

# Response to Katowice Committee of Experts on the Impacts of the Implementation of Response Measures (KCI) Call for Inputs

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by AIPPI Standing Committee on IP and Green Technology

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## **ABSTRACT**

This document provides suggestions of the AIPPI Standing Committee on IP and Green Technologies, in response to the call for inputs made by the Katowice Committee of Experts on the Impacts of the Implementation of Response Measures (KCI),<sup>1</sup> within the United Nations Framework Convention on Climate Change (UNFCCC).

On 16 June 2021, the KCI made a call for inputs<sup>2</sup> to “identify country-driven strategies and best practices on just transition of the workforce and creation of decent work and quality jobs and on economic diversification and transformation focusing on challenges and opportunities from the implementation of low greenhouse gas emission policies and strategies towards the achievement of sustainable development”.

This response document provides examples of policies and practices to assist the transition of the work force and creation of work and quality jobs, through green technology innovation and IP development. These recommendations follow a multi-pronged approach set forth in the past by the AIPPI Standing Committee on IP and Green Technologies. Specifically, the use of accelerated examination programs (AEPs) for patents as incentives for green technology innovation—including technology that lowers GHG emissions—is recommended, alongside other policy instruments that share the common goal of protecting the environment and global society from the imminent and long-term risks of climate change. Such policy instruments simultaneously promote job growth directly within green technology sectors, as well as within related products and services sectors, and more broadly within the economy at large.

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<sup>1</sup> Hereinafter, this document will refer to the KCI call for inputs as the “KCI request,” “the call for inputs,” or “the CFI.”

<sup>2</sup> “MESSAGE TO PARTIES AND OBSERVERS: Call for Inputs by the Katowice Committee of Experts on the Impacts of the Implementation of Response Measures – deadline extended,” annex, page 3, issued by the Secretariat of the UNFCCC, 22 July 2021. The original KCI call for inputs was issued on 16 June 2021.

## I.A Executive Summary

Prior work of the AIPPI<sup>3</sup> Standing Committee on IP and Green Technologies (SCGT)<sup>4</sup> has publicly identified key relationships between investments in environmentally sustainable technologies (“green tech”)—including related innovations and intellectual property (IP)—and their positive economic impacts on high quality job creation.

In fact, high quality jobs result not only for those directly involved in green tech innovation and sectors, but also for those who work in new markets for products and services that use, install, and distribute such new technology.

In addition to these positive economic effects, such investments in green tech simultaneously work to mitigate the negative environmental and economic impacts of legacy technology by reducing use of more carbon-intensive and/or environmentally problematic solutions, methods and inputs.

Therefore, investment in green tech IP helps replace obsolete (or obsolescing) jobs and economic activities with new, longer-term, and more sustainable ones—simultaneously generating positive economic outcomes while eliminating negative social costs of carbon emissions and other environmental degradation.

Where technology investment is concerned, recent decades exhibit the transformational economic effects of new technologies in other areas (*e.g.*, the Internet, mobile communication and commerce, pharmaceutical and medical advances, etc.). These and prior examples of transformational technological shifts (*e.g.*, rail, automotive, and air transportation) foreshadow the promise that green tech investments (and related innovation and IP) contribute to future economic growth.

Thus, in the view of the SCGT, the necessary steps to preserving the global environment will rely heavily on green tech innovation and development that, at the same time, bring great potential for sustainable economic growth.

As IP professionals, we are particularly focused on the growing need for international consensus on policies and best practices that facilitate the important roles that IP plays in 1) securing investment in new technology, and 2) disseminating technology advances to enable wider use and to spread benefits to more people and places.

The SCGT notes the call for inputs (CFI) concerns “country-driven strategies and best practices,” and thus this response to the CFI highlights such country specific examples that relate to the countries of many of our members. We also see a need to further emphasize transnational, multilateral, and, ultimately, global strategies and practices, as discussed below and in our prior published work.

As a global organization, AIPPI encompasses 8000 member IP professionals from over 130 countries, so naturally our viewpoints are often global as much as country specific. The submissions below will therefore draw from multiple countries represented by our members, and share strategies and

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<sup>3</sup> The International Association for the Protection of Intellectual Property, known as AIPPI (*Association Internationale pour la Protection de la Propriété Intellectuelle*), is the world’s leading non-profit association dedicated to the development and improvement of laws for the protection of intellectual property. It is a politically neutral, non-profit organization, based in Switzerland with over 8000 members worldwide from 131 countries.

