

# Climate Investment Opportunities: Updates from the Lab

June 8, 2022



# **Agenda**

#### Review of the Lab

Ben Broche, Associate Director of the Lab

#### Lab Portfolio Overview: Progress and Opportunities

Carla Orrego, Portfolio Manager at The Lab

#### Key Insights & Opportunities from Previous Lab Instruments

- Global Renewable Independent Power Supplier
  - Carsten Jung, Structured Finance Manager at GRIPS Energy
- Caaporã
  - Luis Fernando Laranja, Director Partner at Kaeté Investimentos
- GreenFi
  - Mark Ellis-Jones, Managing Director at Ecosystem Equity







CPI is an analysis and advisory organization with deep expertise in finance and policy.

Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change.

Our vision is to build a sustainable, resilient, and inclusive global economy.





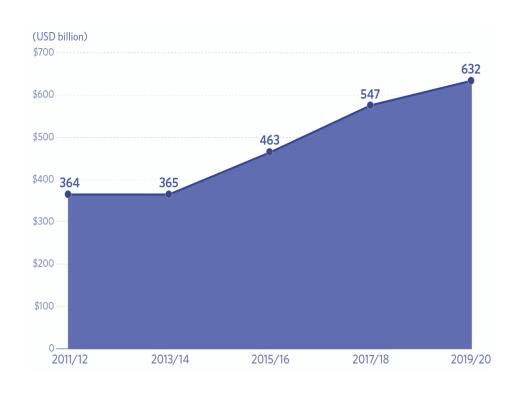


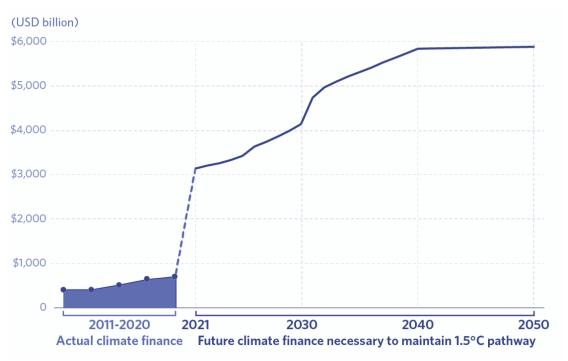


Global NDC Implementation Partners (GNIplus)



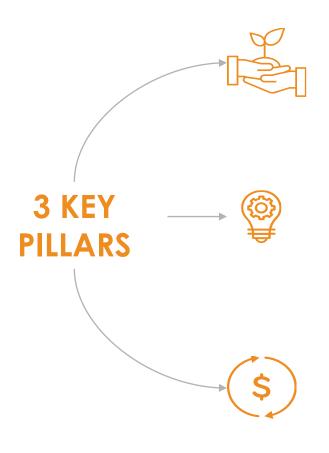
Global climate finance flows reached \$632 billion in 2019/2020, but current investment levels are still far behind what's needed for a successful low-carbon transition ...







# The Lab develops innovative financial instruments that can drive billions in private investments to action on climate change



#### **Public-Private Collaboration**

The strengthened partnership between the public and private sectors builds capacity and knowledge to identify and deploy effective climate finance solutions.

#### **Innovation & Transformative Solutions**

Innovative, actionable, catalytic, and financially sustainable solutions reduce risks and barriers to investment in sustainable development.

#### **Mobilizing Finance**

Catalytic finance from Lab Members and the broader network enables piloting and implementation of transformative solutions.

~\$3.2Bn

CAPITAL MOBILIZED

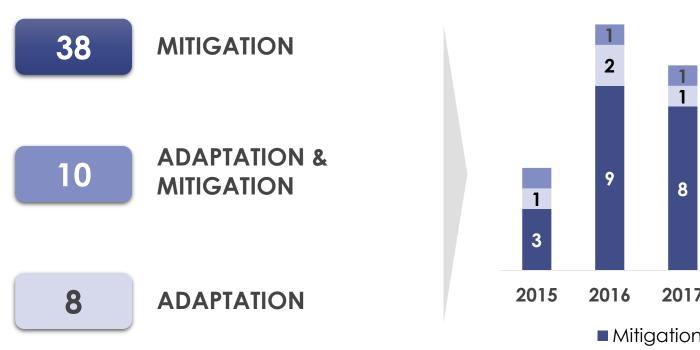
56 INSTRUMENTS DEVELOPED

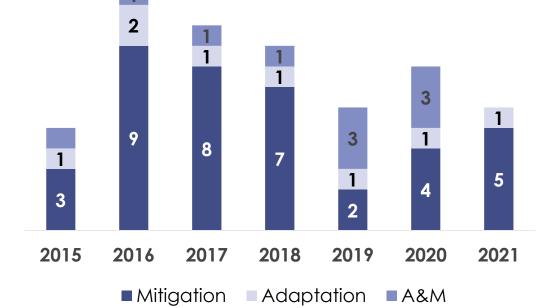
70+ MEMBERS

CYCLES CONDUCTED



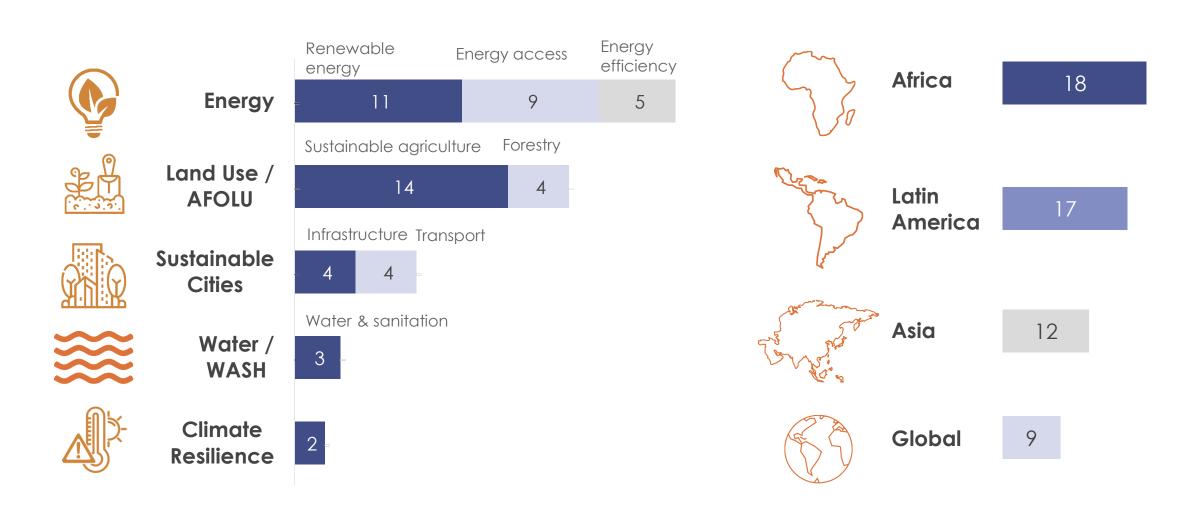
# The Lab portfolio is composed of 56 instruments addressing climate change





