

WIPO GREEN: Supporting Green Digital Infrastructure for a Climate-Resilient Future



ITU 16th Symposium on ICT, Environment, Climate Change and Circular Economy
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Context - **Green** Digital ecosystems

- **Green digital infrastructure** is becoming the backbone of climate resilience, economic growth, and sustainable development.
- Sustainable ICT systems can accelerate **climate adaptation, disaster risk reduction, energy efficiency, and circular economy transitions.**
- Without sustainability standards and green innovation pathways, digital growth may also increase **emissions, e-waste, and resource pressures.**
- Africa is already demonstrating leadership through **renewable-powered and energy-efficient data centres** that support both digital transformation and climate goals.



World Intellectual Property Organization



- ❖ UN specialized agency developing and sustaining a balanced and effective IP ecosystem to promote innovation and creativity
- ❖ **Global:** Uniting 194 member states
- ❖ **Member-states supportive:**
 - Headquartered in Geneva, Switzerland
 - 7 external offices
- ❖ **WIPO GREEN** was launched in 2013 as a WIPO-led initiative to support the dissemination of green technologies globally



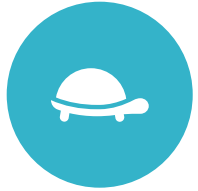
WIPO | GREEN



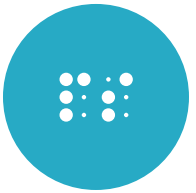
Theory of change



Innovation & technology are part of the solution to tackle climate change



Many solutions are available, but uptake is too slow



Lack of information & awareness of available solutions



IP is crucial for technology development & dissemination



Collaboration between different actors is key



Growing demand for green innovation & technology



WIPO GREEN promotes green technology innovation and diffusion by connecting technology providers with technology seekers with the aim of overcoming barriers to technology adoption.

What does WIPO GREEN do?

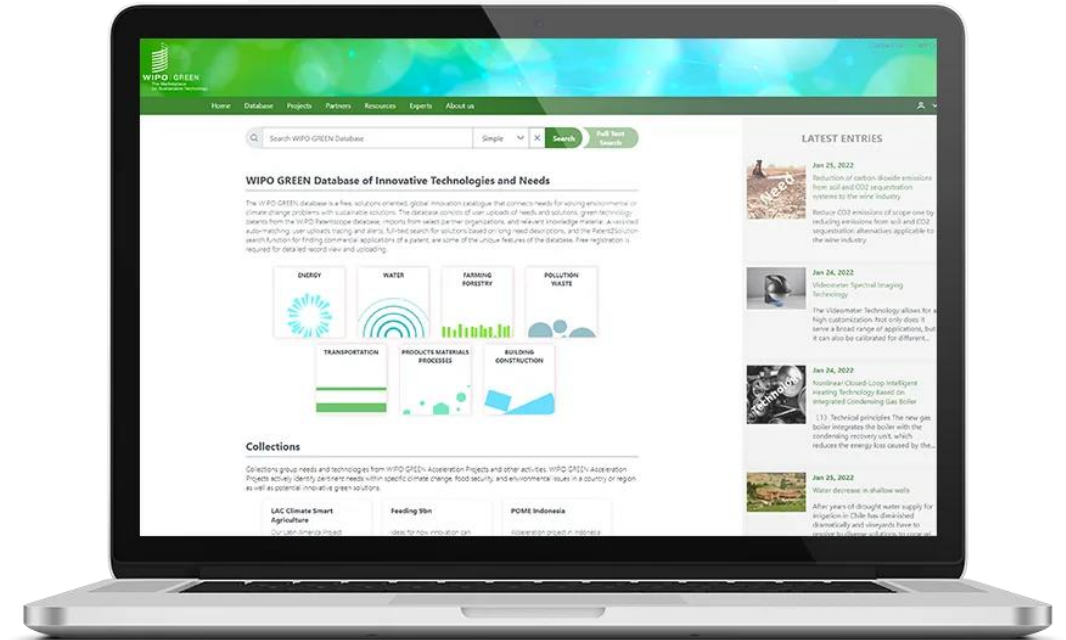
Connect	Connect green technology providers and those seeking solutions in a targeted manner, catalyzing and maximizing the potential for green technology transfer and diffusion.
Accelerate	Accelerate the deployment of green technologies through acceleration projects and become a trusted green technology partner to address local challenges on the ground
Support	Support Member States in leveraging IP and innovation to address issues related to climate change, food security and the environment through the national IP offices.
Advocate	Raise awareness on the impact of green technologies through the Green Technology Book collection, the WIPO GREEN Ambassador program and strategic partnerships.

