

# Chemical Product Design

## Pitching

Now: **Group Blue**

Gets ready: **Group Green**

22.12.2022

# FoodVoyant.

Tackling the foodwaste problem, one fridge at a time.

# The problem

“At least 30% of the world foodwaste originates at the household level.”

*Food and Agriculture  
Organization 2019*

# The world Vision

# Industry

**Retail**  
Restoration  
Customers

Smart  
AI-Driven  
Integrated  
Connected  
Blockchain  
Automated  
Streamlined  
Continuous

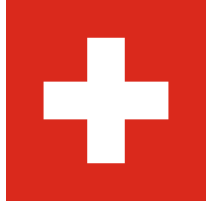


# Our Vision

Home.

**FoodVoyant.** Simple  
Reliable

# Our test market



25 – 45 year old

2.5 Million persons

1.25 M households

60% of respondents declare  
being concerned by the problem

5% market size

90% of them would be ready to invest in a solution

**62.5k Units**

# Proof of concept prototype

## Electronics concept

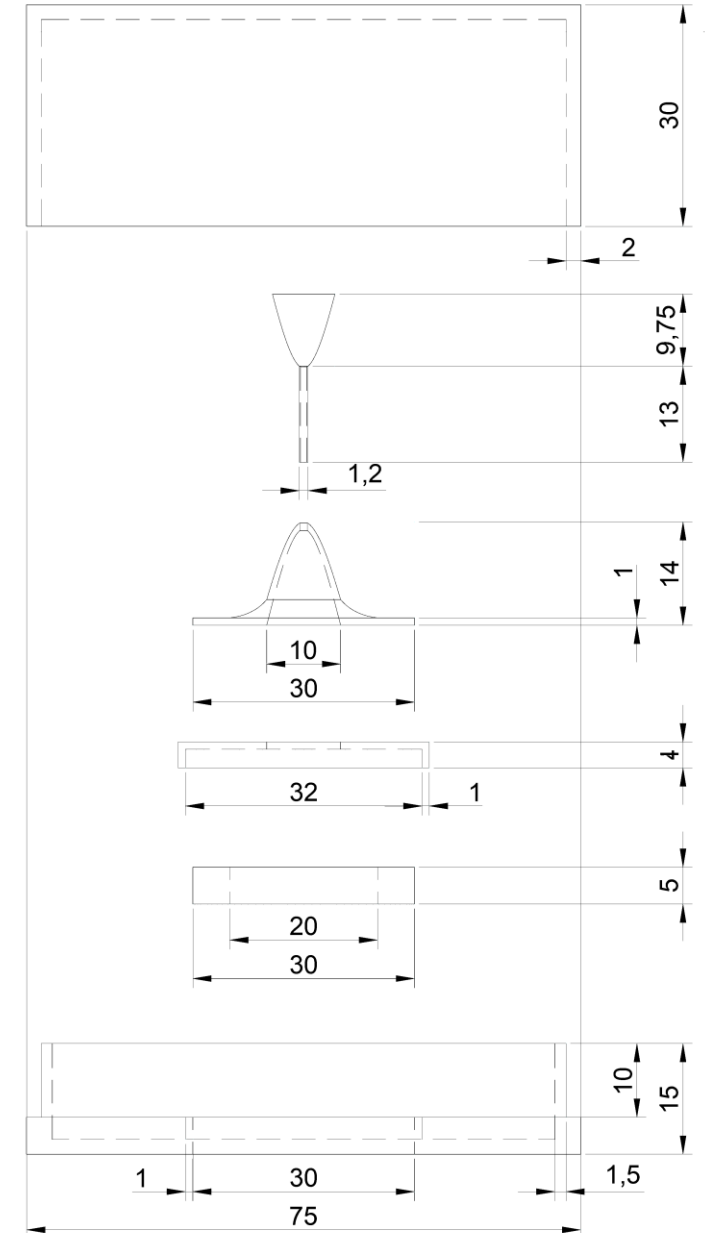
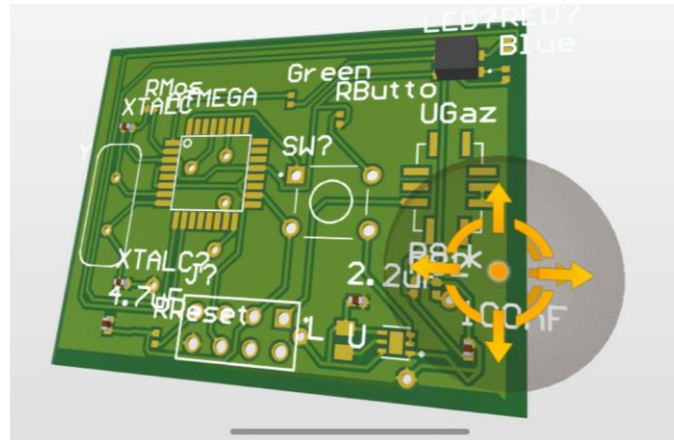
- Ammonia and ethanol gas sensor
- No connectivity
  - Simple to use
  - Long battery life
  - Minimal support
- On board processing unit

## Design concept

- Handheld minimalistic design
  - Matte white solid plastic casing
- No bay design
  - Single LED see-through interface
  - Capacitive sensor

foodVoyantSoft\_0\_6.ino

```
279 void loop(void) {
280   // is pmode active?
281   if (pmode) {
282     digitalWrite(LED_PMODE, HIGH);
283   } else {
284     digitalWrite(LED_PMODE, LOW);
285   }
286   // is there an error?
287   if (error) {
288     digitalWrite(LED_ERR, HIGH);
289   } else {
290     digitalWrite(LED_ERR, LOW);
291   }
292 }
```



