

Environment, Intellectual Property, and WIPO GREEN

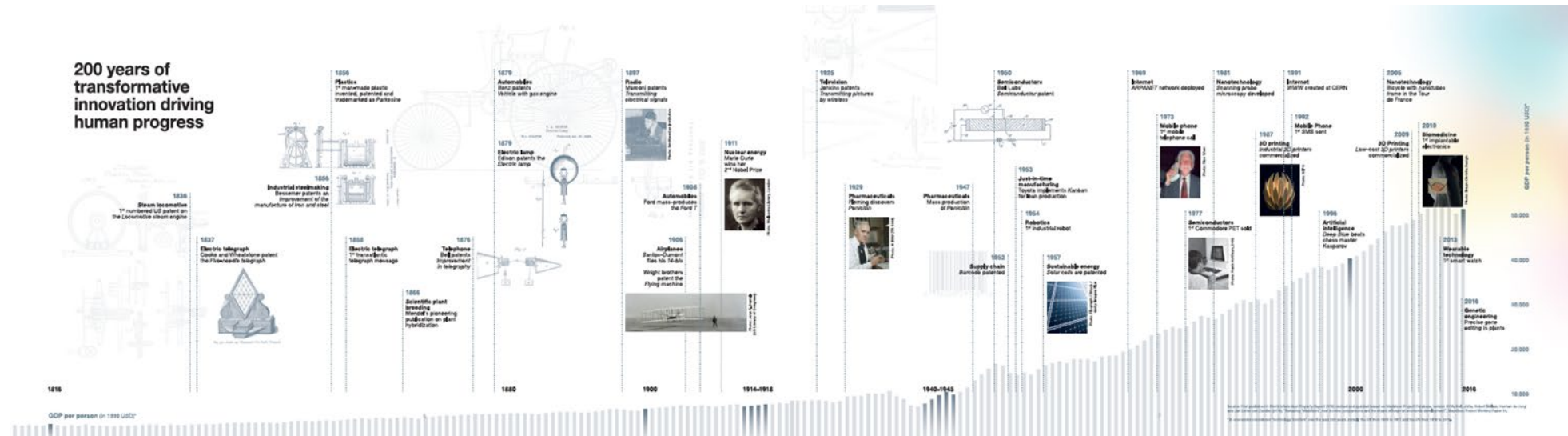
January 21, 2022

World Intellectual Property Organization (WIPO) Japan Office

Tomoki SAWAI

Merits and Demerits of Innovation

- Technological development has greatly advanced humanity, making the world more prosperous and secure place. The intellectual property system encourages technological development.



Source : WIPO and Sustainable Development Goals Innovation driving human progress

- On the other hand, many people have pointed out that we have left environmental issues behind. Pope Francis’s “Encyclical on the environment (Laudato si’)” (officially published on June 2015) (extract) “There is a tendency to believe that every increase in power means “an increase of ‘progress’ itself”, (omitted) as if reality, goodness and truth automatically flow from technological and economic power as such. The fact is that “contemporary man has not been trained to use power well”, “The economy accepts every advance in technology with a view to profit, without concern for its potentially negative impact on human beings. (omitted) **we are learning all too slowly the lessons of environmental deterioration.**”

Growing Interest in ESG Investment

- Companies that are proactive in CSR (Corporate Social Responsibility) have higher profitability and growth potential (*1), and curbing greenhouse gas emissions has a positive impact on corporate performance (*2).

(*1 Lins, Servaes and Tamayo (2017) , *2 「Changing Corporate Governance」 by Masaharu Hanazaki (2019))

- ESG investment has been expanding in recent years, especially in Europe and North America. In some regions, it amounts to a majority of all investments.

