MARKET LEADERSHIP THROUGH INNOVATION

Introduction

Apple, Tesla and Facebook are great examples of well-known and successful innovative companies. Of course, innovation is not new. Companies have been trying to get ahead of their competition or develop their own market by means of innovation for decades. Creating innovative products is not easy. In this white paper, we elaborate on three challenges a lot of innovative companies are faced with. The case study explains how AFA Dispensing's Research and Development (R&D) department deals with these challenges.

AFA Dispensing

AFA Dispensing (AFA), world leader in technologically advanced liquid dispensing systems, focusses on innovation and offers solutions for diverse dispensing challenges by the application of proprietary technologies. Their product range consists of pre-compression sprayers (OpUs, OpAd and OpTion), an airtight and propellant free aerosol like dispenser (Flairosol) and the most advanced spray mop on the market (Samba). Furthermore, AFA also develops custom applications in cooperation with for example Heineken and Unilever.

AFA offers its customers a one-stop solution from the moment they are first engaged with AFA. This is made possible, amongst others, by the high-level research and development, its mass-production capabilities in Europe and China and its customer care.

The challenges of innovation

AFA's key to success is innovation. Innovation however, poses a lot of challenges. The road to innovation comes with a lot of hurdles, bumps and competition. However, the one conquering these challenges will become market leader.

A company must continue to innovate, because of the ever changing needs of consumers, technology and competition. Long term leadership demands continuous innovation. The following three factors prevent companies from investing time and money in innovation:

1. Companies are afraid to cannibalize their own product and stop innovating. As a result, they are overtaken by new companies and existing competitors.

2. Bureaucracy causes a major problem for a lot of companies. As a result, investments in innovations are being discouraged, which causes a threat to the marketing of the product.

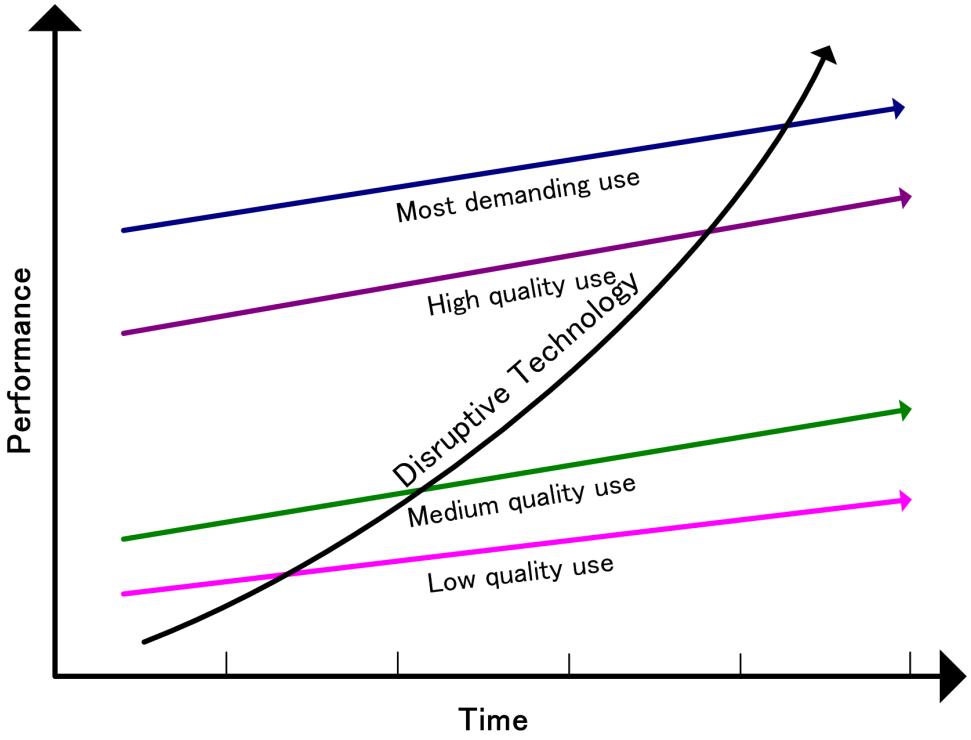
3. A lot of companies have difficulty marketing a product to the general public.