# Customer expectations / Next developments



## Reliability

Multi-analytes sensor

NFC self-calibration

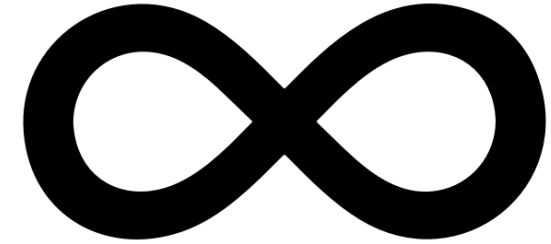


## Durability

IP64 Watertight

Bio-ABS casing

Self serviceable



## Ease of use

30s measurements

Induction charging

bulls  
water  
share  
any  
wou  
we a

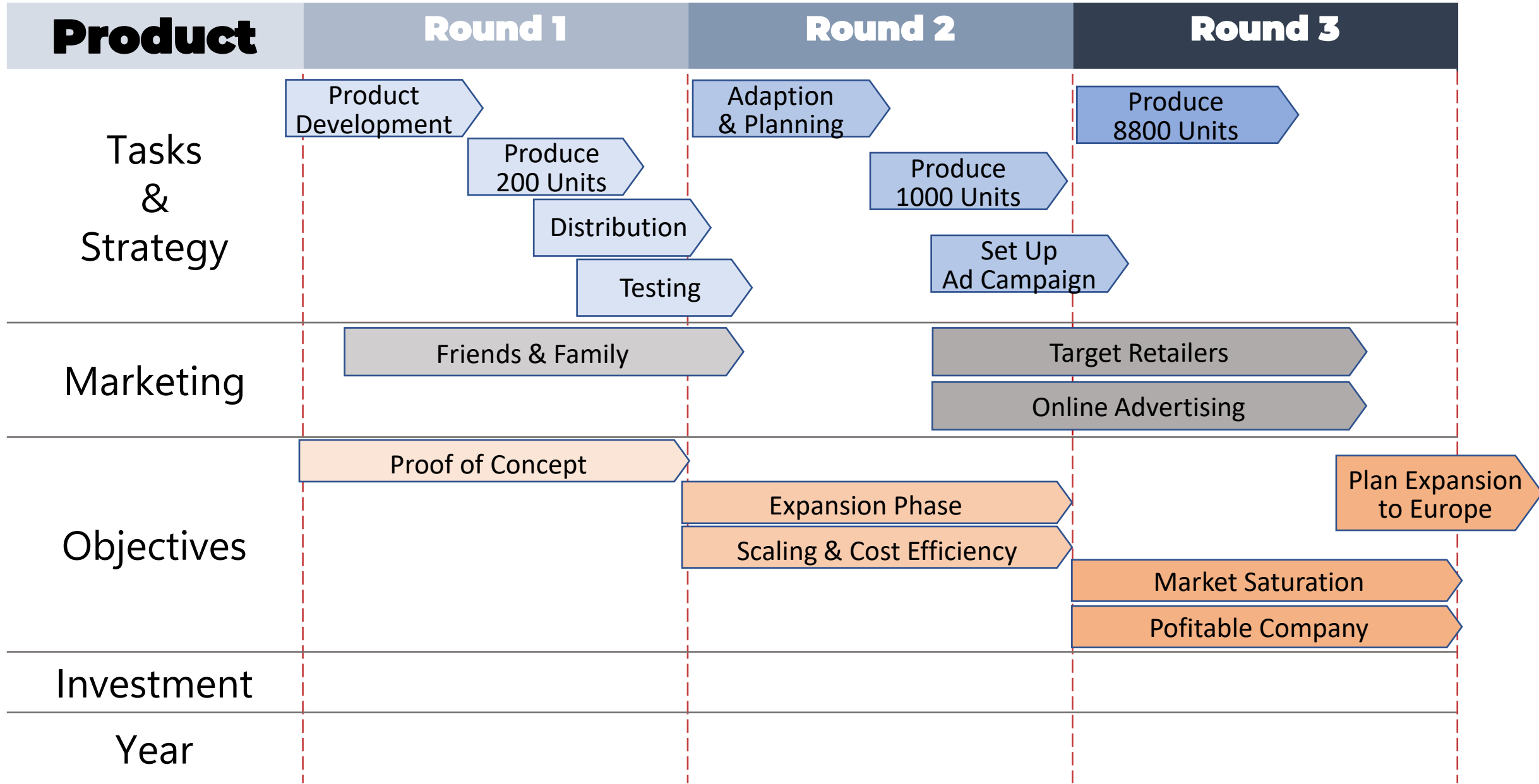
ADD  
relev

# Development roadmap

Phase	Timeline	Duration	Cost	Revenue	Lowest balance	Fixed costs/m
Initial development	Month 0	3 months	25 000	0	-25 000	8333
Beta production	Month 3	2 months	25 000	0	-50 000	8333
Beta sales and feedback	Month 5	2 months	10 000	10 000	-50 000	8333
Commercial planning	Month 6	1 month	10 000	0	-60 000	8333
First commercial production	Month 7	3 months	55 000	0	-115 000	8333
First series sales	Month 10	2-5 months	15 000	15 000	-115 000	8333
Large serie production	Month 12	3 months	150 000	45 000	-225 000	25 000
Second large batch + sale	Month 15	3 months	225 000	275 000	-275 000	50 000



