

A high-speed photograph of water splashing, creating a dynamic and energetic background. The water is captured in mid-air, with numerous bubbles and droplets visible, set against a bright, clean white background.

# **WIPO GREEN** **Year in Review 2017**

[www.wipo.int/green](http://www.wipo.int/green)

The logo consists of a stylized graphic of a spring or a series of curved lines that form a vertical, upward-pointing shape, resembling a helix or a series of stacked, curved segments.

**WIPO | GREEN**  
The Marketplace  
for Sustainable Technology

# Letter from the Director General

## “Transforming WIPO GREEN into a global innovation engine”

In 2017, WIPO GREEN committed to focusing on maximizing the efficiency and impact of our activities across the board, stepping up our efforts to partner with other organizations in the collaborative fight against climate change.

A complex global challenge requires a broad range of stakeholders from across the value chain – from invention to commercialization and diffusion – to pool expertise and resources for the development of sustainable solutions. As the host of one such collaborative public-private partnership, it has been WIPO GREEN’s role to leverage strengths from within our network and add value to our activities and those of our Partners. As you will read below, this translated into dynamic new matchmaking projects, data sharing agreements, and other outreach activities jointly implemented with WIPO GREEN Partners. In 2017, we put challenges – real-world needs for which organizations seek innovative solutions – front and center. This approach led to an exponential increase in the number of connections established through WIPO GREEN as well as the first set of completed technology transfer “deals.”

2018 will mark five years since the launch of our platform. We will take this opportunity to step back, take stock and reflect on the changing landscape of green tech innovation while considering an essential question: how can WIPO GREEN further evolve to achieve maximum impact? We have already reached out to our Partners and Network to gather ideas and feedback, and we will continue to benefit from their collective knowledge and insight in the coming year as we look to define the platform’s medium-term strategic plan.

As always, a warm thank-you must go to the many Partners, Network members and colleagues who have contributed to our shared successes in 2017. We deeply appreciate your strong commitment to the fight against climate change.



**Francis Gurry**  
Director General  
World Intellectual Property Organization

## 2017 in numbers

**100,000+** Page views

**6,000+** Network members  
and subscribers

**3,100+** Listed technologies,  
needs and experts

**380+** Connections  
facilitated

**85** Partners

# Overall highlights

- WIPO GREEN continues to achieve significant improvements as a green technology transfer platform through the expansion of its network, increased collaboration with Partners and improvements to the database.
- In 2017, we exceeded 80 Partners. As of December 2017, we had 85 Partners drawn from the full spectrum of large and small companies, universities, banks and associations across the value chain in all major areas of “green.”
- We continued to work on the WIPO GREEN Database of technologies and needs, with agreements with the U.S. FLC and Fujitsu Ltd greatly enhancing the quality of offerings available. In addition, we launched the WIPO GREEN Experts Database to help our users access the expertise needed to take their business to the next level, and to give experts across the green tech value chain a global platform to advertise their services.
- The WIPO GREEN Network grew to reach over 6,000 members and subscribers across 170 countries. The expansion of our Network continues to enable our goal of fostering connections between innovators, investors, technology seekers and experts, with Network members gaining access to new opportunities across the globe.
- The team sought to collaborate with Partners in dynamic new ways, including the Innovate 4 Water matchmaking event held in Geneva in June 2017.

# 85 WIPO GREEN Partners worldwide



## Europe

- Advance Water Technologies (UK)
- Bowler Engineering Consultancy (Switzerland)
- CambridgelP (UK)
- CleanTechAlps (Switzerland)
- Climate-KIC (Switzerland)
- Climate Technology Centre and Network (CTCN) (Denmark)
- Danish Patent and Trademark Office (Denmark)
- EcoMachines Incubator (UK)
- Engineers without Borders (UK)
- GIVEWATTS (Sweden)
- Innovation Insights (Switzerland)
- Institut National de la Propriété Industrielle (France)
- International Centre for Trade and Sustainable Development (Switzerland)
- International Chamber of Commerce (France)
- International Federation of Inventors' Associations (IFIA) (Switzerland)
- International Federation of Intellectual Property Attorneys (FICPI) (Switzerland)
- IPCCHAIN (UK)
- Leonard Ventures (Germany)
- Magnifico GmbH (Switzerland)
- NEUW Ventures SA (Switzerland)
- Patenterprise Technologies Holding SA (Switzerland)
- R20 Regions of Climate Change Action (Switzerland)
- SEED Initiative (Germany)
- Siemens (Germany)
- TechnologieAllianz (Germany)
- The Ground\_Up Project (Switzerland)