<sup>4</sup> For purposes of this document, the acronyms “SCGT” or, simply, “the SC” will refer to the AIPPI Standing Committee on IP and Green Technologies.

practices that are country-specific and may also transcend (or seek to build consensus that transcends) national boundaries.

Indeed, it is the view of the SCGT that consensus towards more global solutions and practices will be instrumental in the success of reaching the primary strategic goals set forth in the KCI call for input—*e.g.*, equitable and environmentally sustainable economic growth. We note that climate change and related global crises know no boundaries and ultimately require regional and global solutions.

The remainder of our submissions will be organized as follows. This Section I.A is our Executive Summary. Section I.B will provide examples of the SCGT’s prior work in areas relevant to the KCI call for inputs—and provide some links to such prior SC work. Section I.C will address specific views shared by the SCGT in direct reference to this KCI call for inputs, following the outline provided in the KCI request’s annex. Section II will focus on updates and developments since the SCGT’s prior work, with particular emphasis on consistency with other leading views on the issues, such as those stated by the G20 Environment Ministers who met most recently in July 2021 in Italy.

## **I.B Prior work of the SCGT related to the KCI call for inputs**

This section points to earlier examples of SCGT work that relate to the CFI’s focus on transition of the work force and creation of work and quality jobs, following the multi-pronged approach set forth in the past by the AIPPI Standing Committee on IP and Green Technologies.

- **“Incentivizing Green Technology Inventions and Innovation —A Global Review [In Light of COVID-19],”** a position paper prepared by the Standing Committee on IP and Green Technology of AIPPI (*Association Internationale pour la Protection de la Propriété Intellectuelle*), approved September 30, 2020 by the SCGT and AIPPI, published internally by AIPPI in October 2020 (public release November 4, 2020)

In its 2020 position paper, the SCGT recommends promoting development of green inventions and IP using innovation-focused incentives and related programs, alongside other policy instruments that share the common goal of protecting the environment and global society from the imminent and long-term risks of climate change.

The SCGT also identifies massive market potential for “green” and environmentally friendly innovation in the form of new technology-based products and services, including within energy supply chains, other production supply chains, and at the business and consumer level. Where technology innovation results in new markets, products and services, job creation and growth—and other economic benefits—naturally follow.

The paper notes that over the last decade, many patent offices worldwide have implemented Accelerated Examination Programs (AEPs) for green technology patent applications.

Yet, internationally, to date there has been somewhat limited use of AEPs and other programs designed to encourage the patenting of green inventions. On one level, this may relate to a general lack of awareness of such programs. More fundamentally, however, the underutilization of green-patent pathways may in part result from a lack of clarity in descriptions of their benefits, and a lack of standard approaches across jurisdictions.

In the 2020 AIPPI position paper (see above with link), the current state of green technologies and attempts made by various patent offices to encourage green filings has been reviewed and considered. The same paper also recommended strategies for improving and increasing the use of green patent programs, in the light of other previous work done by the SC.

For example, in 2016 at the **AIPPI World Congress in Milan**, **AIPPI passed a resolution** proposed by the SCGT entitled “**Patent Rights and Green Technology / Climate Change**”, which is further elaborated upon in the 2020 paper.

Among issues resolved, the Milan AIPPI resolution recognized “the immediacy of the threat of climate change” and that it warrants broad support for “procedures enabling applicants to elect for accelerated examination of patent applications covering green technologies” within the global IP system and at national levels.

In the 2020 AIPPI position paper, the SCGT also carried out a **parallel analysis of the public health crisis due to COVID-19 and environmental crises caused by the climate change** and related risk factors. The paper observes that in the case of both crises, there is an identifiable need for accelerated innovation to mitigate the risks they impose.

Further, a multi-pronged approach across countries and fields of expertise has been necessary to reduce the spread of the novel Coronavirus, to monitor its spread and effects, and ultimately to bring it under control. While vaccines eventually become available and may ultimately offer a more dominant solution, a combination of many different types of measures (both medical and in other areas of public health and safety) have been necessary both before and after vaccines could become more widely available. Thus, the paper observed that multiple, complementary solutions and efforts have been necessary in the case of the COVID-19 pandemic.

Such **multi-pronged approaches using multiple complementary measures** also improve efforts to address climate change, which is no less immediate and entails a growing range of short- and long-term health risks and social costs globally.

