



*Session: Developing a national agricultural  
education and training system*

## A Dutch perspective

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director Innovative Modern Agriculture – Wageningen bv  
PUM programme manager

A person wearing a white long-sleeved shirt and a wide-brimmed hat is working in a processing facility. They are surrounded by large quantities of ginger. In the background, other workers in similar attire are visible, and the facility has a green translucent covering. The overall scene is brightly lit, suggesting an indoor or semi-enclosed agricultural processing environment.

# PUM<sup>\*</sup>

**Netherlands senior experts**

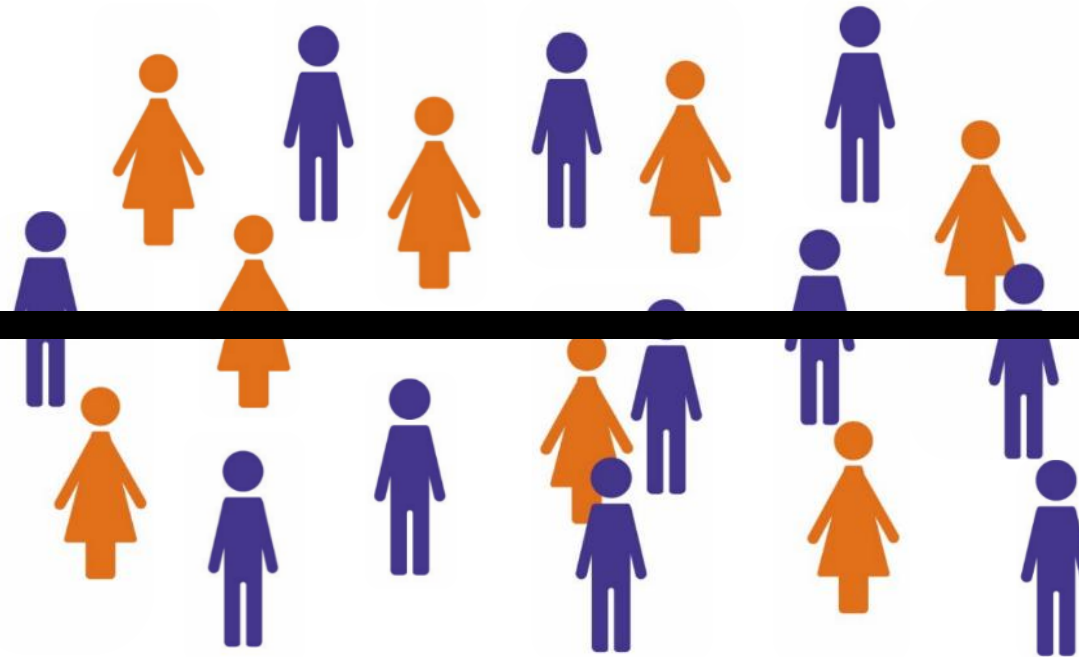
*Developing a national agricultural education and training plan*

**Vibrant businesses, better lives**

# Our people

We work with  
more than **150**  
representatives in 30  
countries around the  
world

Nearly **2000** experts  
- **all volunteers** -  
are willing to share  
their knowledge and  
expertise



More than **100** staff  
volunteers are acting  
as sector and  
country coordinators

We have a team of  
**50** employees in our  
main office in  
The Hague  
– the Netherlands



# Thematic Approach

## Food Security



Agriculture & Horticulture



Animal Production,  
Beekeeping & Fisheries



Food & Beverages

## Health and Environment



Health Care



Energy, Water, Waste  
& Environment/CSR

## Industry and Trade



Chemical & Synthetic  
Materials



Textile and Leather



Building  
& Construction



Metal Industry



Trade

## Services



Tourism  
& Hospitality



Vocational Education  
& Training



Business Consultancy



# National Geographic sept 2017 review: This tiny country feeds the World

- Netherlands #2 agricultural exporter



# Innovation and education

- Innovation happens within a social system: “an institutional clustering of practices among the participants (not necessarily implying consensus) (Anthony Giddens)
- Long-term infrastructural investment in ‘mental capital’ and its improvement is crucial for successful economic development and for competitive trade performance (Chris Freeman, OECD)
- ‘Coupling mechanisms’ between the education system, science, production and markets have been an important aspect of the institutional changes introduced when countries are excelling (Freeman, OECD)

