



**INTELLECTUAL PROPERTY AND INNOVATION:
MAKING MSMEs COMPETITIVE IN GREEN TECH**

COMMUNICATION FROM AUSTRALIA, CANADA, CHILE, THE EUROPEAN UNION, JAPAN,
SINGAPORE, SWITZERLAND, THE SEPARATE CUSTOMS TERRITORY OF TAIWAN,
PENGHU, KINMEN AND MATSU, THE UNITED KINGDOM AND THE UNITED STATES

The following communication, dated 25 February 2021, is circulated at the request of the delegations of Australia, Canada, Chile, the European Union, Japan, Singapore, Switzerland, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, the United Kingdom and the United States.

1 INTRODUCTION

1. Some of today's critical global challenges include climate change, biodiversity loss, environmental degradation and food security. As an example, climate change matters to our health and increases the risk of infections and pandemics.¹

2. Several international efforts such as the Sustainable Development Goals (SDGs), the Convention on Biological Diversity, the UN Framework Convention on Climate Change and the Paris Agreement are designed to address these challenges. In this context, the role of Green Technology² is important to provide new alternatives to address these challenges and create opportunities that have economic, social, and environmental benefits, as underscored by the framework of the SDGs. Of these, several underline the importance of Environmentally Sound Technologies (ESTs) for the accomplishment of the above objectives.

3. Micro-, Small and Medium-sized Enterprises (MSMEs) can play a pivotal role in this change towards more sustainability. As they provide for more than 50 percent of employment (G20/OECD, 2015), they can constitute core engines of innovation and growth. MSMEs working in the green tech sector represent key economic actors in the effort towards finding solutions to address the above-mentioned global challenges. The role of intellectual property rights (IPRs) to enhance the competitiveness of MSMEs should be looked at closely. IPRs enhance the dissemination and protection of innovations – which is key for MSMEs, including those in the green tech sector (Friesike, Jamali, Bader et al, 2009). This submission presents IPR approaches for making MSMEs more competitive in green tech.

2 INTERNATIONAL APPROACHES

4. MSMEs are confronted with a number of challenges with regard to IPRs, such as perceived high costs of protecting their intangible assets, a limited understanding of the IP system and its opportunities (Sukarmijan & Sapong, 2014) or a lack of information on the available support by

¹ Harvard T.H. Chan School of Public Health: <https://www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-climate-change/> (last consulted: 09.01.2021).

² Green Technology: "Environmentally sound technologies that protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residual waste in a more acceptable manner than the technologies for which they were substitutes and that include know-how, procedures, goods and services, and equipment as well as organizational and managerial procedures" (The United Nations Program of Action from Rio, 1992).

experts, universities or public agencies. Accordingly, MSMEs need opportunities for exchanging views and gaining information in order to use the IP system to their advantage including the protection of their intangible assets. International organizations, in particular the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO), act as important sources of information regarding IPR systems and legal regimes, and venues through which governments and stakeholders can come together to share experiences, lessons learned, and new approaches.

5. One important initiative to accelerate the development and dissemination of ESTs is WIPO GREEN, a marketplace designed to connect providers and seekers of ESTs. All technologies listed in the online database of WIPO GREEN are available for license, collaboration, joint ventures, and sale. In addition to establishing a network of various partners, WIPO GREEN contains a database of IP experts, supports acceleration projects in different countries and produces briefs and seminars for various green tech areas. It is thus particularly valuable for MSMEs, given that it facilitates the diffusion of their technologies and provides information to technology providers and seekers in all countries.

6. Similarly, the United Nations Framework Convention on Climate Change Technology Mechanism ('the Mechanism') and its operational branch, the Climate Technology Centre and Network, serve as a tool to promote and facilitate collaboration between climate technology stakeholders of developing and developed countries. In addition to networking events, the Mechanism constitutes a direct point of contact, providing technical assistance and training to strengthen countries' capacity to identify and adapt technology options. The Mechanism also supports the achievement of the SDGs presented in Agenda 2030 by promoting collaborations between various stakeholders in order to stimulate climate technology action.

7. Furthermore, there are various patent classification schemes in the green tech sector, such as the WIPO International Patent Classification Green Inventory and the European Patent Office (EPO) and US Patent and Trademark Office (USPTO) Y02 classification system. The EPO and the USPTO created the Y02 section of the cooperative patent classification (CPC) system. All these schemes facilitate searches for patent information related to technologies or applications for mitigation or adaptation against climate change. They may assist MSMEs and patent offices in analyzing the green tech innovation landscapes. They can also help policy makers and investors to identify opportunities for MSMEs that are innovating in green technologies.

8. The international IP registration systems such as the Madrid System, also facilitate and lower costs for obtaining international IP protection, thereby supporting innovative MSMEs that are active in the green tech sector to maintain and enhance their competitiveness.

9. The main advantage that the above-mentioned initiatives have in common is their focus on green technologies, and their support of the means through which MSMEs can network and obtain IP information efficiently. Moreover, many of these services are free of charge and therefore of great importance to MSMEs, which are often financially constrained and lack the well-established networks of larger companies (Sukarmijan & Sapong, 2014). Finally, the international approach promotes cooperation across national borders and thus contributes to the exchange of technology and information regarding IP.