Using environmental policy instruments in combination with other measures that target climate change and its related social costs and health consequences **increases the odds of success**, especially when such complementary measures exist.

Thus, the SCGT 2020 paper finds, **to combat climate change and mitigate public health and social costs it imposes, policy incentives to promote green patents and innovation are compelling and increasing in importance--given the growth and frequency of climate-change related impacts.**

## **I.C Response to the KCI call for inputs (CFI)**

The SCGT response to the CFI is provided below. The response follows the outline provided in the annex of the updated KCI request itself.<sup>5</sup> We note that the CFI provides two example outlines that specifically address “Impacts of identified strategy or policy” on: 1) “just transition of the work force and creation of decent work and quality jobs”, and 2) “economic diversification and transformation”, respectively.

In the case of the SCGT response below and the sections above, impacts related to items 1 and 2 are both anticipated as resulting from our concrete examples. Therefore, we combine the remainder of our response within a single outline from the CFI, while also calling out the different types of impacts identified by the KCI in its request as they apply.

### ***(a) Title***

#### **Accelerated Examination Programs (AEPs) for patents available in multiple countries**

AEPs and other related “green patent” programs considered by the SCGT include those identified in the following countries/jurisdictions:

- Australia
- Brazil
- Canada
- China
- India
- Israel
- Japan
- (Republic of) Korea
- Taiwan

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<sup>5</sup> “MESSAGE TO PARTIES AND OBSERVERS: Call for Inputs by the Katowice Committee of Experts on the Impacts of the Implementation of Response Measures – deadline extended,” annex, page 3, issued by the Secretariat of the UNFCCC, 22 July 2021.

- United Kingdom
- U.S.A.

Additionally, countries of the European Union have access to the European Patent Office (EPO). The EPO does not have any specific programs for applications related to environmental or energy inventions. However, the EPO has introduced a new patent search class, for tagging documents relating to new technological developments or technologies spanning over several IPC classes (*e.g.*, technologies or applications for mitigation or adaptation against climate change). This class covers selected technologies that control, reduce, or prevent anthropogenic emissions of greenhouse gases [GHG], in the framework of the Kyoto Protocol and the Paris Agreement. This class also covers technologies that enable adaptation to the adverse effects of climate change. All of this is also part of the Cooperative Patent Classification (CPC).

Similarly, other IP-related multilateral institutions and international organizations have green technology-related programs and databases that facilitate a wealth of information on green patents and IP. Key examples include separate projects and databases developed and published by WIPO and the OECD.

For details and descriptions of each country-specific AEP or green patent program, please see the 2020 AIPPI position paper by the SCGT, which has been noted above with a link.

### ***(b) Key characteristics***

As indicated, accelerated examination programs (AEPs) for green technology patent applications seek to **expedite the processing of green tech patent applications** and are used by various Patent Offices worldwide. This key characteristic speaks to the **sense of urgency to address climate change** impacts and related environmental problems that green tech addresses.

On one hand, this faster processing of green tech patent applications is intended to encourage such patent filings and hence the **publication and dissemination of green technology knowledge** worldwide.

Additionally, the accelerated process **incentivizes investment** in such technology, because patent applications and approvals are often essential criteria to secure investment and approval for technology-related projects within larger organizations (*e.g.*, larger companies and/or government-related entities), as well as in **funding for startups** and other small and medium sized enterprises.

In considering equitable and sustainable economic growth, the important role of green patents filed by individual inventors, entrepreneurs, micro entities, start-ups, and **small and medium enterprises (SMEs)**, should be taken into account. The SCGT observes a virtuous cycle between innovations with access to patent protection (in general) and the success of SMEs and smaller entities patenting such innovations--for whom patents are instrumental and often essential. Thus, AEPs help to support a **just and equitable distribution of economic opportunities**—as patents foster growth and commercial opportunities for SMEs as they compete with larger companies and organizations.

For example, a report of World Intellectual Property Organization (WIPO), “Inventing the Future: An Introduction to Patents for Small and Medium-sized Enterprises,”<sup>6</sup> encourages SMEs to file for patents for multiple, interrelated reasons.

