The Southern Danish UV Fairy Tale

It all started with some recalcitrant bacteria in a well, a chance meeting with UV light and some sketches hand drawn in a garage. Today, environmental technology company Jimco A/S celebrates its 20th anniversary with positive economic results and customers around the world – still based in Rudkøbing on the Southern Danish island of Langeland.

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Jimmy Larsen and Jimco have had a long and difficult start, but today the company is healthy and stable.

Even the financial crisis has not turned down the UV light. "We have not experienced a decline in revenue or have had to lay off employees. However, we have not had the expansion we had hoped for, but we feel that it is slowly underway," says Jimmy Larsen. Photo: PR

nce upon a time. In that way one may be tempted to start telling the story of the entrepreneurial enterprise Jimco A/S. Like many other

entrepreneurs' stories, it is much like a classic fairy tale where the main character must go through so much – and is just about to give up before everything can end happily. And Jimmy Larsen, the man behind Jimco A/S, was indeed about to give up. Not just once but three times was he on the cusp of quitting the entrepreneurial dream and returning to his original job as a plumber. But thanks to Jimmy Larsen's creativity, support from the surroundings and not least an understanding bank, the entrepreneur and inventor today heads a growing multinational company that is celebrating its 20th anniversary.

The UV Encounter

Jimmy Larsen started moving towards his

was hooked on the technology. But as a plumber and a pipe fitter, he was "more of a practitioner and certainly not theoretical," he says. Fortunately, through two different positions, he gathered experience with UV-C technology before he in 1992 decided to become an entrepreneur in the world of purification using UV light.

Help for the Practitioner

From the office in his garage, Jimmy Larsen slowly managed to pull off his first project. The task was to treat and reuse the rinse water that waterworks otherwise had to discharge in the sewers – which at that time cost them money. "But first I had to be sure that the water was actually sterilized. So I enlisted the help of a company in Germany to create a UV sensor measuring the wavelength and, thus, if the UV waves were really bactericidal," says Jimmy Larsen.

In the same way he has through the years retrieved outside assistance for many theoretical matters. "I have usually had to buy knowledge and work closely together with various scientific institutions. And then it has been a question of transferring all that knowledge to my brain," says Jimmy Larsen. found out how to perform a photochemical oxidation process. So to speak, it is a matter of cold combustion, as happens every day in nature," explains Jimmy Larsen: "When you e.g. have a car with a rust hole, the missing material is simply away. It is not down on the sidewalk. There has been an oxidation during which the material is converted to CO2 and other gases. Flemming Dahl had found out that if you add hydrogen peroxide to water contaminated with e.g. phenol and then expose the water to UV-C light, you could provoke such an oxidation and thus purify polluted water." Jimmy Larsen was extremely enthusiastic and totally convinced that the technology would sell big. But it did not. So in order to pay his bills, the entrepreneur had to take up evening work with the local plumber.

Seminal Air

Jimmy Larsen's days were now spent on marketing the technology while the evenings were spent on doing plumbing. But one day he got a landmark call. An engineer who worked with the food industry asked if the Jimco technology could be used to purify air. And it turned out that it could indeed. Jimmy Larsen developed an air purification system for the deep fryers at the Daloon food factory in Nyborg, Denmark, eliminating oil rain in the air and thereby also fire hazards.

entrepreneurial career more than 20 years ago. Back in 1988, he for the first time became aware of ultraviolet light and the bactericidal qualities of the special UV-C waves. "It is nature's own tool to keep clean," he explains and tells how he came across that piece of knowledge: "I had a property here on the island of Langeland where there were too many bacteria in the well. By chance I came across Mr Jørgen Mortensen who applied UV light for water treatment. I had more than 2,000 bacteria in the well, but after treating the water with UV light in a cylinder, virtually no bacteria were left. " After this experience, Jimmy Larsen

The Market that Vanished

The waterworks success quickly came to an end. Two years after Jimmy Larsen had started, the legislation was changed and the companies should no longer pay for pouring water into the sewers. "Well, then the market died from one day to the next. But so it is. So I had to think creatively once again," says Jimmy Larsen. And with a little outside theoretical help, the creative process was quickly kick-started. A scientist named Flemming Dahl had



Founded in Jimmy Larsen's garage, Jimco A/S today primarily provides air purification solutions for large enterprises worldwide. Photo: PR



Thus, also a great inconvenience to the factory employees was eliminated, freeing their cars from all the oil that previously made them greasy.