Challenge 1: Learn how to cannibalize

Companies are afraid for the redundancy of their old successful products when innovating and thus cannibalize their own production line. However, it is better to make your own product redundant by creating a new one, then to stop developing and let competition get ahead of you.

In 1997, Clayton Christensen, professor at Harvard Business School, described the disruptive innovation theory in his book 'The innovator's Dilemma'. Disruptive innovation describes a process by which a product or service takes root initially at the bottom of the market, often moves up market unnoticed and eventually displaces established competitors.

Disruptive businesses are – especially in their early days - characterized by: small margins and target groups and simple products and services which initially don't seem as appealing as the existing products. According to Christensen, most companies are focused too much on innovations that protect their current market position, instead of determining the reason behind their initial success. That will automatically allow for disruptive innovators.



Clayton Christensen's Disruptive Innovation

A good example of a disruptive innovation is the emergence of Google Maps on smartphones. When Google was still developing Google Maps for the desktop, TomTom was market leader in the field of navigation technology. In no time, every car was equipped with a digital navigation system, meaning no more hassle with maps or the planning of routes. TomTom developed several navigation systems in different price ranges, but did not pay any attention to Google. Without TomTom realizing what was happening, Google implemented its Maps on the smartphone, causing TomTom's navigation system to become a product consumers thought unnecessary and too expensive.

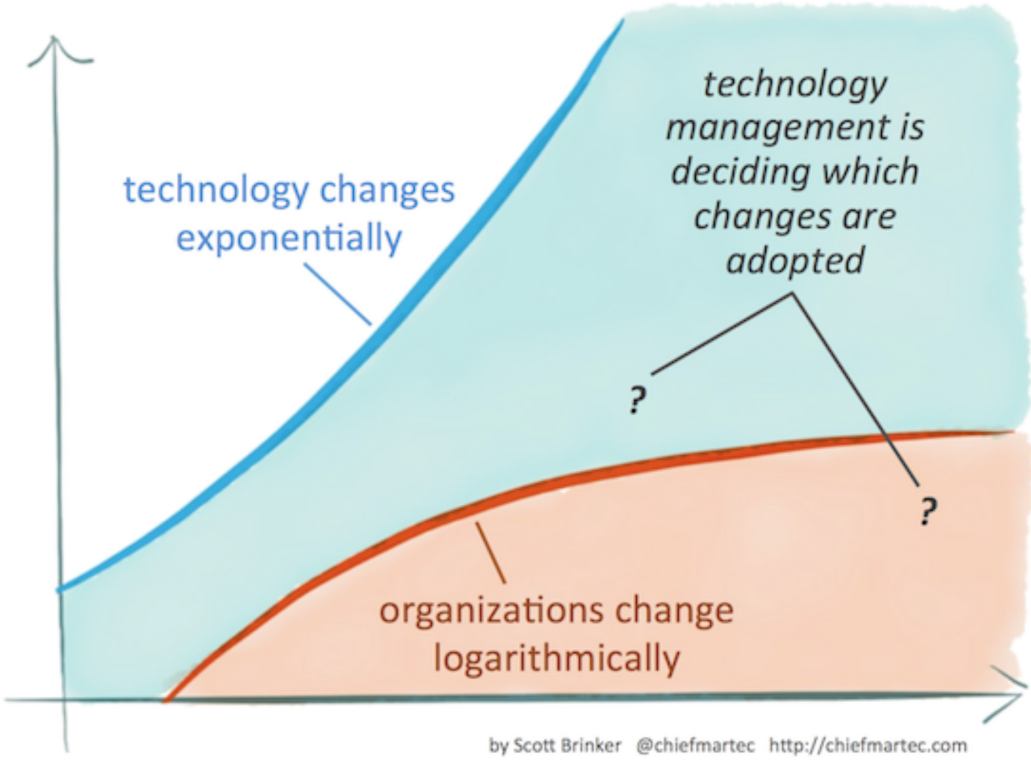
Christensen's theory is commonly used; it however also receives a lot of criticism. Jill Lepore wrote an article for The New Yorker, criticizing the research qualities and conclusions of Christensen's theory.

