



DEEPER

Lithuania, www.buydeeper.com

Two entrepreneurs invented a highly successful consumer product for their hobby and in the process relied on a local research provider and manufacturing subcontractors as well as digital marketing to turn their idea into a multi-million euro business

Executive Summary

Deeper UAB is a Lithuanian company that designs, develops and produces smart electronic devices for sports and outdoor activities. The Deeper Fishfinder is a sonar-enabled waterproof ball with an embedded piezoelectric transmitter and receiver as well as a number of electronic components that send, receive, and analyze the signals.

The company was founded by two entrepreneurs who were inspired by their own angling experience. They had a vision of a small and inexpensive device that would appeal to anglers who were not using sonars. The entrepreneurs asked help from Kaunas University of Technology and research institute. The verdict: it was feasible. Then, starting from scratch, they had to go about organizing development, manufacturing, marketing & sales. Along this journey a company of four people had to involve many partners. What they did exceptionally well is building a sales organization, an area where many technology-driven companies fail.

CASE N°: EE44

SECTOR: SPORT & LEISURE

TECH INTENSITY: LOW-MEDIUM TECH

LIFE CYCLE STAGE: SCALE-UP

INNOVATION VECTORS: PRODUCT, CUSTOMERS & MARKETING, DISTRIBUTION CHANNELS

OI PARTNERS: PSR, OTHER SME, LEAD USERS/CUSTOMERS, CROWDSOURCING

KEYWORDS: Castable sonar, anglers, digital marketing, brand recognition

- BACKGROUND FRAMEWORK
- INNOVATION CHALLENGE & MARKET OPPORTUNITIES
- OI TRAJECTORY
- BUSINESS IMPACT
- LESSONS LEARNED

BACKGROUND

Deeper UAB is a Lithuanian company that designs, develops and produces smart electronic devices for sports and outdoor activities. The company was founded by two entrepreneurs – Aurelijus Liubinas and Rolandas Sereika – who were inspired by their own angling experience. Once Aurelijus, disappointed by a fishing expedition and the useless gear he had with him, thought how great it would be to have a small castable sonar which could show him on his smart phone what it is beneath the water surface. On his return home, he talked about the idea to his friend Rolandas: they then decided to explore the opportunity in more depth. It happened that there was no such product on the market, but technically it was possible to develop. In 2012, ten months after the memorable fishing trip, the two friends established a company, Friday Lab (later, in 2015, it was re-named Deeper).

The company's purpose was to develop and commercialize their idea. That is how their fish finder was born. Deeper's Fishfinder, the first-ever castable sonar; appeared on the market in 2013, putting technology previously available only in expensive, boat-mounted sonar units literally into the hands of shore anglers. The product made the age-old sport of angling smart and tech-friendly. Deeper Smart Fishfinder took the Best of Innovation Award at the biggest annual worldwide Consumer Electronic Show known as CES 2016, held in Las Vegas. Today, Deeper's range of smart sonars are sold in over 50 countries worldwide. In 2017, Deeper introduced their next flagship product, Deeper Lock, a smart bike security system, which was officially launched at CES 2017.

Deeper will focus on promoting and marketing their next product – Deeper Lock, the advanced bike security system engineered to provide the smartest and toughest bike security. This device combines ultra-smart security features with effortless usability. Deeper Lock is a steel reinforced, mounted lock which uses GPS tracking, unlimited range GSM anti-theft alerts, keyless locking and a 110dB alarm to give bikers complete control over their bike's security. It is locked and unlocked at the touch of a button via the Deeper Lock app, and access to the bike can be shared remotely.

The idea of this device came from students at Kaunas University of Technology. They presented the prototype at the exhibition of young scientists called Technorama. The event is dedicated to discover new talent, promote public interest in technology and attract more investors from the business sector. The company liked the smart lock idea and invited the students to develop it together.

Deeper has more ideas like this one in their drawer.

INNOVATION CHALLENGE & MARKET OPPORTUNITIES

At the beginning, the Deeper founders faced a number of strategic challenges, including:

1. The angler fishing community is rather conservative and it might be difficult to convince them to use the new gadget.
2. The market is worldwide and it might be difficult to enter certain geographical areas where they would have to address a number of contract, certification and product liability issues.
3. Finding and convincing trade partners.
4. Organizing development, manufacturing, marketing & sales and finding competent staff.

