

RESEARCH AND DEVELOPMENT FUND PROJECT SPOTLIGHT

SOLAR COOLING ENGINEERING

KEY COOLING COMPONENTS AND ENGINEERING FOR IMPROVED ACCESS TO REFRIGERATION

This project will support the development of affordable key cooling components tailored to the diverse needs of value chain actors. Its other objective is to generate employment opportunities by building local capacity.

Access to refrigeration is essential for farmers to reduce post-harvest losses, scale up and explore new business opportunities. Yet commercially available cooling systems are often imported without consideration of the local context. The systems available to farmers are not tailored to their needs. They are also considerably more expensive due to the high cost of shipping, duties and taxes. Solar Cooling Engineering seeks to address these challenges by promoting solar cooling solutions that are assembled and adapted locally. In this way, the diverse needs of farmers and other value chain actors become a business advantage.

Solar Cooling Engineering is a spinoff company of the Institute of Agricultural Engineering of the University of Hohenheim. Since 2014, it has developed and assessed small and medium-scale solar cooling systems for the Agri-food sector. In partnership with its official distributor, Phaesun, Solar Cooling Engineering has made several key components have been made commercially available. This allows for a flexible and modular design of cooling systems.

Over the life of the project, Solar Cooling Engineering aims to:

- Reduce production cost of the actual solar SelfChill® cooling unit
- Implement remote monitoring and PAYGO compatibility
- Develop control algorithms for different applications and energy sources including direct drive (no batteries)
- Assess further medium-scale example systems for training purposes
- Establish face-to-face and on-line technical training courses



AT A GLANCE

R&D Partner

Solar Cooling Engineering

Efficiency for Access Funding

£ 200,000

R&D Funding Unlocked from Solar Cooling Engineering

£26,298

Project Locations

Kenya, Mali, Colombia,
Germany