



**AFRICA 20
WORKS! 22**
Innovation for Resilient Growth

INNOVATIONS IN RENEWABLE ENERGY



Government of the Netherlands

MODERATOR



MR. PETER PAUL VAN 'T VEEN

Business Developer

TNO

PRESENTATION 1



MS. CYNTHIA KPOZUXE

**Business Advisor & Community
Manager**

FRES



**AFRICA 20
WORKS! 22**
Innovation for Resilient Growth



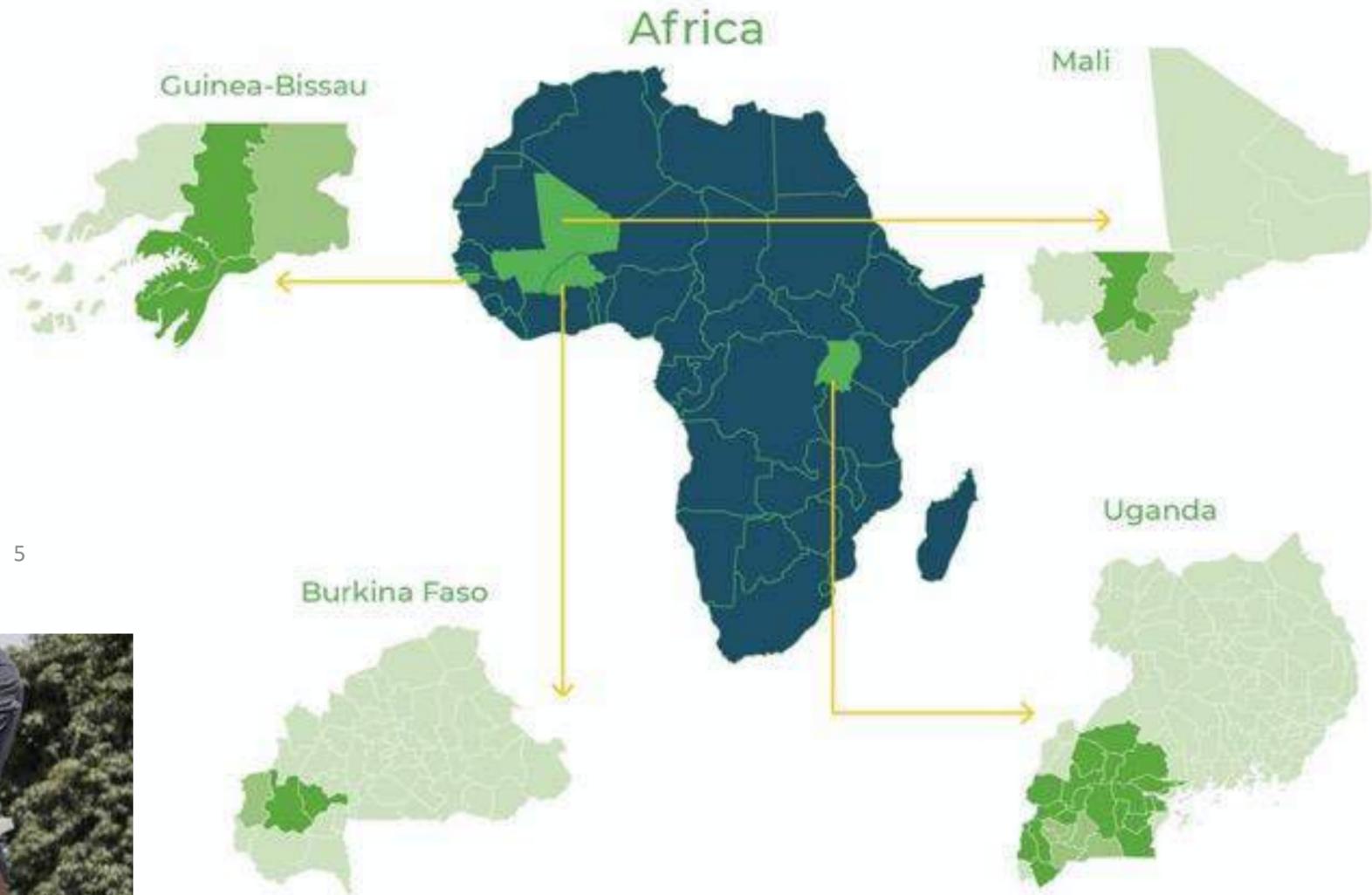
Foundation Rural Energy Services

Accelerating electrification in rural Africa



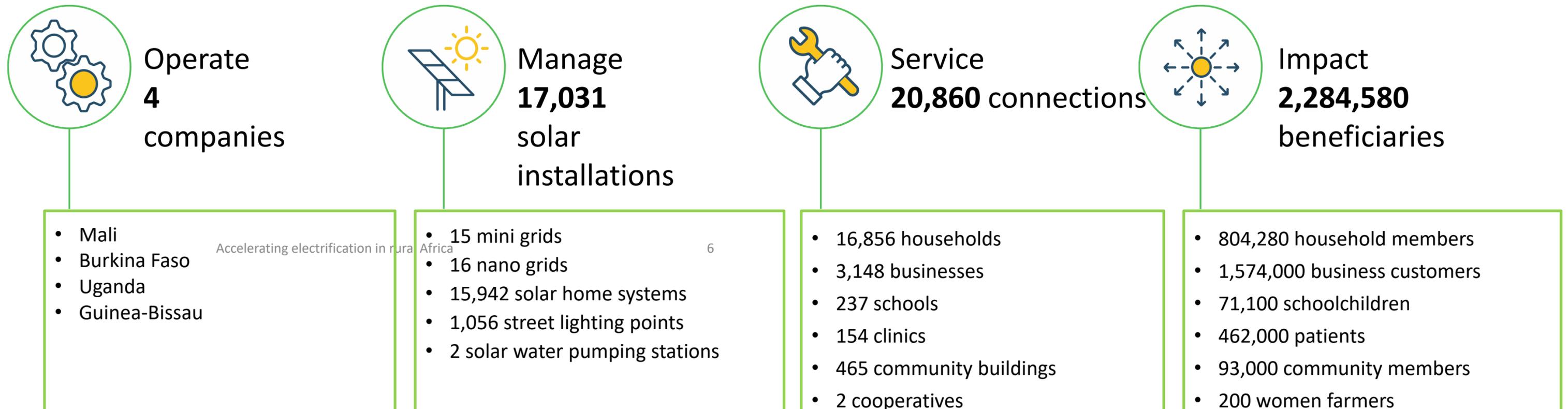
FRES is on a mission to accelerate electrification in rural Africa and change the lives of 5 million people

- 21-year track record of setting up local companies
- Regional utilities, developing and managing off-grid solar infrastructures.
- Group of African companies with 98% local staff → employment for nearly 400 people.
- Profits are reinvested locally to support expansion and finance future asset



Accelerating electrification in rural Africa

FRES companies have doubled their reach since 2015 and currently touch the lives of over **2 million people**



Beneficiaries: To calculate the beneficiaries of household connections, the agreed industry multiplier of five is applied. For other customer groups, the multiplier is based on annual impact research that FRES has conducted since 2006.

SDG 7 – NOT ON TRACK!

 THE WORLD BANK
WHO WE ARE WHAT WE DO WHERE WE WORK UNDERSTANDING POVERTY WORK WITH US

Understanding Poverty / Topics / Energy

PUBLICATION | JUNE 1, 2022

Tracking SDG 7 – The Energy Progress Report 2022



© Getty Images/Brenda Sangi Arruda

HIGHLIGHTS

- **At today's rate of progress, the world is still not on track to achieve the SDG 7 goals of ensuring access to affordable, reliable, sustainable and modern energy by 2030.** Globally, 733 million people still have no access to electricity, and 2.4 billion people still cook using fuels detrimental to their health and the environment.

" We won't be able to accelerate progress towards universal access without improving the performance of utilities in Sub-Saharan Africa. Making electricity connections and consumption more affordable while minimizing utilities' financial losses is therefore a priority. "



Makhtar Diop
World Bank's Vice President for Africa.

