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IP Portfolio Valuation Final Report

1. Introduction

Groth & Co (“Groth”) is a leading IPR law firm with head office in Stockholm, Sweden, and with 7 other local offices in Sweden, Spain, Germany, and China.

Groth is a Swedish limited liability company incorporated under Swedish law. The company is partner owned. Groth advises on all aspects of IPR, including patents, trademark and design rights. Groth has been creating and optimizing intellectual property since 1869 which makes Groth Scandinavia’s oldest company in the industry. Groth have experts in patents, trademarks, designs, domain names, copyright, process & litigation, watching and name creation.

Groth has recently taken over the responsibility for the IP portfolio of Plantagon International AB (“Plantagon”) from another IPR consultant firm.

A first Valuation Report with appendices was provided by Groth on 22 October 2013. This report is hereby incorporated by reference.

The Groth team in this project has consisted of:

Thomas Lev: Managing Partner

Mathias Loqvist: Partner, European Patent Attorney and project leader

Håkan Yildirim: Patent Attorney and search specialist, and

Gunnel Nilsson: Partner, Deputy Head of Law & Trademark Dept and European Trademark Attorney, for the final report.

2. Scope of project

Groth & Co have been instructed to assess an indicative value estimate of the IP portfolio of Plantagon.

2.1 “Information input”

- The Plantagon IP portfolio handled by Groth
- Freedom to operate search and analysis on the technology of the Plantagon patent families
- Business plan and business case provided by Plantagon
- Questionnaires (Appendix C and D)
- Qualitative evaluation of the Plantagon 1st patent family (Appendix E)
- Trademark portfolio (Appendix F)

An overview of the IP portfolio is provided in the first report in Appendix A.

2.2 Methodology

The valuation estimate is based on a qualitative method briefly described below.

The valuation estimate reflects an overall assessment of the IP portfolio. Hence, this valuation estimate cannot be used to extract a value estimate for an individual intellectual property right of the IP portfolio.

The estimated value of the IP portfolio is based on an IP portfolio potential derived from the business scenario outlined in the business plan and business case, and verified by further data and interviews with the management of Plantagon. The IP portfolio potential reflects a maximum potential of the IP portfolio.

The IP portfolio potential is multiplied with a legal risk discount factor to obtain the estimated value (figure 1):

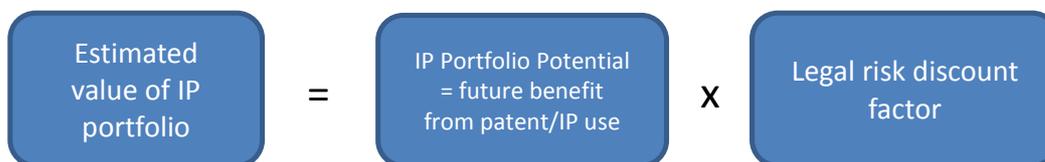


Figure 1

The legal risk discount factor is based on:

- a) a freedom-to-operate status of the IP-portfolio (first report Appendix B).
- b) a set of value indicators.

An empirically based model has been used to find a quantitative measure of the legal risk.

2.2.1 The freedom-to-operate status

The freedom-to-operate status is determined according to the 10-graded scale below:

- 1) Concept freedom
- 2) Product freedom
- 3) Non-essential feature of product blocked by patent controlled by owner outside industry
- 4) Non-essential feature of product blocked by patent controlled by owner within industry
- 5) Essential feature of product blocked by patent controlled by owner outside industry
- 6) Product blocked by patent controlled by owner outside industry
- 7) Essential feature of product blocked by patent controlled by owner within industry
- 8) Concept blocked by patent controlled by owner outside industry
- 9) Product blocked by patent controlled by owner within industry
- 10) Concept blocked by patent controlled by owner within industry

“Concept freedom” indicates that not only a particular product is free to use on the market, i.e. not blocked by any third party patent, but also that the product concept is free to use without any hindrance from blocking patents. This score entails a multiplying factor higher than 1.

“Product freedom” indicates that a particular product is free to use on the market without being blocked by any third party patent rights. This score also entails a multiplying factor of 1 or higher than 1.

“Non-essential feature of product blocked by patent controlled by owner outside industry” indicates that a feature of low or minor importance in the product is covered by a patent owned by a party operating in another industry. Typically, the feature can easily be modified to circumvent the patent or has a very low value. This score entails a multiplying factor close to 1.

