



Commercialisation of the solid state lighting technology.

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"The main idea for the start-up was to show that the scientific work can be commercialized in our university".

Justinas Baužys,
Director, LEDigma Ltd

FAST FACTS

Country or Region:

LITHUANIA

University:

VILNIUS UNIVERSITY (VU)

Business partners:

- LEDigma Ltd

Area of UBC:

- RESEARCH & DEVELOPMENT

Project start date: June, 2012

Project end date: On going

Keywords:

- Light sources
- Lighting quality
- Solid state lighting
- Spin-off

PROJECT SUMMARY

This case study is about how LEDigma (a start-up company that has originated from Vilnius University's Institute of Applied Research) has successfully brought a patented technology to the point of commercialisation by working together with Vilnius University.

CASE STUDY IN DETAILS

Project Background and Needs

For 10 years the Lighting Research Group at the Institute of Applied Research (Vilnius University) had been researching solid-state lighting and other optoelectronics systems. In 2012, a decision was made to found a company ("LEDigma") that would work on commercialization of the colour saturation control technology, the patent of which is owned by VU. The vision of LEDigma has never been to be a mass producer of the product. Rather, the focus is on selling the technology to a company which would have the capacity to commercialize the invention at a large scale. In order to bring the patented technology to the level of commercialisation additional research steps had to be taken and prototypes made.

Project Solution from University's side

4 out of 5 founders of the LEDigma company work for Vilnius University, and the University rents out premises and equipment to LEDigma, so that the research work can be carried out.

Project Solution from Partner's Side

Before the product could be commercialized additional research was carried out as well as first prototypes manufactured (altogether 4 prototypes have been manufactured). The biggest task for LEDigma was to transform the research in to a practical device, supplementing it with the necessary software.

Achievements and Impact

Almost all of the LEDigmas employees still work at the university and some also teach Vilnius University's students. The practical experience gained allows these lecturers to provide updated and practical study content to their students. In addition, practical

Key Objectives:

- To bring a patent to a point where it can be commercialized;
- Produce prototypes that would use the patented technology;
- To show the capability of Vilnius University to commercialise a scientific idea.

Lessons learned:

- You need a big partner to commercialize a scientific idea;
- There are problems with effectiveness when employees of a spin-off continue working part-time at the university. Full focus has to be directed towards the business.
- Businesses are more likely to talk with another business, rather than a university because universities are not flexible enough.

University profile:

Vilnius University, one of the oldest and most prominent higher schools in the Central and East Europe, was established in 1579. The University has 23 core academic and other equivalent divisions – 12 Faculties, 2 Institutes with faculty rights, 5 research institutes, and 4 inter-faculty Study and research centres. There are about 20 000 students studying at the University. There are 4 371 employees working at the University, of which 1 834 represent the teaching staff and 510 research workers. There are 1668 academic degree holders working at the University. Vilnius University is distinguished for its outstanding achievements in science and carries out fundamental and applied research in all areas of science.

experience enables researchers to work on solutions to real-life problems.

More generally, LEDigma participation in local and international conferences and exhibitions, as well as the articles published have been raising the image of Vilnius University.

Quantifiable Outputs for University

- For the past two years Vilnius University has been receiving money from LEDigma for rent of premises and equipment.
- Since 2012 around 20 articles on lighting have been published in academic journals. Since the authors are also part of the Vilnius University, the publications reflect the research potency of VU.
- LEDigma has participated in 5 local and international conferences and exhibitions, spreading the name of Vilnius University.

Quantifiable Outputs for Partner (s)

- 4 products (prototypes) have been manufactured “Firelight 45G”, “Linear tetrachromatic lamps”, “LUME-20R rail luminaire” and “Intelligent street lighting”.
- The income from sales has been around 3000 Euros in 2012 (in six months) and around 6000 Euros in 2013.
- Since the inception of the company the owners of LEDigma have registered two patents – “Solid-state sources of light for preferential color rendition” and “Polychromatic solid-state light sources for the control of color saturation of illuminated surfaces”.

CHECKLIST OF PREREQUISITES TO SUCCESS

Formal aspects

- Formal practical level Co-operation Agreement is signed between University and Partner(s) which defines particular roles, outputs, reporting mechanisms and other relevant aspects.
- Clear roles and responsibilities are defined for University.
- Clear roles and responsibilities are defined for Partner(s).
- Project is related to at least one strategic priority of the University.

- Project is related to at least one strategic priority of the Partner(s).

Financial and/or Infrastructure aspects

- Co-operation Partner invests financial resources in the project.
- University invests infrastructure and/or material type (in kind) resources in the project.
- University gains monetary benefits from the project.
- Co-operation Partner gains monetary benefits from the project.
- University gains non-monetary but measurable and verifiable benefits from the project.
- Co-operation Partner gains non-monetary but measurable and verifiable benefits from the project.

Human capital aspects

- University is devoting its human capital, know-how, competence to the mutual cooperation, specifically, academic staff, R&D staff, students and administrative staff.
- Co-operation Partner is devoting its human capital, know-how, competence to the mutual cooperation.

Marketing and communication aspects

- Project and/or project results are communicated within mass media channels.
- Project and/or project results are presented in trade-shows, conferences, seminars, other marketing events.
- Project and/or project results are communicated within academic and/or scientific communication channels (research papers, scientific conferences and activities).
- Project and/or project results are communicated within internal marketing and/or communication channels within the University and/or Partner institution.

For More Information

For more information about the case study contact Justinas Bauzys on justinas.bauzys@ledigma.lt

For more information about the project "FROM BRIDGING TO SUCCEEDING. University and Business Co-operation Through Success Stories." and for more case studies visit www.university-business.net

For more information about the Nordplus Horizontal programme visit www.nordplusonline.org

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