WIPO notes that patents “can enhance **the ability of a company to raise the capital required**” to succeed commercially, and that in some sectors, “a strong patent portfolio is often a requirement to attract investors.”<sup>7</sup> In short, the WIPO report states, “The exclusivity provided by **a patent may make the difference between success and failure** in a challenging, risky and dynamic business climate.” Entrepreneurs and emerging companies in green technology sectors are no exception to these core tenets and, in some cases, may illustrate a prime example.

As mentioned earlier, the clear connection between new technologies on the one hand, and the creation and expansion of **job opportunities in new markets**, for new products, services, and energy sources, on the other, appears self-evident.

The SCGT further observes that numerous other policy instruments (e.g., R&D tax credits) are often used to incentivize innovation and thus may more indirectly result in patent filings, for example.

Working collectively, multiple policy instruments can address public health crises like climate change through a multi-pronged approach that is prudent public policy, given that the benefits of each such instrument (e.g., AEPs, R&D tax incentives) may be realized at different times and under different circumstances. Similarly, their effects may be indirect and less clearly measurable in light of the multitude of factors at play.

AEPs can therefore work in parallel with other such instruments and, when taken together, will further increase opportunities for success in developing new technologies, and creating new jobs—while preserving the planet for future generations.

### ***(c) Description of low-GHG-emission strategies or policies***

Please see above regarding “Key characteristics” of AEPs.

Additionally, we note that most national Patent Office AEPs apply to a broader description of “green technology,” and/or inventions that enhance “environmental sustainability” or mitigate environmental degradation, for example. However, a good portion of national AEPs do specifically

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<sup>6</sup> “Inventing the Future: An Introduction to Patents for Small and Medium-sized Enterprises” (hereinafter, “WIPO SME patents report,” or “WIPO report”), copyright WIPO, 2018, available at: [https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_917\\_1.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_917_1.pdf)

<sup>7</sup> WIPO SME patents report, pages 10-11. The report cites Biotechnology as an example of one sector in which patents may be required in order to secure investment. In the experience of some SC members, for certain types of capital raising such as in venture capital (VC) markets, progress in securing patent protection for a firm’s key technologies is often a prerequisite for obtaining VC funding, regardless of the industry sector. VC investors seek startups with patented products and solutions in order to protect their investments in such companies. Without patents and/or other barriers to entry, VCs will assume other well-financed companies will appropriate and/or easily compete with the startup’s technology, and thus lower or eliminate the VCs return on investment. To the extent that governments or other government-related actors invest in or approve funding for green tech projects, the same or similar risks could apply.



cite reduction of GHG or carbon emissions among criteria that qualify inventions as “green” and thus able to benefit from the program.

Thus, the qualifying criteria under most countries’ AEPs do not limit qualifying inventions to those directly related to climate change impacts or the goal to lower GHG emissions. Waste-water treatment technology and other solutions addressing other forms of pollution come to mind, for example.

That said, a substantial representation of green tech inventions qualifying for AEP status do either directly lower GHG emissions and/or they provide alternative sources of energy or other inputs or measures to achieve such a strategy, as the KCI request indicates.

Thus, while inventions seeking to lower GHG emissions reflect a subset of AEP qualifying patent applications, it is the SCGT’s view that they would include a very substantial and increasing representation of AEP candidate inventions seeking patent approval in many cases.

***(d) Impacts of identified strategy or policy on economic diversification and transformation***

Regarding economic diversification, please sections see above including “Key characteristics” of AEPs. In particular, the SCGT notes the ability of AEPs and similar green tech policy instruments to distribute economic opportunity to small and medium-sized enterprises (SMEs) and that they can also be adapted to target other types of economic diversification.

The SCGT also notes that many of the negative consequences of climate change and other environmental degradation are disproportionately borne by lower income groups and geographic areas. This inequitable distribution of climate change impacts (*e.g.*, flooding in low-income areas) can be mitigated and in some cases reversed by an appropriate allocation of resources to developing and deploying green tech solutions.

As noted elsewhere, the emergence of green technology as potentially having **enormous transformational impact on economic activity** globally, and at the country level, should not be underestimated. The impact may ultimately be similar to that experienced in other eras in which new technologies transformed economic activity.

Indeed, one such historic transformation in the 20<sup>th</sup> century emanated from the automotive industry—which itself will likely experience a significant, green technology-driven renaissance during the decades to come, through a transition to greater use of electric vehicles (EVs)—and EV charging stations, EV batteries, other EV inputs—and related technology.

