AEDILIS

Lithuania, www.aedilis.com

A Lithuanian SME serving the energy sector moved out of its core business to fulfil an unmet need of its customers. It changed its working practices to cooperate closely with system integrators and acquired specialized sales and marketing expertise and a new business model

Executive Summary

Aedilis is a company providing services for energy infrastructure projects. In 2011 Aedilis moved into the area of the Internet of Things (IoT) and started a new business line called Cloudindustries. Cloudindustries is a platform for monitoring applications and infrastructure as a cloud-based service. The idea was in fact prompted by their clients; Aedilis noticed a need for real-time monitoring of equipment which would help their clients to visualize, track, access and work with their data. Adelis went on to source the necessary skills through a company acquisition. Later, in the development and roll-out phases, Aedilis relied on partnerships to fill a gap in resources.

INSPIRE
OPEN INNOVATION FOR SMEs

CASE N°: EE43

SECTOR: INTERNET OF THINGS

TECH INTENSITY: HIGH-TECH

LIFE CYCLE STAGE: ESTABLISHED

INNOVATION VECTORS: PRODUCT, CUSTOMERS & MARKETING, DISTRIBUTION CHANNELS

OI PARTNERS: OTHER SME, INDMDUAL EXPERT, LEAD USERS/ CUSTOMERS

KEYWORDS: Cloud-based services, energy infrastructure, company acquisition, joint venture with integrators

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

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BACKGROUND

Aedilis started as an engineering company providing services related to energy infrastructure projects. It was established in 2004 by Romualdas Slavinskas and another engineer. Over time, it gained a strong market position and reputation as a reliable partner for joint energy projects. In 2011 Aedilis bought Elseta, a software and electronics company. Later it was incorporated into Aedilis as a separate R&D business unit and solution developer for the energy and process automation industries.

The same year Elseta's team started a new business – CloudIndustries. CloudIndustries is a platform for monitoring applications and infrastructure as a cloud-based service that helps improve automation system monitoring and reduces Supervisory Control and Data Acquisition (SCADA) system costs. CloudIndustries mashes-up multiple data sources into a single source, allowing the customer to compare and cross-reference records from different applications, perform analyses and visualise technological processes and their performance. At that time, the company offered a completely new approach which distinguished it from its competitors.

Aedilis has further plans to take advantage of IoT opportunities in this area, including the application of blockchain technology for energy data analysis, smart grid management and the validation of energy trading. The exploitation of this opportunity is led by their Austrian partner Grid Singularity. Their more immediate plans include the expansion of CloudIndustries' business worldwide, especially to Asia. In the future, it is expected to spin out this business unit from Adelis into a separate company.

INNOVATION CHALLENGE & MARKET OPPORTUNITIES

Aedilis faced a number of strategic challenges, including:

1. Their offer was new to the market and they had to convince both end users and, especially, downstream partners.
2. It involved new geographical markets, which entailed cultural issues.
3. They had to identify the customers' real needs. You cannot know them until you offer something that they can react to.

4. The need to build a marketing and sales organization.

While working on their energy projects, usually as subcontractors for big names such as ABB or Siemens, Aedilis found that some of the stakeholders had unfilled needs. For example, they found that the owners of renewable energy plants had difficulty in monitoring the performance of their installations and their operators. They wanted to know which installations were profitable and when, and where they were losing money; they were also concerned about monitoring operator activity (maintenance, repairs, incidents, etc.). There were no such solutions on the market which were affordable, in particular for smaller companies.

OPEN INNOVATION TRAJECTORY

Concept development

The concept of CloudIndustries emerged gradually. While working on the company's energy projects, Raimundas noticed that some of their clients had unfilled needs, e.g. for real-time monitoring of their equipment which helps them to visualize, track, access and work with their data. In most cases, it involves an industrial control system: a custom-built computer cabinet with specific peripherals and a software solution designed to control the monitored processes. Faced with the limitations of existing gateways and other equipment, the company decided to build its own hardware.

Soon it became clear that for all the monitoring needs to be covered, the system had to be quite powerful and expensive. The solution to this challenge was to transfer some computing tasks to the cloud. And this is how the concept of CloudIndustries was born. The solution was to substitute existing on-site, closed SCADA systems. The benefit of CloudIndustries is scalability and flexibility, offering on-line support and data storage in the cloud. Back in 2011, this offering was quite new to the market.

On the business side, the system could be offered to the end customer as a service based on a subscription model. Such a solution substitutes investment by monthly payments; it lowers entry barriers; facilitates trials and allows faster expansion. The system was also attractive to SMEs whose needs are usually less well catered to in this area.

The development process, IPR and competition strategy

The development was led by the Aedilis (Elseta) team; however, they soon found that they were lacking staff resources. They hired freelancers for graphical use interface design; they also collaborated with future hardware subcontractors on developing a design adapted to their manufacturing capabilities (design to manufacture).

All IPR (currently in the form of know-how) was developed in-house.

Aedilis is currently pursuing its substitution strategy which is basically designed to substitute on-site SCADA systems. In future, Cloudindustries may offer other IoT solutions, such as production capacity planning and on-line production contracting. Their offering has technical advantages – scalability (no need to add additional servers on-site and reconfigure them, remote updating of software, etc.) and the possibility of customization. The concept also prepares the way for a new business model, i.e. a subscription model rather than the sale of a whole system. This should make it appealing for smaller companies, for which few services are on offer.

At first, Aedilis intended to sell the platform to the solution providers. However, they soon found out that not so many were interested. They therefore had to adapt their market entry strategy by (1) developing showcase solutions themselves in order to demonstrate the possibilities, advantages and benefits of the system; (2) developing measures that would facilitate the uptake of the platform by the integrators; (3) developing specialized platforms (for specific industries and applications) and (4) offering an additional service – original design manufacturing (ODM).

Commercialization and follow-up

Aedilis has small-scale production capabilities and also relies on subcontractors for production and assembly (e.g. the Vilnius-based electronics manufacturer ESEMDA).)

In the future, Aedilis intends to spin out the Cloudindustries business as it is quite different to its core activity. While under development, it was preferable to keep the new business development in-house. Cloudindustries is already covering its own running costs.

Aedilis sees their main customers as being integrators (solution providers). However, to create awareness and demonstrate applications they had to develop end-to-end solutions. Examples of solutions include a platform for real-time monitoring of renewable energy production and a smart metering solution for monitoring real-time energy use and the identification of inefficiencies. To lower barriers for integrators even further, they also started developing solution platforms for specific industries and applications, e.g. a platform for monitoring renewable energy installations. These platforms may be further adapted and customized to the end user. This approach gives them a basis, (geography and application (industry)) for segmenting their market.

It seems that the technology and approach offered is quite new for many integrators. To win them round, Aedilis negotiated and established joint ventures with them. The company is currently experimenting with three joint ventures in Asia and Europe. One such experiment involves iPlast, a solution platform for the plastic moulding industry and a joint venture with a Singaporean integrator. Aedilis provides a licence to their IP (know-how) and technical support to the joint venture, while the integrator builds up marketing and sales in their geographical region and industry. In this way, they expect to reach out to a potential market of 1 000 plastic moulding companies in Taiwan, 3 000 in Malaysia and many more in China.

A number of their lead users are sometimes able and willing to become integrators (for their industry). One such example refers to the CNC machining industry, where the lead user (Baltec CNC Technologies) intends to become a solution provider, while also involving another two (end) clients in Germany and Poland for further piloting (and learning).

The uniqueness of their offer lies in their platform (proprietary hardware and software) which makes it possible to mash up multiple data sources to have one source for analysis, real-time monitoring, customizable interactive dashboards, easy scalability, security, etc., as well as powerful development tools and support for the developer's team which helps to implement the solutions. The value proposition for the end customer includes a subscription model which helps lower entry barriers and reduces investment costs.

BUSINESS IMPACT

The principal outcome is that Aedilis has entered the IoT business as a strategic new direction. Their skills as an IoT developer (as a design office) are recognized and are considered rare enough to be invited to join other, unrelated, projects (they have two such cases). In addition to gaining a reputation

in the IoT field, they have also improved their skills in managing projects (e.g. programming timing).

The main lesson has been that, even if you have a great product, you need to invest in marketing and sales. Customers will not come to you if you do nothing. Making customers aware may take time so they started marketing even before the product was ready.

CloudIndustries' business has reached break-even point.

LESSONS LEARNED

The case is about a company which identified a new business opportunity related to their field of operation (energy). Interestingly, they acquired another company (Elseta) to get access to the necessary technical skills.

Another feature of the case is rather typical for a tech company with a new offering: how to enter the market. They saw a lack of awareness among end customers and integrators (which were seen as direct customers) who were locked-in their old practices. To reach their final customers they had to develop end-to-end solutions that could be demonstrated to the solution providers and show what value they could offer to their customers (end users). Even so, in some cases, it was necessary for the integrators to develop new skills. Aedilis therefore started to experiment with joint ventures and developed support packages (including training) for their customers.

Another important aspect is that the business model was developed gradually. Ideally, Aedilis wanted to sell access to the platform and operate it. Then they realized that they had to develop an intermediate level – a solution platform adapted to an industrial application which could be offered to the integrators. These platforms offer specific value to the end customers, e.g. investors in renewable energy installations who are concerned about the profitability of each installation and want to monitor the work of operators and subcontractors doing maintenance. In many cases the integrators were not able or willing to develop these platforms themselves. In a sense, Aedilis is fast-tracking the project-to-project stage and developing a scalable offering.

Main lessons learned:

1. Ideas for new business may come from clients; it is important to develop new knowledge and skills to capture these opportunities. This knowledge is very valuable if it is outside the company's core business.
2. External knowledge and skills may be brought inside the company through a merger or acquisition (even by an SME).
3. When the offering involves new technology replacing the old solution, it takes time to enter the market. The company has to be prepared to provide a solution to the end (lead) customer and to develop and train partners in the value chain.
4. New business may be grown inside a company (there may be advantages with regard to financing and access to skills) and then spun out.
5. Marketing and sales are the main concern of many tech companies, and a key challenge.