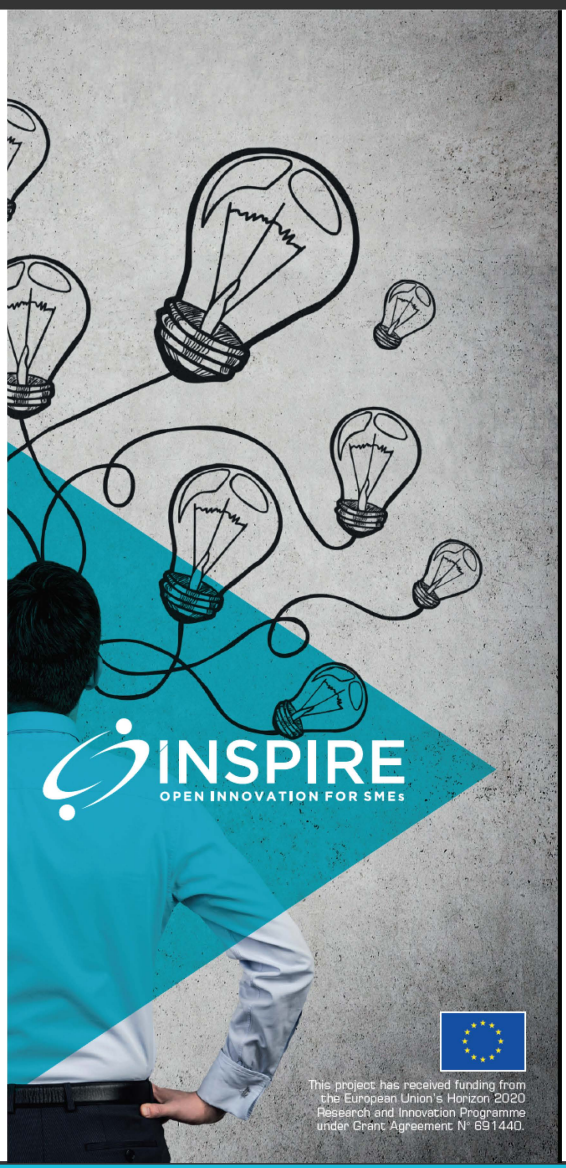


VIP PRODUCTS

Luxembourg, www.vipseal.com

A lone entrepreneur collaborates with a researcher, a design consultancy, an industrial technical centre a test centre and other individual experts to manufacture a revolutionary tyre sealant for a potential mass market

Executive Summary

VIP Products S.A. (VIP =Very Intensive Painting) was incorporated in 2001 in Luxembourg by Mr Peter Friberg, an international businessman of Swedish origin. The company's first star product was an adaptable intelligent paint roller which was manufactured under license. In 2007, the CEO made the acquaintance of a university researcher and the inventor of a puncture-proof tyre sealant with a potential worldwide mass market. He then embarked on the transfer of the confidential know-how and the construction of a production plant in Luxembourg, with the support of a number of open innovation partners – notably an innovation and design consultancy and a technical and testing centre.

CASE N°: SD46

SECTOR: CHEMICALS

TECH INTENSITY: LOW-MEDIUM TECH

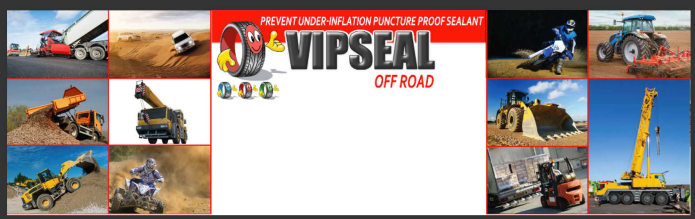
LIFE CYCLE STAGE: RENEWAL

INNOVATION VECTORS: PRODUCT, PROCESS

01 PARTNERS: PSR, INDMDUAL EXPERTS, DESIGN CONSULTANCY, INDUSTRIAL TECHNICAL CENTRE, TEST CENTRE

KEYWORDS: Tyre sealant, open innovation with Individual expert, International distribution network

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



BACKGROUND

The company's first star product Turbo-Paint, an adaptable intelligent paint roller, was manufactured under license; its USP is its ability to apply paint as thick and as fast as the requirements set by the user, which is extremely useful for DIV painters.

