

Improving Hombli's ability to innovate by Design

MSc Thesis
Strategic Product Design

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Kind regards,
Sven

Executive Summary

This report describes the results of a graduation project, which was completed at Hombli, a brand of Avanca Internatiol B.V. Hombli offers smart home products, or electronic devices that are connected to the internet and are controllable via your phone. Hombli has the ambition to become a leader in the smart home domain. In order to achieve that the company wants to create Intellectual Property in the future and have a solid brand.

First of all Hombli's current positioning risks losing its uniqueness. Competitors also claim to be simple to use, easy to install and safe. Van der Vorst (2017) describes that this form of dilution in markets that are becoming more crowded can make a brand fade to the background and in turn lose revenue.

Secondly, the way it currently creates new products is sensitive to being copied by competitors. Hombli imports products from China, adjusts them to their liking and integrates it into their ecosystem of devices. This way of creating new products has already proven itself to be lucrative in the company's other brands Sinji and Avanca. However these brands do not aim to become a market leader with a unique identity. Many of these smart home products are also available to competitors, making it harder for Hombli to stand out, let alone create its own unique products. There seems to be missing a process to pursue new ideas.

A question rises when looking at these obstacles:

How can Hombli become a household name and create its own I.P.?

To answer this question a two step approach is proposed:

First a future direction will be designed, resulting in a clear and differentiating brand story for Hombli.

Second a new way of creating products, or innovation process will be designed as well as improving the existing way of innovating.

By doing trend research and using the trend spotting method (Simonse, 2017), a future scenario is created. Summarised it resulted in the following: Because of an increase of people suffering from mental stress and the home becoming an even more prominent space in people's lives, it makes sense for Hombli to **facilitate well being at home.**

This direction provides more clarity on what products the brands should create. Hombli employees should ask themselves: does this product truly improve the health and well being from my customers, or is it just a random product made smart?

With a new direction to head towards, the way the company currently innovates is analysed. The existing innovation process which focusses on sourcing products has some disadvantages. Lack of communication, no prioritisation and confusion about responsibilities result in unnecessary slack in the process and in turn hinders innovation. This then also leaves even less room for any exploratory activities.

Principles from the User Centered Design method from Abras, Maloney-Krichmar & Preece (2004) are used to redesign the current innovation process together with the employees that actually use it. A boundary object is created by drawing out the process on the wall. During the weekly sessions the different stages of the process are discussed, altered and put to practice with actual products. The process is altered to become more like the Stage Gate innovation model from Cooper (2008), ensuring all product ideas pass all the different stages. Advice is given on how to implement this in the organisation.

Then the process focussing on discovering new ideas is introduced. The different steps are explained and then put to practice with an actual product direction. Throughout the steps assumptions regarding the product direction are validated. This is done through initially desk research, then interviews with target users and an individual co-creation session. The product idea that results from that session is put to the test using a Smoke Test (Cops, 2020). A method used often by start-ups to see if their value proposition gains traction. The results of this step are positive and give a green light for next iterations.

Then recommendations are given to further expand the proposed changes in the company to have a lasting positive effect in the future. Concluding, limitations of this research are also shared.

Introduction

Innovation is one of those buzzwords you hear all the time, whether it is in commercials, in the news or at work. It seems a word everybody seems to fully grasp and associate with crazy new things, like the first iPhone, mp3 or the internet. However when you look at a large industry such as the automotive sector or mobile phones, truly something new is often hard to spot. Companies like Apple or Volkswagen constantly bring slightly better versions of one product to the market and they make healthy profits from it as well. This incremental innovation is the opposite of creating something truly new, radical innovation (Christensen, 1992).

This is not a statement about one being better than the other. But it is great to work on a graduation project that involves elements of both these forms of innovating. Avanca International has shown that by incrementally improving existing products, it can be profitable. The company does desire however to pursue a direction towards the more radical side. It needs to do so in order to create I.P.

In this report a proposal is made on how to enable Hombli to also pursue this radical side of innovation and improving its incremental way of innovating.

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Report Setup

Chapter 1 looks at the company's current brands and their history and discusses the company's past efforts regarding innovation. From this an approach for the project is derived.

Chapter 2 Contains the analysis of Hombli's current strategy. Where it comes from, what products the brand offers and the general opinion of the brand are shown here. Then a new future direction is derived, giving Hombli a new brand story. The impact of this new direction is also discussed and visualised in a road map

Chapter 3 dives into the way the company currently innovates. First this process is analysed and problems are explained. Then the approach and subsequent changes are described.

Chapter 4 contains the introduction of a new innovation process, designed to pursue new unproven ideas. This process is explained in depth with an actual use case.

Chapter 5 concludes the report with results of the project. Then next steps and recommendations are shown. The report ends with reflections on the approach taken and personal development .

1.0 Company overview

The focus of this chapter is to give an initial overview of what the parent company of Hombli consists of. Avanca International B.V. consists of four different brands: Avanca, Sinji, Ockel and Hombli (see figure 1). The former three are actively launching products at time of writing.

The four different brands are shortly discussed with each of their characteristics and products. Afterwards the way the company currently innovates is described in detail. Then a SWOT analysis is performed to quickly see what possibly stands in the way of Hombli becoming this innovative brand in smart home. Based on these findings an approach for the rest of the project is created.

A vertical rectangular card with a light gray gradient background. The word "avanca" is written in a bold, lowercase, sans-serif font with a registered trademark symbol (®) to its upper right.

avanca®

avancaproducts.com



sinjiproducts.com

A vertical rectangular card with a black background. The word "Ockel" is written in a bold, lowercase, sans-serif font in white.

Ockel

ockelcomputers.com

A vertical rectangular card with a yellow-to-green gradient background. The word "hombli" is written in a bold, lowercase, sans-serif font. Below it, the tagline "A SMART HOME FOR EVERYONE" is written in a smaller, uppercase, sans-serif font.

hombli
A SMART
HOME FOR
EVERYONE

hombli.com

1.1 Avanca



Avanca International B.V. is a company specialised in sourcing and designing products for its brands. The initial brand, Avanca, was founded by Tim Haaksma back in 2007. The first product that became a success was the importing and selling of a laptop stand.

Avanca expanded and diversified its product portfolio over the years, predominantly into electronics and accessories for pc's and phones. The company created these products by sourcing existing products from China, sometimes slightly modifying them and re-selling them through its network of distributors. The company has had its successes with launching many different products.

When Avanca became a supplier for Groupon, its revenue increased greatly. It even landed Avanca International B.V. multiple prizes for being one of the fastest growing companies in terms of revenue. Through Groupon Avanca was able to sell easily to the entire European market.

Recently Avanca has been 'rebooted' after not having a new product launch in over a year. It focuses on wireless charging accessories for the new iPhone 12 (see figure 2). The company later expanded with three other brands Sinji, Ockel and finally Hombli.



Figure 2: Avanca Wireless charger,

1.2 Sinji



Sinji is the company's trading brand. The name is an acronym for Sales Is Not Just Innovation, highlighting its main purpose: getting sales fast and easy with products that are in high demand at that moment. All sorts of products have been sold under the Sinji brand: mosquito lamps, beach backpacks and recently thermometers and smartwatches (see figure 3) to name a few Sinji (2021).

Sinji is the company's current cashcow and it is powered by the company's ability and experience to quickly produce and sell products through its vast network of distributors and market places. There is also less attention to detail with these products to speed up its time to market. Manuals are not as well thought out, the products have a lower build quality and look and feel of packaging have less work put into them as opposed to the other brands in Avanca International's portfolio. Sinji products are also priced to match these characteristics.

The laser thermometer is a good example of a recent successful Sinji product. Due to Covid-19 restrictions, the demand for a thermometer that can measure body heat without the need of physical contact increased dramatically. With Sinji the company was able to source and order large quantities as fast as possible, selling large quantities of them to a large super market chain. Generating plenty of revenue for the company.