# Swiss Market Saturation in 3 Years



# Investment round 1

Ask you for a first initial investment of 300k CHF in exchange for 30% of the company

- An honest and realistic overview of its potential
- A profitable investment after 3 years
- Already developed most of the technology
- Safer to invest in a real sustainable project in times of crisis
- Rather than leaving it in your Credit Suisse bank account



# Chemical Product Design

## Pitching

Now: **Group Green**

Gets ready: **Group Red**

22.12.2022



# How often do you find yourself annoyed at wrinkled clothes?



„Takes up too much time!“



„It's too much of a hassle!“



„I don't care if my clothes are wrinkled!“



„Nobody will notice!“

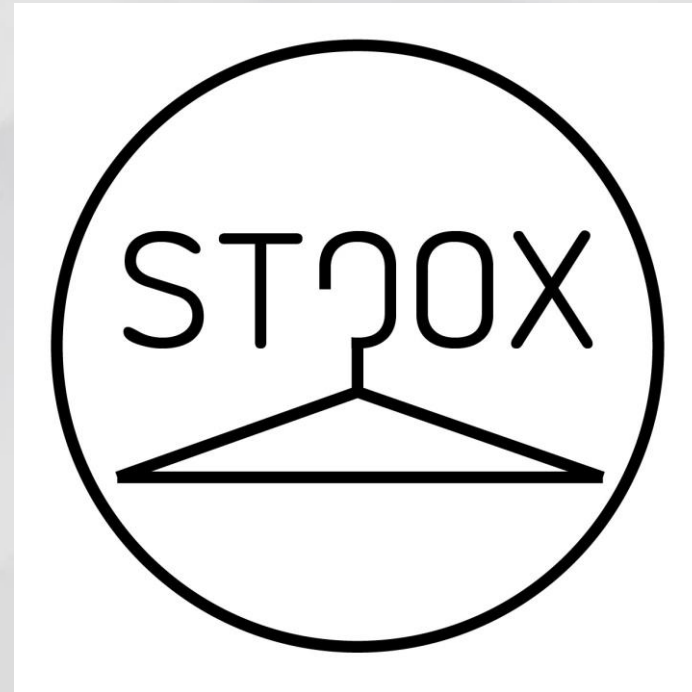
TIME

EFFORT

INDIFFERENCE

# Our Vision & Value Proposition

Say good-bye to wrinkled clothes in a time-efficient, hassle-free way!



„THINK INSIDE THE BOX“

# Market research & TM

> **63%** dislike to iron their clothes.

> **75%** think ironing takes up too much time.

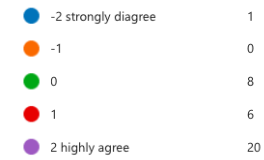
> **50%** perceive wrinkled clothes as less appealing.

> **64%** think their environment perceive wrinkled clothes as less appealing.



BUSY PEOPLE WHO CARE ABOUT THEIR APPEARANCE

Do you think ironing takes up **too much time**? (-2 = strongly disagree, 2 = highly agree)



Do you **like** ironing? (-2 = strongly disagree, 2 = highly agree)



Do **you** perceive wrinkled clothes as **lower value/ less appealing**?



Do you think **other people** (colleagues, co-workers, boss) perceive wrinkled clothes as **less appealing/less value**? (-2 = strongly disagree, 2 = highly agree)







# Our 1st Prototype

STYROFORM BOX

Automated  
de-wrinkling

STEAMING UNIT

Ease-of-use

Time-efficient





# Customer Response & Validation

**> 80% were interested in trying the STOOX steambox prototype.**

- “The difference in the before and after is really noticeable (but what about the sleeves?)”
- “Would be interesting to see how it works with adult shirts and other clothes in general.”
- “Nice looking concept for a prototype, still needs improvements design/aesthetic-wise.”

