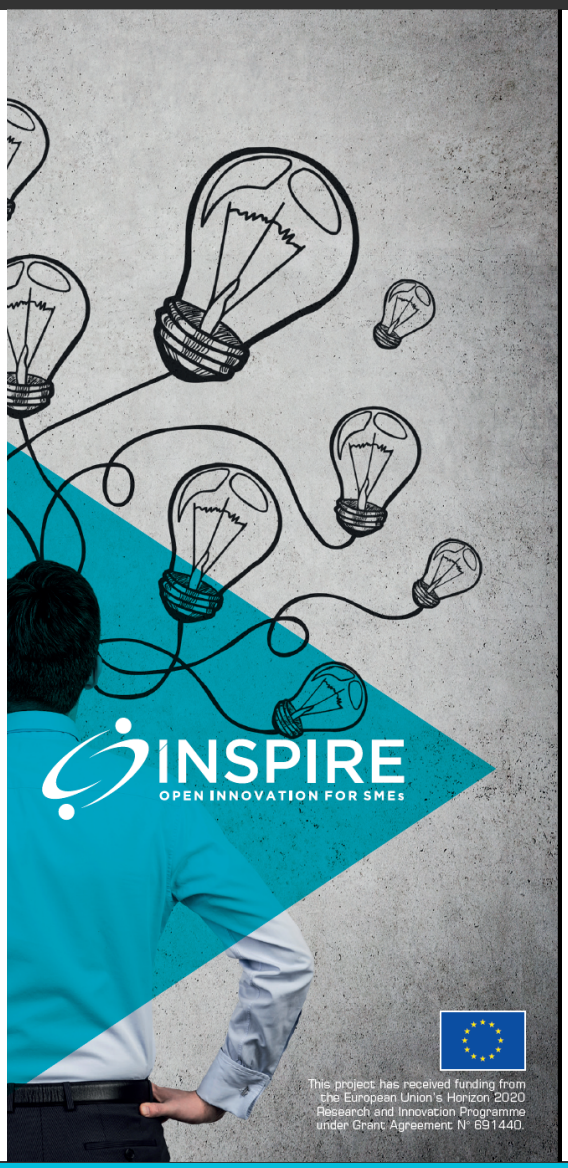

PLANT A TREE

Netherlands, pseudonym

Thanks to a public subsidy, a farmer-cum-entrepreneur embarked on an open innovation project with partners to develop and market a new agricultural product

Executive Summary

PlantATree (company wished to remain anonymous) was founded to capitalize on an idea to enable tree, bush and plant growth in a harsh environment where water is scarce. The company sells boxes/containers to surround a tree and capture all the water that is available. This container slowly releases the water and stabilizes the micro-climate around the tree, enabling a higher chance of survival. Although the company website offers plenty of tips on seed (-lings) and growth methods, they do not sell any ancillary services or plants. The interviewee worked together with various partners to develop the product and set up a distribution channel. Much to his own frustration, partnerships were often damaged by abuse of confidentiality and NDAs. This resulted in a heavy reluctance to accept help from outside, although the company requires the complementary skills.

Despite the hurdles, the original concept is now for sale online and is already implemented in several locations across the world, with good results in terms of the growth and survival of the plants.

CASE N°: SD38

SECTOR: AGRICULTURAL EQUIPMENT

TECH INTENSITY: LOW-MEDIUM TECH

LIFE CYCLE STAGE: START-UP

INNOVATION VECTORS: PRODUCT

OI PARTNERS: OTHER SMEs,INDIVIDUAL EXPERTS, CROWDSOURCING

KEYWORDS: Product innovation, industrialize, product development, partnerships, complementary skills, essential, NDA, lack of trust, subsidies, patent, law suit

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

BACKGROUND

The CEO of PlantATree invented a new system with containers to enable the growth of trees in harsh environments. The company was founded around this concept and nowadays sells two types of product. To make a business out of their idea they searched for development partners to help industrialize the product. Together with these partners they requested funding from governmental subsidy organizations to kick-start the development.

In future, the company intends to

1. Develop new innovations which are supported/pre-funded by customers.
2. Develop and market additional product line extensions (biodegradable containers in different sizes; auxiliary tools for installation, etc.).

INNOVATION CHALLENGE & MARKET OPPORTUNITIES

Our entrepreneurial CEO had left the farming business as it was under severe price pressure and he lacked a profitable long-term perspective. He observed a market gap in the plant container market for drought-affected areas and founded the company to tackle it. His vision was to help 'to reinstall a balance in nature suffering from deforestation'.

As a farmer, the CEO visited several clients abroad and came across a recurring problem: the diminishing ground water levels, increased soil erosion due to deforestation and vast areas of drought-affected land. Currently, 70 to 80% of freshwater is used for agriculture worldwide and over 700 million people are suffering from drought, according to the UN.

There was therefore a need for a solution that focuses on plant growth (trees, shrubs, vegetables) with a higher ratio of water collection-consumption efficiency. The opportunity was especially relevant for countries in Central America, the Middle East and Africa. He observed that existing solutions (plant containers) were still inadequate. They relied too much on technologies like automated irrigation, were too expensive and not robust. The entrepreneur decided to develop a solution based on his knowledge and network as a farmer.

