



# Bridging Sustainability and Innovation: INCiTIS-FOOD's Circular Agri-Food Approach in African Cities (KB35-104-004)

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## Connecting the dots between Europe and Africa

What can we do to improve food and nutrition security (FNS) in African city regions? And What can we do to reduce the food-system-related environmental footprint while contributing to circularity? This simple question was the basic guideline for setting the objectives of [INCiTIS-FOOD](#) (INtegrated and Circular Technologies for Sustainable City Region FOOD systems in Africa). The project's objectives are to enhance African city region food systems such that they address the four dimensions of FNS:(i) availability of nutritious and safe food through local production, (ii) food access, incl. affordability, (iii) food utilization, incl. reduction of food waste, and (iv) food stability at all times. Furthermore, the project will empower communities by opening up opportunities for agri-food businesses along the supply and value chain and will achieve environmental justice through transformative food policies. This is done through interdisciplinary research, integrated best-fit technologies, stakeholder-led action, capacity-building, research-practitioner-policy collaborative engagement, and Europe-Africa partnerships in eight African Living labs.

## Methods

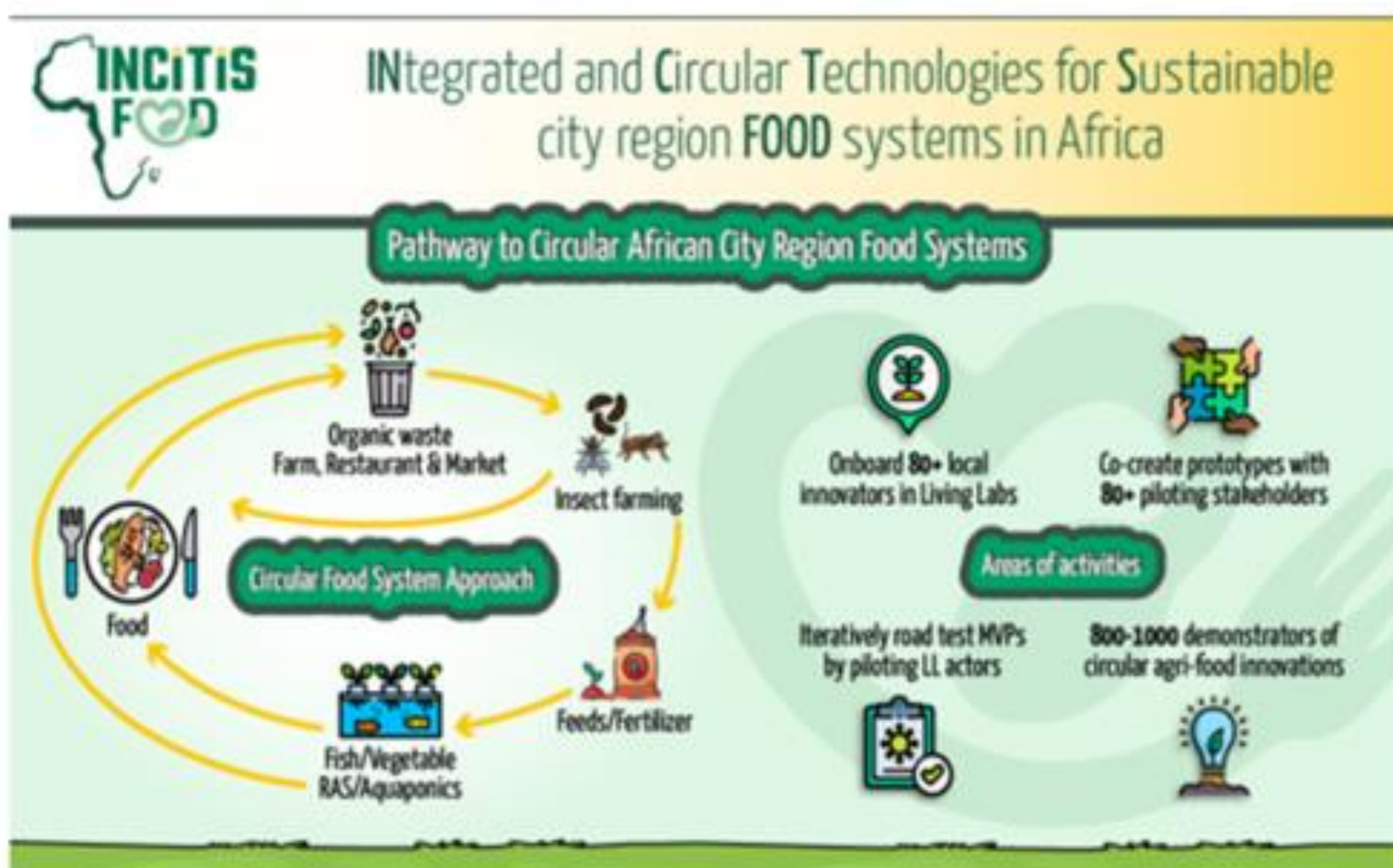
1. Analyse the city region food system in 8 African cities and towns. Identify opportunities, barriers and challenges and address them through clearly defined actions in the living labs. (Food systems assessment, expert and practitioners panel, survey among clearly identified stakeholders, FGD)
2. Onboarding stakeholders in the local and global food system to an interactive innovation platform (SAH) and piloting of use cases for food transformation in the L
3. Fostering the digital innovation ecosystem by connecting the dots - defining digital use cases including smallholder farmers, SMEs, and competence centres, connected to local Living Labs in 8 African cities. Advanced design, demonstration, testing, piloting, upscaling and connecting EU-AU innovation networks