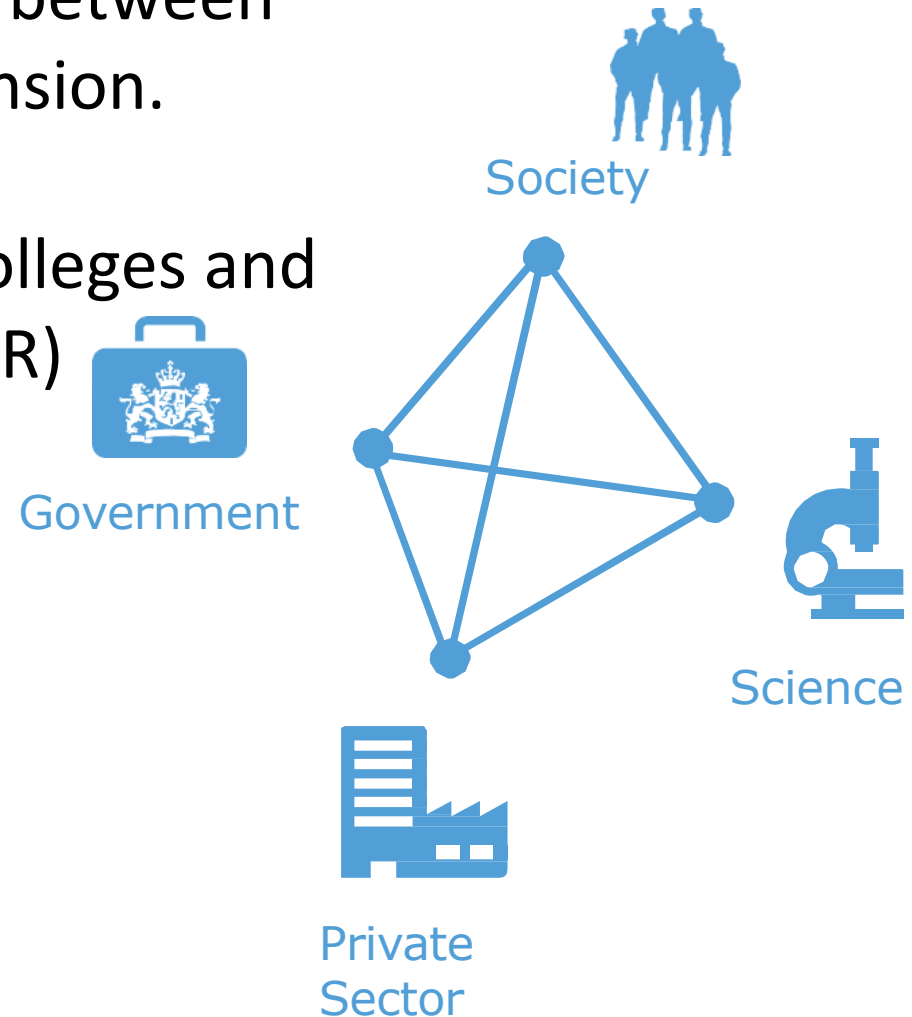
# Dutch agro innovation and education

Government support initiated strong links between farmers and research, education and extension.

Vocational training centers, Agricultural Colleges and Wageningen University and Research (WUR)

Partners include :

- Public sector
- Private sector
- Science
- International linkages
- Society (NGO's)



# Wageningen University and Research (WUR)

- Wageningen University & Research (WUR) is widely regarded as the world's top agricultural research and education institution, and links with an expansive cluster of agricultural technology start-ups and experimental farms.
- What Stanford University is for Silicon Valley, is Wageningen for agriculture, a celebrated merger of academia and entrepreneurship.



Relevant example of collaboration:

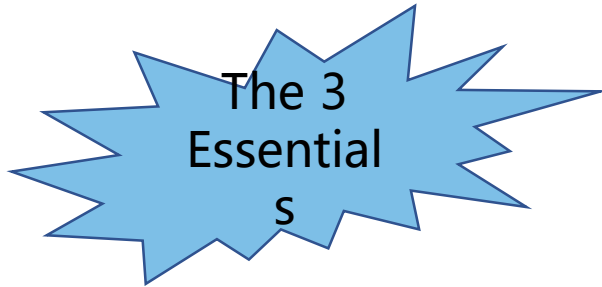
**NL-FSA**

## NL-Food Security Alliance

Solving Soil, Water, Food, Social related problems in the World



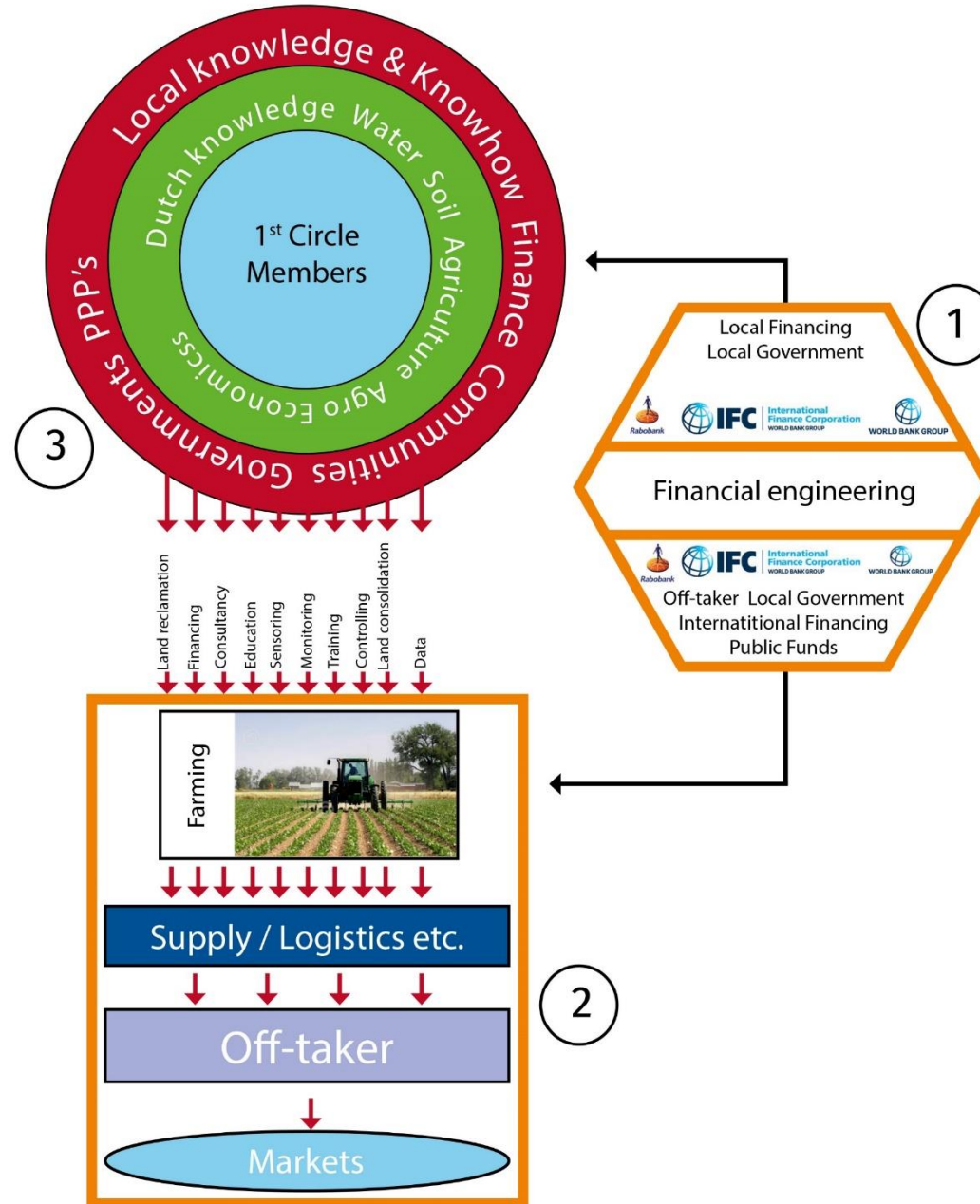
## What is the Alliance?



1. Financing Package

2. Market Linkage

3. Comprehensive Approach



# NL-FSA some more partners



# Africa needs young farmers



## **Increasing food demand**

*The food demand in Sub-Saharan Africa will increase by 55% over the next ten years*



## **Ageing farmers**

*The average age of farmers in Africa is 60, while the majority of the population is under 24 years of age*



## **Economic empowerment**

*Growth originating from small agricultural producers is 2 to 4 times more effective at reducing poverty than growth from other sectors*