WIPO GREEN Assets

Connect	WIPO GREEN DATABASE
Accelerate	ACCELERATION PROJECTS
Support	IPO GREEN
Advocate	GREEN TECHNOLOGY BOOK / AMBASSADORS / PARTNERSHIPS

WIPO GREEN database

- Needs and solutions uploaded by different users, **free of charge**
- Integration of green technology patent applications from the **WIPO Patentscope**
- **Imports** from select partner organizations
- Relevant **knowledge material**



140,000+ technologies,
needs, and experts



160+
partners



2,500+ users from all
over the world



1000+ connections made
via the database and
acceleration projects

Enabling technology adoption

The database includes:

- **Technology Providers (Supply):** Inventors, SMEs, universities, and Fortune 500 companies upload their solutions to gain global visibility, attract partners, and secure finance.
- **Technology Needs (Demand):** Organizations, individuals, governments and companies publicize specific environmental or climate change problems they need to solve.
- **Experts and Knowledge Material:** IP experts, green technology experts and evidence-based publications are also available on the database.

Filter << 1

☐ Uploads

☐ Seeking investment

Search in filters

Reset all

Source 1/2

☒ Uploads (3095)

☐ Patents (139642)

Type

☐ Technology (2476)

☐ Expert (318)

☐ Need (244)

☐ Knowledge material (57)

Green Technology Book (1642)

Collections

☐ Transportation (172)

☐ Energy (856)

☐ Water (413)

☐ Farming & Forestry (734)

☐ Pollution & Waste (460)

☐ Product, materials and processes (374)

☐ Building & Construction (294)

1 of 310

10

3095 results

Export List

Sort by Relevance

BUILDING & CONSTRUCTION > ICT IN BUILDINGS & URBAN MANAGEMENT



Modelling Green Infrastructure

BGI Builder aims to facilitate climate-resilient in urban development, offering solutions to address the pressing need for increased climate resilience in cities worldwide. Recognising the substantial costs associated with not preparing for climate change, BGI Builder advocates for strategic investment in **green infrastructure** as a smart and effective means to enhance city liveability. The company focuses on implementing solutions such as **green** roofs, rain gardens, porous pavements, and urban tre ...

TRL3-4

TRL5-6

TRL7

TRL8

TRL9

Owner

Bitu **Green**

Uploaded by

WIPO GREEN Admin

Type

Technology

Source

Uploads

Published

2023/11/18

Developed in

Belgium



ID 148977

ENERGY > ICT IN ENERGY AND ENERGY MANAGEMENT



Smart Energy Infrastructure and Carbon Management System for Green Public Building

Maxtropy Technology has leveraged its years of experience to develop an all-in-one solution for smart energy systems in **green** public buildings. By integrating cutting-edge technologies and proprietary knowledge in newly-developed **green** building, data from energy system are collected, and comprehensive energy and carbon management are taking place. They have achieved an AI-empowered turnkey solution. This comprehensive solution encompasses various components. It includes a holistic **green** energy i ...

TRL3-4

TRL5-6

TRL7

TRL8

TRL9

Owner

JIANGSU Maxtropy Technology Co.,Ltd.

Uploaded by

Bluetech Clean Air Alliance

Type

Technology

Source

Uploads

Published

2023/08/31

Developed in

China



ID 148609

POLLUTION & WASTE > RECYCLING & REUSE | PRODUCT, MATERIALS AND PROCESSES > MINING & METALS



Green Investment Technology.

A **green** technological methodology for precious metals investment:

QIRAT Precious Metals offers secure, profitable, and convenient access to precious metals investments, empowering investors worldwide to safeguard assets, diversify investment portfolios, and participate in a sustainable precious metals investment global system.