• **"At today's rate of progress, the world is still not on track to achieve the SDG 7 goals** of ensuring access to affordable, reliable, sustainable and modern energy by 2030."

We provide energy as a service, installing and maintaining solar systems for an affordable monthly fee



Solar Home System

Kolondieba - Mali



7 AFFORDABLE AND
CLEAN ENERGY



Solar Home System

Mpessoba - Mali

Help us turn the lights on in rural Africa

13 CLIMATE ACTION



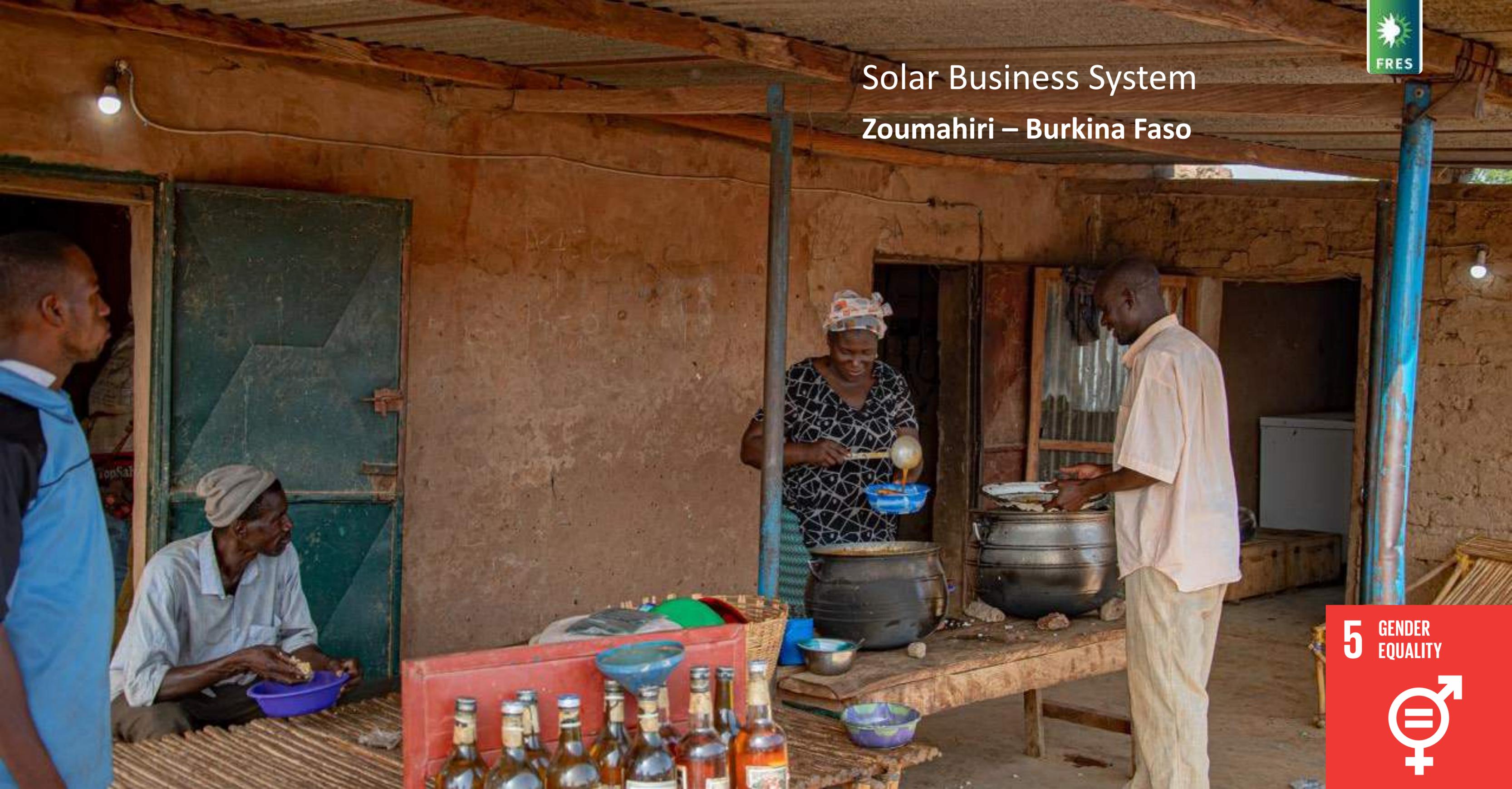
Solar Business System Moussobadougou – Burkina Faso



8 DECENT WORK AND
ECONOMIC GROWTH



Solar Business System Zoumahiri – Burkina Faso



5 GENDER
EQUALITY



FRES Mali technician

5 GENDER
EQUALITY



Solar For Institutions Koumantou - Mali



3 GOOD HEALTH AND WELL-BEING



Solar For Institutions

Baramba – Mali



4 QUALITY EDUCATION

A white icon on a red background depicting an open book and a pencil, symbolizing education.

Mini Grid Contuboel – Guinea-Bissau



11 SUSTAINABLE CITIES AND COMMUNITIES

A white icon on an orange background depicting a city skyline with several buildings of varying heights.

Solar Water Pumping Nimbougou - Mali



2 ZERO HUNGER





Solar Business System

Nakivale Refugee Settlement - Uganda



1 NO POVERTY

Website: www.fres.nl

LinkedIn: <https://www.linkedin.com/company/fres-foundation-rural-energy-services/>

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Accelerating electrification in rural Africa

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PRESENTATION 2



MR. AART VAN DEN BEUKEL

Managing Director and
Founder

Safisana



**AFRICA 20
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safisana

The Safisana Solution: Turning waste into power

An circular impact model for governments and industries in low- and middle-income countries





Welcome to our recycling plant in Ghana

Here we produce energy and organic fertiliser out of organic waste and faecal sludge

Why?

