



Empowering breeders and growers with data-driven insights in their crops

in our vision we put the plant as the centre of cultivation
enabled through technology that can listen to plants



easy



efficient



accessible

Our global food supply faces several challenges.
Resilience is crucial for a stable food supply.

extreme weather

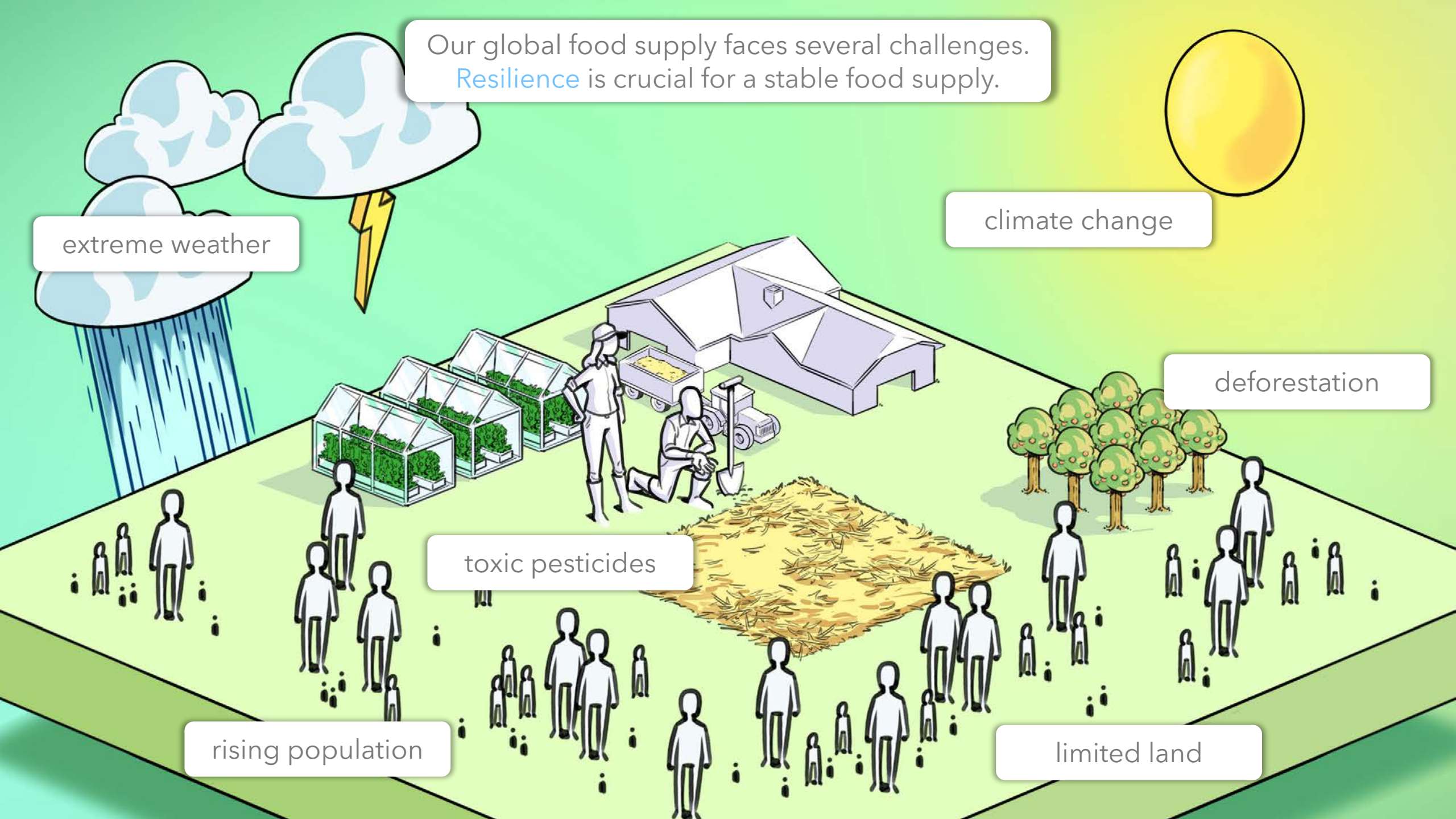
climate change

deforestation

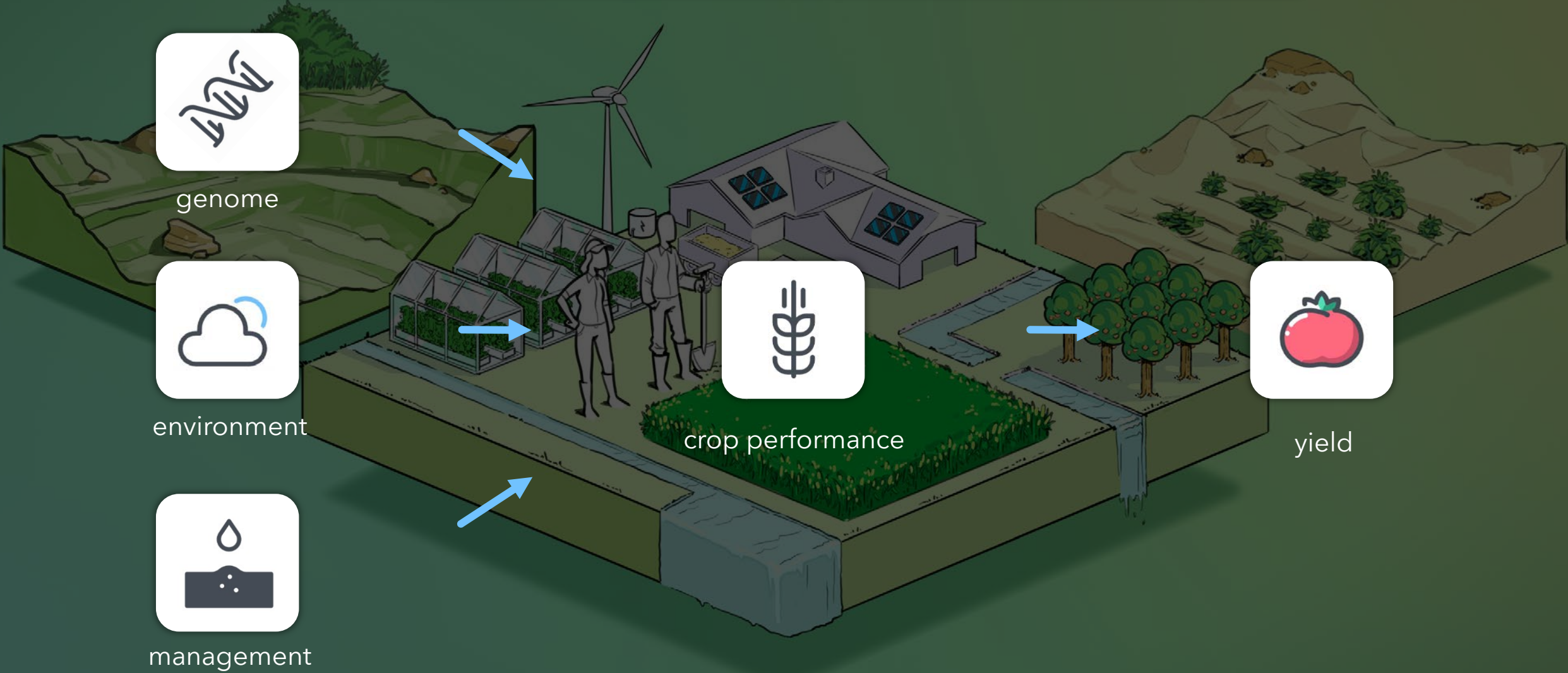
toxic pesticides

rising population

limited land



Crop yield is the result of crop performance, which comes from a **complex interplay** between genetics, environment and management. To understand yield, you need to know how these variables interact.



