

— *An International* —

# INTELLECTUAL PROPERTY CONSULTING & BROKERAGE FIRM

## Case Studies

### IP Toolkit for SMEs

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## Case Studies – Summary

5 case studies are provided illustrating how IP has been exploited to generate revenue and increase company value:

1. Start-up journey to being acquired
2. Patent licensing
3. IP-backed finance for SME
4. Patent sale
5. University spin out

In each case, the information on the background to the case study is provided, followed by a brief description of the IP involved, the way in which the IP was exploited and how/why the strategy that was pursued was successful.



## Case Studies – Start-up Journey to Being Acquired

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Swiftkey is a keyboard input method for smartphones which uses **artificial intelligence (AI) technologies** that enable it to predict the next word the user intends to type
- SwiftKey ([www.swiftkey.com](http://www.swiftkey.com)) was created in 2008
  - **\$1.5M** – Seed and venture capital in 2010
  - **\$2.4M + \$15.5M** – Series A and Series B investments in 2011 and 2013, respectively
  - **SwiftKey was purchased by Microsoft for \$250 million** in 2016 – the largest sum paid to purchase a start-up in the UK
- ClearViewIP provided on-going **strategic IP advice** to SwiftKey from 2013-2016, including providing an invention capture process, IP landscaping / benchmarking activities, patent validity searches and freedom-to-operate reports
- The acquisition by Microsoft was a smooth transaction, IP was clearly a consideration in the **favourable price achieved**, and there were **no issues concerning SwiftKey's IP**



## Case Studies – Start-up Journey to Being Acquired

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- The technology covered by SwiftKey's initial patent filing now forms the basis of many modern predictive text solutions. This **core innovation** was granted a European patent in 2015 ([EP2414915](#))
- Since 2009, the patent portfolio was further developed, with over 70 filings in **key territories**
- Prior to acquisition by Microsoft, the patent portfolio had the following characteristics:
  - Covered a comprehensive range of technologies and had a number of **foundational patents**
  - **Well aligned** to SwiftKey's product
  - **Pipeline of future filings**
  - **Well cited** by competitors, showing the importance of their technology
  - Similar **filing activity** to their competitors
- SwiftKey also had trademark registrations for the SwiftKey brand in many territories worldwide and developed a very extensive **software codebase** which was **protected by copyright**



## Case Studies – Start-up Journey to Being Acquired

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- SwiftKey commissioned an **IP landscape** to identify competitors and their IP to understand the **IP risk** in their market, and set targets for the size of patent portfolio required. Showing understanding of the potential risks and their competitors was important in **attracting investment**
- In order to grow their portfolio and ensure that no innovation was lost, they implemented a systematic **innovation capture process** with regular meetings with inventors and review stages prior to filing
- SwiftKey were using Google Play & Apple App Store sales as a way to market the technology to manufacturers, who could then license the technology. Notably, SwiftKey **licenced their technology** to Samsung
- Revenues from IP licensing deals overtook revenues from sales
- IP was a crucial consideration in the Microsoft acquisition. The IP is thought to have provided a **premium to the agreed acquisition price**, and the **due diligence of the IP was 'clean'**, such that the price was not affected by any poor IP-housekeeping issues



## Case Studies – Start-up Journey to Being Acquired

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- SwiftKey was a highly successful start-up with over 360M users which created a **10X return on investment** for investors when it was acquired by Microsoft
- The business success that SwiftKey had selling its app and through OEM **IP licensing** deals provided demonstrated a proven ability to **generate revenue**, which reassured investors, and facilitated further investment in the business
- As the goal was to generate a significant return for investors, **acquisition** was seen as the ultimate **‘exit’ strategy** for SwiftKey. To aid this goal a **comprehensive IP portfolio** was generated
- The patent portfolio and other IP assets of the business demonstrated that SwiftKey had a healthy **respect for IP**, had **invested heavily in their IP portfolio** and had an **appropriate number of IP assets** for a company of their size. The patent portfolio was well-aligned with the business, provided the acquirer with the ability to steer the prosecution of pending patent application to their own products / services, and was well-respected in the industry. All of these factors contributed to a **successful exit**



## Case Studies – Patent Licensing

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- The **two-part hip cup** was invented by Mr John Church who was a very experienced UK orthopaedic surgeon
- Mr Church recognised that often in surgery, despite having planned well and having x-rays for the patient, things were not quite as expected in relation to the hip joint
- There was a need to be able to **refine the implant** to achieve a good result in terms of joint articulation and the prevention of post-operative dislocation