3 NATIONAL APPROACHES

10. At the national level, public authorities, including IP offices, have several possibilities to foster MSMEs in the green tech sector. A conducive regulatory environment could be achieved through various measures, including appropriate IPR protection and implementing sound environmental regulations. In the following, a focus is placed on measures that IP offices could take.

3.1 The key role of IP rights

11. IPRs are powerful tools to protect and promote ESTs for MSMEs and make them attractive, therefore increasing the competitiveness of existing green tech MSMEs. For instance, patents, as accelerators of technology diffusion, help potential investors to identify inventors, for example, through respective searches on publicly accessible patent information databases. Patents may also serve as a door opener to financial resources. This has great relevance, especially for smaller-scale innovations, many of which seek to benefit resource-poor communities in developing countries

(WIPO, 2020). Trade secret protection provides MSMEs, among other things, with an alternative to patent protection is often a MSME's IP protection of choice in the early stages of an innovative process. Trade secrets, less formal than patents, can offer a form of protection for MSMEs' key commercial and technical information, providing them with a competitive advantage, and helping them to innovate in the area of green technology; such informal protection has both its advantages and disadvantages, of course. MSMEs can also use IPRs to differentiate themselves from non-green competitors in order to build a reputation and brand recognition in their markets. Consequently, the strengthening of IPRs such as trademarks and designs can help companies to communicate with consumers, and are therefore important tools to enhance the development, commercialization and uptake of clean technology (Resai, 2012).

3.2 Possible actions by IP offices

12. There are several ways for IP offices to assist MSMEs in making the best use of IPRs.

- IP offices can provide basic guidance and assistance on various IPR aspects. By preparing reader-friendly IP material, including patent and trademark basics, examination overviews, information on patent searching and resources on legal assistance that could be used by inventors and businesses in the green tech sector, individual questions and needs may be met.
- IP offices may provide support in the form of assisting applicants with patent searches, landscape analyses and also facilitate free legal assistance.
- Specifically with a view to promoting ESTs, IP offices could consider accelerated patent examination procedures for such green tech patent applications. This process shortens the time between application and grant, enabling MSMEs to attain financial support more quickly.
- Customized workshops, seminars, or awards for the best green tech inventions may also help to make MSMEs that are involved in the green tech sector more aware of the benefits that the IP system may hold for them.

4 CONCLUSION

13. There are various ways in which MSMEs can make use of the IP system to become more competitive in the field of green tech, ranging from taking advantage of international and regional IP application and registration mechanisms, international platforms for sharing information and opportunities for partnership and collaboration, to national solutions such as fast-track patenting or even on-demand support facilitated by IP offices. Through these efforts, progress towards more sustainable technologies can be accelerated, in turn fostering innovation and providing opportunities for cooperation in the green technology sector. Finally, initiatives of international organizations, such as WIPO's World IP Day 2020 dedicated to "Innovation for a Green Future," encourage both public and private stakeholders, including MSMEs, to play an active role in achieving the SDGs and in addressing global challenges such as climate change.

5 GUIDING QUESTIONS

- a. What are the Members' experiences with international platforms such as WIPO GREEN?
- b. How can MSMEs develop a sound IP strategy in the green technology sector?
- c. What forms of IP-related measures taken by Members have proven useful for the support of green tech MSMEs in their financing/commercialization strategy and which ones have not?
- d. How can the awareness of green tech MSMEs be raised regarding the benefits of IP for their business activity?

- e. According to the experience of Members, what are the main challenges for green tech MSMEs to share their technology with enterprises, including across all levels of economic development?
- f. What experiences have Members gained with fast-tracking patent applications in the green-technology sector?
- g. According to the experience of Members, which sectors in green-tech need the most support and/or can benefit the most from IPRs?
- h. Are there other ways in which the IP offices can enhance the attractiveness of the use of IP rights by MSMEs in the green technology sector?

Cited References

- Friesike, S.; Jamali, N.; Bader, M.; Ziegler, N.; Hafezi, N.; Iorno, N. & Schreiner, E. (2009), "SME-IP 3rd Report: Case Studies on SMEs and Intellectual Property in Switzerland", *Swiss Institute of Intellectual Property*.
- G20/OECD (2015), "High-Level Principles on SME Financing", <https://www.oecd.org/finance/G20-OECD-High-Level-Principles-on-SME-Financing.pdf>, (last consulted: 08.01.21).
- Resai, D. (2012), "From Trademarks to Brands", <http://scholarship.law.ufl.edu/flr/vol64/iss4/5>, (last consulted: 08.01.21).
- Sukarmijan, S.; Sapong, O. (2014), "The Importance of Intellectual Property for SMEs; Challenges and Moving Forward", *UMK Procedia*.
- WIPO (2020), "World Intellectual Property Day 2020 – Innovation for a Green Future", [World Intellectual Property Day 2020: Innovation for a Green Future \(wipo.int\)](http://wipo.int) (last consulted: 08.01.21).
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