genome



environment



management

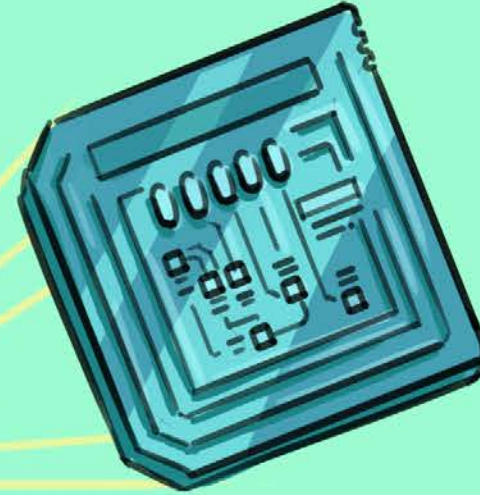


crop performance

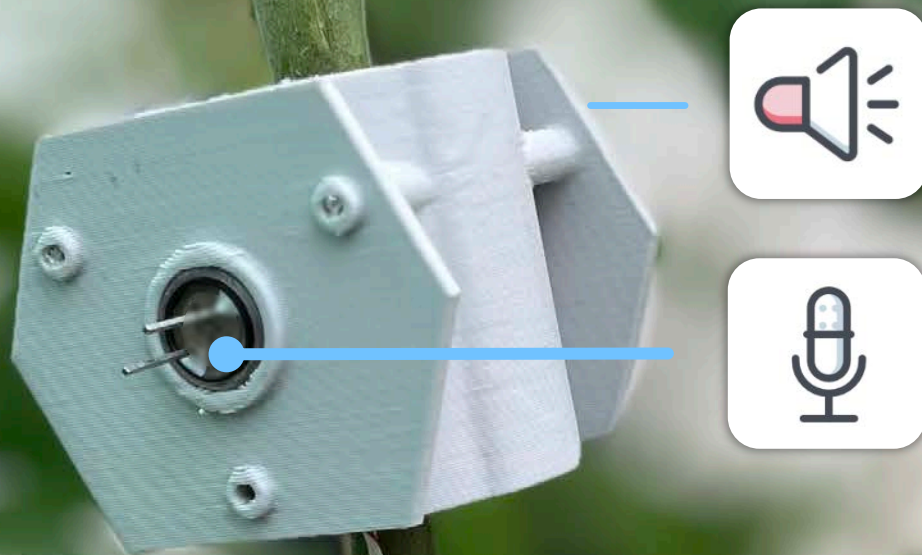


yield

We are the [first in the world](#) to commercially use ultrasound to non-invasively measure inside crops. We combine this with measuring the local microclimate.



We translate acoustic data into information such as water uptake, stress and recovery. Our active method allows for monitoring plant reactions early and in **real-time**.