Green investment technology is a retailing and consumer science-based

Owner

QIRAT® Precious Metals

Type

Technology

Source

Uploads

Published

2023/11/30

Developed in

Egypt



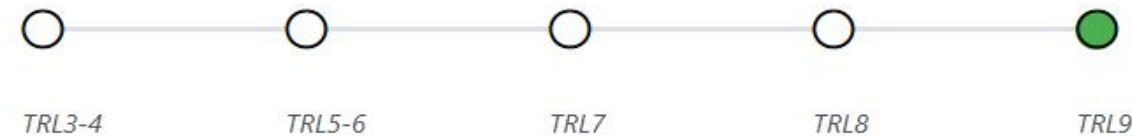
Digital technologies enabling decentralized green infrastructure in underserved communities

ENERGY > ICT IN ENERGY AND ENERGY MANAGEMENT



Data-driven platform providing clean energy

Bboxx is a data-driven platform that connects underserved rural communities with access to renewable energy technologies, clean cooking, smartphones, financial products, and e-mobility, along with financing services. The platform combines Bboxx Pulse®, the integrated operating system, with an on-the-ground network supporting last-mile logistics and pay-as-you-go services. The platform matches those in need with products and technologies, supporting the provision of plug-and-play solar systems, r ...

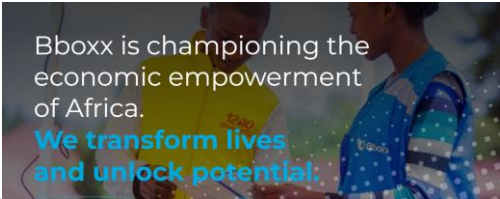


Owner	Bboxx
Uploaded by	WIPO GREEN Admin
Type	Technology
Source	Uploads
Published	2024/07/05
Developed in	Rwanda



Provides clean electricity access to millions of households in East, Central and West Africa, combining

- digital platforms
- mobile money
- smart metering
- solar energy systems



- Bboxx

Enabling technology adoption through the database

> FARMING TECHNOLOGIES

Digital farming technologies in Africa

Farming technologies that rely on robotics, indoor farming systems and biotechnology are yet to reach mass scale in Africa. However, digital technologies are beginning to transform parts of the agriculture sector in many of the continent's countries. One key advance is digital agricultural marketplaces connecting farmers with sellers. Examples include Uganda's AgroMarketDay app which allows farmers to upload pictures of their produce and auction it to the highest bidder, or Kenya's Twiga Foods o ...



Owner	Twiga Foods
Uploaded by	WIPO GREEN Admin
Type	Technology
Source	Uploads
Published	2022/11/14
Developed in	Kenya



WAHALESS SMART FARMING : TELE-IRRIGATION 2.0

Wahaless Smart Farming is an integration of 3 complementary agroecological concepts for manage, control and evaluate water and energy consumption and monitor soil health remotely via smart phone and IOT sensors. It's a digital tool which is a soft and hard device and a smart methodology for instant interaction between the players in agricultural production, namely farmer, soil, plant and its environment. it's an interactive, and dynamic language that facilitates real-time understanding of these ...



Owner	TECH-INNOV
Type	Technology
Source	Uploads
Published	2024/04/24
Developed in	Niger

Uploaded **technology needs** across Africa

Technology need

Need description



Drought-resistant crops

Drought resistant crops and livestock breeds (ID: 7280)

The African Agriculture Technology Foundation has expressed a need for drought-resistant crops in Tanzania to cope with prolonged rainfall deficits and long dry seasons. The crops being produced in Arusha and Mwanza require constant rainfall to survive and for optimal productivity. Low rainfall often results in crop failure and death of livestock, which impoverishes communities further.



Drip irrigation

Affordable drip irrigation technologies (ID: 7279)

Ethiopian crop production is limited by high rainfall dependency and frequent drought cycles despite fertile soil conditions. Sustainable cultivation of essential grains requires a transition from rain-fed systems to efficient, water-managed solutions. There is an urgent need for affordable drip irrigation technologies designed for small-scale, distributed farming plots.



Hydroponics

Hydroponics system for barley fodder (ID: 7024)

Kenya's reliance on rain-fed agriculture creates vulnerability to climate-induced droughts and flooding. Hydroponics entail growing crops using mineral nutrient solutions in water without soil, offering a resource-efficient alternative to traditional soil-based cultivation.