Figure 3: Sinji Smartwatch (Sinji, 2021a)

1.3 Ockel



Ockel

Due to the company's overall success it saw space to pursue an opportunity. It was the company's largest effort yet in developing and launching a standalone product. An idea originated from the company owner where he saw a convergence between the mobile and pc world: specifically mobile devices that function fully as a PC and are able to run an OS like Windows 10 (Haaksma, 2020). The product was successfully funded by collecting a million euros on crowdfunding platform Indiegogo (Ockel, 2020a). Iterating on the feedback from their initial customers, the company designed a newer version you can see in figure 4: the Sirius A with an integrated screen.

Unfortunately this product was not the success Avanca International B.V. had hoped it would be. The Sirius A was according to reviews a product without a real use case. It tried to be a cheap student pc, a home media device and a portable work station. According to a review from Bright, the Ockel is full of contradictory possibilities, but it does not really shine in one of them (Doggen, 2018). It was a clear sign that for the many different use cases the Ockel could be used for, there are better alternatives.

Due to the decline of Groupon, the company lost a major part of its cashflow, making it harder and harder to keep investing in development of such a complex product like the Ockel, which was not gaining much traction. It was then decided to cut costs and start to focus on its other brands Sinji and Hombli.



Figure 4: Ockel Sirius A (Ockel, 2020b)

1.4 Hombli

hombli

A Smart Home for Everyone

With the Ockel project on the shelf, the company started to focus on a new brand with another category of products named Hombli. Hombli started off with a mission: making smart home attractive to a wider audience.

To lower the threshold for people towards buying smart home products, Hombli focusses on making products user friendly. Next to that Hombli offers a diverse line of products, such as light bulbs, camera's and sockets instead of focussing on just one product like the Ring doorbell. These products are, similar to Avanca and Sinj, sourced in China, adapted slightly to fit the brand, and then sold through their network of resellers and distributors.

The main difference with the other brands is that Hombli solely focusses on smart home and that all these products are controlled through the Hombli app from a smartphone (see figure 5).

The company was able to create this app and launch all these smart products because of Tuya. Tuya is an IoT platform that allows companies to make any product smart using their chips (Tuya, 2021). Next to that it offers services such as an app builder, so a company can make a custom app, a dashboard interface that gives insights on product activation and usage and a marketplace where companies can be connected to manufacturers.

All these services made it easy for Hombli to start launching smart products under their name. It eliminated the need to develop their own software and hardware and Tuya already had a successful track record with other companies. This did however bring one downside. Tuya not only lowered the threshold for Hombli to step into the smart home market, it did so for everyone. The risk of competitors doing the same thing and offering similar products is large. It is relatively easy for a competitor to copy Hombli.



Figure 5: Hombli app (Hombli, 2020)

1.5 Incremental innovation

When looking at the products the company sells under its different brands, it is clear that nearly all of their products already exist. The company has substantial experience with sourcing and adjusting products that can be found on platforms such as Alibaba.com. When it is decided that a product is going to be launched under one of Avanca International's brands, the supplier is contacted and perhaps slight adjustments are made in terms of logo placement or colour.

When it comes to smart products for Hombli, the manufacturer is asked to add a Tuya chip to be able to integrate the product into the Hombli ecosystem and therefore improve its overall experience. These minor changes could be described as a form of incremental innovation. Christensen (1992) describes incremental innovation as improving the performance of a component of a product without making significant changes to the technical relationship among those components. Hombli takes this to the extreme by keeping the product as it is technically and then integrating it into their product ecosystem. This is not a bad thing necessarily. The company has shown with its Sinji brand that selling existing products can be very lucrative. Also when looking at the base products in Hombli's offering, such as lightbulbs and smart sockets, there is no need to reinvent the wheel. For these simple products it makes sense to just buy a 'finished' product. However, the company is trying to do something more with Hombli: Hombli needs to become a solid standalone smart home brand. This requires products that bring more to the table and have more complexity as opposed to a bulb. This brings some challenges when it comes to the way the company innovates:

Sticking to the story

With a great brand comes great responsibility. Since the products need to fit with the overall brand story of well being at home, Hombli can not be selling products that are in no way related to this story. Especially when this brand is still unknown and is trying to have its identity remem-

bered by consumers. It can not be like Sinji and sell tripods on one day and sell thermometers on the next (Sinji, 2021). It needs to be careful on what products it chooses to sell. The drawback of this is that Hombli can not jump on the hype of the day like Sinji can. It can however get higher margins for its products, since people are buying not just the product, but also the brand it is from.

Copycats

The downside of selling mostly existing products is that other companies can also get their hands on the products and do the same thing. Hombli can not generate I.P. from this way of innovating and protect its position from others.

This obviously takes away the brand's uniqueness and compromises its ability to ask higher prices: your competitors can sell it for less with relative ease.

Dependency on suppliers

Selling products from existing sources also makes Hombli heavily dependent on those sources. Hombli as a standalone brand becomes dependent on those Chinese manufacturers for bringing out a new product that is relevant for Hombli's smart home experience and product portfolio. It is then also hard to become a leader in this market.

What does this mean?

It becomes clear that by just selling existing products, the company risks not being able to live up to the story it is trying to convey. It is dependent on what manufacturers choose to produce and competitors can produce similar products with relative ease. The company needs to find a way to innovate beyond what is already out there. This can make Hombli stand out from the crowd of competitors, be less dependent on what manufacturers come up with and create products that truly fit the brand.

1.6 Conclusion

If we look at the activities Avanca International B.V. has undertaken with its different brands it becomes apparent that there are some threats and opportunities for the company's ability to pursue new I.P. Putting all those factors in a SWOT diagram, the following can be derived (figure 6).

Strengths

- Portfolio of different brands with their own characteristics and products: allows for diversification and spreading risk
- Vast experience with working with manufacturers overseas
- Strong network of distributors and resellers

Weaknesses

- No successful development of I.P. so far: indicating a solid process is missing
- Used to adopting or buying other products or technology (Tuya)
- No inhouse software development
- Dependency on suppliers

Opportunities

- Growing market of smart home
- Market of smart home is not matured yet

Threats

- Vast amount of competition
- Hombli falling in the trap of becoming another trade brand

Figure 6: SWOT Analysis regarding the company's ability to pursue new I.P.

From Avanca, Sinji and mostly Hombli it can be said that the company is experienced in quickly buying and adapting existing products and selling those products through its network of distributors and resellers. The company has done so since its inception and it is the main source of income to this day. However when we look at the company's attempt at pursuing intellectual property, the Ockel PC, we see that there seems to be a lack of structure or methodology. Finding out after launch that there is no real traction for a product could be a sign that there was not enough validation for example. This was also confirmed when talking with people from the company. The danger for Hombli of not having a dedicated process for pursuing new ideas is that it falls into the habits of the company, possibly turning it into brand like Sinji. This is something the company does not want. Something will need to change to make Hombli the desired innovative brand the company wants it to be.

1.9 Project Approach

It is clear that a structure needs to be built inside the company to develop I.P. or to pursue new ideas for Hombli. To develop this structure a two step approach is taken.

Firstly the scope or 'search field' in which the company should look for new innovative directions will be looked into. The current scope and positioning of Hombli will be analysed to see if a new or more specific direction is needed for the brand.

Secondly the process the company currently uses to innovate is examined. This current way of innovating will be mapped out and will be examined to see where it can be improved. This improving of the existing innovation process will be done together with the people inside the company that actually (will) use it every day. This approach takes elements from the User Centered Design (UCD) approach described by Abras, Maloney-Krichmar & Preece (2004). They mention that UCD is method where a product, in this case the innovation process of the company, is designed and prototyped together with end users, in this case the people inside the company.