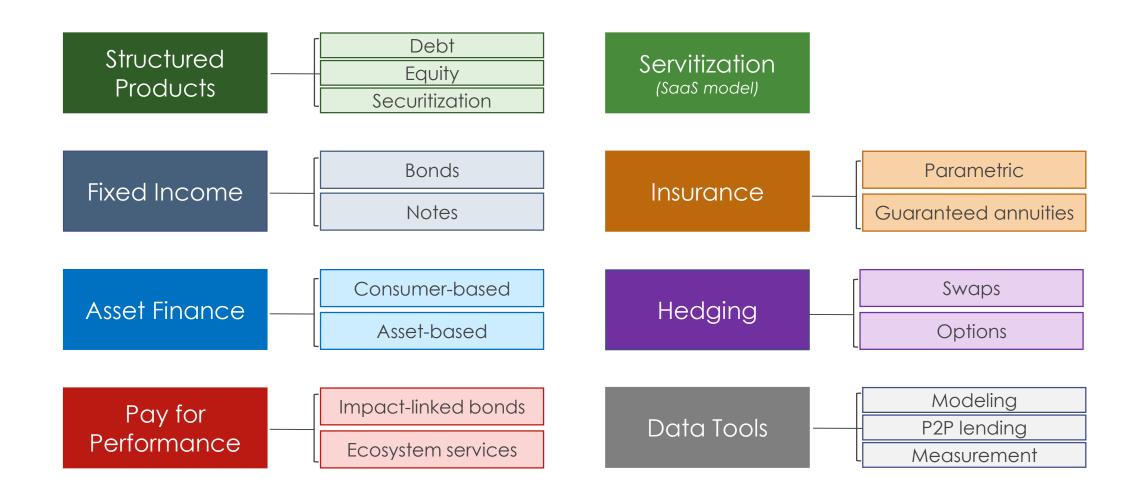


# ... and across multiple sectors and regions



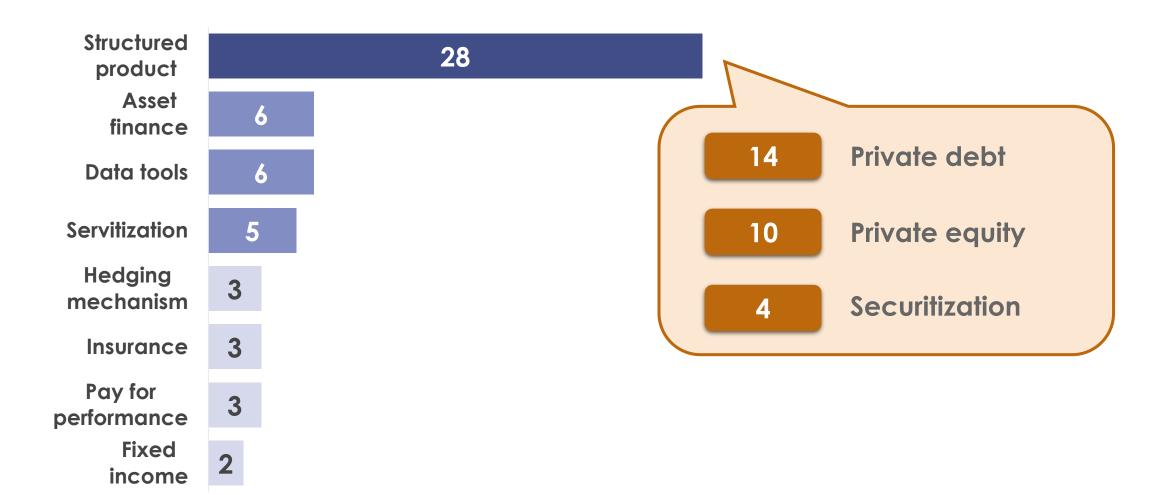


# Lab instruments employ a diverse array of financial mechanisms



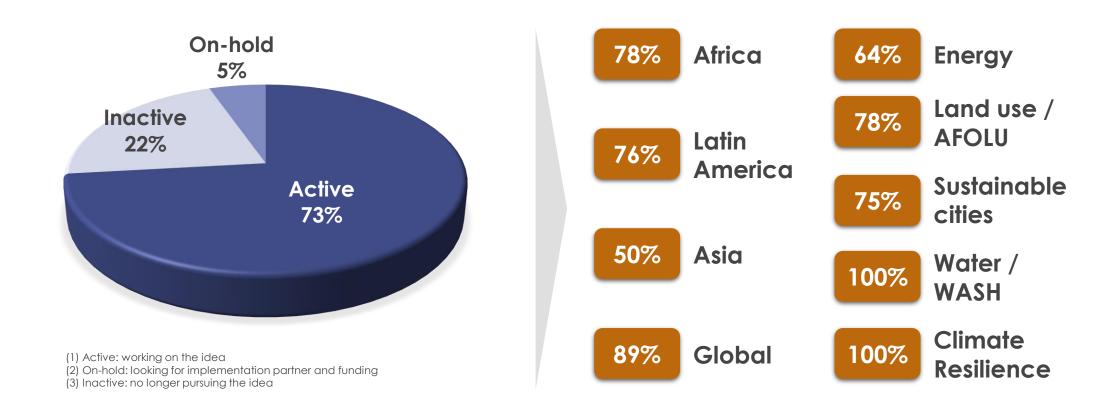


# Most common structures in the portfolio are private debt and equity

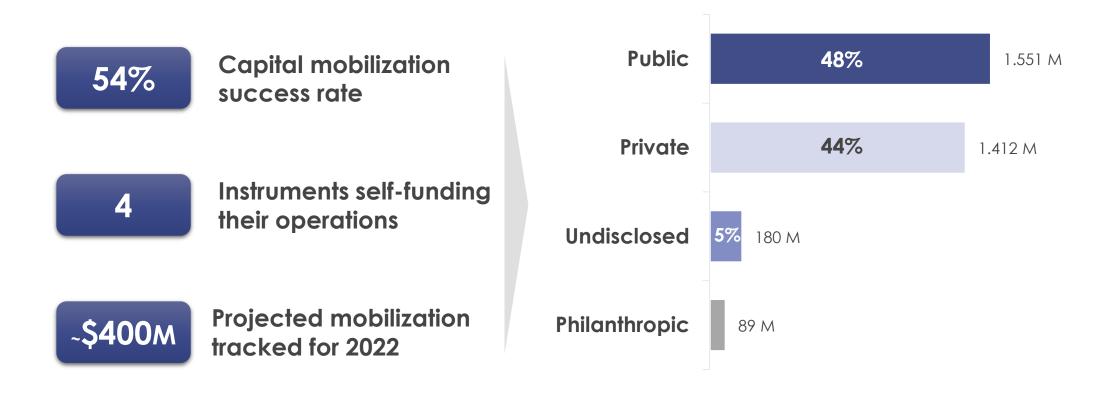




# The Lab has an active portfolio of 41 instruments

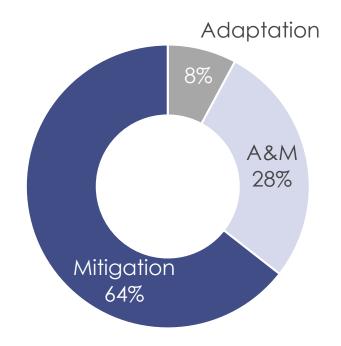




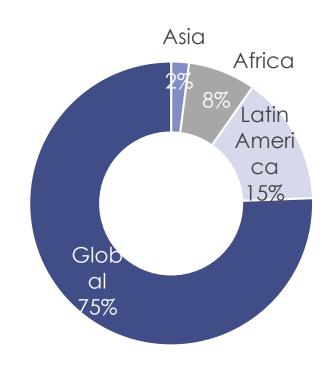




#### **Climate Action**

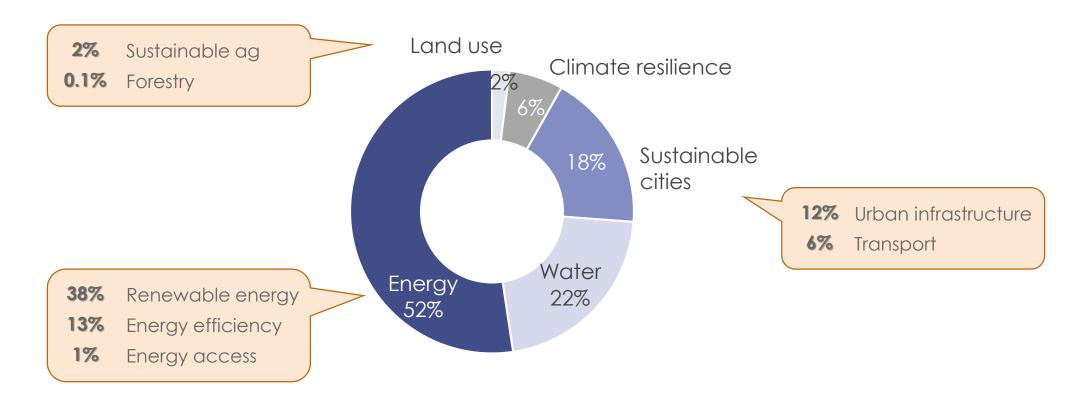


#### Geography

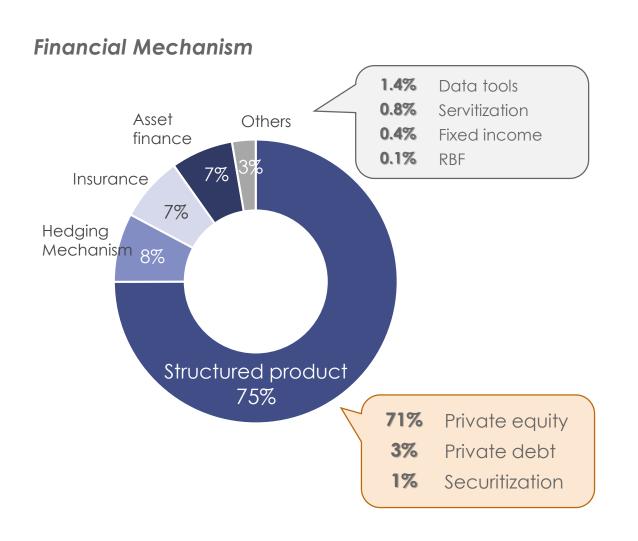




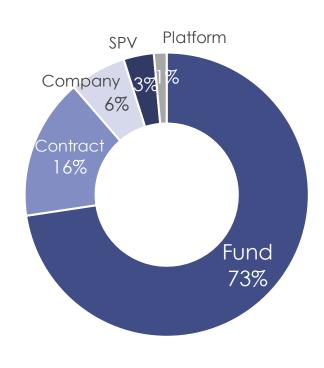
#### **Sectorial**





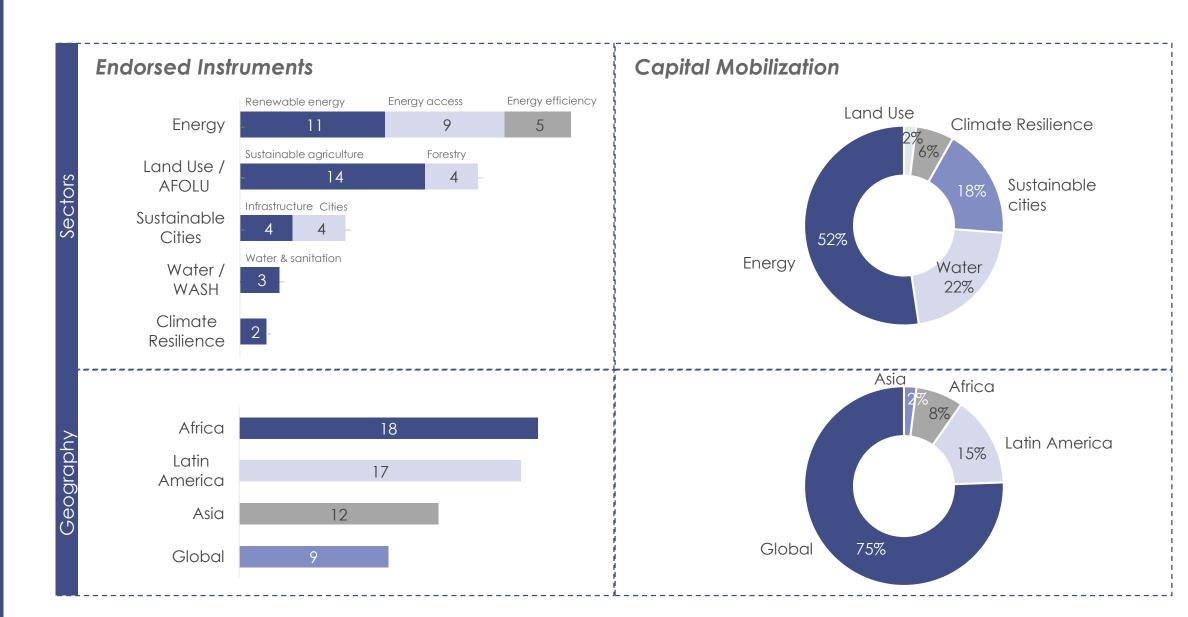


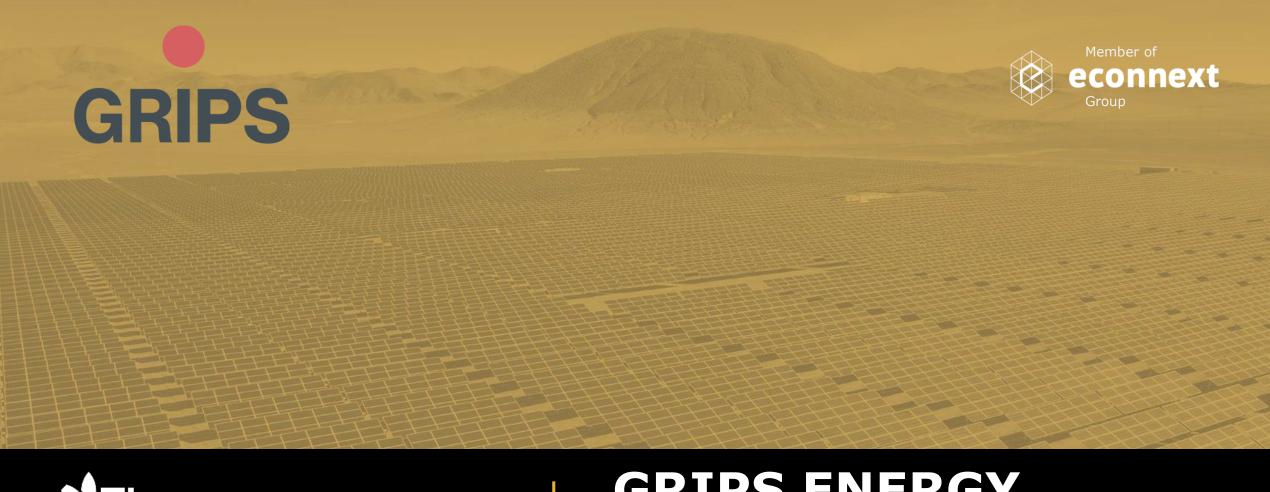
#### Vehicle





# Snapshot









# **GRIPS ENERGY**

CLEAN ENERGY SOLUTIONS FOR **AFRICAN SMEs** 

#### SUSTAINABILITY IS OUR CORE PRINCIPLE

- GRIPS Energy GmbH is an award-winning renewable energy pioneer, providing reliable, carbon free and competitively priced RENEWABLE ENERGY SOLUTIONS
- We are owned by ECONNEXT GmbH, an impact for purpose group backed by impact minded investors and European families (including Siemens, Brenninkmeijer, Mohn, Aldi and other renowned investors).

















#### For People. For Planet. For Profit.

GRIPS is part of and supported by econnext group, an Industrial Holding with purpose, founded in 2016/17 to build profitable businesses supporting the achievement of the UN Sustainable Development Goals (SDGs). econnext was built by entrepreneurs together with business angels and investors from German and Dutch families, including members of the Brenninkmeijer, Mohn, van Agtmael, and von Siemens family.