OPEN INNOVATION TRAJECTORY

Concept development

The concept development was mostly undertaken by the inventor (the CEO). Some limited interaction with sparring partners helped to fine-tune the concept. As the CEO had extensive experience of farming, he had a detailed understanding himself of the biological challenges that needed solving. The final concept was defined as a box/container with the maximum ability to capture water and release it for the plant concerned. The slow release of water helped to stabilize the micro-climate around the tree/plant, thereby giving it a higher chance of survival.

The development process, IPR and competition strategy

Based on the product concept, the next step was to build an actual proof-of-concept and prototype. This stage took a while and was partially financed by governmental funding. The CEO selected co-development partners who had experience in agricultural product development and industrialization, as this area of expertise was totally lacking in the core team. The collaboration was therefore essential to take the project to a marketable product. Overall, there was a lack of trust within the final consortium. Due to frictions (see below*) in the consortium, the CEO decided (as the lead partner) to seek new development partners, which caused additional delays to the final market introduction.

During this subsidized project, the CEO also encountered some issues with the government. He felt that the funded project required too much reporting effort and therefore slowed down work to reach the market introduction. The development process was completed with the new set of partners. They offered the same complementary skills as the original partners, but were 'managed' more maturely by the CEO in the form of better arrangements and contracts.

* The primary reason for friction has to be deduced indirectly from the interview, but it was probably due to the fact that the CEO felt very strongly about his contribution to the project. He was not willing to share any commercial success with the other partners. On the other hand, the other parties expected a bigger share in the commercialization of the plant containers. This led to a split in the consortium and the development

of rival concepts for which ownership is still being disputed in legal proceedings.

Commercial parties were co-developing the product. There were specific agreements on developed IP and NDA. However, some (consecutive) development partners did not respect this agreement and marketed very similar solutions on their own after the partnership ended. Up until today, the CEO struggles with several competitors, some of whom were involved in the original development project. He claims that those parties are infringing his patents but tries to avoid taking legal action.

The USP was a cost-efficient solution to grow plants that required very little after sales care or irrigation. The inventor was convinced that no adequate solutions were available based on his contacts with end-users. Due to this conviction, he carried out only a light online scan of the competition. Over the years, new (similar) competing products popped up, and on its website our focal SME started to position itself as 'first on the market' and refer to competitors as imitation concepts.

Commercialization and follow-up

The company had no experience of industrializing a product and bringing it to the market. The CEO had a wide personal network of farmers and agricultural organizations but underestimated the gap between development and commercialization. Scaling-up and production were done together with the industrialization partner who took care of specifying the materials, the production process as well as production outsourcing. The product was launched and sold in several countries around Africa, the Middle East and Central America.

The company is still a very lean team, in which staff have multiple roles and work with little structured procedures.

One of the company's key marketing channels is its PR activities. The company has won several prizes for ecological and sustainable innovation at global conferences and in other contexts. This leads yearly to increased exposure. Furthermore, they work with local distributors/ business developers to help promote their portfolio to institutions and private organizations. They also have an elaborate online website with movies, instruction manuals, an app, a press page and a free e-book on climate change to download (written by the CEO).

New follow-up projects are being initiated in order to increase the efficiency of the product and develop complementary solutions alongside the core invention.

BUSINESS IMPACT

The CEO and the company have gained valuable insights into how to industrialize a product and gain a foothold in under-explored markets. The market uptake of the innovation was achieved thanks to the collaboration of various partners.

In addition to the recently acquired skills, the company has learnt to cope with imitations and negotiate contracts and agreements in a more thorough and formal way.

The open innovation project led to the launch of the new product which is currently sold in three regions (Africa, Central America and the Middle East).

LESSONS LEARNED

The case demonstrates the value of open innovation for individual inventors. In this case, it was a former farmer who was able to define the concept, but for the rest of the process he was dependent on external partners. This led to misaligned perceptions of the value contributed by different partners, which, in turn, caused conflicts when dealing with shared IP and commercial results.

Main lessons learned:

1. Contracts and well negotiated partnerships are not always sufficient to build trust. Strategic and cultural fit is equally important.
2. Building trust and getting aligned is an important step to gain transparency and remain loyal to the co-creation, even in moments when progress is challenging. Not even contracts can secure against this kind of risk. The CEO now performs more profound exploratory talks when selecting potential partners in order to understand whether there is a strong business and strategic fit.
3. Government programmes are viewed as introducing additional complexity. Due to his bad experience with previous co-funded (subsidy) programmes, the CEO claims to prefer projects with lower financial complexity (e.g. private funding or customers pre-ordering new products while they are still in the development phase).

4. An agile co-development method is valuable in open innovation projects. Development tracks should remain output-oriented to maintain the pace and energy in the cooperation. Whenever teams slow down, progress tends to stagnate, which leads to delayed market introduction and missed revenue for all parties. Moreover, parties may lose their motivation to cooperate.