Next to that a new innovative process will be designed to give the company the tools to search and validate new product directions. This new innovation process will take lean validation elements to be able to pursue unproven idea directions (Gutbrod & Münch, 2018; Reis, 2011).

2.0 Defining the scope

To define in what kind of way Hombli will manifest itself in the future, the current status of the brand and its products need to be analysed.

Then the perspective of customers on the Hombli brand are shown. Indicating if the current strategy is successful.

Then possible dangers from competitors are explained

Next, a new direction will be designed using the Trend Patterns technique (Simonse, 2017). The impact of this new direction on the product portfolio is shown, concluding in a Visual roadmap of the current Hombli proposition to the next

2.1 Hombli's current brand

hombli

Hombli started off with a mission: making smart home user friendly to a wider audience. A report from GfK (2019) shows that most people feel like they do not need smart home products or that it is too expensive for the benefits it can bring.

Hombli set out to cross the chasm between early adopters and the early majority (see figure 7). Moore (1991) describes the chasm as the difference between two separate kind of markets. Before the chasm you have the early adopters who quickly recognise the value of a new product or service brings and are eager to buy it. These consumers are generally also more forgiving when it comes to a product not being very user friendly or not so great to look at. They are just looking for that functional benefit a product brings.

On the other side of the chasm is the early major-

ity, or the first part of the 'rest of the market', who are more sceptical towards new products. These people need a lot more persuasion and proof that a new product is beneficial to them and are a lot more critical in terms of user friendliness and looks.

In order to try and cross this chasm, Hombli created a solid base of simple smart home products that are easy to install and use with one single app. The company also puts a lot of effort in creating manuals and instruction videos to further improve the experience of its products.

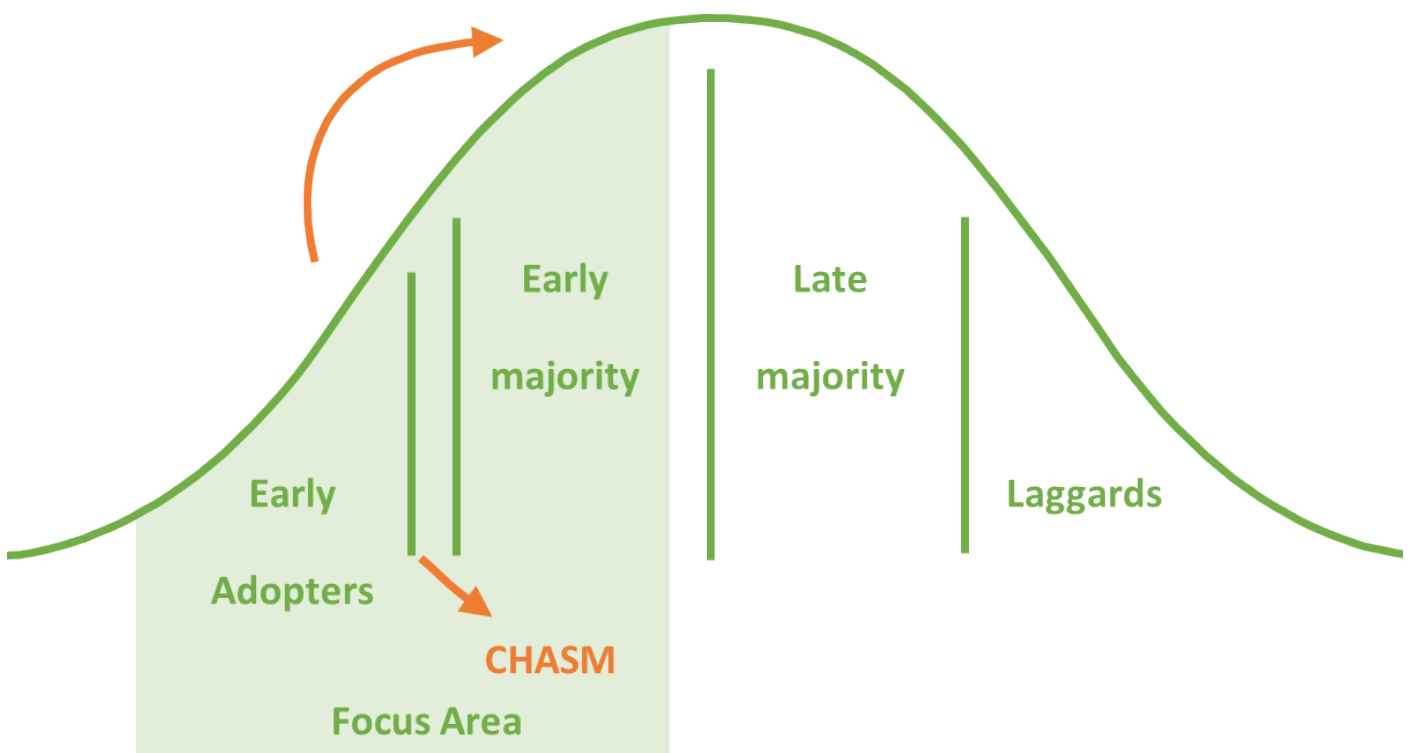


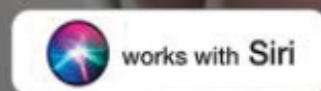
Figure 7: Crossing the chasm (Hombli, 2020)

The way Hombli communicates its brand towards the outside world is in line with this focus on user friendliness and simplicity. Combining that with a lower price than for example a Philips HUE, Hombli aims to be an affordable alternative without any more complexity. On Hombli's own website you can see how ease of use is emphasised: The smart home for everyone slogan is the first thing you see when you pay a visit (figure 8). Also its compatibility with voice control services is highlighted, giving more motivation on how easily Hombli products can be integrated into the customer's life.

A Smart Home For Everyone

Friendly, simple and safe.

Turn your house into a smart home with Hombli.



[View products](#)

2.2 Product offering

Instead of focussing on one particular product and become a vertical player such as Ring with its doorbell or iRobot with its vacuum cleaner, Hombli chose a horizontal positioning focussing on basic smart home products and integrating them into one single app. The brand focusses on Value for money, ease of use, security and cross compatibility as can be seen in figure 9.

The entire current Hombli portfolio can be seen on the next page in figure 10. The choice for these particular products were not that hard to make. Smart bulbs, cameras and sockets were proven to be successful by other competitors and they are not that complex to develop. The categories Hombli divided these products in are Lighting, Safety and Energy.

With this initial product offering Hombli has been successful in spreading its brand: Hombli products are now available in over 10 different countries at resellers such as Coolblue, Tink, Aqipa and Mediamarkt (Hombli, 2020).



Figure 9: Hombli Value House (Hombli, 2020)

Figure 10: Hombli Product Portfolio (Hombli, 2021)



Smart Bulb - CCT



Smart Bulb - Filament



Smart Bulb - RGB & CCT



Smart Spot - RGB & CCT



Smart Bulb E14 - RGB & WW



Smart Spot - CCT



Smart Doorbell



Smart Socket EU



Smart Indoor Camera



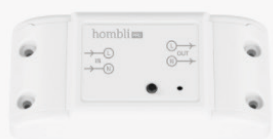
Smart IR Remote Control



Smart Outdoor Camera



Smart Socket Duo



Smart Switch



Smart LED Strip



Smart Bulb B22 - RGB & CCT



Smart Socket FR



Smart Socket UK



Smart Indoor Camera 2



Smart Doorbell Black



Smart Socket EU Black

2.3 Customer perception

In order to find out if Hombli's current strategy is successful, its current customer data needs to be evaluated. By diving into the backend of the software Hombli utilises to build its application with, various statistics can be found.