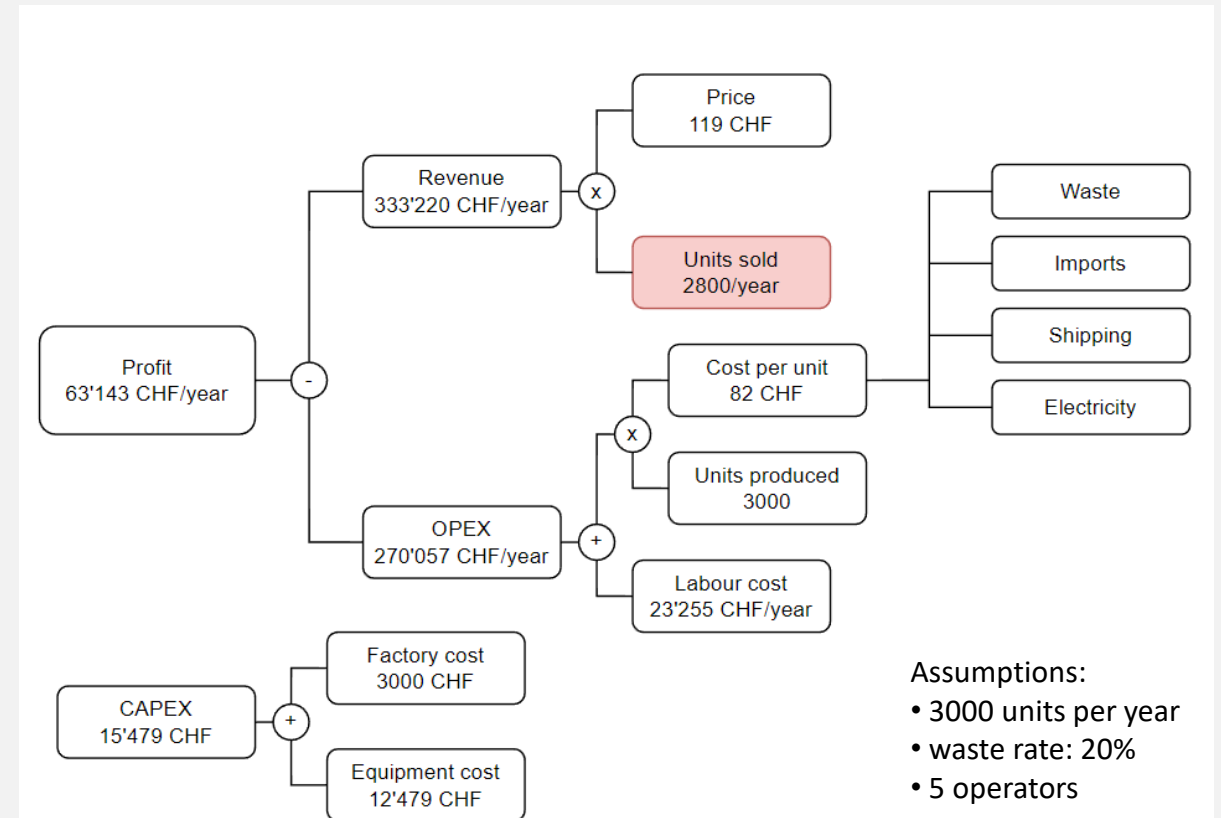
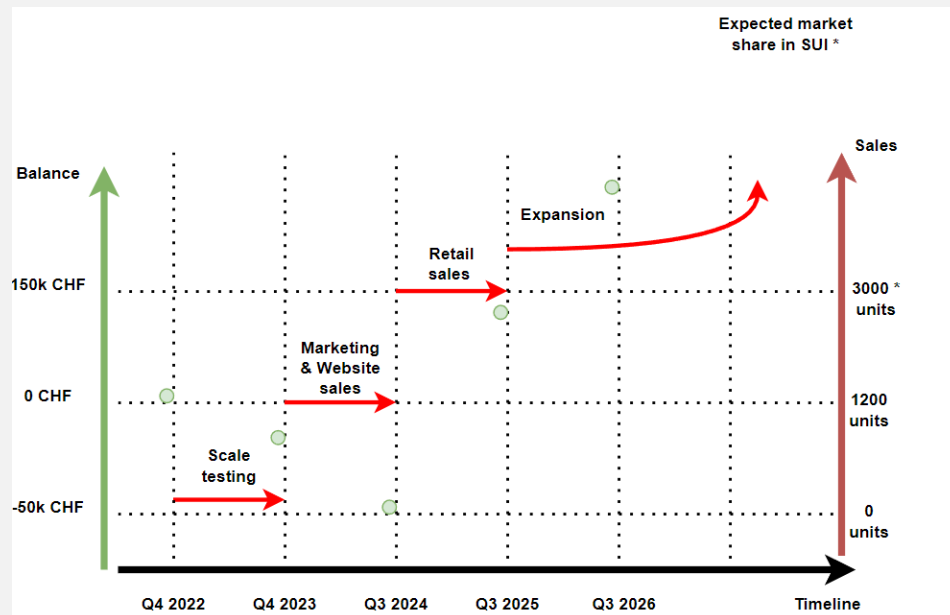
Clothing capacity

