Key Findings

The number of new technology transfer licensing agreements 'earned' for every $1 billion of research expenditure has fallen from 115 to 109 between 2004 and 2006. However, the rate of return for licensing revenues per $1 million research expenditure has increased over the same period, from $34,806 to $40,837.

The efficiency of technology transfer outcomes varies across major regions. The UK produces the highest rate of invention disclosures, licensing agreements and new start-ups. The US produces the greatest rate of new patent grants, while Canada generates the most new patent applications. US institutions also generate the greatest technology licensing returns from research investments.

A common industry complaint about interactions with technology transfer offices is 'a lack of understanding about customer needs'. Tech transfer executives are often viewed to better understand the merits of scientific over commercial solutions.

Generating a successful initial public offering (IPO) has become more difficult, putting increased pressure on associated royalty rates and spin-out terms. As venture capitalists become more conservative, moving new technologies from federal funding to proof-of-concept is increasingly challenging.

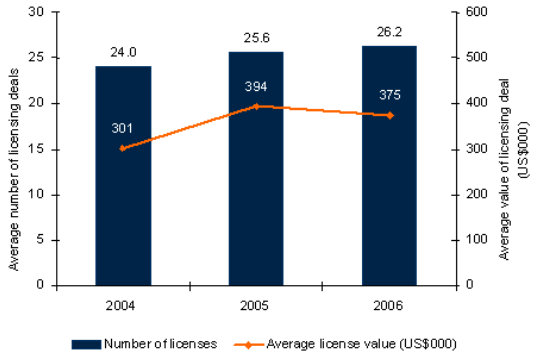


Figure 2.10: US Technology Transfer licenses by exclusivity, 2006

"As a share of all licensing agreements, exclusive licenses make up around half of all agreements for US university transfer offices. As shown in Figure 2.10, exclusive technology transfer licenses account for less than 40% of all agreements involving US hospitals and research institutions..."

Use this report to...

- **Identify the latest trends in technology transfer and compare the relative efficiencies of different regions** with this report's detailed survey data of technology transfer performances in the US, Canada and Europe.
- **Compare the progress of leading peer-group universities and institutions** by using this report's league table assessment of leading technology transfer offices including healthcare patent data and overall technology transfer outcomes.
- **Benchmark the best practices of leading technology transfer offices in the US and Europe** by using in-depth case studies that examine successful strategies and approaches to office structuring.
- **Assess the strategic recommendations and future predictions of technology transfer specialists** based on insights from interviews with eleven experts from universities, hospitals, research institutions and independent companies, in addition to contributions from venture capital and pharmaceutical industry executives.

Explore issues including...

The funding gap. The difficulty of translating basic research to commercial licensing opportunities has never been greater, particularly as VCs and industry clients become more risk averse.

Defensive strategies. Moving technologies beyond basic research to proof of concept is expensive but has become a necessary step in the current technology transfer environment

Cultural differences. Technology transfer offices are positioned between the academic and business worlds, and must balance the non-profit and for-profit worlds accordingly.

Integration vs independence. Recent trends, particularly in the UK, have seen a move towards establishing independent technology transfer offices in order to facilitate greater levels of professionalism and commercialism.

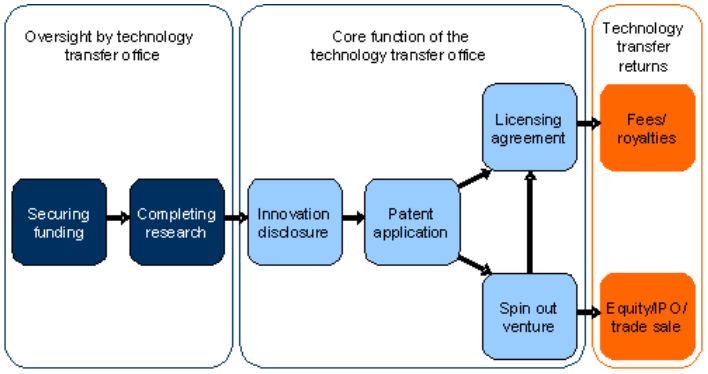


Figure 1.1: The technology transfer process

It has become increasingly common to pursue an alternative path towards the commercialization of new innovations. Where appropriate, technology transfer offices have spun-out innovations into stand-alone start-up ventures with the help of external venture capital funds and/or internally-generated seed capital.

