

Rapid water availability assessment for irrigated farming in KwaZulu-Natal – Providing Key Information for the launch of the KwaZulu-Natal Innovation Cooperative

Fons Eijkelkamp

3rd generation in 108 years Family owned Company

Presentation 12/12/2019 for TS Agrifood.



From H.J. Eijkelkamp & Zonen to Royal Eijkelkamp



Giesbeek



Giesbeek



Sassenheim

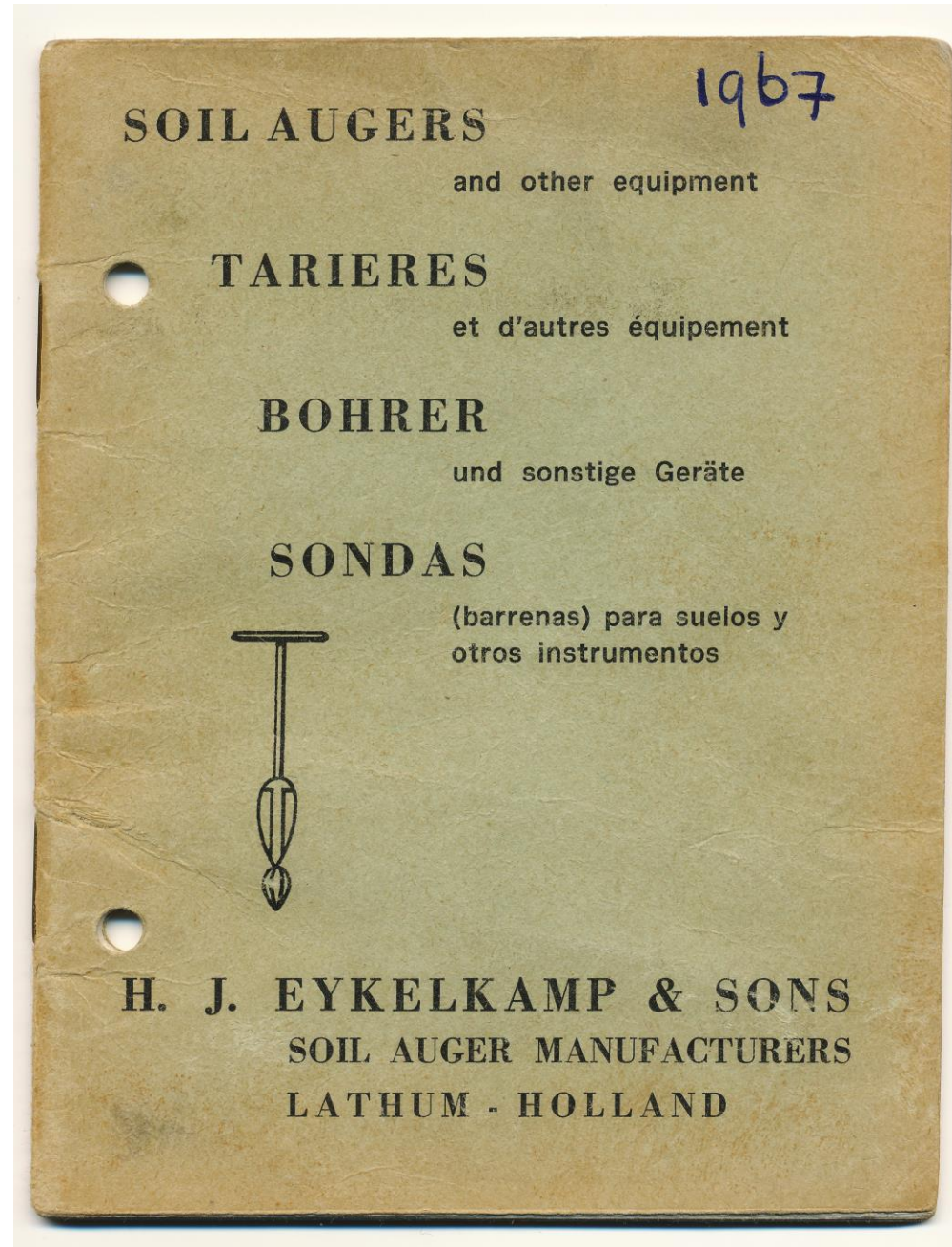


Raleigh - US

Products since 1950 going abroad

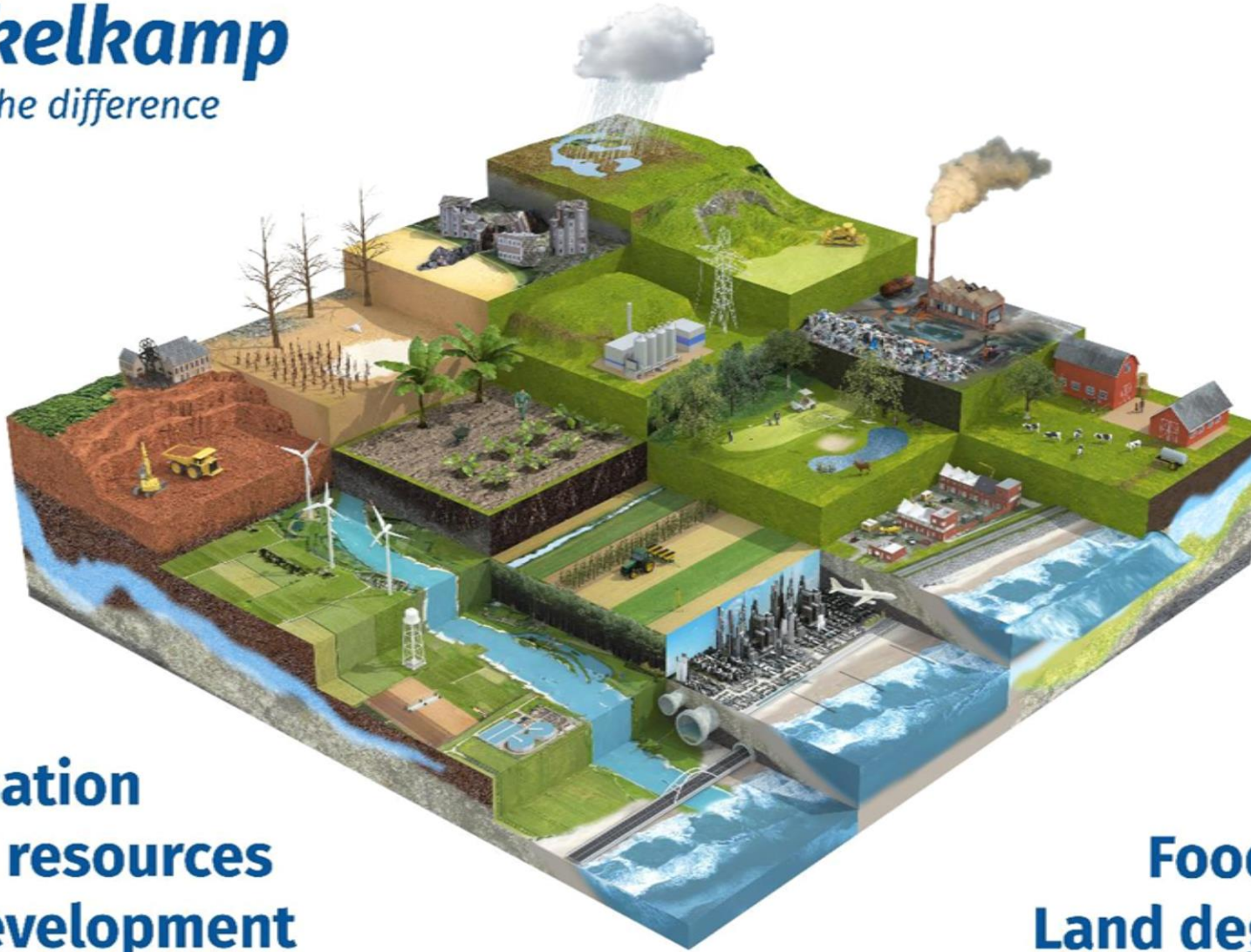
1919:

- 150 people in total
- Total turn over M€ 40



TWORE → The World Of Royal Eijkelkamp

 **Eijkelkamp**
Meet the difference



Urbanisation
Natural resources
Land development

Pollution
Food security
Land degradation

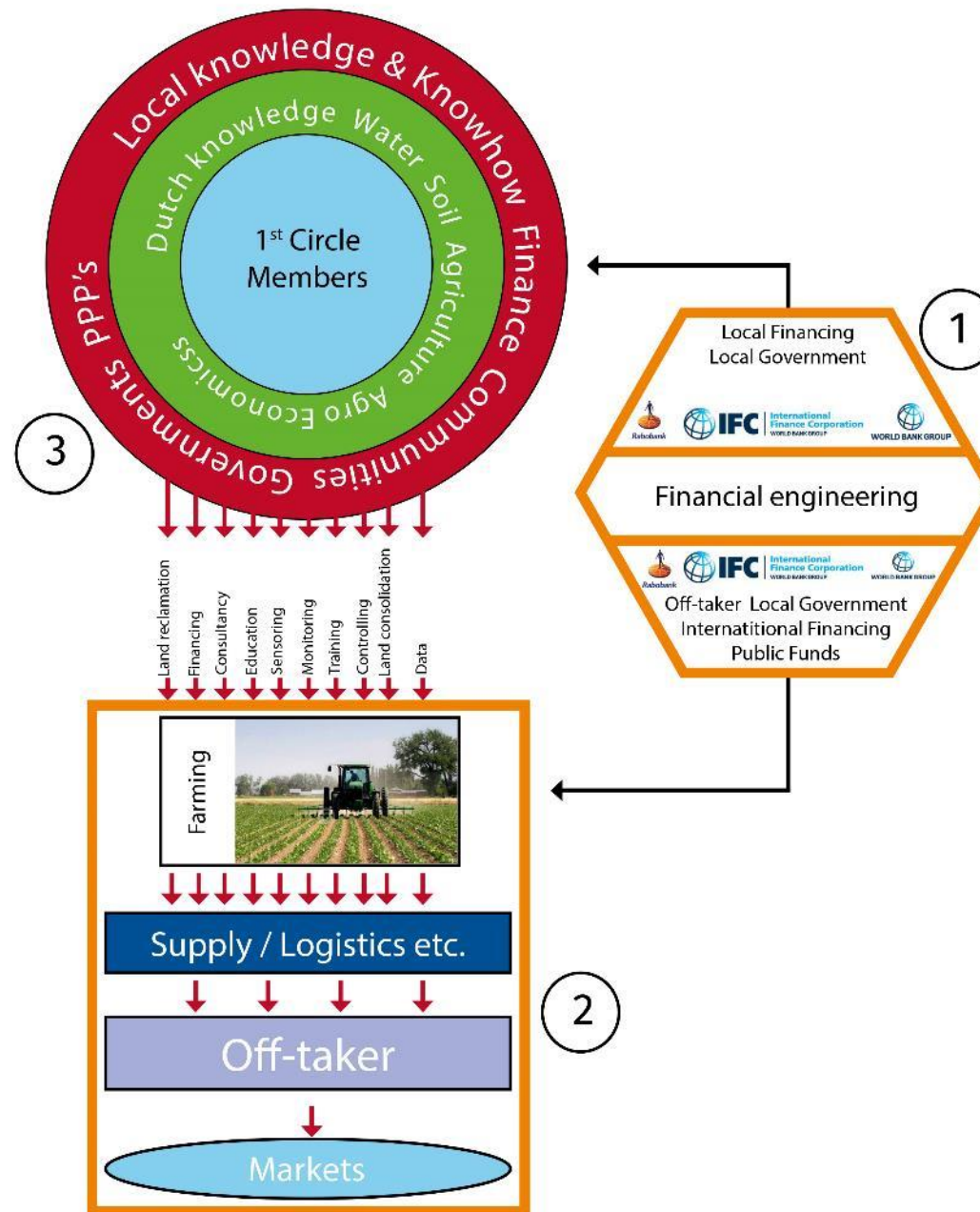
What is the Alliance?

The 3 Essentials

1. Financing Package

2. Market Linkage

3. Comprehensive Approach



Touching 6 Sustainable Development Goals (SDG)



Solutions for Climate change, Migration, Food Security, Stunting, Improving human needs, creating jobs, value in Water, Agro and Food Respecting People and Environment

