



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION  
Progress by innovation



# Global Cleantech Innovation Programme (GCIP)

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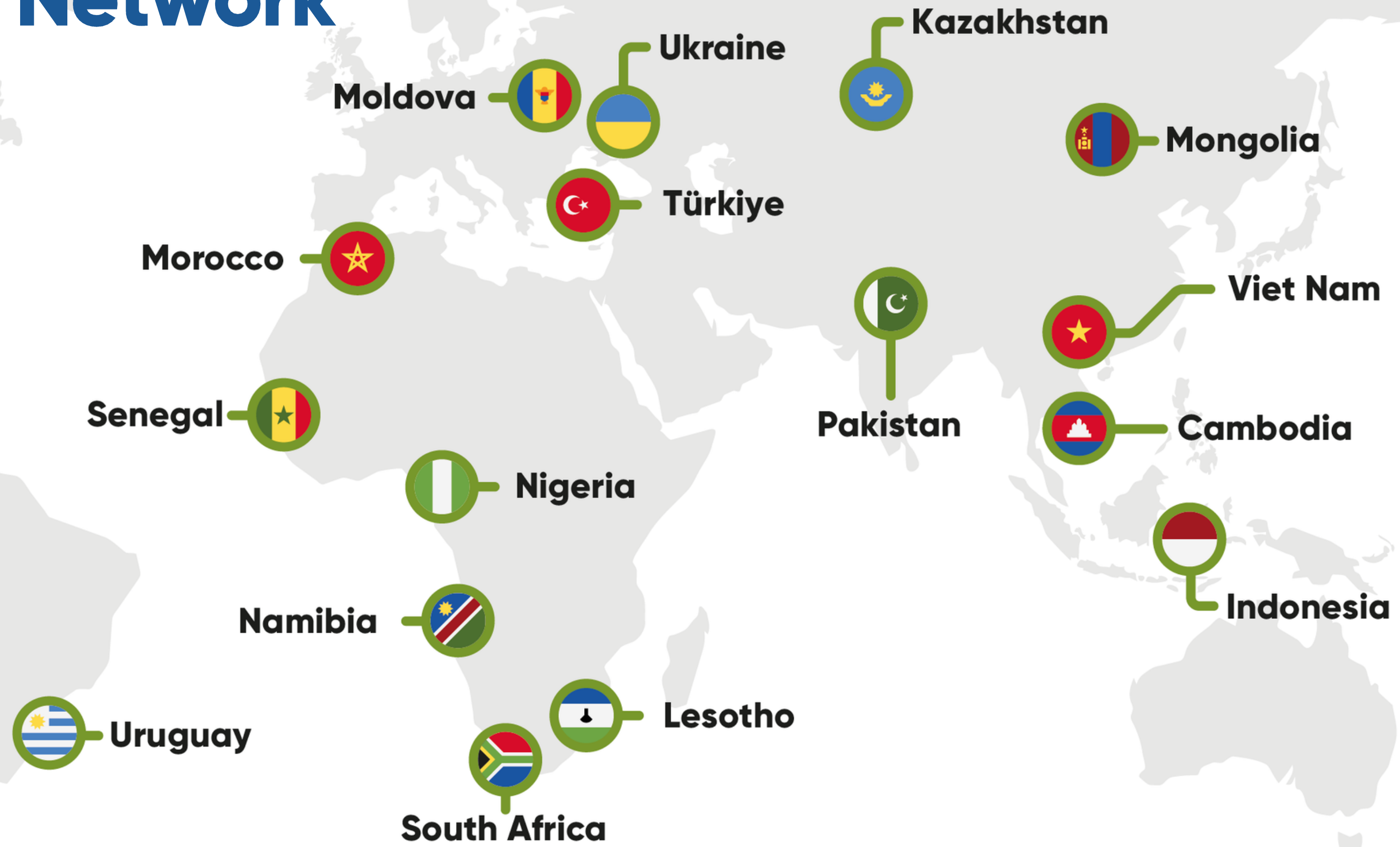
Empowering changemakers – Transforming tomorrow

# Working towards...

Which Sustainable Development Goals (SDGs) does GCIP address?



