

# FOSTERING INNOVATION

## WHY AN EFFECTIVE INTELLECTUAL PROPERTY FRAMEWORK IS NEEDED FOR PLANT BIOTECHNOLOGY TO FLOURISH

Our sector is continuously investing in agricultural innovation and new technologies to help farmers maintain their production while transitioning to more resilient and sustainable farming. Innovation in plant biotechnology can contribute to addressing challenges brought about by climate change. To stimulate innovation around plant biotechnology, there is a need to maintain a predictable, balanced, and effective Intellectual Property (IP) framework.

### BENEFITS OF FOSTERING INNOVATION THROUGH INTELLECTUAL PROPERTY

Intellectual property rights give the creators an exclusive right over the use of their creation for a certain period of time.<sup>1</sup> IP protection and knowledge sharing supports the development of new innovative plants that can contribute to protecting the environment and improving food production.<sup>2</sup> IP **provides the following benefits:**



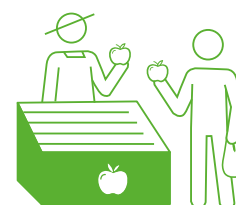
#### RESEARCH & DEVELOPMENT

IP provides incentives for R&D investment and fosters knowledge sharing by establishing rights for innovators to protect their work in return for disclosing and granting access to the invention.



#### THE ECONOMY

IP-intensive industries generate 42% of the total economic activity in the EU, and 38% of all employment.<sup>3</sup>



#### FARMERS & CONSUMERS

According to a study, around 75% of the economic benefits of a patented agricultural innovative technology goes to farmers, downstream processors, and consumers.<sup>4</sup>

### A TWO-PART SOLUTION FOR INNOVATION IN PLANT BIOTECHNOLOGY

A comprehensive IP framework requires both Plant Variety Protection (PVP) and patent rights. Innovation in plant breeding goes beyond the creation of new plant varieties and requires a form of IP protection different from PVP.

**PVP** grants exclusive rights to the plant breeder on a plant variety that is new, distinct, uniform, stable and has been given a unique variety denomination. PVP is the only means to protect plant varieties per se and it is a critical protection tool for securing innovative breeding efforts and to protect against illegal reproduction.<sup>5</sup>

On the other hand, a **patent** protects an invention which is new, inventive, has an industrial application, and is clearly and sufficiently described. Patent protection is a means to safeguard for a limited time the innovative technique or new trait component created with technical tools. This protection extends to all varieties in which the patented trait may be incorporated, as established under Directive 98/44/EC on the legal protection of biotechnological inventions.

## TYPES OF PATENTS RELATED TO PLANT BIOTECHNOLOGY

### TECHNOLOGY



A process or a technology patent is granted for a specific method used to develop a product.

### FOR EXAMPLE

CRISPR-Cas9 is a technique that enables sections of the DNA sequence to be removed, added to, or altered. This type of technology can be patentable.

### TRAIT



A patent on a trait created via a repeatable technical step protects the innovative trait component and prevents others from producing and commercialising the same trait in the same manner.

### FOR EXAMPLE

A trait obtained by technical means like a targeted mutagenesis technique, such as high vitamin content of a plant, can be patentable.

## A WIN-WIN FRAMEWORK

A balanced IP landscape should apply to all in the agricultural sector, from technology developers to all types of breeders, farmers, and researchers. **Our sector is actively involved in promoting a fair and open IP landscape that ensures both protection and access to innovation.**

### EASIER ACCESS TO PATENTED MATERIAL

The industry-led International Licensing Platform Vegetable and the Agricultural Crop Licensing Platform<sup>6</sup> promote access to patented traits in commercial biological material for further breeding and product development.

These initiatives provide an opportunity for any breeder to make use of patented traits of platform members in breeding programs on fair conditions.

### TRANSPARENCY

The Euroseeds PINTO Database facilitates transparency by providing information on what varieties contain patented elements.



## FAQ

**DO PATENTS HINDER INNOVATION OR LIMIT ACCESS TO IT?**

Patents foster innovation as technology developers know their investment can be protected for a limited period of time. With regards to access, there are mechanisms in place to ensure that patents can be shared and their content made public to promote knowledge. Patented traits can also be used in breeding programs in a big majority of EU member states after the entry into force of the unitary patent, and also through industry-initiated platforms.

**DO PATENTS INCREASE THE PRICE OF SEEDS?**

Innovative varieties, whether they are protected by PVP or patents, have a price premium that reflects the acceptable market value of the product/technology. The higher-priced innovation comes with benefits, which in general translate into a greater harvest or value for the farmer.

**DO PATENTS FORCE FARMERS TO PURCHASE NEW PRODUCTS EVERY YEAR?**

No. A farmer is free to choose what seeds they sow whether patented or not. Farmers are able to save seeds to regrow them regardless of the seed's IP status. The farmer only has to contribute a financial compensation to the PVP or patent holder, with the exception of the small farmers who are able to do it for free.

**ARE PATENTS ONLY HELD BY BIG AGRICULTURAL COMPANIES?**

Patents are available to all technology developers. Patent offices often offer reduced fees to SMEs to register patents. Furthermore, patents, like all IP rights, last for a limited time after which the technologies are available to anyone.

**Our sector is committed to providing farmers with the innovative agricultural tools needed for sustainable food production.**

**MAINTAINING EFFECTIVE INTELLECTUAL PROPERTY PROTECTION FOR PLANT BIOTECHNOLOGY INNOVATIONS WILL CONTINUE INCENTIVISING COMPANIES TO DEVELOP NEW PRODUCTS FOR EUROPEAN FARMERS**

1 Definition by World Trade Organization: [https://www.wto.org/english/tratop\\_e/trips\\_e/intel\\_e.htm](https://www.wto.org/english/tratop_e/trips_e/intel_e.htm)

2 Find more in CropLife Europe's factsheet "How New Genomic Techniques can contribute to sustainable food production in Europe": <https://croplifeeurope.eu/wp-content/uploads/2023/03/How-New-Genomic-Techniques-can-contribute-to-Sustainable-Food-Production-in-Europe.pdf>

3 European Patent Office and the European Union Intellectual Property Office, IPR-intensive industries and economic performance in the European Union, Fourth Edition, October 2022.

4 Steward Redqueen, Who benefits from intellectual property rights for agricultural innovation? The Case of Ogura Oilseed Rape in France, October 2015.

5 Under the frame of the 1991 UPOV Convention as implemented in Council Regulation (EC) No. 2100/94 on Community plant variety rights. <https://www.ilp-vegetable.org/>

6 <https://aclp.eu/>, <https://www.ilp-vegetable.org/>