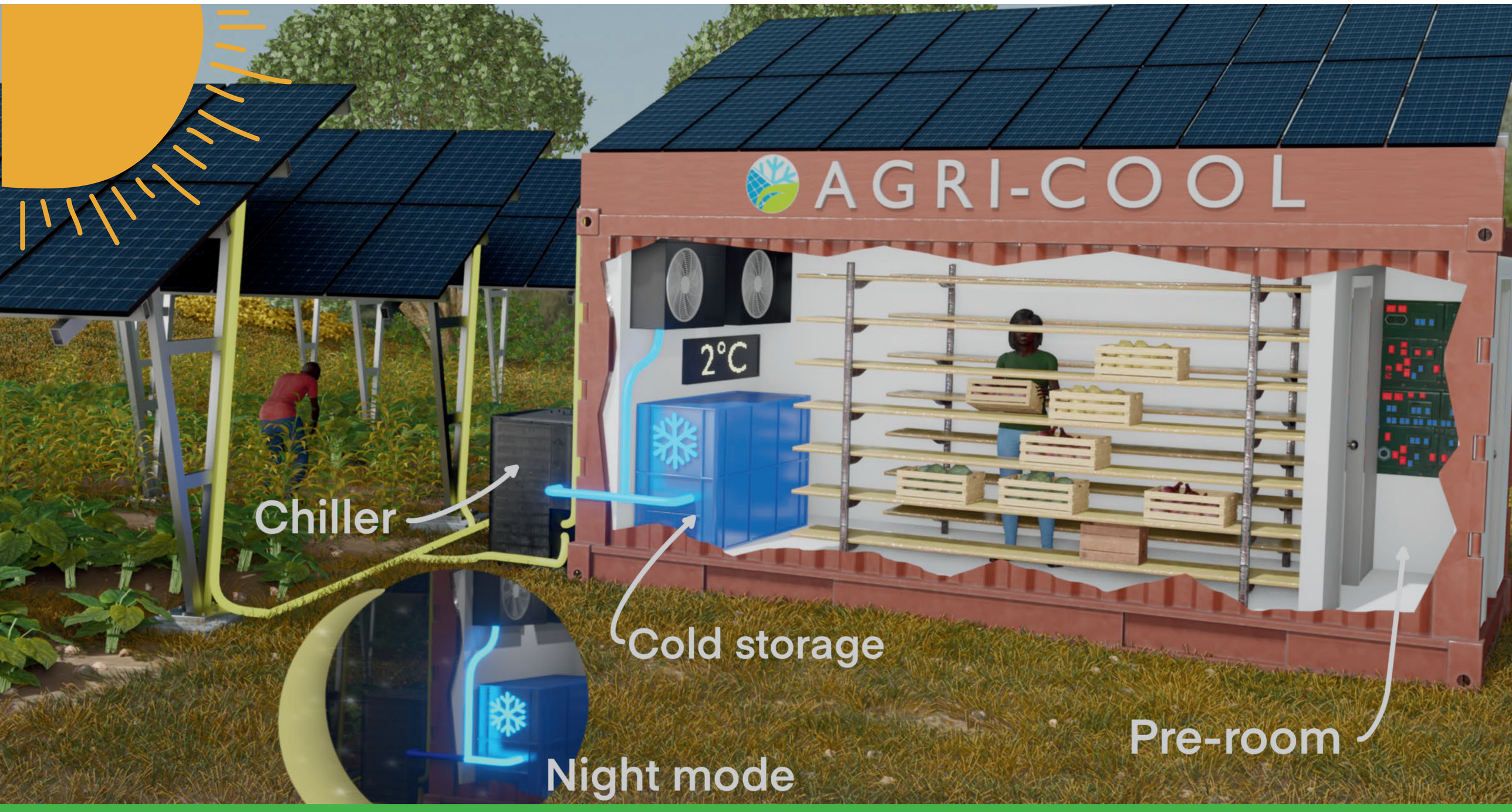
AGRI COOL

ADVANCING SUSTAINABLE **AGRI**CULTURE THROUGH
OFF-GRID ENERGY AND **COOL**ING SOLUTIONS IN AFRICA



AGRI-COOL solar-powered off-grid cold chambers

an affordable, scalable and climate-friendly solution for storing crops

Project Impacts

- **CO2 Reduction:** Each unit contributes to significant CO2 emissions reduction compared to traditional storage methods.
- **Food Waste Reduction:** Reduces food waste in off-grid conditions, enhancing food security and minimizing spoilage.

The proven benefits of Agri-PV in combination with efficient, state-of-the-art cooling technology is going to generate the desired socio-economic impact in four different African countries.

Pilot Countries

South Africa · Cape Verde · Somalia · Zimbabwe

Main Objectives

- Develop innovative storage **containers** using **photovoltaic technology, thermal energy storage, chillers, and smart controls.**
- Develop a **digital twin platform** for **real-time monitoring**, enabling design adjustments and dynamic system analysis.
- **Optimize sustainability and performance** with adaptable, scalable solutions.
- Conduct tests in rural communities:
  South Africa, Cape Verde. Somalia, Zimbabwe.
- Conduct a life cycle assessment to monitor the environmental impact and alignment with the **Paris Agreement.**

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