Case Study 13.2. Assessing IP and technology at the University of Liege

CRITICAL AREA OF FOCUS 2: "Assessing IP potential, validating technologies and incentivizing for commercalisation"

BEST PRACTICE FOR: "Proof of Concept Programs" and "Technology Assessment tools"

AIMED AT: TTOs/PROs/Policy makers

UNIVERSITY: University of Liege-ULg (Belgium) **TTO**: Interface

The context:

Established in 1817**, the University of Liege** is a major public university in the French community of Belgium with 22,000 students, and more than 4,500 staff members. The university has 11 faculties (colleges) that cover all academic disciplines. The University of Liege ranks among the 10% best universities in the world, considering the World University QS Ranking and among the 20% best universities according to the Academic Ranking of World universities.

The **university is located** in Wallonia region, the French-speaking part of Belgium. In Belgium, the regional government has prime competencies for science, technology and innovation. The policies for innovation and tech transfer are coordinated through a specialized Agency for Technological Stimulation (Agence de Stimulation Technologique), established by the Walloon government in 2006.

The Interface is a Technology Transfer Office (TTO) of the University of Liege that was established in 1989 to organize and implement the third mission of the university. The Interface was the second TTO created in Belgium after the TTO office of KU Leuven. The Interface is an internal department of the university directly related to the rector's office. For managing technology transfer and proof-of-concept (PoC) funding, the University of Liege has established a commercial company called Gesvel, fully owned and controlled by the university. Both the Interface and Gesvel are directed by the same person and in total have a team of about 50 people with different competencies and extensive industry background.

The problem:

The first problem was associated with the **need to develop a PoC funding in Europe**, as Belgian universities had a problem of premature technologies that were not yet attractive to industry. The universities had to ask private investors to set up spin-off companies to check and to validate these early stage technologies. However, private investors were reluctant to get involved in such risky projects and were requesting additional validation and de-risking activities. Therefore, in 2007-2008 universities in Wallonia asked their regional government to initiate a policy to set up a PoC funding scheme for universities in the region.

The second problem was associated with **selecting the most appropriate projects for PoC funding** from 50-60 on-going projects at the University of Liege. Since it may take 2 or more years for maturation of a project, it is important to choose the right moment for entering the PoC funding in order to get new deliverables, which can get a project to the next stage. If a PoC funding is joined too early there is a risk that within the dedicated time frame the milestones may not be achieved and the project may fail.

The solution:

To resolve the first problem, in 2010, the Walloon regional government established a **PoC funding scheme**, under which each large university in Wallonia received 500,000 euro per year. At the University of Liege an average budget of PoC fund is about 75,000 euro per project, but the amount can range from 30,000 to 100,000 euro per project.

This project has received funding from the European Union's Horizon 2020 research and innovation programme and Euratom research and training programme 2014-2018 under grant agreement No 643486.

The TTO supports about 6 projects per year and the usual duration of PoC funding programme is about 12 months. The TTO is responsible for assuring that researchers follow an accurate action plan and provide timely deliverables. That is partially done by controlling and managing all the expenses associated with the PoC activities by the TTO team.

To resolve the second problem and select appropriate projects for PoC funding, the **TTO uses two formalized assessment tools**.

The first tool is a **customized version of the Intellectual Property (IP)** score assessment tool developed by Danish national IP administration and made available to other TTOs in Europe by the European Patent Office (EPO). According with this tool, there are two main criteria for selecting projects. The first criterion consists of checking the ownership (i.e. identifying all parties involved in the invention process, including any external parties) and identifying the most appropriate means of protection (i.e. to choose whether to patent or use secrecy). The second criterion involves understanding how far is the technology from the market and what are the next steps necessary to achieve a final product. The closer the technology to the market, the more likely it will be selected.

The second tool is an **IRL (Innovation Readiness Level) scale**, which is a modified form of a TRL (Technology Readiness Level) scale, which is widely used in different industries, especially in space and aerospace industries to estimate technology maturity. In addition to technical assessment, the IRL scale also includes IP and marketing assessment of a technology. The IRL scale is intended to depict the development of innovation and ranges from IRL-1 to IRL-9. IRL-1 means that a scientific research begins to be translated into applied research and development. Instead, IRL-9 level means that application of the innovation is in its final form and under real-life conditions. The assessment of projects is done in very close cooperation between researchers, the TTO, and external industry people, if necessary. In particular, the PoC programme finances IRL-4 projects to take them to IRL-5. For engineering sector, IRL-5 means that at least a university prototype has been tested in a laboratory. For biotech sector, it means that at least some toxicology tests or some in-vivo tests in the actual conditions are performed.

Alignment to PROGRESS-TT:

This case is a good illustration of the “Proof of Concept programs” and “Technology Assessment tools”, Best Practice in PROGRESS-TT Critical Area of Focus 2 “Assessing IP potential, validating technologies and incentivizing for commercalisation”.

By now, the University of Liege has established more than 70 spin-off companies that created about 2,000 new jobs. 85% of these spin-off companies are still active. The university has also more than 1,000 research contracts with the industry.

The experience of the Interface is **instructive to policy makers and other TTOs for several reasons**.

First, it provides a positive example of how regional governments can initiate policies and PoC funding schemes in order to enhance the transfer of technologies from universities to industries.

Second, the example of the PoC programme at the University of Liege highlights the importance of timing and careful selection of projects for PoC funding. It also suggests the importance of adopting systematic assessment tools (based on a qualitative valuation logic) in order to take the decisions on which projects to select into the program. The Interface uses multiple tools to assess the readiness of technology that can also be adopted by other TTOs in Europe.

Original from [University of Liege] Original release of [03 18 2016]. Last revised, [03 18 2016].
Published by PROGRESS-TT,

This project has received funding from the European Union's Horizon 2020 research and innovation programme and Euratom research and training programme 2014-2018 under grant agreement No 643486.