

Encouraging behavioural change and innovation to boost the diversity of local food systems in Africa: the EU project FoodLAND

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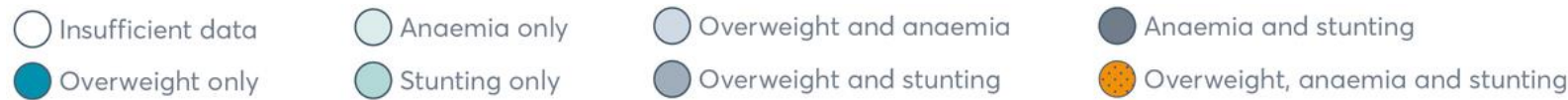
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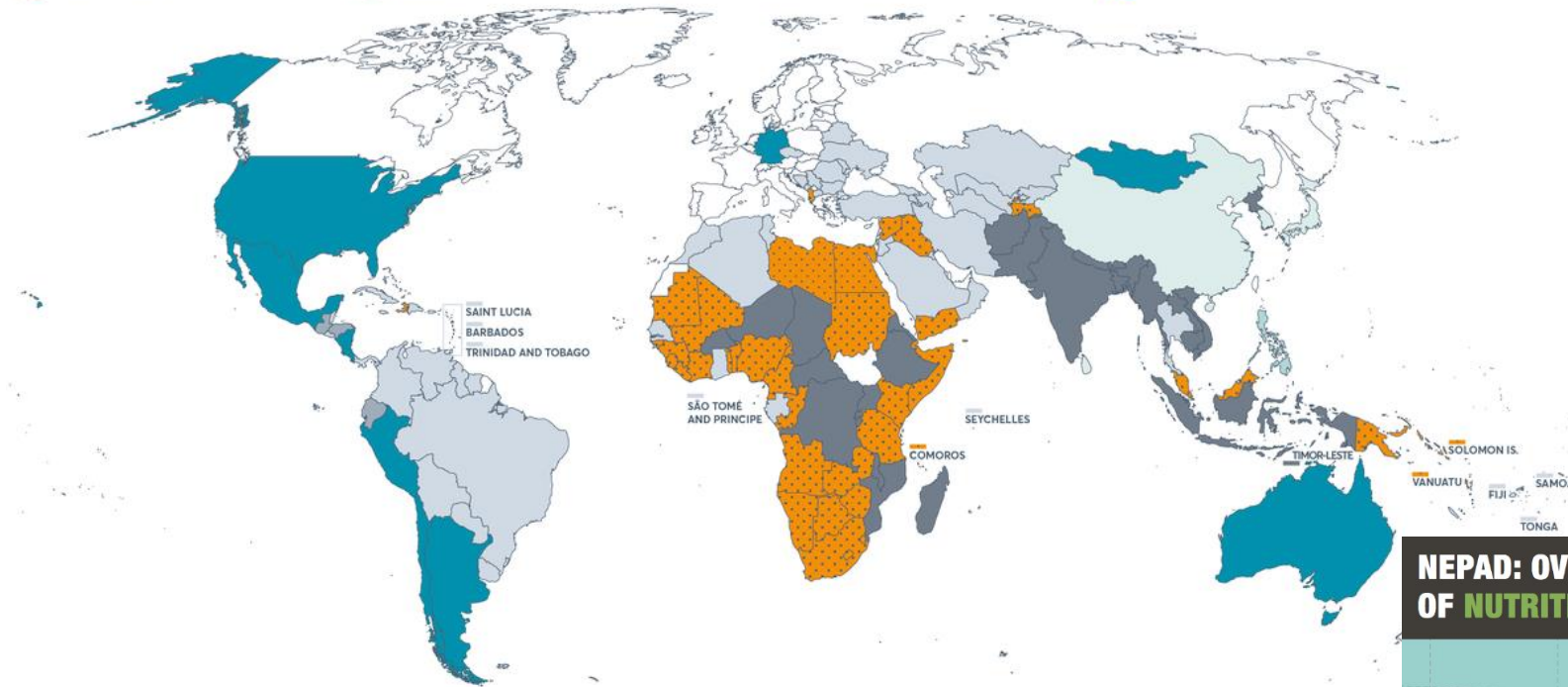