The SCGT further notes that patents often play a key role in any large-scale transition from older technologies to new technologies—providing clarity to investors about the prospects for new, defensible technology solutions, and for their developers, whether they are startups, SMEs or larger entities. Witness the transformational impacts of different waves of new technology development in such areas as the Internet, mobile communications, medicine, and transportation as examples.

Thus, to an extent, economic incentives to innovate and develop new technology-based products and markets have previously spurred transformative periods in economic activity—which otherwise may not have occurred, or would have occurred differently and potentially with less transformative impact.

The SCGT thus highlights the potential for **returns on investment in technology and related IP** (for private and public entities alike) as a key stimulant to the social and economic benefits described here. In short, companies and investors rely on patents and IP to protect their innovations against unwanted misappropriation, thus protecting returns on investment, and therefore their incentives to develop new technologies. Resulting economic activity has positive impacts on job creation.

Almost by definition, qualifying green technology inventions should **diversify economic activities** away from solutions developed without knowledge or concern for environmental impacts such as GHG emissions—and toward solutions that take current science and related policy concerns into account. (See above regarding economic diversification.)

Elsewhere, this submission also notes the tendency for new patented technologies to enable the **creation of new markets, and therefore jobs**, that did not exist prior to the new products and services related to such technology. Innovation (and often related IP) can be essential to securing investment in such economic diversification.

Moreover, innovation is clearly **an essential step in the value chain** for such new products, services, and markets—including markets for related jobs. Indeed, innovative industries spur other types of jobs and jobs growth in relevant geographic areas, as well as for firms in the same supply chains, and for firms that service the new job creators and their employees in other areas of the economy. The job-creating potential of green tech is thus economically diversified.

#### ***(e) Identified challenges, opportunities and stakeholder involvement***

On this subject, it should be noted that for the COVID-19 health crisis, similar accelerated R&D efforts have been rapidly implemented in numerous countries in light of the immediate term consequences of the Coronavirus crisis.

For example, in some countries (e.g. the United States) accelerated patent examination policies that had already applied to green technology were quickly modified to afford inventors of technologies addressing the problems of COVID-19 access to more streamlined patent exams and approvals while waiving certain filing and related fees that would otherwise apply.<sup>8</sup> Qualifying patent applications can relate to a range of medical technology types, and need not directly relate to vaccines, for example.

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<sup>8</sup> See the USPTO “COVID–19 Prioritized Examination Pilot Program,” for example, United States Federal Register / Vol. 85, No. 94 / Thursday, May 14, 2020 / Notices, pages 28932 to 28935

Similarly, the “solution” to addressing climate change is embodied in an even wider variety of technologies, that range from cleaner energy sources to products and services that reduce energy consumption. There is no “silver bullet” for addressing climate change, including through technology. Rather, the “solutions” reflect a quiver of arrows taking many different forms--all of which increase chances of hitting the target.

The SCGT feels that a near-term, or acute, multi-pronged approach—such as that used in the COVID-19 context—can inform current and future efforts to address the present and long-term urgency of the climate crisis. Climate change impacts are being immediately felt, including at the exact time this publication is being written--and they will continue to impose many public health consequences and other economic costs on a grand scale, for many years to come.

For instance, technology innovation that reduces dependency on carbon-emitting technologies is necessary to protect human health and the environment. Both accelerated examination processes (AEPs) for key patents in this area and a variety of other measures to address climate change are necessary.

In order to streamline the development of these activities, the SCGT appreciates that many jurisdictions have given considerable thought and attention to definitions of green technology, not only in the context of AEPs or patent policy, but in regard to other economic, environmental, financial and social policies more generally.

However, this has led to several and different definitions of what is meant, or what should fall within the definition of green technologies, in the different States.

Nevertheless, the Standing Committee encourages any single jurisdiction having an approach and taking steps to deal with urgent environmental issues that occur within its jurisdiction. In fact, such actions may be the necessary first step towards a more unified international policy.

However, coordination and awareness among multiple countries is encouraged, to reduce the risk that programs of one jurisdiction limit or reduce the effectiveness of programs in other jurisdictions, and thus to prevent having regional and global problems effectively unaddressed.

To this end, the Standing Committee on IP and Green Technologies proposes developing a preliminary definition of *green technology* for future use in multiple jurisdictions. The SCGT believes work on such a definition has merit and offers additional benefits to patent authorities, while it contributes to developing common views and consistent language regarding elements of existing and future definitions of green technology, not only in the area of AEPs but also more broadly.