With this data it was found that as of January 2021 nearly 35.000 devices have been activated (see figure 12). Next to that it was also possible to determine the amount of device activations per month. This data was insightful for a couple of reasons.

Firstly the company has a direct view on what, when and how many devices are being activated. This data is useful since devices sold to resellers take time to eventually be bought and activated by customers.

Secondly it can show if a product launch or a promotion had any significant effect. For instance the increases in device activations in november and december have to do with black friday and christmas promotions (Figure 11).

Thirdly it can be used to communicate to various stakeholders, such as new distributors or current shareholders, how well the company is performing.

New Hombli device activations per month

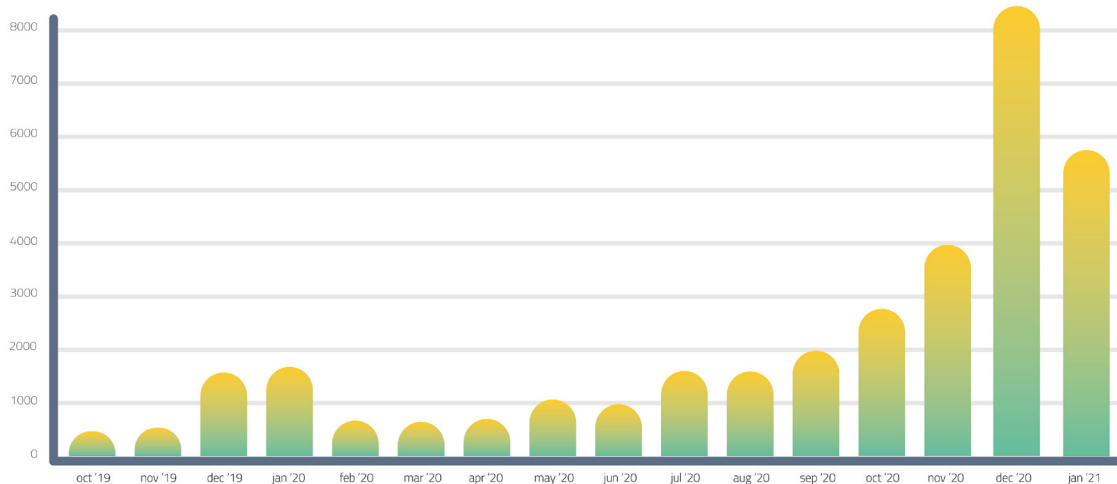


Figure 11: Hombli device activations per month

Total amount of hombli device activations since launch

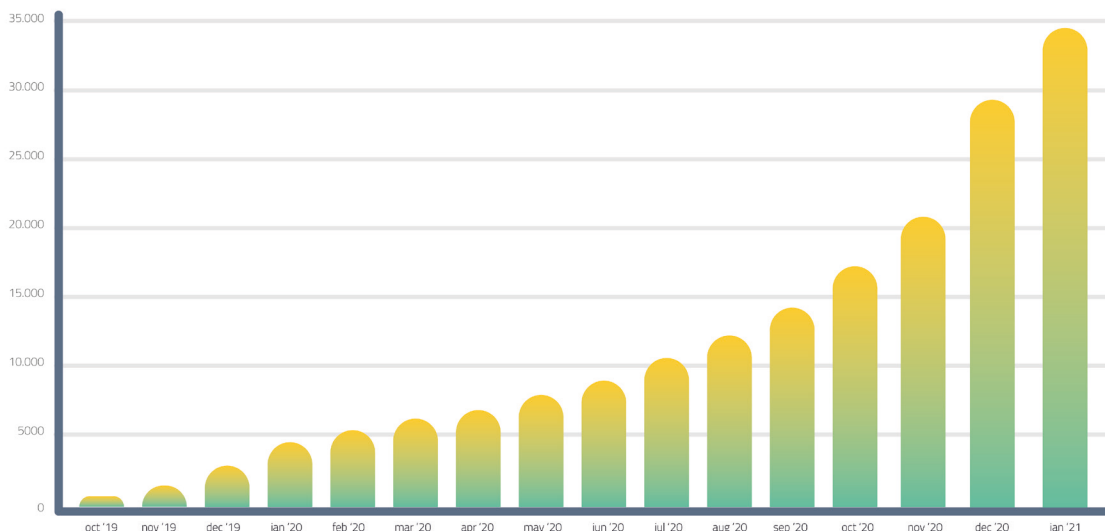


Figure 12: Total Hombli device activations per month

These figures are evidence that Hombli is rapidly increasing in popularity, but in order to measure if customers are actually happy with their products it is interesting to know more about these consumers. Through the Tuya back-end a questionnaire was sent to 750 Hombli users. The users were invited to fill in a short survey and have the opportunity at winning a Hombli kit worth €60,-. A total of 221 correct responses were achieved. These responses took longer than 2 minutes to complete and all questions were answered.

Multiple items were assessed in this survey. Initially people were asked about their opinion about their experience with Hombli and if they would recommend it to a friend on a scale of 1-10. This was also coupled to the products these people had. With this information a Net Promoter Score (NPS) can be calculated.

According to Reichheld (2003) the NPS can be an indicator of customer satisfaction. The scores are subdivided in:

Promoters (9-10 rating): people that would be extremely likely to recommend your product to

others.

Passives (7-8 rating): people who are happy with the product, but have a medium chance of recommending it to others.

Detractors (0-6 rating): these people are very unlikely to praise your product among others.

The NPS score is calculated by deducting the percentage of detractors from the promoters (see figure 13). This resulted in an overall NPS score of 22. To see if this is a high score, it is compared to scores of other companies. According to Customer Guru (2020) other electronic brands such as Philips, HP and Siemens have scores of 33, 27 and 9 respectively. A score of 22 is relatively high for such a new brand.

When looking at individual products, nearly all have a positive score. The smart socket even has a score of over 35 for example. The only product that brings the average score down is the Hombli doorbell with an NPS score of -14. The overview of all NPS scores per product can be found in appendix A1.



Figure 13: Overview of Hombli detractors, passive and promoters

To find out more about what Hombli users desire from their smart home products, they were asked if they could identify themselves with one of 8 different smart home users. A research conducted by Earley & Vassileva (2019) showed these different persona's based on their smart home usage.

1. Ambience user: uses products to create a cosy atmosphere in their home.
2. Drone parent: wants to know everything that happens in their house at any time for a sense of security.
3. Busy wired up user: wants everything to work automatically and not take up too much effort since they are busy with other things.
4. Hyperorganiser: has schedules and timers for every device and function in their house.
5. Tech enthusiast: wants the latest gadgets for the sake of having the newest thing out there.
6. Tech for fun: these people buy products just so they can have fun experiences with them.
7. Unplugged user: wants to disconnect from technology when they are at home. Turns off their phone to recharge.
8. Tech for contact: only use technology to stay in contact with family.

A description of this persona was shown and participants were asked to rate from 1 to 5 if they agree with this description of themselves with 1 being completely disagree to 5, completely agree. The results showed that even though Earley & Vassileva (2019) described these 8 persona's as unique personalities, they were not mutually exclu-

sive among my participants. Multiple participants would choose 5 on multiple persona description or none at all. It is therefore not possible to assess whether Hombli has a particular demographic in terms of a specific smart home user as described by Earley & Vassila (2019).

It is however possible to see what overall preferences Hombli users have when it comes to smart home technology.

As can be seen in figure 14, 53 of the 210 Hombli customers, uses products to create a cosy ambience in their home. Also 33 participants wanted to know about everything in their house so it gives them a feeling of safety and another 33 want everything to work automatically and not cost too much effort. These desires fit well with the current products Hombli offers

Attempted was also done to dive deeper into the needs of Hombli users. This was done by conducting semi structured interviews with participants from the survey that indicated they could be contacted later. These interviews confirmed the earlier findings from the survey, but did not bring any significant addition.