ESG Investment by region

Unit: 10 million US dollars, %

	2012	2014	2016	2018	2020
Europe	8,758 (49.0)	10,775 (58.8)	12,040 (52.6)	14,075 (48.8)	12,017 (41.6)
United States	3,740 (11.2)	6,572 (17.9)	8,723 (21.6)	11,995 (25.7)	17,081 (33.2)
Canada	589 (20.2)	729 (31.3)	1,086 (37.8)	1,699 (50.6)	2,423 (61.8)
Japan	10 (-)	7 (-)	474 (3.4)	2,180 (18.3)	2,874 (24.3)
Asia (Excluding Japan)	30 (0.6)	45 (0.8)	52 (0.8)	N/A	N/A
Australia and New Zealand	134 (12.5)	148 (16.6)	516 (50.6)	734 (63.2)	906 (37.9)
Total	13,261 (21.5)	18,276 (30.2)	22,890 (26.3)	30,683 (-)	35,301 (-)

Note: Actual amount. Figures in parentheses are percentages of total assets under management.

Source: Prepared by WIPO Japan Office based on Global Sustainable Investment Review 2012, 2014, 2016, 2018, 2020

SDGs and Intellectual Property System

Preamble to the Sustainable Development Goals (SDGs)

“We are determined to take the bold and transformative steps which are urgently needed to shift the world on to a sustainable and resilient path. As we embark on this collective journey, we pledge that **no one will be left behind**.”

SUSTAINABLE DEVELOPMENT GOALS



Source: United Nations Information Centre website

No one will be left behind



This is the goal of all human beings, regardless of whether they are from developed or developing countries, and therefore, we have high expectations for its realization.



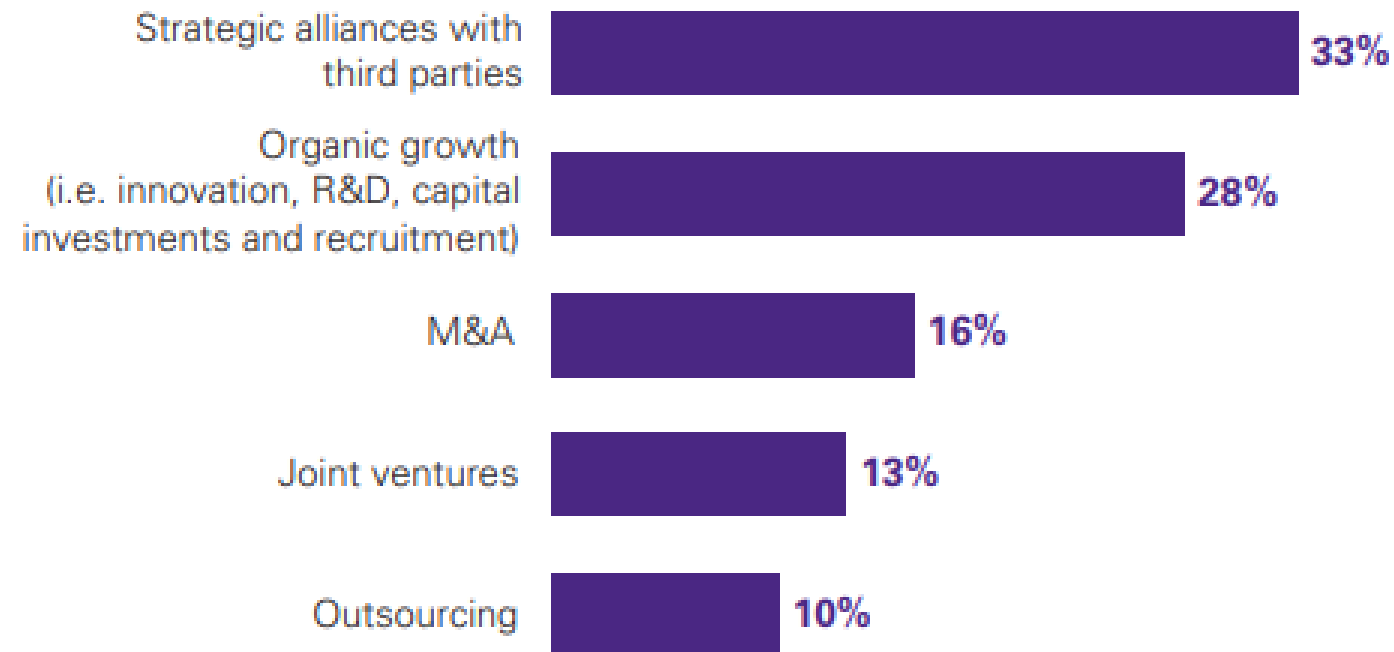
Many of the SDGs are environment-related.