The SCGT’s proposed preliminary definition of a *green technology* is as follows:

Proposed definition:

*Green technologies (also known as ‘green tech’ and ‘cleantech’) are technologies that provide or are intended to provide an environmental benefit, including without limitation by:*

- *contributing to the restoration or maintenance of the environment, including by preventing, reducing or repairing damage caused by pollution, including damage impacting food security;*
- *contributing to the development of renewable or more efficient energy resources; or*
- *the reduction and/or mitigation of greenhouse gas emissions and/or climate change.*

It is observed that other definitions of green technologies exist and that, more generally, the setting of standards, rules and other principles regarding such definitions existing in different contexts might become more helpful over time.

For instance, there is overlap and potential convergence in the ways that different policy instruments and regulations classify environmental problems. In this light, national and international patent classification systems have emerged (and perhaps others will) that identify green inventions within certain sub-classifications that are also associated with addressing particular environmental problems.

For example, the WIPO Green definitions and the EPO Y02 classifications for green and sustainable technologies are two prominent examples that directly serve two different objectives but effectively rely on similar types of classifications using the same or similar vocabulary<sup>9</sup> (see reference links below).

Once again, useful definitions of technologies and technology types qualifying as “green” or “environmentally sound” are identifiable and, yet sometimes lack uniformity. Differences might be appropriate depending on the case, but the SCGT sees merit in developing common views of green technology language geared to the same end. This vision of future common ground may inspire coordination and more effective communication regarding relevant policies and practices themselves—both in IP-related areas and other green technology policy areas.

Another issue to be addressed is the likelihood that the future development of smart grids, artificial intelligence, big data, 5G and other new technologies (or industry 4.0), will be instrumental in helping to develop relevant green technologies—and *vice versa*.

Technology transfer in green tech could be affected by ongoing and more general developments in global licensing, standards-setting (wherein licenses to some patents can be declared essential to users wishing to apply the standard, referred to as “standard essential patents” or “SEPs”), and the continued growth of patent pooling.

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<sup>9</sup> <https://www3.wipo.int/wipogreen-database/searchResultList.htm?&searchFilter=techFieldDescription:Energy&set=set2&showLi=Energy&rm=set3&showAll=2>

In this regard, at least in certain fields, green technology may eventually be seen as similar to information and communication technology (ICT) and related products (e.g., smartphones), wherein SEPs, pooling and global licensing practices may need to develop because of the large markets involved and the relevant technological issues concerned--such as interoperability and compatibility among components of the smart electrical grids and services, or smart transportation systems.

Additionally, once again, the SCGT has identified several other complementary approaches that may be used in combination with AEPs to enhance green technology innovation. In particular, the SCGT recommends AEPs' use of fee reductions, as well as potential rebates for other fees incurred as additional incentives when patenting green tech.

Further, the Standing Committee has also discussed complementarity between AEPs and other targeted incentive programs for green start-ups, such as tax credits and grants. Tax-related policies to incentivize R&D investments are, of course, also used in broader contexts that may indirectly relate to the policy goal of providing incentives for patenting green technology.

#### ***(f) Lessons learned regarding AEPs***

While some countries' AEPs have shown promise on a standalone basis, the SC is of the view that greater international consistency between AEPs and other green tech-related policies is potentially needed, or at least would be quite beneficial. Consistency between AEPs and other green policy areas would facilitate easier guidance, documentation and compliance for patent filers who use (or could benefit from using) other green policy instruments.

For example, patent filing requirements and approval for green technology AEPs could be designed to relate to, and perhaps satisfy underlying qualifying criteria for, one or more other green policy instruments. This would streamline processes for companies that qualify for and/or employ each of such policy incentive or instrument--potentially across multiple policy areas and/or in multiple jurisdictions.

More generally, the SCGT recognizes the need to observe and better understand wider interactions between IP-related policies like AEPs and other relevant policy areas, such as those that may not directly relate to investments in green IP and technology development. This could enhance the potential success of multiple such instruments, and not only promote the patenting of green inventions. Notable among other such policy areas would be those focused on: 1) "downstream" environmental regulations that could increase demand for the use of green tech and IP; 2) tax- and fee-related incentives for developers of early-stage tech and IP generally; and 3) policies that promote or require greener manufacturing and production processes, as well as energy and product consumption habits, for firms and individuals, respectively.