In appendix A2 the interview guide is shown.

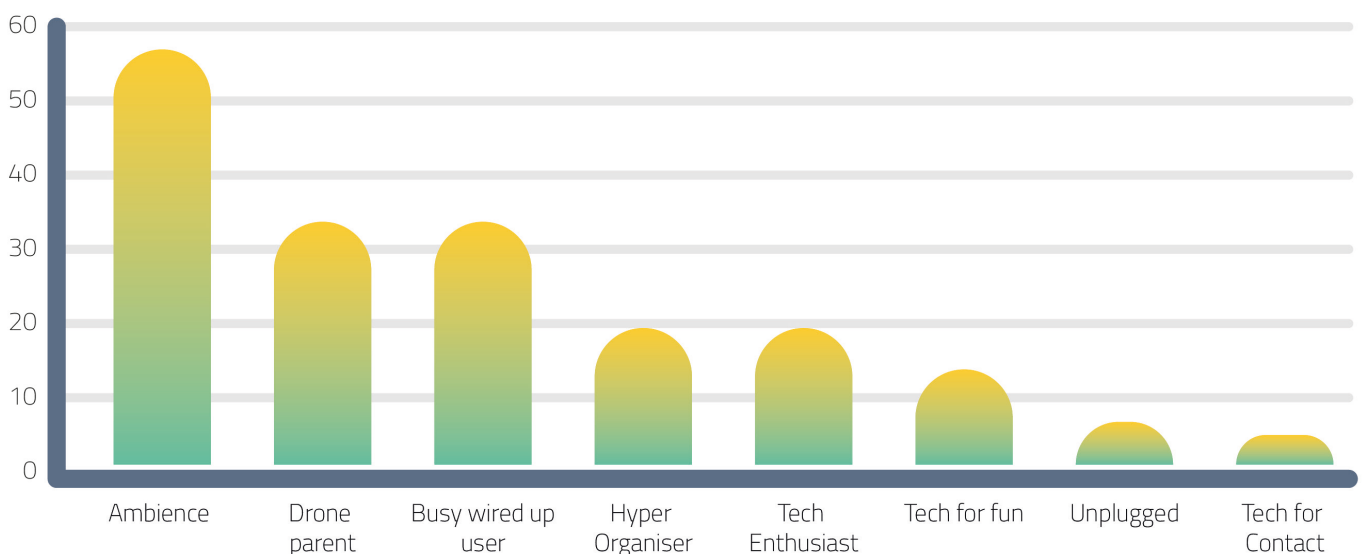


Figure 14: Overview of Hombli detractors, passive and promoters

2.4 Competitor analysis

Hombli is successful with its current strategy. Its sales are rapidly increasing and the data suggests Hombli's customers are happy with their current products.

It is however important to look at what Hombli is up against. In recent years companies like Ikea, Action and Lidl have moved into the market of smart home (Ikea, 2021; Action, 2021; Rahanmetan, 2021). When looking at other competitors one thing stands out. The vast majority of brands that provide smart home products mainly focus on functionality and how simple and easy their products are to use. Hombli is doing something similar with their 'smart home for everyone' approach and its focus on user friendliness and easy installation.

Tapo promotes their plugs on ease of use (Tapo, 2020). Innr (2020) state that everyone's home can be smart with their products. Ikea (2020a) emphasizes its ease of use and also claims to make smart home for everyone. Wemo (2021) is a smart home brand that emphasizes its simple use and installation (Wemo, 2021). KlikAanKlikUit (2021) advertises how simple smart home can be with their products. Wyze (2021) states that it "makes quality smarthome technology accessible to everyone." All these quotes can be seen on the next page in figure 15. In short: simplicity and ease of use are not distinctive characteristics anymore. A full list of competitors can be found in appendix B.

Van der Vorst (2017) describes that this form of dilution in markets that are becoming more crowded can make a brand fade to the background and in turn lose revenue. It seems risky for Hombli to strictly keep focussing on ease of use since so many brands have a similar message towards their customers. It is a characteristic that becomes a given: all smart home products should be simple.

Taken into account that the products Hombli releases are also already existing, such as light bulbs, cameras and more recently air purifiers, they risk losing their distinctiveness.

Iedereen kan slim zijn met Innr

Het comfort van smart lighting voor iedereen.



Help me kiezen

NAVIGATION

WYZE



MAKE QUALITY SMART HOME TECHNOLOGY ACCESSIBLE TO EVERYONE

THE SIMPLE WAY TO A SMARTER BACKYARD

Schedule and control two outdoor lights and devices simultaneously with the app or your voice.*

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*When paired with a voice recognition device or service, sold separately.



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HOME AUTOMATION MADE EASY



KlikAanKlikUit Gesponsord

Zo simpel kan smart zijn.

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Shoppen

2.5 Conclusion of current strategy

Hombli's current brand strategy has proven to be successful. The amount of device activations are rapidly increasing and customers are happy with their products and their current experience with the brand. There is however a threat to this current success.

Competitors are using a similar messaging and attitude towards the customer. They are also 'easy to use', targeted to 'everyone' and 'simple.' Combined with the fact that Hombli currently offers products that are also accessible to competitors, it becomes vulnerable to losing market share. It then makes sense for Hombli to search for ways to develop their own products, but first start with searching for a more differentiating message.

Threats to the current strategy of Hombli:

Competitors have access to the same or very similar products Hombli also wants to offer

Competitors have a similar brand story, making Hombli stand out less

2.6 Trend research

In order for Hombli to become more of a frontrunner in the domain of smart home, it needs to have an idea of what the future of home entails. It needs to learn about what kind of changes in customer (home) needs take place to anticipate what experiences its products and services need to facilitate.

In order to have a more clear view of the future, a method of Trend Patterns, described by Simonse (2017), is used. With this method separate trends are clustered into overarching patterns that describe larger phenomena. These different patterns are then combined to create a future scenario. It is then up to the company to decide what role it shall play in this scenario.

With this method individual trends are first searched using DEPEST. DEPEST is an acronym for the different categories in which trends can be

searched: Demographic, Economic, Political, Ecological, Social and Technological trends. Van Boeijen, Daalhuizen, van der Schoor & Zijlstra (2014) explain the use of DEPEST as a sort of checklist, so no category is missed out or over-represented.

Trends are found using desk research. Multiple trend reports, news articles and scientific papers were consulted. Examples of such trends that are relevant to Hombli can be seen below in figure 16.

The overview of all the collected trends can be found in appendix C.



Working from home is and will remain more acceptable, people prefer a combination of home and office work (Volini et al. 2020; Masterson, 2020)



The internet of things (IoT) market is expected to grow to 75.44 billion connected devices by 2025 with a projected market value of \$1.1 trillion by 2026 (Daugherty, Carrel-Billiard & Blitz, 2020)



Voice assistant device use is projected to grow 1000% to reach 275 million in 2023. (Moar & Escherich, 2020)



Increase in stressed out people with burnout related symptoms: especially young people have these symptoms: further increased by COVID (Volini et al. 2020)

Figure 16: Trends (Vectors Point, 2020; Priyanka, 2020; Icon Factory, 2020; Oncygo, 2020)

2.7 Pattern creation

The next step is to create clusters with these separate trends. The aim of clustering the trends is to find bigger overarching phenomena in the scope relevant to Hombli. Below in figure 17 a cluster is shown. Each post-it is an individual trend. Factors such as home entertainment, online shopping and working from home all make it more likely for people to stay at home and only leave when they go out to an event or another special experience. This is an extremely relevant pattern for Hombli of course.

Multiple of these patterns are formed with the various trends. Then these patterns are linked to see if future scenarios can be created from these patterns. The complete overview of trend patterns can be seen in appendix D.