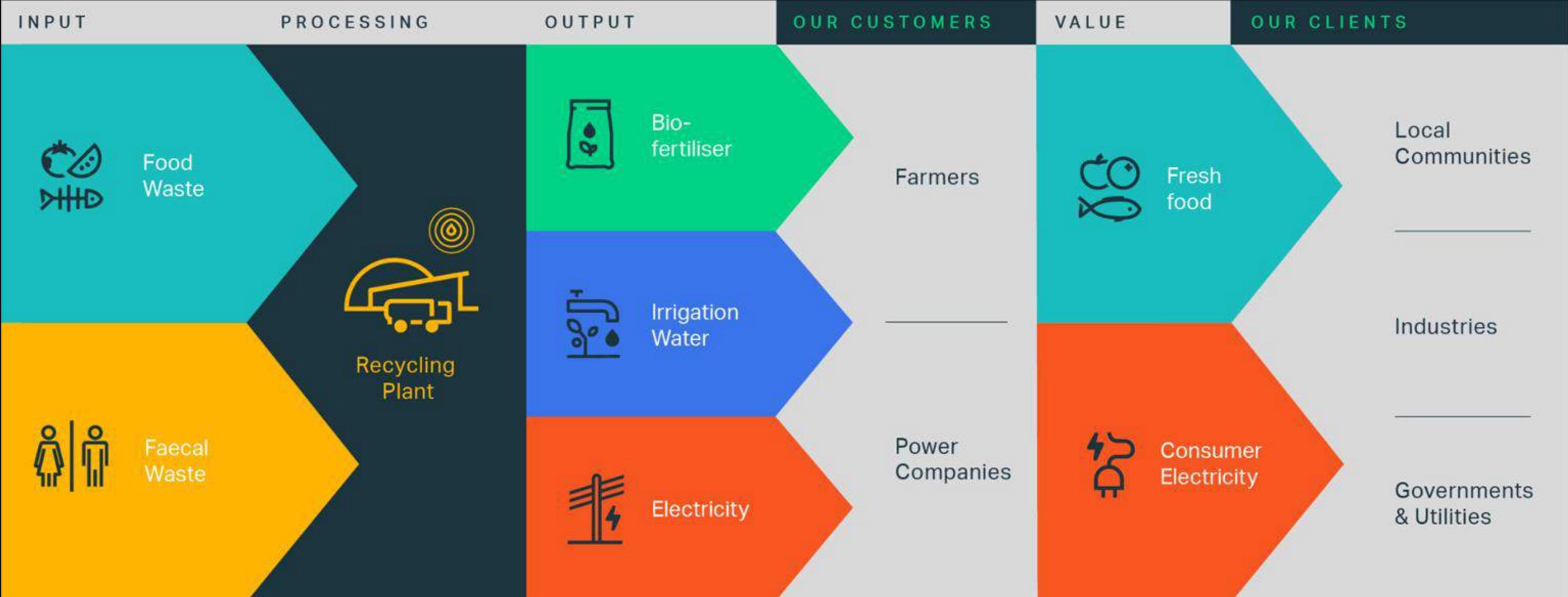
safisana

Because waste
is a massive
global problem

80% of waste
water is not
treated



This is how it works



Benefits for governments, industries and communities



Social & Health impact



Economic impact



Environmental impact



safisana

Our solution is
scalable and
replicable



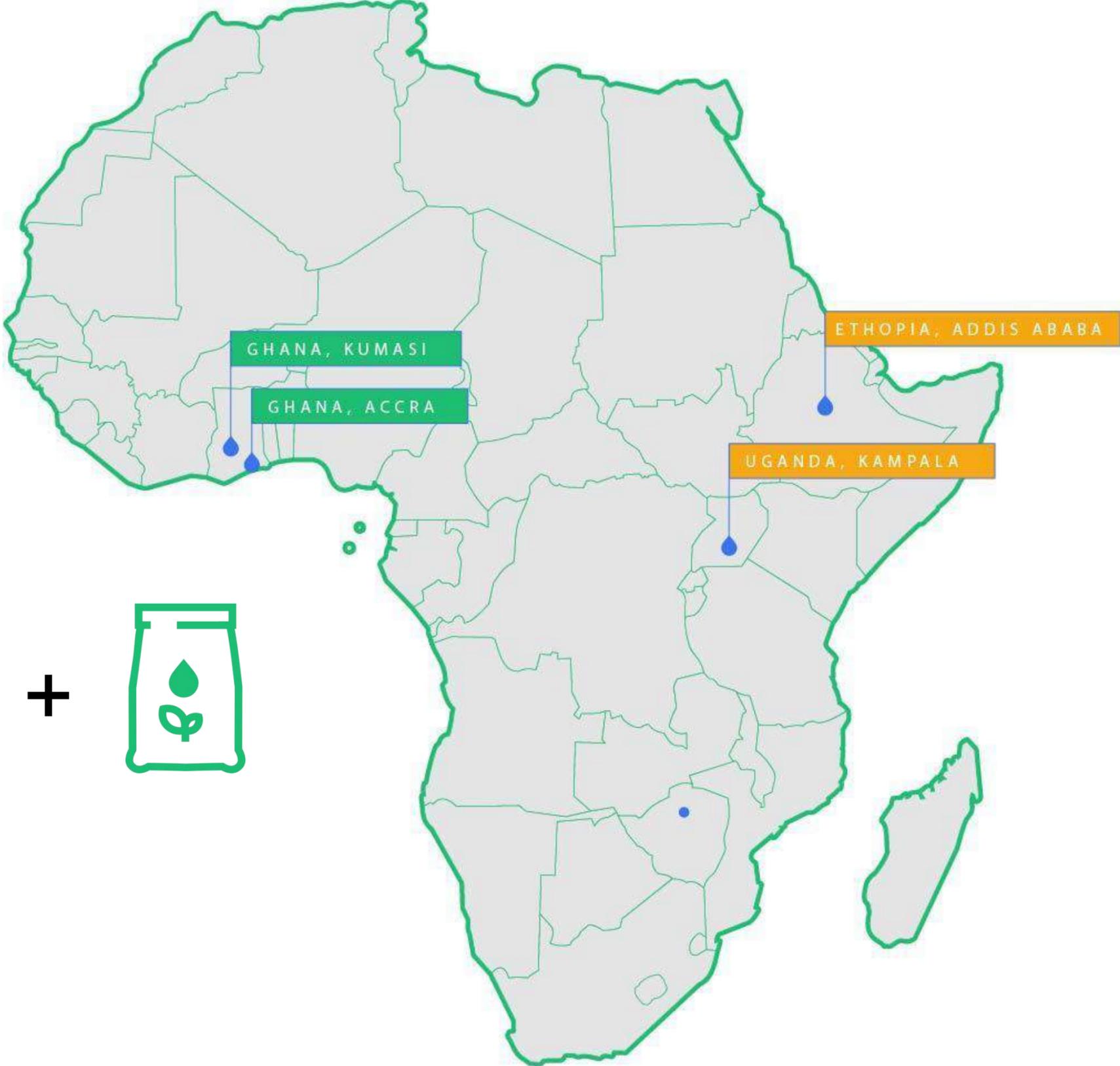
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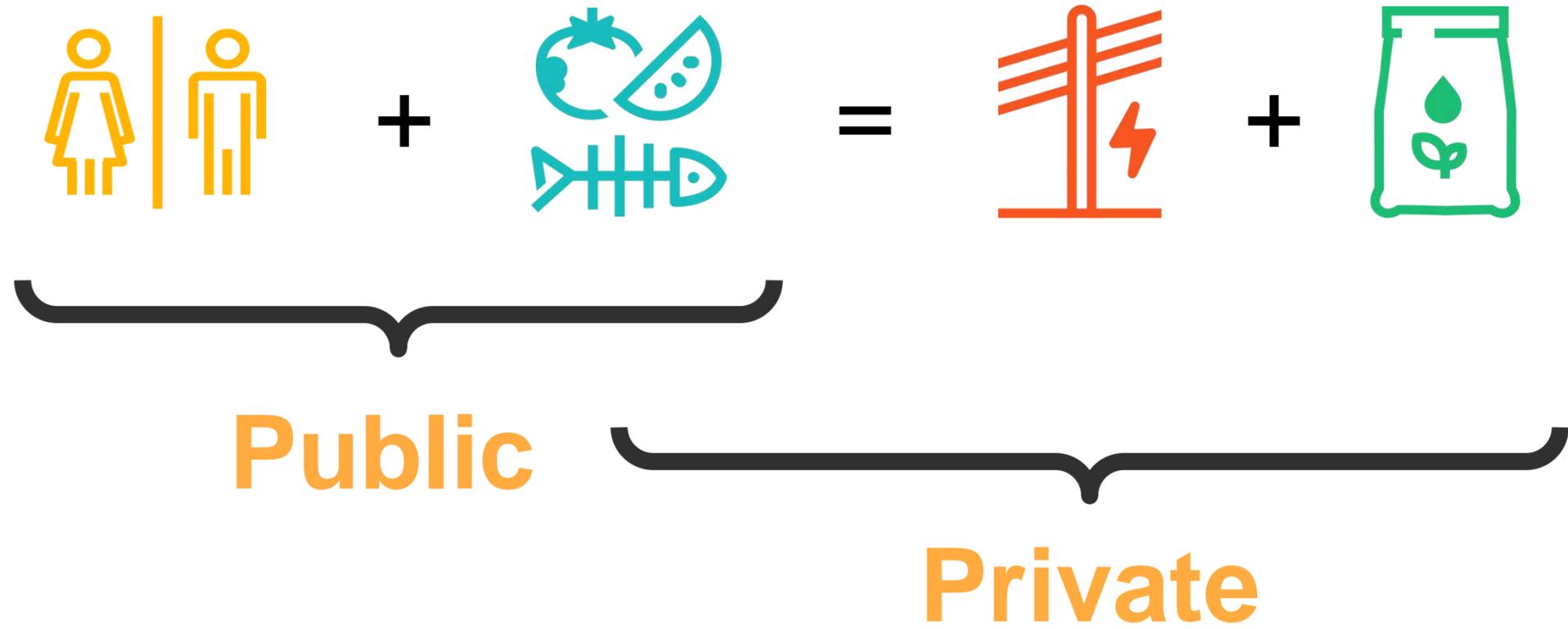
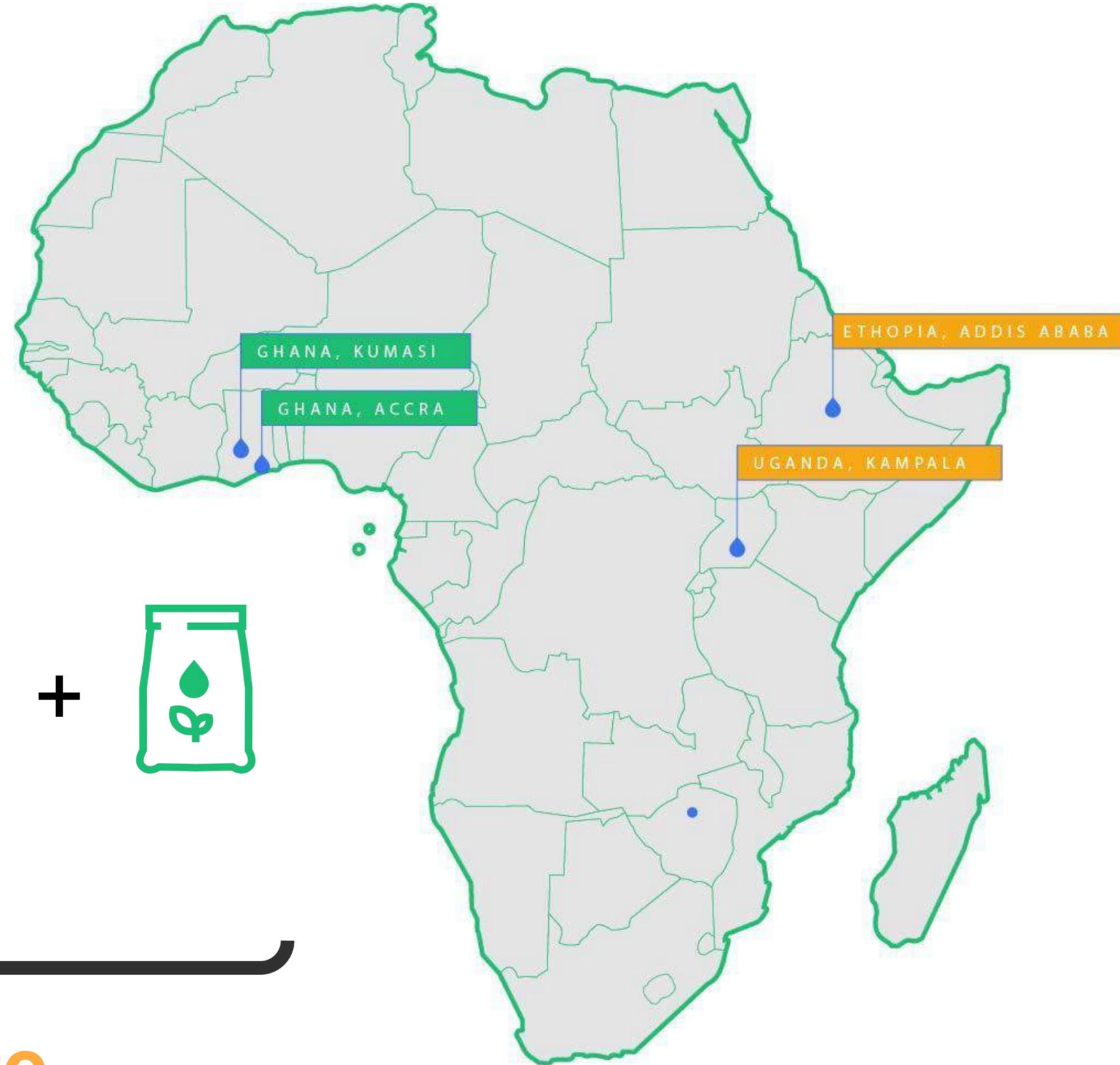


