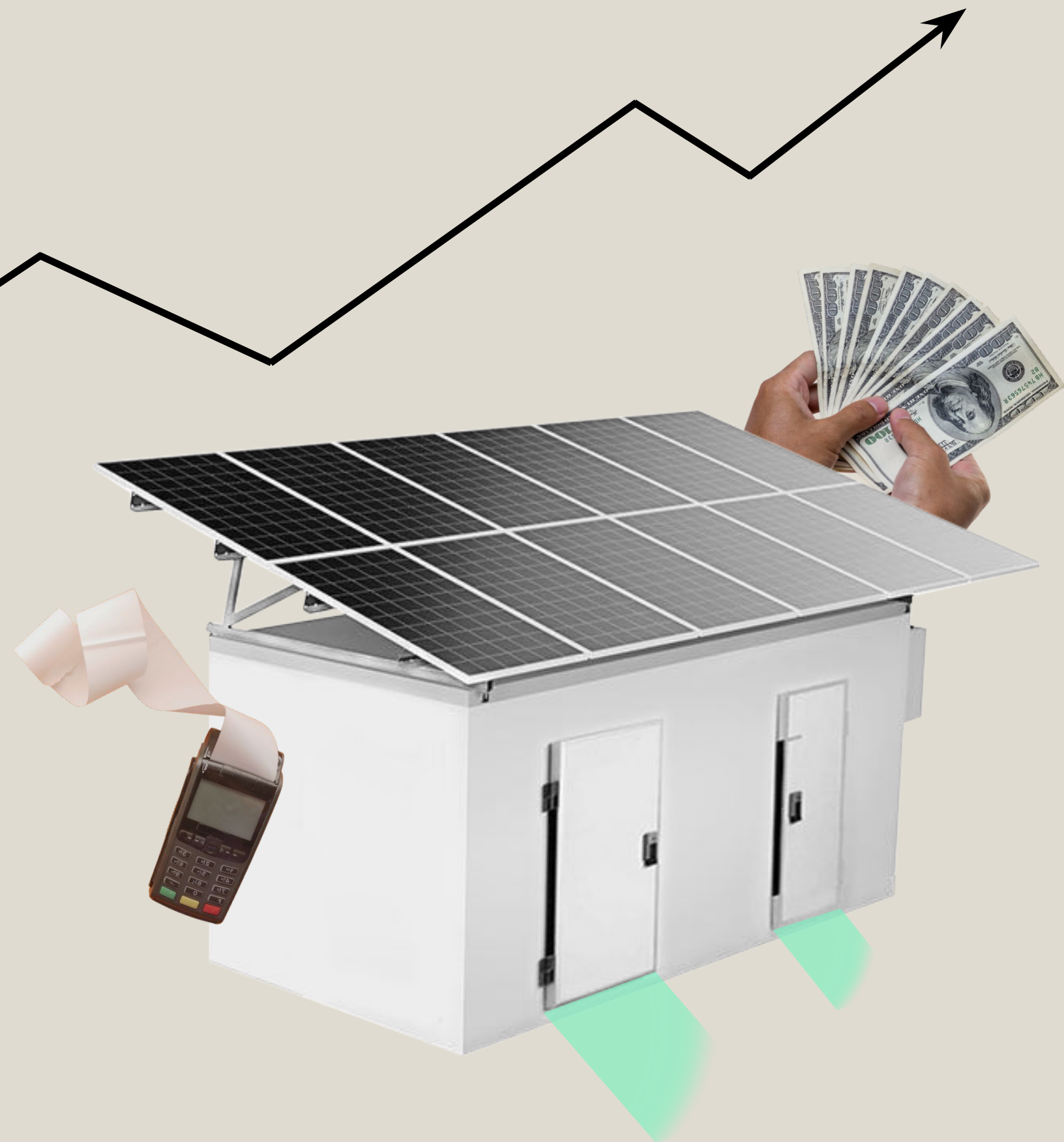


YOUR VIRTUAL COLD CHAIN ASSISTANT x SET **ALLIANCE**



# WEBINAR

**Unlocking Finance for Cold Rooms & Cooling as a Service:**  
*Insights and Strategies from the Field and Finance*

STARTING SOON!



YOUR VIRTUAL COLD CHAIN ASSISTANT x SET ALLIANCE

**GET.invest**  
Mobilising Renewable Energy Investments

**AkoFresh**  
Food Storage.

**SokoFresh**

**InfraCredit**  
Securing Infrastructure Finance

**BASE**

**Roberta Evangelista**  
Senior Digitalisation Specialist at BASE



**Emma Wink**  
Moderator  
SET Alliance Project Lead



**Mathias Charles Yabe**  
CEO, AkoFresh



**Paul van der Linden**  
Co-Founder at SokoFresh



**Divya Balakrishnan & Zach Bloomfield**  
Senior Advisor & Finance Catalyst Advisor at GET.invest



**Chinua Azubike**  
Managing Director of InfraCredit

**DIVYA BALAKRISHNAN**  
Senior Advisor, GET.invest

**ZACH BLOOMFIELD**  
Advisor, GET.invest Finance Catalyst



# Unlocking Finance and Scalability for Cold Rooms as a Service

*Webinar Series | 15 November 2023*

GET.invest is supported by





## The Challenge

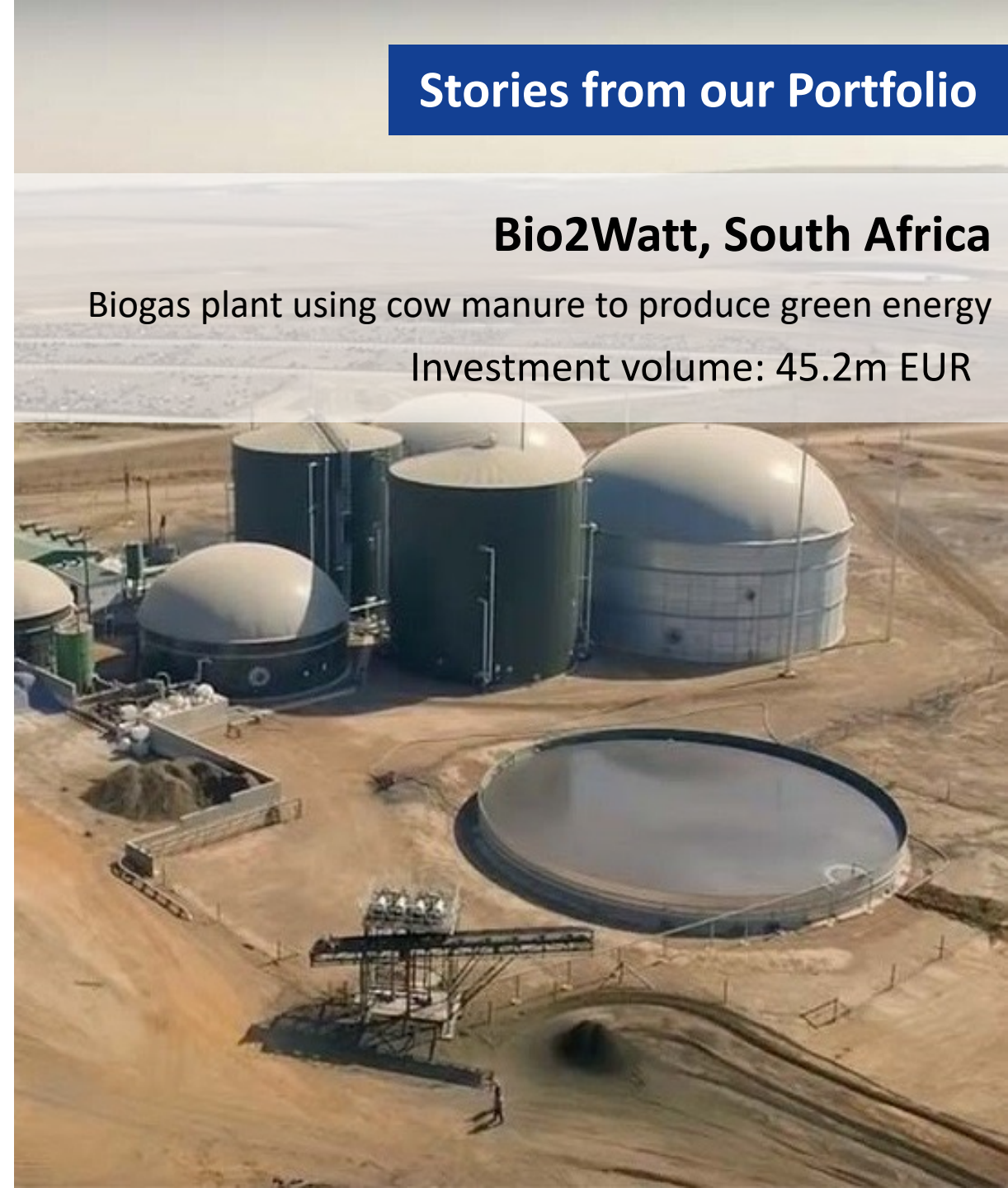
- **Much more & much faster investment needed** to reach development (SDG) and climate goals (Paris Agenda)
- **Complexity:** Many companies, many financiers – all with their own preferences and modalities – and a challenging financing landscape and environment
- **Disconnect** between those who need (private sector) vs. those who have capital (financiers)
  - **Private sector:** difficult to access capital that matches needs, processes take too long
  - **Financiers:** projects & companies not bankable, not ready for financing
- **Need for a solution** that supports anyone, with minimal complication, across all countries

15/11/2023

### Bio2Watt, South Africa

Biogas plant using cow manure to produce green energy

Investment volume: 45.2m EUR





## Stories from our Portfolio

### POPO, Uganda

Powerbanks for last mile users in rural & fragile areas

Investment volume: 5m EUR



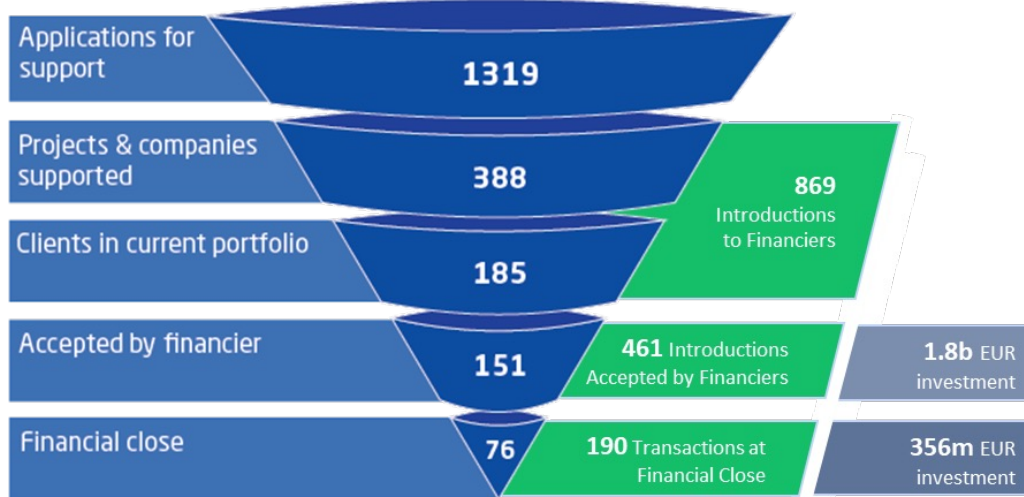
## Our Solution

- **European programme mobilising investment** in renewable energy, **One Stop Shop** of the **Team Europe Africa EU Green Energy Initiative**
- **Solution *at scale*** focusing on **access to finance** for private sector clean energy companies and project developers
  - **Main support:** on-demand open facility for “honest broker” advisory on how to become bankable and raise capital
  - **Complementary:** mobilisation with associations, information (finance solution database) & data
- **Technology agnostic - supports all relevant business models**
- **Global programme:** covers **Sub-Sahara Africa, Caribbean & Pacific, implemented by GIZ (G310), part of GET.pro**



# Our Track Record (2016-2023)

- **Leading facility** reaching a **large share of the market**
- **High and growing demand, tangible results** mobilising in particular **highly catalytical funding at early stages:**



- **Strong partnership network** incl. other development partners, private sector associations, and financiers



## Stories from our Portfolio

### OnePower Lesotho

Pioneering Mini-Grids for Remote Villages

Investment volume: 4.4m EUR



# Importance of data and digitalization for our CaaS clients



- **Data is critical** to CaaS business models, as it **shows utilization, revenue, reliability** and other factors that underpin CaaS as a business and not just a public service
  - Data and digital tools help optimize energy consumption and resource management
  - Builds ability to assess real-time performance of a business
- **Data is deeply important to building investment attractiveness**, and it can form the basis of investment decisions especially to sub-commercial investors, lenders and grantors
  - Digitalization allows for real-time risk assessment and monitoring, reducing the perceived risk for potential investors and lenders.
- Data and digitalization capacity are key factors that guide whether and where we place clients in the GET.invest advisory program



# Critical financial and non-financial support



## Non-financial Support

- Regulatory advocacy & certification support (carbon, WHO, ISO, etc.)
- Business model refinement, financial modeling, investor negotiation advisory
- Value/supply chain and demand creation support

## Financial Support

- Minimum Revenue Guarantees (to bolster early deployment revenue to pay debt obligations)
- Microcredit capitalization (for appliance-based CaaS) & long-term leasing support
- Securitization (especially of leased appliances)
- Carbon pre-financing (where applicable)
- PPP structuring and financing (e.g. in public/municipal markets)

# Key factors informing commercial viability for CaaS




- **Revenue model and certainty**
  - Customer segmentation and outreach plan, including how to ensure customers remain “subscribed;” bespoke size/configuration/certification for cold room clients means not every client can be “aggregated” to share space
  - Durability/enforceability of underlying contracts, if at all
  - Competitive landscape, alternative cooling and value-for-money of cooling services
- **Scalability and growth**
  - Cold rooms vs. appliances the growth trajectory; CAPEX required to expand
  - New sites, new markets and jurisdictional variations, market entry challenges
  - Key partners, distribution models and marketing channels
  - Proximity and distribution of use sites
- **Cost of finance & financial performance**
  - Cost of services (energy + cooling) vs. reasonable client-facing fee structures



# On- and near-farm modular cold rooms



 Kenya & Zimbabwe

**The company** InspiraFarms

**What they do** InspiraFarms Cooling engineers and delivers the best and most efficient precooling and cold chain technology for fresh fruit & vegetables, flowers, and animal protein supply chains in Africa and other emerging markets.