What can the IP system do?

WIPO GREEN is One Answer - Innovation Needs a Platform -

- Collaboration between companies leads to win-win relationships and exponential growth.
- A platform is necessary as a catalyst to build business collaboration.
- Therefore, open innovation is recognized as an important issue for cooperate management.

The Most Important Strategies to Drive Growth Over the Next 3 Years



Source: 2018 Global CEO Outlook, KPMG International

WIPO GREEN is a Global Public Platform

- WIPO GREEN is a global public platform operated by an international organization to promote open innovation in green technologies, and has been in operation since 2013.

[WIPO GREEN's points]

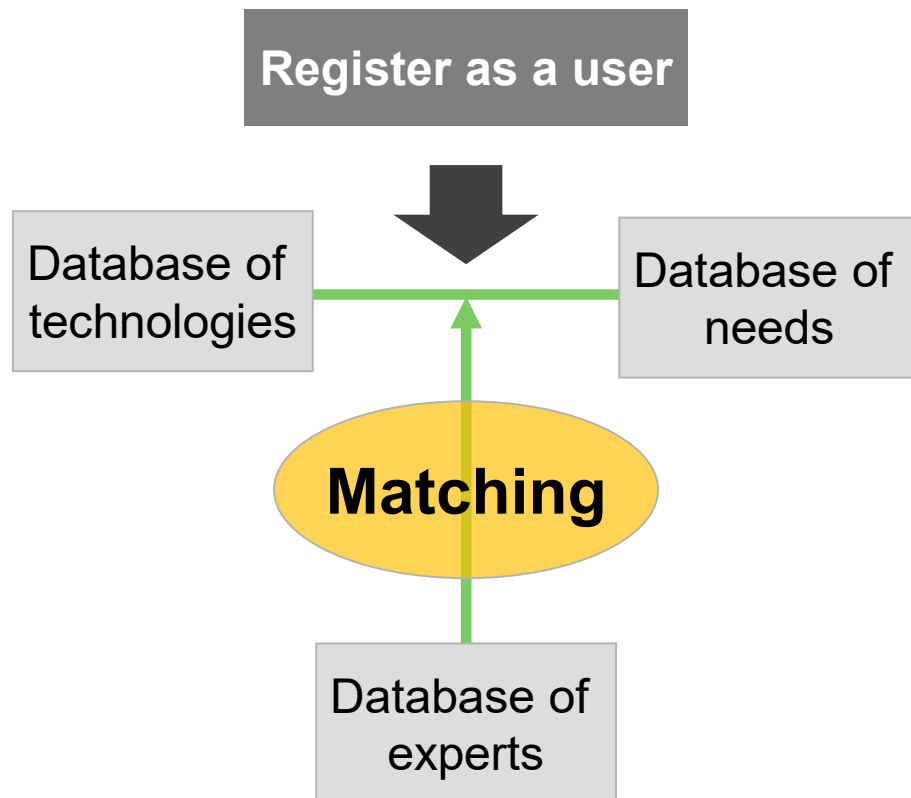
- ✓ Provide a forum for **providers** and **seekers of green technologies**
- ✓ **Three databases** of green technologies, needs, and experts
- ✓ **Free of charge** to anyone in companies, universities, institutions, organizations, etc
- ✓ **Licence negotiations are done between the parties**, without interference from WIPO or the government
 - There is **no interference** in individual transactions as an international organization or a member states.
 - WIPO GREEN does **NOT require the royalty-free license or the release of rights at a low price.**

Website : <https://www3.wipo.int/wipogreen/en/> Brochures : <https://www.wipo.int/publications/en/>

WIPO GREEN was introduced at **COP26** as a platform supporting innovation and green technology diffusion for climate actions.

Databases of Technology, Needs and Expert

- As an international organization, we have focused on building a database of green technologies, recognizing that “To date, there has not been a single initiative with a clear banner of promoting green technologies”.



