Case Study 11.3. Internal Seed Funding at Imperial Innovations

CRITICAL AREA OF FOCUS 3: "Accessing finance and interacting with financial stakeholders"

BEST PRACTICE FOR: "Investment Readiness Activities", "Venture Mentoring Programs" and "University Seed Funds"

AIMED AT: TTOs **UNIVERSITY**: Imperial College London (United Kingdom)

TTO: Imperial Innovations

The context:

Imperial College London is a science-based university with an international reputation for excellence in teaching and research. It is home to 14,700 students and 8,000 staff. It is an international community, attracting undergraduates from more than 125 countries. The College focuses on the four main disciplines of science, engineering, medicine and business and is renowned for applying these skills to industry and enterprise.

Imperial Innovations was founded in 1986 as the technology transfer office for Imperial College London. In 1997, the group became a wholly-owned subsidiary of Imperial College London and in 2006 Imperial Innovations was listed on the Alternative Investment Market of the London Stock Exchange. The Group also acts as the technology transfer office for select NHS Trusts linked to Imperial College London, including Imperial College Healthcare NHS Trust and North West London Hospital Trust. Imperial Innovations currently employs 70 staff covering Investment, Intellectual Property and Business Development backed up by a Spin-out & Legal department.

Imperial Innovations creates spinouts and start-ups around suitable technologies, and they believe this is one of the best mechanisms to get technology into society. However, they are selective: many university technologies are more suitable for licensing to existing businesses.

The problem:

The process of developing an idea or invention into a startup often requires funds to support operations such as product development, proof-of-concept and proof-of-market.

This so-called seed-funding can be difficult to obtain because it is used to accomplish much of the work necessary to present the proposition as lower risk for investors.

The British government perceived a need for universities to access funds to move early-stage research ideas into a position where they could attract interest from external investors. "The University Challenge Seed Fund" was established in 1998 with £45m available in the first round and a further £15m in 2001. This provided 19 universities with their own funds to spend on start-ups. Universities were expected to match 25% of the total value of the grant. There was no restriction on who would manage the funds so the universities could take a flexible approach in setting up their own funding mechanisms. Some universities teamed up with local venture capital firms and angel firms and gave the money to them to act as a local VC. Imperial College, on the contrary, took the money in-house, under Imperial Innovations, and hired investment managers to work for them. At this point, Imperial Innovations started to build an in-house investment capability, but it would take some time to fully realise its potential.

After creating 30 companies, the University Seed Challenge funding was used up and Imperial was back where they had started with no more access to in-house seed funding.

The solution:

With equity in 30 companies which had already received investment from venture capital and other sources, Imperial Innovations had assets which could be liquidated to provide cash for further investment. Realising this, they took the unusual step, for a TTO, of raising money by selling off a slice of their entire portfolio.

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A small portion of their interest in each of their 30 portfolio companies was sold to a private equity firm, Fleming Family & Partners. The funds raised from this sale were used by Imperial Innovations to continue with their in-house seed funding until 2006.

Imperial Innovations has long been a separate company from Imperial College because in the UK universities are charities and they cannot trade. The technology transfer operation was established as a separate company in 1997, 100% owned by the university. In 2006, in response to the need for further seed funding, the decision was taken to float Imperial Innovations on the London Stock Exchange, raising £20m in capital. At that point, the university retained 80% ownership in Imperial Innovation and 20% was sold to investors on the stock exchange. Imperial Innovations then had funds to continue investing in Imperial start-ups. The public market listing had also created the basis of the Imperial Innovations venture capital investment business which would be further developed, employing investment managers and VC experts.

Similar to Venture Capital businesses worldwide, Imperial Innovations has a very rigorous process for funding new businesses. Prior to forming a company, they may employ external opinion leaders to give an opinion on whether to invest in a particular project or not. These are not necessarily the people that will ultimately manage the company. They act in a consultancy capacity, and help make good decisions and write solid business plans.

Each year Imperial Innovation's Co.Create venture support unit partners with 5-10 academic teams to help to build companies around cutting edge technology with significant market opportunities. They work with teams from the initial proof of concept stage through defining the business model and completing deals with customers and investors. They work closely with teams on a one-on-one basis and bring in experts at every step of the journey, paying consultants to work with the researchers to help assess the market and to validate the technology during due diligence stages. The academic founder is rarely installed as the CEO of the company. The teams that will ultimately run each spin-out consist of professional management recruited by Imperial Innovations. Experienced CEOs from the industry in which each spin-out is operating are hired and paid with equity and cash.

