

sky
SOL[®]

The logo for 'sky SOL' features the word 'sky' in a black, cursive font above the word 'SOL' in a large, black, sans-serif font. A green plant sprout with two leaves grows from the top of the letter 'O' in 'SOL'. A registered trademark symbol (®) is located to the upper right of the 'O'.

 **Fraunhofer**
IOSB



SMART CLOUD
FARMING

**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

€ 168,5
Billion

Market for
Fertilizers,
2024

€ 139,5
Billion

Market for
Fertilizers,
2019

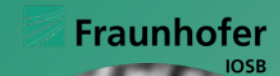
€ 20.7
Billion

Market for
Smart Farming
2022

€ 8.5
Billion

Market for
Smart Farming
2017

TEAM



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

ABOUT SmartCloudFarming

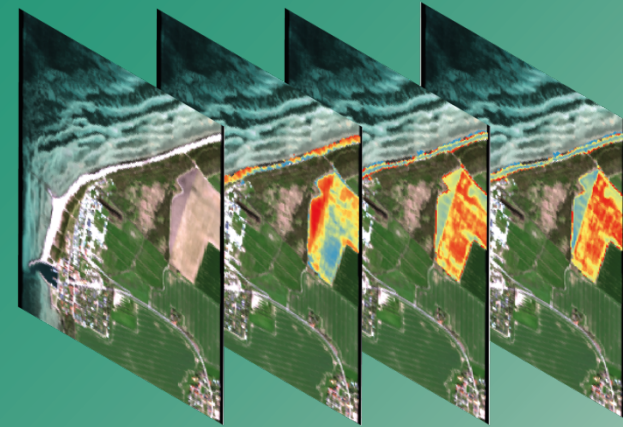
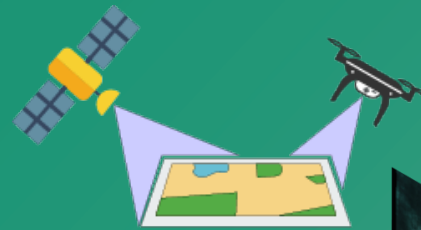
- ▶ Innovative Precision Agriculture Startup
- ▶ Cloud based data analytics for Remote Sensing **Soil Analysis** and **Farming** Recommendations
- ▶ **Top 20 startup** to win the **Copernicus Incubation 2019**
- ▶ Pilot testing in **300 ha arable field** and **40 ha fruit field** in Italy
- ▶ EXIST-funded in Berlin



ISOB-SCF combo

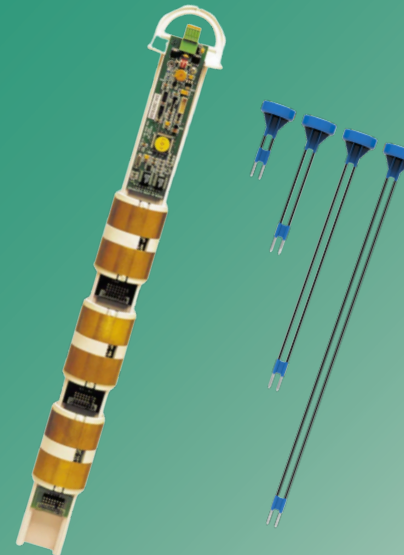
Fraunhofer IOSB

- Hyperspectral data experience
- Remote sensing software development



SmartCloudFarming GmbH

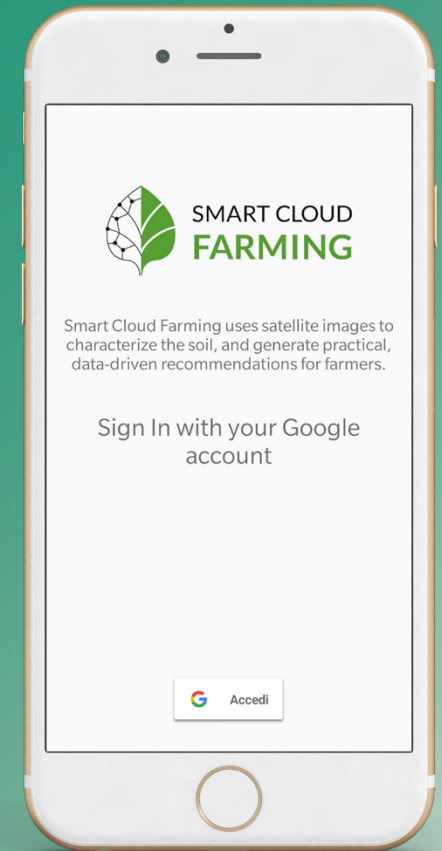
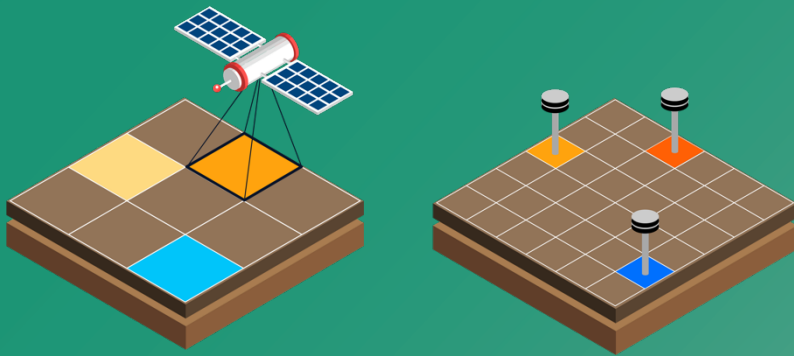
- Soil Sensors knowledge
- UI experience
- Go-to-the market



SKYSOIL platform

1. DIRECT SOIL SENSING

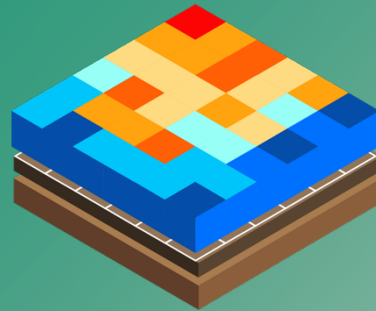
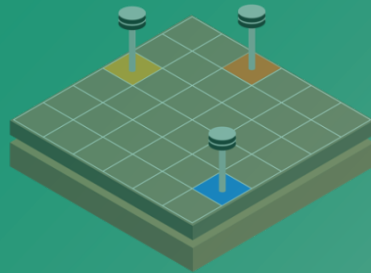
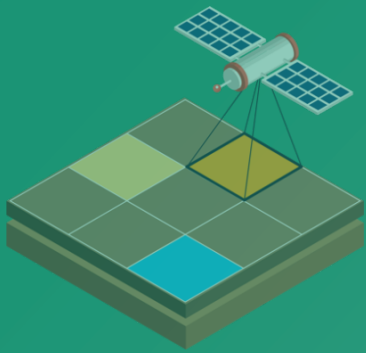
- **Hardware**
(SmartCloudFarming)
- **Hyperspectral remote sensing**
(Fraunhofer IOSB)



SKYSOIL platform

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



SKYSOIL platform

3. SOIL STATUS INDICATOR AND RECOMMENDATIONS

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

ROADMAP

Tandem Camp

DEMO day

Prototype

Goals Tandem Camp

- Dummy software
- Pilot Farmers trial
- Soil Sensor trial

Goals DEMOday

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

Goals 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