- Toilet Board Coalition (Switzerland)
- United Nations Industrial Development Organization (UNIDO) (Austria)
- Waterpreneurs (Switzerland)
- World Business Council for Sustainable Development (Switzerland)

## Southeast Asia, East Asia & Oceania

- Asian Development Bank (ADB) (Philippines)
- Asia-Pacific Industrial Property Center – Japan Institute for Promoting Invention and Innovation (Japan)
- Asia IP Exchange / Hong Kong Trade Development Council (China)
- Australian CleanTech (Australia)
- China Technology Exchange (China)
- CleanTek Market (Australia)
- Fujitsu Limited (Japan)
- Haier (China)
- International IP Commercialization Council (China)
- IP Nexus (China)
- IPEX Cleantech Asia (Singapore)
- Japan Intellectual Property Association (JIPA) (Japan)
- Japan Patent Attorneys Association (Japan)
- Kopernik (Indonesia)
- Korea Technology Finance Corporation (Republic of Korea)
- PatSnap (Singapore)
- Queensland University of Technology (Australia)
- Robin Paul Advisory (Malaysia)

- Singapore-ETH Centre for Global Environmental Sustainability (Singapore)
- South-South Global Assets and Technology Exchange (SS-GATE) (China)
- Team E-Kansai (Japan)
- Teijin Limited (Japan)
- VisionEdge Technologies (Singapore)
- Waseda University Environmental Research Institute (Japan)

## Central & Southern Asia

- Patent Agents Association, India (PAAI) (India)
- Sathguru Management Consultants (India)
- Villgro (India)

## North Africa & Western Asia

- Environment Public Authority (EPA) (Kuwait)
- inovent (Turkey)
- King Abdullah City for Atomic and Renewable Energy (Saudi Arabia)
- League of Arab States (Egypt)
- Moroccan Office of Industrial and Commercial Property (OMPIIC) (Morocco)
- Sabanci University (Turkey)
- Technology Development Foundation of Turkey (TTGV) (Turkey)

## Sub-Saharan Africa

- African Agricultural Technology Foundation (Kenya)
- Center for Intellectual Property and Information Technology Law (CIPIT) (Kenya)

- Ghana Bamboo Bikes Initiative (Ghana)
- Innovation Hub (South Africa)
- Kenya Climate Innovation Center (KIC) (Kenya)
- United Nations Environment Programme (UNEP) (Kenya)

## Latin America & Caribbean

- Brazilian Forum of Innovation and Technology Transfer Managers (FORTEC) (Brazil)
- National Institute of Industrial Property (INPI Brazil) (Brazil)
- SOLBEN (Mexico)

## North America

- Association of University Technology Managers (AUTM) (USA)
- Canadian Intellectual Property Office (Canada)
- Crosstaff Solutions (Canada)
- GE (USA)
- infoDev (USA)
- Intellectual Property for Sustainable Energy Ventures (USA)
- InventTrust (USA)
- Licensing Executives Society International (LESi) (USA)
- Public Interest Intellectual Property Advisors (PIIPA) (USA)
- Qualcomm (USA)
- United Nations Global Compact (UNGC) (USA)
- United Nations Office for South-South Cooperation (UNOSSC) (USA)

# New Partners in 2017



**Advance Water Technologies**  
[www.advancewater.co.uk](http://www.advancewater.co.uk)

Advance Water Technologies Ltd, based in Norwich in the United Kingdom, draws on 15 years of knowledge and experience. The company founders have successfully completed many projects designing, installing and commissioning water treatment plants to meet the needs of international companies in the water treatment sector. In collaboration with partner companies that are world leaders in water technologies, Advance Water Technologies produces high-quality, economic solutions from Turkey for Europe, Africa and the Middle East, and has the capacity to serve almost anywhere in the world. It provides services in hygienic installation applications, skid manufacturing, project consulting and manufacturing.