Further details please see: www.econnext.eu

# The Problem

## **GRIPS**

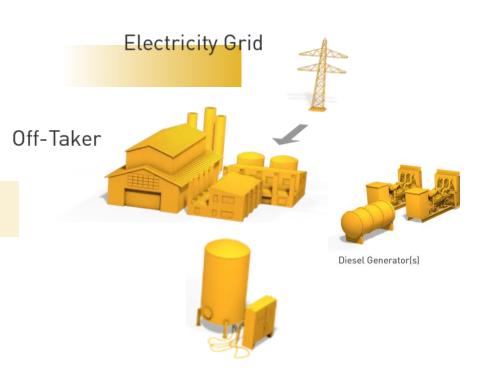
#### LACK OF RELIABLE, AFFORDABLE & CLEAN ENERGY

#### **SMEs competitiveness is hampered by**

High cost of electric and thermal energy supply



- Prices are increasing and volatile (e.g. oil price)
- Grid Power supply is unreliable and back-up generators / boilers run inefficiently



Renewable Energy Solutions are cost competitive

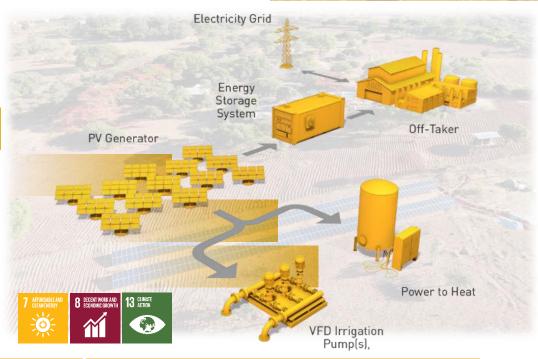


# **SOLUTION - ENERGY FOR AFRICAN SMEs**

# **GRIPS**

#### RENEWABLE ENERGY SOLUTIONS BEYOND SOLAR PV

- Energy Supply on a "pay-per-use" basis
- GRIPS finances, owns and maintains all required assets
- For agricultural, commercial and industrial off-takers
- Customised solutions beyond solar PV (0.3 15 MW)
- Reduced Corporate CO2 Emissions

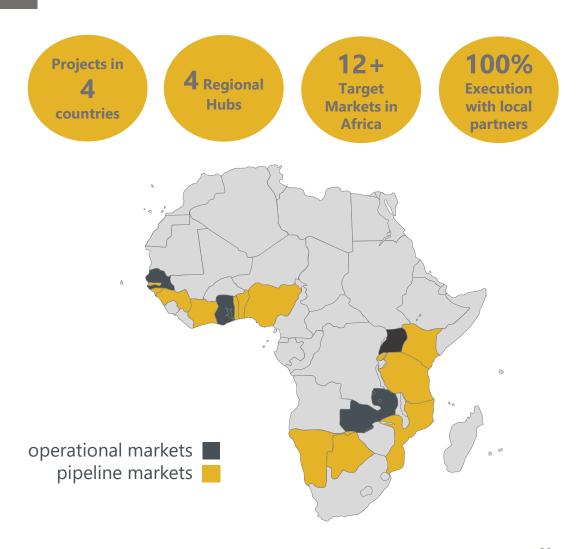


Renewable Energy - Power	Renewable Energy – Thermal	Food/Water/Energy Nexus
Grid-tied PV	<ul> <li>Renewable energy powered process</li> </ul>	<ul> <li>Solar powered irrigation</li> </ul>
<ul><li>Hybrid PV ("fuel saver")</li></ul>	heat	<ul> <li>Solar powered water treatment</li> </ul>
PV + Battery	<ul> <li>Efficient electric boiler</li> </ul>	<ul> <li>Solar powered cooling</li> </ul>
• Agri PV	<ul><li>Biomass/Biogas</li></ul>	
■ Biomass/Biogas		

# **GRIPS**

#### **GEOGRAPHICAL FOCUS**





### **RESULTS ACHIEVED**

#### PROJECT OPERATIONAL SINCE 2018

#### **Technical Solution**

- 99 kWp PV Generator (Canadian Solar, SMA)
- 127 kWh Li-Ion Battery System (Rolls-Royce)
- Island system (parallel to grid and diesel generator)
- Implementation through local EPC Partner





#### **Project Background**



 Rivonia Farm Products Ltd. is an independent Zambian SME, producing around 80 different types of food products for the Zambian market under its own brand Rivonia.



- Rivonia is using the hybrid system owned by GRIPS – within a long-term leasing contract.
- The GRIPS solution has helped Rivonia reduce their electricity costs by ~20% and reduce their carbon footprint.



# **GRIPS**

### **RESULTS ACHIEVED**

#### PROJECTS CURRENTLY BEING IMPLEMENTED







#### Senegal

Sector: Agriculture

Technology: Grid-tied PV

Size: 600 kWp ground-mounted PV

Status: Implementation

**Expected Commencement of Operations:** 

September 2022



#### **Z**ambia

Sector: Food processing

Technology: Solar/Battery hybrid

Size: 249 kWp rooftop PV / 800 kWh Battery Energy

Storage

Status: Implementation

**Expected Commencement of Operations: October** 

2022



#### **Uganda**

Sector: Pulp and Paper

Technology: Grid-tied PV

Size: 300 kWp

Status: Committed / Due-Diligence Ongoing

**Expected Commencement of Operations: Q1 2023** 









#### Senegal

**Sectors:** Food Processing

Technology: Grid-tied PV

Size: 550 kWp rooftop PV

Status: Committed / Due-Diligence Ongoing

**Expected Commencement of Operations: Q1 2023** 

# **CONCRETE PIPELINE**

#### CONCRETE PIPELINE (MAY 2022)

- Secured pipeline of ~ USD 2 Million (5 projects)
- Concrete SSA Pipeline of 27 MW (~) / USD 22 Million from 29 proposals being currently discussed in different countries
- Different technology mixes from grid-tied PV, PV / Storage, off-grid hybrid

Project #	Country	Sector	Status	Project Type	Size PV (kWp)	Size Storage (kWh)	Total Investment (USD)
1	Zambia	F&B	Operational (since 2018)	PV / Battery	99	127	300,000
2	Senegal	Agriculture	Implementation	Grid- connected PV	600		570,000
3	Zambia	F&B	Implementation	PV / Battery	250	800	570,000
4	Senegal	F&B	Committed-Due- Diligence ongoing	Grid- connected PV	550		440,000
5	Uganda	Pulp and Paper	Committed-Due- Diligence ongoing	Grid- connected PV	300		240,000
Secured Pipeline					1,799	927	2,120,000
Pipeline					27,279	4,690	21,723,200





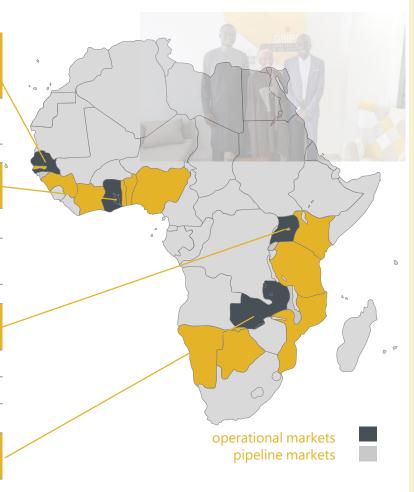
# **GRIPS**

#### IN-COUNTRY GRIPS STAFF & PARTNERSHIPS

Senegal	Regional Hub French speaking West Africa Local branch
Gambia, G-Bissau, Guinea, Cape Verde	From Dakar
Cote d'Ivoire	Contract with local developer
Ghana	Regional Hub West Africa; Local branch, JV with local Developer
Togo, Benin	From Accra & Berlin
Nigeria	On hold for the time being (local developers, EPCs, freelancers in standby)

Uganda		Regional Hub East Africa Local branch
	Rwanda, Burundi	From Kampala & Berlin
	Tanzania	Local Developer