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- Countries are struggling with multiple forms of malnutrition
- **Adult obesity** is prevalent at a rate of 15 % or greater in 13 of 53 African countries.
- **Stunting** is prevalent at a rate of 30 % or greater in 28 countries.
- **Adult diabetes** is prevalent at a rate of 10 % or greater in 16 countries

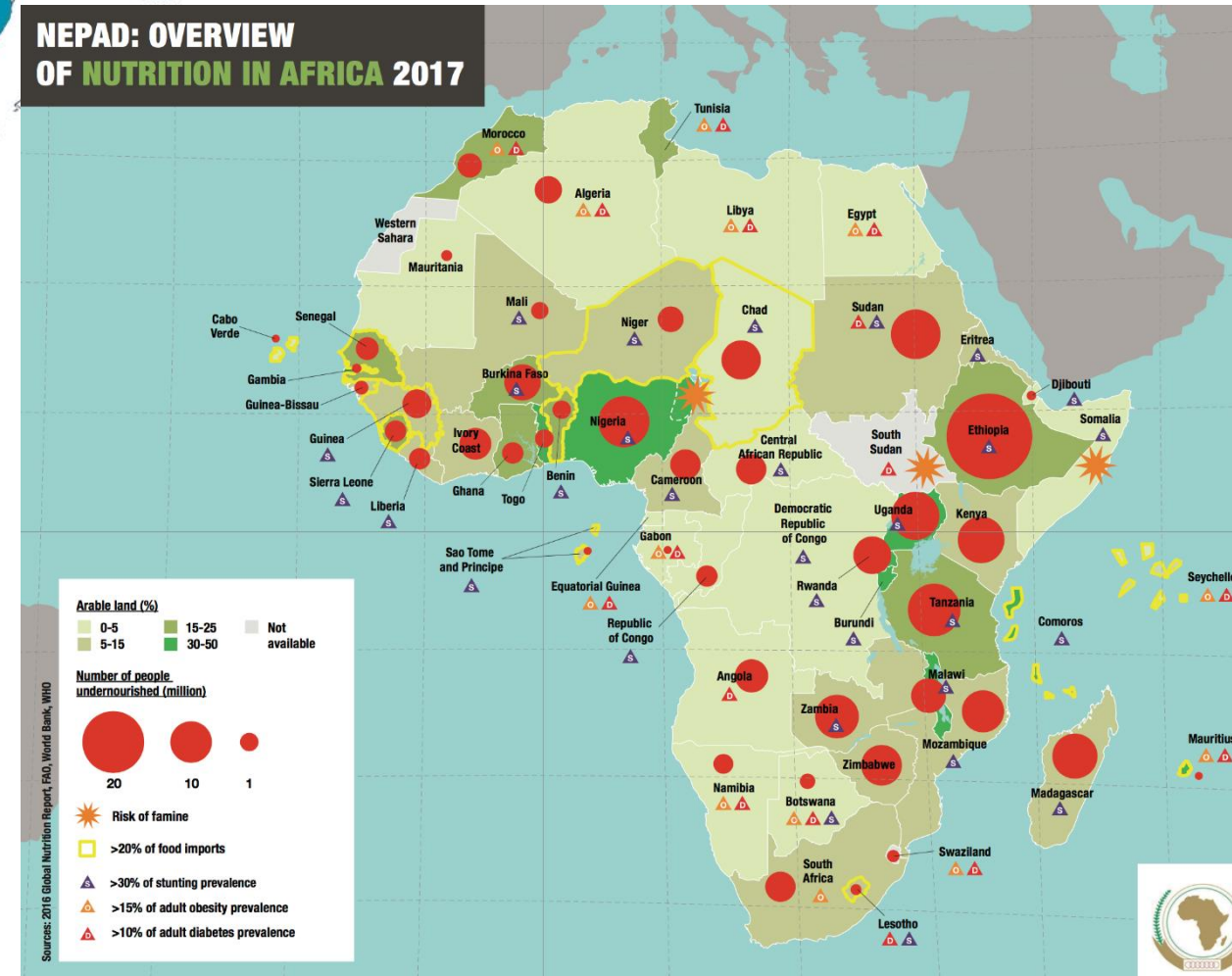


TABLE 3
PREVALENCE OF MODERATE OR SEVERE FOOD INSECURITY (MEASURED USING FIES) IN THE WORLD, AFRICA AND ITS SUBREGIONS, 2014 TO 2018 (%)

Regions/ subregions*	Prevalence of severe food insecurity in the total population (%)					Prevalence of moderate or severe food insecurity in the total population (%)				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
World	8.0	7.7	8.0	8.7	9.2	23.2	23.2	24.1	25.6	26.4
Africa	18.1	19.0	21.9	22.9	21.5	47.6	48.3	52.6	54.3	52.5
Northern Africa	8.6	7.2	9.3	10.1	8.0	27.1	22.9	27.8	35.2	29.5
Sub-Saharan Africa	20.3	21.7	24.8	25.8	24.6	52.4	54.2	58.3	58.7	57.7