The owner/founder was constantly on the look-out for new products to add to his portfolio. Information from a commercial attache at the British Embassy in Paris led him to contact an entrepreneur in the UK who was manufacturing a revolutionary puncture-proof tyre sealant. Although the product offered promising sales opportunities, Mr Friberg was not able to agree to the terms of a subcontracting agreement and preferred instead to contact the inventor of the product, a former researcher in the chemistry department at Queen's University Belfast.

At the end of the negotiation, Mr Friberg acquired the rights/confidential know-how to manufacture and sell the water-based tyre sealant alongside two other entrepreneurs, one in South Africa and another in New Zealand. In 2007 he started work on designing and building a plant in Luxembourg to manufacture the tyre sealant, while benefiting from the continued support of the inventor to improve the product's components and performance.

As environmental awareness grows in Europe, so does interest in VIP's type sealant as a way of extending the lifespan of tyres and reducing the cost of raw materials. The company is therefore open to innovative sales and distribution mechanisms. Since two of its main products have their origins in open innovation collaborations, it is conceivable that a new product line could be added thanks to collaboration with external partners.

INNOVATION CHALLENGE & MARKET OPPORTUNITIES

During the search for new products, the introduction to and collaboration with the Irish researcher, who in the meantime had left the university to set up his own company, gave VIP Products the opportunity to manufacture a whole new product line that potentially has a huge market, i.e. all road and off-road vehicles worldwide.,

The market for VIPSEAL, the puncture-proof tyre sealant, is truly worldwide and is applicable to all types of vehicles which run on rubber tyres, including industrial vehicles, such as construction and mining equipment, private automobiles and motorcycles. The originality of the tyre sealant manufactured and sold by VIP Products is that it is a preventive application, i.e. the sealant is injected into the tyre while it is still intact and seals any puncture caused by a sharp object from outside, while the products of its main two competitors (one of UK origin and the other American) have a curative effect, i.e. they are applied after the puncture has happened.

The product offers a number of advantages for consumers: economic (the life of the tyre is extended in the event of a puncture}, energy savings (driving a vehicle with under-inflated tyres consumes 10% more fuel), safety and peace of mind (vehicle drivers no longer need to worry about having a puncture - and perhaps causing an accident - or having to repair a puncture in a critical situation).

OPEN INNOVATION TRAJECTORY

Concept development

The original concept came from a researcher in the chemistry department at Queen's University Belfast. In 1996 he had given himself the challenge to develop an improved version of a tyre sealant, which an American company was trying to sell on the European market. When given the choice between becoming the subcontractor of a manufacturer of the product in the UK and being given the rights by the inventor to manufacture the tyre sealant in Luxembourg, the CEO of VIP Products chose the latter.

His decision was motivated largely for reasons of trust: the English entrepreneur, who was looking to expand his business outside the UK, turned out not to be reliable. The first contacts with the Irish inventor quickly developed into a pragmatic business relationship based on trust, with the inventor contributing to the development of the final VIPSEAL product and providing advice in situ at the production site in Luxembourg.

The development process, IPR and competition strategy

Once Mr Friberg had acquired the know-how from the Belfast-based inventor, he then set about having a small production plant designed and built on an industrial park in Bascharage. To assist him in this process, he called on the services of two external parties, namely, the SME design and innovation consultancy (reaction International (Luxembourg) which carried out a 3D modelization of the manufacturing process (including all the materials, equipment and operations involved) and the SIRRIS (non-profit industrial technical centre based in Liege, Belgium) which validated the process also in respect of European directives.

Interestingly, the managing directors of VIP Products and (reaction were introduced to each other by their common accountant who recognized the potential synergy for collaboration. (reaction also undertook the study which helped VIP Products to obtain its exploitation permit for the new production plant from the Luxembourg government. Despite the fact that the tyre sealant is a water-based, non-toxic product, it does contain one component which requires that the production plant be Seveso-classified.

Over the years the CEO has benefited from ongoing collaboration with the original inventor who has continued to improve the product for different applications in the field. Recently, Mr Friberg has started collaborating with a Canadian chemical engineer based in Luxembourg with whom he is developing smart tests. He has also collaborated with the multi-national Delphi Automotive Systems and the Public Research Centre Henri Tudor, both located on the same industrial park as VIP Products, in the testing of the VIP sealant.

The VIP tyre sealant is based on a confidential chemical formula and technical know-how which were acquired by the CEO from the inventor.