Discover...

- How do intellectual property rights differ by geography?
- How does the availability of potential collaborators and licensing partners differ by geography?
- How does the availability of human resources vary by geography?
- What are the alternative models for delivering technology transfer?
- What impact does each model of tech transfer delivery have upon commercial returns, operational effectiveness and culture/process?
- What are the key lessons from current technology transfer best-practices?
- How does the funding gap influence returns from technology transfer?
- What strategies can effectively combat the funding gap?

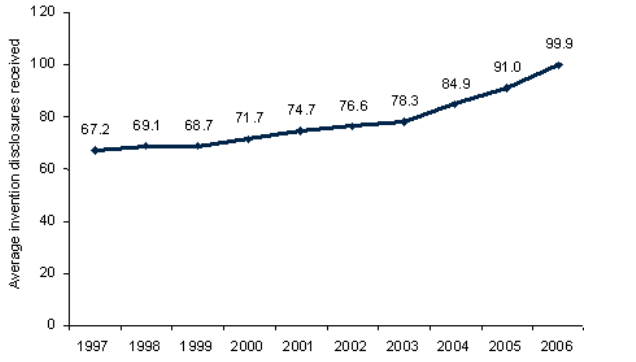
Sample Information

Chapter 2: Technology transfer outcome trends

The US

Technology transfer outcome trends have been analyzed for institutions in the US, Europe and Canada. Key outcomes include surrogate outcomes, such as invention disclosures, patent applications, patent grants and licensing agreements, and value-based outcomes, such as new start-ups and licensing income. The results of a successful sponsored research project usually come to the attention of the technology transfer office through presentation of a new invention disclosure. The disclosure is the first step of the intellectual property management process. The technology transfer office evaluates the invention disclosure through the critical tests for being novel, non-obvious and useful. This provides the first stage for initiating parallel intellectual property and licensing processes.

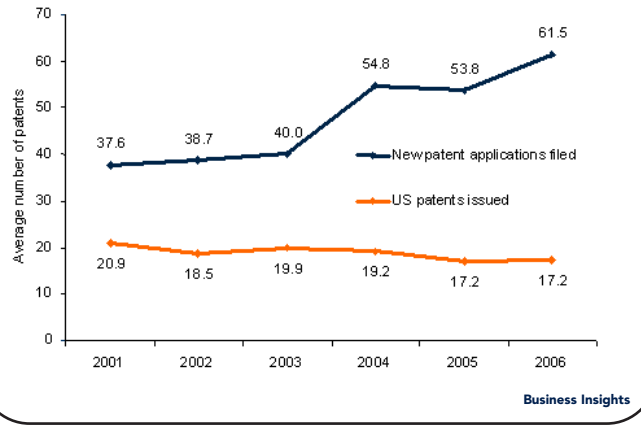
Figure 2.7:Average number of invention disclosures received by US Technology Transfer Offices, 1997-2006



As shown in Figure 2.7, the average number of new invention disclosures received by technology transfer offices in the US increased from 67.2 in 1997 to 99.9 in 2006. Growth in invention disclosures has increased significantly over the past three years with a CAGR of 8.4% for the period 2003-2006.

New US patent applications usually correspond with the intellectual property management process for a single new invention disclosure, although two or more invention disclosures may be combined into a single new US patent application. A single invention disclosure can also result in more than one US patent application. There may also be a time lag whereby a US patent application is made in the year subsequent to the receipt of a new invention disclosure. The average number of new US patent applications by US technology offices has increased significantly over the past three years from 40.0 in 2003 to 61.5 in 2006.

Figure 2.8: Average number of patents processed by US Technology Transfer Offices, 2001-2006



However, as shown in Figure 2.8, the average number of new US patents granted to US technology transfer offices has fallen consistently over the last six years, from 20.9 in 2001 to 17.2 in 2006.

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