# GCIP Network



# GCIP Journey

**2011**

COP 17 in South Africa - Greening the COP initiative of UNIDO-GEF & Innovative Technology Competition for SMEs

**2016**

**Morocco and Thailand**  
joining the GCIP global network

**2013**

GCIP launched as a UNIDO-GEF initiative in  
**Armenia, India, Malaysia, Pakistan, South Africa and Türkiye.**

**2017**

By the end of 2017, GCIP had supported 795 semifinalists across eight countries, spanning a variety of cleantech categories.

**2017-2018**

**GCIP Ukraine**  
with an accompanying project preparation grant approved in August 2017. The CEO project approval came in October 2018.

# GCIP Journey

**2018**

First Evaluation of the GEF-UNIDO  
Global Cleantech Innovation  
Programme 2018

**2020**

**Second Evaluation of the GEF-  
UNIDO Global Cleantech  
Innovation Programme**  
(6 countries in total)

**2019**

Work starts on the extension of GCIP  
and further expansion of the countries'  
network

## Key findings

- GCIP is highly relevant and will remain so as developing countries realize the economic and environmental opportunities to take up cleantech innovation.
- GCIP projects contributed to development of cleantech innovation ecosystems through support for business acceleration, capacity-building and institutional strengthening.
- GCIP demonstrated additionality through its promotion and results in innovation for clean technology, socioeconomic returns, institutional capacity.

# GCIP Journey

## Key findings

- GCIP enlarged the available pool of resources through catalyzing the support of private ecosystem actors.
- Commitment by a national entity, adequate funding, and a planned exit strategy at project completion enhances prospects for sustainability.
- Coordinated programmatic approach, national-level coordination, expansion of private sector partners, focus on policy strengthening and adequate monitoring and evaluation systems are important for future success of GCIP.

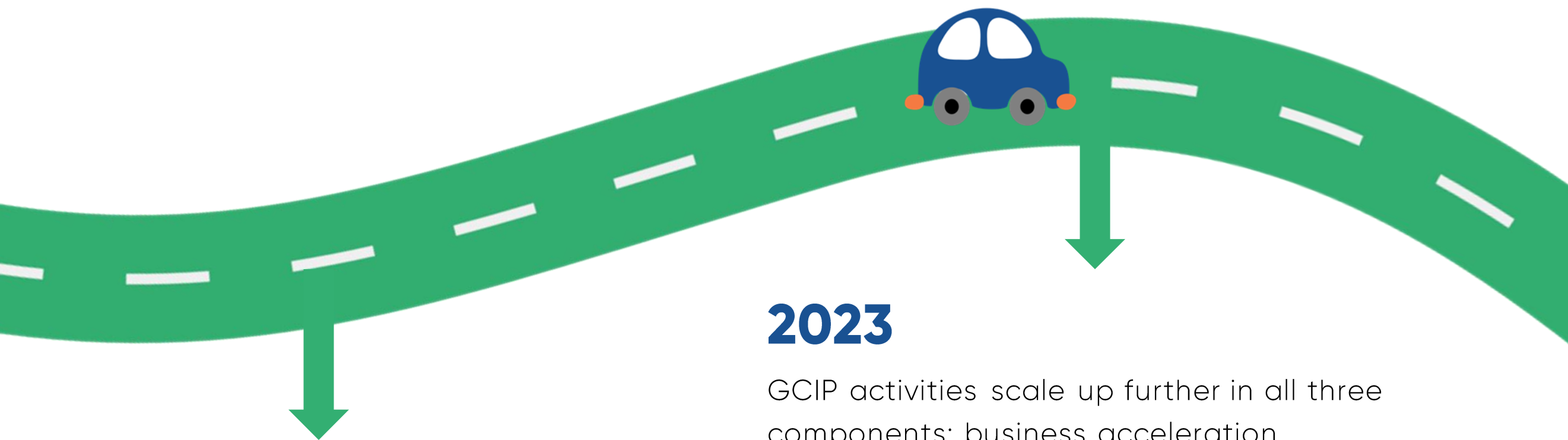
**2020**

**Second Evaluation of the GEF-UNIDO Global Cleantech Innovation Programme**  
(6 countries in total)

**2021**

The second phase of the GCIP implementation approved by the GEF Council for 10 countries in total:  
**Cambodia, Indonesia, Kazakhstan, Moldova, Morocco, Nigeria, South Africa, Türkiye, Ukraine, Uruguay**