Size of the  
steambox

Cost per unit

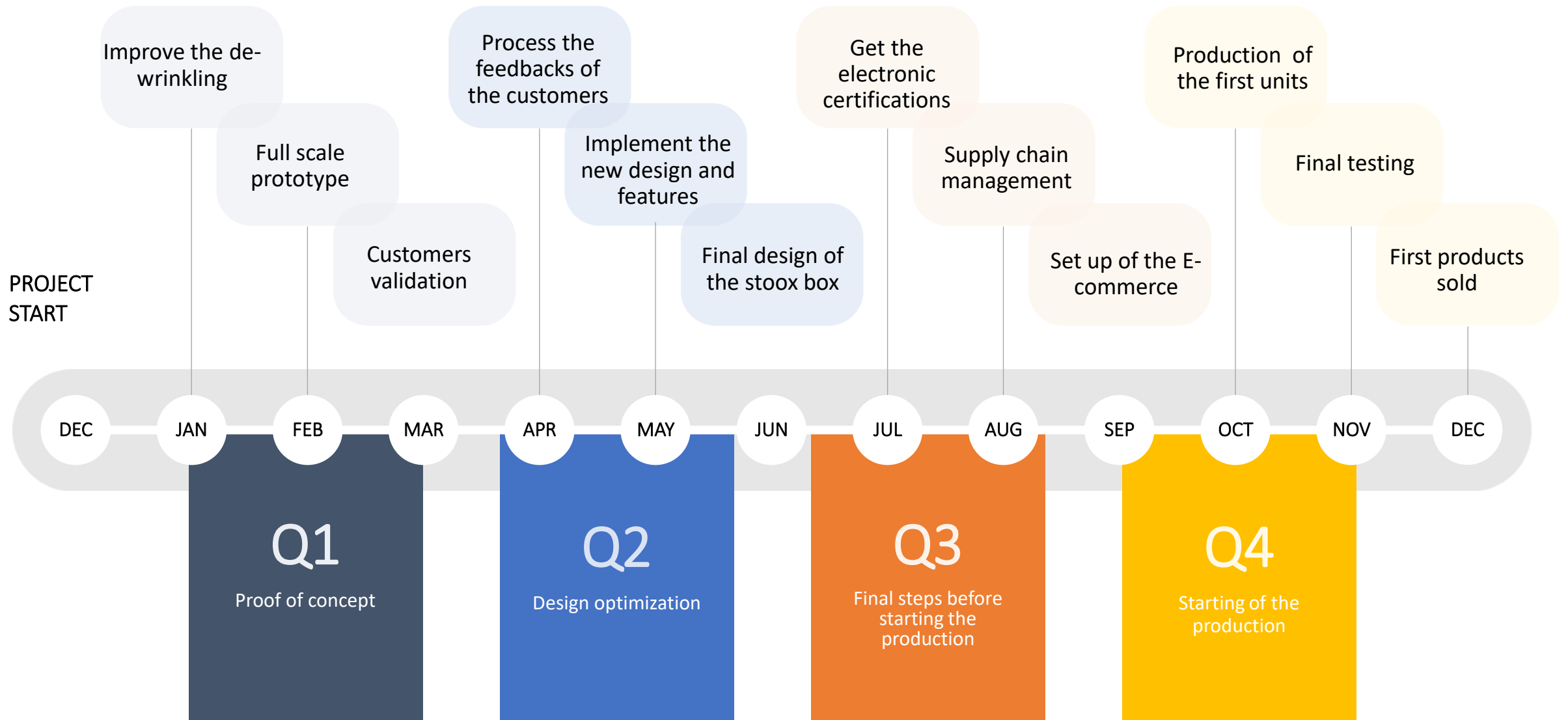
# Financials and Economic Roadmap

- Manufacturing outsourced to India
- Low capital cost
- Very conservative market size estimation




# STOOX STRATEGY ROADMAP

From concept to production & distribution



# Outlook and Investment use of funds



Globally  
sold



High  
potential  
product



Low  
investment  
risk

We ask for **70 k CHF** for **15%** of our equity

These funds will be used to:

- Marketing in the second phase
- Purchase production equipment
- Product development

# Chemical Product Design

## Pitching

Now: **Group Red**

Gets ready: **Group Yellow**

22.12.2022

# GRAFFITI GO

Katia Chikri, Lars Hoernle, Deborah Matta, Ellinor Thelander

# Problem Statement



- SBB pays 5.4 million CHF a year on graffiti removal.
- Removal from concrete remains a challenge



# Vision and value proposition

- Economical and effective graffiti removal
- Chemical graffiti removal product
- Removes graffiti from concrete pores

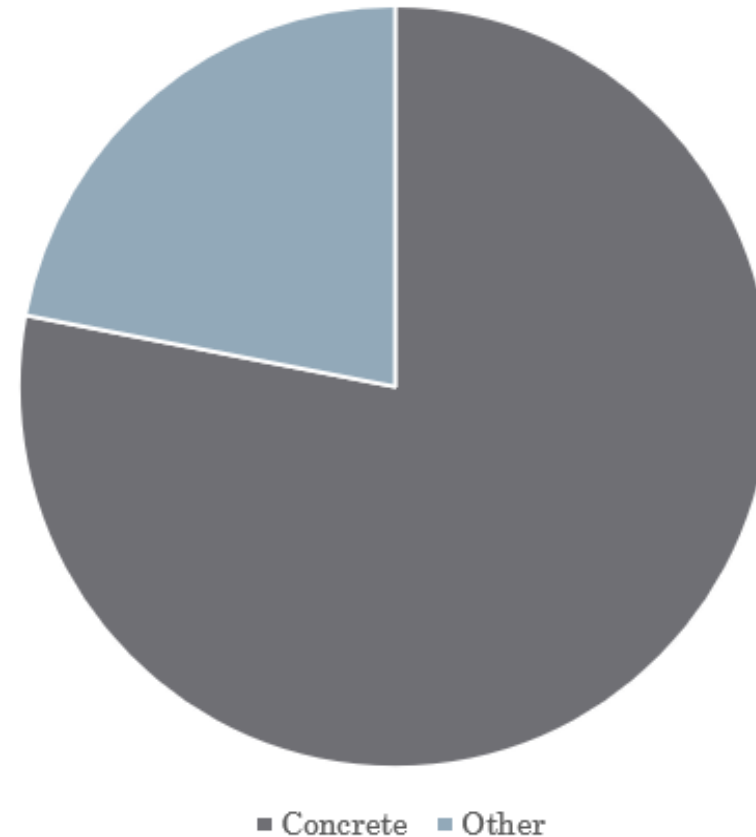




# Market research and target market

- Households and property owners.
- Cleaning companies that deal with graffiti.

