



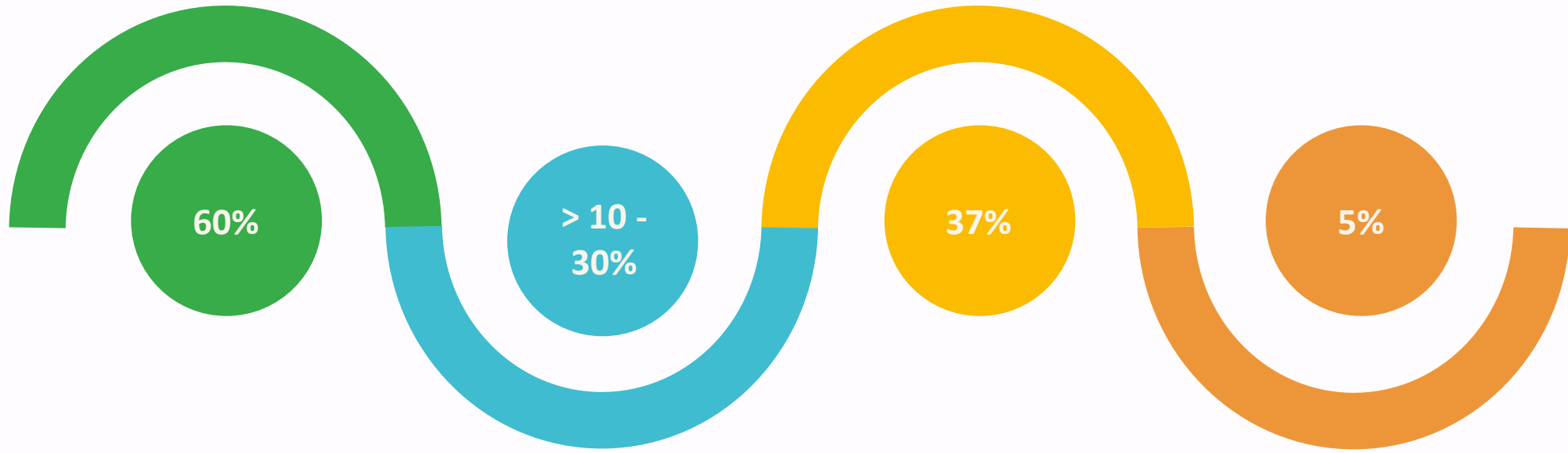
**agrocares**

# Innovative solutions in nutrient testing

Putting nutrient intelligence  
into the hands of the world's  
farming community



# Farming Outlook to 2050



● **60 percent increase** in food production is needed to feed the growing world population of 10 billion people by 2050.

● **Yield decrease impact > 10 -30%** is expected due to climate change after 2030 (not including global crisis such as war)

● **37% of world's land mass** is already used for cattle breeding and agriculture. There is no possibility to expand.

● **Less than 5 percent** of the world's estimated 570 million farms have access to their soil information, Labs or other sources.

# Challenges to address



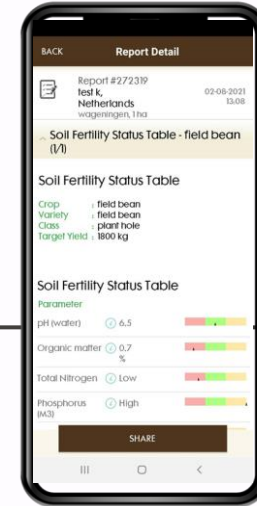
## Soil monitoring and information

Planning soil fertility intervention based on actual measured real-time data



## Infrastructure of sample analysis

Removing obstacles of long waiting periods for samples analysis and challenges of shipment



## Integrated local fertilizer recommendations

more efficient use of fertilizer products, locally adjusted recommendations (application method & timing)



## Capacity development and awareness

Building local capacities on sustainable and more efficient soil nutrient management and rising awareness on the importance of soil fertility, nutrient availability and cycling