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safisana

Our solution is
scalable and
replicable



safisana

A financially sustainable, revenue-generating business model

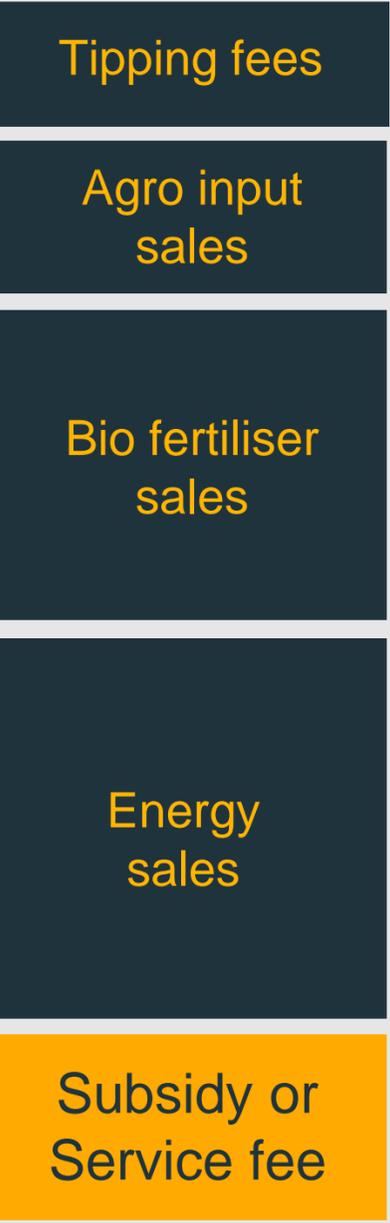
Cost of waste treatment plant



Traditional revenue model



Safisana revenue model





New business opportunities

safisana

Accelerated
demand for
green and local
solutions.

Industries
Governments



safisana 



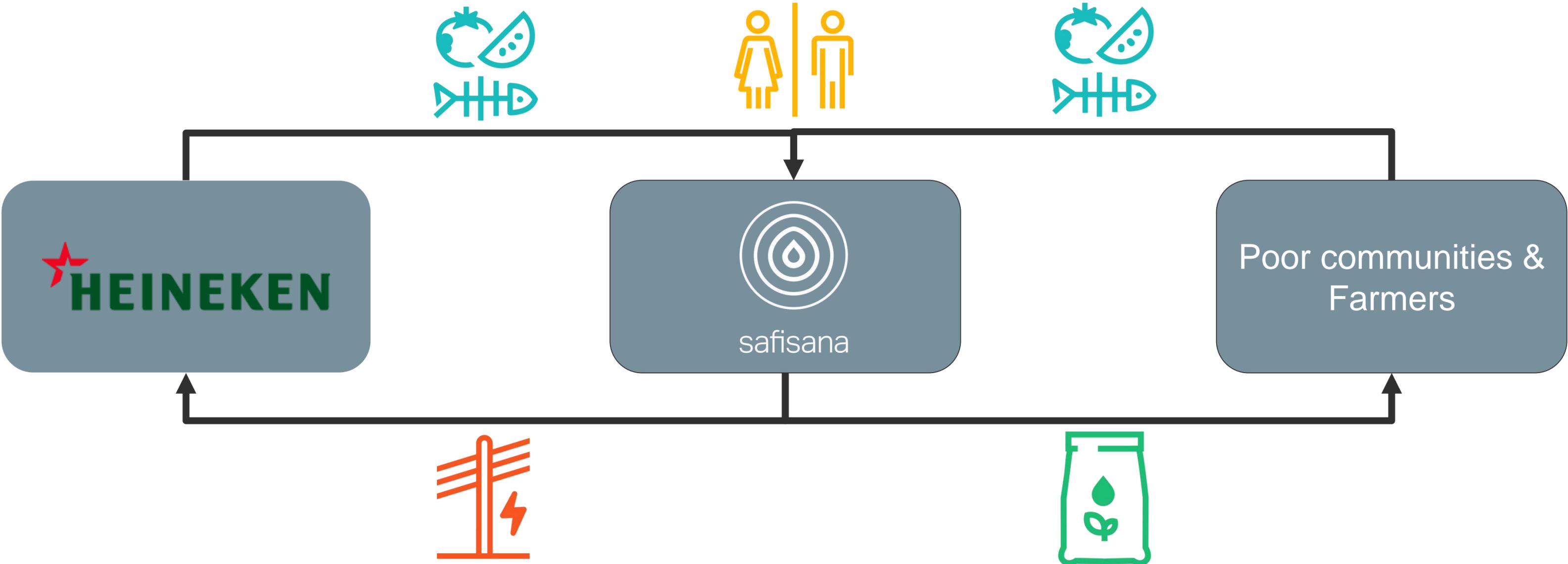
Ashaiman - scale up feasibility



safisana



Ethiopia, Addis Ababa pre-feasibility



safisana

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Thank you!