Despite the criticism, the theory is very useful when looking at existing companies, since it pinpoints the problem areas. A lot of existing companies lag behind, because they rely too much on the old products. This explains why successful market leaders like TomTom, loose their leading position.

> *"A lot of companies lag behind, because they rely too much on the old products."*

It is therefore very important that you as a company stay focused and keep an eye on the competition. New competitors will emerge, but also existing competition will continue to develop. Not only the R&D department, where new ideas are being developed, must remain focused, also management must dare to abandon traditional business models to stay ahead of the competition.

Challenge 2: Dare to change



Scott Brinker's Martec's Law of Disruption

In 2013, marketing technologist Scott Brinker described Martec's Law of Disruption. Brinker used this theory to point out that technology develops faster than companies. He uses Moore's Law to show the exponential growth of today's technology. The law predicts that the capacity of computers doubles every 1.5 years, while the costs remain the same. Companies however, change very slowly. People need time to adjust their way of thinking and their corresponding behavior. Large companies with existing structures, processes and motivations have even more difficulty turning the tide. Therefore the biggest management problem of this century is the relation between the two curves: Technology changes faster than the company's ability to accommodate these changes.

> *"Martec's Law: Technology changes exponentially; organizations change logarithmically."*

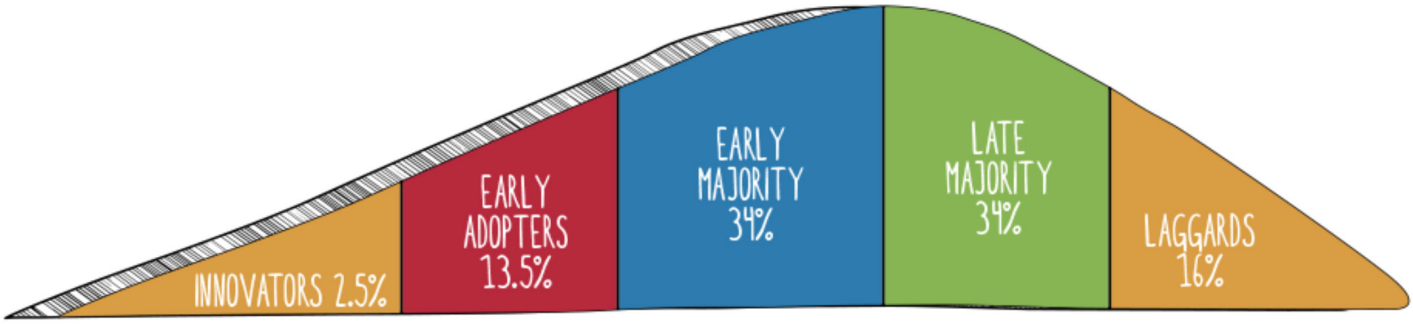
It is impossible to implement all modern technologies, but a company can choose between the various possibilities. A company should ideally choose the technologies best suited for the general strategy of the organization.

However, it is not mere the choice of which technological changes to adopt or how to deal with the implementation of those technologies. To be successful, one must regard how these technologies are perceived within the organization. This process of perception takes a lot of time and energy. The team responsible for implementing the technologies, must therefore include the rest of the organization in this process and coach, educate, train and especially inspire their colleagues.

