



**INTELLECTUAL PROPERTY MODELS TO
ACCELERATE SUSTAINABILITY
TRANSITIONS
(IPACST)**

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IPR Pledge for Sustainability Knowledge Brief

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Intellectual Property Right (IPR) pledge for sustainability impact

What is an IPR pledge?

IPR pledges are voluntary concessions from IPR owners to share IPR with the public to enable interested organizations and individuals to utilize the IPR in commercial use of technologies, products, and for further developments. Given the cumulative nature of innovation, the relevant IPRs for a single technology or product may be spread across several IPR owners. Accordingly, providing access to IPR may decrease barriers for other organisations to commercialize sustainable solutions, hence it may enhance the diffusion of sustainable solutions.

Ehrnsperger & Tietze (2019) propose a three-dimensional taxonomy that distinguishes eight types of patent pledges along the three axes *Accessibility* (unrestricted/ restricted public), *Compensation* (no monetary compensation/ a reasonable royalty-rate) and *Conditions* (indirect/ direct conditions). Based on their inductive analysis of 60 patent pledges made by 80 organisations they propose a definition for patent pledges, that we build on for IPR pledges:

Definition of IPR pledge for sustainability

An IPR pledge for sustainability is a publicly announced intervention by IPR owning entities ('pledgers') to out-license active IPR to the restricted or unrestricted public for improving sustainability impact of technologies, products, and services. This IPR out-license may be free from or bound to certain conditions excluding monetary compensation using standardized written or social contracts.

Adopted from Ehrnsperger & Tietze (2019)

Accordingly, as an IP sharing mechanism to accelerate sustainability transitions, we refer to IPR pledges as voluntary out-licenses to all interested stakeholders without requesting monetary compensation. While research distinguishes mainly between two types of IPR pledges: (1) strictly as the access to IPR without any monetary compensation; and (2) a widened definition of IPR pledges, including the access to IPR on reasonable royalty-rates, our definition includes type (1) while we refer to type (2) as sustainable fair, reasonable and non-discriminatory (FRAND) licensing.

Why pledge?

An IPR pledge can enable broader and faster diffusion of sustainable innovation. As a pledging organisation - instead of using IPR only yourself, you can share it with other businesses and organisations across sectors and different nations in order to support the transformation towards sustainability. As a user of the pledged IPR, instead of investing in own innovation you may built on the efforts of the IPR owners and can spend your resources instead on other important aspects such as setting up manufacturing, developing supply chains and markets, and further improving the innovation.

Benefits for the pledging organisation

- Increase market acceptance and diffusion of sustainable innovation
- May influence technology development direction towards own sustainable solution
- Increase sustainable impact by sharing IPR

- Attract partnerships to develop technologies further, including building partnerships to access new territories and markets
- Enhanced reputation as sustainable business and sustainable solution provider for stakeholders including workforce, investors, business partners

Potential risks for the pledging organisation

- Little control of who uses the IPR how and for what
- Sharing of IPR free of cost may lead to disadvantages in competition

Benefits for the user

- Gain access to IPR for sustainable technologies and products
- Reduce and avoid R&D costs and associated risks
- Free up resources for other necessary activities such as setting up manufacturing lines, developing supply chains and markets

Benefits for the society

- Accelerated pace of creating and diffusing sustainable technologies and products by utilizing IPR as facilitating technology sharing amongst relevant stakeholders
- Reducing information biases at sustainable technology markets
- Reducing overall costs of sustainable technologies and products, and thus speed up transition towards sustainability including circular economy concepts

How to pledge?

An IPR pledge agreement should take into account the following components:

The parties (licensor and licensee), purpose, definitions and subject matter, rights granted and restrictions, improvements, confidentiality, reports and audits, representations and warranties, infringement, term and termination.

The pledge can be limited based on several reasons:

- Types of use allowed (distribution, derivative works for copyright or manufacture for patents)
- Application areas or sectors

- Geographical scope
- Time
- Grant conditions: you obtain the license only upon compliance with certain conditions.

Note for pledging organisation and user

Be careful with IPR pledge conditions. They are subject to national laws and should be clearly communicated.

The IPR licensing and thus the IPR pledges of an organization can change over time:

- Examples show that organisations can adapt their licensing strategies over time from one type to another
- Organisations diversify their licensing strategies for different technologies
- Transitions from exclusiveness towards openness in IPR licensing constitute one possibility to adapt licensing approaches over time (in other directions as well)

IPR Pledges Examples

Open COVID Pledge

An international group of companies, academics and institutions share their copyrights, patents and other intellectual property (IP) rights with the public to overcome the current COVID health crisis and minimize the impact of the disease. In 2020 the pledge covered already more than 250,000 patents worldwide. The licensing is based on the Creative Commons suite as well as other online agreements already used for open-source software and similar.

Supporters: for example, IBM, Intel, SAP, HMJ Medical, RaDVaC, Guardian Project, NASA-Jet Propulsion Laboratory at CalTech and others.

Low Carbon Patent Pledge

Three companies (Hewlett Packard Enterprise, Facebook and Microsoft, and supporting academic institutions set up a patent pledge in 2021 pledging more than 400 of their patents. The conditions grant “a royalty-free license to any person or entity that wishes to accept it (...) when the patented technologies are used for the generation, storage, or distribution of low-carbon energy from solar, wind, ocean, hydropower, or geothermal sources.”

Low Carbon Patent Pledge (2021)

Further readings

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