“Non-essential feature of product blocked by patent controlled by owner within industry” indicates that a feature of low or minor importance in the product is covered by a patent owned by a party operating the same industry. Typically, the feature can easily be modified to circumvent the patent and/or is cheap to replace. This score entails a multiplying factor close to 1.

“Essential feature of product blocked by patent controlled by owner outside industry” indicates that the product includes an essential feature that is covered by a third party patent where the owner operates in another industry. Normally, this feature is difficult to modify and/or is expensive to replace. This score entails a multiplying factor lower than 1.

“Product blocked by patent controlled by owner outside industry” indicates that the product includes several essential features that are covered by a third party patent where the owner operates in another industry. Normally, it is not possible to modify these features and/or they are very expensive to replace. This score entails a multiplying factor lower than 1.

“Essential feature of product blocked by patent controlled by owner within industry” indicates that the product includes an essential feature that is covered by a third party patent where the owner operates in the same industry. Normally, this feature is difficult to modify and/or is expensive to replace. The fact that the owner operates within the same industry often lead to a high license fee or to difficulties in obtaining a license. This score entails a multiplying factor significantly lower than 1.

“Concept blocked by patent controlled by owner outside industry” indicates that not necessarily one or several essential features of the product is covered by a third party patent where the owner operates in another industry but that the concept including the product is protected by that patent. This score entails a multiplying factor significantly lower than 1.

“Product blocked by patent controlled by owner within industry” indicates that the product includes several essential features that are covered by a third party patent where the owner operates in another industry. Normally, it is not possible to

4. Observations and recommendations

The IP portfolio potential and the estimated IP portfolio value reflect the IP portfolio and legal risks as of today and under the circumstances and assumptions given in this report.

It should be noted that the potential IP portfolio value will likely decrease over time as illustrated in Figure 3 without a structured and continuous IP work within Plantagon. The same applies to the legal risks and estimated value. The IP portfolio provide a “movers advantage” which is reduced over time if the IP portfolio is not continuously operated and improved. However, if a structured and continuous IP work is applied within Plantagon, it is possible to achieve an increased IP portfolio potential as well as reduced legal risks and an improved estimated IP portfolio value.

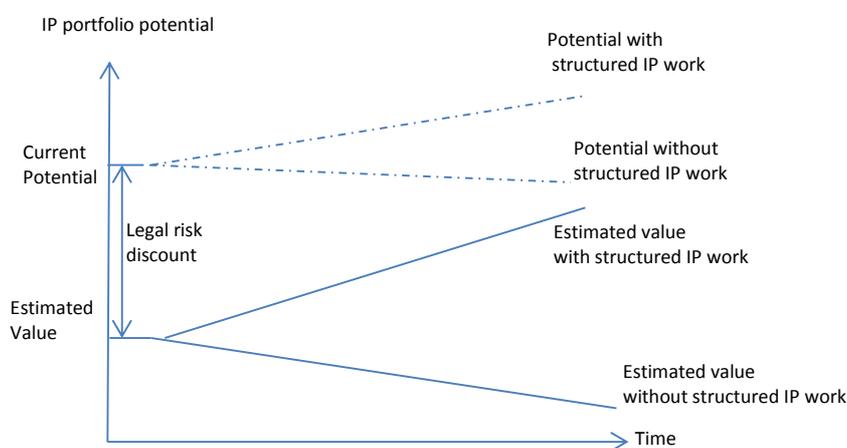


Figure 3

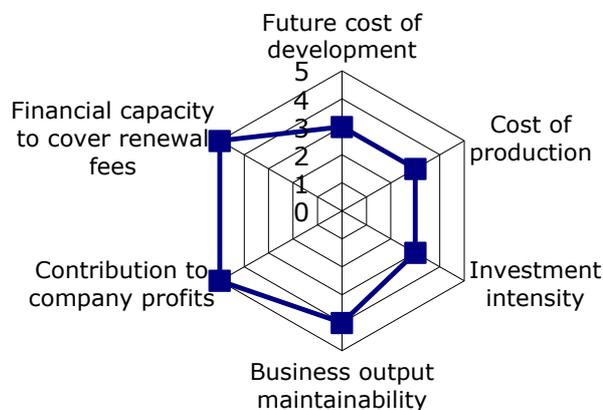
A decrease of IP portfolio potential over time may on the other hand be balanced by development of the patent families of today, for example, by more granted patents, increased geographical coverage in patent family 2 – 4. Notwithstanding these facts, a general trend will be a declining IP potential and/ or increased legal risks over time without structured IP work.