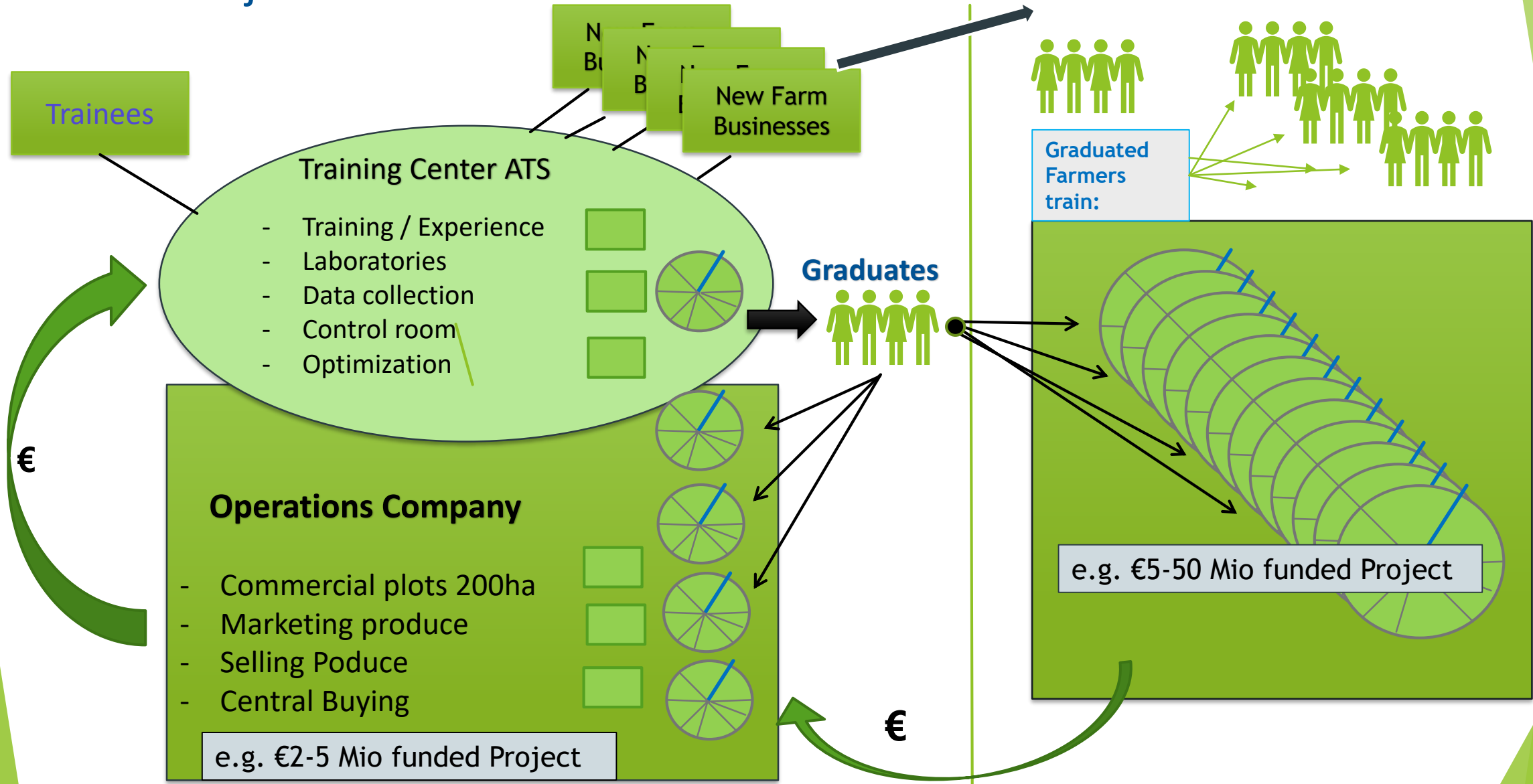
Smaller Project



Delivering trained farmers to



Large Project



Start with small investment for the AgriPreneur Training & Service center but have the financials available to scale up in 8 - 10 years!

Goal SMP: Preliminary assessment of the available water resources around Mkuze

- Two watersheds of the rivers Mkuze and Pongola
- Rain, ground and surface waters



Water assessment Mkuze

- ▶ Irrigation needed because of recurrent droughts
- ▶ Groundwater availability in the area is poor: Low yields and low water transmissivity
- ▶ Surface water:
 - ▶ Mkuze: quality is poor
 - ▶ Pongola: a current water deficit of 134 Mm³/yr

Pongolapoort dam



Surface water resources	818 m ³ /yr
Catchment yield	645 m ³ /y ³
Use	779 m ³ /yr
Deficit	134 m³/yr
Potential DWS interventions	192 m ³ /yr
Possible available	58 m³/yr

Conclusions Mkuze

- ▶ Water available best from the Pongolapoort Dam.
- ▶ Interventions are required, discuss with DWS on possibilities
- ▶ South African water crisis likely results in changes in water rights, demands, allocation and transfers