Low energy fishing

Low energy fishing technologies (ID: 7262)

Tanzanian fishermen primarily use diesel or petrol-powered boats for night-time deep-water fishing. These conventional systems contribute to water contamination and greenhouse gas emissions within the marine environment. Consequently, there is a need for low energy technologies and sustainable fishing practices to reduce these environmental impacts.



Green fertilizers & pesticides

Environmentally friendly farm inputs such as pesticides and fertilizers (ID: 7290)

Conventional agriculture uses synthetic pesticides and fertilizers to maximize crop yields, often resulting in soil degradation and the emergence of new pests. During the rainy season, these inputs leach into water bodies, causing environmental contamination. There is a for green fertilizers and pesticides which maintain high productivity without harming the environment.

Acceleration Projects

- **Local**, on-the-ground, and focused initiatives
- **Needs-based solutions**, addressing real challenges faced by farmers, firms, small businesses, towns, cities, districts
- **Serving** as personalized technology agent for the need owner
- **Comprehend** the context, circumstances, and constraints
- **Identify** solutions and document them in the WIPO GREEN Database of Needs and Green Technologies
- **Showcase** solutions and initiate connections with potential solutions
- **Support** parties reach a mutually beneficial deal
- **Maintain** ongoing in-house matchmaking efforts



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Covering system to protect crops from strong winds in Chile.

(Photo: Courtesy VOEN)

Acceleration projects in 2025/2026

- **China:** Low carbon transition in cities , circular economy, water resilience etc.
(ongoing: Beijing, Shanghai, preparation: Guangzhou, Chongqing)
- **India:** Carbon neutral agriculture
- **Indonesia:** Palm oil mill effluents (POME), compost deployment
- **Lao:** Coffee sector
- **Latin America Region:** Climate-Smart Agriculture
 - Argentina
 - Brazil
 - Chile
 - Peru
 - Ecuador
 - Columbia
- **Uruguay:** Livestock methane emission reduction
- **Philippines:** Fishery sector
- **Tajikistan** (2024)
- **Senegal** (start 2026)
- **Pacific SIDS** (start 2026)
- **Algeria** (in development)



Green Technology Books

Grounded, practical take on state of technology and solutions.
Mix of trends analyses and a catalog of solutions

- 1st edition: Solutions for climate **change adaptation**
- 2nd edition: Solutions for climate **change mitigation**
- 3rd edition: **Energy solutions** for climate change
- Special EXPO25 edition: Energy solution in **Asia-Pacific**
- 4th edition: Solutions for confronting **climate disasters**

>**1000** solutions – ranging from local and indigenous people's techniques to advanced and **digital climate technologies**

>**1,9 million** unique visitors

>**160.000** full book downloads

- Free, digital-first publication
- Source of technological inspiration
- A matchmaking tool
- A living collection

In partnership with:



WIPO

GTB - Accessible five editions



Solutions for confronting climate disasters

PUBLICATION YEAR: 2025

The 4th edition highlights how innovation is transforming the way societies prepare for, respond to, and recover from climate-driven crises. It showcases both cutting-edge and practical technology solutions that are redefining



Green Technology Book Expo Edition

PUBLICATION YEAR: 2025

This special edition of the Green Technology Book for EXPO 2025, Osaka, Japan, features 200+ examples of energy technologies and solutions from the Asia-Pacific region, dedicated to the diffusion of innovative green technologies by connecting the technology seekers and providers.



Energy edition

PUBLICATION YEAR: 2024

The third edition of the Green Technology Book dives into energy solutions. We provide a practical take on what new and upcoming technologies have to offer for mitigating and adapting to climate change within cities, rural areas and in the service sectors supermarkets, health facilities and datacenters.



Mitigation edition

PUBLICATION YEAR: 2023

The second edition that was launched at COP28 in December 2023 presents the technology trends and practical solutions to combat greenhouse gas emissions from cities, agriculture and land use, and the high-emitting steel and cement sectors.

[Read online](#)

[Download PDF](#)



Adaptation edition

PUBLICATION YEAR: 2022

The first edition of the Green Technology Book identifies technologies and trends to combat climate-change impact on agriculture and forestry, the water sector and in cities.

[Read online](#)

[Download PDF](#)

Technologies for disaster preparedness and response are rapidly advancing, from AI-driven forecasting and drones to resilient infrastructure and digital logistics platforms. Ensuring equitable access and inclusive design is essential so that all communities, especially the most vulnerable, can benefit and strengthen global resilience.