If a structured IP work is adopted, we see possibilities in improvement of the IP portfolio, for example, in adding new patent families directed to processing of the products produced in the Plantagon systems and technological development of the system.

In this study, other types of IP such as know-how, copyright etc. have not been considered. For example, know-how may be an important factor in building and establishing the business model.

The ownership of all IP considered in this analysis is in the control of Plantagon.

Financial conditions



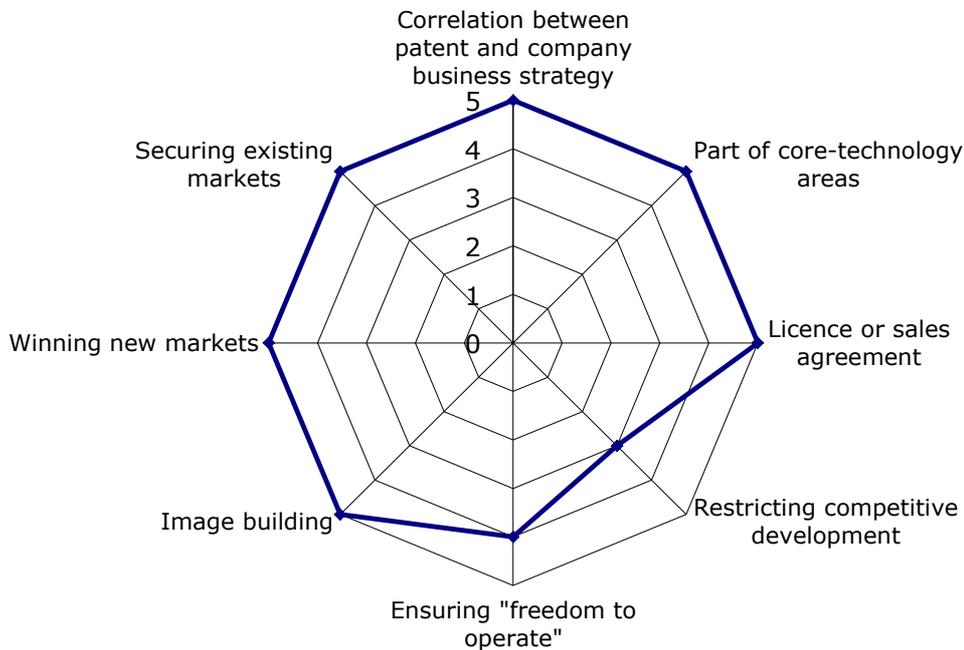
Plantagon has the financial ability to cover renewal fees in all countries where registrations have been applied. Additionally, the patented technology's contribution to company profits is very high. Furthermore, it would be difficult to maintain the business area output in the relevant market without utilizing the patented technology.

Future development costs are at medium level. This assessment factor is for determining the development costs incurred annually before the patented technology is ready for use commercially. Future development costs include patenting costs and market introduction costs, but excluding costs already accounted for.

Cost of production is at medium level. The future production costs for the patented technology are assessed in relation to the level of the current production costs in the company. The score indicates whether the patented technology will be easier and cheaper to produce compared to production at present due to implementation of the patented technology, or whether implementation of the patented technology will make the production process more difficult and thereby more expensive.

Investment intensity is at medium level. This assessment factor determines whether the current level of investment for production equipment is affected by the new production technology.

Strategic profile



Plantagon's strategic profile involves a very strong correlation between patented technology and company business strategy.

The company uses patented technology to secure the right to produce and sell vertical greenhouses in the markets of interest. Moreover, patented technology plays a part in ensuring the right to invade and conquer new markets. Hence, Plantagon is applying for clusters of patents in order to create a barrier to make it particularly difficult for competitors to penetrate key markets.

Additionally, patented technology is being used as a key image building tool for Plantagon to demonstrate that the company is innovative and a forerunner in technological development. The patented technology is furthermore part of one or more of the company's core-technology areas and also forms the basis for establishing license or sales agreements for technological knowledge, as well as being an instrument in cross-licensing agreements.

Importantly, Plantagon has "freedom to operate", i.e. elbow room for the company's future technological development so that access to subsequent utilization in the market is ensured. It is important to be ahead of competitors in recognizing the potential in a technological area. What is more important, the company uses patenting as means of "capturing" areas of technology which obstructs future competitive development and competitive access to operate in given markets. If there are already a number of patents within the area in question, it will be extremely difficult for the competitor to develop his own products.