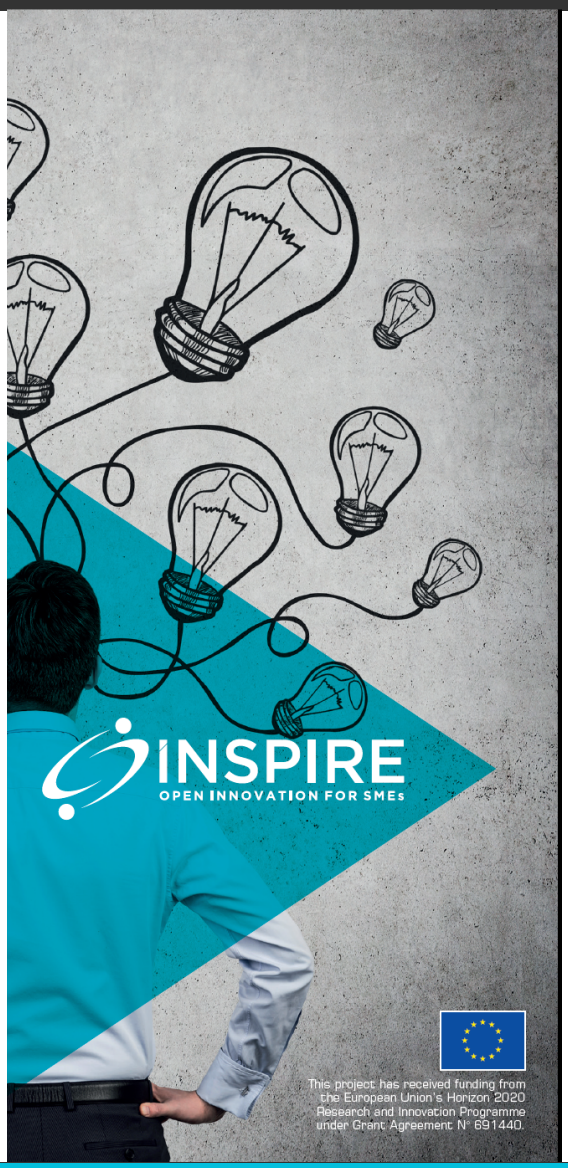

BYOTROL

United Kingdom, www.byotrol.co.uk

A change in EU regulations obliged a company to change the composition of its product; to do so it reached out to a university and a large company and together they developed a solution which satisfied both regulatory and technical requirements. The SME's collaboration with the large company also opened up new distribution channels for it to the B2B market

Executive Summary

Byotrol is a chemical company that has developed biocides for the consumer market, including hand sanitizers and sprays. The innovation was triggered by an anticipated change in EU regulations regarding some of the ingredients used in the product, leading Byotrol to change its formula. In order to develop and commercialize the product, they worked with universities, industry experts, and a large firm in order to develop the new product and bring it to market. Byotrol offers a very good example of open innovation that highlights the challenges and benefits of SMEs working with larger firms.

CASE N°: UKI29

SECTOR: CHEMICALS

TECH INTENSITY: HIGH-TECH

LIFE CYCLE STAGE: ESTABLISHED

INNOVATION VECTORS: PRODUCT, CUSTOMERS & MARKETING, DISTRIBUTION CHANNELS

OI PARTNERS: PSR, LARGE CORPORATION

KEYWORDS: EU regulations, chemicals, biocides, universities, licensing, commercialization

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

BACKGROUND

Byotrol is a spin-off that emerged when a paint company, based in Manchester, UK, moved away from solvent-based paints in order to solve a mould problem encountered by their customers. Over a two-year period, the paint company developed a new product containing a combination of chemicals and polymers that not only solved the problem, but could also be used in other products.

Byotrol was established in 2000, then listed on the Alternative Investment Market in 2005 to raise money to commercialize this innovation which targets the healthcare, food production and consumer markets. In order to tackle the consumer market, Byotrol entered into a joint venture with What If! Innovation to access global markets. After years of underperforming, Byotrol hired a new CEO (from the finance industry and the other partner in the joint venture) and a CTO (with 20 years of working at Unilever) in 2013.

At the end of March 2017 the company is looking to break even for the first time. After that, they plan to grow sales of their current product range and look for acquisition opportunities to build the scale of the business. They need to double or triple the scale of the organization to be more stable. They are looking to buy companies that have sales activities in the health sector.

Currently, Byotrol has a good level of sales in the food industry, but they feel that this sector is declining, so in future they would like to focus on healthcare, pet and vet, and consumers. The firms that they will be interested in purchasing are those that currently have a sales network and activity (but may lack technology) in those markets.

Innovation is key to what they do, but at this point in time they are "technology rich, but sales poor" so their focus for the immediate future is on trying to increase sales of the products they have already developed.

INNOVATION CHALLENGE & MARKET OPPORTUNITIES

The original mixture of chemicals and compounds that led to the spin-off of Byotrol was under pressure from regulators because one of the ingredients was being questioned in terms of toxicity. While Byotrol felt the chemical was not harmful, regulation from Europe was focusing on reducing the number of biocides (their key chemical ingredient) in the market.

Typically, a similar product would contain two components, a biocide and a polymer. Their original product used a chemical that would act both as a biocide and a polymer. Due to possible new regulation, therefore, they had to look for two new ingredients. After a number of tests, they were able to find a new biocide, but the matching polymer proved to be more difficult.