**Bowler Engineering**  
[www.bowlerengineering.com](http://www.bowlerengineering.com)

Bowler Engineering is a Swiss social enterprise that provides specialist engineering and project management services relating to renewable energy and electricity distribution. It specializes in distributed generation, smart electricity networks and rural electrification. Its customers include energy sector companies, NGOs, foundations, charities and project delivery organizations.



**Canadian Intellectual  
Property Office**  
[www.cipo.gc.ca](http://www.cipo.gc.ca)

The Canadian Intellectual Property Office (CIPO) is a part of Innovation, Science and Economic Development Canada. CIPO is responsible for the administration and processing of most IP in Canada, including trademarks, patents, copyright, industrial designs and integrated circuit topographies. The agency's mandate is to

deliver high-quality and timely IP services to customers, and to increase awareness, knowledge and effective use of IP by Canadians. Its vision is to offer leadership and expertise in intellectual property to support creativity, enhance innovation and contribute to economic success.



### CleantechAlps

[www.cleantech-alps.com](http://www.cleantech-alps.com)

CleantechAlps is the gateway to clean technology in western Switzerland. The platform supports the development of the clean technology sector by offering visibility, support and networking opportunities to SMEs, research organizations, start-ups and others. CleantechAlps aims to promote Switzerland as a European center of excellence for clean technologies by enabling members of its network to develop their businesses, gain international visibility and access specific industrial networks. With a network of 800 companies, CleantechAlps provides dedicated support and access to clean tech communities, innovation leaders and potential partners in the fields of renewable energies, water treatment, waste treatment, mobility, energy efficiency and smart grid systems.



### International IP Commercialization Council

[www.iipcc.org](http://www.iipcc.org)

The International IP Commercialization Council (IIPCC) is a global, non-profit, non-partisan organization providing a platform for innovator and entrepreneur communities and enterprises to increase their understanding of IP and to gather resources to unleash the value and realize the commercial potential of their creative and innovative IP in the form of products, services and processes. IIPCC provides access to a highly structured networking system, IP education resources and other opportunities.



### InvenTrust

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

InvenTrust aims to empower innovators and their organizations to take greater control of their intellectual property rights. We are leveraging blockchain technology

to create an encrypted digital ledger of rights ownership that helps democratize the discovery and conversion of ideas, IP and expert talent into solutions for a more productive world. Through our solutions, IP holders can register their old and new innovative work simply and securely. Our protocol and network helps users rapidly spot new breakthroughs, IP, talent, technology and innovative solutions (even from non-obvious sources) and creates a rapid connect, resulting in productive, high-value collaboration. InvenTrust enables innovators to get discovered, cultivate valuable relationships, and participate fairly in a new economy for innovation and know-how.



**IPCHAIN**  
[www.ipchaindatabase.io](http://www.ipchaindatabase.io)

IPCHAIN is a decentralized, block-chain-based database that replaces and/or complements traditional intellectual property strategies by offering proof of authorship to scientists and inventors. It protects various types of intellectual property other than existing forms of intellectual property rights – patents, trademarks, trade secrets and copyrights – by

establishing effective and secure digitally documented ownership, with additional benefits for innovators in the academic, private and public sectors as well as legal authorities.



**Fujitsu Ltd**  
[www.fujitsu.com/global](http://www.fujitsu.com/global)

Fujitsu is the leading Japanese information and communication technology company, offering a full range of technology products, solutions and services. Through the Fujitsu Climate and Energy Vision, the company is committed to contributing to a post-carbon society by offering technologies and services that support digital transformations. As the holder of a wide range of IP assets, Fujitsu believes not only in employing these assets for its own products and services, but utilizing them to contribute to open innovation and technology transfer. The company will be adding over 200 intellectual property assets to the WIPO GREEN Database by May 2018.





## Kopernik

[www.kopernik.info](http://www.kopernik.info)

Kopernik is an Indonesia-based organization that finds what works to reduce poverty by experimenting with potential solutions that address common challenges facing people living in “the last mile”. Kopernik engages partners from the development, public and private sectors to advance products, services and approaches that support disadvantaged people to realize their full potential and enjoy a dignified life, free of poverty.



## Waterpreneurs

[www.waterpreneurs.net](http://www.waterpreneurs.net)

Waterpreneurs is a global “for-impact organization” supporting the scaling-up of impact investments to finance the growth of water and sanitation (WASH) enterprises operating in developing countries, and respecting human rights. Waterpreneurs works on a dialogue, and provides

multi-stakeholder solutions (private sector, public sector, civil society...), around issues of human rights, security, and peace in the world through the development of entrepreneurs who provide basic services to the most vulnerable populations, in particular access to drinking water.



