

Innovation Intent & Capability

A Statement of Intent for Innovation, Analysis of Company's Innovative Capability & Strategic Recommendations for Innovation

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/ NEW ENGINEERS
DEVELOPMENT

Executive Summary

Modderkolk Projects & Maintenance B.V. wants to become an ever-flourishing company. In order to reach that goal, good organization and planning is necessary. The current organizational structure of the company already helps to support short-communication lines and allow for employee autonomy to radically serve customer needs. The company is still hindered by inefficient planning, caused by too many starts and stops within processes. To address this problem, Modderkolk has an innovation goal of having a fully autonomous production line that has real-time monitoring for insights. To help identify how Modderkolk can increase the innovative capability in order to successfully reach this goal, an analysis is completed on various company activities and attributes. From this analysis on company strategy, organization, process, competences, and culture, it is recommended for the company to have an explicit innovation strategy. Recommendations are given on some initiatives that can be included in the innovation strategy.

Introduction

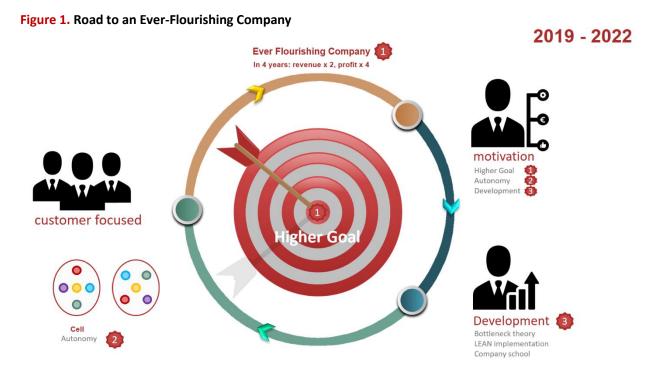
Change is inevitable and organizations need to be able to adapt accordingly. In order to do, innovation is needed. Innovation can involve products, processes, or even ideas to help a company maintain their competitive edge. More specifically, innovation is "a viable offering that is new to a specific context and time, creating user and provider value" (Kumar, 2012).

As innovation can be a catalyst for scaling up a company, it can affect different aspects of the company – from organizational strategy to culture. Vice versa, the aspects and characteristics of the company can also determine how an innovation will thrive. It is important to study the company dynamics and understand the characteristics of the intended innovation. This will allow for the innovation to be well managed, such that it can generate value and support the goals of the organization.

The following sections explain the motivation that drives Modderkolk to innovate and what their innovation goal is. Different aspects of the company is analyzed to understand where the organization stands, regarding the capability to innovate. Recommendations are made for the first steps that Modderkolk can start taking to improve their innovative capability.

Why Innovate?

Modderkolk wants to become an ever-flourishing company. The strategy for this can be seen in Figure 1 below. **The goal is to double the revenue and quadruple the profit within 4 years' time.**



To achieve this goal, the company is organized in a cell structure, based on the philosophy of Eckhart Wintzen. As opposed to a hierarchical structure, the cell structure has a shorter communication line and centers around the

customers. This allows Modderkolk to serve customers beyond their expectations. With each cell being less than 50 people, there is a friendly atmosphere in which customers can easily approach with their needs and problems.

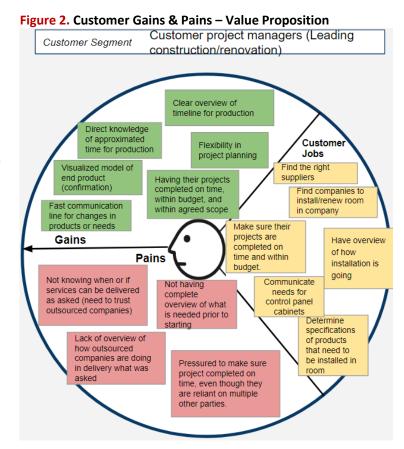
What is crucial for Modderkolk to be able to optimally serve the customers is people. It is essential to have people who believe in the company's mission. Employees should be intrinsically motivated to learn and to work. To help employees reach their full potential, the company has multiple initiatives that invest in their development, such as the company school and educational collaborations with other companies. For an efficient work environment, Modderkolk strives to continuously improve processes through implementations of LEAN.