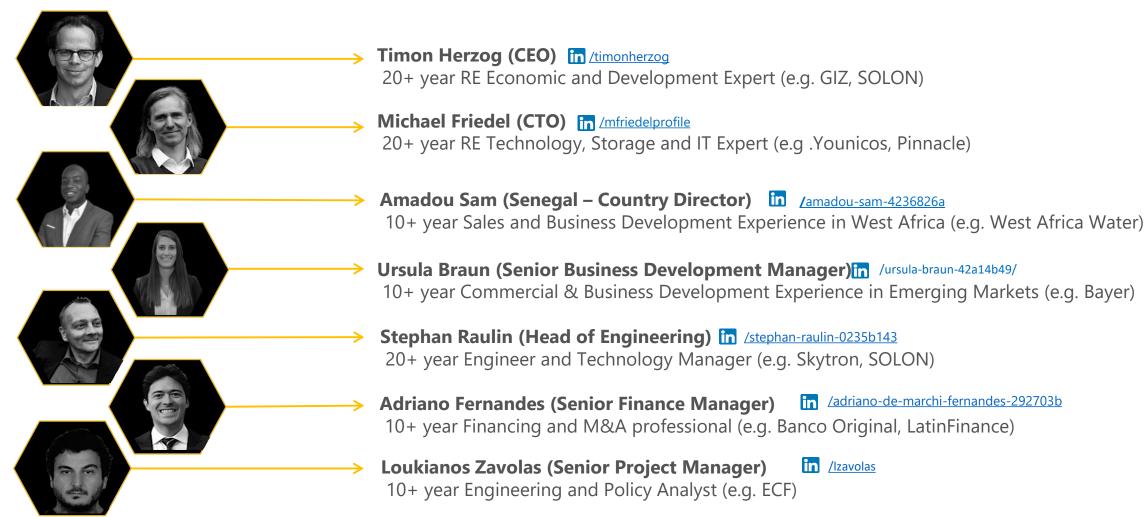
Zambia	Reginal Hub Southern Africa Local branch, JV with local developer/EPC
Botswana, Namibia, Malawi, Mozambique	Direct customer and partner (EPC, Developer) access



 Own Staff in Regional Hubs (Project Engineers, Sales, Accounting & Administration)

- Partnerships with incountry developers and in-country EPCs
- Focus on SMEs with potential for upselling

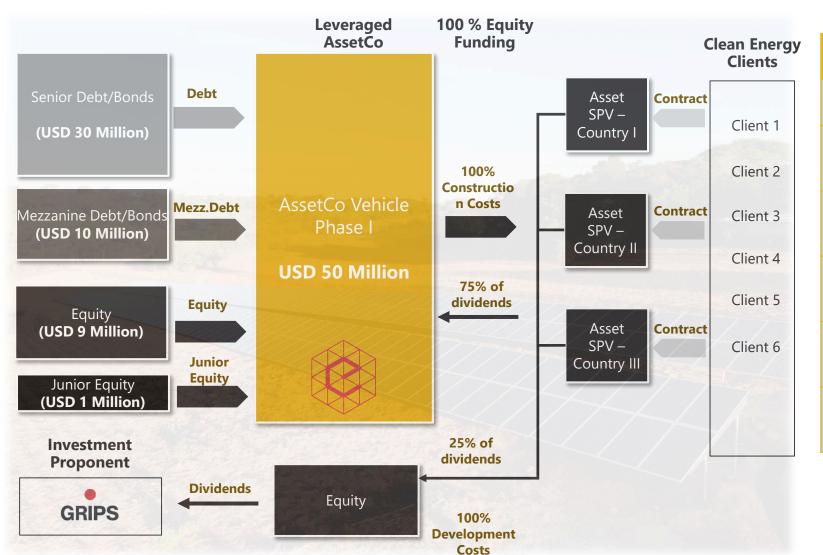
#### MORE THAN 500 MW RENEWABLES IN 25 COUNTRIES



# **GRIPS**

## FINANCING STRUCTURE

#### GRIPS IS SEEKING **9M EQUITY** FOR ITS 1ST ASSETCO PHASE



KEY USPs			
Bridging of funding gap	Project finance type infrastructure funding for small-scale assets		
No Fund Management Fees	Rather than charging a fund management fee, GRIPS will receive shares on asset-level		
No project development risks	Project development is carried out by GRIPS out of the scope of the AssetCo structure		
Aligned Interest	As co-shareholder, GRIPS interests are aligned during the entire project lifetime		
Waterfall Structure	First Loss equity committed by Econnext (instead of public sector first loss)		
Deepening Local Capital Markets	The AssetCo targets to establish the feasibility of green bond issuance		

# **INVESTMENT CHARACTERISTICS**

### **15%** TARGET EQUITY RETURN (AFTER-COST)

Closing, Target 'LP' Commitment	Closing: Targeted Q4/2022, Funding Target: \$10m – First disbursements right after closing
Fundraising status:	(1) 'GP' equity commitment by econnext -> \$1m, if requested subordinated to other equity (2) additional promising discussions with private sector infrastructure investors
Volume	\$50m investment in Phase I – \$ 10m equity to be leveraged with \$ 10m Mezzanine Debt and \$ 30m Senior Debt
Target IRR	15% Equity IRR (after-cost)
Geography	Geography: Sub Sahara Africa. Currency = USD, investments in local currency hedged/unhedged possible (max. 10% of portfolio volume)
Investments & Duration	Long-term receivable contracts (PPA, lease, lease-to-own) - average 15 years
Management Fees	0.1% of AuM for corporate AssetCo expenses (annual reporting, accounting, legal, tax advice)
Investment Protection	(i) econnext subordination in cash waterfall, (ii) from overall portfolio diversification in the AssetCo asset pool, (iii) credit-risk mitigation (guarantees, insurances) to be explored
Structure / Domiciliation of AssetCo	Corporate structure, governed by mission-locked articles of association and fixed investment guidelines (no costly fund manager or Investment Committee needed), [Mauritius or another ODA location; or Luxembourg, Frankfurt]
Exit-Strategy	Option to list YieldCo itself or transfer/sell assets to long-term infrastructure investors

## **INVESTMENT OPPORTUNITY**

#### FIRST CLOSING IN Q4 2022



- Targeted 15% equity return over the asset lifetime without any development risk
- First equity closing in Q4 2022 to be leveraged with senior and mezzanine debt



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# **Q&A** session





Integrated Crop-Livestock-Forestry Systems





Previously known as "Socio Climate Benefits Fund"

#### A group of senior entrepreneurs with extensive experience in the public, Private, and NGO sectors and with a long history of working together



Veterinarian

#### Luis Fernando Laranja

Veterinário, Mestre em Agronomia, Doutor em Veterinária, Pós-Doc em Animal Science (USA) 30 anos de atuação na indústria de alimentos e agricultura e 20 anos de atuação em negócios na Amazônia



Lawyer

#### Henrique França

Advogado

30 anos de atuação na área do Direito Empresarial. Ativo no ecossistema de Investimento de Impacto













Engineer

#### Osvaldo Stella

Engenheiro Mecânico, Mestre em Planejamento Energético, Doutor em Ecologia

20 anos de desenvolvimento e implementação de projetos voltados a economia de baixo carbono



**Biologist** 

#### **Armando Pironel**

Biólogo, Mestre em Engenharia Ambiental, MBA

30 anos de atuação em projetos de meio ambiente e sustentabilidade





















Geographer

#### **Valmir Ortega**

Geógrafo

30 anos de atuação como executivo e consultor em Sustentabilidade, Meio Ambiente e Políticas Públicas



**Economist** 

#### Fábio Bonini

Economista, MBA

15 anos de atuação no mercado financeiro e agronegócios com foco em gestão e planejamento



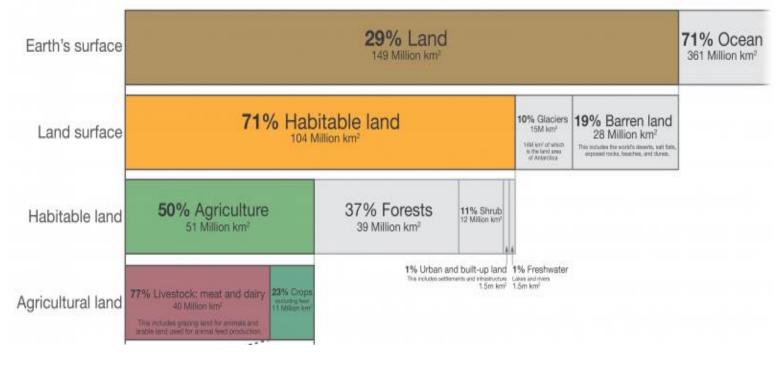
## THE PROBLEM

**Global livestock production and consumption system** is one of the biggest contributors to climate change

77% of land is used for livestock production, including grazing land for animals and arable land for animal feed production.