Benefits for governments, industries and communities



🌀 Social impact

- Improved living conditions and health
- Safe and dignified sanitation
- Cleaner environment
- Less direct exposure to waste
- Less spreading of deadly diseases



🌀 Economic impact

- Increase employment and income
- Work and income for local SME's
- Affordable waste treatment for gov'ts and industries
- Availability of clean energy
- Increase of soil health, fertility and agric. yields
- Improved food security



🌀 Environmental impact

- Reduction of methane/C02- emission
- Increased use of renewable energy; less fossil fuel
- Promoting sustainable local food production with organic fertiliser
- Reduction of waste on landfills
- Reduction of air/water/soil pollution

PRESENTATION 3



MR. MARCEL VAN HEIST

Managing Director

Spark



**AFRICA 20
WORKS! 22**
Innovation for Resilient Growth



We're
Spark.

We're here
to power
tomorrow.

ALEX DAILY MEETING VENUE



Universal,
sustainable
access to
reliable
energy

SPARK

SPARK

From tech vision to
social innovation



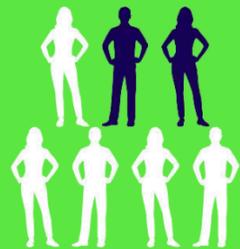


SPARK



1.1 billion

People lack access to electricity,
another billion have only very unreliable access to energy.



For 2 out of 7 people,
life comes at a stop after sunset.



Relying only on kerosene,
candles and firewood.



Spending a staggering
40% of their income on energy.



Resulting in a 9x more
unhealthy environment.