## Toilet Board Coalition

[www.toiletboard.org](http://www.toiletboard.org)

The Toilet Board Coalition (TBC) is a business platform founded by leading businesses in 2014 with the goal of catalyzing private sector engagement to achieve universal access to sanitation before 2030. The TBC seeks to accelerate the development of business solutions for the sanitation crisis by stimulating collaboration between the private, public and non-profit sectors.

# Database highlights

- Registered users up from 779 in November 2016 to 1,041 (+34%).
- By December 2017, 2,685 technologies had been uploaded into the database – up from 2,280 in November 2016 (+18%)...
- ...and 161 needs had been uploaded – up from 150 needs in November 2016 (+7.33%).
- The new WIPO GREEN Experts Database was launched in November 2017. It currently features listings from 316 experts offering a wide range of services – from engineering and technology certification to business services (legal, financial, etc.) – covering 73 countries and across all 8 WIPO GREEN database categories.
- WIPO GREEN signed a data-sharing agreement with the United States FLC to upload a selection of highly relevant green technologies to the technology/needs database.
- New WIPO GREEN Partner Fujitsu Ltd. has committed to uploading 200+ of its assets to the technology/needs database by May 2018.

# Data-sharing agreement with United States Federal Laboratory Consortium for Technology Transfer (FLC)

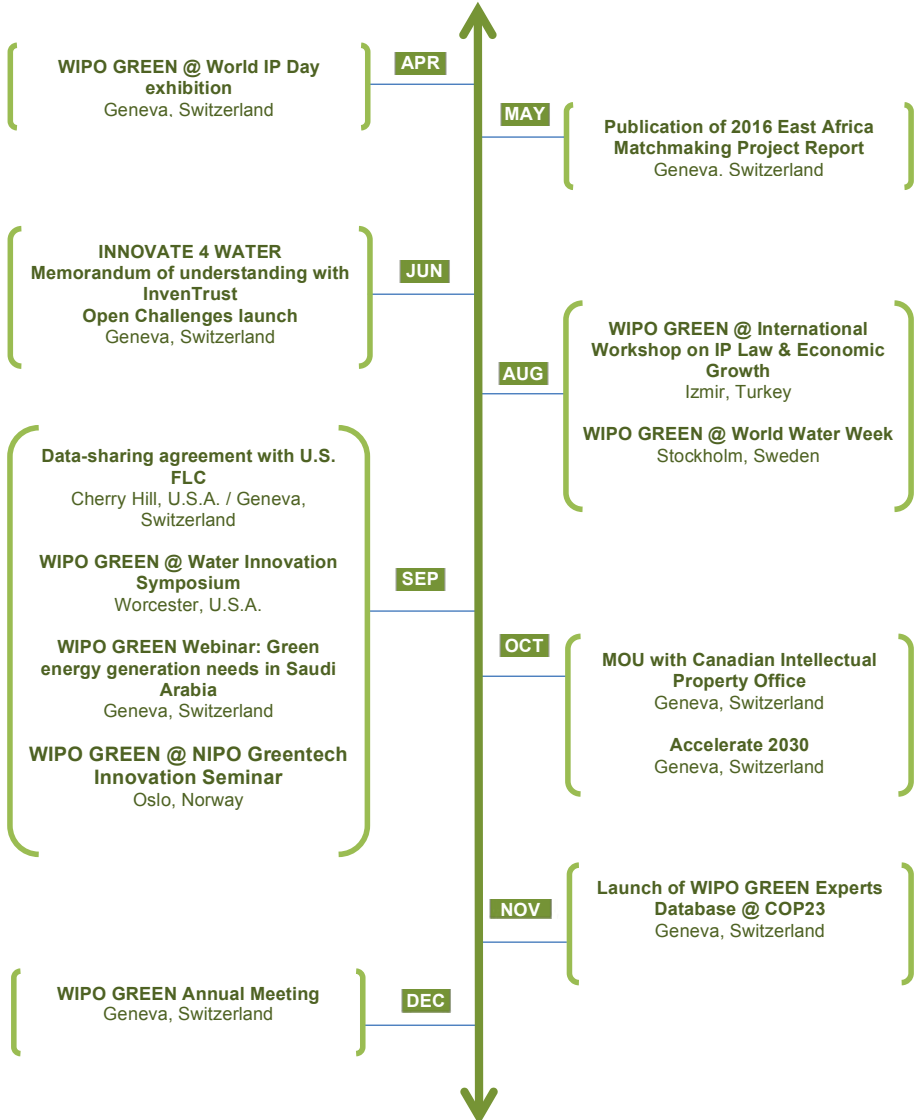


WIPO and FLC have signed a data-sharing agreement through which the FLC has uploaded hundreds of green technologies from U.S. federal laboratories into the database, giving WIPO GREEN users easy access to a more diverse range of technologies. WIPO GREEN selected the most relevant green technologies from the FLC Business dataset and added them to the WIPO GREEN database. Most of these technologies are available for licensing or research collaborations.

As the U.S. nationwide network of over 300 federal laboratories, agencies and research centers, the FLC's mission is to promote, educate and facilitate federal technology transfer so federal labs and their industry partners can meet their research and development (R&D) goals, and positively impact society and economy with new innovative technologies. To support its members and innovators who are looking to work with federal labs or access lab resources, the FLC offers T2 education

and training as well as numerous tools and services designed to get technology out of the lab and into the marketplace. The FLC Business tool, for example, contains over 19,000 technologies available for licensing from federal labs as well as valuable information pertaining to funding, programs, facilities and equipment, and laboratory profiles.

# Network highlights



## Featured deals

Enabling safe drinking water treatment and supply with integrated micro-payments