Home is where life is

Working from home is and will remain more acceptable, people prefer a combination of home and office work (Volini et al. 2020; Masterson, 2020)

85% of people spend the same amount or more time at home as they did five years ago: further increased by COVID19 (Earley & Vassileva, 2019; Deloitte, 2020)

Ordering takeaway is booming, further increased by COVID19 (Xinhua, 2019)

Online shopping and home delivery are expected to become a larger share of retail purchases. AR is anticipated to facilitate online shopping. (FTI, 2020)

Streaming services such as Netflix are widely accepted by people and will only grow further as the main means of entertainment. (Deloitte, 2018)

E-sports (competitive gaming) becomes increasingly popular and will boost the gaming industry and form a serious source of entertainment. (FTI, 2020)

2.8 Future Scenario and Vision statement

Connecting multiple trend patterns results in several future scenario's. A scenario was created by linking the pattern of 'home is where life is' with a pattern of increased mental problems and a pattern of people wanting to improve their health. This scenario is as followed:

"As people experience more mental strain, due to performance pressure, loneliness, burnout symptoms and uncertainty about the future: they are looking for ways to become healthier and happier. The home is where people reset and shut off from the rest of the world. The need for a healthy living space is increasingly apparent, especially during COVID-19."

This scenario became the inspiration for the following statement, about what role Hombli as a smart home brand should have in such a future. Together with the Hombli team it was decided that this direction should be the one to pursue:

Hombli enables easy and effortless home well being: both physically and mentally.

2.9 Effect on product categories

With the newly introduced direction Hombli has more focus: instead of making any product smart, Hombli should wonder if it improves people's well being.

If we put this new direction on a timeline it becomes more clear on what changes are going to be made in terms of products and the overall goal of the brand. The focus for the next few years will be on introducing products that improve your life at home with the ultimate goal of improving people's well being (figure 18). Further down the line the products will be more integrated in the room itself, so smart home products will be less intrusive in people's daily life.

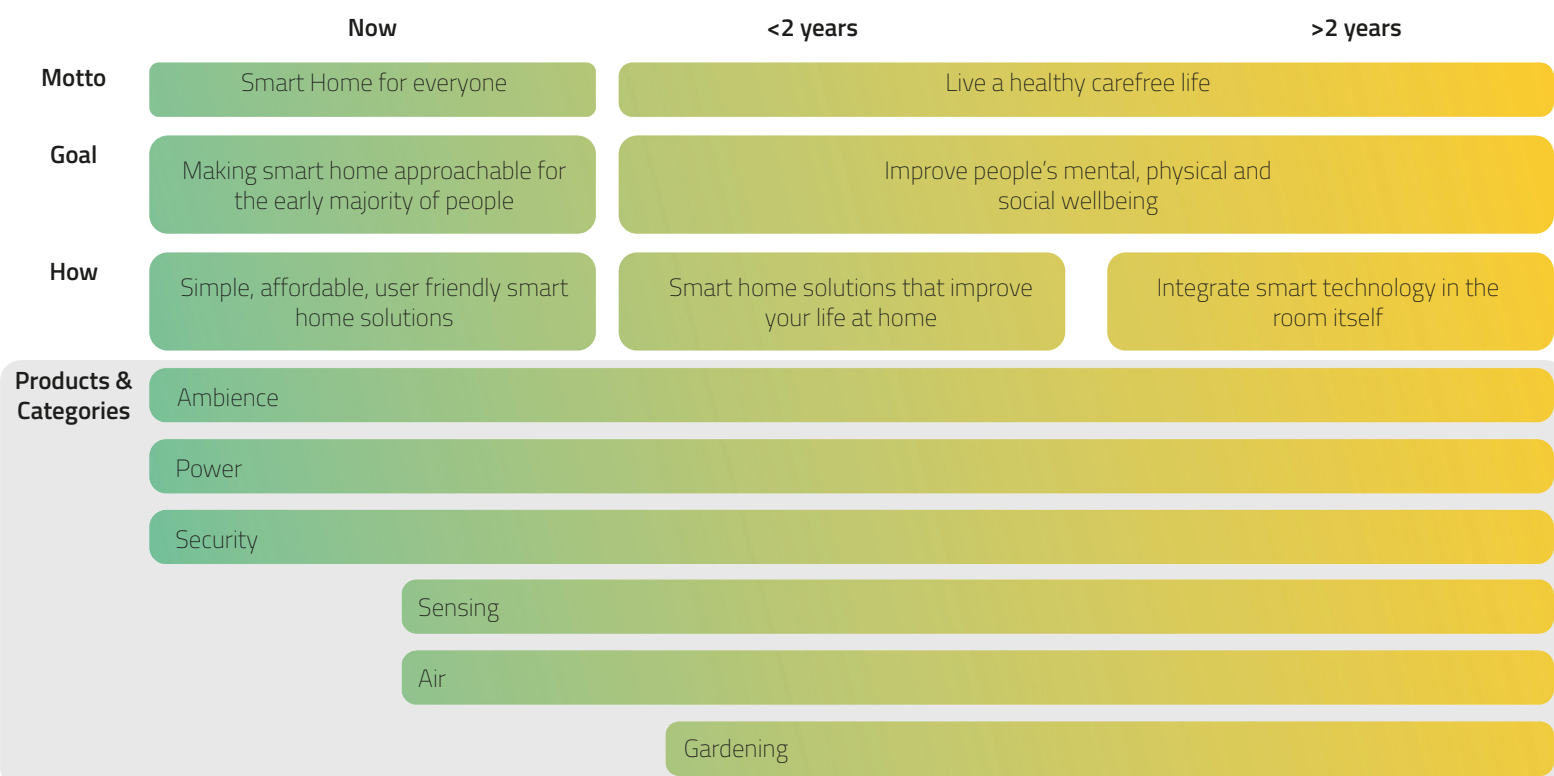
In the lowest part of the graphic, the product categories are shown. The current Ambience (lighting), power (sockets) and security (camera's) will remain a base line in the future. However the new categories Sensing, Air and Gardening are introduced.

Sensing comes from a longer desire from Hombli to include smart sensors in their portfolio. These sensors can help add more automation in a user's home and thereby contributing to living comfort.

Air is a category that focuses on everything related to ventilation, cooling, purification, but also scent. The first product for this category has already been launched, the Air Purifier. Hombli is currently also looking into aroma diffusers.

Finally the company noticed from its commercial department a demand for smart products involving gardening. What kind of products this category will bring is still being discussed by the Hombli team.

Other ideas for possible product categories that can be looked into are fitness, meditation and sleep. These are all more clearly related to well being.



2.10 Visual Road Map

To make the new direction more clear for both the employees inside and stakeholders outside of Hombli, a visualisation (Figure 19) is created in the form of a roadmap. The roadmap contains two steps. Firstly it shows the Hombli smart home as it is right now: separate products that do not seem to have an overlap. Next to that they are all fulfilling a particular function and there is not a focus on what sort of overall effect the products should have. Even though the products are controlled via the app, they are all individual separate devices in the home.

