

# ENTOSAFE - Edible insects: From a sustainable food production to a food safety concern

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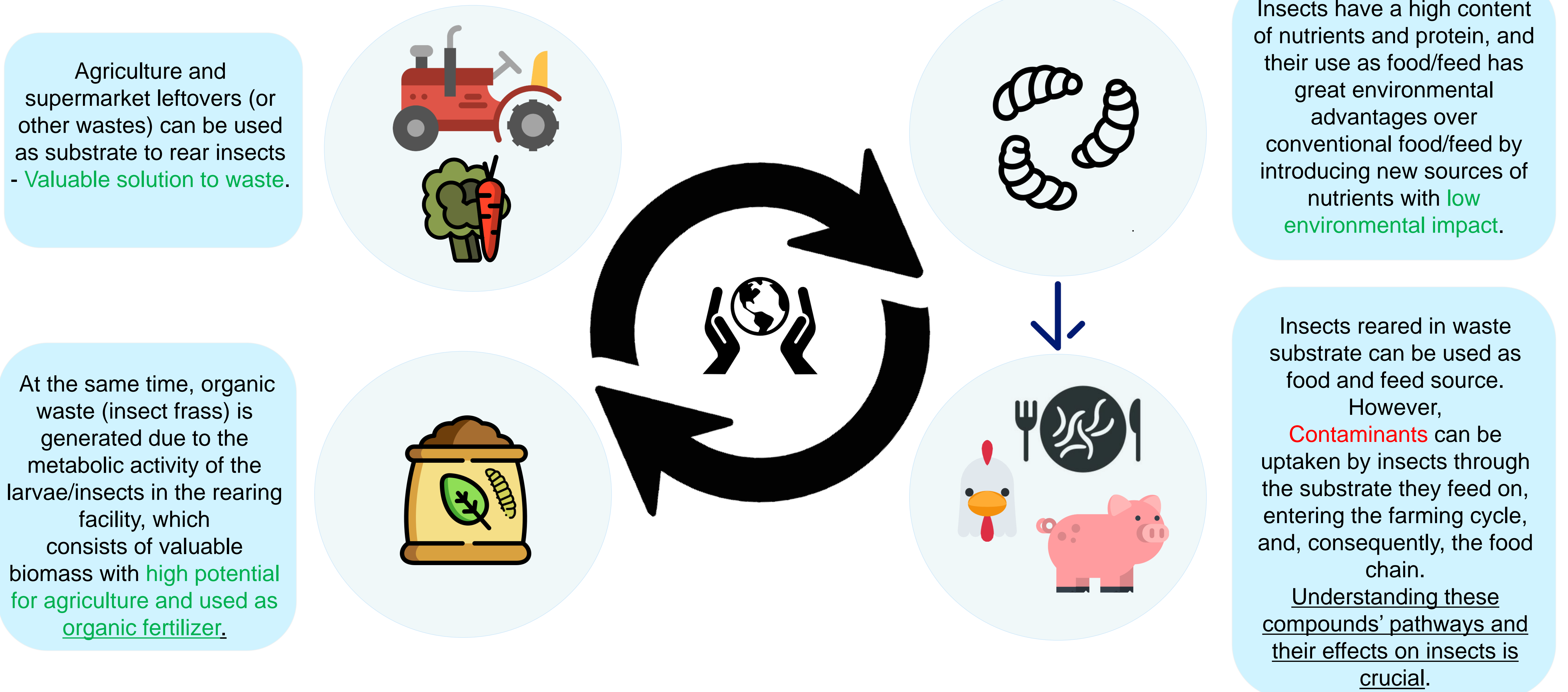
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## Context & Background

Food deficiency and management of (food) wastes are two of the most daunting challenges that the world is facing.



## Goals

Integrating the **food safety** with **environmental sustainability** aspects of edible insect farming, the project **ENTOSAFE** is committed to:

- Provide knowledge on the (bio)accumulation and transfer of potential **contaminants** in insects farmed in rearing facilities.
- Evaluate the effects of **organic fertilizer** produced on the (bio)digestion of the substrate on soil functions, namely water and nutrient retention, nutrient cycling, and plant performance in the amended soil.