**Our support** **Finance Catalyst:** Supporting InspiraFarms through strategic advise, fundraising support and transaction advisory to secure new equity/convertible, long-term debt facilities, and export credit facilities

**Projected results** Seeking EUR 5 mnl convertible note to support new installations; build out own-financing for customers

**Expected impact** On- and near-farm modular cold rooms with underlying supplier finance can greatly enhance ag productivity and reduce food losses

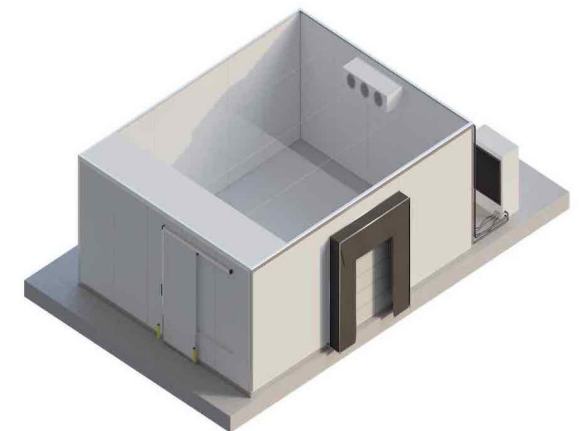



Photo source: inspirafarms.com

# Making Refrigeration Affordable and Accessible



 Nigeria, Rwanda

## The company

Koolboks

## What they do

Proprietary freezers and chillers combine the natural forces of the sun and water to create eco-friendly, solar refrigeration products for domestic, commercial, and health care use.

## Our support

**Finance Catalyst:** Seed and Series A equity fundraising support, as well as follow-on debt solicitations after Series A. Financial modeling and terms negotiation with key investors

## Projected results

Targeting USD 15-25 million raised between seed and Series A rounds, including equity and debt

## Expected impact

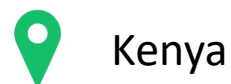
Empowering thousands of rural household and small businesses to capture more upstream value in aquaculture, horticulture and poultry value chains, especially women



Photo source: koolboks.com



# Solar-powered cooling for East Africa's livestock value chain



Kenya

## The company

Baridi

## What they do

A solar chilling PuE company combining a solar powered nano-grid and cold storage facility for local meat vendors through a “pay-as-you-store” model

## Our support

**Finance Readiness Support:** Developing the financial model and budget tool for controlling, supply chain optimisation, improving the business model and market expansion strategy, access to finance advisory

## Projected results

USD 250k in equity

## Expected impact

Reduced food loss and improved economic opportunities for local meat and fish vendors, with the aim of serving 200,000 consumers in 5 years


The logo for Baridi, featuring the word "baridi" in a bold, lowercase, sans-serif font. The letters are primarily red, with a vertical rainbow-colored stripe running through the middle of the letters.



Photo source: Baridi

# Scaling off-grid cooling for the food and healthcare sector in Nigeria



 Nigeria

**The company**

Ecotutu

**What they do**

A cold storage company specialized in the set-up and distribution of cold rooms, cool boxes, cooling bags, ice packs and Cooling-As-A-Service solutions.

**Our support**

**Finance Readiness Support:** Develop an investor facing financial model and teaser, strategic advisory on capital raise structuring, supporting market expansion strategy

**Projected results**

USD 600k in debt and equity

**Expected impact**

Reliable and practical storage solutions for the food and healthcare sector (i.e. to transport volatile medicines and vaccines), empowering local businesses



Photo source: ecotutu.com



# How companies can apply:

**Applications for support can be submitted at:**

<https://www.get-invest.eu/finance-catalyst/apply/>

- Information is treated confidentially;
- Applications are evaluated by two individual experts;
- Applications are evaluated in rounds;
- Introductory calls/meetings can be organised with project developers and companies looking for support.

# Thank you for your attention!



**DIVYA BALAKRISHNAN**

E-mail: [divya.balakrishnan@get-invest.eu](mailto:divya.balakrishnan@get-invest.eu)

**ZACH BLOOMFIELD**

E-mail: [zachary@finance-catalyst.eu](mailto:zachary@finance-catalyst.eu)



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YOUR VIRTUAL COLD CHAIN ASSISTANT  $\times$  SET ALLIANCE



WEBINAR:

# Cold Storage Financing in Agriculture



Mathias Charles Yabe  
CEO, AkoFresh



# Presentation Structure

- AkoFresh Operational Model
- Evolution of financing
- Challenges in accessing financing
- AkoFresh Impact
- Scaling plans



# AkoFresh Operational Model



Pay-as-you-go Model

**\$ 0.30** For each 20kg crate stored daily.



Target Market:  
**Smallholder farmers and traders.**





# Evolution of financing



## Equity free seed funding

Funded by Fishbowl Challenge  
Year: 2021



## Awards and Donations (Grants)

TotalEnergies, Global Solutions Initiative, Prototypes for Humanity, OIA  
Year: 2022 , 2023



## Carbon credits

Year: 2024 / 2025

## Debt & Equity Investments

Year: 2024 / 2025





# Traction & Achievements



Impacting over **250 farmers & 1800 individuals**



Avoided over **300 tons of food waste emissions**



Created jobs for **5 women**



Built a network of **6 global partners and 4 local partners.**



Increased farmers income by **%150**



Featured by **10+ media channels** locally and globally



Invited to global food security policy discussions at **COP27 (Egypt) and Global solutions Summit (Berlin)**

Media Coverage.





# Scaling plans and Financing Challenges

## Scale to 5 major market centers in Ghana Conduct a pilot in Uganda

Period: 2024 - 2026

Reach: 5000 farmers and traders

## Financing challenges

- Unfavourable due diligence criteria
- Cautious nature of investments in emerging markets.
- Few investment opportunities for Caas (Cooling as a service) solutions





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# THANK YOU!

[www.akofresh.com](http://www.akofresh.com)



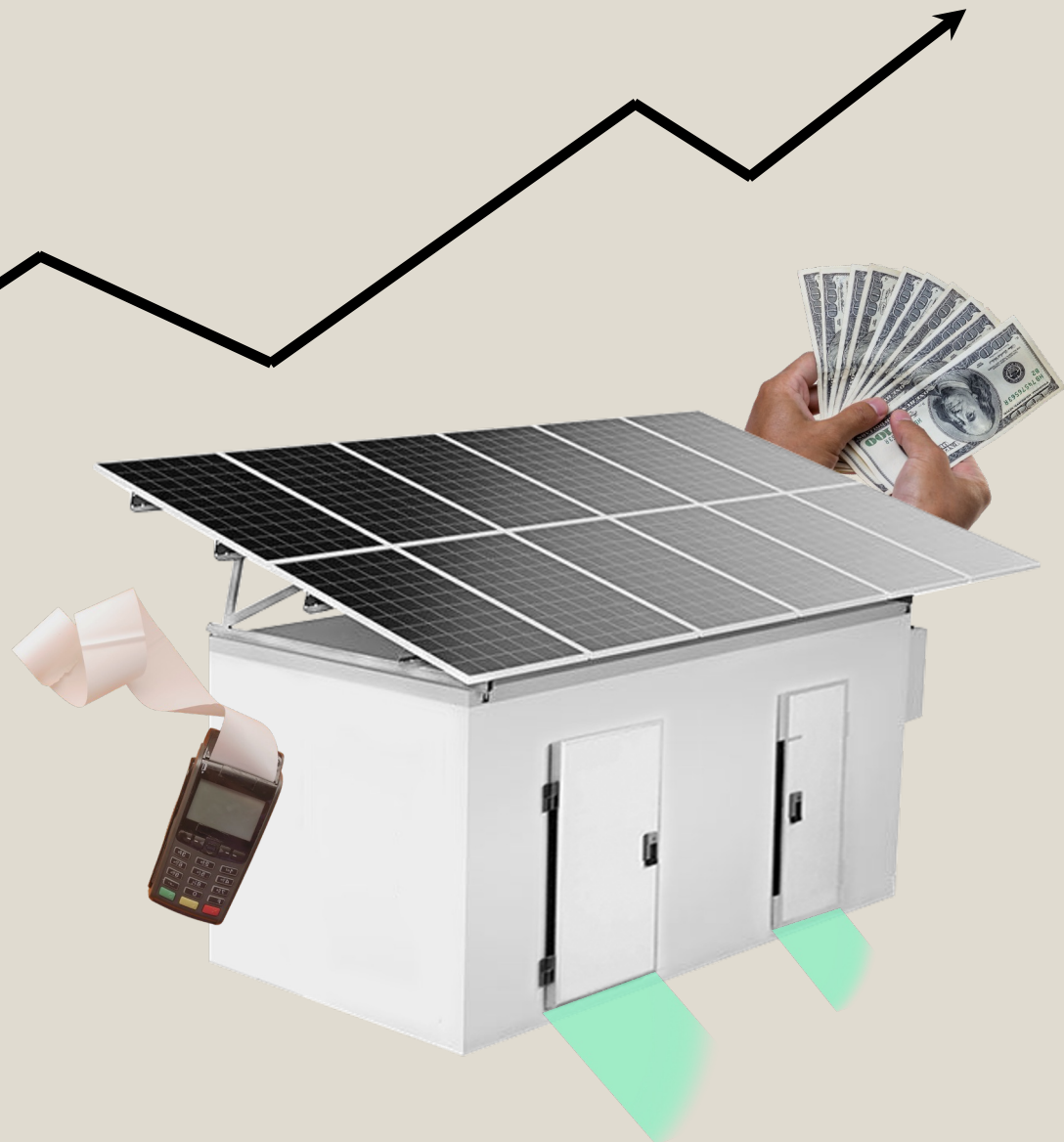
[info@akofresh.com](mailto:info@akofresh.com)



[@akofresh\\_co](https://twitter.com/akofresh_co)



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**SokoFresh** ❄️



Paul van der Linden  
CEO, Enviu  
Interim CFO, SokoFresh

WEBINAR:  
**Cold Storage Financing in  
Agriculture**

# ENVIU CREATES SYSTEM CHANGE BY BUILDING INNOVATIVE AND IMPACTFUL SOLUTIONS IN FOUR DOMAINS IN FOUR REGIONS SINCE 2004



Circular Apparel  
📍 SA/EA/NL



Zero Waste — Plastics  
📍 SEA/NL



Circular Mobility  
📍 NL



Sustainable Food Systems  
📍 EA

## enviu Netherlands

- EST. 2004, HEAD-OFFICE
- VENTURES: Uptex, Desertspring, Oogst, SWIM Technologies, Portago, Future Proof Shipping, Energy Floors, Thuishulp Rotterdam, Outside Inc, NoWorriesCompany, Duurzaam Investeren