Most common wall type



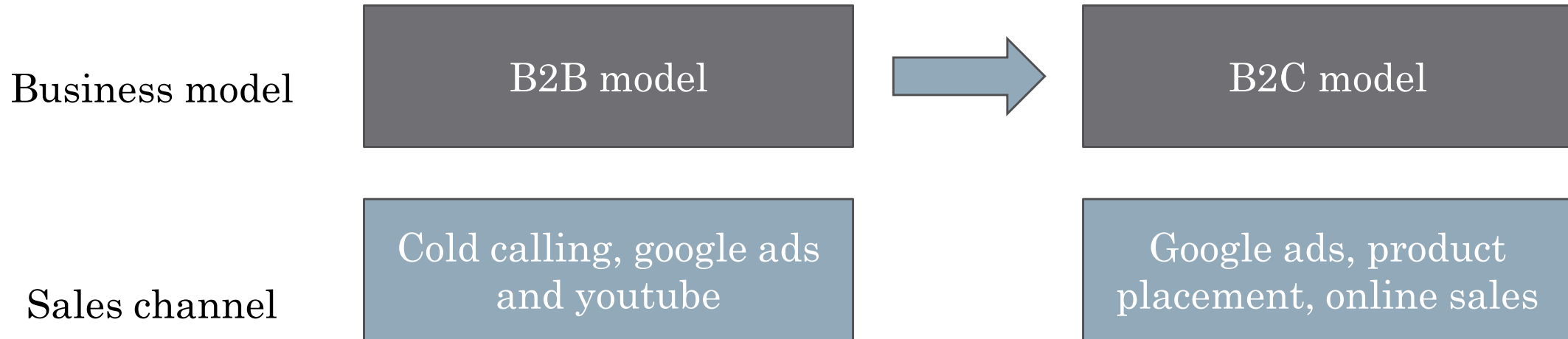
# Solution and prototypes

Chemical	Composition [%]
Tween 20	10
Sodium hydroxide	10
Acetone	15
Ethanol	20
Ethylene glycol	20
Water	25

Chemical product

More research and  
development is  
needed

# Financials and economic roadmap



Unit price: 30 CHF

Selling price: 50 CHF

Year 1

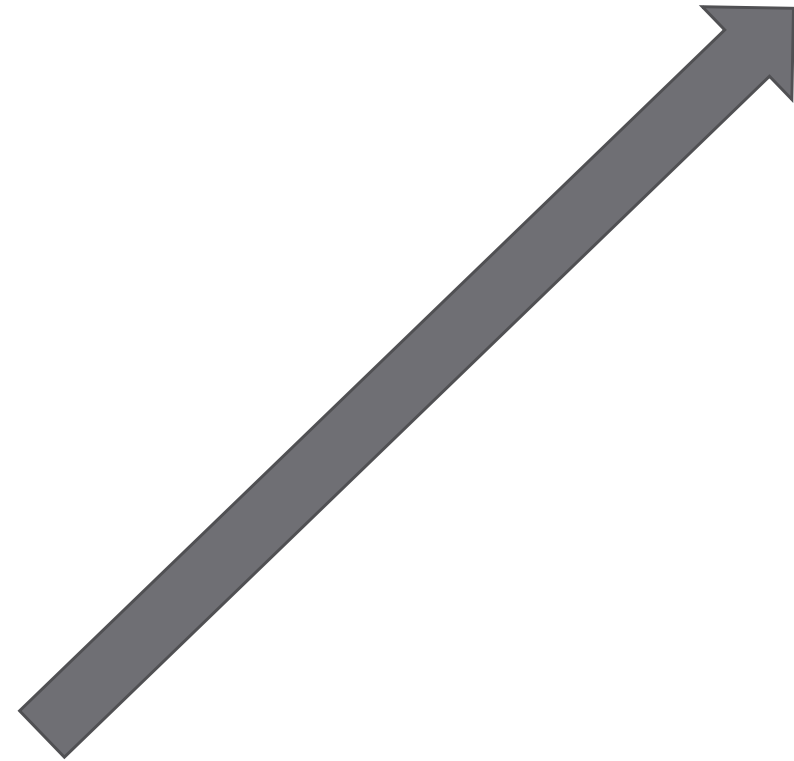
Year 2 – Breakeven

10'000 units produced  
~ -150'000 CHF profit

20'000 units produced  
~ 250'000 CHF profit

# Investment use of funds and timeline

- 650'000 CHF for 20% of the company
- 30'000 CHF CAPEX
- 300'000 CHF Research & Development
- 320'000 CHF OPEX
  
- Year 2: Break-even



Questions?

# Chemical Product Design

## Pitching

Now: **Group Yellow**

22.12.2022





*Kornkraft*  
GROUP Yellow 2022



# Problem Statement

**What?** 50 % of daily calories come from **ultra-processed** food, therefore are a reason for overweight.

**Where?** Switzerland is very affected, 42% of adults are overweight

**When?** Since cereals and cereal bar count to sweets and not to healthy food.

**Why?** Industrial process to make cereals out of wheat occur at high temperatures and rough conditions.

**Who?** Health-focused and overweight people.

Production of a healthy, tasty, minimally processed whole grain snack. The snack should be convenient, sustainable, nutrient-rich and transparent.