Central Africa	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Eastern Africa	23.9	25.1	27.8	28.7	25.9	58.2	59.7	64.8	65.5	62.7
Southern Africa	21.4	20.6	30.7	30.8	30.6	45.3	45.9	53.5	53.6	53.6
Western Africa	12.9	14.4	16.5	17.7	17.6	43.7	45.3	47.3	47.7	47.9

SOURCE: FAO

* FAO uses the M49 country and regional groupings, available at <https://unstats.un.org/unsd/methodology/m49>. In this report, "Central Africa" refers to the M49 "Middle Africa" grouping.

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- 277 million people in Africa who are **severely food insecure**
- 399 million people who are **moderately food insecure**
- 87% live in **sub-Saharan Africa**

The gap in the agro-food systems

- Growing undernutrition and food insecurity
- Increase of specific forms of malnutrition:

chronic

acute

overweight and obesity

lack of basic
nutrients (first
1,000 days of life)

rapid weight loss
or failure to gain
weight

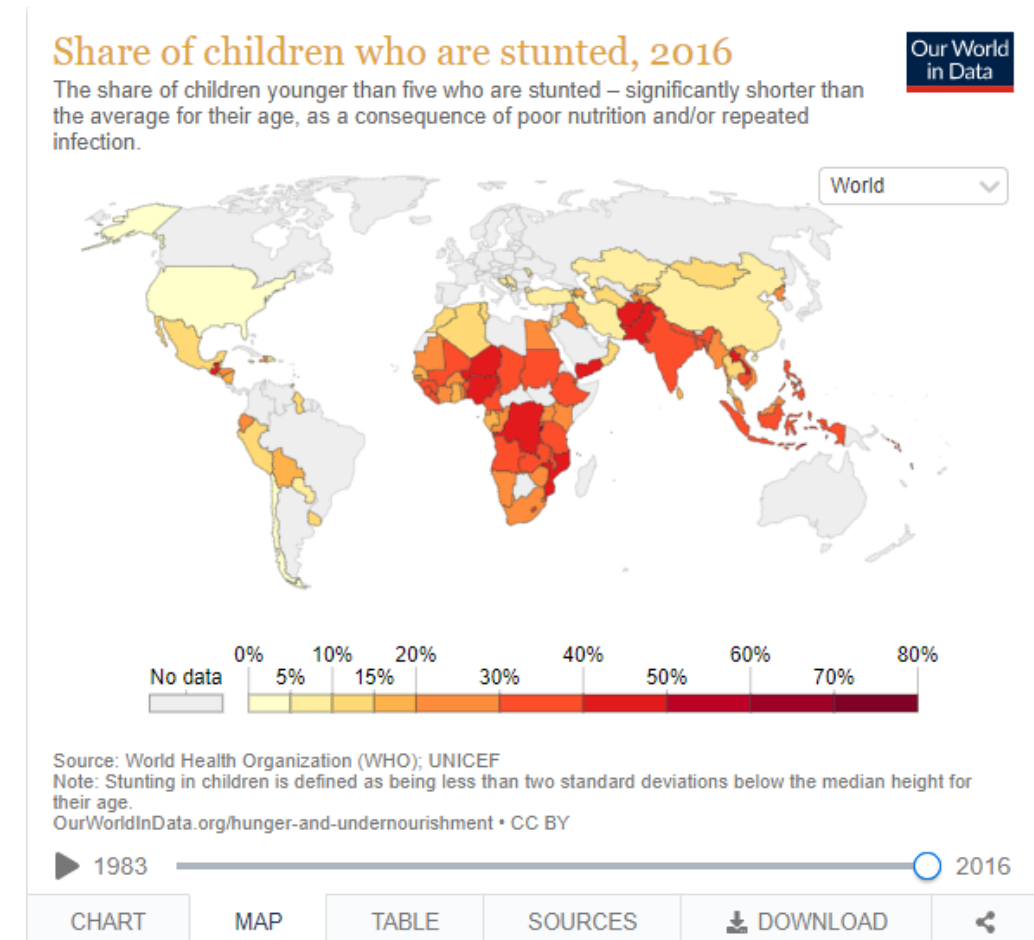
abnormal or
excessive energy
accumulation

