

### Case Study 12.4. Creating a TTO and organising it for sustainable growth at KU Leuven

**CRITICAL AREA OF FOCUS 4:** “Securing TTO staff skills and organising the TTO for optimum growth”

**BEST PRACTICE FOR:** “Strategic Commitment and Mission”

**AIMED AT:** TTOs

**TTO:** Leuven Research & Development

**UNIVERSITY:** KU Leuven (Belgium)



## The context:

Founded in 1425, KU Leuven has been a centre of learning for nearly six centuries. Today, it is Belgium's largest university, with more than 40,000 students and 11,769 employees. It has 54 faculties, departments and schools in 11 Belgian cities, including Brussels, Ghent and Antwerp.

KU Leuven Research & Development (LRD) was established in 1972 as one of the first tech transfer offices in Europe. It has a multidisciplinary team of over 80 experts whose activities cover four main areas which are tightly interwoven:

- Managing all research collaboration agreements between the university and the university colleges
- Commercialising the intellectual property of the KU Leuven Association
- Stimulating the creation of new spin-off companies, which includes providing access to KU Leuven Gemma Frisius Seed Capital Fund
- Fostering knowledge-driven regional economic development and constructing science parks and incubators

## The problem:

Universities that succeed in technology transfer contribute tangible benefits to society by stimulating innovation and economic growth. Building a successful technology transfer operation, however, requires significant time and investment. Many universities have rushed to create technology transfer offices (TTOs) without proper structures, funding or expertise. Disappointed, after four or five years, they give up before the benefits start to flow.

## The solution:

Being one of Europe's oldest and most successful TTOs, LRD has compiled a set of 8 factors that have proven to be relevant for successfully launching and developing the TTO. Several senior university officials and LRD managers have contributed to the identification of these guidelines:

### 1. Engagement

Start at the top. University leaders should send a signal that they are embracing technology transfer as a core role of the institution and engage with academics to build consensus.

### 2. Autonomy

Structure the TTO as a unit with sufficient autonomy in decision making.

### 3. Funding

Given the different expertise areas which are needed: dedicate sufficient budget for at least three full-time equivalent professionals to set up and launch the TTO.

### 4. Expertise

The TTO should be staffed with facilitators and dealmakers who have experience bridging the university-industry divide.

### 5. Incentives

Design incentives that channel the rewards of engaging with industry back to university researchers.

### 6. Industry collaboration

Focus first on industry collaboration to learn how it works. Don't rush into the development of spinouts without first learning how to work with industry.

### 7. Service mentality

Provide excellent service to academics in every aspect of technology transfer (e.g. assisting them swiftly when they request an NDA or MTA may not always be “core TT”, but will create a lot of goodwill towards them).

### 8. Catalyst role

Actively engage with professors and industry and connect them. Innovate on the job - avoid the role of rubber-stamping projects or the role of a policing entity.

These principles have guided the creation and development of LRD’s structure and translate into hands-on step-by-step advice on how to launch a TTO:

The cornerstone is the strong personal endorsement and support of the university’s top management. The leaders’ commitment will determine how TT is perceived by the researchers, students and staff – and what level of funding will be made available for TT (a clear sign of commitment of the university). LRD has also received public grants, but these were simply added to the budget KU Leuven granted to LRD over the first 10 years until LRD was able to finance itself from the income it generated through successful TT-projects.

Right from the beginning, LRD was set-up as an autonomous entity. Looking back, this has proven crucial to the TTO’s success, because it has enabled them to pursue an entrepreneurial – rather than an administrative – approach to serving academics. Moreover, it has provided the flexibility to adapt to changing environments and opportunities.

Insufficient funding will undercut the initial success of a TTO, as qualified TT talent is in high demand. And finding the right people can make the difference between success and failure. For the start, a minimum of three people is required. Ideally they are experts who have worked both in academia and industry, including a generalist who knows “a little bit about everything”, notably how to negotiate with a company and how to write a contract. Specialized know-how in relevant scientific disciplines and law are helpful, but TT-managers need also to be negotiators and facilitators in the first place.