The following information from around the world is included and searchable:

- ✓ **More than 120,000** green technologies
*As of January 2022, including data transferred from PATENTSCOPE.
- ✓ Organizations of various countries and local governments have registered, but the number of the needs is still low at about 304 (as of January 2022).
- ✓ More than 400 experts from around the world are registered. Experts can be searched by technical field, specialty, language, location, and whether they are paid or unpaid.

Successful Case

Portuguese company Cubo Environmental Technologies (Cubo) has a technology to treat and distribute water in compact modular containers.

- It enables to supply safe drinking water to areas with small population and no access to water distribution infrastructure in developing countries.
- But the company faced a challenge of “finding a partner that could provide an integrated payment and collection system to deliver water to the final user”.

Dutch company Susteq has developed a water payment and dispensation terminal.



Cubo met **Susteq** at **Innovate 4 Water**, an international matchmaking event organized by **WIPO** in 2017.

- ✓ After the event, the two companies **established a partnership that would allow Cubo to use Susteq’s terminals in its treatment and distribution system.**
- ✓ This partnership led to a project to deploy Cubo’s water treatment and distribution technology and Susteq’s terminal technology for **the supply of safe drinking water in Kenya and Nigeria.**

WIPO GREEN Matchmaking Impact Stories:
<https://www.wipo.int/publications/en/details.jsp?id=4359>

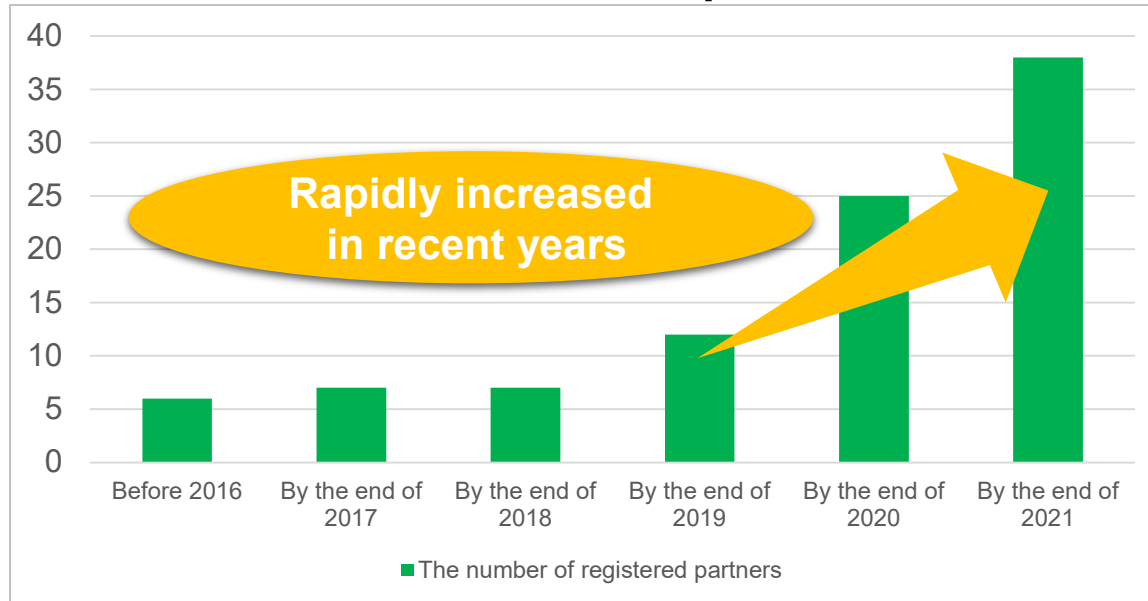


Photo: Susteq

WIPO GREEN Partners

- Participation in the Advisory Board Meeting and join the discussion on WIPO GREEN strategy, etc.
- Listed in the partner list on the WIPO GREEN website.
- 136 institutions and organizations from around the world are participating as partners (as of January 2021). Of these, the number of Japanese companies and organizations has increased rapidly over the past two years, with 38 organizations and institutions in the world.