Experience has shown that if you pay only with shares (sweat equity), you may attract only mediocre management. But if you pay market rates with shares and salary, you can attract very high quality management.

Once the pre-company work-up has demonstrated that a business could be viable the next step is to formally create a company. This is often thought of as the simple step of registering a company at Companies House. However, a shell company alone does not have value and it is important to ensure that the new company has the legal right to the existing and future IP, an appropriate corporate structure and a well-defined plan. When the company is established and early trials are underway, the focus turns to growing the company by building the team, finding customers, finding a space to grow and raising investment.

Co.Create assistance is provided free to Imperial staff where the IP is owned by Imperial College London (by virtue of employment). In the case that the IP is not owned by Imperial (e.g. students), they ask for a much smaller stake e.g. 5-10% equity non-dilutable until Series A investment.

Imperial College offers incubator space (managed by Imperial Innovations) to fast-growing start-ups in a 2,200m2 facility (known as the Imperial Incubator) which provides laboratory and office space for new and growing businesses in every sector, from medical devices to software to mechanical engineering. The Incubator also offers a professional answering service, mail forwarding service and hot desks.

Over the past 10 years, Imperial Innovations has raised almost £450 million from the public markets in a series of fundraising rounds. Through this process, Imperial College London's stake in Imperial Innovations has gradually reduced to around 17% whilst its gains in the period (in terms of cash realised, equity still held and savings made) exceeded £200 million.

As the business grew, its remit expanded to invest in any academic start-up coming out of the golden triangle of Cambridge, Oxford and London. While Imperial Innovations has now invested in businesses coming out of UCL, Oxford University and Cambridge University, its technology transfer operation remains 100% dedicated to Imperial, only dealing with Imperial's IP.

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Alignment to PROGRESS-TT:

This case is a good illustration of the "Investment Readiness Activities", "Venture Mentoring Programs" and "University Seed Funds", Best Practice in PROGRESS-TT Critical Area of Focus 3 "Accessing finance and interacting with financial stakeholders".

Since becoming a public company in 2006, Innovations has raised £446.0 million of equity from investors, which has enabled it to invest in some of the most exciting spin-outs to come out of UK research. In addition, the group has a £50.0 million undrawn loan facility from the European Investment Bank (EIB). Between Innovations' admission to AIM (August 2006) and 31 July 2015, Innovations has invested a total of £236.8 million and the total raised by the Group's portfolio companies is £1.3 billion, with £479.9 million being raised this year

For the year ended 31 July 2015 £60.8 million was invested across 30 portfolio companies and total realisations for the year were £6.9 million and included:

- Sale of data analytics business to a leading US consumer electronics company realised a £4.1 million, representing an IRR of 65% and a 2.4x multiple on cash invested in an investment made in January 2013.
- Sale of e-learning business generated gross proceeds of £1.9 million.

At the time of writing, Imperial Innovations has founded or invested in 90+ academic led companies and 60+ student ventures. In addition, the Create Lab network includes 3000 students at Imperial as well as many household name corporatations, experienced founders and investors.

Many of the case studies included in the PROGRESS-TT best practice are considered easily transferrable as they do not require large sums of money to implement. Here we have a scheme which is all about raising large sums of money but which came from relatively small beginnings.

This process may not be directly transferrable to other TTOs as it is based on the experience of a large research intensive University with a TTO that is mature and large enough to manage this type of venture. The lesson here is not to rely only on external funding but to take account of what assets you have and what value you can add. A TTO is required to set-up and manage other businesses to maximise their profitability and should be able to apply those same principles to their own activities.

This is not a one-size-fits-all solution as monetization and the use of any surplus is a different issue for different organisations. Critical success factors are the possibility and desirability of the TTO becoming a totally separate legal entity or company from the parent PRO. It also requires long-term vision and trust between the TTO and the PRO management and depends on them both sharing the same vision for the future. Also critical to the success of this process is the acceptance of the external entrepreneurs by researchers, who are employed by Imperial Innovation in spin-outs. Researchers may be very reluctant to accept that experienced CEOs may be the key to success and must be involved in the process from an early stage and must be persuaded that this is the best way to ensure success of the spin-out company.

In summary, each university must do what is right for its own environment, culture and circumstances. It must balance the need to achieve commercial aims alongside achieving societal benefit and impact. Nonetheless, those waiting for gap or seed funding to materialize around their university may be in for a long wait and sometimes (as Imperial Innovations has demonstrated) it is necessary to take a more pro-active approach to bridging the gap.

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