Challenge 3: Get to know the market

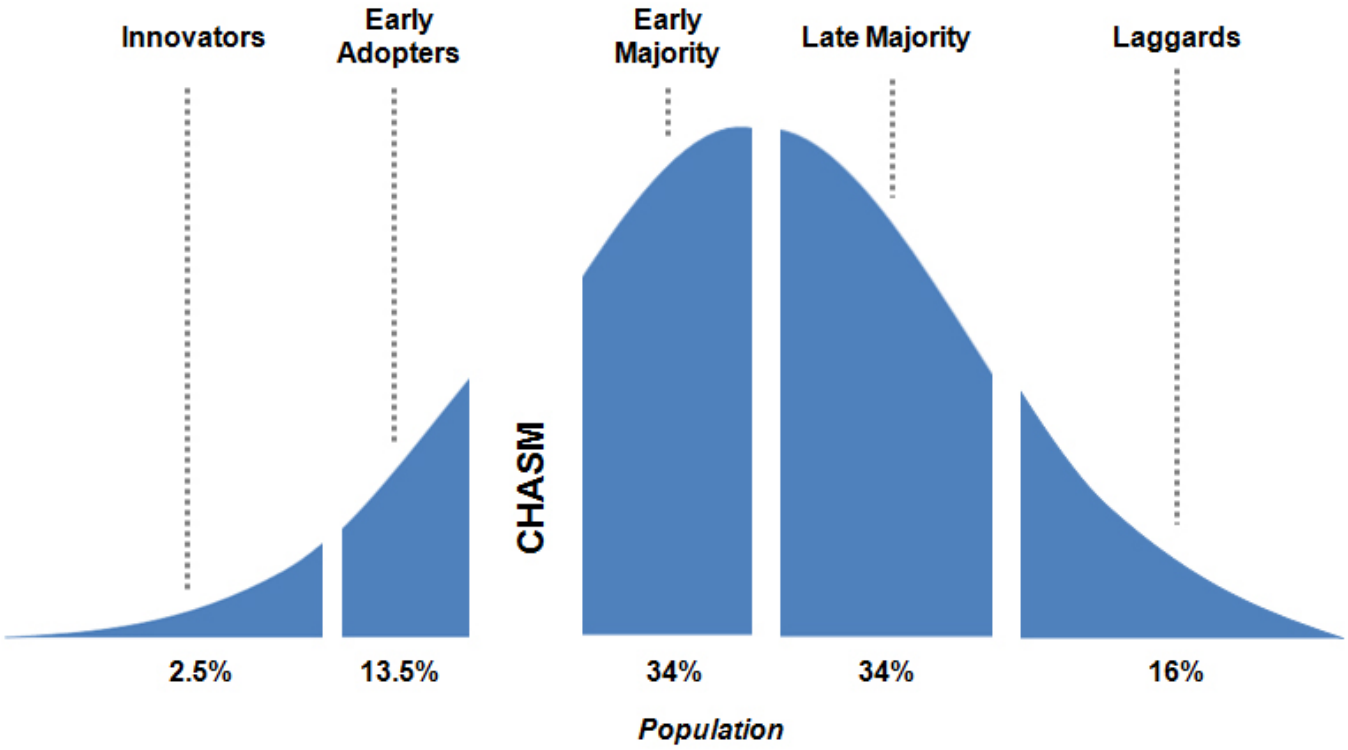
When all the links within a company are connected and a great product has been developed, this product has to be brought to market. However, the consumer cannot be seen as one homogeneous group. The marketing of the product presents some challenges.

According to the innovation theory described in Everett Rogers' book 'Diffusion of Innovations', the consumer can be divided into five different groups: innovators (2.5 %), early adopters (13.5%), early majority (34%), late majority (34%) and the laggards (16%). The consumer approach of a marketeer starts from left to right. So he starts by winning over the innovators. Then, as the market is growing, he will shift his focus to the early adopters, then the early majority and late majority and finally the laggards. Each group serves as a reference for the transition to the next group.



Everett Rogers Diffusion of Innovation Model

According to Geoffrey A. Moore, this theory is not correct with regards to the B2B technology market (from manufacturer to customer). In his book 'Crossing the Chasm' he explains that there are cracks in the curve, between the different groups. These cracks represent the difficulty any group will have in accepting a new product if it is presented the same way as it was to the previous group.



Geoffrey A. Moore's revised Diffusion of Innovation Model

The chasm is a wide gap between the early adopters and the early majority. Organizations often do not notice this gap, because the wishes of the two groups seem very similar at first sight. However, the basis on which the sales are founded is completely different. By being the first to adopt a change in the industry, the early adopter expects to gain a head start over the competition and is therefore willing to accept any bugs and 'teething problems'.

