1. Background

*KeyGene* is the largest dedicated agro-food biotech company in Europe, with headquarters in the Netherlands. The company was established in 1989 with initially three full-time employees. The company develops and applies methods and traits that are commercialised as Business to Business (B2B) to the world-wide seed industry.

Through the KeyGene’s technologies and traits, vegetable and field crop seed industries can develop better crop varieties. In a substantial number of cases new crop varieties have successfully reached the market and growers all around the world are using these improved varieties with “KeyGene Technologies Inside”. Such varieties include, among others, virus-resistant cucumbers, long-lasting cucumbers, insect-resistant lettuce, hybrid rye, higher yields in corn and canola, anti-lodging canola and so on.

2. Intellectual property strategy

KeyGene started in 1989 with the development of a new DNA fingerprinting technology called AFLP that brought a revolution to molecular plant breeding in the 90s. The technology was patented in 1992 and the patent lapsed in most
countries in 2012. As a result of its strong AFLP IP, KeyGene was able to grow from three full-time employees in 1989 to 80 full-time employees in 2004.

In 2004 an innovation push was given to the company, and three new technology platforms and a trait platform were developed. For each of the technology platforms and each of the traits in the trait platform, the company has set a strong IPR strategy and from 2005 onwards 10 to 15 different patent applications per year were filed. Gradually these patents are being granted worldwide, including in Europe, USA, China and Japan enabling further growth and development of the company.

KeyGene uses its IP to protect its business. In almost all cases KeyGene offers licences on its technologies, methods and traits to the world-wide seed industry. Given the often complex nature of their methods and traits, in many cases the licence is accompanied by a training programme that enables the organisation that obtained a licence to internalise the method or technology for its own use. Alternatively KeyGene can also perform the work or develop the application for the customer via contract R&D, and hand over the results or (pre)breeding material to their partner company.

3. Management of the IP assets

KeyGene’s current IP consists of a large number of patents and patent applications, trademarks and trade secrets. In 2012 KeyGene owned 75 different patents and patent applications that are deposited in a large number of countries all around the world. KeyGene recognises three types of patents: top tier patents (that build KeyGene’s business), middle tier patents (that contribute to the business of the company) and low tier patents (that supports the company’s patent position in a strategic way).

KeyGene has an active internal policy to stimulate its scientific personnel to identify patentable subject matter wherever possible. Sometimes however they decide to go for a trade secret or, vice versa, actively decide to publish results. When potential patentable subject matter is identified, the first step towards a patent is that scientists, together with a patent attorney, write a so-called Invention Disclosure Form (IDF). Depending on the R&D results, the company’s strategic planning and application opportunities, it is then subsequently decided which IDFs are developed into patent filings. After the further addition of (research) data the patent application is then actively developed into a granted patent. In many cases multiple patent applications and patents are then combined in order to develop a patent portfolio which protects the application in a broader sense.
4. Leveraging IP for business partnerships

In recent years, income has been generated via services and contract R&D with partner seed companies that depend on IP from KeyGene. Repeated revenues from licence income enable KeyGene to continue its R&D programme and the development of new methods and applications. Occasionally larger milestone payments reach KeyGene, which also allows KeyGene to invest in scientific personnel, new equipment and facilities. Building on its IPR positions KeyGene was able to sustain and expand its B2B activities also to other parts of the world e.g. through its newly established USA subsidiary. This enabled the company to grow from 80 full-time employees in 2004 to 125 full-time employees in 2013.

“Without protecting its intangible assets it would have been almost impossible for KeyGene to ask seed companies for financial compensation, since they would have used our technologies for free.” - Mr Arjen van Tunen, CEO of Keygene N.V.

Thanks to the IP leverage, KeyGene developed itself from a technology provider to an integrated technology and trait provider with B2B activities with seed company customers in a large number of countries including Europe, USA, Japan, India, China and Brazil.

5. Lessons learned

Biotechnology is a field where technology advances rapidly. For this reason, it is vital for any company operating in this sector to protect the innovation that they generate with Intellectual Property Rights (IPR).

Keygene has been able to reap the entire benefit from their intellectual property capital by setting an IP strategy from the outset in line with their core business and put it into operational phases via proper IP management.

Thanks to this IP awareness and the implementation and constant revision of the company’s IP strategy, Keygene is leading the agro-food biotech sector in the EU market. Furthermore, they succeeded in expanding their B2B activities, supplying their products to seeds companies worldwide.
GET IN TOUCH

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ABOUT THE EUROPEAN IPR HELPDESK

The European IPR Helpdesk aims at raising awareness of Intellectual Property (IP) and Intellectual Property Rights (IPR) by providing information, direct advice and training on IP and IPR matters to current and potential participants of EU funded projects. In addition, the European IPR Helpdesk provides IP support to EU SMEs negotiating or concluding transnational partnership agreements, especially through the Enterprise Europe Network. All services provided are free of charge.

Helpline: The Helpline service answers your IP queries within three working days. Please contact us via registration on our website – www.iprhelpdesk.eu – phone or fax.

Website: On our website you can find extensive information and helpful documents on different aspects of IPR and IP management, especially with regard to specific IP questions in the context of EU funded programmes.

Newsletter and Bulletin: Keep track of the latest news on IP and read expert articles and case studies by subscribing to our email newsletter and Bulletin.

Training: We have designed a training catalogue consisting of nine different modules. If you are interested in planning a session with us, simply send us an email at training@iprhelpdesk.eu.

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