Green technology thus has broader relevance to policy areas beyond patent policy. Such other policy areas may interact with, reinforce, and encourage the development of green tech, and are worth pursuing in conjunction with AEPs and on a standalone basis, depending on the case.

For example, as in Australia, R&D tax incentives can be a viable incentive for increased activity within the green or clean technology patent system framework. As noted, elsewhere, tax-related policies to incentivize R&D investments are also used in broader contexts that may only indirectly relate to the policy goal of providing incentives for patenting green technology.

Furthermore, as far as definitions of “green” may relate to potential future standards, the SC recognizes that standard-setting and licensing of standard-essential patents (SEPs) are not without controversy that emanates from the complexity of such regimes. For example, within ICT-related sectors, significant past and ongoing litigation relates to SEPs and global licensing efforts.

Nevertheless, the challenges already faced by such existing SEP regimes such as those within ICT, and how such challenges are being met within related sectors, would be an important element of understanding their relevance and pros and cons in their potential applicability to green technology.

Other sectors’ experiences with standards provide green technology with further opportunities to leverage lessons learned. Indeed, to an extent, some technologies that are characterized as green technology also relate to technology areas where there is considerable experience in standards setting and SEP licensing (e.g., ICT in combination with 5G, smart grids, smart homes, etc.). This could foster ease of adoption of standards where such areas intersect with green tech—perhaps “leap-frogging” some of the challenges previously faced in these other sectors.

In the view of the SC, generally a collective, multi-pronged approach is prudent public policy, given that the benefits of each promising policy instrument (e.g., AEPs, R&D tax incentives) may be indirect and less clearly measurable in light of the multitude of factors at play.

Furthermore, wider availability of more incentives increases the odds of success in meeting their common goals. Collaborative approaches to green technology development--some including open-source projects--also came to the attention of the SC, further expanding the range of public and private efforts to create solutions to face the crisis.<sup>10</sup>

Finally, the SCGT 2020 position paper draws on lessons learned to date from the COVID-19 crisis, and compares and contrasts such lessons with efforts to address global climate change. In the case of the global pandemic, the paper observes the use of a multi-pronged approach, often with coordination among countries and other relevant jurisdictions. These efforts combine different measures that collectively seek to stop the spread of the Coronavirus and ultimately bring it under control.

Similarly, AEPs offer important environmental policy instruments alongside other measures that target climate change and its related social costs and health consequences. Each measure used increases the odds of success, especially when employed in combination with other promising measures.

To combat climate change and mitigate public health risks and social costs it imposes, the SCGT observes that the merits of incentivizing green patents and innovation are compelling and increasing in importance--given the growth and frequency of climate-change related impacts.

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<sup>10</sup> <https://www.wired.com/story/go-green-energy-industry-open-source/>

## II. G20 Joint Energy and Climate Communiqué (consistency of views)

The SCGT considers that the multi-pronged (*i.e.*, multi-disciplinary) approach it describes in the 2020 AIPPI position paper is largely consistent, at least at a high level, with views expressed by the ministers in charge of Environment, Energy and Climate of the 20 most industrialized countries of the world, at the end of their meeting held in Italy during the month of July 2021 (Naples, July 22-23; see: <https://www.g20.org>). These views also appear consistent with the aims of the KCI workplan.

The G20 Ministers met in person and remotely with the aim of “...strengthening their shared vision and partnership, accelerating the clean energy transitions to tackle climate change and achieve SDG 7 in order to build a prosperous, inclusive, resilient, secure, and sustainable society that leaves no one behind”.

Additionally, the G20 Ministers acknowledged that the international action against COVID-19 pandemic and its devastating impacts are still in course. They also recognized the economic impact it has unleashed, which continues to dominate the global economic and social landscape, although these events have different effects in different countries, depending on their respective situations.

In this context, a clean energy transition has been considered a tool for an accelerated inclusive socio-economic growth, job-creation, and technological innovation within the ambit of a just transition.

The G20 has also formally acknowledged that the COVID-19 crisis has reaffirmed the importance of science-based approach in policymaking.

The Ministers emphasized the serious warning coming from the global scientific community, that this must be the decade of action to address the urgent challenges of climate change and its linkages with biodiversity loss and human health. They thus resolved to work together to ensure that the collective international commitments, as well as national actions, remain informed by the best available science.

