

MANA BIOSYSTEMS

Mana deploys containerised insect farms as a waste management solution that boosts farming through fertiliser and animal feed by-products, turning waste to profit.



CHALLENGE

Today's livestock feeding practices are unsustainable. Current protein sources in animal feed, such as fishmeal and soy, cannot satisfy demand, causing deforestation and overfishing, and depleting natural resources. At the same time, a third of or all organic produce on earth each year is wasted in landfill. While technologies are being developed to manage and extract nutrients from waste using insects, these have centred around business models that won't work in Sub-Saharan Africa and rely on costly waste transportation infrastructure.



INNOVATION

Mana develops containerised insect farms. Mobile insect farms can be deployed next to organic waste-producing sites such as farms, food processors, municipal waste and food warehousing and export businesses. Waste is loaded into the containers and supplied with fresh insects every month to turn the waste into fertiliser and animal feed on site. This allows farmers to turn waste into profit for themselves and the environment. It eliminates the need to pay for the waste to be transported vast distances in logistically poor areas.



OPPORTUNITY

Mana is in the early days. It recently began its first trials with two waste partners, with another two coming online in January 2023. Mana's measure of success will include CO2 averted from waste transport, tonnes of fishmeal or soymeal displaced, and jobs created through hire to work on sites in Kenya and the UK. While it earns from the initiative, Mana aims to achieve profitability for its waste partners, empower farmers, and protect the environment. Mana is supported with funding from the Innovate UK Government programme.