Typically, an anti-microbial product contains one or several biocides; however they stop working after 15-20 minutes. The originality of Byotrol's product was that it combined a polymer with the biocide which helped the sanitizer adhere longer to the surface that it had been sprayed onto. Byotrol therefore wished to maintain the advantage that they had over competing products, but to do so they were obliged to change their winning product's formula.

OPEN INNOVATION TRAJECTORY

Concept development

The main concept was already developed, but Byotrol was faced with the challenge of identifying alternative ingredients which had the same winning result.

The development process, IPR and competition strategy

The development work was initially done internally before the company requested help from Manchester University. Thanks to the university's input, they were able to identify why the current (soon to be regulated) technology worked so well, as well as what other options existed. This is where they identified a possible solution.

As most polymers are secret and proprietary, there is no way of knowing at first who owns the rights to the solution. Once they started going about patenting the polymer, they discovered that it was already owned by Solvay, one of the world's largest and oldest chemical companies, established in Belgium in 1861. Byotrol therefore contacted Solvay to let them know that they had found a use for one of their products.

Thanks to their CTO's large network of contacts from his previous employment in the sector,

Byotrol managed an introduction to Solvay which paved the way to a partnership.

Byotrol applied for a patent for the polymer they identified, but then discovered that it was already owned by Solvay. Prior to the innovation project, Byotrol wanted to license its technology to large multinational firms. However, they were not able to do this because of the constraints of possible regulation. As a result, finding an alternative became a very important activity that also put them under significant time pressure, as Byotrol did not want their potential clients to lose interest.

Throughout the development process, the company's strategy was to find an alternative composition for their product that offered the same advantages over competing products, i.e. prolonged active life of their sanitizers.

Commercialization and follow-up

The idea of rolling out is to license the technology to large firms. The technology, the idea and the concept takes time, but it is straight forward. The commercialization is possibly the hardest part. It involves getting access to the right people, especially in large companies. The main problem is that these big companies already have their own innovation programmes and many of their people may suffer from the "not invented here" syndrome, and will question the technology from an SME. There are therefore not many companies that will be interested in purchasing a licensing agreement from a small company.

The advantage of the partnership with Solvay is that they already have the connections to the larger companies and to the right people in those companies, and were therefore better able to contact them and to follow up on their requests regarding the Byotrol product.

Byotrol was relatively small, with 5 people in the lab, 3 in sales, and 2 in marketing. Not much restructuring or reorganizing were necessary as a result of the OI project because most of the staff are flexible. However, the project required that people take key responsibilities in order to manage specific parts of the project with Solvay. Working groups were created in order to align Byotrol's technical staff with Solvay's technical staff.

Solvay markets "ingredients" to other businesses, while Byotrol markets complete solutions, and therefore these represent two very different approaches. Byotrol has marketers that have previous experience in Nestlé and understand the consumer market, while Solvay has more experience marketing to businesses. When discussing the potential commercialization of the product with large companies, therefore, Byotrol was in a better position to do so – they understood more about the brand and image. Together, Solvay and Byotrol cover the skill-base that allows them to market the new product on both a B2B and B2C level.

Two potential new products are under development at Byotrol which are the result of Solvay talking to their customers. In addition, there could potentially be a joint development project in future with a large company in the USA. Byotrol is still working with Manchester University to study the virology of their solvents, which helps them test their products.

BUSINESS IMPACT

The partnership with Solvay has benefited the company by giving them access to potential customers and increasing their reputation in the industry. Byotrol now has a much wider reach commercially, and they feel that they have a much more secure standing in the industry that allows them to approach bigger firms like Unilever.

Working with Solvay presented a number of challenges mainly due to the difference in size. Byotrol went from having just a few contacts at Solvay, to having to engage with a large number of people, which became difficult to manage. Byotrol had to learn how to stand up for itself, and to get Solvay to recognize the talent and the ideas that Byotrol had. Also, Byotrol has had to learn to work at the same pace as Solvay. Large companies tend to be much more complex and slow, whereas SMEs are more agile. But when working together you need to slow down in order to benefit from the experience.

The OI collaboration with Solvay has allowed Byotrol to become more financially stable to the extent that they plan to break even for the first time in 2017. Byotrol acquired another company of 10 people, bringing its total to 17 employees.

LESSONS LEARNED

New regulation from the EU was the trigger point for this innovation. The SME was about to commercialize its product when it came under pressure to change it. This led to Byotrol working with a university to adapt the formula and identify a new solution.

This is an SME that went looking for and was able to obtain a partnership with a much larger firm.

Byotrol found the solution to their problem and then agreed a joint marketing agreement with the owners of the solution, Solvay.

The partners also exchanged marketing skills, where Byotrol was able to share their knowledge of reaching consumers while Solvay (traditionally pursuing a B2B model) was able to share their knowledge of reaching out to other businesses.

Main lessons learned:

1. The secretive nature of the industry was a trigger point for seeking a collaboration with the company holding the IP.
2. Working with large multinational companies can be slow and resource-intensive. Larger companies may have extra requirements and complex processes when assessing and evaluating technologies or innovations from SMEs.
3. The end consumers have become a valuable source for product improvement and new product development, where new projects have been identified through customers' needs.
4. Big companies work at a much slower pace and are much more complex, which presents a challenge for SMEs when innovating. The SMEs have to learn to work at the same pace as the larger partner.
5. Larger partners can offer financial stability and allow SMEs to focus more on innovation rather than on trying to obtain more finance.