Sub Saharan Africa

Energy Demand in 2040

World
+30%

Europe
+6%

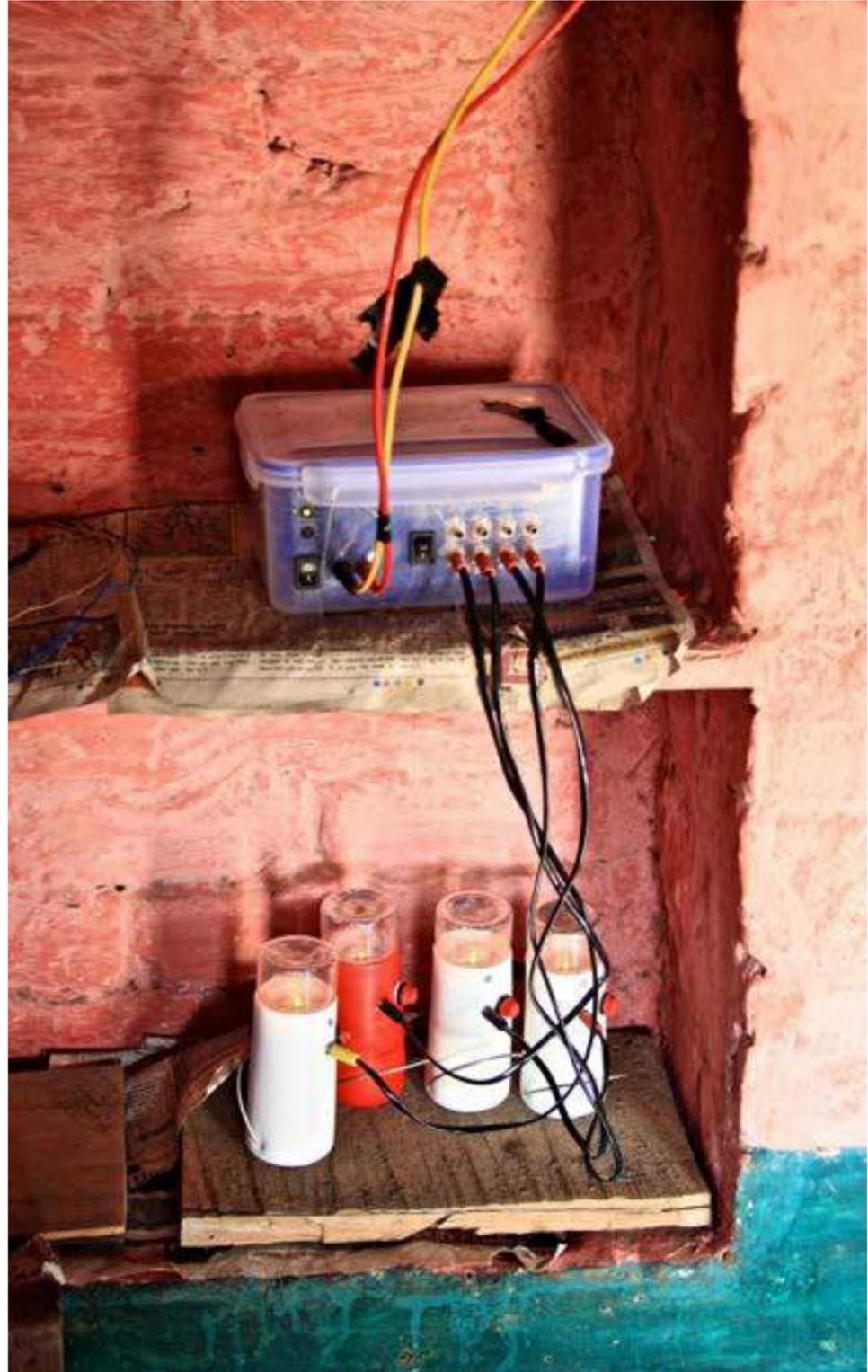
Sub Saharan
Africa
+160%

SPARK





SPARK

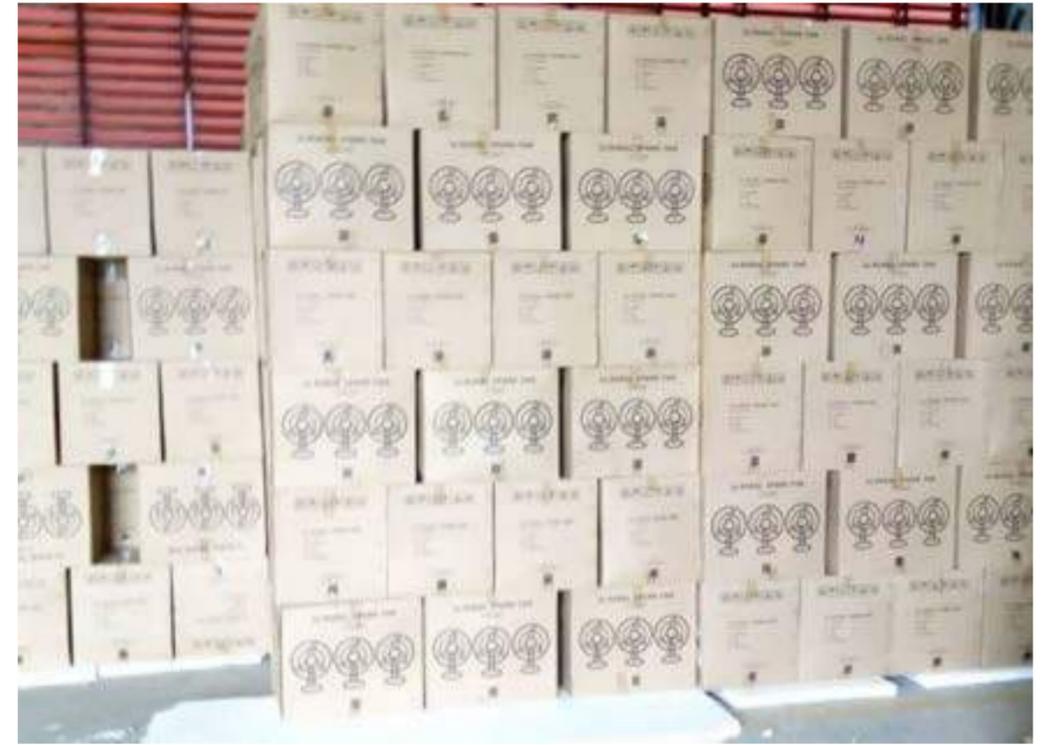




SPARK



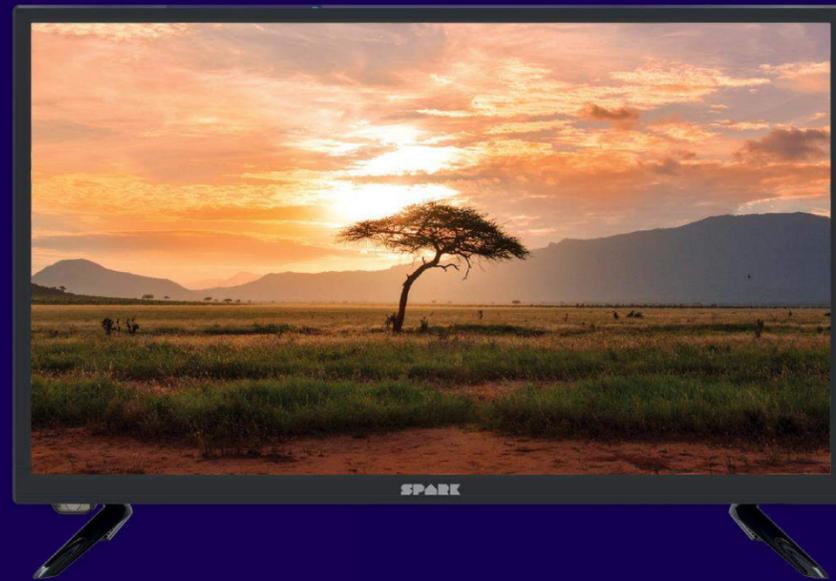
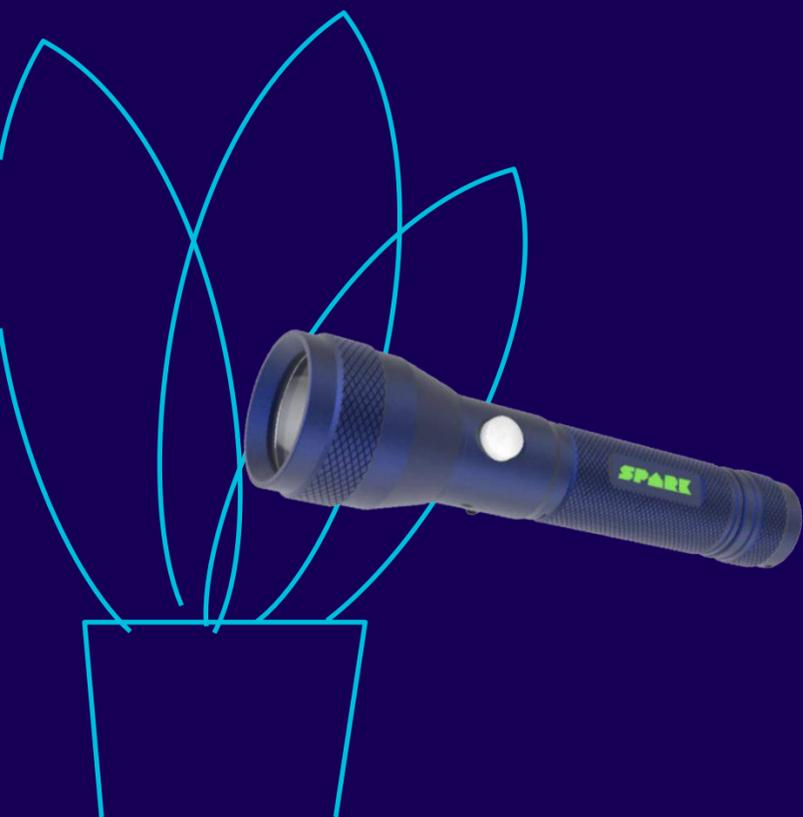
SPARK

