

## Case Study 8.3. The partnership with IP Group at Cardiff University

**CRITICAL AREA OF FOCUS 3:** “Accessing finance and interacting with financial stakeholders”

**BEST PRACTICE FOR:** “Partnerships with VC firms and financial investors”

**AIMED AT:** TTOs      **UNIVERSITY:** University of Cardiff (United Kingdom)

**TTO:** TTO Cardiff University



### The context:

Cardiff University is a public research university located in Cardiff (Wales, United Kingdom). It is the third oldest university institution in Wales and is the only Welsh member of the exclusive Russell Group of leading British research universities. **Cardiff University** is composed of three colleges: Arts, Humanities and Social Sciences; Biomedical and Life Sciences; and Physical Sciences and Engineering. It employs more than 6,000 staff and has around 30,180 students (it is the 8th largest university in the UK in terms of student numbers).

Its **TTO** was established in 1990. It is an internal unit of Cardiff University and is a part of Professional Services. The staff has a team of 7 people. All of the staff members are employed by the University. The staff is divided among the three Colleges that compose the University according to their size: 3 staff members deal with the College of Biomedical and Life Sciences; 2 with the College of Physical Sciences and Engineering; 1 with the College of Arts, Humanities and Social Sciences and another one covers all of them. The TTO covers all the technology sectors in Cardiff University but most of its activities are related to the College of Biomedical and Life Sciences. The backgrounds of the people employed at the TTO are quite broad and cover all the commercial, research and intellectual property aspects.

The activities of the TTO are principally focused on developing innovative research by securing translational funding. Working alongside academics, the TTO advises on the completion of grant applications and can provide the required intellectual property statements specific to a project. It then further develops these research outcomes by protecting the resulting intellectual property and by exploiting its specific know-how through negotiation of license deals, working with industrial partners and the creation of spin-outs.

### The problem:

One of the main challenges faced by the TTO was to organize the partnership between Cardiff University and VC firms in an optimal way. In particular, they needed to fill the gap between Cardiff University's TTO and traditional venture capital investing, especially considering that the TTO is principally focused on Biomedical and Life Sciences activities and its technologies are often early-stage. In addition, they needed to effectively manage the early incubation stages of spin-out companies.

### The solution:

University of Cardiff addressed the first challenge by partnering with an outside Investor group, Fusion IP plc (now part of IP Group plc) with whom it had a long standing relationship. Fusion IP plc, previously called Biofusion, was established in 2002 to commercialise university-generated intellectual property. In 2014, it was acquired by IP Group (which has owned a 19.8% stake in Fusion IP since 2009), in order to create a stronger UK-based IP commercialisation company. IP Group (a publicly-listed intellectual property company) works on commercialising IP sourced from research institutions and it pioneered the concept of the long-term partnership model with UK universities. It now has arrangements covering fourteen of the UK's leading universities and also has access to opportunities in the Oxford and Cambridge clusters from its stakes in Oxford Sciences Innovation plc and Cambridge Innovation Capital plc respectively. Its portfolio comprises around 100 companies and is categorised into 4 main sectors (Biotech, Cleantech, Healthcare and Technology).



The partnership between Cardiff University and Fusion IP/IP Group is one of the most important features of the TTO and it has proven to be very successful for Cardiff University. It was completed in 2007 and it consists in a ten-year exclusive agreement with Fusion IP (which was acquired successively by IP Group), giving it the right to commercialise, through the creation of spin-out companies, Cardiff University's research-generated intellectual property. This agreement was very similar to that which the same company completed with Sheffield University. Currently, IP Group has 7 companies in partnership with University of Cardiff: Alesi Surgical Ltd, Fault Current Ltd, I2L Research Ltd, MedaPhor Group plc, Morvus Limited, Nanotether Ltd and Progenteq.

The original terms and arrangements of the agreement between Fusion IP and Cardiff University have not changed since the acquisition of the company by IP Group. According to the terms of this agreement, IP Group has the first right to establish a spinout company based on Cardiff University owned intellectual property. In return for this exclusive option, Fusion IP gave the university a significant shareholding in Biofusion (30%). Furthermore, it provided a ring-fenced fund of £8.2 million for investing in spinout commercialisation opportunities arising from Cardiff University's research. If Fusion decides not to invest in a specific Cardiff University's Spin-out within 30 months, the TTO has the total freedom to pursue all the alternative strategies and means that it considers appropriate for the exploitation of the related intellectual property.

The advantage of this type of partnership lies in having a professional investor who raises funds for the university and is willing to invest earlier than traditional venture investors when there is an important technology risk.