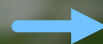
PATENT PROTECTED



sensor data



information



easy-to-use data



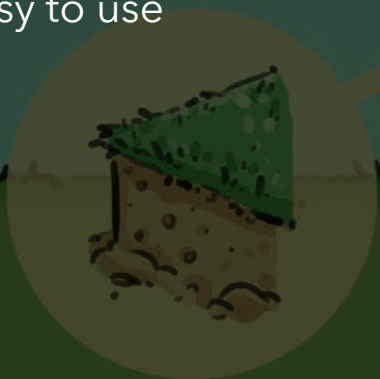
easy to use



affordable



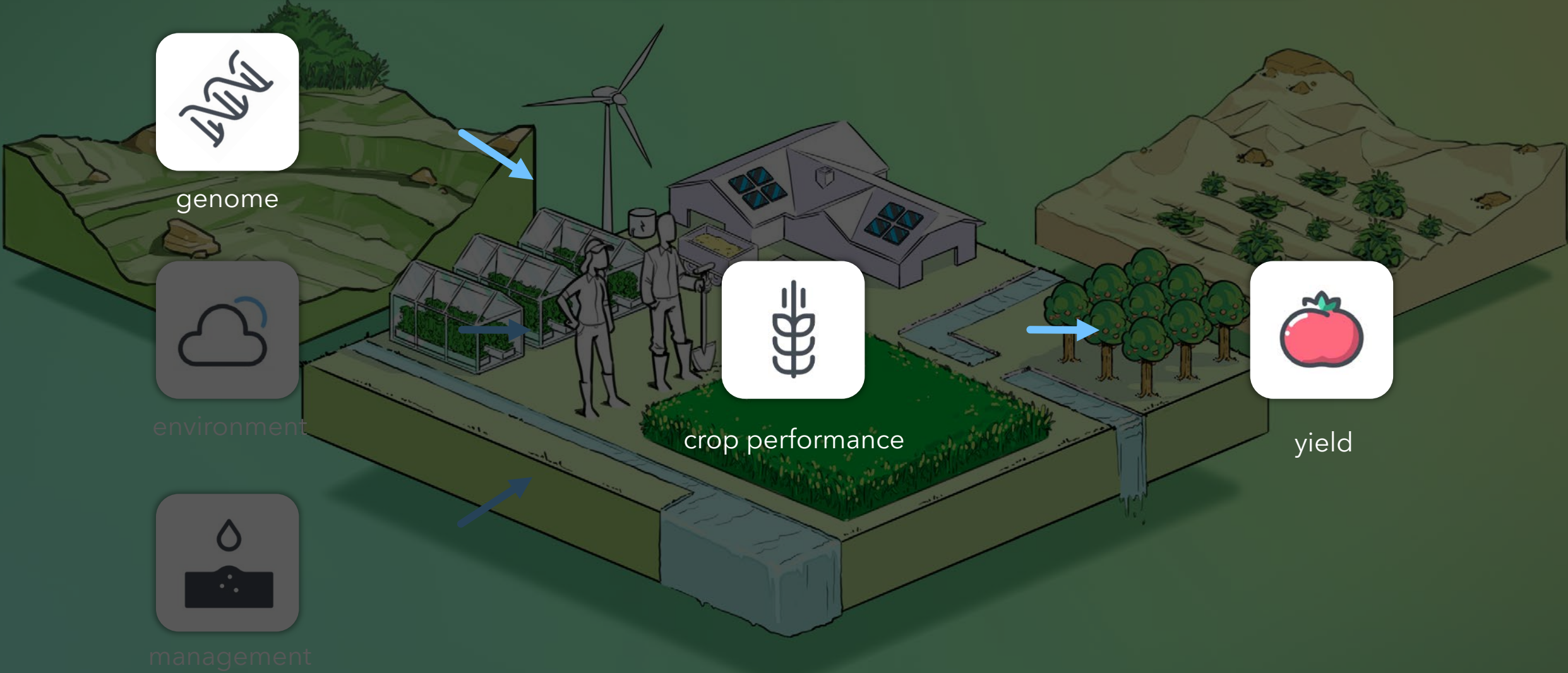
portable



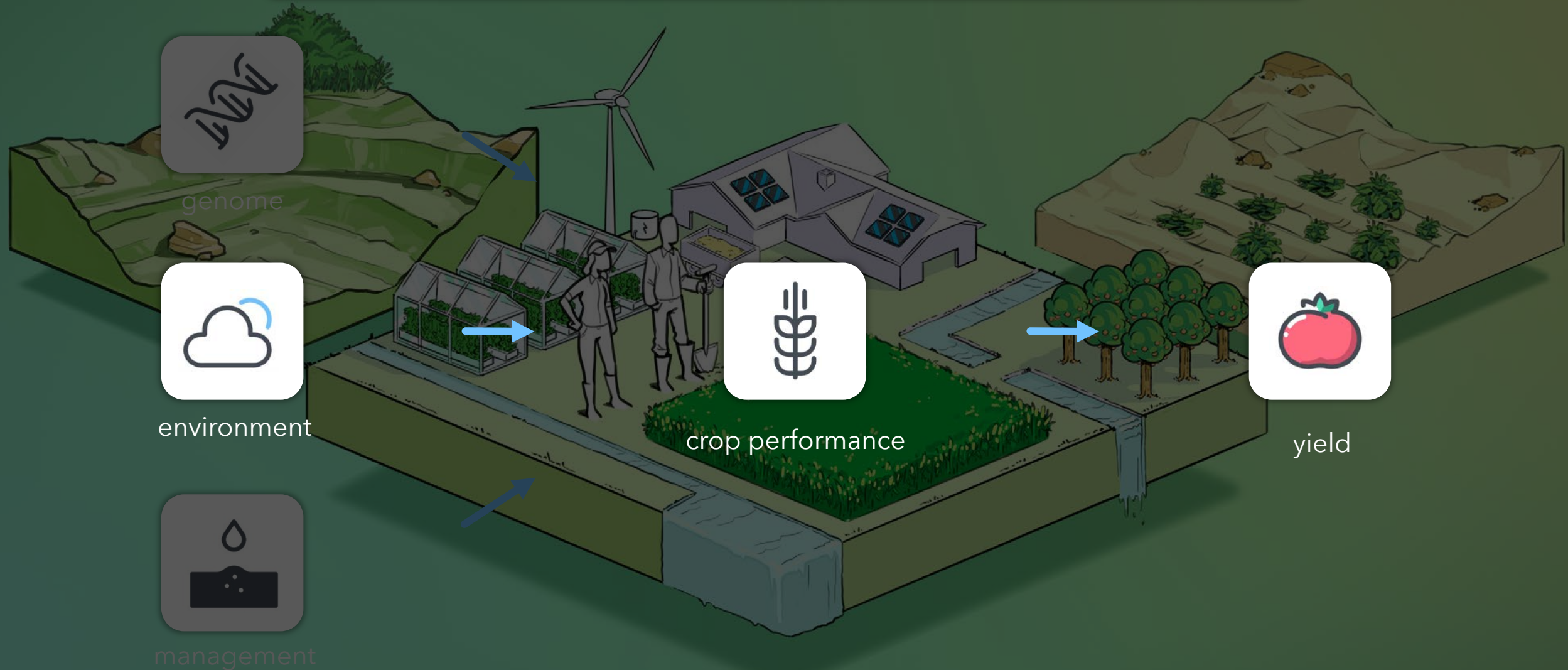
We have tested our technology already on greenhouse crops such as