Once Aurelijus Liubinas returned from his fishing trip with the idea for a device that could detect fish underwater and show their location on a smartphone or tablet screen, he thought that he might not be the only one who would like to have such a device. No such device existed on the market. He shared his vision with his friend, who later became Friday Lab's co-founder. The big question was whether this vision was feasible.

The founders asked researchers from Kaunas University of Technology Ultrasound Laboratory to help with this task. Later, researchers from the Institute of Physics Laboratory of Electronic Systems joined the task force. They studied the operational principles and performance of other devices on the market. The verdict: the wireless sonar they envisaged was not a Utopian idea.

Now they had to check the market. Market research showed that there were several established companies making sonars. However, they were selling full systems with their own screens and computing power, and they were expensive and heavy and could not be used from the shore. Later they tested the interest of their concept on the crowdfunding platform Indiegogo. They received 500 orders and about 100 000 people shared the news on Facebook and 30 000 visited their webpage. At that moment they believed that there existed a business opportunity.

OPEN INNOVATION TRAJECTORY

Concept development

The concept of a wireless, castable fish finder differed from what was available on the market. Established companies were offering sonar systems with their own display, computer, memory and software, usually to be used on boats. The founders had another concept that did not require a separate system display or computer as it was to be available on a smartphone. A transducer and app for the smart phone would do the job and almost everybody has a smartphone. This combination would be less expensive as well. For the end user, the display's resolution is probably the most important feature when selecting a fish finder. At that time, the smartphone's display was of poorer quality to that of an advanced sonar. But it was just a matter of time before the new invention would catch up.

The development process, IPR and competition strategy

The development work had to start from scratch. Friday Lab did it internally by hiring experienced hardware and software engineers. As they were a small team they engaged external partners: UAB Entech for product housing design and engineering and UAB Telesoftas for the app development. In January 2013, they were still a team of four. The product (pre-orders) was launched in September of the same year.

The main challenge in this task was negotiating with the developers. Friday Lab wanted to persuade them to invest in the development in exchange of future earnings. This is not a common practice in Lithuania.

The start-up needed investment to carry out the development work. Some of the costs were covered by the founder's money, while they received €24 000 from crowdfunding. A large company investor was also found. Prototypes were (and are) validated with users – usually influential anglers – and the apps are beta tested with volunteers who are recruited through social media.

A patent, registered design and trademark were filed.

Deeper created a new product category in the sonar market and at first there was no direct

competition. On the other hand, they had to fight the scepticism of those who had never used a sonar. The strategy was to create awareness early on before the product was launched. Sooner or later they expected direct competitors to appear. Friday Lab (Deeper) filed for a patent (still pending), registered design and trademarks. Nevertheless, there were 10 copycats within only six months. With consumer products it is difficult to rely only on IP but Deeper had a first mover's advantage. They had some time for building awareness and brand recognition before competitors began eating into their profits.

They started by applying to the crowdfunding platform Indiegogo, by participating in fairs and anglers' events and trying to find prominent anglers to play an 'ambassador' role. This strategy seems to have worked, since they still can sell at higher prices than competing copies. At one point Friday Lab (Deeper) started describing itself as a design-driven company which may help to add another dimension to their competition strategy.

Commercialization and follow-up

The production was organized by Friday Lab (they have a production manager who takes care of supply chain scheduling, quality assurance, etc.), although production work is outsourced to mainly Lithuanian manufacturers, i.e. the plastic casing, assembly, packaging, etc. while some components come from China. The key manufacturers took an active part in the development work as the company preferred to keep production close to them so that they could react faster to errors, changes and updates.

The founders stress that they want to remain agile and flexible so that they can take fast decisions; for this reason they are organized in teams. Early on they established an R&D department which has been given more resources over time. Marketing & sales form one team and there is also a production team. A subsidiary company– Deeper USA– was established in Orlando close to their largest customer base.