→ Better look for opportunities somewhere else

Spin off I

Launching the Nyembe Rural Innovation program

- ▶ Contract for Pre-feasibility Study by Industrial Investor
- ▶ Bilateral MoU in Zulu/ English language
- ▶ Local Steering Committee established
- ▶ Preparation for Follow up phase 0.5 Mio Euro, 2 Mio Euro

AgriPreneur KwaZulu-Natal

Supporting young AgriPreneurs and
rural development in KwaZulu-Natal

NL-FSA@eijkelkamp.com

- create a true change and long lasting perspective for young AgriPreneurs in KwaZulu-Natal
- integrate professional education, innovation and effective commercial farm development for a sustainable future in agriculture

NL-FSA

For our future of the earth



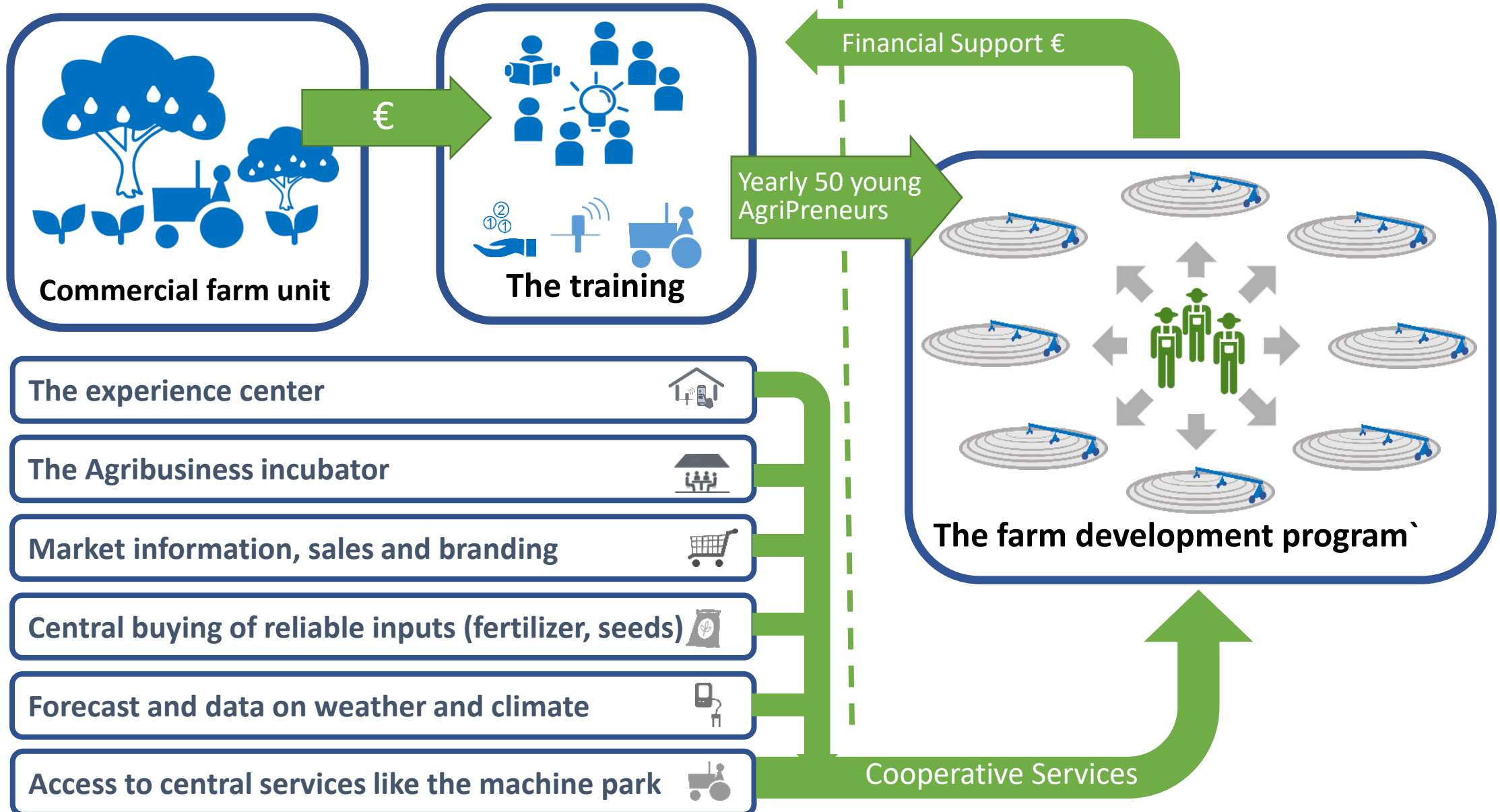
NL-FSA

The Nyembe Rural Innovation Program

Supporting young AgriPreneurs and
rural development in KwaZulu-Natal

Training and service center

Large farms – growing over time





AgriServices

Basic Training

iNovation

NL-FSA

The image shows a rural landscape with a wooden bridge over a river, a small house, and a forest in the background. The text 'AgriServices' is overlaid in a green box, 'Basic Training' in a green box, 'iNovation' in a green box, and 'NL-FSA' in a green box. There are also icons of people and a building in the background.