# AgroCares Technology



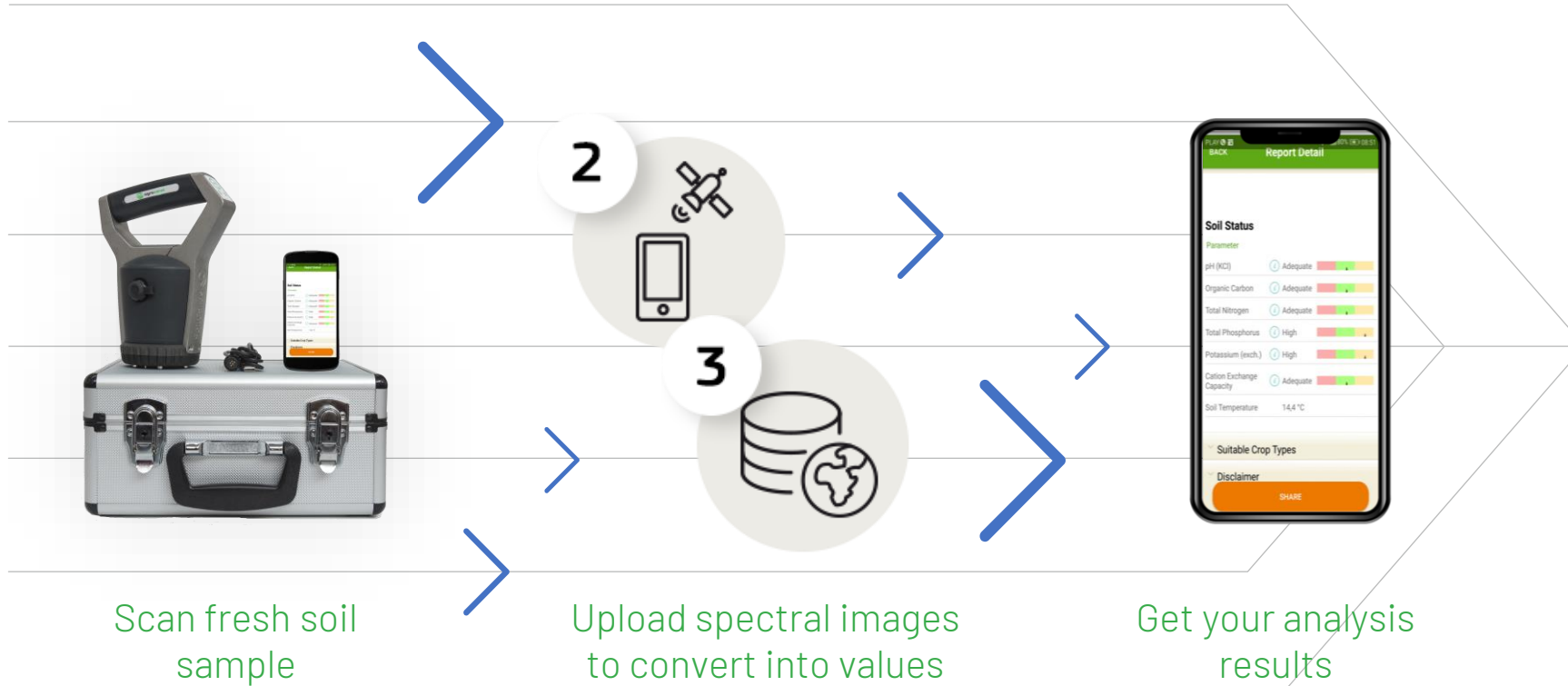
Lab-in-a-Box  
(MIR + XRF,  
mobile/stationary)



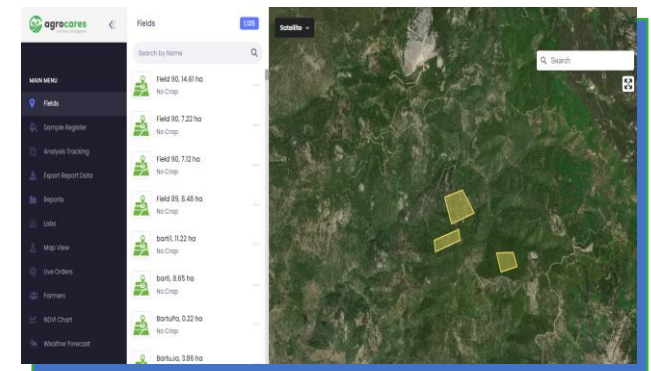
Handheld Scanner  
(NIR)



# Principals of AgroCares



Get analysis results & recommendations



Manage your data & info

# AgroCares enables fact-based farming with smart data-driven farming solutions



## Sensor technology

Lab-in-a-Box &  
Scanner



## Software

User-friendly and  
digital management  
tool (The Portal)