### The deal

At the WIPO GREEN-hosted Innovate 4 Water 2017, **Cubo Environmental Technologies** presented its compact, modular and containerized water treatment technology, which can supply safe drinking water to small population clusters in developing countries. It also presented the challenge it was seeking to address: identifying a partner who could help it deliver water to the end user with an integrated payment/collection system, enabling Cubo's technology to be used in target locations that did not have access to water distribution infrastructure.

Chief Technology Officer Rui Gomes and his team established contact with **Susteq**, a Dutch company that had developed a water dispensal and payment terminal that could potentially be integrated with Cubo's water treatment and distribution technology. Following this meeting at Innovate 4 Water, the Cubo team travelled to Susteq headquarters in the Netherlands and forged a deal to integrate Susteq's terminal into its treatment and distribution systems.

### The impact

Cubo has recently deployed this drinking water system to Murang'a village in Kenya, supplying safe drinking water to approximately 1,000 people. It will also be integrating Susteq technology into its established deals to supply parts of the Nigerian market as well as, potentially, the Indian market. As a result of this collaboration, Cubo and Susteq will be able to bring affordable, safe drinking water to over 20,000 beneficiaries in Nigeria next year, with the potential to further impact Kenya and Nigeria.

# Piloting the AquaCAPTURE Smart Meters System



## The challenge

“Climate change and global warming are already causing water availability problems in Kwale County. Consequently, the water quantity in our reservoirs is not abundant enough to steadily supply our 12 stations; we therefore rely heavily on borehole water. We are also unable to efficiently check on year-round water usage across our consumers in real-time, and ensure customers are invoiced for exact water usage. Additionally, we cannot automatically notify customers of any abnormal consumption so as to enhance water conservation efforts.” – Swaleh Kidzuga, Technical Manager, **Kwale Water and Sewerage (KWAWASCO)**

## The solution

**SwissQuest’s** system consists of a pre-paid water meter and a billing information management system, compatible with smartphones or a specially provided customer interface unit keypad (for those without smartphones).

## The impact

A letter of intent signed between the parties at the 2016 East Africa water and agriculture matchmaking seminar in Nairobi allowed SwissQuest to undertake a pilot project with KWAWASCO as proof of concept. After a successful pilot, in the first phase the parties will scale up to 1,000 users in Ukunda, Kwale County, with the potential to reach 20,000+ customers served by KWAWASCO.

## 2017 Matchmaking Project: INNOVATE 4 WATER



Photo: WIPO/Berrod

Innovate 4 Water participants interact during a networking session

WIPO organized the first-ever INNOVATE 4 WATER matchmaking forum in collaboration with WIPO GREEN Partners Waterpreneurs and WaterVent on June 8-9, 2017, at WIPO headquarters in Geneva, Switzerland. The event brought together over 400 participants including entrepreneurs, investors, companies, public sector organizations, UN agencies, incubators and others to discuss and pitch solutions for Sustainable Development Goal (SDG) 6 – Clean Water and Sanitation.