# Global land use for food production





## THE PROBLEM

# Despite climate impacts, meat and milk production keeps increasing

14%

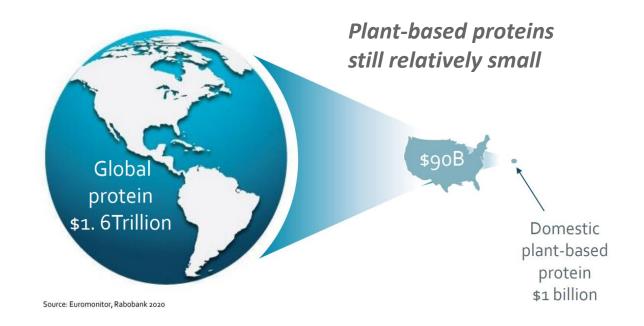
Global consumption of meat proteins projected increase by 2030\*

Driven largely by income and population growth

1.7%

Global milk production projected growth per year over the next decade

Faster than most major agricultural commodities



Source: OECD/FAO (2021), "OECD-FAO Agricultural Outlook" \*Compared to the base period average of 2018 – 2020.

We need to redefine the livestock production system

# THE SOLUTION

# Caaporã Agrosilvopastoril Ltda

Caaporã is a holding company that produces carbon neutral products by investing in different business models that combine forest restoration with sustainable protein production.

**Integrated Crop-Livestock- Forestry Production Systems** 

## Model core pillars

**Animal Welfare** 

Low use of chemical inputs

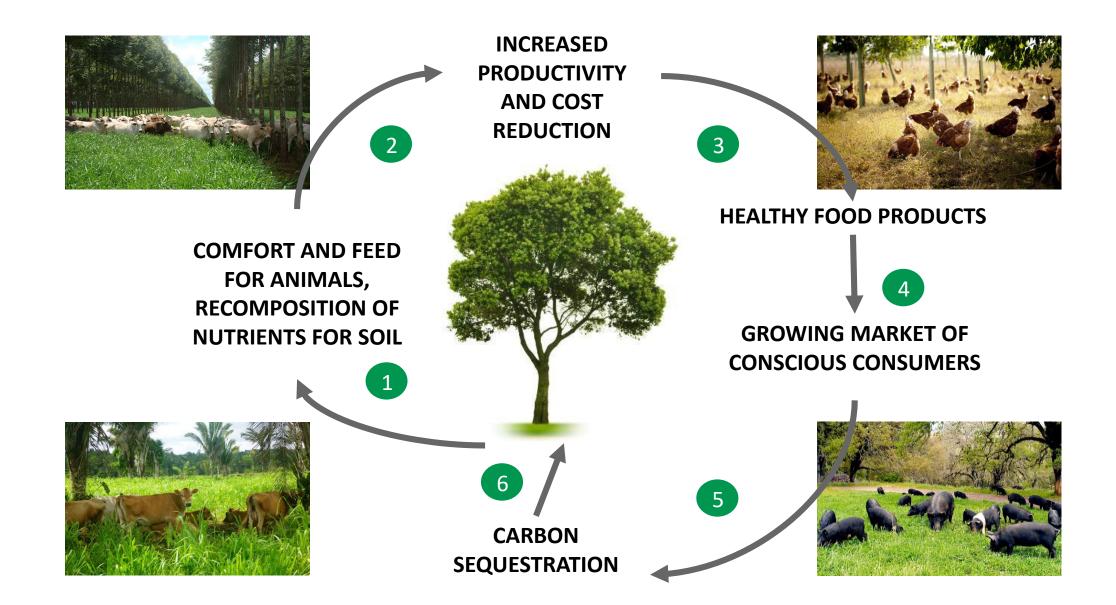


Low carbon emissions





# The virtuous circle with trees at the center of the production system



#### THE INNOVATION

Anchor company that develops, produces, and promotes the integrated production system

Production model from farm to table

Creation of a commercial brand

Integration and support for smallholder farmers (technical assistance & off-take)