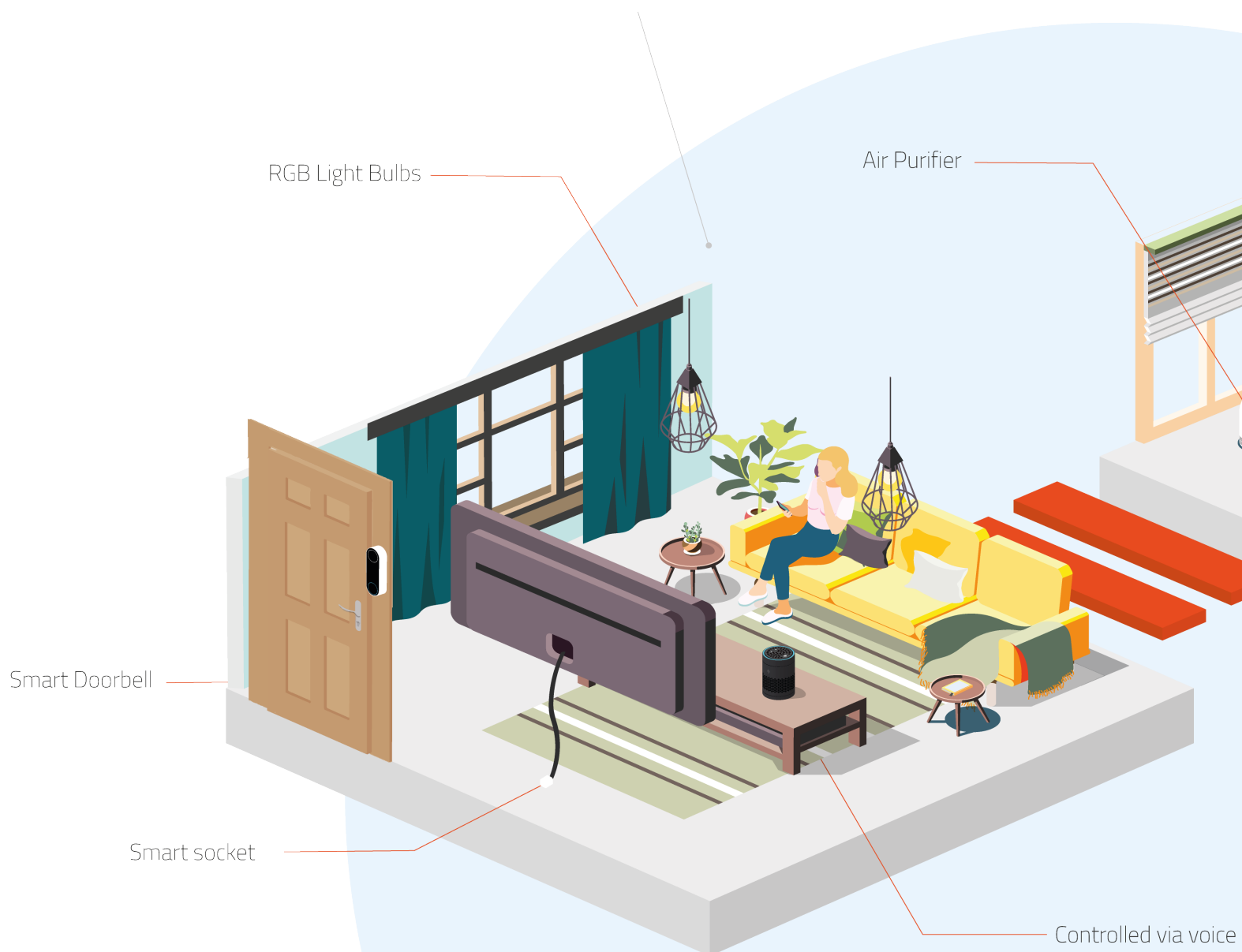


Figure 19: Visual Roadmap: current

2.10 Visual Road Map

In the new stage (figure 20) the focus is on the user's well being. Here the lighting is automatically adjusted to the user's mood, products such as the air purifier physically improve the room conditions. The statement 'other products focussed on well being' was put there, since concrete product directions are explored at a later stage of implementation.

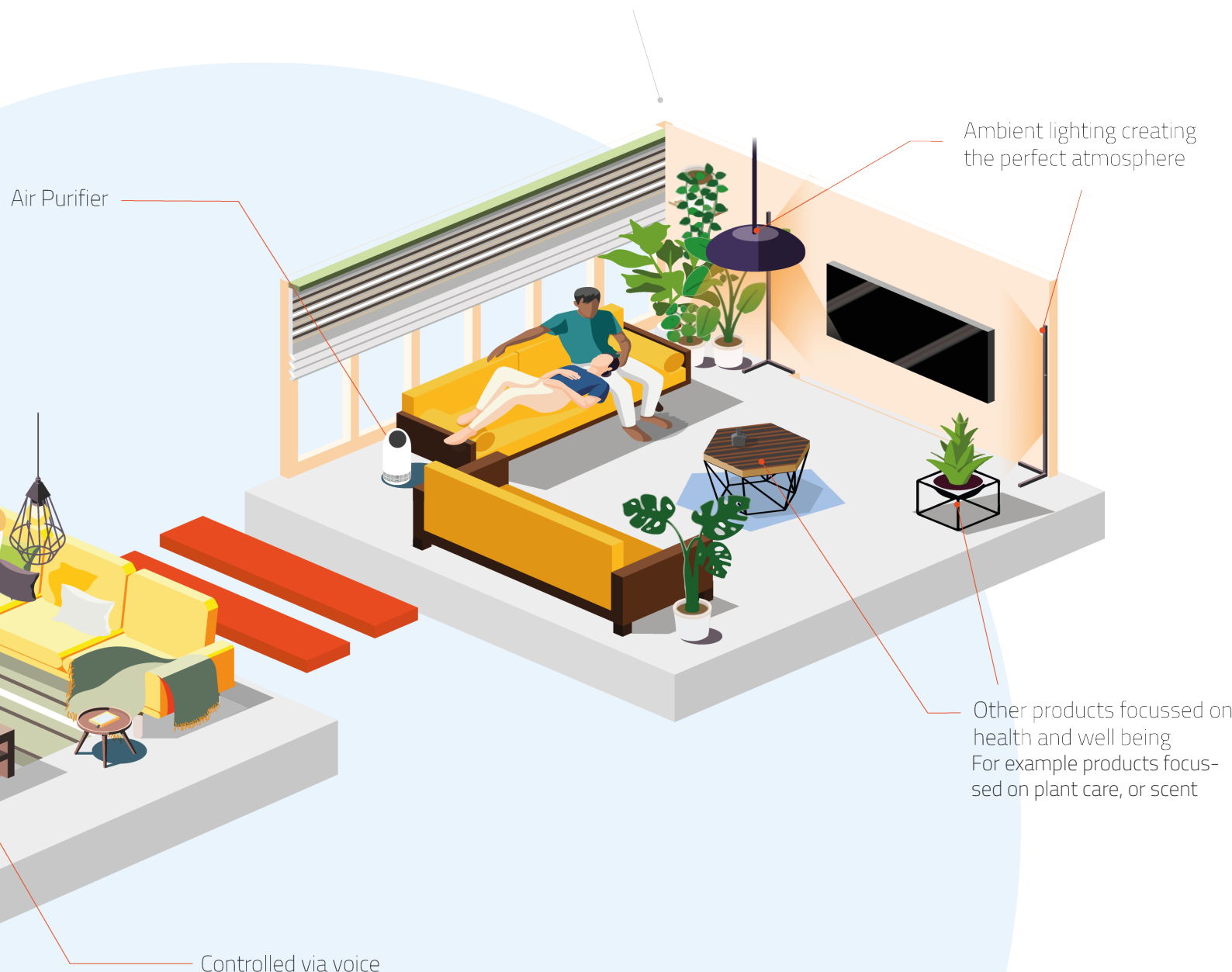


Figure 20: Visual Roadmap: future

2.10 Visual Roadmap

Current: Userfriendly Smarthome

Hombii is providing user friendly and easy to install solutions at an affordable price point. All devices are controlled from one single app or via voice, that way you have maximum control and convenience at your finger tips.

Future: Healthy and carefree living

In the next phase, Hombii is looking to better people's well being at home. Through products focussed on health and creating a relaxing atmosphere, the home becomes the perfect place to unwind after a busy day.