Basic Training

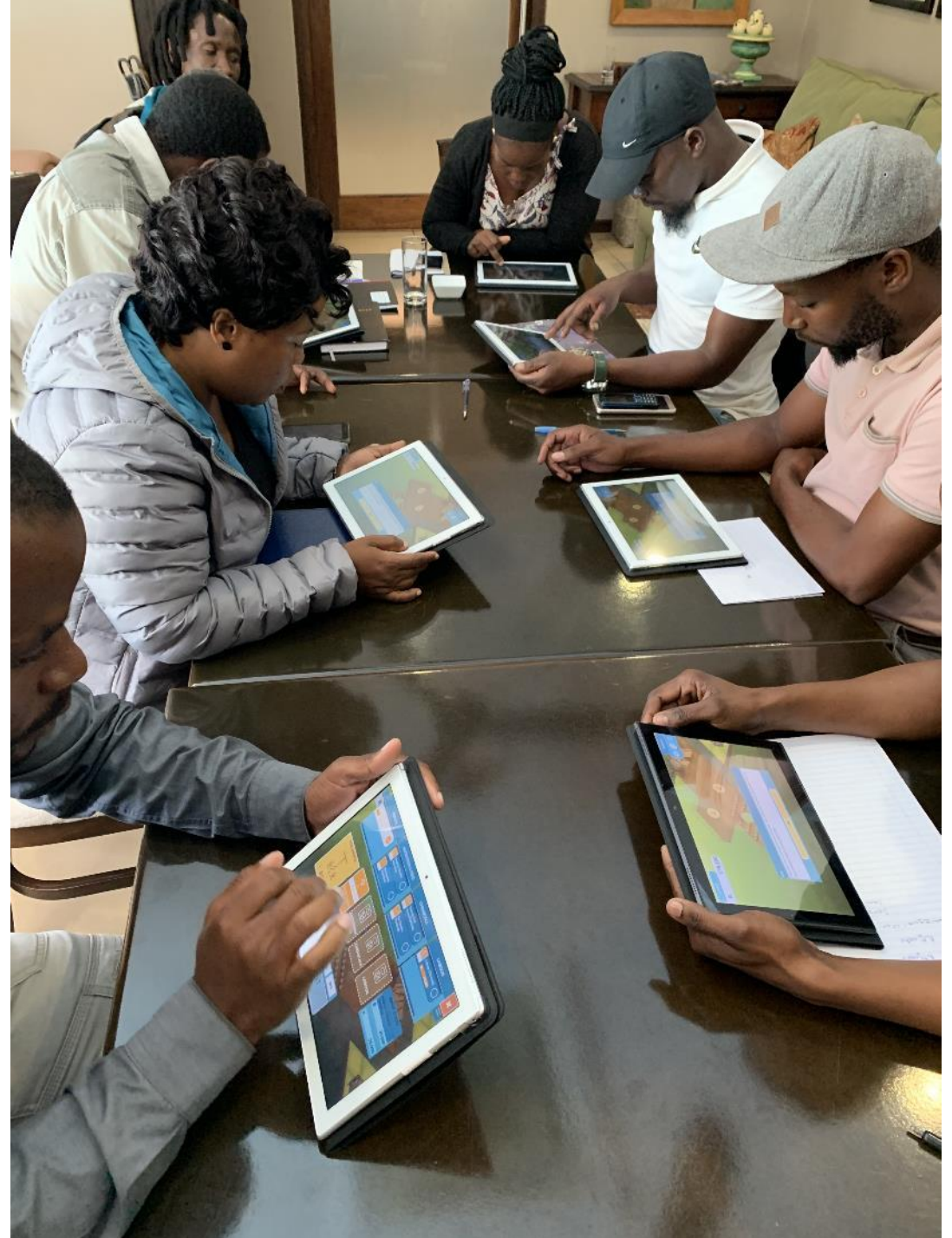


NL-FSA



 **KUCHEZA**

NL-FSA





II. Building the Nyembe Innovation Hub

Strategy Development

IT & Business HQ

Guesthouses

Advanced training
and lecturing

Function
& Braai

Meet & Greet



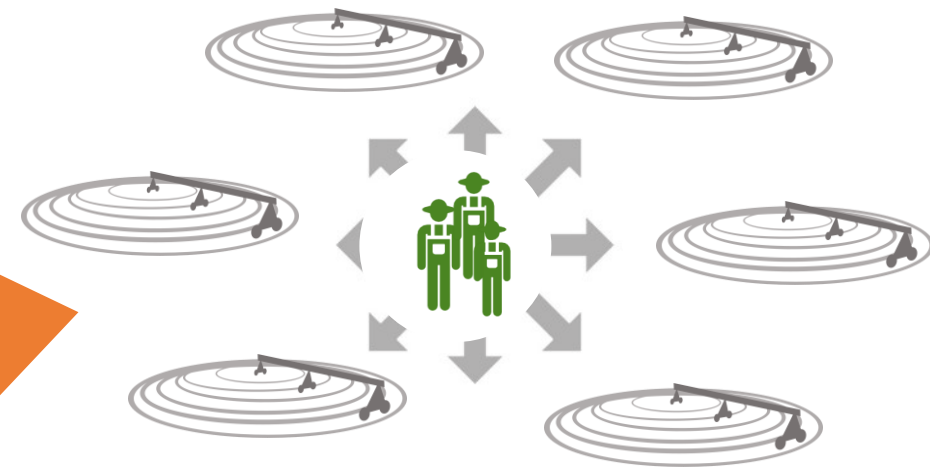
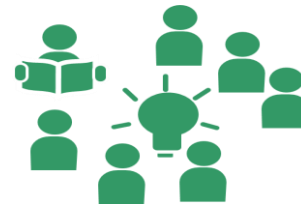
Phase I Technical and social development plan

Phase II Implementing the Orchard and Training Center

Phase III Multi-Stakeholder Innovation Cooperative and Large Farm Development Program



200 ha



4.000 ha land
500 Impact Farms

NL-FSA

Initial Subsidy, Phase I

Loan for Development, Phase II & III

Future Self-Sustainability

Year 0

Year 15

Spin off II

Preparing large interventions in Limpopo Province

- ▶ Cooperation with other mining companies
- ▶ Largest platinum mine in South Africa
- ▶ Support to the Mamashela community
- ▶ Planning of extensive Water resources monitoring and agribusiness development (3.000 ha communal land)

Working on new NL-FSA projects

Senegal 1 of 6 countries in WB SIIP (Sahel Irrigation Initiative Project)

- First lobbying started in 2017
- Business Case & Rabo Financial Termsheet M€ 50, 2018
- Workshop with Minister of Agriculture in January 2020
- Together with AfricaRice & large farmer private
- Agriculture and irrigation project, in line with government policy
- Wish target 10.000 farmers
- Service includes and match partners capability
- Soil & Water control, drilling boreholes, capacity building, solar irrigation pumps, BOOD (Business Out Of Data)
- First factfinding mission needed: SMP can help

Other large Projects Grundfos & Royal Eijkelpkamp

Uganda:

- ▶ First face 500-1.000 villages Solar Water Pumping and supply
- ▶ Drilling of boreholes, water quality control, Soil & Water monitoring & control
- ▶ Water pumping solution capacity building and mobilization
- ▶ The project has been discussed at high level with the Ministry and feasibility study is under preparation.