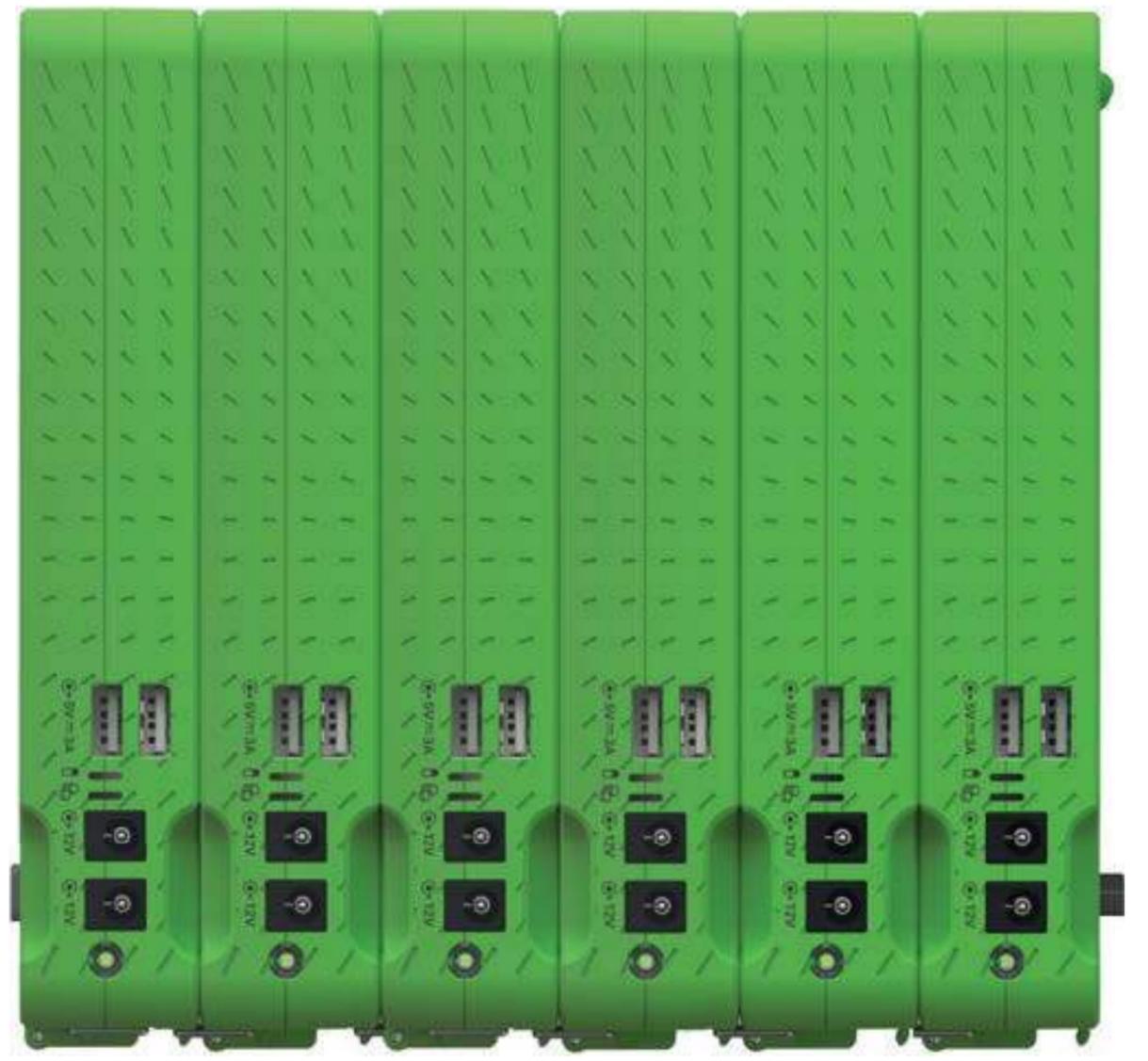
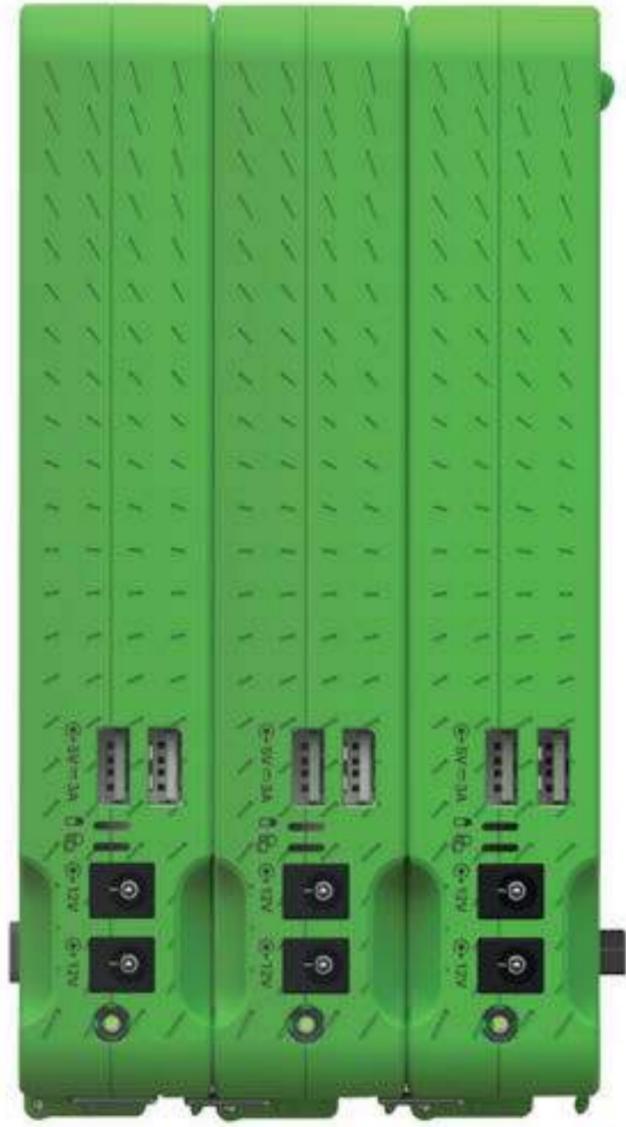
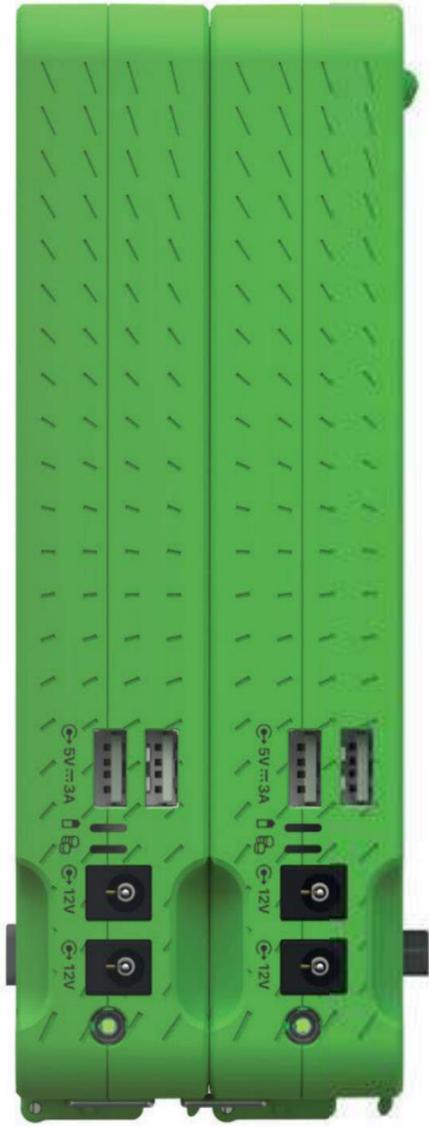
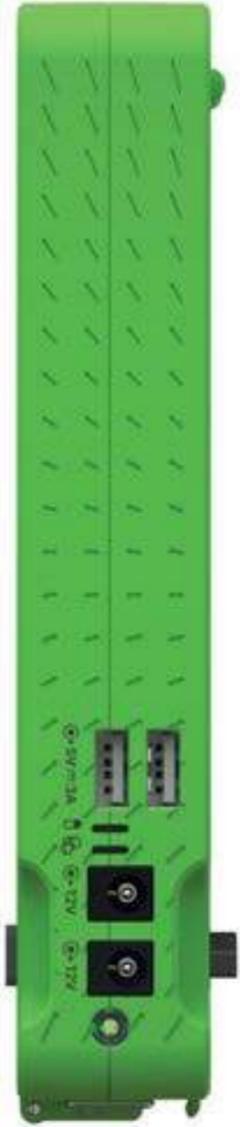


The future of modular solar home systems

SPARK

Our solar kits are all modular. That means we have a kit for every budget and every need. Would you like to start small or grow big?







SPARK

Spark in Africa

Over 100,000 Kits Sold in 12+
Countries







SPARK



SPARK

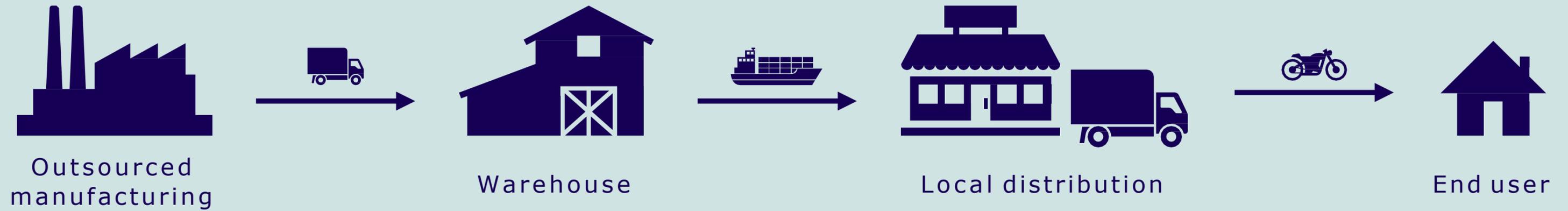
Market Prospects Off Grid Solar Products

- The total Off-Grid Solar market size was \$7B in 2019.
- The market potential in Sub Saharan Africa alone is estimated at \$30B by 2030.
- Over 35 million products (\$7B) are sold annually, which is expected to grow to 72 million (\$10.7B) in 2030, which means **large parts of the market potential is not utilised.**
- Of the current products sold \pm 25% is the same capacity range as sold by Spark. This percentage is growing very fast.
- Before 2025 a total investment of \$1.7B to \$2.2B in the sector is expected.

