FOODLAND PROJECT

Behavioral economics and technological innovation: a transdisciplinary approach

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ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

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2024

FOODLAND

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**.
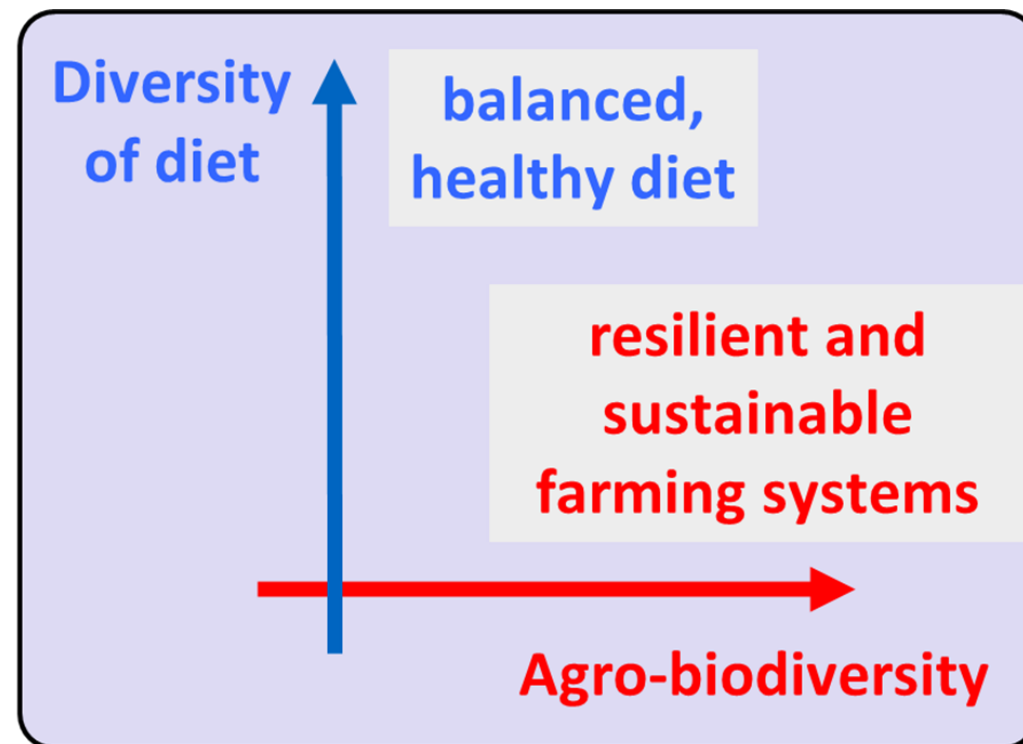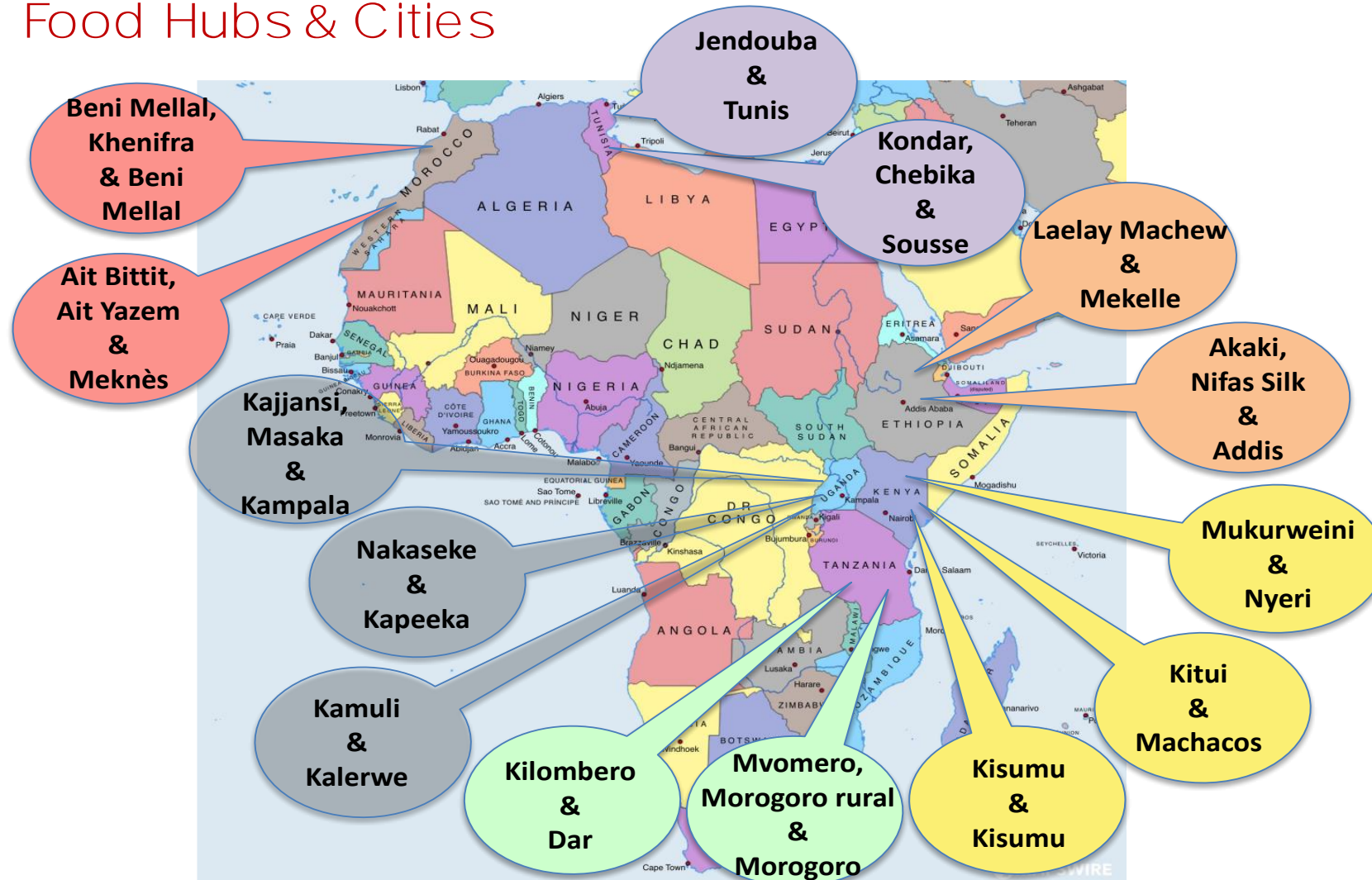
Interdisciplinary and Trans-sectoral consortium

