

# ACERON

## Autonomous Agriculture Solutions

Pitch Deck 2023



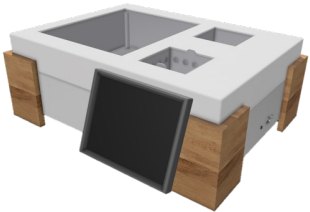
# Company Purpose



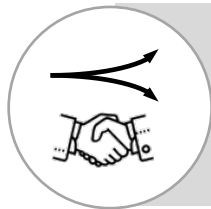
## **ACERON will automatise urban gardening**



Development of proprietary technologies for urban agriculture



Partnerships with selected sustainable manufacturers and distributors



Sale under both ACERON brand and private label branding



ACERON wins Bochumer Senkrechtstarter-Wettbewerb (start-up competition) in 2021



BoWE

Supported by the Bochum Office of Economic Development



INVEST

FÖRDERFÄHIG

www.invest-bochum.de

BAFA INVEST-Certification



GRUBENHOLZ

Partnership with Grubenholz Bochum (furniture manufacturer)

# The Team



**Christian Vogelsang**

Founder & Executive Officer



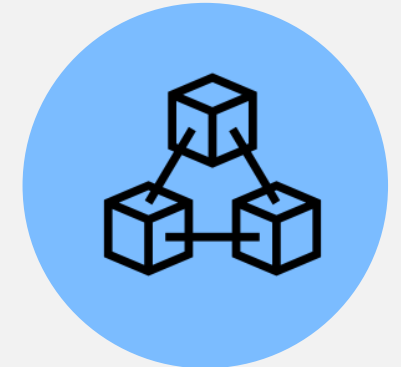
**Alyx A.**

Software Engineering &  
Development



**Antonio C.**

Finance & Controlling



Quality Management &  
Product Development

## Backgrounds



*Environmental  
Engineer Student*



*IT Student*



*Controlling Officer*



*Consulting  
Engineer*

# The Problem



***While field cultivation generates significant emissions and is increasingly regulated, growing your own vegetables in an urban environment is currently expensive, inflexible and complicated for both businesses and private individuals***



Heavy reliance on pesticides and preservatives



Field and garden cultivation is limited by seasonality



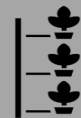
Field cultivation is highly regulated in the EU



Loss of nutrients via refrigerated transport



Long, CO2-intensive transport routes with field cultivation



Currently: Expensive & inflexible vertical gardening systems

# Our Solution

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## *More yield with less resources*



Inexpensive homegrowing



For businesses and private customers



High degree of automation



Full-year cultivation, faster plant growth



Efficient vertical farming



Pesticide-free

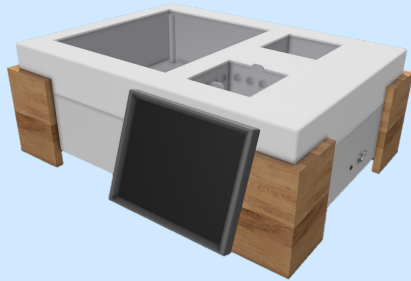
# ACERON Hydroponic Series



Easily constructed, modularly adaptable, autonomous.

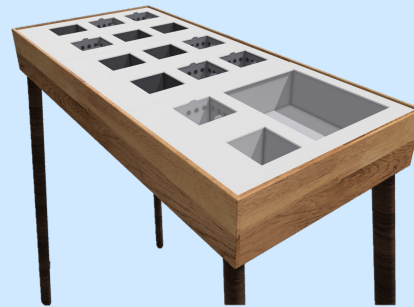
## HydroBox

- B2C, Plant container
- Apartments and Kitchens
- Successful MVP already developed



## HydroTop

- B2C, Raised bed
- Gardens and stores



## Greenwall

- B2B, modular vertical farm
- Stores and food industry
- Freely adaptable and expandable



# The USPs

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## Modular System

- Same components for all 3 products
- Expandable and flexible
- Inexpensive and relatively simple

## Technology

- Ebb-and-Flood technique: efficient and autonomous watering
- Faster plant growth
- Cultivation without seasonality issues
- No pesticides