The early majority on the ovther hand, is seeking to buy a technology that improves the productivity of existing activities. They want to improve the technology, not make it redundant. They will maintain the established ways of doing business and will not accept any 'teething problems'.

In order to bridge the chasm, Moore argues that a company should focus on one single market. Subsequently, this will offer access to the other markets. Try to dominate a small specific market first and use that market as a stepping stone into the adjacent bigger market segments.

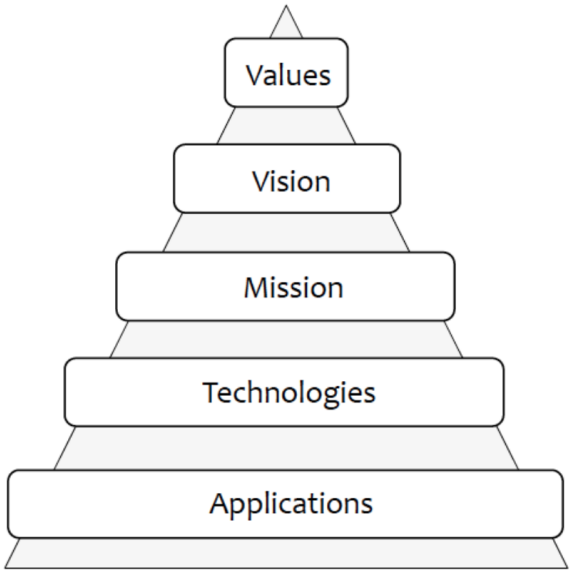
CASE STUDY: INNOVATION MEANS SUFFERING

This case study gives an insight into the Research & Development (R&D) Department of AFA. We will discuss the challenges of innovation this department faces. Wim Maas has been running this department for years, and gladly explains how AFA's R&D department deals with the challenges of the business.

Shortly after being founded as a custom moulding company in 1965, AFA started manufacturing its own products. Wim Maas started working for AFA in 1976. The first project he was assigned to was the development of sprayers for the consumer market. These sprayers were the first to be put to market throughout Europe. Since then, AFA has continued to focus on the development of its own technologies. Technologies, which enable the sales of unique liquid dispensing systems throughout the world.

AFA development philosophy

We base our values, vision and mission and the technology we use to develop our products on a philosophy. We respect and use the laws of nature when developing dispensing solutions. We do this both from the project's point of view and from an environmental and sustainable point of view. In this respect, we also pay attention to the materials we use.



We have a clear vision. I have plans here that define the goals the company wants to have achieved in 5 years' time. Technology only takes fourth place in the development pyramid, as the figure shows. When you know what you want and what you do and you use the appropriate philosophy, the product will develop itself.

> *"We respect and use the laws of nature when we create dispensing solutions."*

It is our mission to give our customers a head start in the market and to provide the consumer with the best sustainable dispensing solution. 'The product should do what it is supposed to do', says Wim.