## Partners

INCiTIS-Food is a consortium of 28 partners including WR, Aglobe Development Centre (N), TUM (D), NUSL (SL), UBWM (D, coordinator), Uni Ibadan (Nigeria), FH-SWF (D), SF Africa (N), KU (K), AFRACA (K), FSH (S), UDS (GA), BUST (C), WECF and others.

Within WUR, WEcR and WEnR work together to connect two WRs innovation and digital platforms [smartagrihubs.eu](http://smartagrihubs.eu) and [digitalagrihubs.com](http://digitalagrihubs.com)

## Outcomes



## Outcomes

SO#1: Analyse the food systems (Borman et. al., 2022), including the WEFEnexus, in 8 African cities and towns. Identify food system innovators and circular farm-to-fork use cases.

SO#2: Co-design and co-create circular agri-food technologies and practices with a sufficiently high TRL & SRL in LLs of 8 African cities, using local resources & and services, to increase the availability of safe and nutritious food.

SO#3: Incubate and accelerate circular agri-food entrepreneurship along the entire INCiTIS-FOOD supply & and value chain, improve governance and link businesses to digital applications.

SO#4: Assess the impact of circular agri-food innovations on end-users to foster evidence-based urban food policy formulation for city region food systems in Africa.



Assessment of local food system (Outcome A)



Co-design and co-creation of circular technologies. (Outcome B)