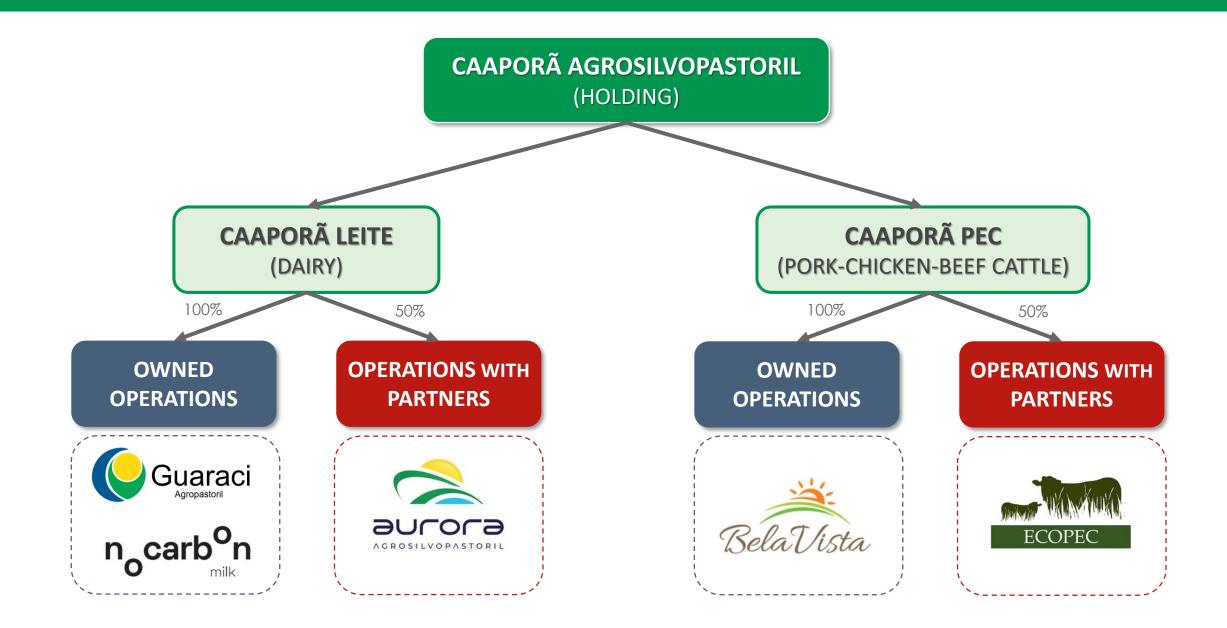




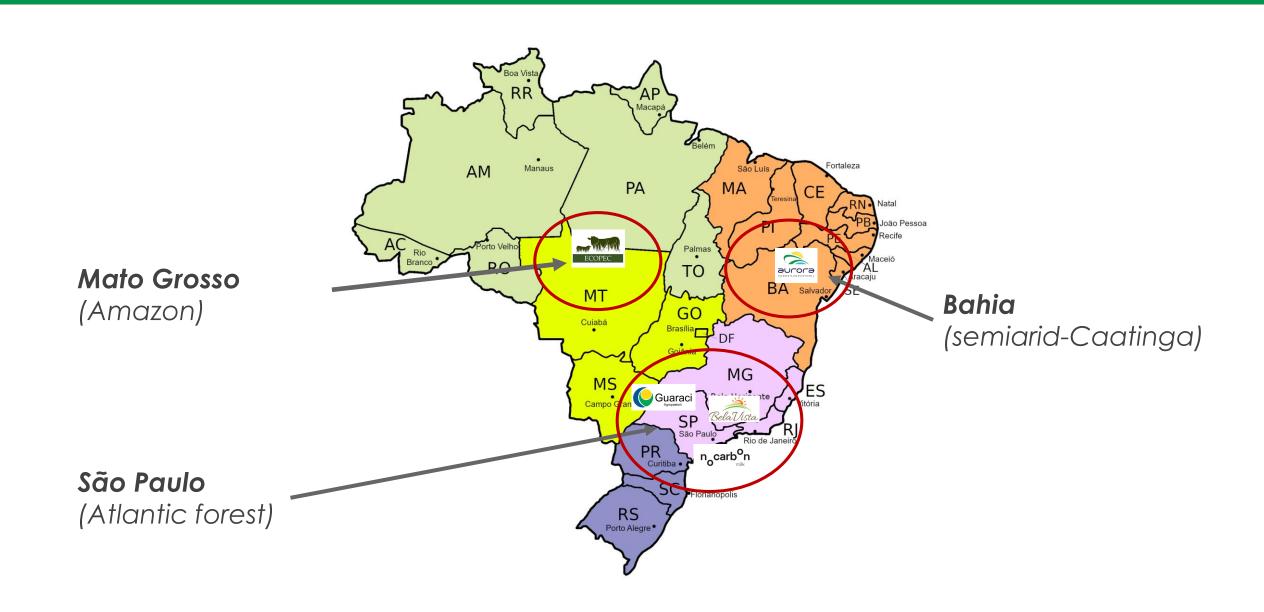




## **STRUCTURE**



## WHERE WE ARE









## **OUR PRODUCTS**

#### First Carbon Neutral Milk in Brazil

Organic and Animal Welfare Certified











#### 8 months in the market and over 300 stores & outlets in 6 states

# Presence in main retail centers in Brazil ...



# ... and wide exposure in main newspapers and magazines

#### O GLOBO

#### PRODUTOS CARBONO NEUTRO NAS PRATELEIRAS

Emissões na produção de leite e carne são compensadas na própria fazenda

## Negóci s

Produção de leite 'sustentável' oferece até ventilador às vacas

#### Dinheiro

#### Corrida pelo alimento carbono

Para atender à exigência do consumidor po mais sustentáveis, indústria reduz emissõe carbono desde as fazendas e busca a neutra



#### veja SAÚDE

#### Alimentação

#### Um leite sem emissão de carbono

É o primeiro produto do tipo com pegada sustentável lançado no Brasil Por Thaís Manarini 15 out 2021, 14h28



#### ESTADÃO 💏

ente co

#### Vacas têm até ventilador em fazenda com produção de leite sustentável

Propriedade em Itirapina (SP) tem certificados inéditos de preservação ambiental e bem-estar animal; para sócio-fundador, fazenda é um feito inédito no mundo da pecuária leiteira

Márcia De Chiara, O Estado de S.Paulo

#### **CAPITAL RAISED**

**Equity** 

~\$7.17M

2018 - 2022

~\$ 625k

(2018)

~\$ 290k

(2020 - 2021)

~\$ 6.25 million

(2020 - 2022)



Founder Capital



**Angel Investors** 



**Concessional Capital** 

Debt

~\$375k

All in 2021

~\$ 104k

~\$ 104k

~\$ 167k







#### STRATEGY GOING FORWARD

#### **Dairy**

- ☐ Increase scale of operation in São Paulo (Guaraci Farm)
- ☐ Start milk production in Bahia (Aurora Farm)
- ☐ Go from 4k liters of milk/day to 120k liters of milk/day

#### Beef

☐ Consolidate and expand production in Mato Grosso

#### **Swine and Poultry**

- ☐ Consolidate and expand production in São Paulo
- ☐ Launch a meat brand in São Paulo

## **FUNDING OPPORTUNITIES**

Project	Туре	Amount
Caaporã Leite (Dairy)	Commercial equity	USD 10 million
Caaporã Pec (Beef)	Commercial equity	USD 5 million
Support for smallholders joining value chain	Concessional capital	TBD

Thank you!

Luis Fernando Laranja

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www.nocarbon.com.br



# **Q&A** session





## Who we are

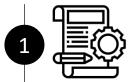
Ecosystem Equity

Develops early-stage ventures which increase the value of natural capital and have potential for transformative scale

Formerly known as F3 Life (at the time of participation in the Lab)



# What is climate-smart lending?



# Farmer signs a loan and land management agreement

Agri-lender issues farmers with credit, on the condition that they adopt climate smart farming practices



# Loan repayment and environmental restoration

The farmer repays the loan and implements the required climatesmart agricultural and land management practices on their land





#### Monitoring

Our tools used to monitor implementation of climate-smart practices and this data is passed back to the agri-lender





# Climate smart credit scoring

When a farmer complies with the climate-smart requirements of their loan agreement, they are provided with a score which boosts their credit score





#### **Impact Reporting**

Greenfi's green accounting tools are used to report against specified IRIS metrics and SDGs



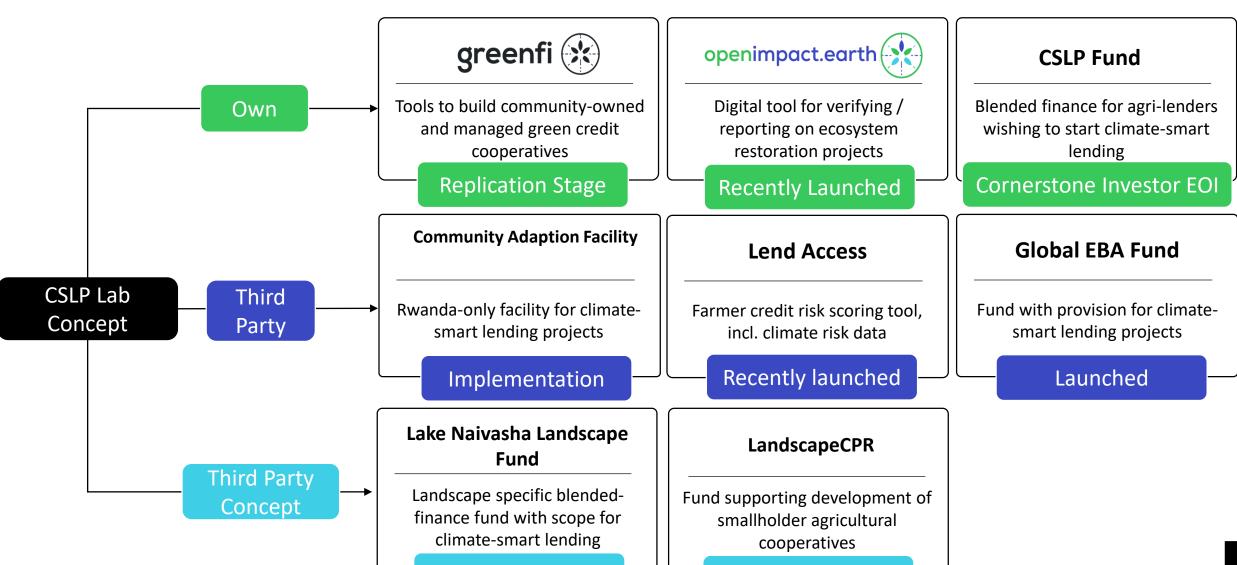
# What is Climate-Smart Lending Platform?

"The Climate-Smart Lending Platform (CSLP) will bring together the tools, actors, and finance necessary to reduce climate risk in lending portfolios and scale up climate-smart lending to smallholders globally".