Investing in disaster preparedness and risk reduction is far more cost-effective than responding after crises occur. Tapping into technology, risk-layered financing, and pre-arranged mechanisms can accelerate response, reduce losses, and ensure that communities are protected.



WIPO GREEN Partner Network



There are **165 partners** including NGOs, research institutions, UN agencies, as well as organizations from the public and private sectors.



All partners are welcome to join WIPO GREEN's **Advisory Board** and engage in bi-annual meetings.



A **Core Committee** of 10 partners meets twice a year to discuss WIPO GREEN's **strategic initiatives**.

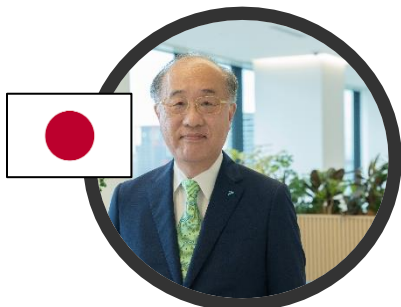


Partners also participate in **thematic and regional networks** dedicated to promoting green technologies within specific geographic and regulatory frameworks.

 Partner of
WIPO GREEN

WIPO GREEN Ambassador Program

The WIPO GREEN Ambassador program was established to promote WIPO GREEN and its relevant initiatives by leveraging the networks of our ambassadors and advocate for sustainable innovation and green technology deployment within their countries and regions.



Mr. Masafumi Yamamoto
Senior Associate Officer
Daikin Industries



Mr. Zou Ling
Chairman
Tianjin TEDA Energy Group

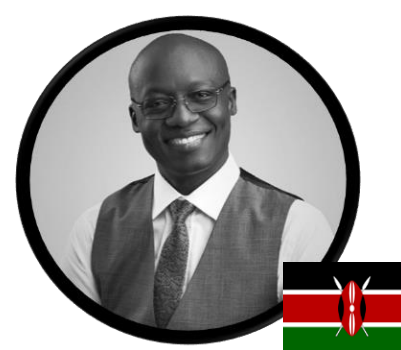


Ms. Angela Pinhati
Chief Sustainability Officer
Natura



Mr. David Brandes
Chief Executive Officer
Planetary

Appointed in
January 2026



Amb. Philip Thigo
Special Envoy on Technology
Executive Office of the President of Kenya

Africa **Green Tech** Coalition on the road to COP32

- Ethiopia's hosting of the **UNFCCC COP 32** in 2027 is a key moment to showcase Africa's leadership in climate action.
- This new coalition **aims to unite** member states, businesses, research institutions, youth and civil society **to accelerate the adoption of green technologies across the continent.**
- It offers a **platform to highlight African green innovations** that support NDCs, unlock investments and boost resilience across the continent.

Join the movement



Showcasing Green Innovations

Webinar

African Green Innovation

Leveraging the WIPO GREEN
platform for sustainable
solutions

June 10, 2026
2.00 p.m. – 3.30 p.m. CEST



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Scan to register



Africa's Strategic Opportunity

- Africa's **growing youth population** presents a major innovation and entrepreneurship advantage.
- Regional collaboration can unlock shared **digital infrastructure and climate solutions**.
- Local innovators must be integrated into **global value chains and standards development processes**.
- **Investment in resilient infrastructure** can drive jobs, industrialization, and sustainable growth.
- Scale collaborative platforms that **connect innovators, financiers, governments, and communities**.
- **WIPO GREEN** demonstrates how **intellectual property** can support **sustainability and inclusive development**.
- Ensure that **no country is left behind** in the **green digital transition**.

How to engage with **WIPO GREEN**

Join WIPO GREEN as a **user** and add to the global database of technologies and needs!

- Register through the [WIPO GREEN website](#)
- Submit your technology and/or need



Join as a **partner** and engage in acceleration projects, joint publications, and Committees!

- Send us an [e-mail](#) and share your interest in applying to become a WIPO GREEN partner.
- We share regular updates with the WIPO GREEN community via e-mail and through our WIPO GREEN LinkedIn community (private group).

Thank you for your interest in WIPO GREEN



For any questions and inquiries, please contact:

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Partner Engagement Specialist

Clarice.aboagye@wipo.int / wipo.green@wipo.int

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