These soft skills are key criteria at LRD in selecting candidates. Continuous education is also important. For the start, all the new LRD employees attend introductory training courses offered by ASTP-Proton.

In order to incentivise and retain qualified staff, LRD and the university decided to adapt the TTO’s payment scheme some 10 years ago. Because the academic payment scheme is designed for either scientists or admin staff – both of which are not fully appropriate for legal experts or business developers with industry backgrounds – LRD performed a benchmark study to determine the average income of people with similar profiles in the Leuven region and adapted its remuneration structure accordingly.

Moreover, LRD introduced a variable remuneration scheme for high performers. The employees who can benefit from the program may change from year to year and are selected by LRD’s leadership. They receive extra payments based on an individual evaluation of soft skills including loyalty, teamwork, commitment and creativity, and on hard facts relating to the LRD’s general performance. Remuneration is never directly linked to the outcome of individual TT-projects to prevent an internal competition for ‘low hanging fruits’ and to make sure teamwork is not hampered. However, while financial rewards are certainly important, recognition is (at least) equally relevant. Many TT professionals work hard, and progress may be rarely visible over long periods of time. TTO leadership must therefore help create an environment where the staff’s work is appreciated, not only internally but also by the university’s researchers and leadership, E.g. by celebrating successes (see below).

A newly founded TTO without experienced people should probably initially focus on collaborative research with industry, rather than creating spin-out companies. It is the most promising approach to producing first success stories – and revenue streams. Today, over 40 years after foundation, collaborative research still produces the greatest stream of revenue for LRD. Internally, the TTO should focus on the most respected and productive research groups who are interested and willing to work with industry. Five to seven research groups make a good starting point until first showcases have been attained. In Leuven, revenues that are generated through the work of a specific research team will be channelled back into the same team.

Funds are held in accounts owned by the university but the professor holds the authority to decide how to spend the revenues (in research, teaching or TT). This is a strong incentive for researchers to engage in technology transfer.

Facilitating exchange between academia, industry and investors is another core activity of TTOs at all stages of development. LRD, for instance, has co-founded a company with local institutes, companies and financial institutions that is fully dedicated to organizing small events and seminars where people from different worlds can meet and exchange ideas. These are low-threshold events, with low cost but quite productive in initiating partnerships between research and industry.

Finally, every little success should be touted. Forty-four years after its foundation, LRD still spends efforts marketing its successes internally. It helps researchers realize how exciting and rewarding it can be to engage in technology transfer.

LRD has demonstrated that adopting these principles while responding flexibly to shifting needs and opportunities provides a fertile ground for valorization in the long-term. Combined with a strong commitment from TTO staff and academic staff, this has significantly contributed to LRD's successes over the last 40+ years. These include:

- 1,800 new agreements per year in contract- and collaborative research
- 200 invention disclosures and 70 licenses per year
- EUR 250 million revenues for the university in 2015 capping more than a decade of sharply increasing returns
- the formation of 100+ high-tech companies, directly employing more than 4,000 people
- the launch of 8 major drugs invented at KU Leuven

## Alignment to PROGRESS-TT:

This case is a good illustration of the “Strategic Commitment and Mission” Best Practice in PROGRESS-TT Critical Area of Focus 4 “Securing TTO staff skills and organising the TTO for optimum growth”.

There is certainly no one-size-fits-all model for structuring a successful TTO and each university must adapt best practice to its own culture and legal structures. Nevertheless, these guidelines are relevant to all universities and public research organizations setting up their own TTO.

Critical to success is the ability to develop continuously and to maintain an open-minded entrepreneurial spirit. Both are directly linked to the team and the way it works together. LRD encourages all employees to participate regularly in training programmes (e.g. the ones from ASTP) and to continuously share their experiences among each other. Moreover, employees are given the freedom to explore unusual routes for moving projects forward – and they won't be punished for failures. As mentioned before, individual evaluation is never linked to the outcome of specific projects.

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