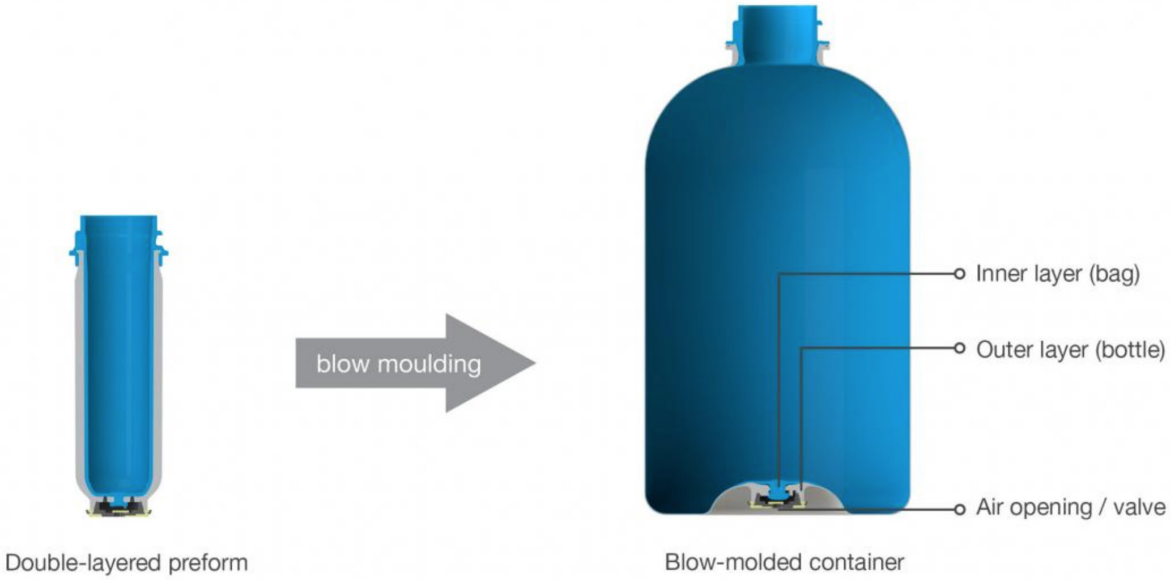
We respect the laws of nature because of scientific and environmental reasons. AFA supplies disposable products. We strive to manufacture products which can be fully recycled. The materials must be related to such extent that they are recyclable. We are no idealistic company, but we do respect the environment, even in the designing phase of a product.

Our work is based on three platforms. The OnePackTM provides control over the content. The FlairTM isolates the content and checks the propellant. The DuO1TM checks the continuous pressure, exactly fine-tuned to the requirements of the dispensing device.

Technology

We are currently producing bag-in-bottle systems which operate according to the Flair technology as described below. We suck in liquid and propellant and mix them at the last moment. Other than that we keep them completely separated. This is all about balance, which fits perfectly with our philosophy. We don't copy, we innovate.

These systems work fairly simple: We manufacture a preform on the bases of a mould. We then inject another material forming a bag inside the mould. We can ship the deflated preform anywhere in the world. Once on location, the preform containing the bag will be inflated into a bottle. The fact that the propellant is being blown into the bottle from the bottom, makes the Flair technology so special. When used, the propellant also disperses from bottom to top, causing two different circuits. A lot of the current products operate according to a different principle. When using the current mayonnaise bottle for example, the propellant goes in the bottle the same place the mayonnaise comes out. In the future we will also work on a bag-in-bottle system for products such as mayonnaise and ketchup.