## Case Studies – Patent Licensing

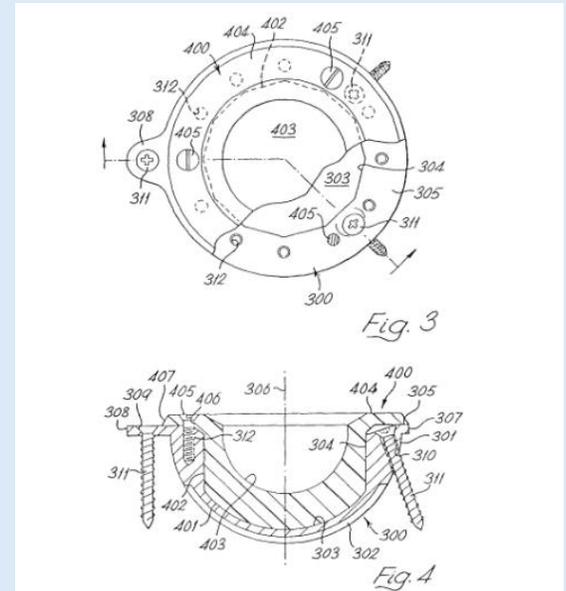
Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Mr Church's solution was a range of **two-part hip cups**
- He kept records of his R&D in lab books. Recognising that his invention could have commercial potential, he filed a patent to protect it. Mr Church was careful to **keep his invention confidential** until he had filed his first patent application, only disclosing details under a **NDA**
- The patent was filed using a UK patent attorney who was **highly experienced in the field**, with the help of the lab books, was able to convince the examiner that the device was worthy of a patent. The inventor filed the patent outside the UK as well, most importantly in the largest single market, the US
- Mr Church had an agreement with BTG which was a UK company that helped inventors at that time. They funded the initial patent work in return for a **share of future earnings**





## Case Studies – Patent Licensing

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Companies were approached to determine their interest in the invention. Soon it was noted most companies were offering products that it was felt were within the scope of the patents
- BTG helped Mr Church approach the companies **asking them to take a license** to the patent. Initially they were very reluctant. Some companies took licences which paid a **royalty on sales**. As they had already sold many products this resulted in **immediate payments** as well as **ongoing future payments**. The income meant more work could be focussed on companies not taking a license
- **Litigation was required** and this was carried out in the US, funded by BTG. A settlement was reached that resulted in an **immediate payment of \$17.4m** together with a **licence agreement for future royalties**. This invention reportedly earns royalties of around **\$20 million per annum**



## Case Studies – Patent Licensing

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- The main **success factor** here was obtaining patent protection both in the UK and around the world via a **PCT application**
- It was a great invention providing a good solution to a real problem but **without the patents the inventor would never have been rewarded**. The industry liked the idea and incorporated it into the product ranges (there is no indication that this was as a result of having seen Mr Church's invention). The quality of the invention also meant that Mr Church was able to **engage licensing professionals** and lawyers to act on his behalf on a contingent basis (where fees are only collected when a settlement is achieved). **The patience and persistence** of those involved was another key success factor
- Having **good records** in the form of laboratory notebooks impressed the judge in the infringement process as it helped understand the work and effort that had gone into the invention



## Case Studies – IP-Backed Finance for SME

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Toumaz is a British pioneer in low-power, wireless semiconductor and software technologies for healthcare and consumer audio
- The company sold his healthcare division in 2016 and rebranded to FrontierSmart. The company's audio division is the **established market-leader** in Digital Radio and is benefitting from the growing adoption of DAB radio internationally. In addition, the company provides Wi-Fi-enabled smart audio products
- **€35m** revenue
- **€7m** spent annually on R&D
- The company was able to secure a **£5m funding package** from Clydesdale Bank to carry on its growth plan



## Case Studies – IP-Backed Finance for SME

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Toumaz's IP comprised a **patent portfolio of 39 patent families** with 54 granted patents and over 60 patent applications.
- The geographical coverage was mostly Europe with some US, Japan and China patents.
- The company also secured important **in-licenses** of key technologies
- They also have some trademarks but the major part of their **IP value is actually in their know-how**