- **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**

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FOODLAND

Food Hubs & Cities

Jendouba & Tunis

Beni Mellal, Khenifra & Beni Mellal

Kondar, Chebika & Sousse

Laelay Machew & Mekelle

Ait Bittit, Ait Yazem & Meknès

Akaki, Nifas Silk & Addis

Kajjansi, Masaka & Kampala

Mukurweini & Nyeri

Nakaseke & Kapeeka

Kitui & Machacos

Kamuli & Kalerwe

Kilombero & Dar

Mvomero, Morogoro rural & Morogoro

Kisumu & Kisumu

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Technological research

- **12 technological innovations / open prototypes**

- **17 new food products, raw materials and ingredients**

Farming

Plant breeding, gardening, bio-mulching, agro-ecological intensification, precision irrigation / protection / harvesting, integrated aquaculture

Primary food processing

Smart storage, drying, milling, (fish) smoking and fermenting

Secondary food processing

Centrifugation and filtration and clarification, juicing and fortification, extrusion and baking, characterization, bio-based packaging, labelling

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Technological research

Description of deliverables

D4.1 (T4.1) - Guidelines on agro-ecological intensification practices and implementation and management of biodegradable mulching – M19.

D4.2 (T4.1) - Guidelines on the design, realization, and management of hydroponics systems – M19.

D4.3 (T4.1) - Guidelines on development and management of precision irrigation / fertigation systems – M24.

D4.4 (T4.1) - Guidelines on development and management of precision protection systems – M24.

D4.5 (T4.1) - Guidelines on development and management of precision harvesting systems – M24.

D4.6 (T4.1) - Report on new selected and tested legume local varieties – M19.

D4.7 (T4.2) - Guidelines on development and management of aquaculture systems and new culture fish species bulking techniques – M24.

D4.8 (T4.3) - Guidelines on development and management of smart storage systems – M24.

D4.9 (T4.4) - Guidelines on implementation and management of primary processing systems – M24.

D4.10 (T4.5) - Guidelines on implementation and management of secondary processing systems – M24.

D4.11 (T4.5) - Guidelines on implementation and management of bio-based packaging processes – M24.

D4.12 (T4.1T4.5) - Report on technological research results, effectiveness of each tested innovative system, process, and tool, and description of the FOODLAND intermediate and final products – M40.

D4.13 (T4.6) - Inception report on the functional and nutritional characteristics of the tested novel raw materials, ingredients, and foods – M40.

D4.14 (T4.7) - Open platform for exchange and sharing of research methods and results – M36.

Economic research – Behavioral change

➢ **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

❖ Trust Games

❖ Risk attitude measurement experiment

❖ Time preferences experiment

➢ Mirror approach with **urban consumers** (survey + behavioural experiments) -> (3,000 + 4,000)

❖ Food purchasing habits, dietary quality

➢ Survey to **rural consumers** (pairs of woman – child) (3,000)

➢ **Random Control Trials** for innovation adoption

Credits:

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