Coexisting stages of nutrition transition:

- **Eastern Africa:** 36% chronic e 29% acute (<5 year);
- **Northern Africa:** 25% obesity (>18 years); 32% anaemia (women)

SDGs 2.2: calls for a significant reduction of all forms of malnutrition

- **Goal: End hunger by 2030.** This means eliminating undernourishment for **all**.
- *By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.*





Food and Local, Agricultural, and Nutritional Diversity

foodland-africa.eu/

*EC Work Programme H2020
Research & Innovation Action
2020 – 2024*

Overall objective:

To develop, implement, and validate **innovative, scalable, and sustainable** technologies aimed at supporting the **nutrition performance of local food systems in Africa**, while strengthening **agro-biodiversity and food diversity as well as diversity of healthy diets**.

-> close the gap in the agro-food systems

FoodLAND

Food and Local, Agricultural, and Nutritional Diversity

Specific Objective 1

To develop and implement organisational innovations for local food supply chains

Specific Objective 2

To develop, implement, and validate open technological innovations for (crop and fish) farming systems

Specific Objective 3

To develop, implement, and validate open technological innovations for food processing

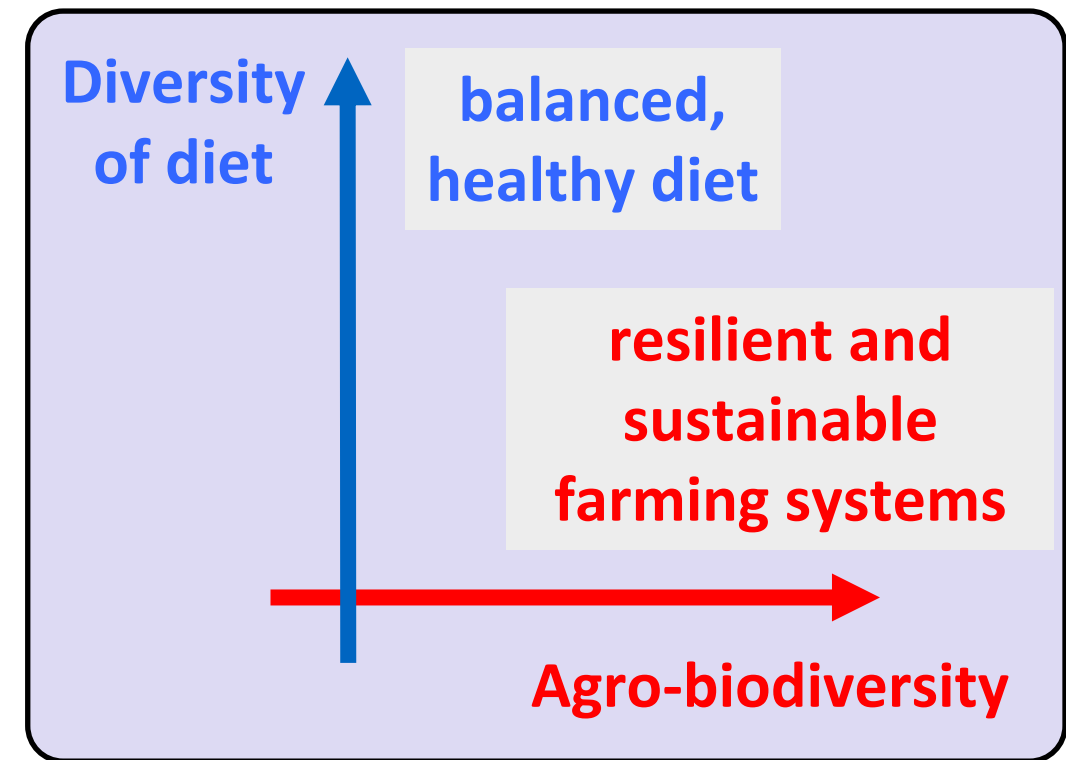
Specific Objective 4

To disseminate innovations, strengthen balanced healthy diets, and contribute to reducing the malnutrition

FoodLAND

Food and Local, Agricultural, and Nutritional Diversity

- **Diversity**
leveraging the synergies between agro-biodiversity and dietary diversity: nutritive sensitive agriculture
- **Participation**
boosting a responsible engagement of local farmers, food processors and consumers
- **Cooperation and gender equality**
building a collaborative environment and adopting a gender perspective