Cardiff University addressed the second challenge, i.e. creation of successful spin-outs, by means of the same relationship, leveraging the management and business support that Fusion IP provides. This is very important, especially considering that the Cardiff University's TTO is principally focused on Biomedical and Life Sciences activities and its technologies are often early-stage.

The creation of a spin-out is structured in 3 stages: Start up, later stage investment and trading. The first step usually lasts 12-18 months. In this step Fusion IP is very involved: it provides support in writing business plans, it builds the website and it deals with early-stage company formation issues. IP group usually funds this step on its own. In the second step, which usually lasts 12-36 months, Fusion IP provides support in developing the business of the company including drafting the business plan, recruiting the management team and raising third party funding. Finally, the last step is characterized by the attempt to reach a trade sale or by IPO (Initial Public Offering).

As far as the partition of equity is concerned, according to the terms of the agreement, Fusion IP normally owns the 60% of any new portfolio company at start-up and the remaining 40% goes to the academic funding group. Cardiff University does not take an equity stake in individual spinouts, but is a major shareholder in Fusion IP plc. This has the advantage of aligning the goals of the investors, the executive management of Fusion IP and the University. It also helps mitigate the university from any downstream dilution in individual spin-out companies.

IP Group's acquisition of Fusion IP in 2014 resulted in a larger entity with greater investment potential than Fusion IP alone. There was also much greater liquidity in the IP Group stock which made it possible for Cardiff University to sell its shares in IP Group.

### Alignment to PROGRESS-TT:

This case is a good illustration of the "Partnerships with VC firms and financial investors" Best Practice in PROGRESS-TT Critical Area of Focus 3 "Accessing finance and interacting with financial stakeholders".

Managing the relationship with VC investors, especially for Biomedical and Life Sciences, is often a difficult task, particularly because of the significant investments that the technologies in these areas require.

The partnership that Cardiff University established with Fusion IP (acquired subsequently by IP Group) has proven to be very successful for its spin-out business. In total, Fusion IP/IP Group has invested in 20 new companies from Cardiff University and has raised almost £50M. Considering that Cardiff University raised additional investment finance than that which Fusion IP/IP Group invested and secured, more than £75 M of venture funding was raised in total. 4 spin-out companies from Cardiff University have been listed on AIM (Alternative Investment Market; it is a sub-market of the London Stock Exchange).

An example of the success of the deal between University of Cardiff and Fusion IP/IP Group is represented by MedaPhor Group plc. MedaPhor is a global provider of advanced ultrasound education and training for medical professionals which was created in 2004 by a team of clinicians and computer scientists. Since 2007, MedaPhor has raised almost £10M in investment funding from Fusion IP, Finance Wales, IP Group, Arthurian Life Sciences Fund, Cardiff Capital and the founding directors. With headquarters in Cardiff (UK) and San Diego (CA, USA), the company has sold over 120 ultrasound systems into major hospitals worldwide, with sales rising to £1.8M in 2014. MedaPhor became the third IP Group portfolio company to float on the AIM market of the London Stock Exchange in 2014, raising £4.7M from institutional investors for its flotation. More recently MedaPhor's innovative ultrasound training simulator has been endorsed by the American Board of Obstetrics and Gynecology (ABOG). This means the ScanTrainer will be used in 2,000 obstetrics and gynaecology certification exams carried out across the United States each year. The three-year endorsement led MedaPhor to raise £3.2M through a share issue on the London Stock Exchange Alternative Investment Market. Over 200 hospitals in the US run obstetrics and gynaecology residency programmes.

In conclusion, Cardiff University has established a business model for spin-out formation based on a partnership agreement with specialized investors. This business model is based on a long-term exclusive agreement with an investment firm (Fusion IP/IP Group) specialized in commercialising IP sourced from research institutions. In this way, it is possible to fund the earlier stages of the commercialisation process (an area where traditional venture investors are often not willing to invest, due to high levels of risk) and, consequently, fill a gap between Cardiff University's TTO and traditional venture capital investing.

In addition, the partnership with Fusion IP/IP group was very important in order to provide hands-on support and advice for the initial maturation of the early stage spin-out companies. In fact, thanks to their experience, Fusion IP and IP Group were very useful in these particular steps, thus allowing them to optimize the growth strategies of spin-out companies in their target markets. They are able to undertake many of the issues associated with the creation of a new company, including, for example, undertaking due diligence and market research pre-incorporation. If a company is, in fact, set up, IP Group can also take care of this activity, including establishing legal agreements and registering the company. Furthermore, it can invest additional sums to recruit management with the required expertise. By doing this, when another investor is approached, the venture is more mature and represents a more attractive investment proposition.

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