SPARK



SHS Business Model



Spark Business Model

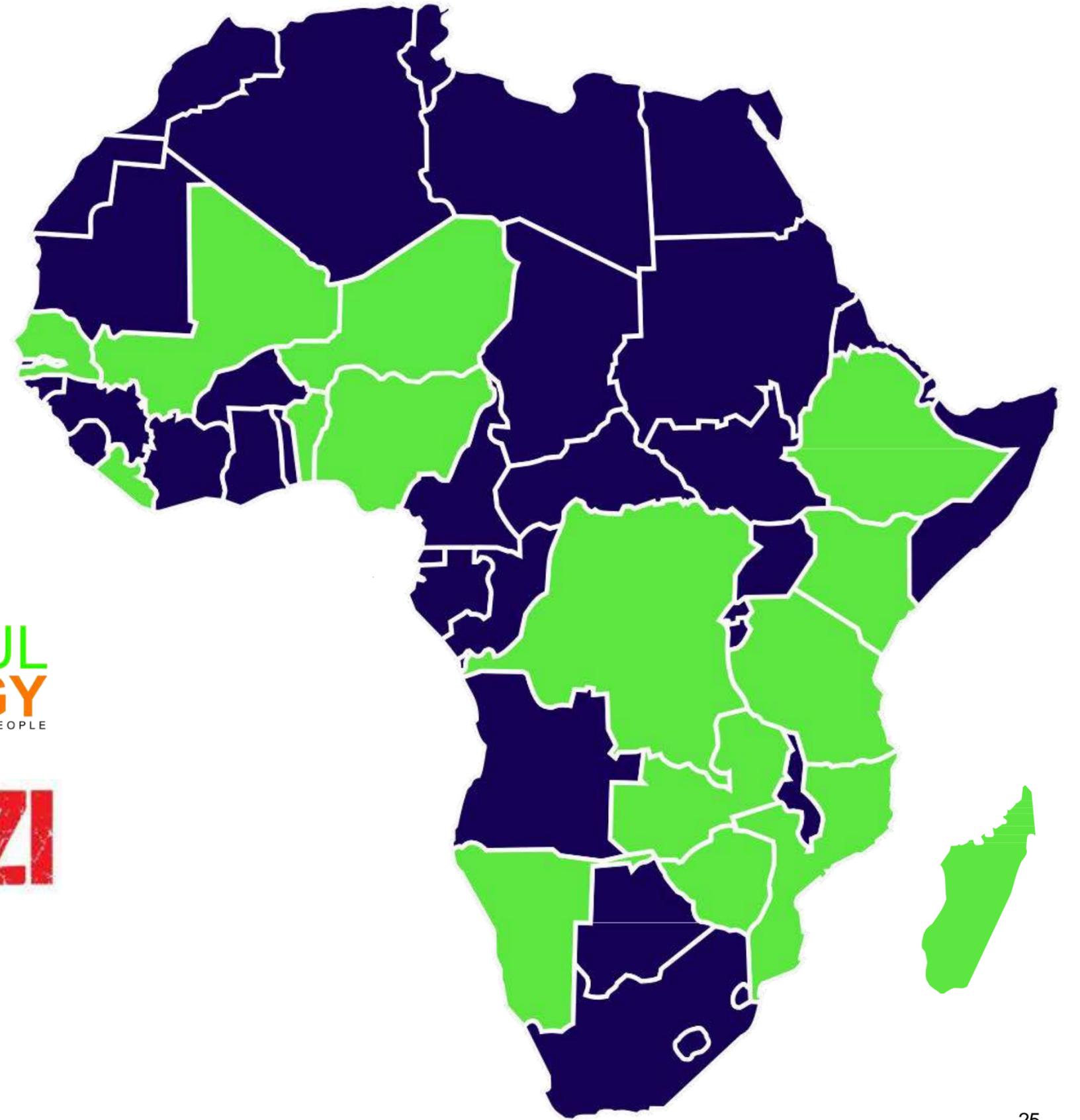
B2B Solution Provider



SPARK

Presence in Africa

Local distribution partners

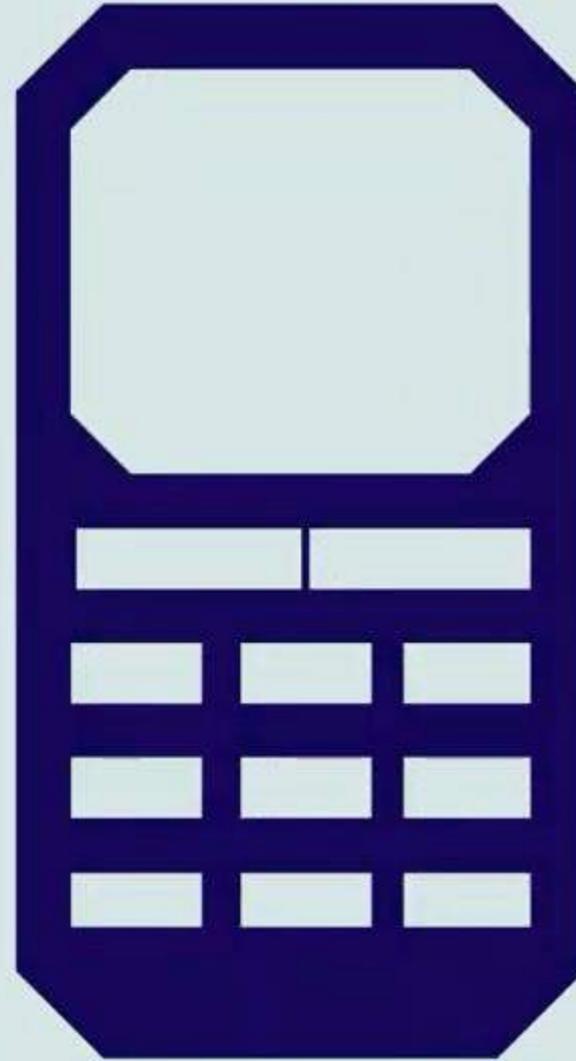


ASOLAR



SPARK

SPARK



Pay as you go

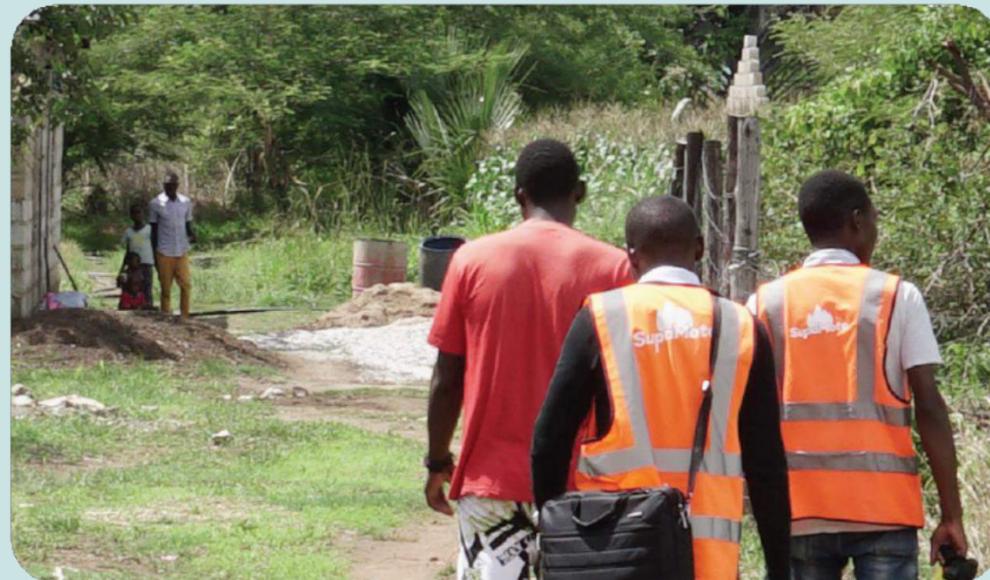
Lease-to-own with mobile money

Our ecosystem is here to stay



Spark Invest

Access to Finance



Spark Support

On site service & support



Spark Portal

Loan management and paygo integration

SPARK



Let
tomorrow
be a
bright
day



**THANK YOU FOR
YOUR ATTENTION**

**DO YOU HAVE ANY
QUESTIONS?**

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