



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

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# Defensive Publishing Knowledge Brief

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## Defensive publishing to secure freedom to operate for sustainability impact

### What is defensive publishing?

Defensive publishing – also known as defensive disclosure – is usually a deliberate decision to share information about an invention with the public instead of patenting or keeping it secret. Because a defensive publication describes the invention and makes the knowledge publicly available, the invention can no longer be described as novel and therefore the novelty requirement for patent-ability is taken. While defensive publishing is nowadays usually done in writing as open accessible scientific journals or reports, a detailed description of the invention can also be provided as video or audio files.

### Defensive publishing for sustainability

*Defensive publishing is a deliberate intellectual property strategy to make inventions available to the public and preventing others from gaining IPR protection or keeping it secret. This is achieved through disseminations by publishing a detailed description in scientific journals, as reports on websites, or at other publicly accessible platforms. This may increase the speed of improvement and market diffusion of sustainable innovations.*

### Why defensive publishing?

Defensive publishing can enable broader and faster diffusion of sustainable innovation than IPR. It has two main advantages: firstly, other organisations cannot patent it once it is in the public domain. A process or a product can thus

develop rapidly into a standard in the area of sustainability, since many other inventors, businesses and scientists can easily access it. Secondly, this type of publication to communicate results uses far less financial and human resources, as all costs for the publication of patents can be saved, e.g. the usual IPR fees or special legal fees. Especially for smaller companies with a high innovation potential but lower resources, this allows them to control their costs and their influence. Also public research institutions can use it to ensure that the products of their work remain accessible to the general public.

As a defensive publishing 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 published innovation, instead of investing in own research and development, you may build on the efforts of the public available innovation 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 defensive publishing organisation

- Secure freedom to operate as others cannot claim novelty and patent it, and at the same time enable diffusion of sustainable innovation
- May influence technology development direction towards own sustainable solution
- Increase sustainable impact by sharing IP

- Enhanced reputation as sustainable business and sustainable solution provider for stakeholders including workforce, investors, business partners
- No resources for licensing or IPR registration and defence necessary, especially of interest when cost of patenting would outweigh the benefits of the patent
- When publishing in research journals or data repositories, this may attract partnerships with a similar approach to open IP models to develop technologies further, including building partnerships to access new territories and markets

**Potential risks for the defensive publishing organisation**

- No control in an international context if the defensive publication is really picked up by patent examiners.
- No licensing income possible, risk of decrease in financial returns
- Difficult to measure and track uptake of IP

**Benefits for the user**

- Gain access to IP 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 lowering access and transaction costs of IP for relevant stakeholders
- Reducing overall costs of sustainable technologies and products, and thus speed up transition towards sustainability including circular economy concepts

**How to do defensive publishing?**

Defensive publishing can be done in academic peer-viewed journals, which is desirable because of their impact within the sciences and at patent examiners, but it also takes a long time to complete. Publishing reports and working papers in data repositories or on own websites

**Defensive Publishing Examples**

**IBM Technical Disclosure Bulletin**

*The ‘Bulletin’ magazine was used by IBM to quote from it and thus locating the disclosed inventions as state of the art. This raises the barrier for competitors’ patent applications and forced them to define their patent claims more narrow. (Barrett, 2002)*

and advertising the invention through social media to increase the notification and attention is also a good choice. To be sure that it is picked up by patent examiners and other businesses, the invention can also be published as a patent application and then the application process can actively be stopped. This allows also organizations that receive regular patent application updates to notice the invention. However, from the patent data bases the legal status of a patent and patent application, e.g. whether it is still enforced, is usually not clear. The range of defensive publishing possibilities is huge, as demonstrated by the IBM example, from own publications to blog posts or publications on the company's own website.

**Table 1: Pros and Cons of some Defensive Publishing Options**

Research journals	Websites	patent application
+ easily detectable as prior art by patent examiners + reaches science and industry R&D community	+ fast publishing + number of downloads can be tracked	+ easily detectable as prior art by patent examiners + reaches industry/competitors
- longer publication process	- risk that patent examiners do not pick it up	- application fee, - lack of clarity of legal status for others

## Further readings

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