# GCIP Journey



## 2022

GCIP "Relaunch" happens at COP27 in Egypt at the Morocco Pavilion. Accelerator activities happening in **Moldova, Nigeria, South Africa**

## 2023

GCIP activities scale up further in all three components: business acceleration, ecosystems strengthening, programme coordination. Countries joining the accelerator activities:

**Cambodia, Kazakhstan, Moldova, Nigeria, Morocco, South Africa, Türkiye & Lesotho (funded through the Green Climate Fund (GCF))**

## 2023-2026; looking to 2030

- Expanding into a network of up to 25 countries in total
- Further scaling up acceleration and ecosystem strengthening activities
- Contributing to the 2030 Agenda



# GCIP Impact



# GCIP Impact

GCIP in numbers: July/August 2023

**USD 30 mln.**

**1,270**

**16**

**72**

- **Overall budget of GCIP**
- **SMEs and start-ups supported to date**
- **Network of partner countries**
- **Start-ups supported in the 2022 cohort (35% women)**

# GCIP Impact

What do we want to achieve until 2030?

**1,719,000–3,438,000 metric tons**

**8,595,000–17,190,000 metric tons**

**12,225 (7,946 – male; 4,279 – female)**

**955 / 400**

**25**

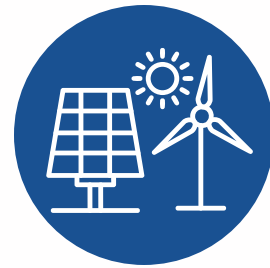
- **Mitigation of direct GHG emissions**
- **Mitigation of indirect GHG emissions**
- **Number of direct beneficiaries (2022–2026)**
- **Cleantech enterprises supported / experts trained (2022–2026)**
- **Countries in the GCIP network**

# Cleantech innovation areas

Which technologies does GCIP support?



Energy  
Efficiency



Renewable  
Energy



Waste  
Beneficiation



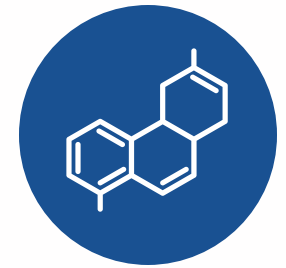
Water  
Efficiency



Green  
Buildings



Transportation



Advanced  
Materials  
& Chemicals

# 2022 GCIP Accelerator Cohort

Nigeria start-ups



# 2022 GCIP Accelerator Cohort

South Africa  
Moldova  
start-ups



# Success stories



# Energy Efficiency

## PAC Corporation



- National Winner from the GCIP Thailand 2017.
- PAC Corporation provides innovative water heating systems and energy-saving air conditioning systems.
- The company, led by Atchara Poomee, invented and developed the "PAC Frenergy" water heaters that use the heat expelled by air conditioners, reducing heat transfer to the atmosphere by 15%.



- GCIP India 2016 National Winner
- Atomberg is an Indian company specializing in sustainable home appliances.
- Their products blend mindful design, energy efficiency and next-gen smart tech.
- The company's mission is to bring to every Indian home reliable, sustainable, and energy efficient household appliances.
- Raised \$126m investment



# Renewable Energy



- From GCIP Morocco 2016
- Elum Energy is an energy and automation company that supplies cost-effective monitoring and control solutions for solar energy systems.
- Elum Energy provides simple solar energy systems solutions that are suitable for many applications, from islanded microgrids to grid-connected self-consumption applications or mixed applications.
- They have a broad global network and have deployed their solutions in more than 50 countries and territories around the world.

## TYT Energy



- From GCIP Türkiye 2016
- TYT Energy develops smart and renewable energy technologies for a regenerative future. They provide planning and installation of hybrid renewable energy systems to facilitate access to clean energy.
- They developed the world's first hybrid Geothermal-Concentrated Thermal Solar Power system, and Turkey's first floating solar system (FPV).





# Waste Beneficiation

## Free the Seed



- GCIP 2014 Malaysia National Winner.
- Free The Seed converts residue rice straw and husks into biodegradable packaging, thus contributing to the reduction of CO2 emissions and plastic waste.
- Following their participation in GCIP, Free the SEED has: created 200+ new jobs, improved the income of 1,300+ rice farmers, reduced ~600,000 kg of CO2.
- UAE-based Hotpack Global has announced a plan to invest \$98mn in Malaysia over the next 10 y. to build 10 biodegradable packaging plants in partnership with Free The Seed.