Acknowledging the major contribution of the energy sector to global Greenhouse Gas (GHG) emissions, the Ministers pointed out the close nexus between climate and energy.

In this context the importance of a clean energy transition has been stressed, as it would foster economic growth and resilience; promoting international technology cooperation, and free and open trade and investments; address present and future energy needs; reduce global emissions; and enhance adaptation to climate change thus enabling the achievement of the 2030 Agenda for Sustainable Development goals, the UNFCCC and the Paris Agreement.

The G20 ministers refer to an interdisciplinary approach that recognizes the relationship between energy and the environment, as well as interlinkages between biodiversity loss and climate change. The G20 ministers consider climate change to be one of the main drivers of biodiversity loss, negatively impacting the delivery of many ecosystem services on which our livelihoods, economies and public health depend.

At the same time, the loss and degradation of ecosystems is an additional driver for climate change, and the loss of biodiversity debilitates ecosystems’ ability to sequester and store carbon—creating a vicious cycle that accelerates climate impacts.

Finally, an acknowledgement has been made that a just and inclusive transition which puts individuals and society at the center will require new skills, training, and education and therefore welcome efforts to study the socio-economic elements of such transition, and examples of best practices by relevant international organizations.

*Observations:*

The SCGT shares the G20 Ministers views stated above and with respect to the key role of innovation and RD&D. It is thus worthwhile to make further reference to common views on some specific issues addressed by the G20 Ministers. These include:

- the need to raise levels of public RD&D and market-led private innovation funding, while building on international collaborative efforts;
- a recognition that RD&D investments should be oriented to enhance innovative solutions for improved sustainable energy mix, energy efficiency, circularity, sustainable production and consumption patterns and new business models, including to considerably reduce emissions in the hard-to-abate sectors;
- the need to promote trans-disciplinary research and education programs and enhance relating technologies (e.g., digitalization in energy security and markets stability through improved energy planning, security of energy systems against risks of attacks including through malicious use of ICT);
- the need to consider the possibility to facilitate environmental policy options that foster and reward investment in sustainable innovation, including through fiscal policies and direct government support to mission-oriented projects taking into account economic, social and environmental aspects.

In this context, it is opinion of the SCGT that IP would have an important role and provide a useful contribution to enhance the results of the international Governments' decisions, for a just transition of the work force and the creation of quality jobs, as well as to promote economic diversification and transformation.

For this reason, the SCGT recognizes that policy decisions among many countries are needed, including decisions which may employ multiple policy instruments. Among these are policy instruments that incentivize investments in green technologies, such as AEPs, which we view as complementary with many of the stated goals of the G20 Ministers in their July 2021 Joint Energy and Climate Communiqué.



## CONCLUSION

The discussion above provides suggestions of the AIPPI Standing Committee on IP and Green Technologies, in response to the call for inputs made by the Katowice Committee of Experts on the Impacts of the Implementation of Response Measures (KCI),<sup>11</sup> within the United Nations Framework Convention on Climate Change (UNFCCC).

This response documents examples of policies and practices to assist the transition of the work force and creation of work and quality jobs, by incentivizing green technology investment, innovation and related IP development. These recommendations follow a multi-pronged approach set forth in the past by the AIPPI Standing Committee on IP and Green Technologies, in its prior work cited above.

Specifically, the use of accelerated examination programs (AEPs) for patents as incentives for green technology innovation—including technology that lowers GHG emissions—is recommended, alongside other policy instruments that share the common goal of protecting the environment and global society from the imminent and long-term risks of climate change. Such policy instruments simultaneously promote job growth directly within green technology sectors, as well as within related products and services sectors, and more broadly within the economy at large.

In responding to the KCI call for inputs, the SCGT also elaborates on areas of consistency, at a high level, with the views and general principles expressed by the G20 Ministers in Italy during their meetings in Naples in July 2021. In its recent meetings, the G20 agreed on the first-ever G20 Joint Energy and Climate Communiqué, with which this response shares many common views as discussed above.

Sincerely,

Members of the AIPPI Standing Committee on IP & Green Technology (SCGT)

Natalie Raffoul, Chair

Alicia Alvarez, Vice Chair

Pat Breslin, Vice Chair and a lead contributor

Filippo Ferroni, Member and a lead contributor

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<sup>11</sup> Hereinafter, this document will refer to the KCI call for inputs as the “KCI request,” “the call for inputs,” or “the CFI.”