## enviu South Asia

- EST. 2012
- VENTURES: Lakshya, Discovered, Uptex, Three Wheels United



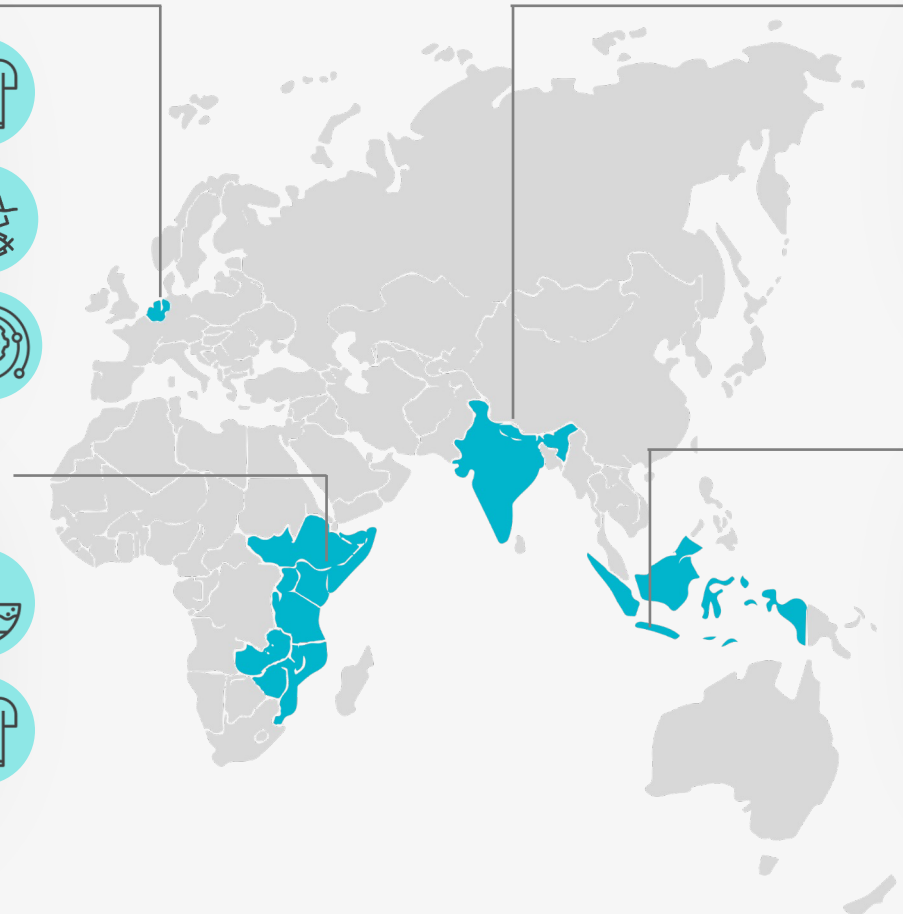
## enviu East Africa

- EST. 2018
- VENTURES SokoFresh, Shambani Pro, Uptex, Peoples Pension Ghana, Taimba

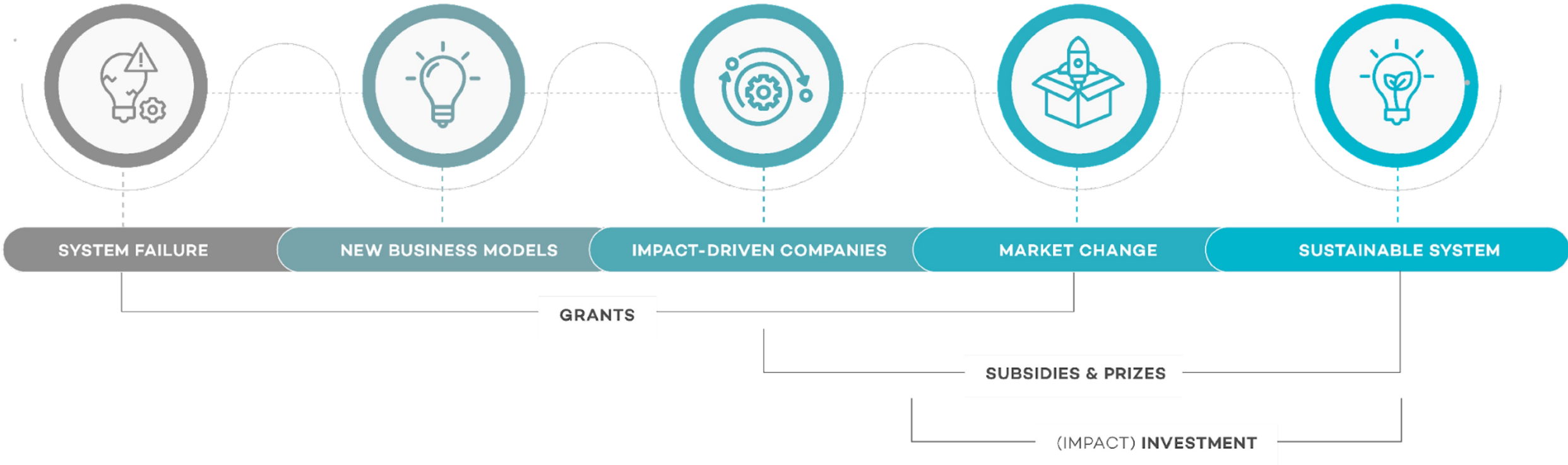


## enviu Southeast Asia

- EST. 2019
- VENTURES: Alner, Qyos, Allas, Econesia, Kecipir, Sustaination



WITH OUR PROVEN APPROACH WE CREATE SYSTEM CHANGE, AND PHILANTHROPIC FUNDING PLAYS A CRUCIAL, CATALYTIC ROLE IN THIS





# SokoFresh



ENABLE ECONOMIC PROSPERITY AND SUSTAINABLE  
VALUE CHAINS IN RURAL COMMUNITIES

OFFGRID | FIRST MILE | MOBILE | PAY AS YOU STORE | MULTI PRODUCE



# ABOUT SOKOFRESH®

- INTRODUCTION

SokoFresh is an innovative business that unlocks the benefits of cold storage at first mile through a bundled offering of cold storage and market linkage to small holder farmers and buyers.

- WHY WE EXIST

Our vision is to enable economic prosperity and fair value chains in rural communities. We do so by providing small holder farmers with access to climate-smart innovations that will empower their livelihoods.





## THE ISSUE

30-40% OF FRUITS AND VEGETABLES WORTH \$140M ARE LOST ANNUALLY IN KENYA DUE TO POOR AGGREGATION AND FIRST MILE COLD STORAGE DEFICIT.



There is a **cold storage deficit** leading to high post-harvest losses in sub-Saharan Africa.



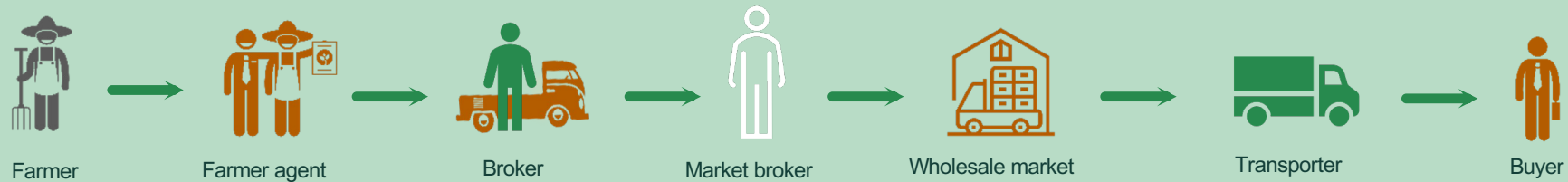
Although **cold storage technologies exist**, the deficit is sustained by the lack of a **business model** and **financing** that is needed to catalyze adoption.



We have proven a **high adoption rate** among farmers, **increasing their income with 20-30%** after deduction of cooling and aggregation service fees.

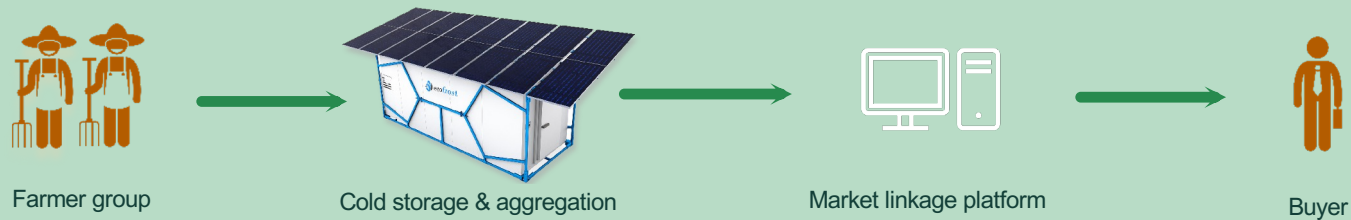
# DRIVING ADOPTION OF COLD STORAGE & MARKET LINKAGE

is the scalable way to integrating smallholders in efficient supply chains



## CURRENT SUPPLY CHAIN

- 40% food loss
- Farmers living below poverty
- 5-8 days farm to buyer
- 0% traceable supply chain
- 0% accountability of actors



## OUR SOLUTION

- 0% food loss
- Farmer 20% income increase
- 1-2 days farm to buyer
- 100% traceable supply chain
- 100% accountability of actors
- Easily scalable





# SOKOFRESH'S SERVICE OFFERING

## 1. Full-service model

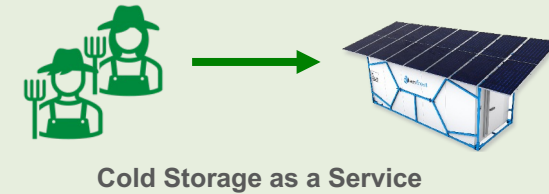


SokoFresh secures demand for produce that is available from the network of smallholder farmers and facilitates the farmers to harvest, aggregate the produce. SokoFresh handles logistics from cold hubs to the buyer locations. Once they have registered in any of their selected hubs, the company provides a full farm-to-market solution that includes:

- Support on pre-harvest readiness;
- Access to harvesting best practices, harvesting tools and links to trained harvesters;
- Access to a cold storage hub at a location that is accessible to most farmers;
- Demand assurance from SokoFresh including aggregation and transportation logistics

SokoFresh earns a cold storage fee and a market linkage fee in the transaction

## 2. Cold Storage Leasing



Target customers here are rural aggregators, farmers cooperatives and companies with out-grower farmer schemes in perishable horticultural crops. SokoFresh offers these clients a flexible rental service for the solar powered cold storages which require no grid connection thus saving them from paying significant power bills.

Once rental agreement is concluded, SokoFresh will place a solar-powered cold storage in a central location where the clients' farmers can supply their produce after the harvest. SokoFresh only offers cold storage rental services, the clients are responsible for post-harvest handling activities including transportation of the aggregated produce to-and-from the cold storage facility.

2

SokoFresh charges a monthly rental fee for the service



# WE HAVE BEEN ABLE TO PROVE 20% INCREASED INCOME FOR FARMERS AND REDUCED THEIR POST HARVEST LOSS TO ALMOST 0%



**12,500+**

Small holder farmers engaged



**45%**

Of all farmers served were women



**20%**

Average income increase for farmers



**>250,000 Kg**

CO2 eq offset

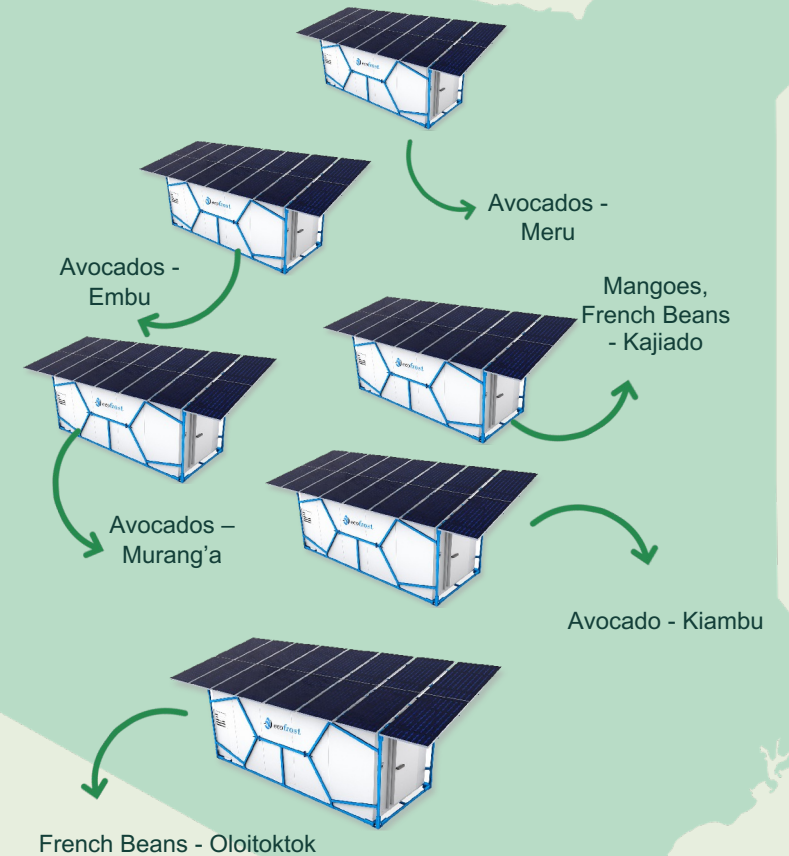
**>4,000,000**

Kgs of produce aggregated and sold on behalf of farmers



**0-2%**

Food loss on all trades from farm to market



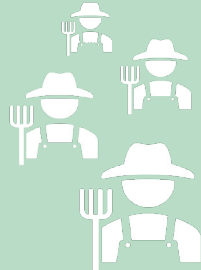


# A QUICK OVERVIEW OF OUR (FUNDING) JOURNEY



## H1 2020

- Identified proven technology from Ecozen
- Setup first pilot with 2 Cold storages.
- Powering Renewable Energy Opportunities & Rabobank Foundation



## H1 2021

- Launched Cold Storage in Murang'a – Avocados
- 845 farmers onboarded.
- Launched Lease business model
- Signed agreement for rental cold storages with EAGA. – French Beans.
- Serving a predominantly women led Agri chain.



