SOIL BASED MONITORING FOR OPTIMIZED FERTILIZATION AND IRRIGATION
CHALLENGE

More than 70% of farmers see the greatest challenges for the future in terms of production costs.

DLG, 2018

Traditional systems lead to mistakes
Losing up to €3.500 per hectare

Wastage of resources
Fuel, water and fertilizers: losing €2.300 per hectare
WORLD MARKET

Market for Fertilizers, 2019

€ 139.5 Billion

Market for Fertilizers, 2024

€ 168.5 Billion

Market for Smart Farming, 2017

€ 8.5 Billion

Market for Smart Farming, 2022

€ 20.7 Billion
Michele Bandecchi, M.Sc.

Business development
M.Sc. Plant Biotechnology
M.Sc. Management, Marketing, and Consumer Studies

Tarun Garg, M.Sc.

Product development
M.Sc. Computer Sciences
M.Sc. Geoinformation Sciences

Simon Schreiner, M.Sc.

Technology development
M.Sc. Applied Geoinformatics
Innovative Precision Agriculture Startup

Cloud based data analytics for Remote Sensing Soil Analysis and Farming Recommendations

Top 20 startup to win the Copernicus Incubation 2019

Pilot testing in 300 ha arable field and 40 ha fruit field in Italy

EXIST-funded in Berlin
**ISOB-SCF combo**

**Fraunhofer IOSB**
- Hyperspectral data experience
- Remote sensing software development

**SmartCloudFarming GmbH**
- Soil Sensors knowledge
- UI experience
- Go-to-the-market
1. **DIRECT SOIL SENSING**

- **Hardware**
  (SmartCloudFarming)

- **Hyperspectral remote sensing**
  (Fraunhofer IOSB)
2. DATA ANALYSIS

- 2D soil moisture maps (SmartCloudFarming)
- 2D soil nutrients maps (Fraunhofer IOSB)
- 2D soil maps interpolation with soil sensors to generate 3D soil maps
3. SOIL STATUS INDICATOR AND RECOMMENDATIONS

- Maximize yield
- Reduce fertilizers and water consumption
- Reduce risks
ROADMAP

**Tandem Camp**
- Dummy software
- Pilot Farmers trial
- Soil Sensor trial

**DEMO day**
- Software integration: dummy 3D maps
- Soil moisture database
- Soil Sensor selection
- Field Selection
- Bootstrapping: €10T

**Prototype**
- MVP development
- Soil nutrient calibration
- Pilot partner and expansion on different soil types
ISOB-SCF POTENTIALS

- Global project activity
- Technology licensing
- Valuable input for COGNAC ‘ADS’
- Profit sharing
- Development of new IP
- New funding opportunities
OUR VISION

To be the Google Maps of agriculture
Thank you!

See you at

SEEDS&CHIPS
THE GLOBAL
FOOD
INNOVATION
SUMMIT
Appendix