The research commercialisation office of the University of Oxford, previously called **Isis Innovation**, has been renamed **Oxford University Innovation**

All documents and other materials will be updated accordingly. In the meantime the remaining content of this Isis Innovation document is still valid.

URLs beginning www.isis-innovation.com/... are automatically redirected to our new domain, www.innovation.ox.ac.uk/...

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What is the Best Structure for a University Technology Transfer Office?

Tom Hockaday, Managing Director Isis Innovation Ltd., January 2009

Universities face a choice in deciding whether their technology transfer office (TTO) should be part of the University's administration, or a separate company. There are then subsequent choices to be made in terms of possible strategic alliances with partners and selling shares in a TTO if it is a company.

There are three general points to make. Good people can make any system work and bad people can make any system fail. Nevertheless, some systems are better than others. The structure a university decides upon will be as much a reflection of what suits that university at that time, based upon the personal experiences of the decision makers involved. Whichever system is adopted the TTO must always remember its role within the University: the TTO is wholly dependent upon the willingness of researchers to engage in the process, support from senior university members, and should adopt a philosophy of supporting researchers who want support.

To explain our use of terms: the TTO is that part of the university responsible for commercialising university owned intellectual property through the core activities of: attracting and assessing invention disclosures; patenting and other forms of intellectual property protection; licensing; spin-out company formation; material sales; managing seed funds. The TTO may also incorporate a function that helps researchers sell their time as expert consultants.

The TTO is separate to the Research Office, which will typically support university researchers in identifying and winning research funding, and manage the contractual relationships with research funders.

This paper describes the issues and considers the pros and cons of the wholly-owned subsidiary company model.

Benefits of a separate TTO company

These points are all based upon a 100% wholly owned subsidiary of the University. The challenges of partially owned TTO companies are discussed below.

Business people prefer interacting with a business on business issues. Business people may find interacting with universities a challenge, having concerns over (mis)perceptions of ivory towers, different approaches, and science boffins in labs. They understand what a business is and therefore prefer to interact with one, rather than with a university, which they do not understand.

University researchers prefer interacting with a business on business issues. Researchers come to the TTO for expert professional help on matters of commercialisation and intellectual property management. These are business issues and they want to deal with a business-focussed organisation.

The TTO company benefits from independent management. The TTO must behave in such a way not to appear too different from its parent university. The benefits of independent management manifest themselves in a number of different ways. For example, the TTO can have its own human resource management systems: performance appraisal, competence framework, job descriptions, grievance, disciplinary and capability procedures, payscales, pay changes. The management structure and style can be set clearly by the board of directors and the managing director. The TTO company will be a small business, and can be managed accordingly, with the flexibility to respond rapidly to changing business circumstances.

With a separate company there can be clear and unambiguous management and focus as well as definition of responsibilities between the TTO and the Research Services Office.

The part of the institution responsible for determining the ownership of IP is different from that exploiting it.

Limited liability company – firewall, shut it down if it gets into trouble.

Charitable status of university not threatened by trading activity within the university. This of course depends upon local laws and legislation.

Disadvantages of a separate TTO company

The downside of having a company is that it can forget it is owned by a university. If the TTO starts showing off then the researchers will turn against it.

If the heads of the TTO and the Research Services office do not really get on it blows up, because of the inherent tensions between raising research funding (a service function) and protecting IPR.

Physical dislocation hinders interaction.

Poor governance can lead to increase in risk to the university.

Other points to note with a separate TTO company

Some universities have established a subsidiary company that holds IP, and trades, but does not have staff. The TTO staff are employed by the University, not the company. This approach misses out on the benefits described above.

In setting up a wholly-owned subsidiary company there are a number of good governance points which should be taken on board:

- The TTO company should report regularly to the university and its board.
- The TTO company should be audited by the University's auditors.
- The University payroll function should manage the TTO company payroll.
- The University should be well represented on the TTO company board of directors. The Chairman of the Board needs the confidence of and access to the head of the University.

Critical mass

There are additional issues for a small research university to consider around whether its research activity justifies its own TTO.

It is imperative for the university to have some technology transfer capability of its own. This is so that its researchers know they are talking to part of their own institution about research commercialisation; the requirement to talk to an outsider raises the initial barriers for engaging in technology transfer.

It may be reasonable for a university to have only a modest TTO resource of its own (one designated person at the minimum), and use external expertise to a substantial extent. The university then needs to build a relationship with external organisations that it is confidant are committed to provide support over the long term and have the necessary breadth of expertise.

A group of universities may consider clubbing together to fund a central TT resource accessible to all. There are significant presentation, communication and management challenges to be overcome, but it may be made to work. The point above still holds in this model: it is imperative for the university to have some technology transfer capability of its own. The risks are that business and resource pressures will push the centralised resource to follow selected opportunities with selected members of the 'club' and is no longer considered to be providing a service available to all. It may be said that the management of such a centralised resource will require highly charismatic social skills.

Strategic Partnerships

In recent years a number of UK universities have entered into long-term strategic partnerships/alliances with technology commercialisation businesses.

This phenomenon was initiated by David Norwood and IP Group (previously Beeson Gregory, IP2IPO Ltd) in 2000 in the UK. This pattern has also emerged to a certain extent in other countries. There are a number of companies which have included this in their business model: Fusion IP (previously Biofusion), Braveheart, Angle Technology, IPSO Ventures.

These arrangements are typified by the university trading a share of its IP commercialisation revenues over a long period of time (e.g. 15-25 years) in return for spin-out company formation, growth and investment expertise, and access to investment finance. The key point to assess in these arrangements are the sustainability of the partner and the terms of the deal: what price is the university paying for the expertise it believes it is acquiring.

Isis Innovation has created a consulting division Isis Enterprise which offers a different type of partnership. Isis Enterprise operates on a straightforward consultancy model providing expertise in all aspects of university technology transfer on a ‘fee for service’ basis. Where clients wish, Isis will take on some of the technology risk through commercialisation income revenue shares. This approach has the advantage of building a relationship over a period of time and providing whatever levels of expertise are appropriate at each phase of development of the university TTO.

Separate company but not wholly owned

There are two institutions that are adopting this approach: Hadassah University Hospitals, Jerusalem in Israel, and Imperial College in London. Each of these has adopted slightly different approaches and these models have been described as interesting experiments. The potential risks lie in the diverging shareholding interests and the ability of the company’s management to satisfy both the university shareholder and the financial shareholders. The opportunities are perceived to lie in the ability to adopt a more commercial approach and access sources of investment finance.

Conclusion

The optimum structure for a university TTO is for it to be a wholly owned subsidiary company of the University. The University and its TTO can then buy in consulting expertise as the need arises. In decreasing preference are the alternatives of: part of the university administration; a long-term strategic partnership arrangement; a partially owned company.