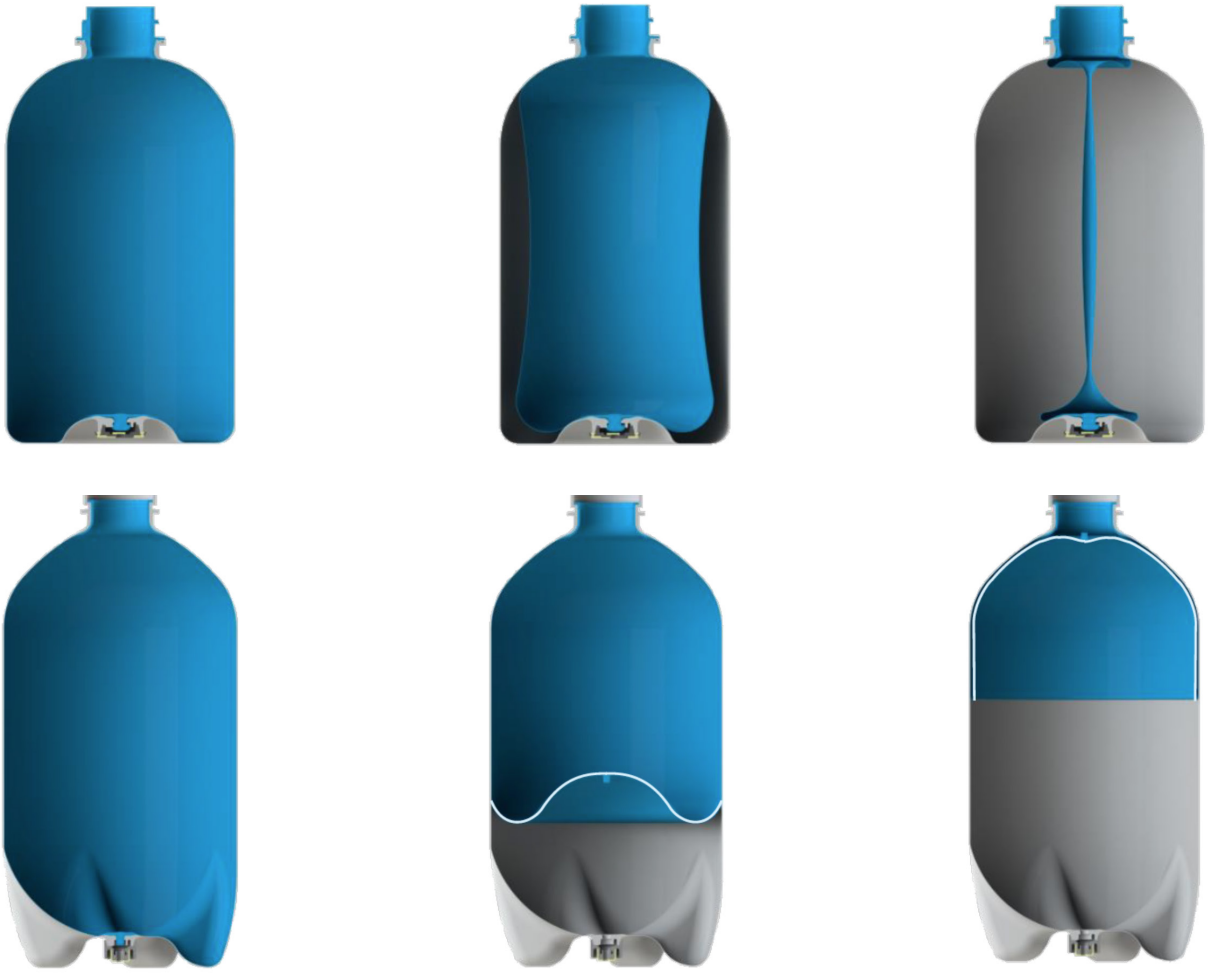


The shelf life of a product increases, because the product is not exposed to air. Currently, products such as mayonnaise are offered to supermarkets with a shelf life of 1.5 years. However, the problem arises when you open the bottle and the product is exposed to air. This will cause the start of the oxidation process. We prevent this from happening, because we keep the product and propellant separated. It is all one way. Contact between product and propellant is avoided. Consequently, the product is not perishable. Our technology is unique in the sense that we can guarantee a certain shelf life after the consumer has bought the product and has opened the bottle. This also helps the prevention of food wastage. If we can fill and package a product this way, we increase the shelf life of a product. That is the purpose of our product.

With this unique product, we both give our customers a head start and offer consumers a better product. That is also part of our philosophy. The product consists of many thousands, perhaps even ten thousands, of details. It is in fact art. When looking at a painting, you pay attention to the details. We do the same with our products. There are so many aspects involved, but the most important difference is the way the circuits are built. The quality of a product lies in its simplicity. Everybody can build something with hundreds of thousands of components. However, the challenge is to keep it simple. The simpler the product, the more complicated its technology.

> *“Everyone can build something with hundreds of thousands of components. However, the challenge is to keep it simple. The simpler a product, the more complicated its technology.”*

We have two sorts of bag-in-bottle models. One model contains a bag which is attached to the bottom of the bottle and the other has a bag which is glued to the sides of the bottle. This gluing process takes place when the tube is inflated into a bottle. This last technique is especially meant for viscous products such as ice.



Be in control

You must be in control of the liquid. That is also part of our philosophy: to keep control over the entire product and process. We watch the behaviour of a liquid.