Altogether, the modelled strategy towards an ever-flourishing company makes a cycle that is comparable to the scaling-up cycle (People-Strategy-Execution-Cash). It begins with having the right people in the right positions. With a clearly defined strategy, when executed with discipline, cash flow is generated. This can then be used to further develop people.

For the cycle to be executed flawlessly, good organization and planning is crucial. The cell organizational structure has already been implemented in 2011 as a solution to organization. To further help employees to work optimally, Modderkolk still needs to optimize their planning system.

There are bottlenecks in workflows caused by frequent starts and stops within processes. The root cause for this is the need to adapt to customer's wishes. Upon first contact, customers do not have their product requirements and specifications properly defined. This is due to the pressure for them to quickly complete their projects. The duration of the projects is considered downtime for their businesses. The faster their project is completed, the sooner their businesses can run smoothly again. A description of the customers – jobs, gains, and pains – can be found in Figure 2, adapted from the Value Proposition Canvas.

Due to the time pressure, customers expect Modderkolk to begin production without complete information and to be ready for any changes in product specifications. This makes it difficult to approximate the amount of time projects will take to get to completion.



Because of this need to optimize time optimize time and resources, Modderkolk needs to innovate in order to become an ever-flourishing company. If the production lead time can be reduced, customers can have more time to concretize their specifications. Furthermore, if data is collected from the production process, insights can be gained to help plan and manage project time. This will result in an optimal work flow for both Modderkolk and their customers.

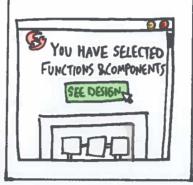
Innovation Goals

The innovation intent of Modderkolk is to integrate and automate the production process, such that valuable insights can be drawn to optimize organization work flow. The big hairy audacious goal (BHAG) is to have 90% of electrical panel cabinets produced by a fully autonomous production line by the year 2028, with real-time monitoring available. The vision of the service innovation can be seen in Figure 3.

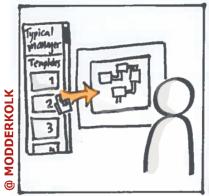
Figure 3. Vision Storyboard

- Customer selects specifications for cabinet design.
- Customer is directly notified of when designs are made and are able to see draft and give feedback.
- Customer gets real-time insight of production and can see approximate time needed for production.

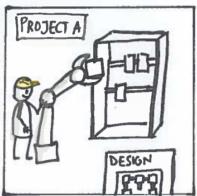












- Hardware engineer receives customer requirements and quickly makes designs using standardized templates.
- Incoming materials is checked and sorted to designated project with the help of a robot.
- Cabinet is assembled with the help of a robot.

This is an incremental innovation, also known as sustaining innovation. It builds on existing technologies and uses it to serve existing customers. As it will reduce the production lead time, it is a primary process innovation.

By making a service out of the production process, the value trickles down to benefit customers as well. This gives them the opportunity to make data-driven decisions. When customers better plan their projects, less start and stop times can be expected. This allows Modderkolk to also better plan the work flow to reduce waste of time and resources. With the help of this innovation, Modderkolk's goal is to have 95% of projects completed on time and within budget. The remaining 5% is still to be completed with above-market-average performance.

With ambitious visions, Modderkolk utilizes the moonshot mentality. Through this visionary thinking, the company wants to ignite positive change that drives the growth of innovative capability – from skills to culture (Keeley, 2013).

The company's ambition is to create a breakthrough in project planning and become a prospector in the market. As of now, Modderkolk is a defender that maintains the market, but in order to grow into an ever-flourishing company they need to be able to simultaneously exploit existing competencies and explore new opportunities (Schreuders & Legesse, 2012).

Innovation Scan

To analyze Modderkolk's innovative capability, 5 aspects of the company is examined: strategy, organization, process, competences, and culture. In different aspects, there are activities/attributes that help to promote innovation and some that challenges or deter the growth of innovation. In Table 1, the activities and attributes of Modderkolk (adapted from the Spring Company Innovation Scan) have been analyzed and sorted accordingly.