## H1,2022

- Launch of strategic partnership for spot payments
- Raised \$500k equity from Safaricom Spark Fund
- Launch cold storage in 6 new locations.
- Pilot with new strategic partners – WFP, OAF & Seleka



## 2019

- Feasibility study cold storage as a service (SBIR)
- 2 MOU signed with launching customers



## H2 2020

- Setup additional cold Storage
- Signed partnership with Mango coop
- Pilot market linkage to drive adoption of storages



## H2,2021

- Secure Grant \$600k EEP Africa
- Ordering additional 6 storages from Ecozen.
- Run pilots with OAF in Embu
- Set up of digital platform for market linkage
- Rabobank concessional debt of KES 25mio.
- Closed the year at \$75K revenue



## H2 2022

- Raised \$750k equity from Acumen
- Raised 360k for assets in SPV of 500k
- Farmers served: 7,500



# CHALLENGES FACED REGARDING FINANCING

- What we secured took long, 6 – 12 months incl. due diligence.
- We ran on grants much longer than wanted. Early on we tried to secure other sources for asset financing, but:
  - Local banks had too short tenure (24 or 36 months)
  - International funds required minimum \$5-10 M ticket size and we were too early for that
- Commercial investors were faster to onboard than impact investors
- Cold storages are not seen as great securities, unclear secondary market
- There's plenty of money, there are few financiers that want to go early
- For every part you have to be with another kind of financier, would love to see financiers stepping in early and provide different instruments for different stages, growing with the companies – like Rabobank



# DIGITAL TOOLS AND DATA MANAGEMENT SYSTEMS

How have digital tools or data management systems played a role in enabling your financing?

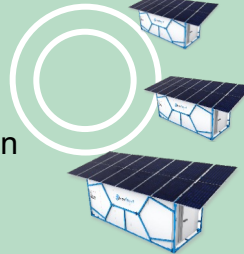
I assume so, though the need comes internal to build and run a scalable business, more than external to attract financing. And good companies get financed.

- We need full visibility on the performance of our assets, for which we have remote management systems.
- We have incorporated an ERP system from the start to enable scalability, managing all our transactions with buyers and farmers through the system.
- Running a low-margin, high volume business across many regions through a hub-model, we need continuous visibility on the right information to ensure optimal financial performance.

# AMBITIONS (INCL. NEW FUNDING ROUND)

2023

- 5+ value chains served
- 12,500 farmers served (50% women)
- Revenue €1.2m
- Digital platform live (MVP)
- Develop business case for cold storage in the fish value chain
- 20 cold storage units operational



2025

- 51 cold storages in 39 hubs
- Over 26,000 farmers served (50% women)
- Annual revenue of € 7.5m
- Achieve positive EBITDA

2027

- 175 cold storages in 126 hubs
- Expansion to new country
- Over 70,000 farmers served (50% women)
- Annual revenue of €25.2m
- EBITDA of €3.1m

2024

- 26 cold storages in 22 hubs
- 15,000 farmers served (50% women)
- Annual revenue of € 3.4m
- Attract equity (€3.5m – €3.8m) and debt (€2.8m – €3.4m) financing

2026

- 96 cold storages in 70 hubs
- Expansion to new country
- Over 42,000 farmers served (50% women)
- Annual revenue of €13.8m
- EBITDA of €1.5m



# JOIN US AS WE'RE SOLVING AN URGENT ISSUE AFFECTING MILLIONS OF SMALLHOLDERS ACROSS AFRICA

Denis Karema



+254 721 667 409



[denis@sokofresh.co.ke](mailto:denis@sokofresh.co.ke)

Paul van der Linden



+31 6 41843320



[paul@sokofresh.co.ke](mailto:paul@sokofresh.co.ke)

Office Tel: +254 020 200 0154

Ikigai, Peponi Road, Westlands

Field Offices: Kandara, Mugoiri, Kiganjo, Karurumo, Nkubo.

Website: [www.sokofresh.co.ke](http://www.sokofresh.co.ke)

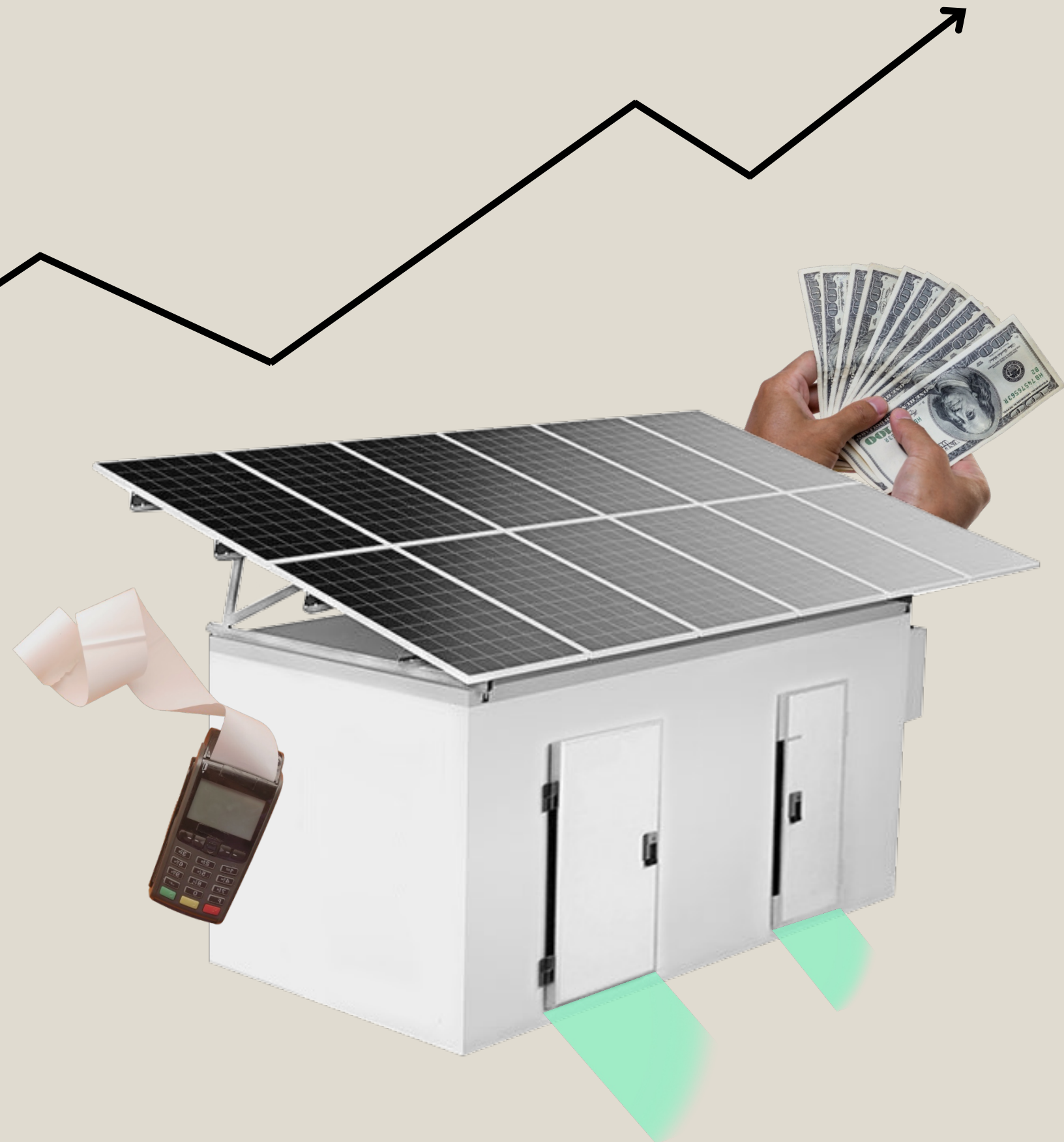
**MAINTAINING PRODUCE FRESHNESS  
THROUGH A SOLAR POWERED COOLING SERVICE**

OFFGRID | FIRST MILE | MOBILE | PAY AS YOU STORE | MULTI PRODUCE





YOUR VIRTUAL COLD CHAIN ASSISTANT x SET ALLIANCE



**Chinua Azubike**  
MD/CEO  
InfraCredit

WEBINAR:

# Cold Storage Financing in Agriculture

Mobilising Local Currency Funding at Scale to Support Cold Storage through Innovative Financing Mechanisms



# Presentation Outline

- InfraCredit at a Glance
- Overview of the Climate Finance Blending Facility
- Eligibility Requirements for CaaS Projects
- Illustrative Term Sheet
- InfraCredit Guarantee Process



# InfraCredit at a Glance



InfraCredit is a specialised financial guarantor established in 2017 by the Nigeria Sovereign Investment Authority in collaboration with GuarantCo to provide guarantees to enhance the credit quality of local currency debt instruments issued to finance eligible infrastructure related assets in Nigeria. InfraCredit's Anti-Bribery Management System is certified as ISO 37001 compliant.



## Credit Rating

**Agusto** / **AAA<sub>(NG)</sub>** June 2024  
**GCR** / **AAA<sub>(NG)</sub>** June 2024



## Capital Providers

**SOVEREIGN WEALTH FUND & DFIs**

**PRIVATE INSTITUTIONAL INVESTORS**

## GUARANTEE CAPACITY

Up to **NGN 907 bn**  
US\$ 1.2bn EQUIVALENT



## Capital

**US\$240 m** Total Capital

Core Capital	US\$144million	(NGN EQUIVALENT)
Subordinated Capital	US\$71million	(NGN EQUIVALENT)
Callable Capital	US\$25million	(NGN EQUIVALENT)

## IMPACT

**179bn** TOTAL SIZE OF GUARANTEED DEBT  
**UP TO 20 yrs**  
**19** NUMBER OF PENSION FUND INVESTORS  
**16** INFRASTRUCTURE PROJECTS THAT REACHED FINANCIAL CLOSE



## Eligibility Criteria

- › Naira Denominated Debt Issue
- › Eligible Infrastructure Activity
- › Debt Tenor of up to 20 years
- › Greenfield & Brownfield Asset
- › Acceptable Credit Profile
- › Pension (PENCOM) Compliant
- › Minimum BBB- Credit Rating
- › Adequate Security Package
- › Environmental & Social Standards



## Development Partners



# Climate Finance Blending Facility

## Overview of the Climate Finance Blending Facility



The Climate Finance Blending Facility is a catalytic first loss multi-donor facility seeded with £10 million concessional funding by the UK Foreign, Commonwealth & Development Office (“FCDO”) to mobilise additional funding from development partners to co-finance off-grid clean energy investments alongside InfraCredit’s local currency guarantees in Nigeria.

**Anchor Funder**



**Co-Financing Partner**



**Commencement Date**

May 2022

**Funds contributed till date**

£10 million

**Private capital to be mobilised**

50% of total project funding requirement

**Eligible Projects**

Off-grid energy solutions such as solar mini-grids, solar home systems, solar lanterns, fridges, pumps, driers and clean cooking products, **small and medium enterprise coolhubs** and low carbon public transport or such other eligible projects as may be determined.