# Vision and value proposition

**Long term increased awareness of ultra-processed food in Switzerland and offer alternatives.**

**Convenience**

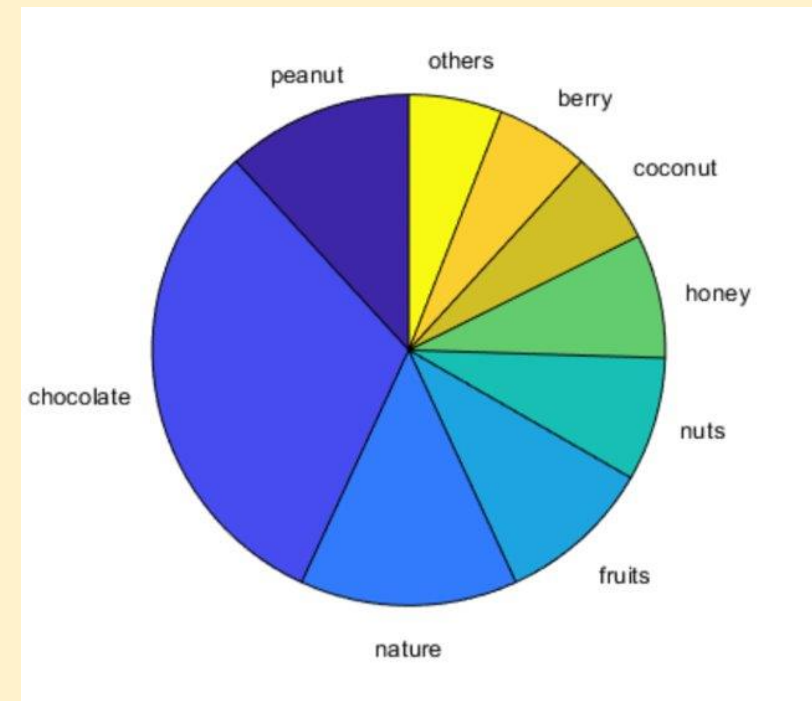
**Transparency**

**Sustainable**

**Nutrient-Rich**

# Market research and target market

A study from «frc mieux choisir» from september 2013 showed a lack of healthy cereal bars. Only 3 out of 88 bar can be considered as healthy.



# Prototypes

- Whole grain flour
- Starch separation
- Baking at 175 °C

**Wheat Protein Mass**  
**Raisins**  
**Pumpkin Seeds**



Starch Separation  
with Water



Drying Product in  
Oven





	Winner Study "frc mieux choisir"	Our Prototype with 3 g chocolate
Carbohydrates	86 %	36.2 %
Proteins	8.4 %	47.4 %
Fat	0.7 %	6.02 %

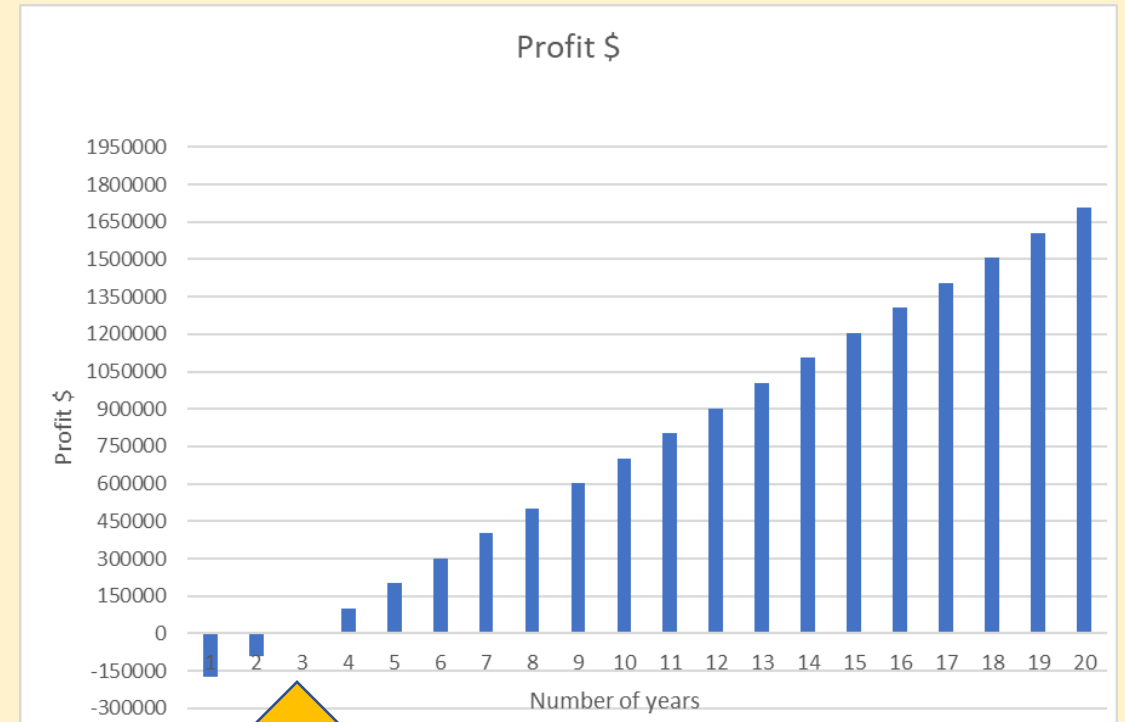


# Financials and economic roadmap

Cost distributors	Estimations
Fixed Capital Cost	250'000 \$
Capex ( annualized FCC 10% Interest!!)	100'000 \$/year
Opex	840'000 \$/year
Turnover	1'000'000 \$/year
Profit	<b>93'000 \$/year</b>