**ENTOSAFE** aims to reply to:

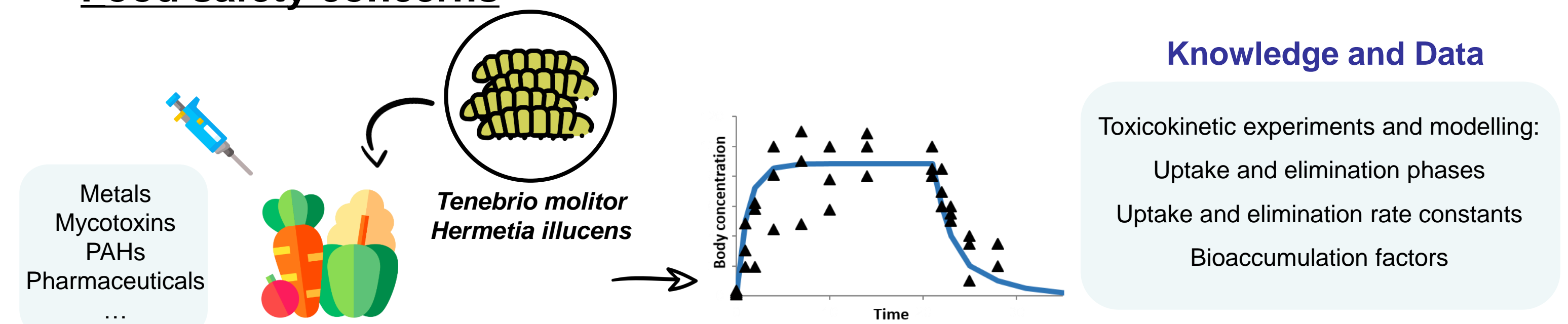
- ✓ How insects bioaccumulate **chemical substances**?
- ✓ Are insects reared in waste safe to be used as food and feed? How efficiently are substances excreted by insects?
- ✓ Does insect' **organic fertilizer** affect amended soil properties and plant growth?

## Expected impact

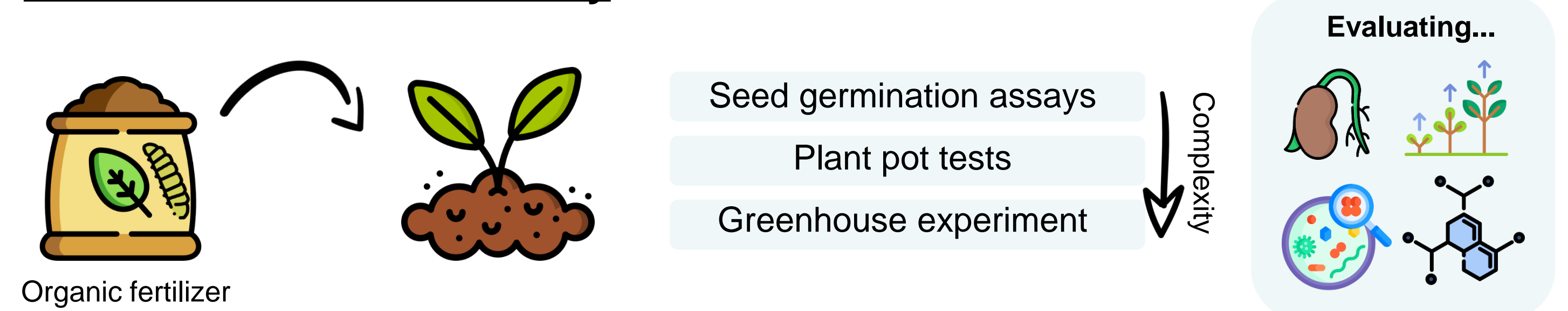
- Inform regulatory authorities on accumulation of different substances into edible insects - **publicly available database** (e.g., species, type of substrate, type of exposure, substance exposure concentration, substance into the organism, depuration).
- Define future research regarding the accumulation of contaminants into edible insects.
- Contribute to possible redefinition of regulatory limits of different substances in substrates used by insects – **legislation improvements.**
- Contribute to the applicability of organic fertilizers (from the biodigestion of organic waste by insects) in crops – **(partially) substitution of NPK fertilizers.**
- Contribute to the **development of insects rearing sector** – supported by Ingredient Odyssey S.A. - ENTOGREEN®

## Approach

### Food safety concerns



### Environmental sustainability



Framework of the project for the United Nations Sustainable Development Goals



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