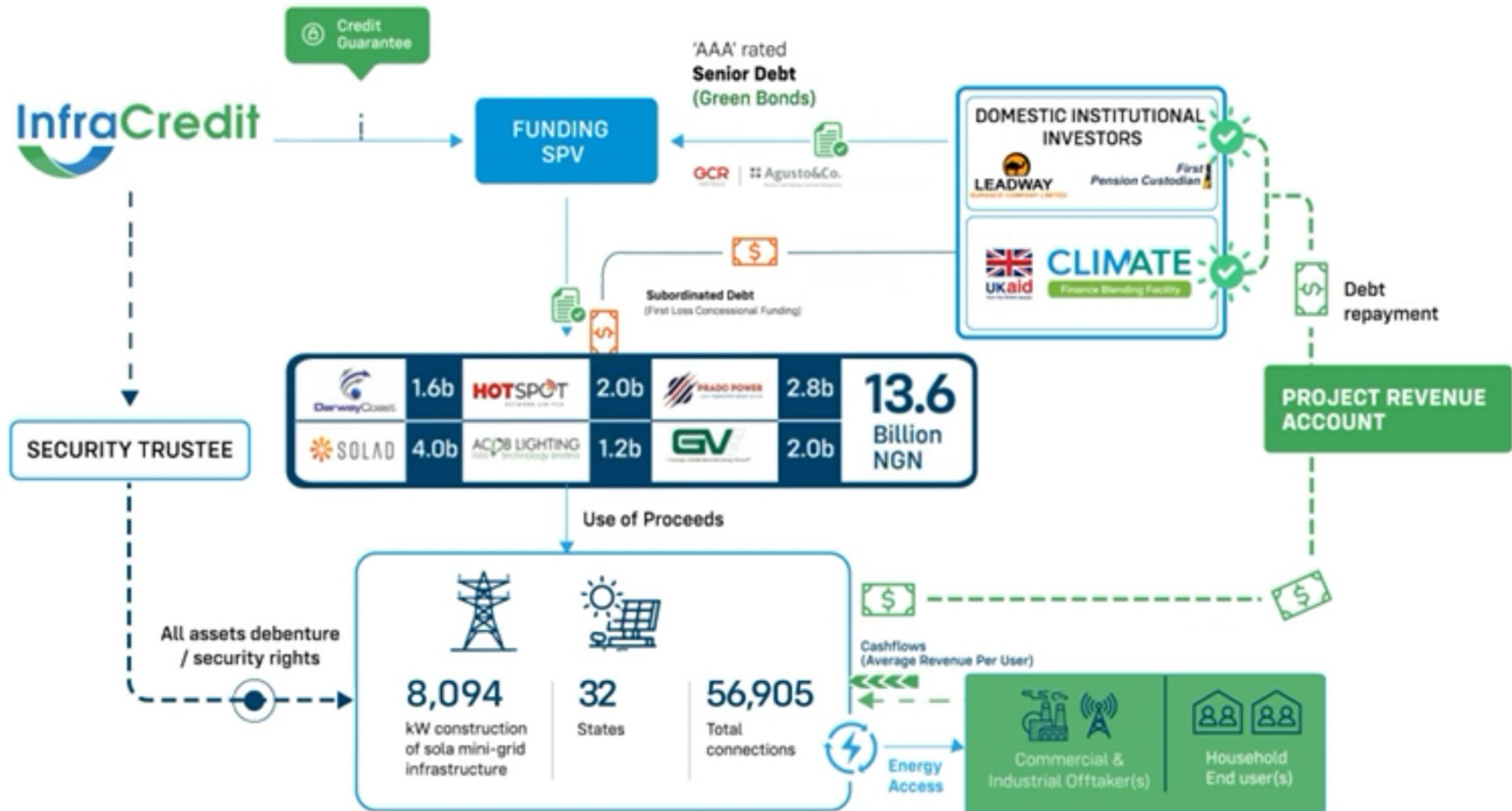
**Facility Administrator/ Trustee**



**Facility Auditor**

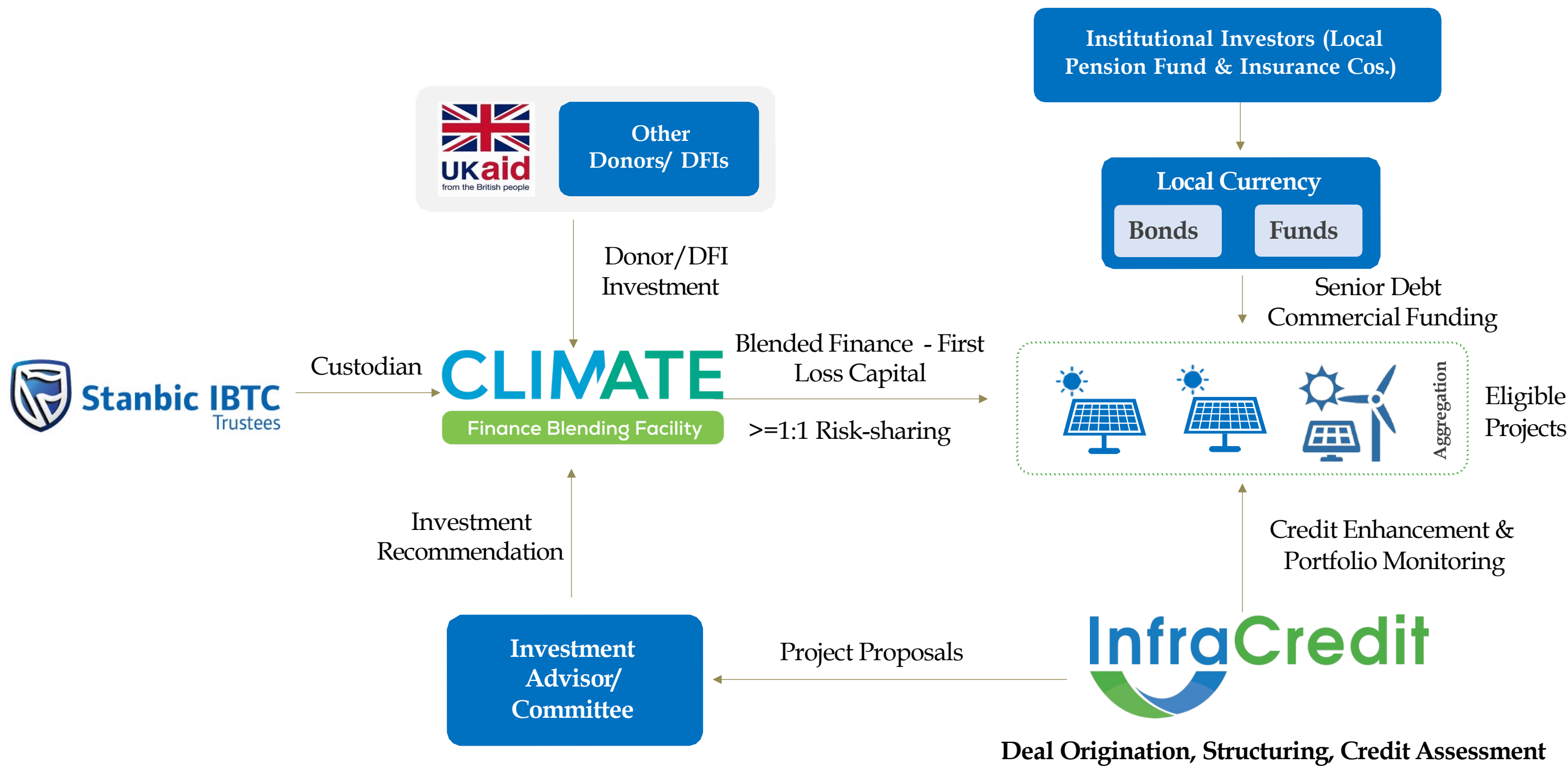


# CFBF Illustrative Transaction Structure

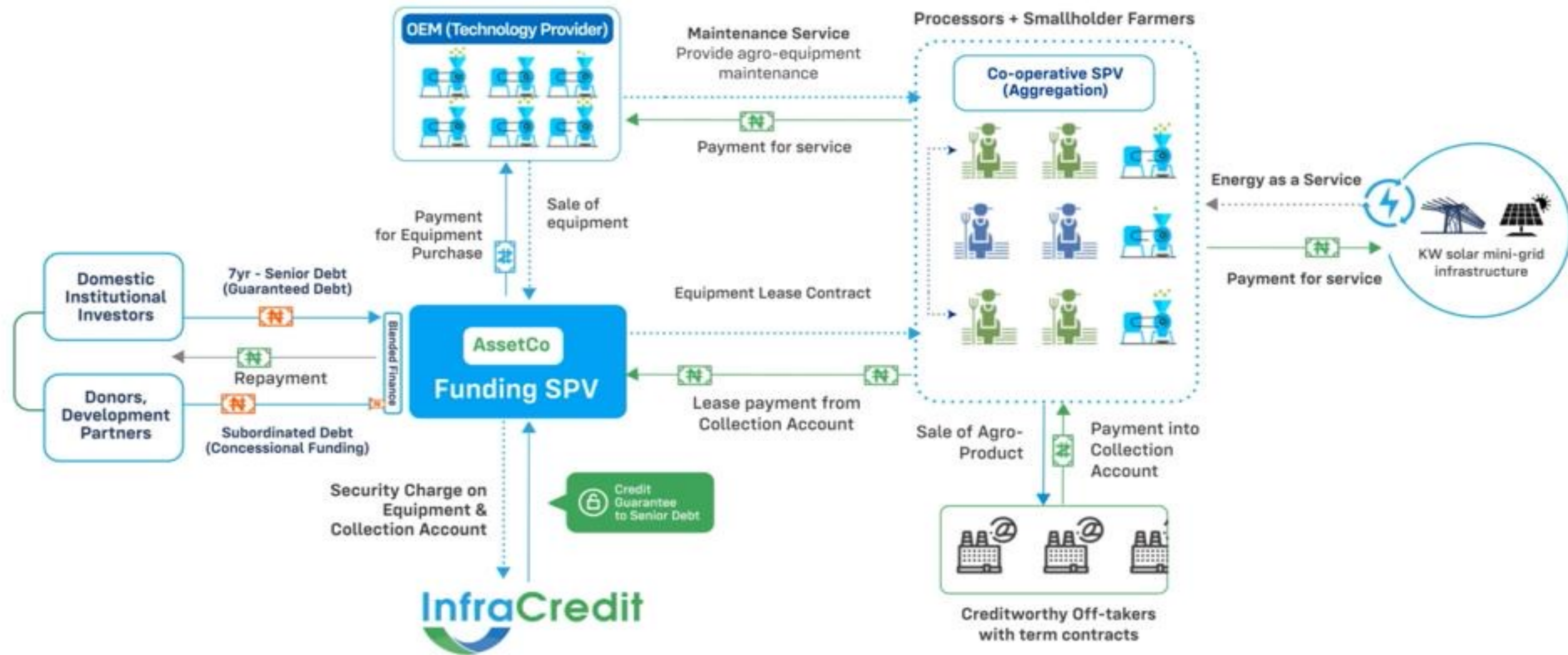




# CFBF Illustrative Transaction Structure



# CFBF Illustrative Transaction Structure





# Eligibility Criteria to Access Funding from the Facility

Eligibility Criteria		
1	<b>Eligible Activity</b>	Off-grid energy solutions such as solar mini-grids, solar home systems, solar lanterns, fridges, pumps, driers and clean cooking products, small and medium enterprise coolhubs and low carbon public transport or such other eligible projects as may be determined.
2	<b>Track Record</b>	<ul style="list-style-type: none"> <li>▪ Minimum 3 years of active operations</li> <li>▪ Historical financial performance – satisfactory proof of stable and contractual cash flows / off-take</li> <li>▪ Minimum 1 operating cold room(s); minimum 90% collection rate</li> <li>▪ Medium term (i.e. 24 months) expansion plans of 5 new sites</li> <li>▪ Revenue – minimum average NGN100 million revenue per year</li> <li>▪ EBITDA – EBITDA positive cashflows</li> <li>▪ Debt – acceptable debt profile with satisfactory performance history</li> <li>▪ Equity – minimum 20% of capex in cash equity for new projects</li> <li>▪ Irrevocable land rights – Certificate of Occupancy, lease agreements with duration covering the life of the proposed obligation, etc.</li> </ul>
3	<b>Capacity (installed and expansion)</b>	Installed power generating capacity – minimum 150kW, capacity utilization – 70% and above, with plans to expand capacity
4	<b>Equipment Sourcing</b>	Sourcing of all components must not breach human rights standards e.g., solar panels and storage assets must be sourced from OEMs with operations outside the Xingjiang province
5	<b>ESG Standards</b>	Satisfactory Compliance with InfraCredit's ESG Assessment

# Illustrative Financing Term Sheet

1	<b>Borrower</b>	Qualified Borrowers that meet InfraCredit's Minimum Eligibility Criteria
2	<b>Facility Type</b>	Climate Finance Blending Facility (the "Facility") – Debt capital consisting of blended low interest funding coupled with senior debt financing from the domestic debt capital markets (with a ratio of at least 50%).
3	<b>Expected All-In Interest Rate</b>	9.9% per annum (subject to market conditions)
4	<b>Debt Size</b>	Up to NGN5 Billion per project
5	<b>Guarantor</b>	Infrastructure Credit Guarantee Company Limited ("InfraCredit")
6	<b>Guarantor Rating</b>	"AAA" by Agosto and, GCR
7	<b>Guarantee</b>	Unconditional and irrevocable guarantee, by way of continuing guarantee, of the due and punctual observance by the Borrower of all of its payment obligations in respect of all scheduled principal and interest amounts due and payable by the Borrower pursuant to the terms and conditions of the Facility Agreement, under the terms of a Deed of Guarantee to be executed between InfraCredit and the Borrowers
8	<b>Tenor</b>	Up to 7-10 years
9	<b>Principal Moratorium</b>	Up to 24 months
10	<b>Guarantee Fee</b>	1.0% - 3.0% per annum (depending on the Project/Borrower's credit risk rating based on the Guarantor's internal rating assessment)
11	<b>Payment Frequency</b>	Semi-annual repayment after the agreed moratorium period and continuing until the Maturity Date