Developed with the Lab in 2016



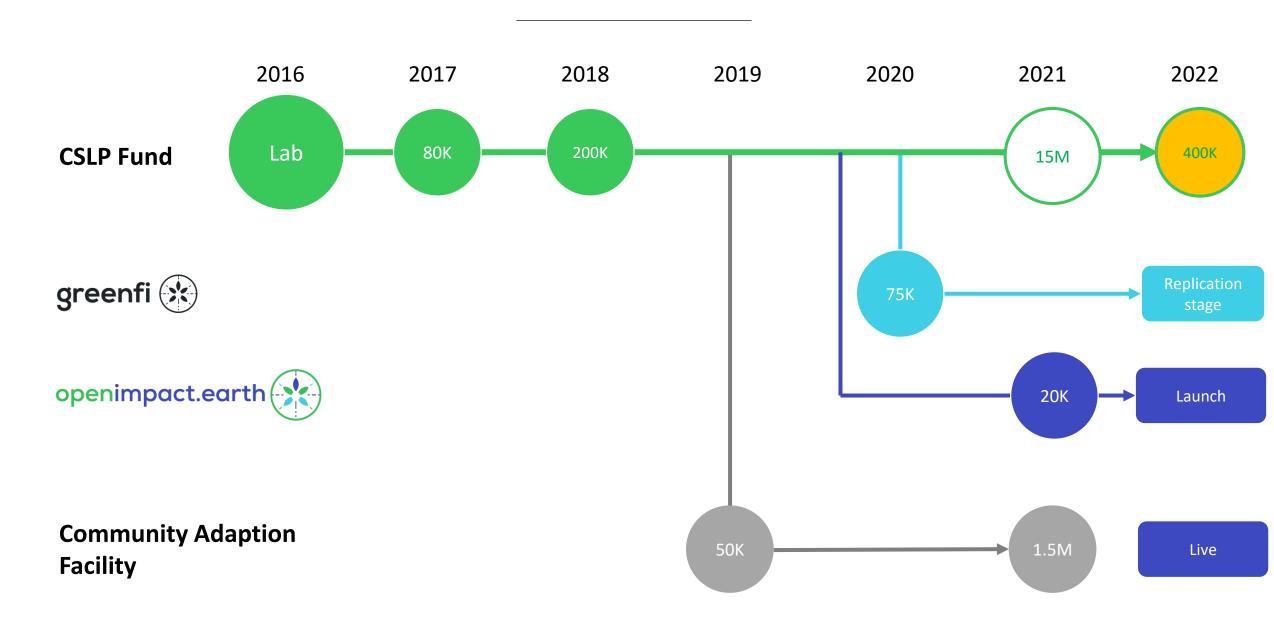
# **Concept Evolution**



Concept

Concept

# **Funding Evolution**



### Lessons

Market Barriers

Climate-smart lending deals are slow to broker with high broken deal costs.

**CSLP Fund** 

To facilitate deployment of private capital for climate-smart lending purposes, it looks like the only scalable financial model is as a fund.

Greenfi

Strong perception that the majority of small-scale producers are not bankable.

Hence, we developed the community eco-credit system, a market-like approach dependent on seed grants.

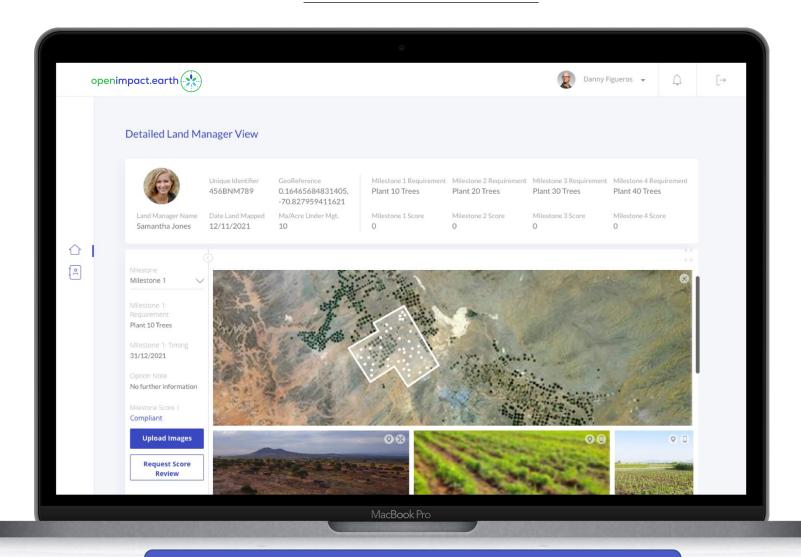
# **Funding Opportunities**

Tool	Amount	Туре		
CSLP Fund (in partnership with Finance Earth)	EUR 350K	Grant for fund development		
	EUR 40 million*	Concessional and commercial capital		
Greenfi (Community Eco-credit)	Open ended	Grant		



<sup>\*</sup> Expression of interest for 10M.

# Thank you





# **Q&A** session



# Annex – GRIPS

# GRIPS

#### CONCRETE PIPELINE (MAY 2022)

Project#	Country	Sector	Status	Project Type	Size PV (kWp)	Size Storage (kWh)	Total Investment (USD)
1	Zambia	F&B	Operational (since 2018)	PV / Battery	99	127	300,000
2	Senegal	Agriculture	Implementation	Grid-connected PV	600		570,000
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5	Uganda	Pulp and Paper	Committed-Due-Diligence ongoing	Grid-connected PV	300		240,000
6	Uganda	Drinks processing	Proposal	Grid-connected PV	900		720,000
7	Uganda	Drinks processing	Proposal	Grid-connected PV	300		240,000
8	Uganda	Drinks processing	Proposal	Grid-connected PV	500		400,000
9	Uganda	Steel	Proposal	Grid-connected PV	4,800		3,360,000
10	Uganda	Pharmaceutical	Proposal	Grid-connected PV	1,000		700,000
11	Uganda	Plastics	Proposal	Grid-connected PV	400		320,000
12	Uganda	Agriculture	Proposal	Grid-connected PV	200		160,000
13	Uganda	Agriculture	Proposal	Grid-connected PV	300		240,000
14	Uganda	Drinks processing	Proposal	Grid-connected PV	2,000		1,400,000
15	Uganda	Drinks processing	Proposal	Grid-connected PV	1,000		700,000
16	Uganda	Drinks processing	Proposal	PV / Battery	1,000	1,200	1,340,000
17	Uganda	Drinks processing	Proposal	PV / Battery	1,100	3,000	1,730,000
18	Uganda	Drinks processing	Proposal	Grid-connected PV	1,000		700,000
19	Ivory Coast	Mining	Proposal	Grid-connected PV	2,400		1,680,000
20	Ivory Coast	Health Care	Proposal	Grid-connected PV	296		236,800
21	Ivory Coast	Retail	Proposal	Grid-connected PV	350		280,000
22	Ivory Coast	Storage	Proposal	Grid-connected PV	350		280,000
23	Senegal	Food Processing	Proposal	Grid-connected PV	1,000		700,000
24	Senegal	Food processing	Proposal	Grid-connected PV	100		80,000
25	Senegal	Other	Proposal	Grid-connected PV	260		208,000
26	Senegal	Plastics	Proposal	Grid-connected PV	1,000		700,000
27	Senegal	Food processing	Proposal	Grid-connected PV	1,000		700,000
28	Senegal	Agriculture	Proposal	Grid-connected PV	250		200,000
29	Senegal	Fishing	Proposal	Grid-connected PV	800		640,000
30	Benin	Transport	Proposal	Grid-connected PV	1,800		1,260,000
31	Cape Verde	F&B	Proposal	PV / Battery	83	240	316,400
32	Cape Verde	F&B	Proposal	PV / Battery	90	250	332,000
33	Tanzania	Public Utility	Proposal	Grid-connected PV	1,000		700,000
34	Ghana	Mining	Proposal	Hybrid PV	2,000		1,400,000
Secured Pipeline					1,799	927	2,120,000
Pipeline		27,279	4,690	21,723,200			