Case Study 3.3. A not-for-profit fund at Norwegian University of Science and Technology

CRITICAL AREA OF FOCUS 3: "Accessing finance and interacting with financial stakeholders"
BEST PRACTICE FOR: "Investments Readiness Activities "
AIMED AT: TTOs
UNIVERSITY: Norwegian University of Science and Technology (NTNU) (Norway)
TTO: NTNU Technology Transfer AS

NTNU Norwegian University of Science and Technology

The context:

NTNU Technology Transfer AS (NTNU-TT) supports two institutions in creating value from their research results: the Norwegian University of Science and Technology (NTNU) and the Central Norway Regional Health Authority. Since NTNU merged with three regional colleges in January 2016, it has 40,000 students, 6.700 employees, 14 faculties and 70 departments. A particular focus is on the fields of technology, engineering and natural sciences in support of its 2011–2020 strategy "Knowledge for a better world". The Regional Health Authority is responsible for 6 hospitals with a total of 15,000 employees.

Since its inception in 2003, NTNU-TT has brought together a diverse team of 30 professionals with various backgrounds and expertise in different disciplines including engineering, medicine, natural sciences, social sciences, finance and law. The team actively engages in obtaining financing, ensuring relevant patent protection, developing ideas, performing market analyses, establishing new companies and negotiating licence agreements.

The problem:

A major problem encountered by NTNU-TT was the funding gap between high-potential NTNU research results and public or private funding opportunities. Projects without proof-of-concept or demonstrated scalability were not sufficiently de-risked to be attractive to industry or investors, nor were they sufficiently developed to meet the entry criteria of public seed programmes, i.e. with existing instruments there was no chance to unlock their societal potential.

An attractive and easy to access funding tool was needed to enable researchers to perform verification, scalability and proof-of-concept studies to attain advanced readiness levels. A strong commitment of the university was considered essential, as well as an external project committee that would assign funding independent from potentially biased assessments of university scientists, departments and associated TT-professionals.

The solution:

NTNU-TT launched a new fund in 2011, NTNU Discovery, to help fill this funding gap. It is solely dedicated to financing early stage project development, in particular proof-of-concept, technology verification and scalability studies.

It was deliberately set-up as a not-for-profit fund, mainly because a profit-oriented design would have been much more complex to put into practice and it would have adversely affected the relationship with existing venture funds. Moreover, the amount of money needed was not that large. For the NTNU-pipeline, around EUR 1-1.5 million per year was estimated. Unfortunately (but not surprisingly), it was not possible to attract industry as sponsors, but local and regional banks, counties and the Norwegian government pitched in. For them, the fund presented an attractive opportunity to contribute to the creation of innovative products, companies, new jobs and associated societal value in their communities.

Once external support was secured, NTNU-TT started marketing the concept to the university, first to its leadership, then to the deans. The money was formally assigned to an account that was held by the rector of the university, partly for tax and VAT reasons, but also to ensure and demonstrate the university's commitment.

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.

This, together with the external endorsement, helped sell the concept to the deans who agreed to contribute in cash some 40% of the initial volume of EUR 4 million over five years. The main incentive for them was the opportunity to get the development of own projects funded that would eventually lead to societally useful applications. Their commitment was considered essential by NTNU-TT for creating a strong momentum.

To ensure an unbiased evaluation of project applications, it was determined that investment decisions would be made by a committee of six professionals who are independent from the university and the TTO. All employees and students at NTNU, as well as NTNU-TT, can apply for funding and receive a maximum of EUR 10,500 (100,000 NOK) for pilot projects and a maximum of EUR 160,000 (1.5 million NOK) for main projects. Funding is provided as a grant. Only projects that meet the following criteria will be considered:

- Ready for verification.
- Clear ownership of IP-rights, controlled by the applicant.
- Potential to result in a product, process or service that is new to the international market.
- Potential to reach the inflection point of investment with the help of NTNU Discovery funding.

For pilot projects, teams can apply repeatedly for smaller amounts of money up to the accumulated maximum and will usually receive a go or no-go decision within a week. Applications for main projects (i.e. larger amounts) are subjected to in-person presentation in front of the entire committee two to three times a year and will receive a go or no-go decision the same day. This enables researchers to adapt rapidly and flexibly to changing needs as their projects develop. Throughout project development, the TTO will manage the project and work closely with the researchers to prepare the projects for follow-on financing. Funding from NTNU Discovery can only be used to pay for direct cost, such as laboratory testing, equipment and travel, while the effort of TTO staff must be funded from the departments' budgets or research grants.

The NTNU Discovery funding process is administered by a project manager who is also responsible for PR and communication with the project teams. Project teams report quarterly on their progress.

Alignment to PROGRESS-TT:

This case is a good illustration of the "Investments Readiness Activities " Best Practice in PROGRESS-TT Critical Area of Focus 3 "Accessing finance and interacting with financial stakeholders".

From 2011 – 2015 NTNU Discovery has awarded some EUR 4.8 million to 100 projects with potential applications in a broad range of sectors including health, medicine, education, oil and gas, energy, sports, food and many more. These have led to the foundation of 41 companies and one licence agreement. 236 people (equivalent to 161 FTEs) work on projects or in companies resulting from NTNU Discovery funded technologies. Moreover, the projects funded by NTNU Discovery have subsequently attracted a total of over EUR 30 Million in follow-on financing in the form of grants, equity investments or loans from independent sources.

Taken together, these results strongly suggest that the fund attains the goal it was created for: advancing early-stage projects to the inflection point of investment and increasing social impact of NTNU research results.

The following aspects make it particularly attractive and suitable to other TTOs:

- It effectively addresses the early funding gap, or "valley of death", a problem which is basically shared by all TTOs around the globe
- It provides visibility and networking opportunities with external stakeholders
- It creates significant momentum for just EUR 1 million p.a., i.e. it provides an attractive return on investment, with 'returns' including financial as well as social gains
- It is relatively easy to establish, provided university leadership supports the idea and a strong regional network is in place

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- It minimizes administrative cost, with very little bureaucracy, a pro-bono committee and only a part-time manager from the administrative staff at the university

Critical to success is a strong sense of ownership and commitment by the university's leadership. This is the springboard for marketing the fund to internal and external stakeholders.

Equally important is strong support from government and regional organisations that are willing to provide funding as a grant. PR is relevant, because their main incentive is to create benefits for their communities, and these must be visible broadly.

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