# Illustrative Term Sheet

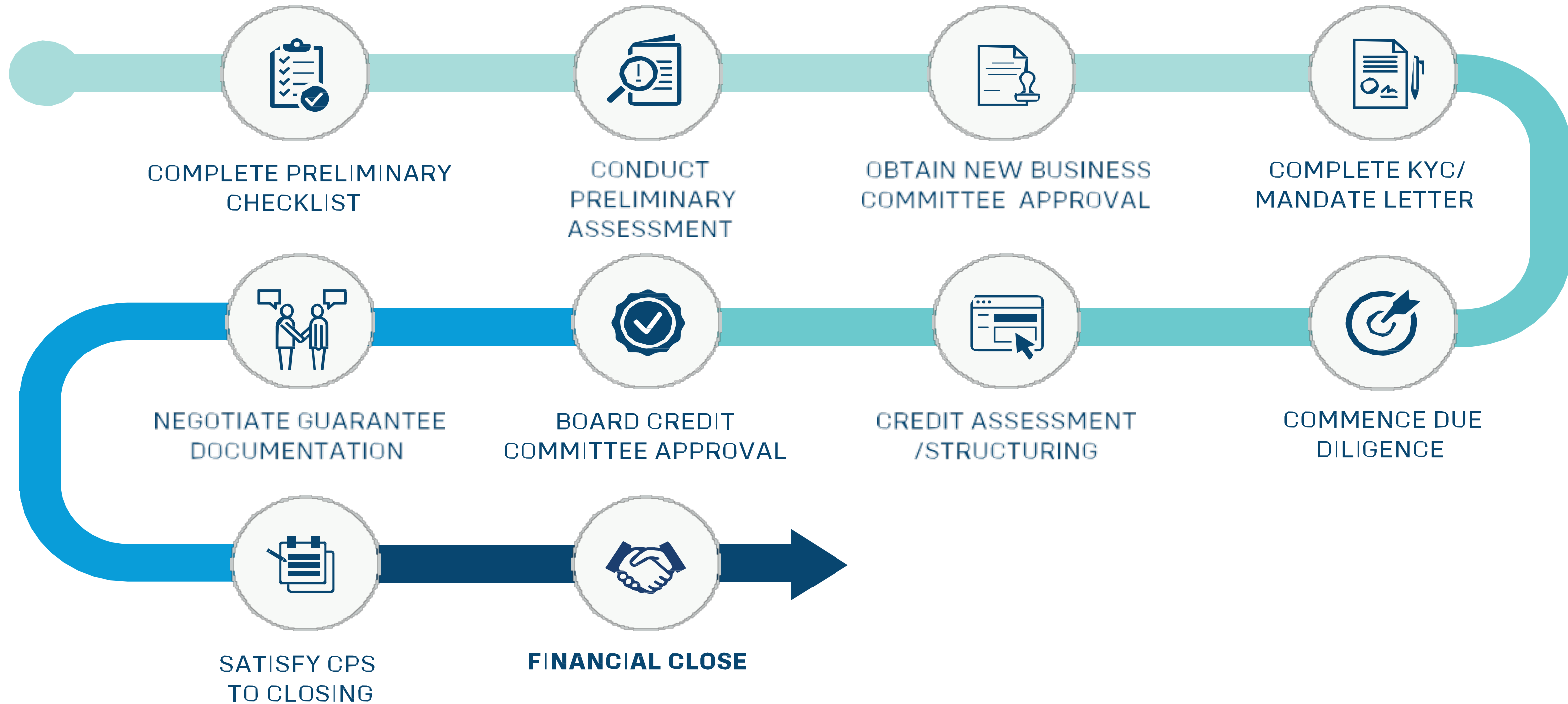
12	<b>Security</b>	<ul style="list-style-type: none"><li>• As security, the Borrower will create a first fixed charge over the assets developed and a security assignment of accounts and share pledge of the Project SPV/Company in favour of InfraCredit</li><li>• Other types of security in the form and substance acceptable to the Guarantor(s) and agreed in the applicable Guarantee Documents (to be defined in the definitive agreements).</li></ul>
13	<b>Negative Covenant</b>	<p>So long as the Facility remains outstanding, the Borrower will not:</p> <ul style="list-style-type: none"><li>• secure any other financial indebtedness represented by Notes or Bonds or any other debt securities which are, or are capable of being, traded or listed on any stock exchange or over-the-counter or similar securities exchange without the prior consent of the Guarantor, not to be unreasonably withheld or delayed; and</li><li>• incur any financial indebtedness other than a “Permitted Financial Indebtedness” (to be defined and agreed between the parties in the Guarantee Documents)</li></ul>
14	<b>Guarantee Conditions</b>	<ul style="list-style-type: none"><li>• Satisfactory credit rating (i.e. no adverse change)</li><li>• Receipt of InfraCredit Board approval</li><li>• Technical commissioning in accordance with pre-reviewed design, EPC and associated contracts, as certified by a technical expert acceptable to the Guarantor</li><li>• Maximum Project Debt/Equity ratio of 70%/30%</li><li>• Execution of Applicable Agreements in form and substance satisfactory to the Guarantor</li><li>• Establishment of Project SPV to ringfence project cashflows</li><li>• Meeting of pre-agreed compliance conditions (e.g., PENCOM, taxes, insurance, anti-corruption, environmental, and any other compliance conditions specified by the Guarantor, in form and substance satisfactory to the Guarantor)</li><li>• Meeting of all other conditions precedent specified in the Guarantee Documents</li></ul>

# Illustrative Term Sheet

15	<b>Other Conditions</b>	<ul style="list-style-type: none"><li>• Evidence of procurement of all approved ESIA's related to the proposed projects</li><li>• Evidence of executed agreement with the small-scale farmers</li><li>• Evidence of comprehensive insurance noting interest of InfraCredit on the assets.</li><li>• Evidence of contribution of owner's equity.</li><li>• Evidence of local content and local job creation and retention.</li><li>• Duly executed OEM agreement, Engineering, Procurement, Construction agreement (where applicable)</li><li>• Such other conditions as may be stated in the definitive agreements</li></ul>
16	<b>Project Credit Rating</b>	Minimum Project Rating of 'BBB-' by the Guarantor's internal rating assessment



# InfraCredit Guarantee Process





YOUR VIRTUAL COLD CHAIN ASSISTANT  $\times$  SET ALLIANCE

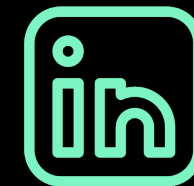


# THANK YOU!

## Contacts



[cleanenergy@infracredit.ng](mailto:cleanenergy@infracredit.ng)



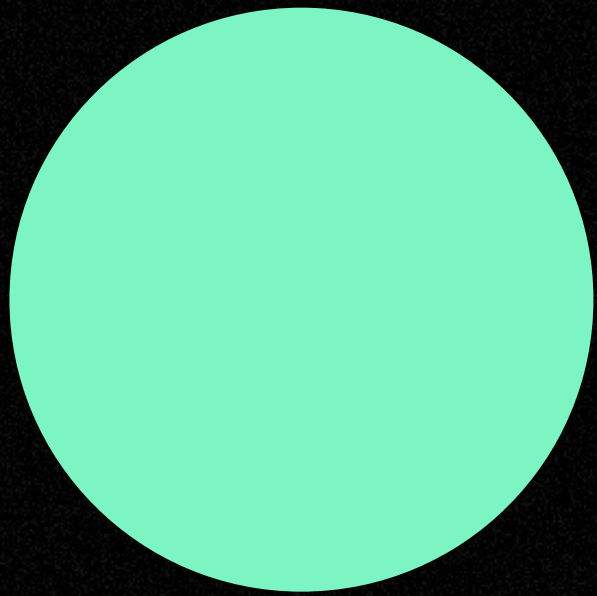
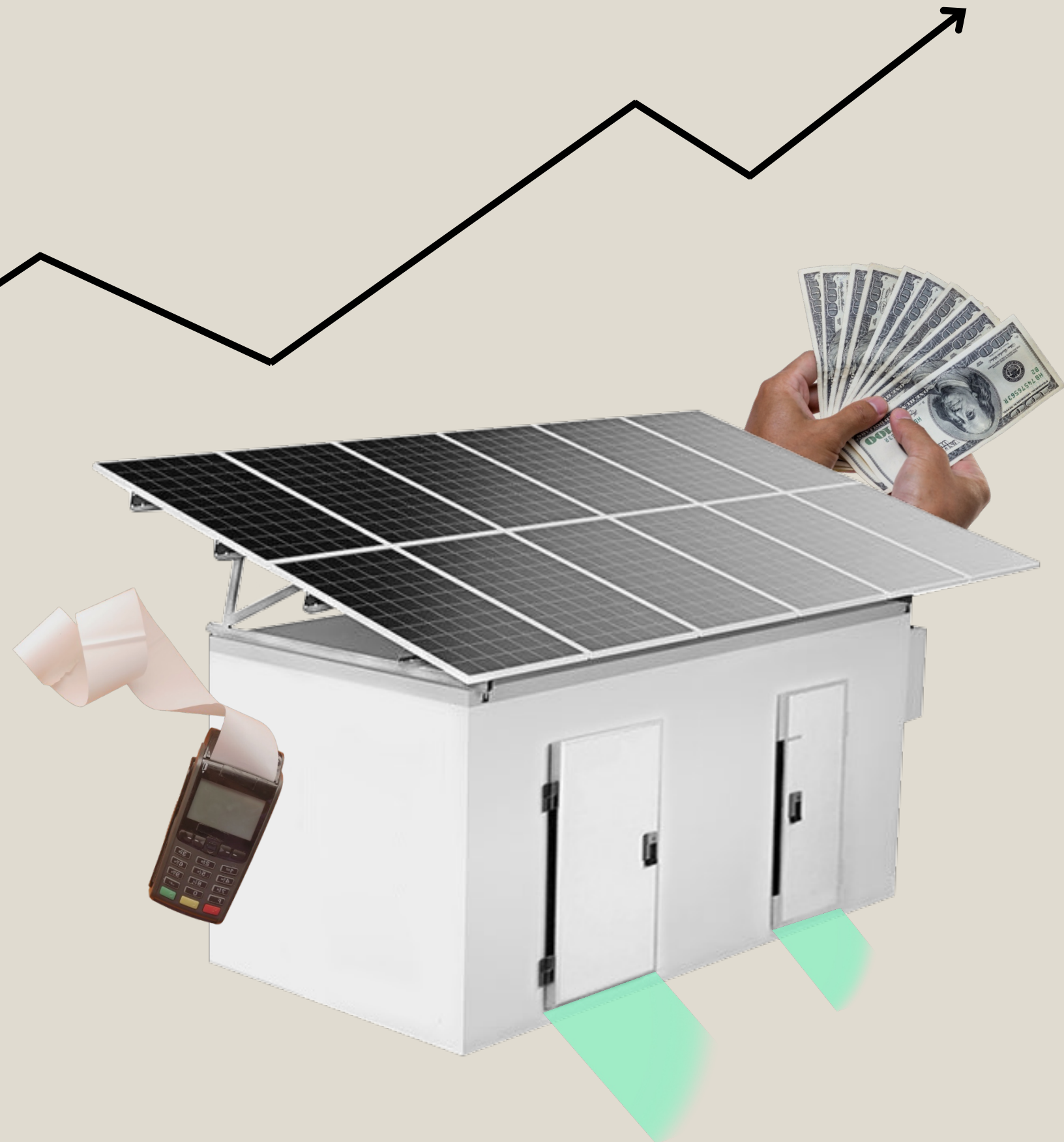
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[@InfraCredit](https://twitter.com/InfraCredit)



YOUR VIRTUAL COLD CHAIN ASSISTANT x SET ALLIANCE



*Roberta Evangelista*  
*Senior Digitalisation Specialist*  
*Your VCCA Project Lead*  
*BASE Foundation*

WEBINAR:

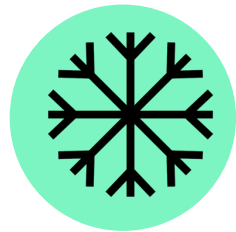
# Cold Storage Financing in Agriculture

Monitoring impact with data: the example of Coldtivate



# Your Virtual Cold Chain Assistant

**Support smallholder farmers' access to sustainable cooling, to reduce postharvest loss and improve livelihoods**



## **Business model innovation**

- Partner with local companies to offer cold storage with Cooling-as-a-Service
- No need for farmers' upfront investment
- Companies are incentivised to use energy-efficient equipment



## **Digitalisation**

- Replace manual operations with mobile application (Coldtivate)
- Increase efficiency at the cold rooms with remote monitoring and IoT
- Improve accountability and build trust in the solution



## **Capacity building**

- Inform smallholder farmers about potential benefits of cold storage
- Develop training material on postharvest handling and cold room management



# Your Virtual Cold Chain Assistant

## India

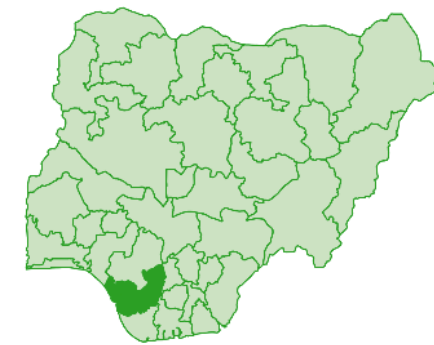
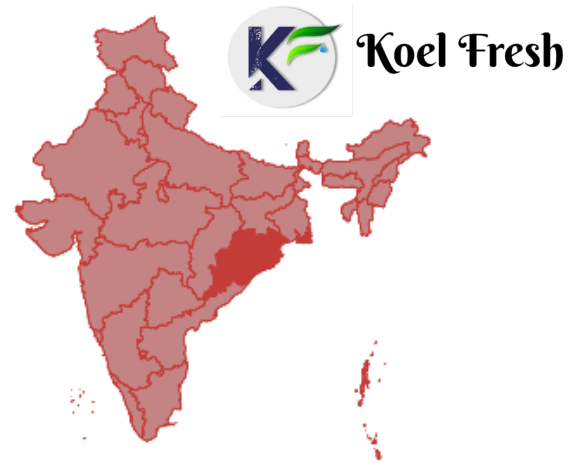
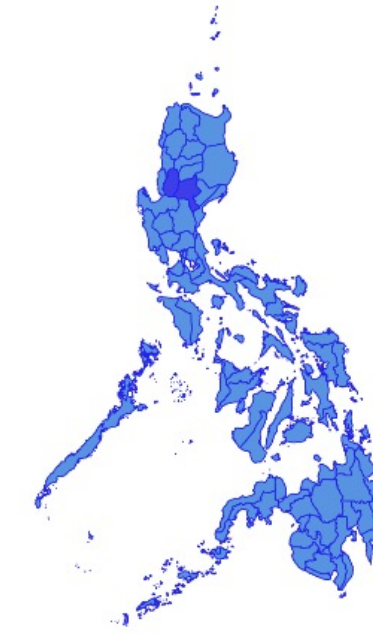
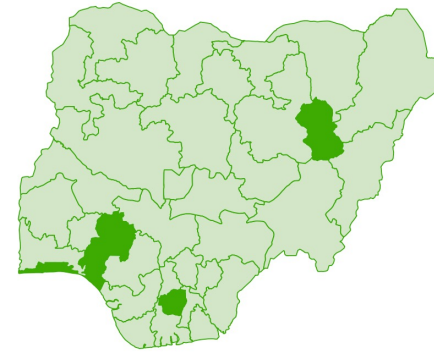
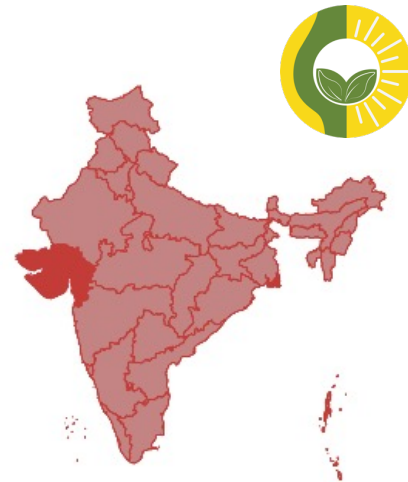
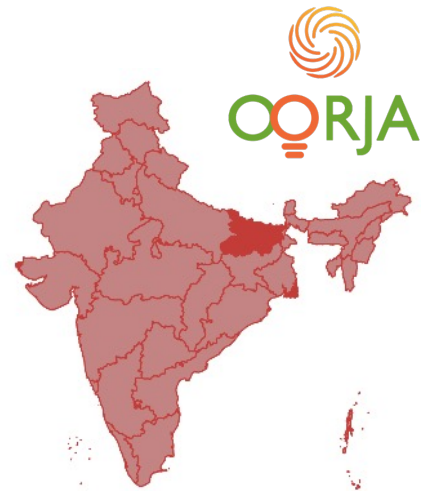
Bihar, Odisha, Gujarat