Diversity: driver of parity

Agriculture: not just production

Food: not just intake

Interdisciplinary and Trans-sectoral consortium

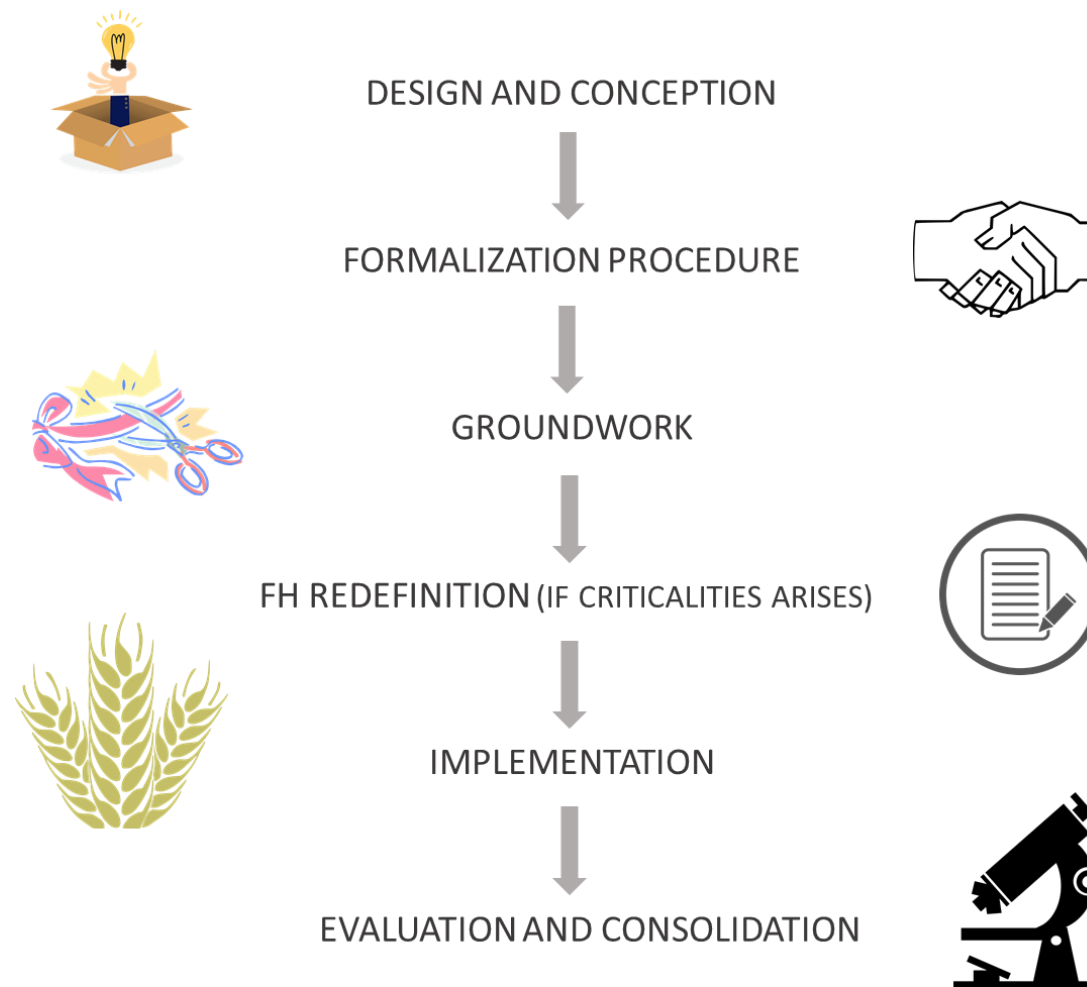
- **28 partners** (UNIBO coordinator) and six African Countries (MA, TN, ET, KE, TZ, UG), of which:
 - **12 Research partners** (8 based in Africa)
 - **8 Authorities and NGOs** for the agriculture/aquaculture promotion and sustainable development in Africa
 - **5 Small and medium-sized companies** in the food sector
 - **1 industrial partner**
 - **2 Communication and IPR management partners**
 - **14 Food Hubs** (12 rural areas/districts + 2 peri-urban areas) paired with **14 separate cities**



Preliminary results #1

INNOVATION AND KNOWLEDGE TRANSFER

- Food Hub defined: “*We define the Food Hub as a community of local operators aimed at making shared R&D decisions and enabling the adoption of innovations.*”
- Toolkit for the Food hub establishment (14 cities) developed and shared with local partners



Preliminary results #2

BEHAVIOURAL CHANGE

- Consolidating knowledge of farmers' conditions, needs and preferences
- **Survey to smallholder farmers** – data gathered (rural, peri-urban, crop and fish)
400 in 8 Food Hubs (3,200) + 500 in 6 Food Hubs (3,000) = **6,200**
- Behavioural experiments with smallholder farmers (3,200):
 - ❖ Public Good Games (propensity vs. common project)
 - ❖ Trust Games (trust vs. peers)
 - ❖ Risk attitude measurement experiment (farmers' risk attitudes – e.g. innovativeness)
 - ❖ Time preferences experiment (farmers' time preferences in agriculture production)
- Mirror approach with **urban consumers** (survey + behavioural experiments + biometric testing) -> (3,000 + 4,000)
- Survey to **rural consumers** (pairs of woman – child) (3,000)

INNOVATION NETWORKING

- FoodLAND results (databanks, innovation prototypes) will be made available through appropriate OA repositories as to ensure results dissemination and exploitation.
- Specific attention will be devoted to building the conditions favouring the reproducibility of the project's results across the network of local Food Hubs