- From GCIP Accelerator Nigeria 2022
- Ecobarter is a waste recycling company that allows individuals to use their waste materials as a form of currency through their app.
- The company aims to transform the way people consume and manage waste by making recycling convenient and rewarding.
- Through their circular economy approach, Ecobarter promotes a greener environment and a more responsible waste management system.



# Water Efficiency

## Green Watech



- From GCIP Morocco 2018
- GREEN WATECH provides a solution to inadequate sanitation and water scarcity.
- Their new generation of patented SOL FILTERS is an innovative, low-cost, ecological and efficient solution for the treatment and reuse of wastewater in rural communities and decentralized sites.
- Their filters are energy efficient, chemical free, and eliminate 90% of pathogenic pollutants.



- From GCIP Accelerator South Africa 2022
- Loo Afrique is an innovative company that specializes in manufacturing improved sanitation solutions. Their goal is to save water, improve hygiene, and utilize greywater for flushing.
- With their 50/50 approach, they use up to 50% recycled plastic in their manufacturing processes. Their toilets designs use up to 50% less infrastructure and plumbing material, and flush with 50% less water, compared to conventional toilet systems.



# Green Buildings



- Forbes 30 Under 30 – Asia – Social Impact (2021)
- ModulusTech offers affordable housing through its innovative flat packed modular design that can be transported and set up in minimal time.
- The technology is resistant to earthquakes and cyclones, and the use of passive technologies makes the houses more sustainable, reducing the carbon footprint by 50 times compared to traditional housing.
- With their sustainable housing, they have saved more than 5,000,000 kg of CO2 emissions

## Eveco Construction



- From GCIP Accelerator Moldova 2022
- EVECO Construction specializes in energy-efficient buildings using pressed straw panels made from wood, straw, clay, sand, and lime.
- Their aim is to decrease energy dependence by rapidly constructing eco-friendly, energy-efficient buildings. They're pioneering natural construction as an innovative industrial process for accessible buildings.



# Transportation

## Osquareteck Ltd

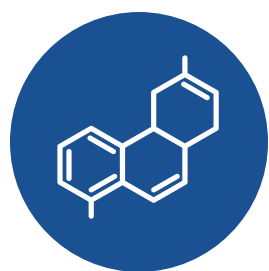


- From GCIP Accelerator Nigeria 2022
- Osquareteck Ltd is dedicated to accelerating the adoption of electric mobility. They specialize in building affordable, convenient, safe, and connected electric vehicles.
- Their electric powertrains offer superior performance, providing more power and torque for faster acceleration.
- Osquareteck Ltd also offers partnership opportunities for electric vehicle development, providing powertrains that are cost-effective, and faster and more powerful than traditional internal combustion engine powertrains.

## ThinkBikes



- From GCIP Accelerator Nigeria 2022
- ThinkBikes is a bike sharing service that operates in higher institutions, estates, and factories across Nigeria.
- They offer electric bicycles through their mobile app, providing users with a sustainable and enjoyable way to move around.
- With a focus on accessibility, ThinkBikes offers affordable rates for bike usage at strategic locations listed in their app.



# Advanced Materials & Chemicals

## Next Generation Biotech



- From GCIP Türkiye 2015
- NG Biotechnology develops and produces microbial cultures with the expertise in environmental biotechnology.
- The working fields of the company are development and production of microbial cultures to be used as biopesticides in agriculture, as organic control agents for public health and for bioremediation of persistent organic pollutants.



- 2019 GCIP Global Winner from South Africa.
- Inseco was founded in 2017 to alleviate food waste.
- Inseco operates a 10,000 square meter, tech-enabled facility that produces more than 100 metric tons of defatted insect meal and oil per month.
- Raised \$5.3m in South Africa's largest ever start-up seed funding round.

# Who do we work with?

Our global partners and collaborators.

## Donors:



## Global executing partners:



## Collaborators, co-creators, event/outreach partners, community partners:



## Other UNIDO programmes:



# Get in touch

Follow GCIP on social media or reach out via email: we are happy to hear from you!



**gcip@unido.org**



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**GCIP Newsletter:** <https://forms.gle/UKa51GyVx4XTAnLQ6>