Number of WIPO GREEN Partners and Institutions in Japan



*As of 2021, December 2021 in alphabetical order

Government	Japan Patent Office / METI-Kyushu
Companies	Ajinomoto Co., Inc. / astamuse company, Ltd. / Canon Inc. / Daicel Corporation/ Daikin Industries, Ltd. / Fujitsu Limited / Furukawa Electric Co., Ltd./ Global Mobility Service Inc. / Green Science Alliance Co. Ltd. / HINODE SANGYO Co., Ltd. / Hitachi, Ltd. / Honda Motor Co., Ltd. / Kai Corporation / Konica Minolta / Mitsubishi Electric Corporation / Panasonic Corporation / Ricoh Company, Ltd / Shiseido Company, Limited / Sumitomo Electric Industries, Ltd. / Sumitomo Osaka Cement Co., Ltd. / Teijin Limited / Toyo Aluminium Ekco Products Co., Ltd. / Toyota Industries Corporation / Toyota Motor Corporation
Organizations	Japan Intellectual Property Association / Japan Patent Attorney Association / Team E-Kansai
Universities/ Research centers	Meiji University Center for Polymer Science / The University of Tokyo / Tokai National Higher Education and Research System/ Tohoku University / Tokyo Institute of Technology, Open Innovation Platform / Waseda University Environmental Research Institute / Yamagata University
Others	Asia-Pacific Industrial Property Center / Shobayashi, International Patent and Trademark Office

Growing WIPO GREEN

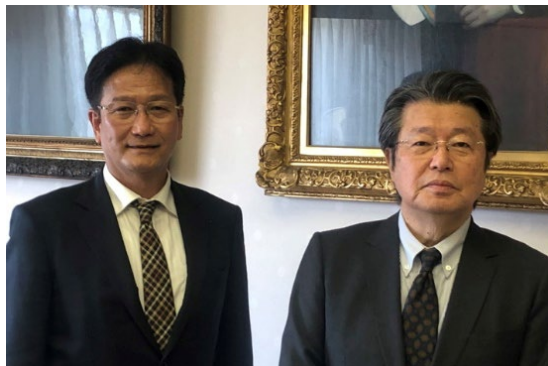
- There is a continuing and growing interest in WIPO GREEN from R&D-oriented companies, universities, local organizations as well as big businesses.
- We will support collaboration and networking among Japanese partners and users to encourage successful cases.



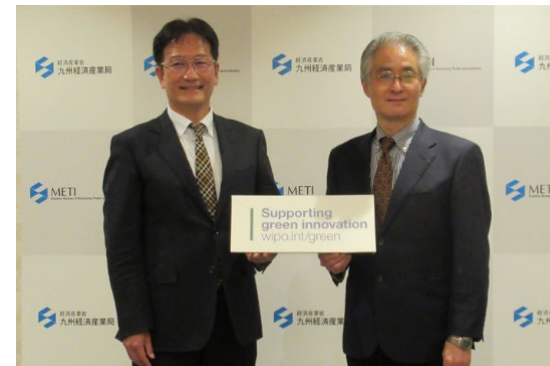
◀ With Mr. SAKUYAMA Masaki, then Chairman of Mitsubishi Electric Corporation (front) at WIPO Japan Office's small innovation gallery displaying the history of innovation, important patent gazettes and design gazettes



◀ With Mr. YAMAZAKI Shunpei, President of Semiconductor Energy Laboratory Co., Ltd. at his office