## Customization

Tailored  
recommendations



## Adaptation

Trainings and capacity  
building



## Various disciplines

With the same Soil,  
Feed, Leaf

# AgroCares Portal

Portal.soilcares.com

- Orders



As company portal

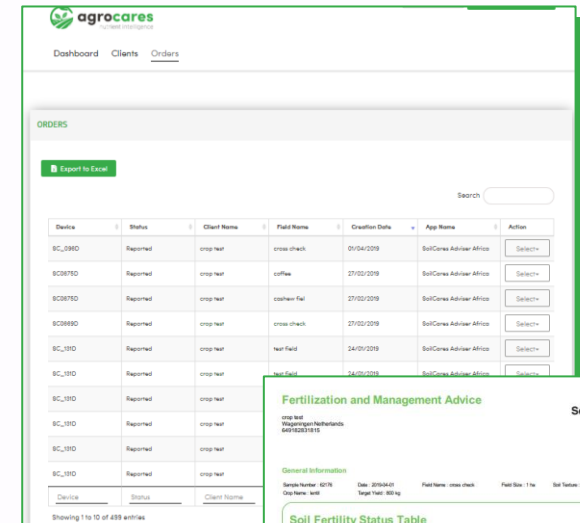
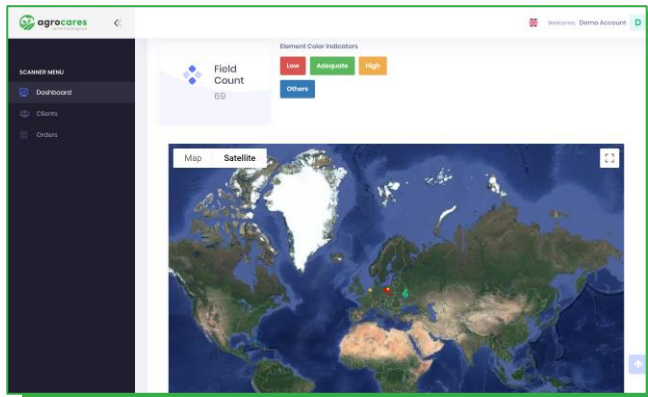


