
mCHF 10.1
8000 Plants/d

60 Months (2025+)

Int. Expansion
mCHF 35.0
40000 Plants/d

Financial projections

Innovation project, kCHF, app. 2023

	Inno-Pr
FTE	4
STAFF COST	282
CAPEX	575
RENT/ADMIN/COGS	140
OUTPUT AVERAGE PRICE	400 plants/d CHF 1
REVENUE	56

Financial projections

Scaling up, kCHF, app. 2024-2028

	Y1	Y2	Y3	Y4	Y5
FTE	4	6	10	12	16
STAFF COST	282	700	1150	1600	1900
CAPEX	125	4791	1791	1766	100
RENT/ADMIN/COGS	197	463	732	1092	1308
OUTPUT AVERAGE PRICE	400 plants/d CHF 1	1000 plants/d CHF 1.5	3200 plants/d CHF 1.82	6400 plants/d CHF 1.97	8000 plants/d CHF 2.13
REVENUE EBITDA/EBIT margins	112 -327%/-327%	422 -182%/-190%	1647 -16%/-50%	3544 23%/2%	4801 33%/13%

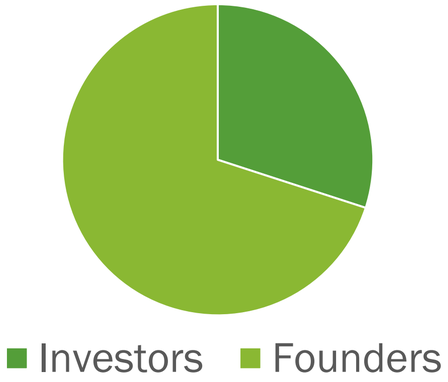
Current status & next steps

	Inno-Pr	Scale	Post scale	Int. Expansion
TEAM	4 FTE	12 FTE	16 FTE	70 FTE
RESSOURCES	Mark III (400 plants per day)	20 Mark III (6400 plants per day)	20 Mark III (8000 plants per day)	5 production sites (40’000 plants/d)
FINANCE, USE OF FUNDS	Equity mCHF 1 Other mCHF 0.2	Equity mCHF 6 Other mCHF 4.1	Revenue mCHF 4.8 EBITDA 33% EBIT 13%	Revenue mCHF 20 EBITDA 28% EBIT 25%
CUSTOMERS	1 Distributor, 10 Restaurants	3 Distributor, 25 Restaurants	4 Distributors, 50 Restaurants	Land fishfarms and pharma
PARTNERS	Migros Rijk Zwaan, SISAG, AFRY	Migros, Rijk Zwaan, SISAG, AFRY, Cropled	AFRY, Cropled	AFRY, ESG investment funds

Proposition

Average value of Symbergy post development project is mCHF 2.5 (pre-money valuation)

Distribution 30/70



Symbergy contributions:

- Assets, knowhow and Team
- Min. kCHF 200 of grants/research capital
- kCHF 203 in the form of cooperative contributions/partnerships

Needed equity: mCHF 1 for 30%

i.e. kCHF 200 -> 6% of equity each

Variable ticket sizes possible

Outstanding: kCHF 600 (before transaction costs or fees)

Impressions

Of our current Mark II