# Feasibility and MVP

## Next Steps



- Hydrobox improvement
- Development of Greenwall



Software optimisation & user-friendly interface



EU Certification for electrical devices and systems for food production



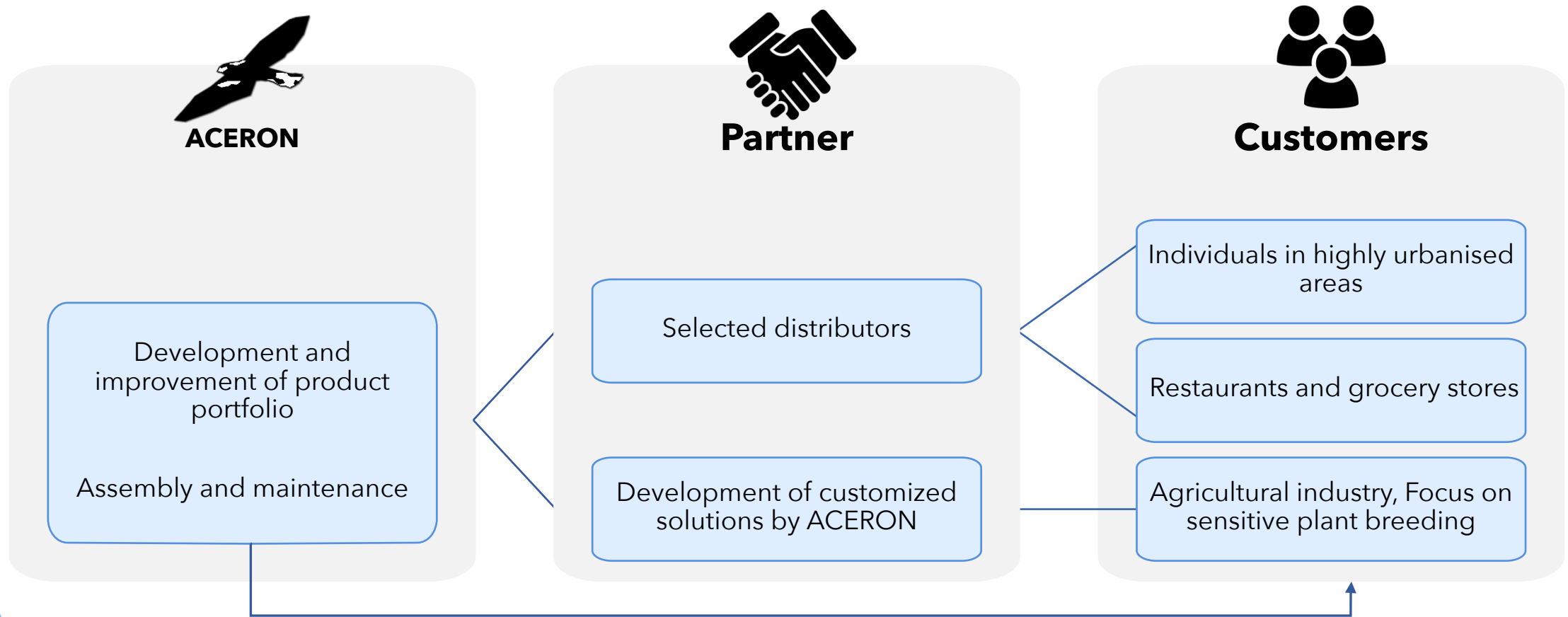
Patenting



- HydroBox: successful MVP already developed
- Feedback-loop via showrooms and expositions already started
- System has already been tested several times. Significantly faster plant growth and no infestation by parasites
- We are desining the software to be flexible and customizable for different plant species



# Business model

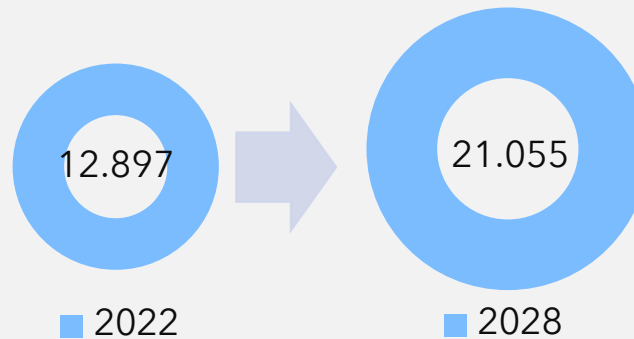


## Young Market with high Growth Potential

### Markt

- Market for vertical and indoor farming is growing rapidly:
  - Growing world population
  - limited availability of arable land.
  - Need for CO2 neutral food production
- Increase in transportation costs and regulatory hurdles for field cultivation
- Strong growth in ecological awareness in Germany
- Vegan food market grows by approx. 15% annually

### Global Marketsize in Mio. USD



### Indoor Farming vs Field Cultivation

**95 %**

Less land and water usage

**8X**

Faster Harvesting cycles

### Prominent indoor Farming Investments

TEMASEK

AEROFARMS

BEZOS  
EXPEDITIONS

SoftBank  
Group

Plenty®

Google  
ventures

BOWERY

## Urbane Landwirtschaftsszene in Deutschland wächst rasant

### Globaler Player



Kalera

**Kalera**

Market leader from the US with own vertical farms



Plenty

**Plenty**

Plenty designs and develops vertical indoor farms since 2013

### Player in Deutschland



ingarden

**Ingarden**

Hydroponic microgreen garden technology for private users



BerlinGreen

**BerlinGreen**

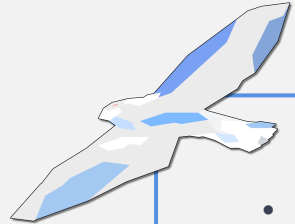
Smart indoor garden for private for up to 8 plants at the same time

### Case Study - ACERON VS InFarm



inFarm

- Berlin-based start-up specializing in vertical farms. Partnerships with Aldi Süd, Kaufland, Rewe and Edeka, among others. Due to significant losses, Infarm withdraws from Europe.

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- Flexible and customizable systems
  - Cost reduction through scalability
  - Versatile use for different plant types

# Financing requirements



Finanzierungsbedarf, T€				
	2023	2024	2025	2026
CE_Certification	15			
Patenting	10			
Start Production HydroBox	25	25		
Prototypes HydroTop & Greenwall		30	25	20
Working Capital Pre-financing	25	25		
Personnel costs Pre-financing	50	50		
<b>Sum</b>	<b>125</b>	<b>130</b>	<b>25</b>	<b>20</b>

Roadmap, T€				
	2023	2024	2025	2026
Sales	10	695	1.072	1.531
Gross profit	0	382	697	1.072
EBIT	-47	203	703	1.306
Number of employees	4	8	10	12
Personnel costs	0	-392	-490	-588

Investment of 300.000€ for  
the whole project

# Contact

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