## Case Studies – IP-Backed Finance for SME

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- The company's strong IP was recognised by a bank's specialist growth finance team providing loan while **considering the IP in their valuation of the business**. Furthermore, they take IP as a security on the loan
- Key aspects of the IP were assessed:
  - **Schedule** of IP assets
  - **IP ownership**
  - **IP maintenance** status
  - **IP geographical coverage** vs geography of revenue generation
  - Product (current and future) coverage through a **patent to product mapping**
  - Internal **IP management processes** and practices (e.g. IP clause in employment contracts, processes used to protect trade secrets and control know-how)
  - **Licensing** agreements
  - **Sales potential** of the IP



## Case Studies – IP-Backed Finance for SME

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- The IP assets (both formal/registered and informal/unregistered) were a **key factor in securing their loan** and provided the bank with some security with identified options/strategies that could be undertaken to maximise the financial recovery (“**salvage value**”) from the company’s IP in a distressed scenario, including the most likely purchasers of the business and/or IP in such scenario
- Assessing the value of patents in a sale scenario tend to be **based on licensing income potential** (discounted cash-flow) and **comparable transactions**. The key parameters affecting the value of patents in this context are:
  - **Is the technology used** and is there a market, ideally large and growing?
  - Are the patents potentially **infringed by third-parties** and can infringement be proved?



## Case Studies – Patent Sale

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Robin Baneth is an individual inventor based in the US. He is a staff member at Meredith College. His role is Academic Technology Systems Specialist. The college is based in Raleigh (North Carolina, USA) and include nearly 2,000 students
- Previously, he worked as a Computer Specialist and CIO for eight museums until 2008 and for IBM until the mid-90's as a User Interface Analyst. He has a Master of Science in Ergonomics with an emphasis on human-computer interaction



## Case Studies – Patent Sale

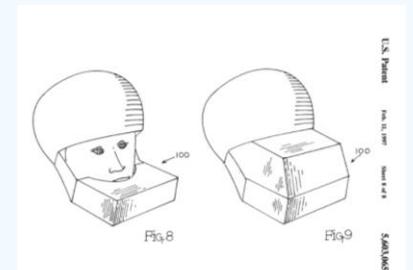
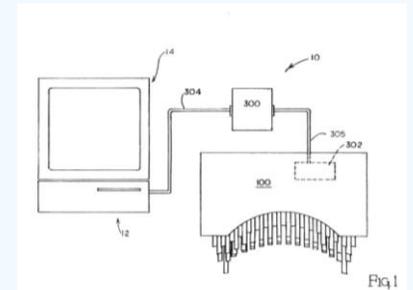
### Background

### What the IP was

### What was done to exploit the IP

### How/why it was successful

- **Outside his job**, the inventor was looking at **hands-free computer user interface** inventions for people suffering from disabilities resulting from severe arthritis, strokes, accidents, amputation, spinal problems, etc
- His first patent was filed in 1994 ([US5603065](#)). It was a computer input device in which data and **commands are input by aspiration** (i.e. blowing or sucking). Potential users included the physically-challenged, astronauts, scuba divers, surgeons, musicians and more
- His second patent was filed in 2004 ([US7624355](#)). The invention provides an interface that permits a user to **control navigation and selection of objects** within a graphical user interface where user input is received using a hand-free input device. It was developed for physically impaired users and for underwater tool usage, extra-terrestrial repairs, etc. This patent had been cited by: Alibaba Group, Apple, AT&T, Honeywell, IBM, Microsoft, Samsung Electronics, Siemens. It can therefore be seen as **relevant to these types of companies**





## Case Studies – Patent Sale

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- While the first patent had expired, it was recognised by the inventor that the second patent (US7,624,355) could be **applicable to almost any computing/electronic devices**, e.g. TV, computer, smartphone and game console etc
- The individual inventor had tried to develop a software and commercialise his IP unsuccessfully and was looking to sell his patents to **generate a return** on his financial and time investment
- ClearViewIP worked for him as a **patent broker** and aimed to **position the IP** as a patent in the field of “gesture recognition”, the technology that allows computers to understand human body language by interpreting human motion and gestures
- Touch recognition and voice control have reinvented the way users interact with their devices and computers. The next progression will be the computers based on **gesture-controlled technology** where users would control their machines with gestures – without the need to touch