tomatoes and chrysanthemums, but it is applicable to any crop with phloem and xylem vessels.



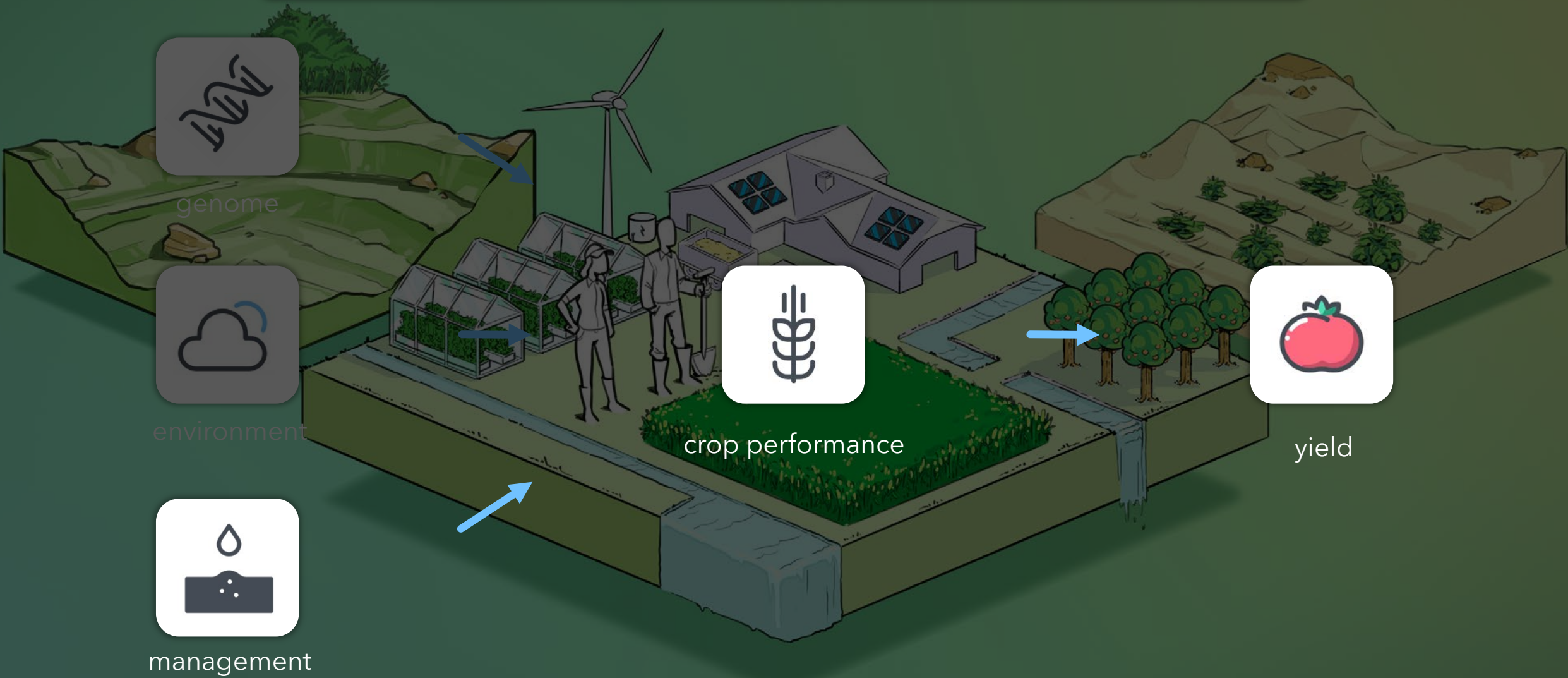
Combining genetics with crop performance can help you find the **fingerprint** of the plant. Although scalability at this stage is a challenge, our technology can be used to distinguish between varieties.