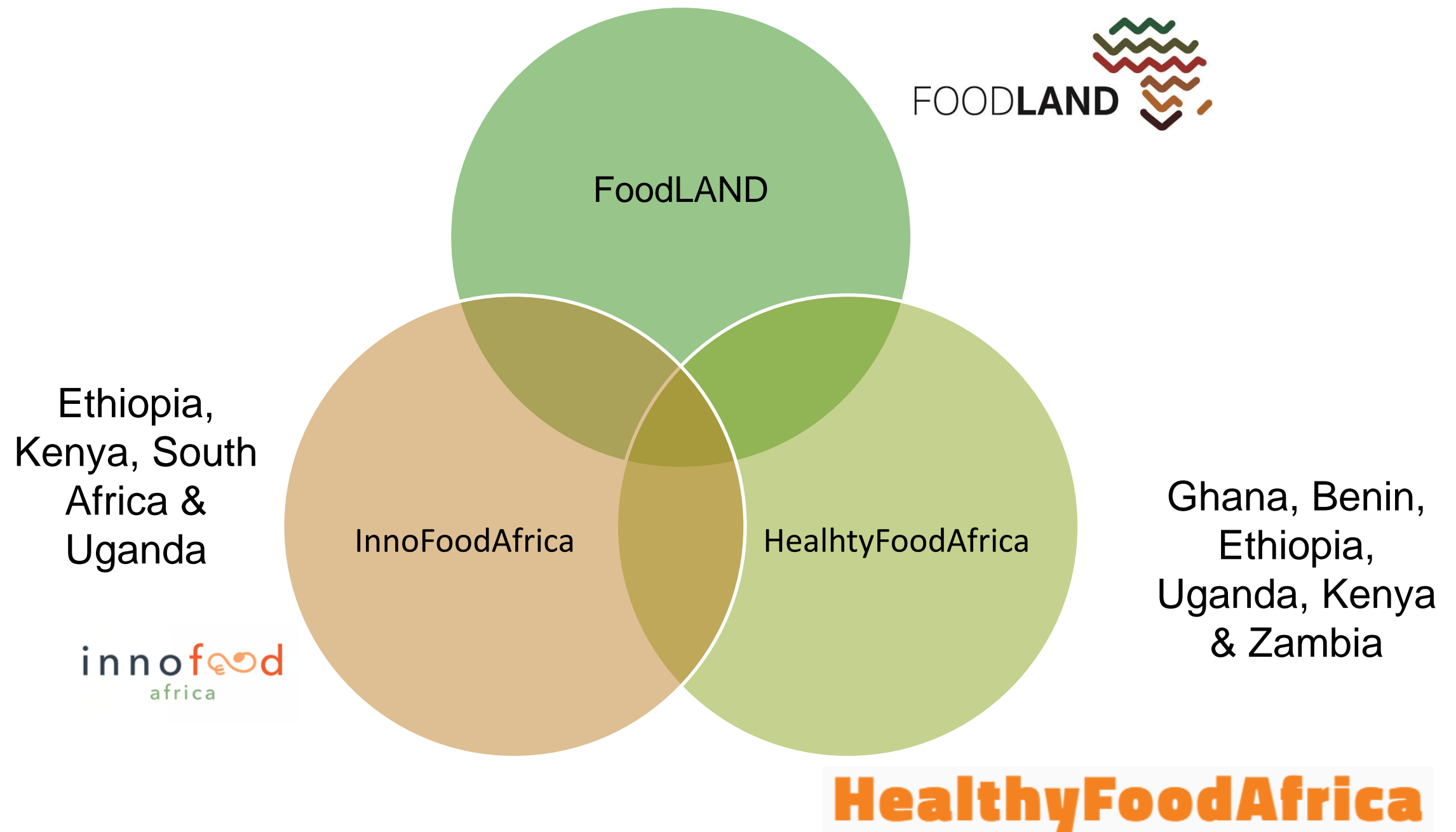
NETWORKING CLUSTER OF EU-AFRICA R&I PROJECTS

- Foreseen the creation of a networking cluster to facilitate knowledge exchange and ongoing mutual learning between R&I actions (joint matchmaking meetings, LEAP4FNSSA Platform)

NETWORKING WITH PROJECTS FUNDED UNDER TOPIC H2020 SFS-34 FOOD SYSTEMS AFRICA

- Regular meetings and exchanges as to maximize scientific and operational results of the topic

FoodLAND – Sister projects





Thank you!

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