The USP of the VIP puncture-proof tyre sealant is that it is a preventive application, i.e. the sealant is injected into the tyre from the beginning and seals any hole caused by a puncture from outside. The products of its main two competitors (one of UK origin and the other American) have a curative effect, i.e. they are applied after the puncture has happened. In addition to extending the life of the tyre (the consumer can continue to drive his/her vehicle after a puncture without having to repair it) and saving fuel (under-inflated tyres make a vehicle consume 10% more fuel) the main sales argument in favour of VIPSEAL is safety/peace of mind. Vehicle drivers – cars, HGV, off road vehicles, motorbikes – need no longer worry about having a puncture in an awkward or dangerous situation and the sealant also guarantees a dynamic balancing of the tyre.

Commercialization and follow-up

The main challenge in rolling out the commercialization of the VIP sealant has been its acceptance by the market. As described in the previous sections, the production of the tyre sealant is carried out by VIP Products SA at its specially designed plant in Luxembourg. The product is then shipped in 251 drums (one pallet weights 1 150 kg for 10001) to its distributors on a world-wide basis. The product is therefore sold via a network of specially selected and trained distributors.

The real challenge has been the reticence of the tyre manufacturers (VIPSEAL's potential N°1 customers) to buy the product. Considering that this is a product with a worldwide market, the main organizational requirement has been to build up a network of distributors. This is a time-consuming process as each has to be individually trained in the use of the product, which is relatively complex. For some time a dedicated sales executive was employed at the main office in Luxembourg to try to boost sales. This strategy did not have its expected benefits.

The main challenge to date has been the language barrier in a market which is very much local, i.e. tyre retailers who do not necessary master a common international language like English. By way of an example, in Turkey, which represents a potentially significant market for VIP Products, Mr Friberg has not yet been able to identify a suitable distributor who speaks sufficiently good English.

The marketing strategy for VIPSEAL has been via the web (a website exists for the product rather than the company in order to protect the interests of the distributors), but mainly through sectoral exhibitions and fairs and overseas trade missions organized by the Luxembourg government/ chamber of commerce, etc. and the recruitment of a handpicked network of distributors.

As mentioned in the previous session, the major challenge is to find and train reliable distributors and to understand the business culture of the country in question. For example, at the Automobile Festival in New Delhi, a demonstration of his product raised huge interest amongst potential distributors (Mr Friberg received more business cards than at any other trade event he has attended), but when it came to putting a distribution network in place to cover all Indian provinces the CEO discovered that it was impossible to get the candidates to work together. In the meantime, a poor quality rival product from

China has since killed off the market in the foreseeable future.

The entrepreneur has made a number of improvements to the product over the years, notably in collaboration with its inventor and more recently with a Canadian chemical expert with a view to making the product more environmentally- friendly.

BUSINESS IMPACT

The VIP tyre sealant project led to the acquisition of confidential know-how, the design and construction of a production plant, the launch of a new product on the market, the employment of four staff, as well as the creation of a worldwide distribution network.

The company learned how to manufacture a new product for an entirely new market and how to put in place a worldwide distribution network to reach the final customer. Thanks to the launch of the new product, the entrepreneur also gained experience of negotiating its uptake with multinational tyre manufacturers.

Depending on the year, the VIP sealant product can account for up to 2/3 of total turnover of the company.

LESSONS LEARNED

This case demonstrates the importance of building a relationship based on trust for an open innovation collaboration. This is evident in the win-win relationship between the entrepreneur and the inventor. On the other side of the coin, the entrepreneur's attempts to negotiate the sale of his product to a major tyre manufacturer did not produce any results because the latter was interested in acquiring the know-how, but not to put it in their tyres! The case is also interesting as it proves that open innovation can happen between individuals and does not need a formal corporate structure to drive the process. In the end, it all comes down to human relations and the ability to strike a mutually beneficial agreement for both sides.

Main lessons learned:

1. Open innovation collaboration has to be based on trust.
2. Even very small companies can undertake open innovation projects if there is mutual benefit to be gained (win-win agreement).
3. Intermediary/service organizations, such as commercial sections of embassies, chambers of commerce, accountants have their role to play in triggering new collaborations and partnerships.
4. It is impossible to do everything with just in-house expertise, i.e. it is important to employ the right expert for the right job, e.g. design, testing.
5. Bringing a product to market – even one with evident benefits for the consumer – requires a lot of perseverance and patience.
6. The language barrier, even in today's society where the social media have imposed English as an international language, is still an obstacle to doing international business.
7. Even in the age of web 2.0, trade fairs and international trade missions are still extremely important for building a sales network.
8. A prerequisite for doing business internationally is learning how to understand the local business culture.