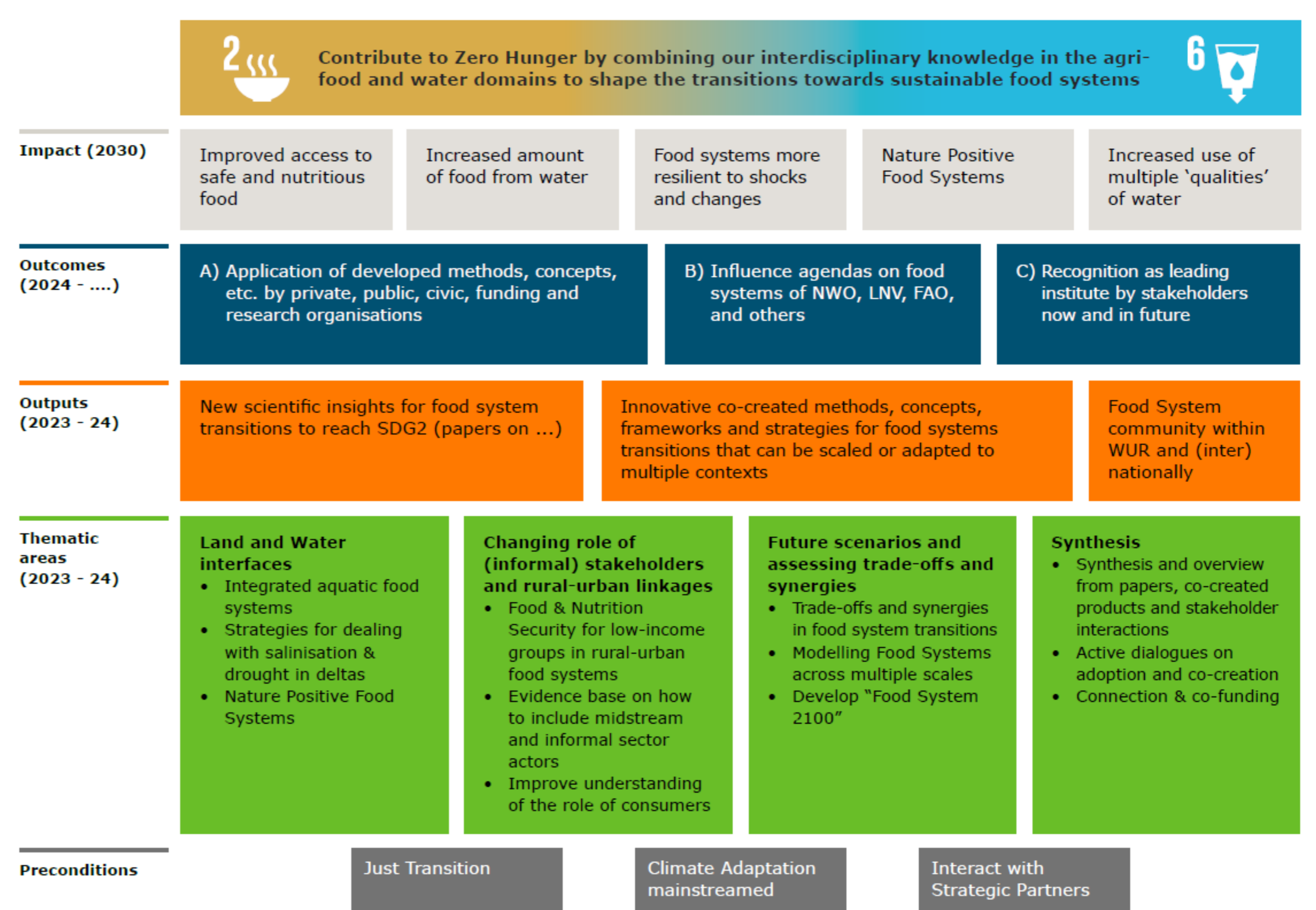


Incubate and accelerate agri-food innovation and entrepreneurship. (Outcome C)

## Link to Theory of Change KB35

Integrated aquatic food systems (aquaponics, RAS, hydroponics and insect farming) have a high potential for circular technologies and contribute to SDG 2 and all outcome areas likewise (Cowan et. al., 2022). It influences African and European policy agendas and food patterns likewise by providing knowledge (education/MOOC), deployment of food systems analysis, interactive dialogue and innovation. It provides new scientific insights into circular technology deployed in Africa and cost-efficiency in deploying these technologies. Identified FSA leverage points will help to make the knowledge of these technologies available/accessible at low costs.

## Theory of Change Food and Water Security



## References

- Borman, G. D., de Boef, W. S., Dirks, F., Gonzalez, Y. S., Subedi, A., Thijssen, M. H., ... & van Berkum, S. (2022). Putting food systems thinking into practice: Integrating agricultural sectors into a multi-level analytical framework. *Global Food Security*, 32, 100591.
- Cowan, N., Ferrier, L., Spears, B., Drewler, J., Reay, D., & Skiba, U. (2022). CEA systems: the means to achieve future food security and environmental sustainability?. *Frontiers in Sustainable Food Systems*, 6, 891256.