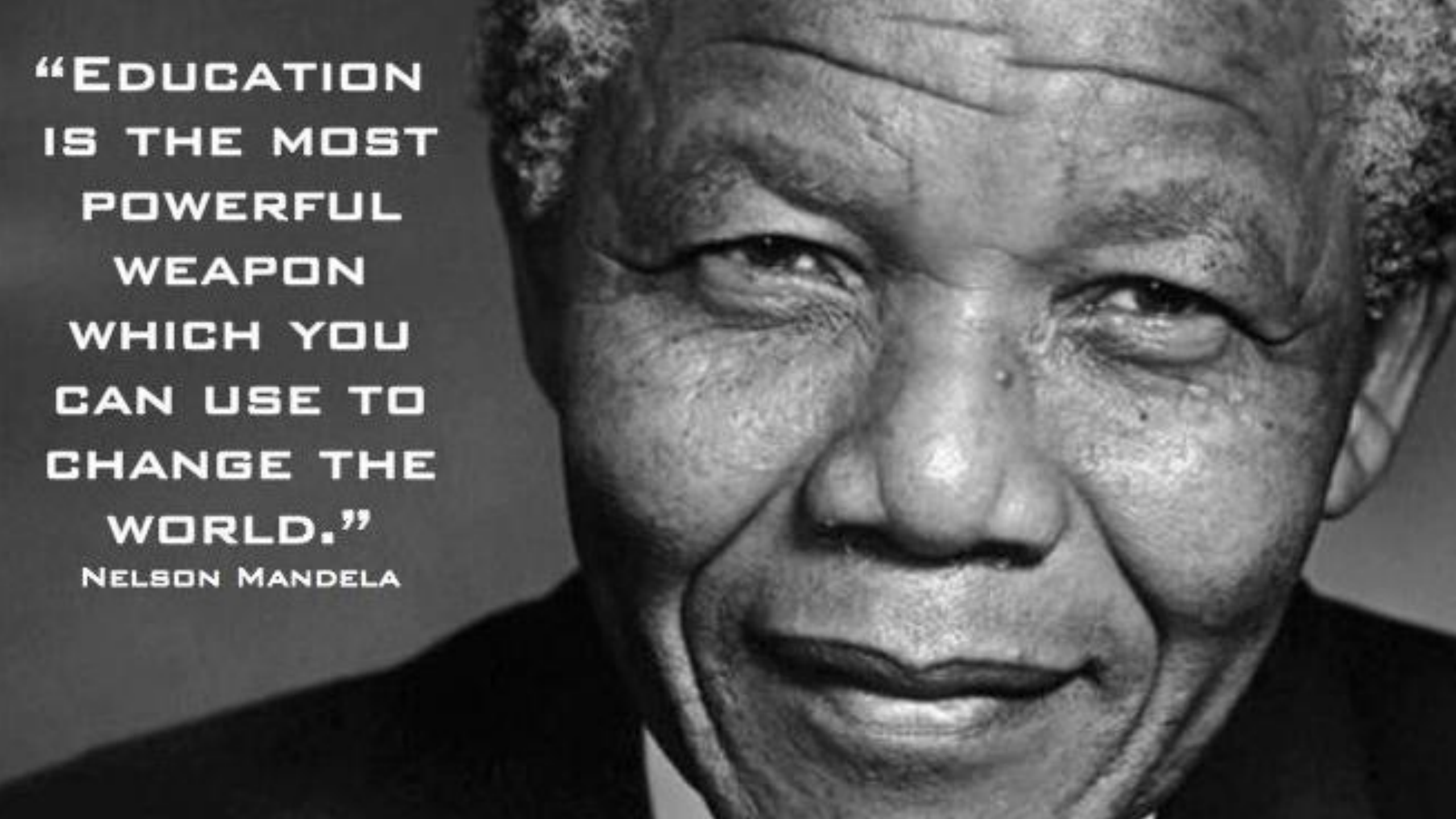
“

The next generation of  
billionaires in Africa  
will be farmers.

Akinwumi Adesina - President of African Development Bank

”