## Nigeria

Lagos, Imo, Ekiti, Gombe, Ondo, Delta

## The Philippines

Benguet, Nueva Vizcaya



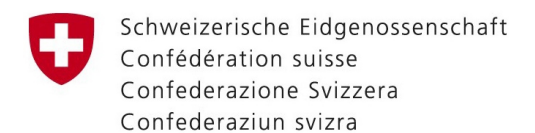
- 19 active pilot cold rooms
- 10000+ crates stored (230 Tons)
- 2000 farmers reached, 400+ consistently using cold storage



Driving investment in climate solutions



Materials Science and Technology



Swiss Agency for Development and Cooperation SDC

# Coldtivate



Coldtivate is a free-to-use, data-science based application available on Android, iOS, and web, designed for:



**Registered employees:** cooling companies management team



**Operators:** responsible for day-to-day operations at cold room



**Cooling users:** smallholder farmers and petty traders interested in using cold storage



Download now at:  
<https://yourvcca.org/india/the-app/>

Cooling companies and farmers can benefit from:

DIGITAL INVENTORY MANAGEMENT

REMOTE MONITORING OF TEMPERATURE, UTILISATION, AND FINANCES

REAL-TIME PREDICTION OF CROPS' REMAINING STORAGE LIFE

TRANSPARENT DATA STREAM TO EVALUATE IMPACT

MARKET-PRICE FORECASTING



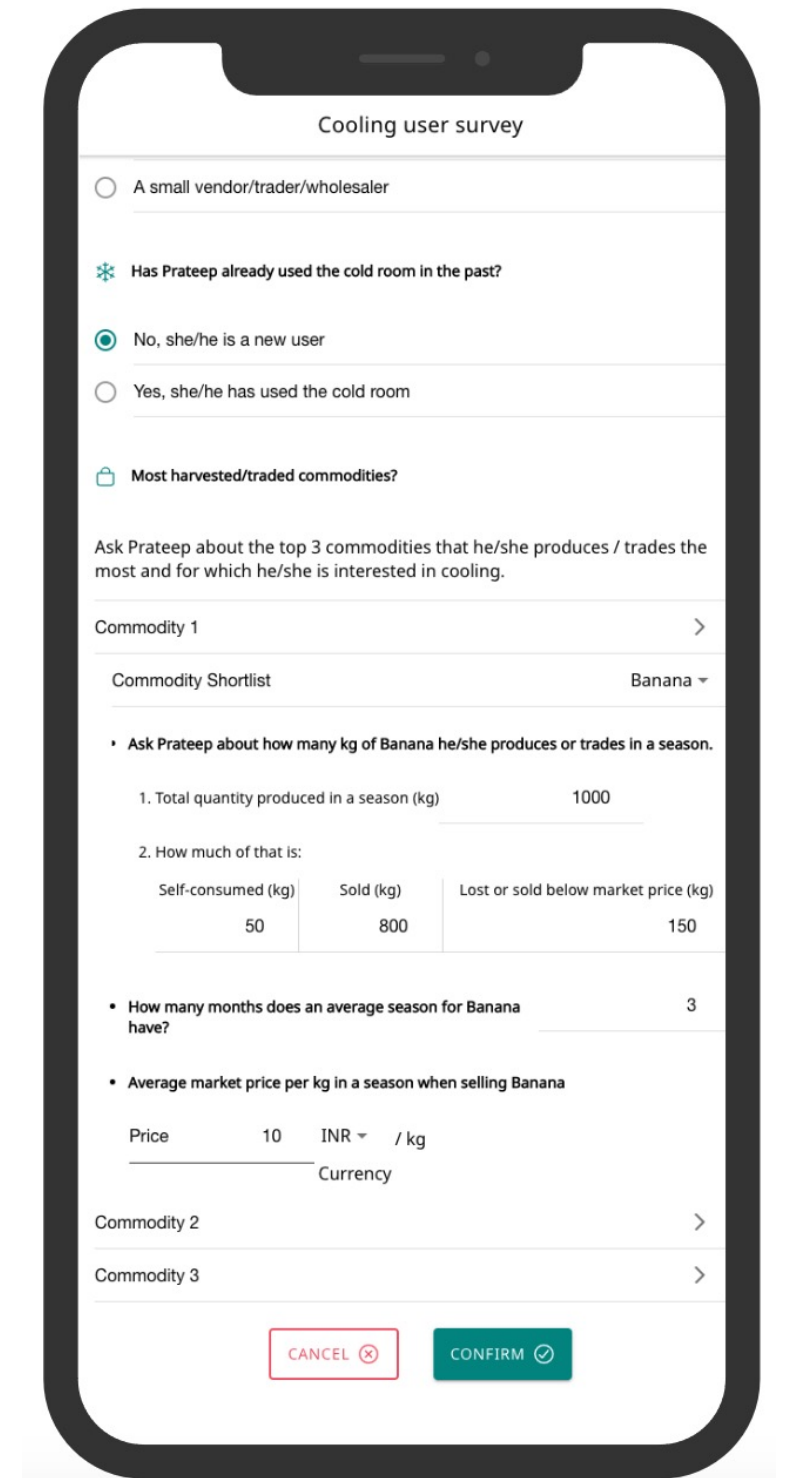
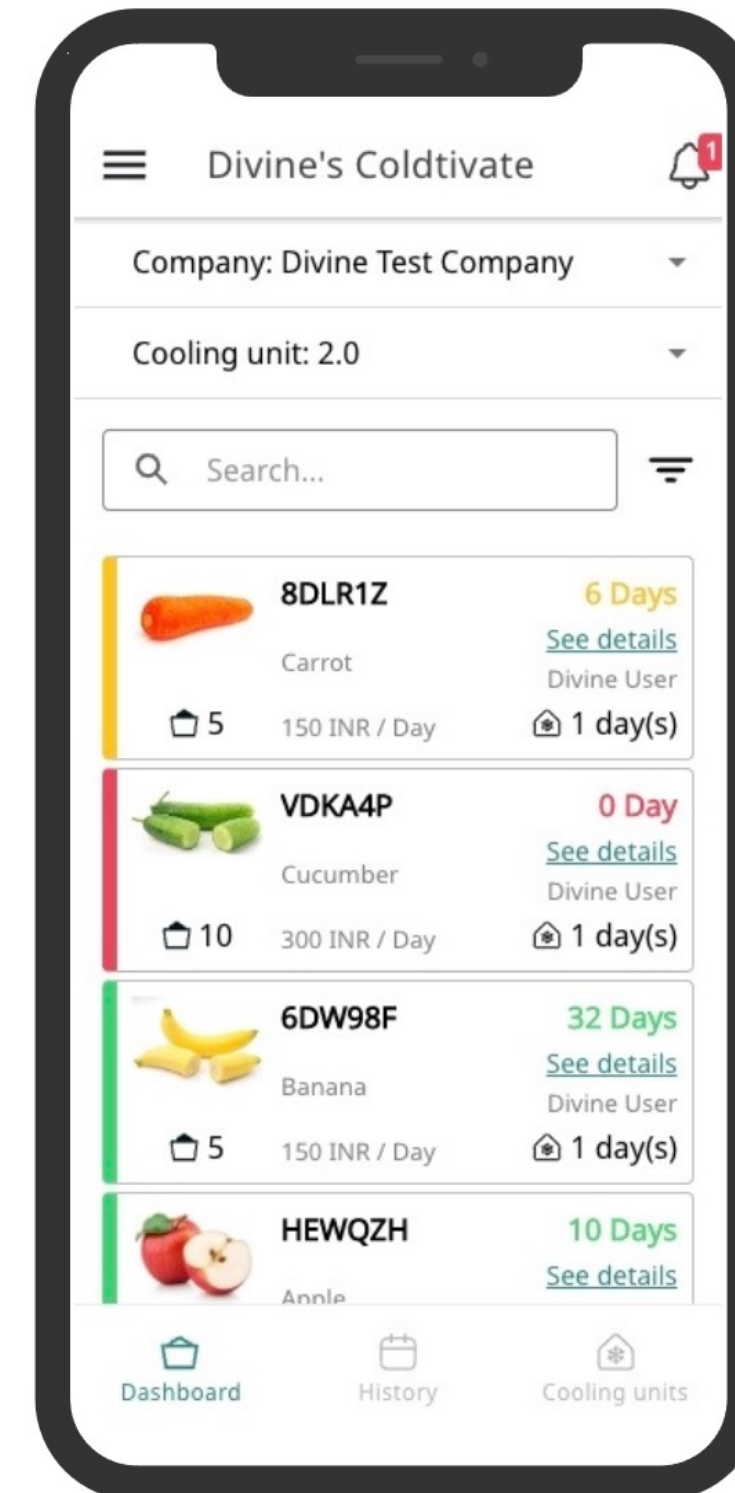
# Coldtivate's data

## Utilisation data

- Data about check-in and check-out operations
  - number of crates
  - most stored crops
  - users
  - revenue, ...
- Temperature and shelf-life model data

## Survey data

- Cooling users fill in *baseline* survey when they register on Coldtivate (user type, crops produced and selling price)
- As farmers use the cold rooms, they are regularly asked to fill in *follow-up* surveys for crops stored (crops and prices)



# Coldtivate's data: how to use?

Data collected by the Coldtivate app provide invaluable insights:

- Utilisation patterns and data collected with in-app user surveys can be leveraged by cooling companies to prove **impact**, **creditworthiness**, and attract investments
- **Gender-disaggregated** analysis can help understand challenges faced by female users and improve capacity building efforts
- Farmer's **track records** of cold room usage and payment can unlock access to microcredit and loans






# Coldtivate's Impact Dashboard

The Impact Dashboard is designed as a tool for cooling companies to monitor:

- Utilisation patterns: food stored, occupancy, user base, etc
- Evolution of postharvest loss, and companies and farmers' revenues
- Environmental impact: estimating crop-specific GHG emission reduction driven by clean energy solutions and reduced crop spoilage

With support from:

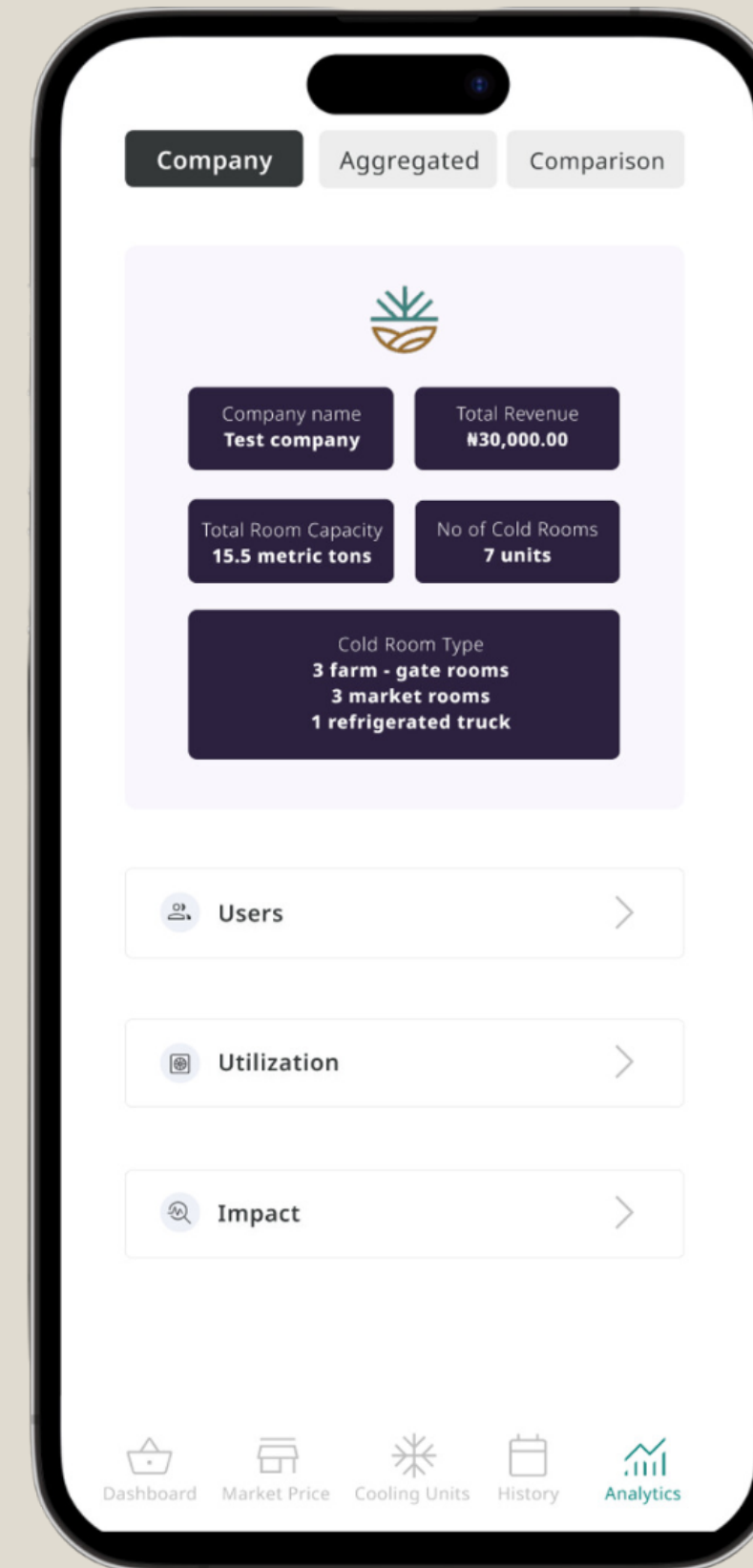
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 Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

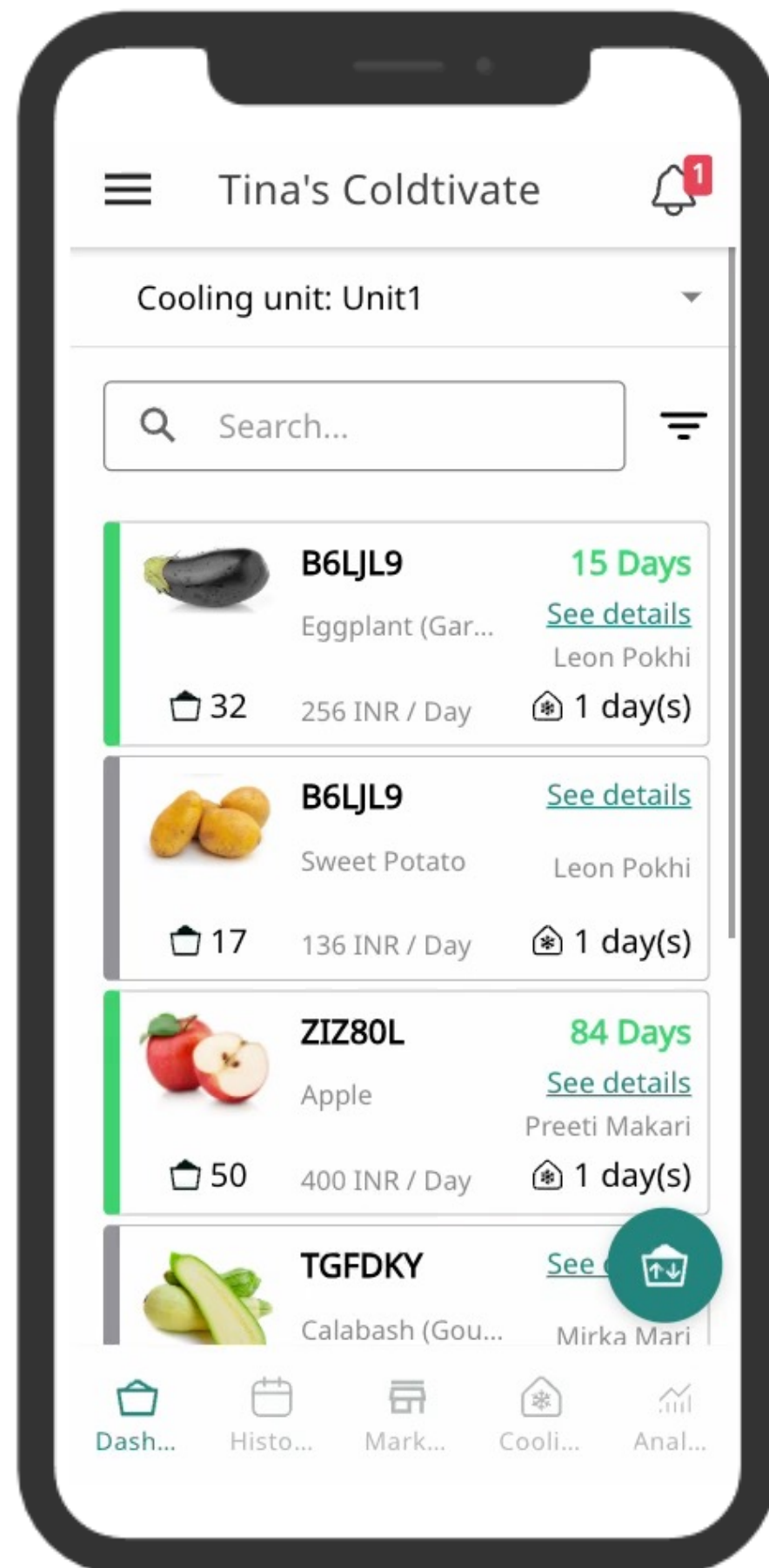
Swiss Agency for Development  
and Cooperation SDC

Implemented by  
**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

  
german  
cooperation  
DEUTSCHE ZUSAMMENARBEIT



# Coldtivate's Impact Dashboard



- **Company view:**  
summary for external stakeholders
- **Aggregated view:**  
filter across cooling units and time periods to analyse performance
- **Comparison view:**  
compare rooms across regions and time periods

Available from next week on the Coldtivate app for all cooling companies and operators!



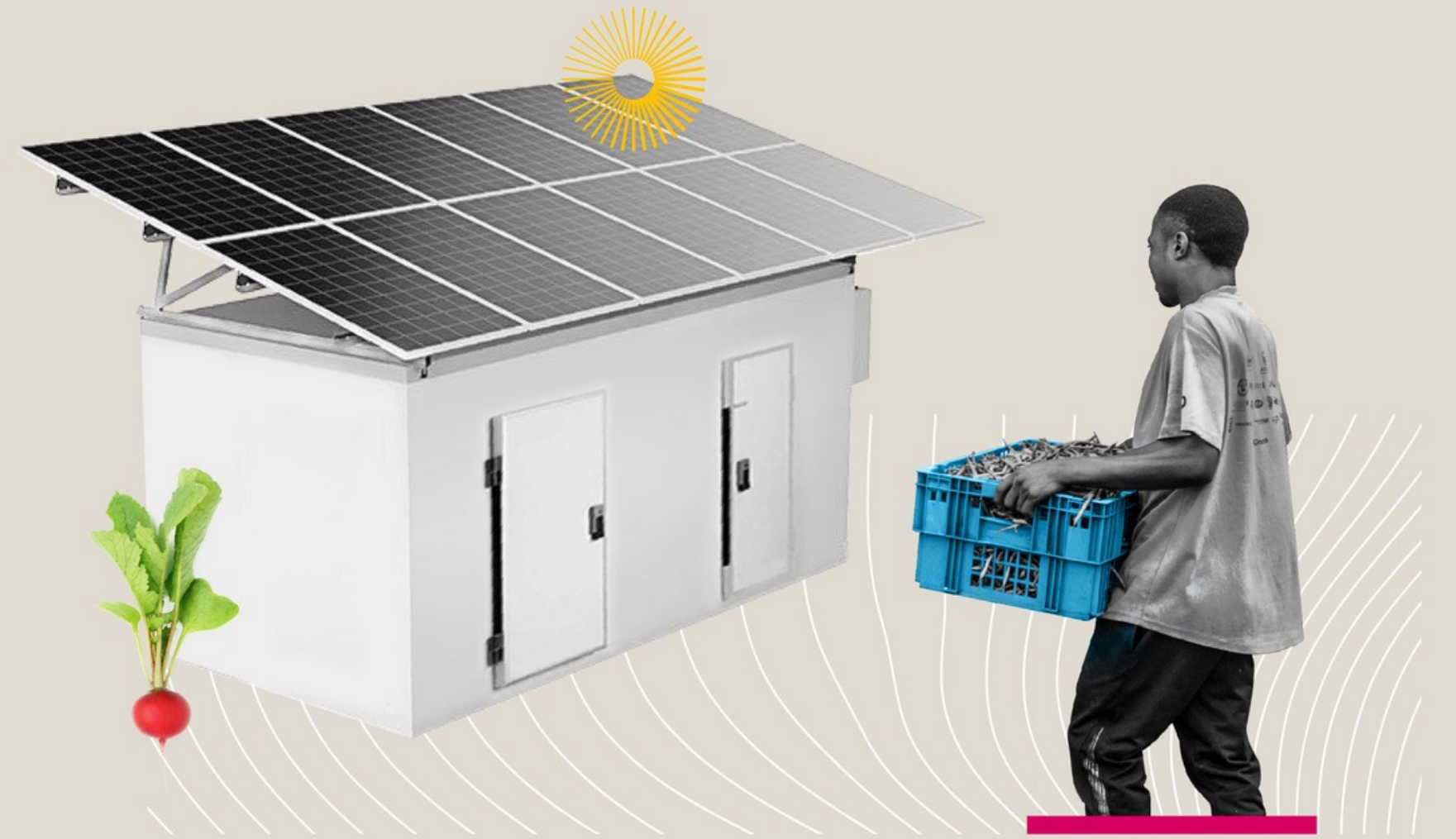
# Outlook and next steps

- Include environmental metrics related to:
  - GHG avoided because of sustainable cooling technologies
  - GHG avoided because of reduced crop spoilage
- Make dashboard exportable and test in pilot rooms
- Farmer's Dashboard to increase their trust in the solution and showcase track record of successful payments
- Much more potential to use data to validate app's models and get insights on cooling units and user patterns



# Key challenges & lessons learned

- Importance of high-quality data and being a third-party entity
- Survey data:
  - Make questions more accessible
  - How to incentivize cooling users and operators to fill in?
- Shared methodology across geographies and partners
- Not everything can be extracted from app!





YOUR VIRTUAL COLD CHAIN ASSISTANT  $\times$  SET ALLIANCE



# THANK YOU!

**Dr. Roberta Evangelista**

**[roberta.evangelista@energy-base.org](mailto:roberta.evangelista@energy-base.org)**

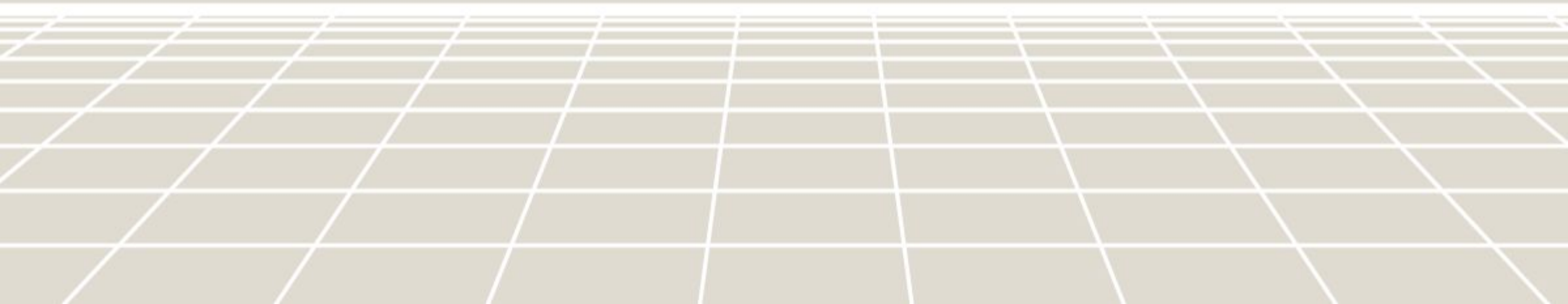


**[info@yourvcca.org](mailto:info@yourvcca.org)**



**[LinkedIn](#)**

# Questions & Answers





**THANK YOU AND WE HOPE TO SEE YOU AT  
THE THIRD WEBINAR OF THE SERIES!**

**Link, Learn, Lead:  
Connecting Financiers and  
Cooling Companies to scale  
agricultural cold storage**

*Networking Event*

22.11.2023 | 14:00 - 15:30 CET

**zoom**

Register here:

