

CASE N°: SC49

**SECTOR: FOOD & DRINK** 

TECH INTENSITY: LOW-MEDIUM TECH

LIFE CYCLE STAGE: ESTABLISHED

**INNOVATION VECTORS: PRODUCT, PROCESS** 

01 PARTNERS: PSR, LARGE CORPORATION, OTHER SME, LEAD CUSTOMERS/USERS

KEYWORDS: Research collaboration, production collaboration, sales collaboration, oat drink, consumer marketing, rapid growth, low-tech sector, branding



### Sweden, www.oatly.com

A mature SME in the food industry has built its competitive advantage on scientifically proven health effects for which ongoing collaboration with researchers is critical

#### **Executive Summary**

Oatly is a science-based, medium-high-tech, innovative company in the low-tech food industry. It was established in 1994 by academic researchers from Lund University. The company has grown very fast, and in 2016 its turnover was around €50 million.

Oatly developed an oat drink, which was later followed by further innovative products. The milky drink is based on liquid oats, and can be used by people who suffer from lactose intolerance. Oats have many health benefits and contain beta-glucans that help lower cholesterol. It is therefore important in the manufacturing process to take advantage of the oat fibres and not cut them down.

The company works broadly with innovation, and there are many examples of open innovation projects. The innovations include product development, research and process technology as well as innovative distribution solutions and sales channels.

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# BACKGROUND

Oatly was founded in 1992 and is based on research from Lund University. The original idea behind Oatly was to find a way to make a nutritious liquid product for people who just did not like cow's milk or were unwilling to use it for personal reasons. Today, the concept of producing a drink directly from oats instead of first feeding oats to a cow and letting the cow process them into milk is nothing outlandish, but back when Oatly started in the 1990s most people thought that the idea was totally crazy.

The company was founded as a joint venture (50/50) between Skanska Lantmannen (agricultural co-op) and four researchers. Among the researchers was Professor Arne Dahlqvist, who was the first to discover lactose intolerance, as well as his former PhD student Professor Rikard Oste. Oste became the company's first CEO and is still a partner in Oatly. When commercialization started, the other founders sold their shares (with some minor exceptions).

Oatly's oatmeal has made a big difference for many people, not least families with children, because children are more often affected by lactose intolerance. In addition, today's climate effects are a strong argument for choosing oatmeal before milk, as climate impact is 80% lower for oat drinks than milk.

Sofia Ehlde started working at Oatly in 1999 and since 2013 she has been their Innovation Director. She is a chemical engineer from Lund University, where she had Rikard Oste as a teacher. After completing her education, Sofia started working at Nestle. She was later contacted by Rikard Oste who recruited her to Oatly. At that point, the company had just developed its own "oat base".

As Innovation Director, Sofia is responsible for

- research
- products
- processes
- improvements

The department now has 9 employees, but much of the research is still being purchased from external partners. Oatly invests quite extensively in R&D. While the food sector in Europe invests around 1% in R&D, Oatly invests between 3-4% of its turnover.

Oatly is growing very fast, while innovation continues to be important for the company. Government support is often sought for this. Oatly has managed to obtain support several times from Vin nova (the Swedish national agency for innovation) and is currently a member of the Scan Oats consortium, funded to the tune of  $\in$ 10 million by SSF (the Strategic Science Foundation), in cooperation with Lantmannen and the Swedish Oat Fiber company (SME).

Oatly also supports and finances various research projects and centers, such as the Antidiabetic Food Center at Lund University and legume-based-foods at SLU (agricultural university). At present, Oatly is involved in three publicly funded research projects. The company has even hired a consultant who helps them keep track of various calls for research support and financing.

There is a very strong belief in the future at Oatly. Oatly can see a large global market for its products and is committed to expanding its distribution. They are already well-established on the European market, and are beginning to strengthen their brand in the United States. To finance this expansion, new growth capital has been injected by two major investors: the Belgian brewery InBev (the largest brewer in the world) and the Chinese China Resources. The two companies have formed a joint venture and acquired the majority of the shares in Oatly's parent company CEBA (Cereal Base AB). Oatlys's earlier owners remain as part-owners of the company.

## **INNOVATION CHALLENGE** & MARKET OPPORTUNITIES

In 1999, Oatly had just developed its "oat base" and thought it was precisely this ingredient they would sell to other large companies. They initially thought that they would be an ingredient supplier and that the end-product would be sold in health food chains. However, it turned out that it was too early and the market was not ready. Oatly's business idea had to change,

Oatly saw an opportunity to create a milky drink based on liquid oats. Oats have many health benefits and contain beta-glucans that help lower cholesterol (FDA approved since the 1980s). It is therefore important to take advantage of the oat fibres in the manufacturing process and not cut them down. At this point in time, however, no one else really believed that it would turn into a big market.

# **OPEN INNOVATION TRAJECTORY**

## **Concept development**

In this connection, a new CEO was recruited in 1999. He was a visionary man who decided that Oatly would not be an ingredient company but actually start producing themselves under their own brand. Originally, there were two concepts: partly the oatmeal drink but also a soup for the health food producer Friggs. The latter concept failed and the product was never produced. Instead, Oatly invested more in developing the oat drink.

# The development process, IPR and competition strategy

Oatly participated in a large number of collaborative projects. Collaboration with researchers was needed, who in scientific studies were able to verify the health effects of the oatmeal. This was very important in the early phases of the company's development, but has also continued to be strategically important over time.

In order to start developing their own brand, additional capital was required. This was achieved via Carnegie (private investment company) and Industrifonden (public investment company), but also from Skanemejerier, which remained as a part-owner. Skanemejerier's most important contribution was its production facility. In 2000/2001 the Oatly name was established as a trademark.

In addition, there are many sales partnerships. As a small business, you do not have so much muscle and it can be difficult to reach an agreement with major distributors. For example, ICA received a very favorable agreement for "Solhavre". This was one of Oatly's first products, and sold as a "private label" for the big supermarket chain ICA.

Oatly finds it has sometimes been difficult to make sensible cooperation agreements, and ever since the company was very small has hired a lawyer to handle this.

To produce different end products, such as ice cream, they also had to build partnerships with other companies. Oatly has done this for the production of several products. For example, they collaborate with the SME SIA in ice cream manufacturing. Similarly, they collaborate with Trensum Food (SME) and with AAK in Karlshamn (large manufacturing company) on vegetable fats. Other examples of partners are in the packaging industry.

Oatly has a total of 8 patents and a couple of applications underway. Patent protection is important when you interact with others. One important patent is the patented production process of how to retain the loose oat fibres (the beta-glucans) in their products.

Oatly sells their products directly to food stores. But they also collaborate with several producers of other end-products, who in turn sell the final products. The main competitive advantage is the scientifically proven health effects. The patented production process contributes to these health effects.

## Commercialization and follow-up

As sales started to expand, Skanemejerier could no longer produce the required volumes. Instead, Oatly built its own production facility in Landskrona and Skanemejerier gave up its share in Oatly. Sofia became responsible for the new production plant and was factory manager for 6-7 years before becoming Innovation Director.

It was a big challenge for Oatly to reach out to the food stores. They were helped by having several different products, such as oat drinks and cooking creams. In this way, they managed to attract awareness from families with children who ask for the products. It is important for food stores to attract families with children so stocking the Oatly brand in their shop is good for business.

It has cost Oatly an estimated €3 million to build up their brand and convince food stores and chains to start selling their products. In turn, this resulted in a number of years of losses and demanded patient owners. Even in the future, major investments will be required on the marketing side.

Now with new owners and a global distribution strategy, Oatly faces a new reorganization. Oatly's first CEO and founder, Rikard Oste, created a new research company, named Aventure, through which spin off ideas and concepts that do not fit with Oatly's core business are channelled.

Oatly sells their products directly to food stores. However, they also collaborate with several producers of other end-products, who in turn sell the final products. Oatly has also sold a patent for ready-made pancake mix which was based on eggs (since Oatly only deals with vegetable products). All IPR belongs to Oatly. However, in the new SSF cooperation with Swedish Oats and Lantmannen, this will change.

## **BUSINESS IMPACT**

Oatly has learnt a lot about collaborating with others when developing and producing new products. The company also had to deepen its understanding of the production process. Thanks to the production process, they have managed to retain the value added loose oat fibres (the beta-glucans) in their products.

The company has worked steadily to set up different kinds of collaborative agreements, which they find to be very important. They have learnt that in research collaborations you also have to pay attention and be careful to meet the needs of the researchers (e.g. publishing). Oatly is aware that it is important to really care about what you are doing -that the projects you really engage in and spend time on are the ones which obtain the best results. It is also important to involve the right people.

Oatly has experienced strong growth. Even in the early days, they grew 15–20% annually. After a short-lived decline in 2010–2011, they changed their CEO and made a comeback. Instead of focusing on cost savings, they focus even more on innovation and their own brand. Since 2014 they have grown by 30–35% annually and much of this thanks to exports (40% of sales in 2015). In 2016, turnover reached almost €50 million and the company now has 132 employees. Increasing the number of employees by over 50% in one year required a lot of recruitment and integration work.

Now Oatly produces as much as they can. Production capacity is utilized to the maximum and therefore a major ( $\leq$ 35 million) new investment is envisaged on the production side.

# LESSONS LEARNED

Oatly is a science-based SME using open innovation to expand in a low-tech sector. It has participated in a large variety of open innovation projects. Over the years, the company has learnt how to set up proper agreements for collaboration projects, but also how important it is to consider the partners' needs, for example, that researchers want to publish. Since Oatly is building its competitive advantage on scientifically proven health effects, the collaboration with researchers is critical. Establishing a new brand on a global consumer market is a challenge and requires both collaboration and (patient) investors.

## Main lessons learned:

- 1. The company works broadly with innovation and there are many examples of open innovation projects.
- 2. There has been a learning process involved in working with different kinds of open innovation projects.
- 3. The innovations include product development, research and process technology as well as innovative distribution solutions and sales channels.
- 4. The strength of being a small and flexible company is reflected in the company's way of working.
- Being an SME it can be hard to negotiate good deals with large supermarket chains. You really need to have a unique competitive advantage and a strong brand.
- 6. Having one (or as in this case several) visionary leader(s) is important for the creation of a successful company.
- 7. Public funding of innovation projects and research collaboration has been, and continues to be, important for the development of the competitive advantage and expansion of the company.