It is of the utmost importance that the product is separated from the propellant. Propellant is compressible. A product which is not compressible can be controlled.

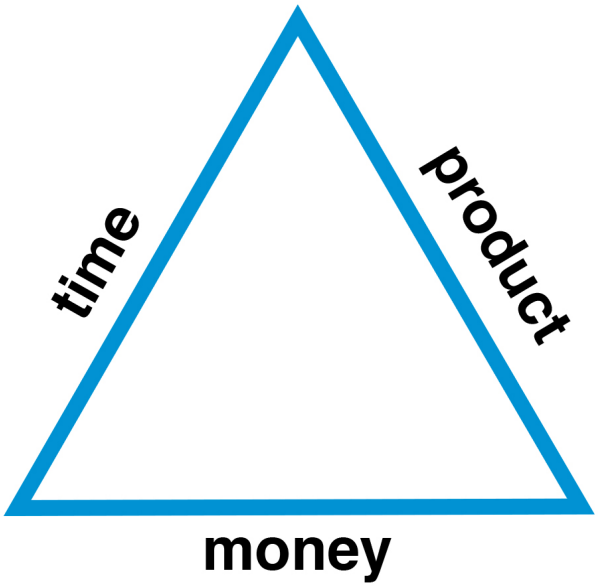
I especially focus on vision and concept development. I monitor all processes. Our team consists of 11 professionals and I know everybody's tasks. Perhaps I am a control freak, I monitor everything. Sometimes, we hire external professionals for a project. However, nobody is allowed to change the heart of the system.

Innovation is key

Our products remain on the market for a longer period of time, because we are innovators and do not follow the competition.

It is all about innovation. If you do not innovate, you might as well quit. The sprayers we manufactured in 1998 are no longer on the market. Our competition which lags behind will all be eliminated because of this. Our biggest advantage is that these companies do not innovate and we do.

Product, time and money, it all has to come together. It is the thought behind the product that is important. How am I going to develop a product, how do I want to do that. It is a very visionary process. A process you shouldn't talk about too much. You shouldn't disturb a brooding hen either. Only when all pieces come together, you can share your ideas with other people.



There are times when you only see obstacles. However, we do have the power and energy to overcome these obstacles. Where 90% of the researchers stop, we continue. That is also the power behind innovation. Sometimes you cannot move ahead because of an obstacle. Together you have to find a way to get past it. That is quite painful sometimes.

You should rely on your own strengths and work through the night sometimes. However, in the end you will overcome that obstacle. You always do. When you have a plan and you stick to that plan, things will always work out. Innovation means suffering. You have a goal you would like to achieve. You must not be afraid to take on the bumps in the road. If you are, you will never reach your goal. If you have been in R&D for quite some time, you start to think at one point "things have been worse".

"Innovation means suffering. You have a goal you would like to achieve. You must not be afraid to take on the bumps in the road. If you are, you will never reach your goal"

Conclusion

In a market, where most dispensing packages are fast becoming commodities, branded products are facing increased competition from private labels. AFA provides the solution by applying its proprietary technologies as a platform for developing new ways to dispense all types of liquids, beverages, soft food products and other fluids. AFA offers its customers a comprehensive solution, combining the service of its renowned Liquid Dispensing R&D Center, its mass-production capabilities and its customer care on three continents to create an enlightening, creative and satisfying experience from the moment the customer is first engaged with AFA.

AFA's ability to offer dispensing solutions that enrich its customers' brands is a function of AFA's innovation philosophy: separating the liquid from its propellant and thereby achieving control over the liquid flow and its dispensing. Accordingly, all of AFA's products are based on its proprietary bottle and dispenser platforms, which give the product designer great flexibility in terms of controlling the liquid and determining its intensity, as well as the timing and location of its interaction with the propellant medium. Consequently, products that use AFA's dispensing packages provide greater value to the consumer, such as longer shelf life, a drip-free experience, measured-dose and fine-mist dispensing, a thick-foam option, upside-down dispensing and a 100% evacuation rate.