As adviser



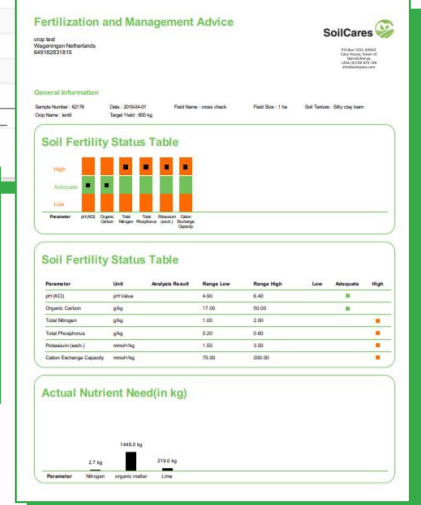
As farmer

- Dashboard



OrderID	SoilTexture	CropName	Devices	TargetYr	TargetYr1	ClientName	ClientPho	ClientCity	GPS	FieldName	FieldSize	FieldSize2	OrderType	Creation	pH	pH (KCI)	Fgm (KCI)	Organic C
62176	Silty clay /lentil	SC_0940	%	kg	crop	test	549182811	Wageningen	51.974267	cross che	5	ha	Soil Analy	01/04/2015	5.66	4.9000000000000000	21.3	
62176	Silty clay /avocado	SC_0940	%	kg	crop	test	549182811	Wageningen	51.974267	cross che	5	ha	Soil Analy	01/04/2015	5.66	4.9000000000000000	21.3	
62176	Silty clay /cut flower	SC_0940	%	kg	crop	test	549182811	Wageningen	51.974267	cross che	5	ha	Soil Analy	01/04/2015	5.66	4.9000000000000000	21.3	
62176	Silty clay /rye	SC_0940	%	kg	crop	test	549182811	Wageningen	51.974267	cross che	5	ha	Soil Analy	01/04/2015	5.66	4.9000000000000000	21.3	
62176	Silty clay /tomato	SC_0940	%	kg	crop	test	549182811	Wageningen	51.974267	cross che	5	ha	Soil Analy	01/04/2015	5.66	4.9000000000000000	21.3	
59917	Loamy sar alfalfa	SC06750	20000	kg	crop	test	549182811	Wageningen	51.974136	coffee	5	ha	Soil Analy	27/02/2015	5.19	4.9000000000000000	20.6	
59913	Sandy loam alfalfa	LC06750	20000	kg	crop	test	549182811	Wageningen	51.974233	coffee	5	ha	Soil Analy	27/02/2015	5.21	4.9000000000000000	21.9	
59883	Silty clay /cabbage	SC06600	50000	kg	crop	test	549182811	Wageningen	51.974202	cross che	5	ha	Soil Analy	27/02/2015	5.32	4.9000000000000000	20.8	
59883	Silty clay /maize	LC06600	50000	kg	crop	test	549182811	Wageningen	51.974202	cross che	5	ha	Soil Analy	27/02/2015	5.32	4.9000000000000000	20.8	
59883	Silty clay /potato	SC06600	50000	kg	crop	test	549182811	Wageningen	51.974202	cross che	5	ha	Soil Analy	27/02/2015	5.32	4.9000000000000000	20.8	
59759	Sandy loam mature ca	SC_1310	%	kg	crop	test	549182811	Wageningen	51.974257	test field	5	ha	Soil Analy	24/01/2015	5.26	4.9000000000000000	22.5	
59759	Sandy loam mature SC	SC_1310	%	kg	crop	test	549182811	Wageningen	51.974257	test field	5	ha	Soil Analy	24/01/2015	5.26	4.9000000000000000	22.5	
59756	Loamy sar coffee	SC_1310	%	kg	crop	test	549182811	Wageningen	51.974233	test field	5	ha	Soil Analy	24/01/2015	5.24	4.9000000000000000	20.5	
59756	Loamy sar coffee	SC_1310	%	kg	crop	test	549182811	Wageningen	51.974233	test field	5	ha	Soil Analy	24/01/2015	5.26	4.9000000000000000	22.5	
59684	Sandy loam coffee	SC_1310	%	kg	crop	test	549182811	Wageningen	51.974241	coffee	5	ha	Soil Analy	24/01/2015	5.30	4.9000000000000000	20.1	
59684	Clay loam coffee	SC_1310	50000	kg	crop	test	549182811	Wageningen	51.974208	coffee	5	ha	Soil Analy	24/01/2015	5.34	4.9000000000000000	22.2	
59652	Silty clay /coffee	SC_1310	%	kg	crop	test	549182811	Wageningen	51.974308	coffee	5	ha	Soil Analy	24/01/2015	5.33	4.9000000000000000	22.8	
59643	Sandy loam coffee	SC_1310	%	kg	crop	test	549182811	Wageningen	51.974308	coffee	5	ha	Soil Analy	24/01/2015	5.25	4.9000000000000000	21.2	
59641	Loamy sar coffee	SC_1310	50000	kg	crop	test	549182811	Wageningen	51.974308	coffee	5	ha	Soil Analy	24/01/2015	5.25	4.9000000000000000	20.8	
59638	Loamy sar coffee	SC_1310	20000	kg	crop	test	549182811	Wageningen	51.974302	coffee	5	ha	Soil Analy	24/01/2015	5.25	4.9000000000000000	24.2	
59633	Silty clay /coffee	SC_1310	%	kg	crop	test	549182811	Wageningen	51.974343	coffee	5	ha	Soil Analy	24/01/2015	5.41	4.9000000000000000	23.4	

Extracted as Excel file



PDF report

# Sensor adoption and usage worldwide

## Established and actively operational in 35 countries

### South East Asia

- **Myanmar** – Input provider, soil fertilizer awareness, fertility projects, farmer awareness,
- **Philippines** – Banana/Cocoa smallholder cultivation support
- **Vietnam** – coffee production
- **Thailand** – potatoe & oil palm cultivation

### Africa

- Input provider and NGOs soil health awareness, adoption of sustainable management practices

### Central & South America

- Carbon sequestration, coffee producers

### Europe & North America

- Input provider, advisor, research, carbon



Only about 5% of the farmers have access to soil information:

Too expensive

Too complex

Too slow

Inaccessible



# Thank you for your attention!

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Contact:  
[Tanja.Luebbers@agrocares.com](mailto:Tanja.Luebbers@agrocares.com)