As a matchmaking forum centered on stakeholder pitches and challenges, the event helped foster collaboration and innovation in the water sector through

increased understanding, visibility and networking among entrepreneurs and potential investors. Entrepreneurs pitched their sustainable solutions to investors and technology seekers while more than 60 organizations presented the challenges and needs for which they seek innovative solutions.

The full report from the 2016 matchmaking project on water and agriculture in East Africa is available on the WIPO GREEN website.

## WIPO GREEN Experts Database launch @ COP 23 in Bonn



Photo: ICC

The launch of the Experts Database during the official COP23 Business and Industry Day, organized by WIPO GREEN Partner International Chamber of Commerce (ICC).

WIPO GREEN officially launched its new Experts Database during COP23 in Bonn, Germany, in November 2017. Members of the WIPO GREEN Network and others can search the database if they need a business expert, or post details if they are offering services. The database is easy-to-use, free of charge and includes *pro bono* service providers. Users can search by field of expertise, category (e.g., energy, water, transportation, etc.), location and

keyword, among other criteria, to find the service providers that fit their project and business needs. The database currently features over 300 experts from 73 countries operating across all the green tech categories in the WIPO GREEN technology/needs database.



## Memorandum of understanding with the Canadian Intellectual Property Office (CIPO)



Photo: WIPO/Berrod

CIPO Chief Executive Officer Johanne Bélisle with WIPO Director General Francis Gurry at the 57th Series of Meetings of the WIPO General Assemblies in Geneva.

A new memorandum of understanding seeks to support collaboration between CIPO and WIPO, particularly related to WIPO GREEN. Given Canada's commitment to climate change action and the complementarity of its activities with WIPO GREEN, the MoU will be instrumental as a supportive framework for the collaboration between WIPO and CIPO. Key areas of cooperation include technology transfer, IP and financing. With the

signing of the MoU, CIPO also endorsed the WIPO GREEN Charter and became a WIPO GREEN Partner.

# Network highlights

## Quotes from the Network

“There’s a great need today to reinvent business models, to seize the new opportunities that are presented by the need to address the SDGs. In order to do that, you need to meet new partners, get yourself known and reach out to others... so you can identify things you can do in common – and create value for each other as well as the big-picture goal: saving our environment. I can only applaud this fantastic initiative.”

**John Tidmarsch,**  
R20 – Regions for Climate Action

“WIPO GREEN nous a mis en relation avec Waterpreneurs qui est un de nos partenaires avec lequel nous sommes en train de pousser la réflexion pour pouvoir porter des solutions innovantes technologiques jusqu’au fin fond de l’Afrique. Ce partenariat est né du lien que WIPO nous as fait, et bien d’autres partenariats que nous avons développé depuis la COP22, toujours grâce à WIPO GREEN. En plus de ça, nous avons aussi une notoriété parce que nous avons été référencés par la “database” de WIPO GREEN. À l’heure où nous en sommes, nous avons pratiquement un grand nombre de sollicitations pour des usagers de la database de WIPO GREEN. Et enfin, nous avons eu l’honneur et l’occasion de faire l’objet

d’un article dans le magazine de WIPO GREEN [*WIPO Magazine*]. Donc toutes ces actions de WIPO GREEN nous permettent de dire aujourd’hui que nous avons avancé avec notre technologie grâce à WIPO GREEN.”

**Abdou Maman,**  
TechInnov Niger

“By joining [the WIPO GREEN] marketplace, Fujitsu’s goal is to contribute to the preservation of the global environment by spreading its environmental technologies throughout society... WIPO GREEN fosters collaboration among diverse actors with a stake in green innovation. It conducts activities with an aim to contribute to achieving Sustainable Development Goal 17: “Strengthen the means of implementation and revitalize the global partnership for sustainable development.” By contributing as a partner to WIPO GREEN and joining other partner enterprises, Fujitsu seeks to support efforts to advance Sustainable Development Goals.”

**Press release,**  
Fujitsu Ltd

“WIPO GREEN has changed our lives.”

**Ezequiel Vedana,**  
Piipee Save the Water



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