▶ Ghana:

- ▶ The same as Uganda, first pilot 1.000 villages
 - ▶ The Government has promised to provide water for 17.000 villages
 - ▶ Irrigation is also a high level topic on the Governmental agenda
-
- ▶ Both need a factfinding mission SMP can help

Visit Minister of Water etc Malaysia for MAR

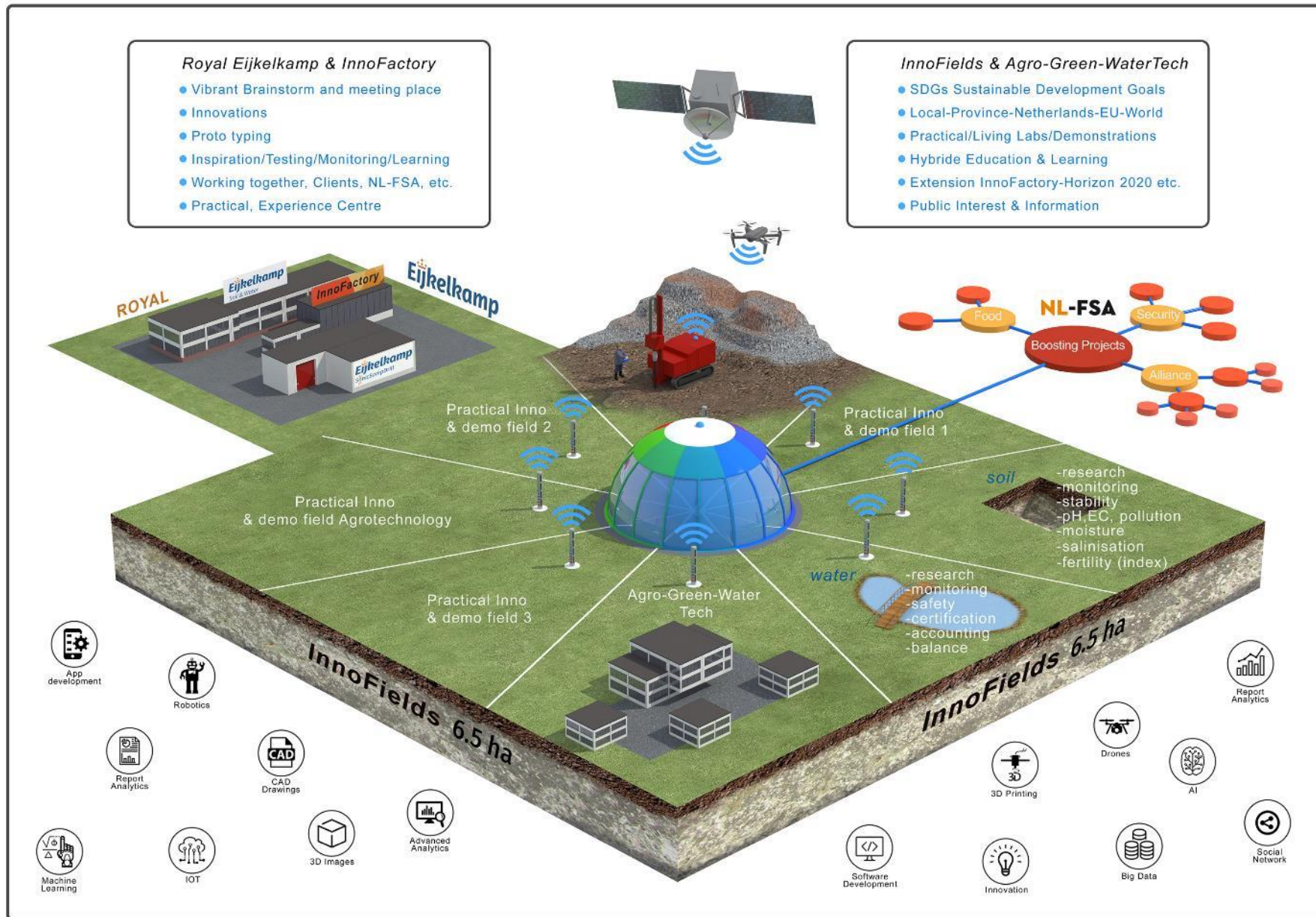
Big opportunity for
Royal Eijkelpomp &
Grundfos!

First order for small pilot
will follow soon: stopping
outflow of river in the sea
➔ Water harvesting



Managed Aquifer Recharge

InnoFactory & InnoFields



Project Eijkelkamp Foundation the Water Entrepreneur Benin

- Clean drinking Water for 100.000 people
- Job for 40 Water Entrepreneurs
- Business for EU companies
- (Royal Eijkelkamp, Grundfos, TagMeter etc)
- How to scale up this project?

NL-Food Security Alliance



Conclusions:

- ▶ A SMP subsidy helps to tackle first bottlenecks to get the Orange Light
- ▶ Big time gap between Orange Light and Loan from e.g. Rabo Bank
- ▶ With the NL-FSA approach we do find a lot of possible interesting projects