Table 1. Company Activities & Attributes Classified

	Innovation boosters	Innovation challengers
Strategy	 Business strategy nicely incorporates innovation Future-proof business model Have a general idea of what knowledge/tech is needed for innovation 	 No clearly defined/communicated innovation strategy (yet) Lack of clarity in where strengths are regarding tech, knowledge, and innovation Lack of policies to strengthen the position in tech, knowledge, and innovation
Organization	Organizational cell structure (minimized hierarchy)	 Difficulty aligning different processes (different cells, different subcultures) Lack of people; insufficient capacity to have fast/effective production and development; ineffective teams Imbalance in time and resources spent between existing business and innovation.
Process	 Multidisciplinary teams Creative and lots of idea generation Good ideas are not killed prematurely 	 Not much time is allocated for innovation; busy doing other things that need to be done Unsuccessful initiatives are not killed quickly enough Experiments not tested quickly enough
Competences	 Quite good at redesigning business models Continuous improvement of processes Analyzing trends and developments Recruiting innovative people 	, G
Culture	 Lots of support from top management Some cells are innovative 	 Rest of the company is still not caught up on innovation A lot being done on management level, a lot of plans; but no feeling of things being done yet Some cells do not yet see the need to innovate

The gap in Modderkolk's innovative capability can be identified from the list of innovation challengers in Table 1. These are the challenges that Modderkolk needs to overcome to efficiently reach their innovation goals.

Recommendations

The first important step that Modderkolk can take to increase their innovative capability is to **create a clear innovation strategy.** The innovation strategy should address the following topics:

- What is needed to reach the innovation goal;
- How to communicate innovation vision and strategy;
- Clear policies for stage-gate decision making; and
- Policies to support innovative activities and grow an innovation culture.

Even though a technology roadmap has been drafted for the innovation vision (see Appendix A), the needs to reach the innovation goal does not only involve technology. This innovation requires help from various stakeholders and in order to bring them along, a communication plan is needed.

As innovation is not as important to the rest of the company as to top management, a top-down approach can be used for communication. **An innovation workshop can be given to middle management** to increase awareness of innovation. This workshop should address what innovation is and communicate Modderkolk's innovation intention. It should be done in an inspiring way, such that the vision and strategy can be supported.

With support from both top and middle management to allocate time for innovation, employees should be encouraged to utilize the innovative technology to bring value to the company. It is important for people to know how the innovation can affect their roles and to understand any worries they may have and address them accordingly. This should be addressed in a carefully drafted communication plan.

With enthusiastic people who are willing to help, along with leaders who are daring to experiment and learn from failures, an innovative culture can be cultivated. This allows for an effective development process towards the innovation goals, with little resistance in cooperation.

A pitfall to this enthusiasm is that unsuccessful initiatives are not killed early enough. To prevent this from happening, the innovation funnel can be used for each initiative to make sure that ideas are viable.

It is also important to have a fail-fast environment. In order to create such an environment within each cell a 'Failure Wall' can be implemented at different locations. This wall can showcase different initiatives that failed and why they failed. By making it openly available to the whole cell, it is acknowledged that it is okay to fail and uses failure as a learning opportunity.

Modderkolk already has bits and pieces of innovation strategies intertwined in the organization strategy. By making an explicit innovation statement and strategy, importance is stressed on innovation. This can help to drive cultural growth and further support the organization's goals to become an ever-flourishing company.

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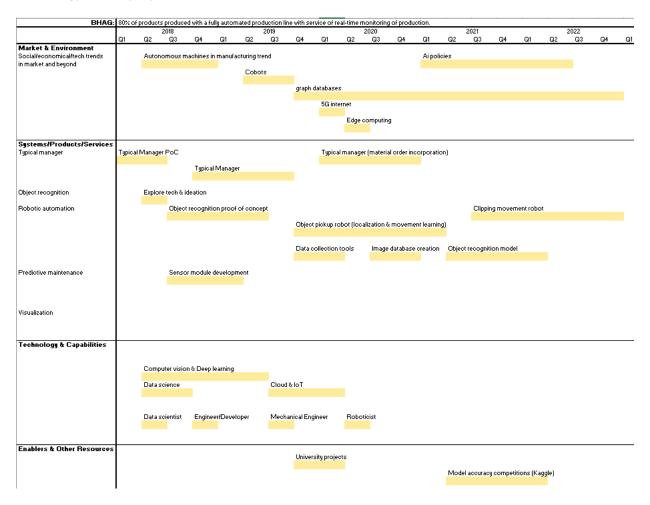
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Appendix A

Technology roadmap – part 1



Technology roadmap – part 2