We can help you link varieties to the right geography and its corresponding environment. You will get objective feedback how a variety performs at a specific [location](#).



We can help growers grow your seeds. With all the genetic information, you already know a lot about the potential of a variety. We want to help growers **extract the potential**.



We're Berend and Thijs, and we're [passionate](#) about developing precision plant sensing technology. Our startup company is located in YES!Delft and this is us during a trial at Delphy.



Meet our **team** that is motivated to pursue our mission.



Berend de Klerk
co-founder & CEO

- Graduated on developing algorithms to understand ultrasound crop signals
- Graduated from Delft Center of Entrepreneurship



Thijs Bieling
co-founder & CTO

- Graduated on replicating crop mechanisms in 3D printed vessels
- After studies worked on understanding interplay between crops and electronics



Miranda van Duijn
data scientist

- Graduated on predictive tomato crop model from Systems & Control
- Worked in several data-teams for a large energy company



Dr. Joep Lambalk
advisor via StartLife

Former head R&D and CSO of
Enza Zaden



Arend van de Stadt
advisor via YES!Delft

Founder of several companies
focussing on vision technology



Dr. Gerard Verbiest
technology advisor

Associate professor at TU Delft
specializing in ultrasound technology

For the past year, we have made some significant steps.

Plense Technologies
founded as **spin-off** from
WUR and TU Delft

Successfully conducted a **proof
of concept** at the NPEC in
Wageningen

Build a plant-response **library**
and validate our current
correlations with >3 paid pilots



2023

feb

jul

sep

2024

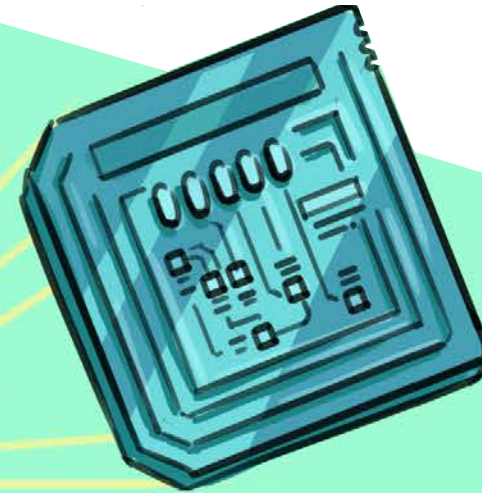
mar

may

Funding from NWO (Dutch
Scientific Organisation)

Scale up our production
with ± 100 sensors

Do you want to unravel the mysteries
that plant sounds hold for us?



To get in touch, send an
email to info@plense.tech

Or visit our website at
www.plense.tech