

RESEARCH AND DEVELOPMENT FUND PROJECT SPOTLIGHT

COLDHUBS LIMITED

DEVELOPMENT OF COLDHUBS TO ACHIEVE IMPROVED AND COST EFFECTIVE COOLING

ColdHubs are solar-powered walk-in cold rooms for smallholder farmers, retailers and wholesalers to store and preserve fruits, vegetables and other perishable food. This can extend the shelf life of food from two days to 21 days.

This project will develop two different ColdHubs. The first is a smaller hub that measures 10 feet long, 10 feet wide and seven feet tall. It will be able to cool up to three tons of food and have insulating ice panels that keep food chilled. A refrigeration unit will cool the air in the hub. Discharging will take place by natural convection without the need for additional electrical energy.

The second hub will be bigger than the first, and will be designed for larger markets and farms. It will have the ability to cool eight to 10 tons of food. A brine cooler will generate a cold temperature for storage. To keep the hub cool, a brine tank inside the cold room will pump cold brine into the ice storage area. When additional cooling is required, a second pump will circulate the brine through an air cooler.

ColdHubs will provide an affordable and efficient cooling solution for smallholder farmers, retailers and wholesalers. This will help increase income and prevent food loss.



AT A GLANCE

R&D Partner
ColdHubs Limited

**Efficiency for Access
Funding**
£112,768

**R&D Funding Unlocked
from ColdHubs**
£48,577

Project Location
Nigeria