Jimmy Larsen had invented the world's first air purifier using UV light – and hurried to apply for patent. Then everything started moving fast. Jimmy Larsen had move dout of the garage and into the Ellehaven business city on the island of Langeland. Although he still drew sketches for the plants by hand, he now had large companies as customers, such as Danish Prime and Saaby Fiskeindustri, and he worked with both air purification and wastewater plants. And in the year 2000, the technology of Jimco received the EU Environmental Award. But perhaps everything went a bit too fast. "I was maybe a little too courageous in the beginning. I simply got to spend the entire treasury on a wastewater treatment plant that did not work."

Downturn before Upturn

Jimmy Larsen now had to close the wastewater department of his company. In 2002, the equity of Jimco was negative and Jimmy Larsen nearly gave in.

Then, how can it be that Jimco still exists today?

"As they say in my bank: 'Jimmy, you are a bumblebee. You fly, but you do not know that you cannot.' The reason is probably a combination of the technology, my personality and, not least, the people I have had around me. They have had every opportunity to shut me down but have always believed that I would come back strong."

Today, the equity is positive once again. And according to Jimmy Larsen, Jimco is a healthy company with 15 employees and customers worldwide. Everything is controlled from the island of Langeland and all parts are manufactured in Denmark. "When a foreigner asks how we can be competitive when labour costs are so high, I usually answer it is because Danes are so lazy. As soon as we look at a process, we shall ask ourselves how to simplify it.

I have researched the possibilities of outsourcing the production to

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Poland, Slovakia and China – and it could not be done cheaper in any of these countries while at the same time assuring equivalent quality," says Jimmy Larsen, who stresses that he is not going to move away from the island. "We are working all over the world. At least 95 per cent of my revenue comes from exports, as the domestic market is so small. So it basically does not matter where Jimco is located. Then we might as well be on Langeland," says Jimmy Larsen, who believes that there are great benefits of running a business in the province.

"It may well be that I sound boorish, but if you hire e.g. an electrician here, he is almost guaranteed to be capable of doing more than just electrical work. He can probably also weld and drive in nails, whereas electricians in the big cities would most often just a grab a stool and wait for the other craftsmen to finish. Therefore, you will probably have more versatile employees in remote areas."

At the same time, property prices are also favourable, emphasizes Jimmy Larsen. And according to him, when taking everything into consideration, the conclusion is that it would not be worthwhile to move to a big city.

More Creative Thoughts

Jimmy Larsen has not stopped sketching after becoming successful. Though he has employed a technical artist to do the final drawings, creativity still flows freely. His latest project is a surface disinfection system for the food industry – a machine that is simply rolled into a room and turned on. Later, you can return to an almost sterile room. Right now, Jimco is in the process of obtaining an Environmental Technology Verification (ETV) for the new system to scientifically demonstrate its effect. And the latest product is probably not the last further development of the UV technology whose first seeds were planted by a well full of bacteria in the late eighties. Jimmy Larsen's UV fairy tale has not yet come to an end. But so far the ending seems to become happy.

Jimmy Larsen has invented a variety of methods to purify air and water using UV rays. One of the ideas he got in the very beginning when driving around to sell his ideas.

"While on the road I often had to use public toilets. It was terrible. So I thought that I should develop a device that could remove the smell. And so I did," says Jimmy Larsen.



The compact air purifier he invented was never sold to public toilets. In return, it came to use for removing the smell in the numerous smoking rooms established at that time. Consequently, an unexpected further ability was discovered.

"A female suffering from COPD got a machine to remove the smell of smoke from her home. And then she suddenly got better. When the machine was removed, she got worse again. So today we sell the compact air purifier to COPD patients and asthmatics. It has not been scientifically tested so we may not call it a medical product – but people are welcome to borrow it for 14 days. If they do consequently not want to buy the device, it may just be handed back."