## Case Studies – Patent Sale

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Patent brokers work on **commission only**. Typical commission range between **15% and 30%** depending on the size of the transaction. **Not charging an upfront fee** allowed the inventor to hire experts while sharing risk and rewards
- The patent brokerage process included the following stages:
  - Development of Commercial Strategy
    - Checking the administrative status of the IP
    - Confirming encumbrances (has it been licensed?)
    - Marketing pack created (description of IP assets, price expectation, market data, bidding process details)
    - Value depends largely on potential infringement
  - Execution of Commercial Strategy
    - Broker identifies potential buyers
    - These could be (a) companies looking to strengthen their portfolio, (b) companies who have been sued who are looking to acquire patents infringed by the other party to counter-sue, (c) NPEs or (d) defensive aggregators who acquire patents on behalf of their clients before being bought by NPEs



## Case Studies – Patent Sale

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Further stages:
  - Transaction Support
    - The broker supports all discussions and negotiations and acts as an interface between the seller and potential buyer
    - If a price is agreed, a Patent Purchase Agreement (PPA) is negotiated and signed by both parties
  - Deal Closure
    - Due diligence is carried out by the buyer
- In this case study, while the exact amount is confidential, the seller was able to sell his IP to Intellectual Ventures for a sum over \$100,000. The transaction took 10 months overall



## Case Studies – University spin out

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Liftupp is a technology supported **learning software tool** that has been developed for dentistry, medicine, veterinary and other health professionals
- Liftupp Ltd ([www.liftupp.com](http://www.liftupp.com)) was created in 2009 at the University of Liverpool to improve the student experience through personalised education to ensure all aspects of the curriculum of study are taught and appropriately assessed
- Liftupp spun out of the University of Liverpool in 2015. **Liverpool University retained a major stake** in the company and its clinical academic teams continue to **support the enterprise**
- ClearViewIP provided **strategic advice** to the University of Liverpool on IP exploitation, the **spin out process**, and **investor requirements**; as well as fulfilling an operational role in the execution of the spin out



## Case Studies – University spin out

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- Liftupp's IP comprised **know-how and copyright** on the software tools. Liftupp provides a sophisticated suite of assessment tools to provide a holistic view of student performance
- Key functionalities include:
  - mapping of curriculum and tracking requirements from regulatory body, e.g. dentistry, medicine
  - Development of students through an app
  - Assessment of students through a cloud-based system



## Case Studies – University spin out

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- The **commercialisation** of Liftupp was accelerated through the **formation and transition to a spin out company**. It was felt that pursuing the spinout route would **increase responsiveness** and agility in the marketplace as well as introducing **commercial pressures** and realities. It would also allow to develop a new branded presence separate from the University to support the commercialisation of the product
- The formation of the spinout company required agreements on:
  - **Equity ownership**
  - **IP licencing** terms from the University to the new spinout company in exchange for equity and royalty payment
  - **Employment terms** including incentive to motivate and retain key staff
  - **Spinout timing** and incubation support



## Case Studies – University spin out

Background

What the IP was

What was done to exploit the IP

How/why it was successful

- With know-how being held within the team (both the key academics and the development team) it was critical that documentation and **knowledge transfer** be appropriately resourced
- Given that the company's IP is not based on patents, building a brand, **growing market share and partnering** were seen as key to protect its IP position in the long term
- A spinout venture provided a vehicle within which the company's original and **developing IP could be captured**, and through which the individuals involved could be motivated and retained so that the value in this largely intangible **IP could be grown and realised**
- The overall objective for the University of Liverpool was to create a company that can **grow its revenues and profits** and build its internal capabilities and IP, whilst expanding to address new market applications. In this way, the company will have the potential to be an **attractive acquisition target**, and the University's investment and IP could eventually provide a **substantial financial return**



## Case Studies – Takeaways

The 5 case studies describe ways in which IP has been used to **generate revenue** or **increase company value**: demonstrating the importance for SMEs of developing a clear IP strategy at an early stage. The key learning points for SMEs from these case studies are:

- Even in a **software** based business, IP, including patents can play a key role in building the value of a company. **Suitable IP processes** need to be in place and the potential for **IP risk** needs to be understood
- Quality innovation protected with strong registered IP can be used to extract **significant royalties** from large companies, even if the rights owner has limited budget
- IP can provide alternative/complementary business models if a company's original does not succeed. It can be used to **recover value** if a company fails, which means that it may be **used as collateral** for loan funding
- Maintaining **confidentiality**, recording **ownership**, and diligent recording of innovation at an early stage can all prove important for SMEs in the long run
- Unregistered IP may also be core to the value of an SME, and securing that IP, including **retaining key employees** may be central to retaining that value