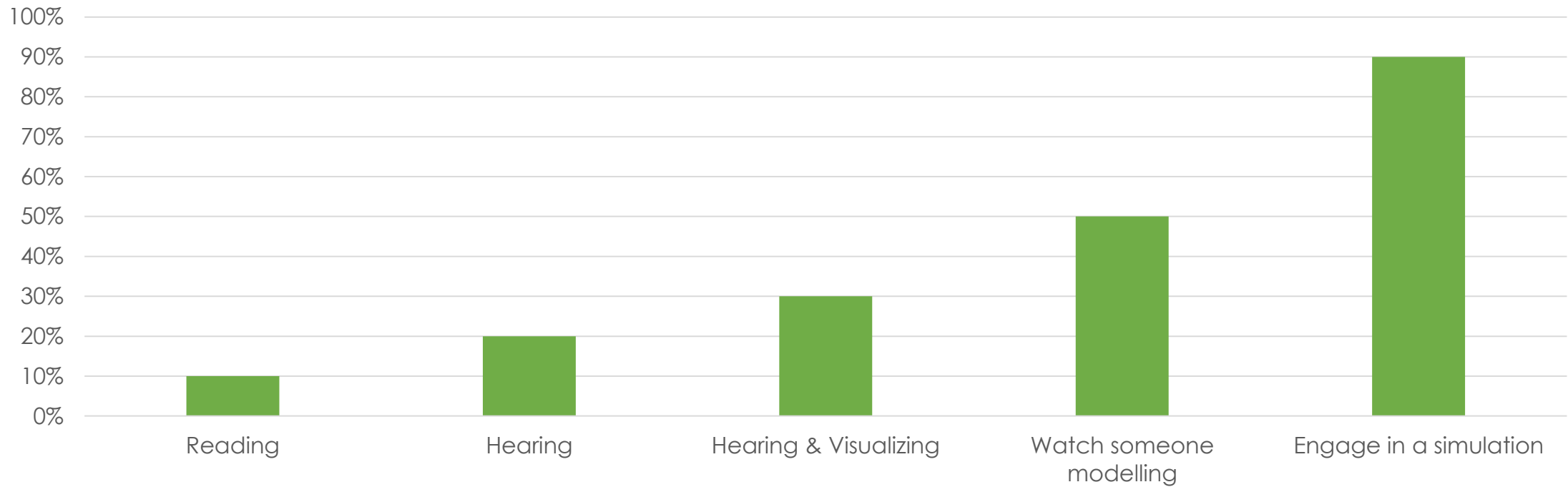
A close-up, black and white portrait of Nelson Mandela. He is looking slightly to the right of the camera with a gentle, thoughtful expression. His face is marked with wrinkles, particularly around his eyes and forehead, which are highlighted by the lighting. He is wearing a dark suit jacket and a white collared shirt. The background is a plain, light color.

**“EDUCATION  
IS THE MOST  
POWERFUL  
WEAPON  
WHICH YOU  
CAN USE TO  
CHANGE THE  
WORLD.”**

**NELSON MANDELA**

# Why is game based learning effective?

People remember:







empowers small-scale farmers to  
see their **farm as business** through  
**game-based learning**





KUCHEZA presents

# Farming Forward

version V4.3.7

Watch the trailer of  
Farming Forward

CONTINUE GAME

SELECT SEASON

OPTIONS

QUIT

You're using the demo account.

SIGN OUT

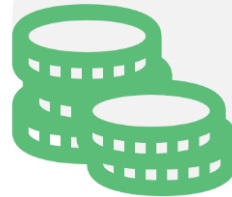
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# ABC for farmers



## **Agronomics**

All aspects of the agronomical process from land preparation to post-harvest handling



## **Business management**

All aspects of the business economical side of farming, like business development, bookkeeping, and financial management



## **Cooperation**


All aspects of cooperative entrepreneurship in farming business, from buying inputs together to the development of joint businesses

# Training & Service Centre

# Large Farms

Growing in time

Commercial Part  
Production in irrigated orchards




200+ ha

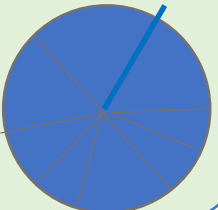
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Small plots




Shared irrigation




Experimental fields


Training in farming and water entrepreneurship




Experience centre



Central buying inputs, -marketing and -Sales



Data collection and optimization



€

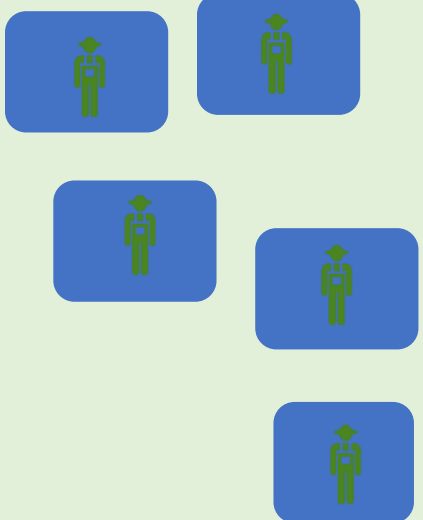
Financial support



after 2 year Training



Next Generation Young Rural entrepreneurs



Collective system to start up own collective professional enterprise's for graduates.

# Training programme

## During 2 years, all trainees learn to:



### Run an enterprise

All aspects of the agronomical process from land preparation to post-harvest handling and/or potable water supply



### Manage financials

All aspects of the business economical side of farming, like business development, bookkeeping, and financial management



### Cooperate

All aspects of cooperative entrepreneurship in farming business, from buying inputs together to the development of joint businesses



### Innovate

All steps in collecting data, share experience, new practices, thinking out-of box, use of external support





Questions?