



OI INSPIRATIONAL CASES



OPEN INNOVATION TO THE RESCUE

A mature high-tech Swedish manufacturing firm partners with a major customer/distributor to adapt the SME's flagship technology for application in a new market. This open innovation collaboration gives the struggling company a new lease of life and staves off certain bankruptcy.

The Origin of the Open Innovation Collaboration

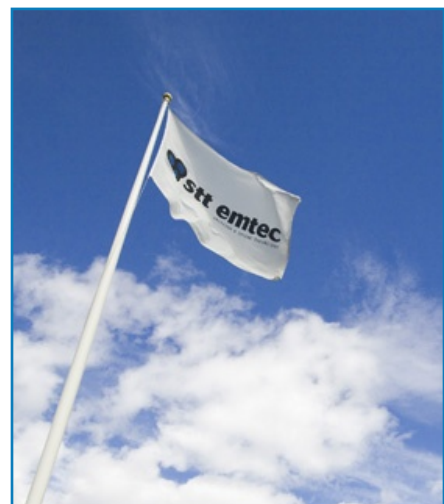
- Swedish Turbo Technology (STT) was established in 1981 by Ingmar Eriksson as a family business.

- Its operations focused on developing systems to enhance emission control and performance in the automotive industry, and until the late 1990s the company employed between 5 and 15 employees.

- In the late 1990s, the company developed an innovative product, DNOx, for nitrogen oxide reduction. This altered the focus of the company, and in 2000 the company changed its name to STT Emtec and launched an IPO.

- For a short period, the SME employed as many as 50 people, a figure which currently stands around 20 following changes to their business in the automotive market.

The main focus of STT Emtec was initially on developing systems to control the exhaust emissions of diesel engines, principally for application in the automotive industry (buses, trucks, cars, etc.) in Asia and the US. However, towards the end of the last decade, the company experienced a decline in its business in the automotive market as it was progressively side-stepped by the vehicle manufacturers who took to producing the emission control technology themselves. As they scouted for alternative business, the company managers looked more closely at the maritime market for emission control, which, although less developed than the automotive market, had interesting new potential with the advent of tighter environmental regulations.



A new market opportunity presented itself when a major Swedish manufacturer of marine diesel engines, was approached by one of its ferry customers which needed to incorporate emission control technology to bring its boats into line with new regulatory requirements. (The two companies had already worked together on a couple of biodiesel pilot projects using the ferry operator's boats.) The marine diesel engine manufacturer had just the partner in mind to satisfy their client's pressing new requirements and immediately got in touch with STT Emtec (who they already knew).

develop the concept, in particular with the aim of reducing the cost of the manufactured customized components. The parts used in the original project formed a system based on purchased components, while today STT has to a large extent manufactured their own, self-developed components which make up the product/system.

Impact of the OI Collaboration

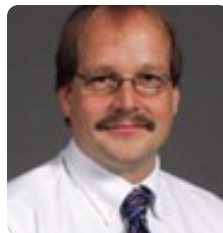
The experience of the Open Innovation project with the marine engine manufacturer taught STT Emtec that their partner was very interested in getting information and learning from them, but was more cautious about protecting its own knowledge and had the tendency to hide behind confidentiality. Our Swedish SME sees an inherent risk in this new collaboration that the manufacturers of marine engines will want to develop their own products in future, just like what happened earlier in the automotive industry. This puts added pressure on STT Emtec to build a strong relationship with the marine engine manufacturers if they wish to establish themselves permanently on the market. If this strategy fails, the company might not be able to survive.

With the refocusing of its business, STT Emtec's marketing strategy also changed. Previously, the company worked on a global level with partners and resellers, and its most important markets were to be found in Asia, Malaysia, South Korea, Japan and North America. With the marine engine business, the markets are now located in northern Europe, especially Sweden and Norway. For this reason STT Emtec focuses more on direct marketing rather than on having a number of distributors.

On a more positive note, the co-development with the marine engine manufacturer triggered a number of other new ideas, which in turn has led STT Emtec to file several new patent applications. It demonstrated to the SME how important it is to participate in collaborative projects and to keep itself informed of what is happening in different research areas. As a result, STT Emtec has started to participate in other open innovation projects, both with universities and other companies, and has also applied for additional project development funding from the government agency Vinnova. This new open innovation strategy saved the company's fortunes once and no doubt holds the key to its next phase of development.

MICAEL BLOMQUIST

Director and General
Manager



EXTERNAL COLLABORATION CAN LEAD TO NEW BUSINESS

The opportunity to develop a new product for a new market with a distributor using its own in-house know-how provided STT Emtec with a new lifeline.

NATIONAL INNOVATION FUNDING PROGRAMMES ARE IMPORTANT

STT Emtec and its partner applied to the Swedish innovation funding agency Vinnova in order to fund their joint R&D project. This experience led STT Emtec to apply to Vinnova to fund other new product development projects.

OI PARTNERSHIPS HAVE THEIR LIMITS

During their collaboration to build the marine SCR system, STT Emtec was aware of their partner's interest in learning as much as possible about their proprietary know-how, but found that they were less open about knowledge sharing.

NEW REGULATIONS ARE A DRIVER OF OI

In this OI case, new environmental regulations on marine diesel engines obliged the ferry operators to install cleaner engines, thus pushing their distributor to work with a partner with the know-how necessary for developing emissions reduction technology to make their engines comply with the new legislation.

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