



# FACILITATING TECHNOLOGY TRANSFER IN NORWAY BY PROMOTING INNOVATION AND COLLABORATION

The trend of creating spin-off companies is increasing in Western countries. What can we learn from Slovakia regarding technology transfer to the Norwegian University of Technology and Science? Additionally, what are the unique features of the Kahoot company in this process? Anders Aune, Marketing and Business Development Manager at NTNU Technology Transfer AS provided answers to these questions.



Norwegian University of Science and Technology. Foto: iStock

**Please describe the various types of activities (services) of NTNU Technology Transfer in connection with university technology transfer, especially with the policy of creating spin-off companies.**

We do traditional technology transfer of research-based inventions from employees at NTNU, Norwegian University of Technology and Science. This includes idea evaluation, business development, licensing, and portfolio management. It also includes courses, seminars, events, training, and campaigns to stimulate innovation and release more DOFs. The different stages and work done are divided into specific tasks including for instance patentability, IP analysis, market research, partner

search, team, faculty strategy, proof of concept funding, business development, prototyping, and negotiations. When it comes to spin-offs we often create spin-offs to build our own licensees to develop and commercialize the invention/technology. We see a trend that existing industry will not invest in early-stage deep tech licenses as they are too early-stage and risky. Then we sometimes start a spin-off instead that can challenge the existing and make an impact and change. We sometimes take a stake in the spin-offs as payment for services like recruitment of team, financing, business development, partnership, sales, and different board positions. The spin-offs are offered a standard NTNU express startup license with favorable terms for startups. Employees/founders



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who have a position at the university/NTNU must be aware of conflicts of interest and will only get ownership if they contribute to developing the spin-off. Their research and inventions are taken care of and remunerated through the license agreement.

**How does legislation work in Norway regarding state support for the establishment of spin-off companies? In your opinion, how is it inspiring for other countries?**

Legislation in Norway stimulates the establishment of spin-off companies as there are very good soft-funding opportunities and some favorable legislation regarding the tax on options and shares. There is still some way to go regarding taxes which are high in Norway. Social security is good; however, you will be taken care of and should have good opportunities if the startup fails.

**Please describe the process of creation of the Kahoot spin-off company. And in what way the university is**

**involved in the management of the company.**

The process is described in brief in the slide deck I sent you. It started in 2006 with a Disclosure of Invention and the company was established in 2012. The focus was on idea evaluation and business development of the IP and the application. In this process, we used the lean startup methodology but were also inspired by Nir Eyal's behavioral engineering and design, and attended the TINC accelerator by the state agency Innovation Norway in Silicone Valley.

The Kahoot invention and technology had several application areas and we tested many before ending up with the successful concept that is known today. We also tested games at cinemas, mechanical rodeo bulls, entertainment at sports arenas during breaks, and shopping malls. Vital to the success was early engagement and recruitment of a world-class and experienced team from an industry that could work with us to verify the business case. The university was involved with 2 Ph.D.s and maybe 10 Master's theses, testing in large and small classes, and of course the

main inventor Professor in Computer Science Alf Inge Wang. Also, the university supported the project with important proof of concept funding of 100,000 euros.

NTNU Technology Transfer established the company together with industry experts and inventors. We did the work described in the previous questions and also served as the chairman of the board for the first two years recruiting the 2 first CEOs. The first CEO was an NTNU Technology Transfer employee who was rented out as management for hire. We transferred the IP in 2012 and sold our shares in Kahoot in 2014 and we are no longer involved in the management of the company. This is very good as the role of the university is research, innovation, and knowledge transfer and not running companies in the later stages as it would be state aid.

#### What exactly does Kahoot do and what makes this company unique?

They make learning awesome motivating students or learners in general to work together and have fun while learning through interactive quizzes that are easy to make and deploy anywhere, for anyone for any device.

#### Do you think that university spin-off companies have a chance to resist purely private companies? What do these companies need to have to succeed?

The same as the private ones, university spin-offs are often deep tech and are research-based. This should give them a competitive advantage and maybe they have a greater chance of making radical change and impact.

They need experienced serial entrepreneurs and industry people in the management, they need relevant and experienced investors and industry partners.

Note that university spin-off companies should also be private companies and universities should not own too much for too long. This is not the university mission and it is state aid/distorting competition.

#### Do you cooperate in the creation of spin-off companies at the regional (national) level as part of the development of the given region?

Yes, but both regionally, nationally, and internationally, with proof of concept funds, accelerators, coworking spaces, local governments, industry networks and clusters, investors, industries even politicians.

Autor: Martin Karlík



#### ANDERS AUNE

Anders Aune is currently the Marketing and Business Development Manager at NTNU Technology Transfer AS and has served as a business development manager for more than 70 tech trans projects and spin-off companies. He has also served as a board member and Chairman of the Board of several high-tech academic spin-offs one of which is Kahoot! AS ([www.kahoot.com](http://www.kahoot.com)). Prior to this, Aune co-founded the eHealth company Deriga AS which was later acquired by Visma ASA, one of the largest ERP software companies in Northern Europe. Aune also served as an eHealth Sales Manager in Visma before he joined NTNU Technology

Transfer to help new university spin-offs succeed. Aune holds an MSc in chemical engineering and entrepreneurship from the Norwegian University of Science and Technology and has also studied innovation and strategy at MIT as part of the Executive Degrees Program. Aune was one of the initiators of the student organizations Start NTNU and Start Norway working to motivate and inspire students to start their own businesses. He also initiated the NTNU app-accelerator program NTNU Applab and NTNU Ocean School of Innovation for promising Ph.D. candidates.