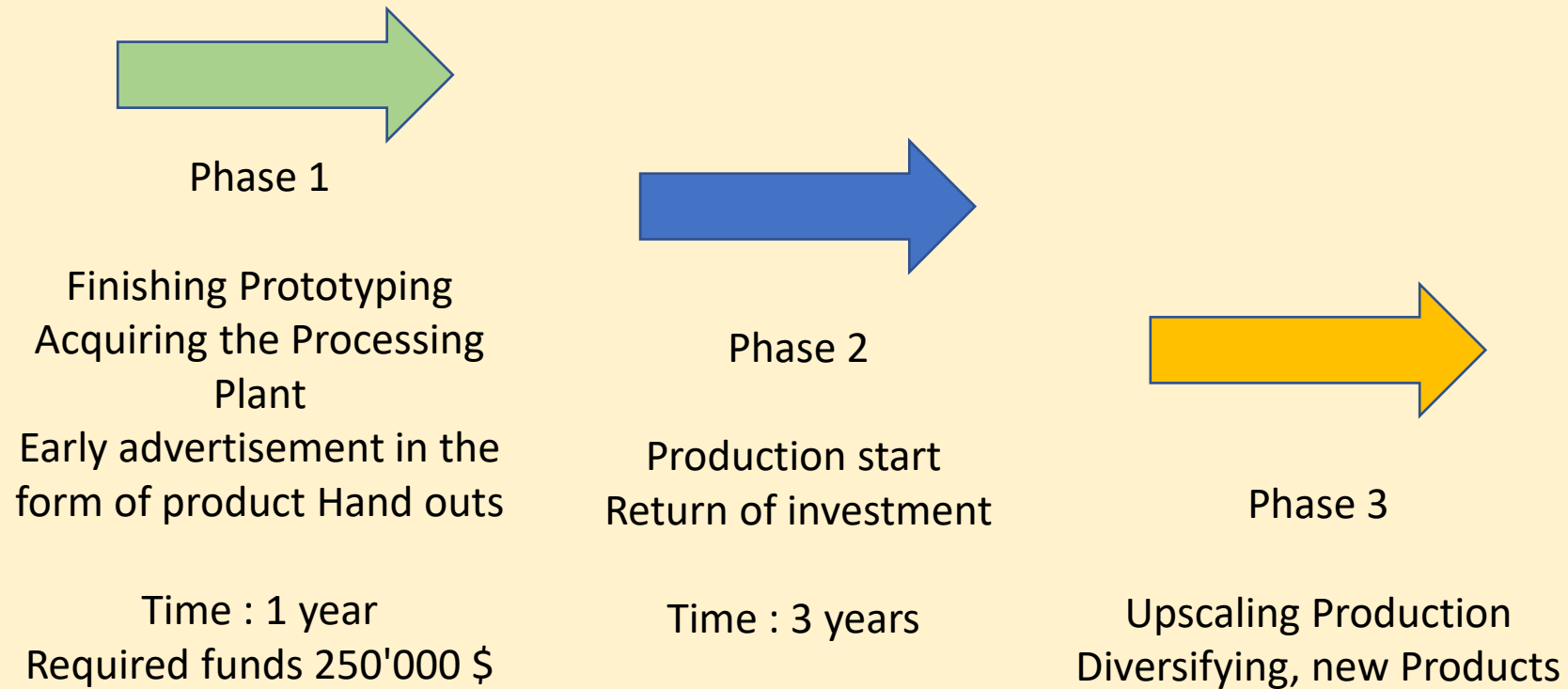
Selling price per bar **0.30 \$**

Retail Price competition:  
**1.05 \$ [1]**



Return of investment after  
only **3** years!

# Investment use of funds and timeline





# Website : <https://kornkraft.weebly.com/>

[HOME](#)



## Kornkraft

Der neue, rein natürliche Proteinriegel.

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Keine Geschmacksverstärker.  
Keine Zusatzstoffe.  
Nur natürliche, nachhaltige Inhaltsstoffe.

- 3856 Impressions
- 81 Clicks
- 1 Filled-out Contact Form
- **Primary CTR: 2.10%**
- **Secondary CTR: 1.23%**



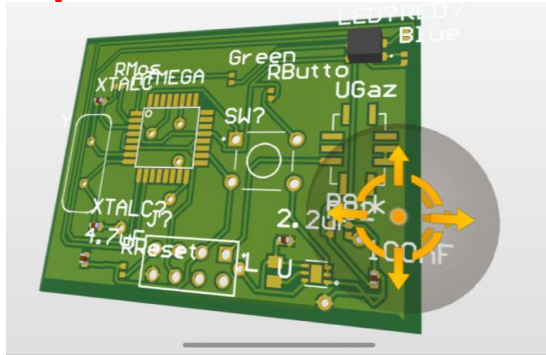
### Schonende Verarbeitung. Starke Nährstoffe.

Durch unseren innovativen Verarbeitungsprozess bleiben die natürlichen Nährstoffe des Getreides erhalten. Dies erlaubt es uns, auf Zusatzstoffe zu verzichten. Kornkraft wurde speziell dafür entwickelt, gängige Nährstoffmängel anzugehen - Kornkraft enthält daher grosse Mengen an Proteinen, sowie Ballaststoffe.

Die Inhaltsangaben vieler Lebensmittel sind leider oft sehr lange und unverständlich - Nicht so bei Kornkraft. Kornkraft besteht aus nur wenigen, hochwertigen Zutaten.

# Voting

- Group Red - Graffiti GO



- Group Yellow - Kornkraft



- Group Blue - FoodVoyant



- Group Green - Stoox





# Results