Deeper considers marketing & sales to be their strong point. In particular, the company puts great emphasis on digital marketing. In their first year, it was only Facebook. They had identified 7 million potential users on Facebook, which has now risen to around 32 million. Sales are made through mixed channels –electronic (Amazon, Apple Store and others), as well as conventional retails outlets (through distributors) which still generate about 80% of revenues in some markets. What is interesting is that Deeper manages its marketing campaigns tailored to each country directly from

Lithuania. They have hired personnel who speak the languages of the main target markets. Recently, they have been focusing a lot of attention on mobile marketing and new marketing tools, marketing automation and personalization.

Considerable attention is given to brand recognition as well. They participate in all major exhibitions and fairs related to recreational fishing. They participated in the largest consumer electronics fair CES from 2015 to 2017 and received an award for their Deeper Fishfinder in 2016 as well as many awards in other countries.

Friday Lab (Deeper) filed a patent (Tablet or Smart Phone Compatible Fish Finder Device, US2014057677 (A1)); they have registered their design and trademarks which strengthen brand awareness. As far as small companies go, it is quite difficult to fight against them using legal means. Brand allows them to stay ahead of the competition. In Lithuania, for example, they sell more than all other sonar manufactures together.

The product is updated regularly with new features and new versions of the app, etc. Deeper has modified the product so it could be used in wintertime; it has extended casting distance and depth range and added an internal GPS receiver. The app now has a new feature – Boat Mode Chart plotting – for those who want to know more about the bottom of the lake. The app enables the creation of a map of fishing locations and the ability to save them in a database. A number of useful accessories have also been put on the market.

BUSINESS IMPACT

As a result of their innovation, the company has been able to build a brand – this is the reason why they changed the company name to UAB Deeper. They filed for a patent which could possibly be exploited in future and they have registered design and trademarks. Mostly importantly, they have built a reputation with big names such as Amazon, Best Buy, Walmart and Apple, which is a huge asset.

Through the open innovation process the company has managed to acquire a number of learnings:

1. Deeper is successful in recruiting good people. They learned how to attract qualified personnel in both R&D and marketing.
2. They learned, and still learn, how to manage partnerships.
3. The 'soft part' – how the customer receives

the product, where he can purchase it, what he will experience while unpacking it, when and from whom they learn about the product – these things are important.

4. Attention to detail is important, especially in marketing.
5. They learned to develop targeted marketing campaigns.

Deeper is a fast growing company with 70 employees and plans to reach €14 million in revenues in 2017, double their earnings in 2016.

LESSONS LEARNED

The case illustrates well how opportunities can be captured and turned into a business. Every second angler could envisage such a sonar, but only these two inventors took the idea seriously. With limited resources they managed to organize partners and undertake a feasibility study, development, manufacturing, marketing & sales.

Deeper overcame one of the hurdles that small innovative companies stumble over, i.e. weak sales & marketing. Many inventors manage to make something for themselves but fail to sell it to people like him. They have done incredibly well with relatively small budgets. They acquired Amazon, Apple and Walmart as sales partners and they use Google analytics to understand their customers. They know where and how long their sonar is used.

One interesting feature is how they deal with copycats. It is important for companies to know how they will compete if their product loses its uniqueness. Their answer was branding and changing their offerings regularly. The company thinks that they will continue to sell Deeper sonar for another five years.

Another prominent feature of this case is how the SME managed its manufacturing through subcontracting. It would be interesting to know how they managed to pass on their entrepreneurial spirit to their subcontractors so that they took some risks in the venture (unfortunately this is confidential). It would also be interesting to know if in future they will take some manufacturing in-house, as they did with R&D and design. One motivation for keeping their subcontractors close to them was speed (and maybe more control). Logically, you may get even more speed and control if you do things internally.

Main lessons learned:

1. There are certain steps in the innovation journey where partnerships may be critical. At other times companies can and prefer doing it alone.
2. Support may be needed not only for the main company, but also for the partner to deal with their internal issues so that they can work effectively on their common project.
3. The strategy may change, including partnership decisions, when initial assumptions do not hold.
4. When introducing new products, especially B2C, you have to expect that it will take some time and effort for consumers to realize that it exists and understand its value. Initial sales growth projections may be too optimistic. Partners have to develop a common understanding, expectations and contingencies.
5. Active networking and the entrepreneur's personality are key ingredients of open innovation.