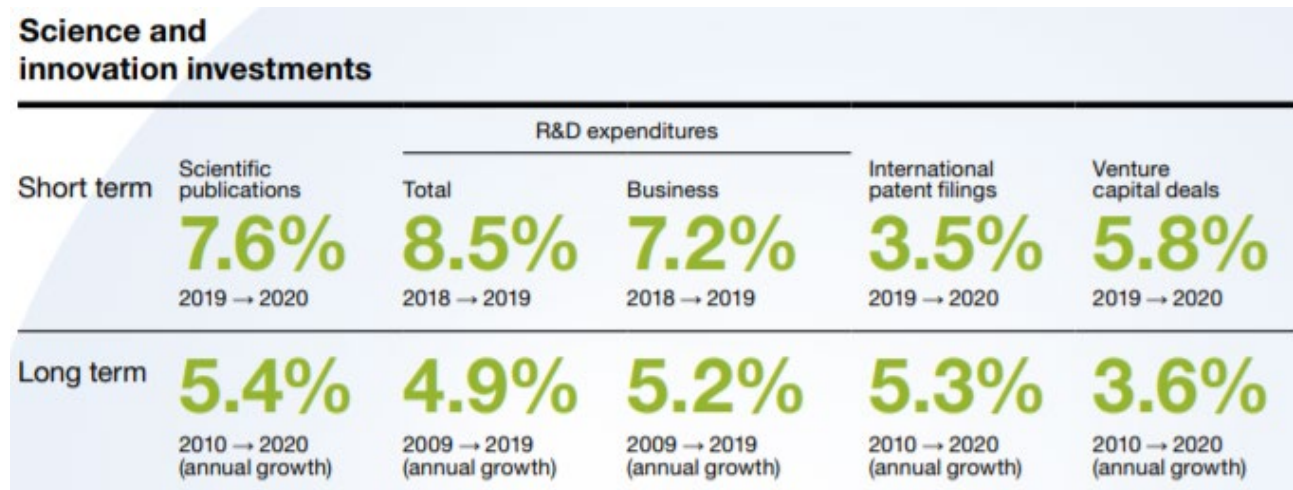
◀ At a meeting with Mr. ISHIBASHI Tatsuro, President of Kyushu University (right) who announced its participation in WIPO GREEN as a partner



◀ With Mr. GOTO Yuzo, Director-General of the Kyushu Bureau of Economy, Trade and Industry (right) at a press conference on its participation in WIPO GREEN

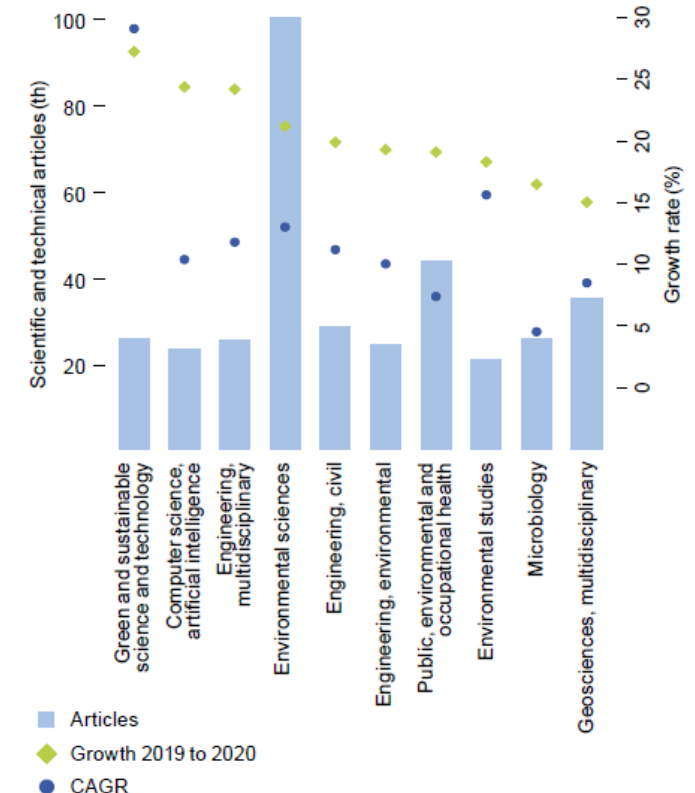
R&D is Booming Even Amid the COVID-19 Crisis

- Investments in R&D on a year-on-year basis has grown significantly beyond the previous trend even in the pandemic.
- Above all, investments in environmental technologies are increasing remarkably along with the rapid increase in ESG investments as mentioned earlier.



Source: WIPO Global Innovation Index 2021

Fastest growing significant research fields by number of publications, 2020



We are convinced that both environment and growth will be promoted on a global scale by leveraging these research results for cross-border open innovation through WIPO GREEN initiatives.

Thank you for your attention!