3.0 Exploitation & Exploration

Greve (2007) states the following: "Exploitation is use and refinement of existing knowledge, technologies, and products, and has more certain and proximate benefits." This description matches Avanca International's sourcing, adapting and lining up products that have already shown to be feasible and profitable.

When employees are asked about pursuing new unproven product ideas, it becomes clear that there is not enough time to dive deeper into those ideas. Tushman & O'Reilly (1996) note that a company's long-term success is reliant on its ability to have both exploitative and exploratory activities in its pursuit of creating new products. This balancing act is what Hombli should strive for. Generating cash flow with what is already used to doing and investing in finding new opportunities.

Since the current exploitative process already has difficulties working well, it should first be fixed before thinking about the addition of an exploratory process.

3.1 The current Innovation process

The exploitative process the company currently uses to create products has been visualised by the product engineer Jan Paul Hagg once before as a product funnel.

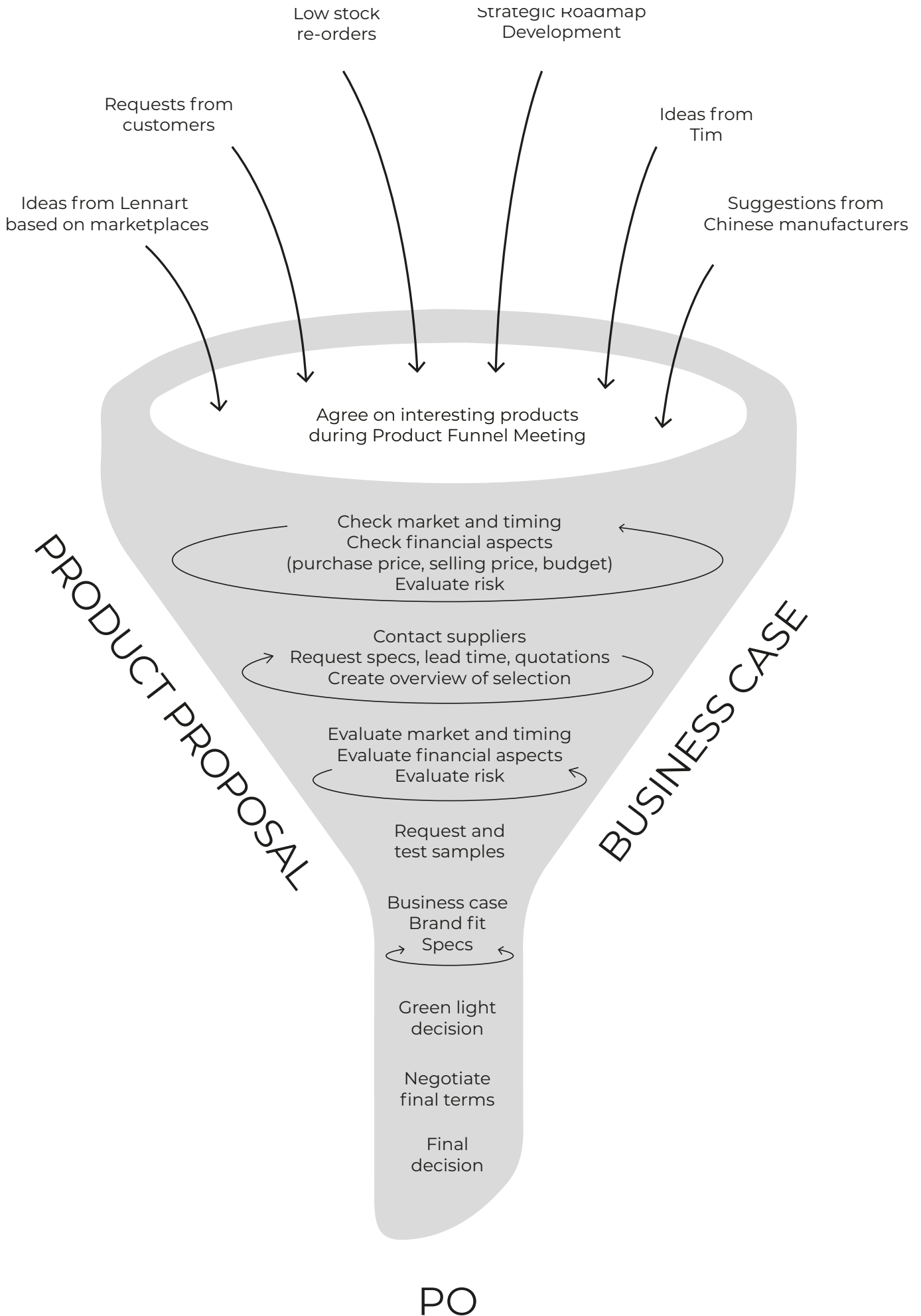
According to figure 21 on the next page, the sourcing funnel works as followed:

0. The ideas flow in from the top and can come from all kinds of different directions
1. During the funnel meeting the team agrees on what product ideas the company should pursue. Here it is also decided on what brand the product is going to be sold under.
2. Initially the market is checked. Is the market big enough, what are the margins (ballpark), what is the amount of investment.
3. If all is well an overview of suppliers is made with matters such as specs and quotations.
4. Samples are ordered from one or a few suppliers to see, feel and test if the product is up to par.
5. The product is then evaluated if it still fits with the brand it is going to be made for and the financial checks from step 2 are re-evaluated.
6. Then the decision is made to negotiate end terms and to launch the product and place a Purchase Order (PO).

When looking at this process, not much seems to be wrong with it in terms of content. Risks are evaluated at multiple instances and not only financial gain is taken into account, but also whether it actually fits with the brand. This is especially important for Hombli, since the goal is to build a coherent story and not sell everything under the name as long as it generates revenue.

There are however some problems with this existing process. When talking with employees, they state that there is not a clear point at when and why a certain product is being picked. Samples for products are being ordered without notifying anyone and upon arrival the product engineer is asked to quickly test this product sample, because a buyer has already been found and it needs to be ordered as quickly as possible.

Due to this lack of alignment and communication between the people at Avanca International, work keeps stacking up and product ideas keep lying on the shelf because new things that all seem to be high priority keep popping up. Employees further state that there simply is no time to pursue new product ideas, because the current exploitative process is not working properly and takes up all available time.



3.2 Improving the current innovation process through design

In order to improve the existing exploitative innovation process elements from the Stage Gate innovation process from Cooper (2008) are used as a starting point. Stage Gate is described as a map to move products from idea to launch (Cooper, 2008). It is a system with clear requirements between steps, which all product ideas need to pass to eventually be launched. This process fits well with the current innovation process of the company, since it tackles all the current hurdles the people in the company bump in to.

Weekly meetings about the process are used to align everyone, have open discussions about a product and to simply communicate where every product in terms of development is.

The steps of the sourcing innovation process were written out with the kill/go switches in between. This signifying the point after each step where the decision to stop the idea or to continue on to the next step is made.

User Centered Design

Since the employees of Hombli actually need to use the innovation process, it only makes sense to involve them in the design. This User Centered

Design (UCD) approach is described by Abras, Maloney-Krichmar & Preece (2004) as a method where a product or service is designed and prototyped together with end users. Only here the end product is a process and the users are the employees of the company.

Boundary object

To make discussing and (re)designing the current-process as easy as possible, it was decided to make the process physical. By mapping the process out on the wall in the conference room with sheets of A4 paper and post its, a boundary object was created. This can be seen in figure 22.

This made the process more tangible and clear. It also made it much easier to have a quick glance at what stage certain products were in the process.



Figure 22: Product sourcing funnel, November 13th, by Sven Bonte

At the initial sessions, that involved all the people that are tied to this process, the discussions were mainly about if the set stages were actually correct and in the right order.

Responsibilities were given to particular people for each stage. The product engineer was responsible for testing for example, whereas employees from commercial were responsible for creating the business case.

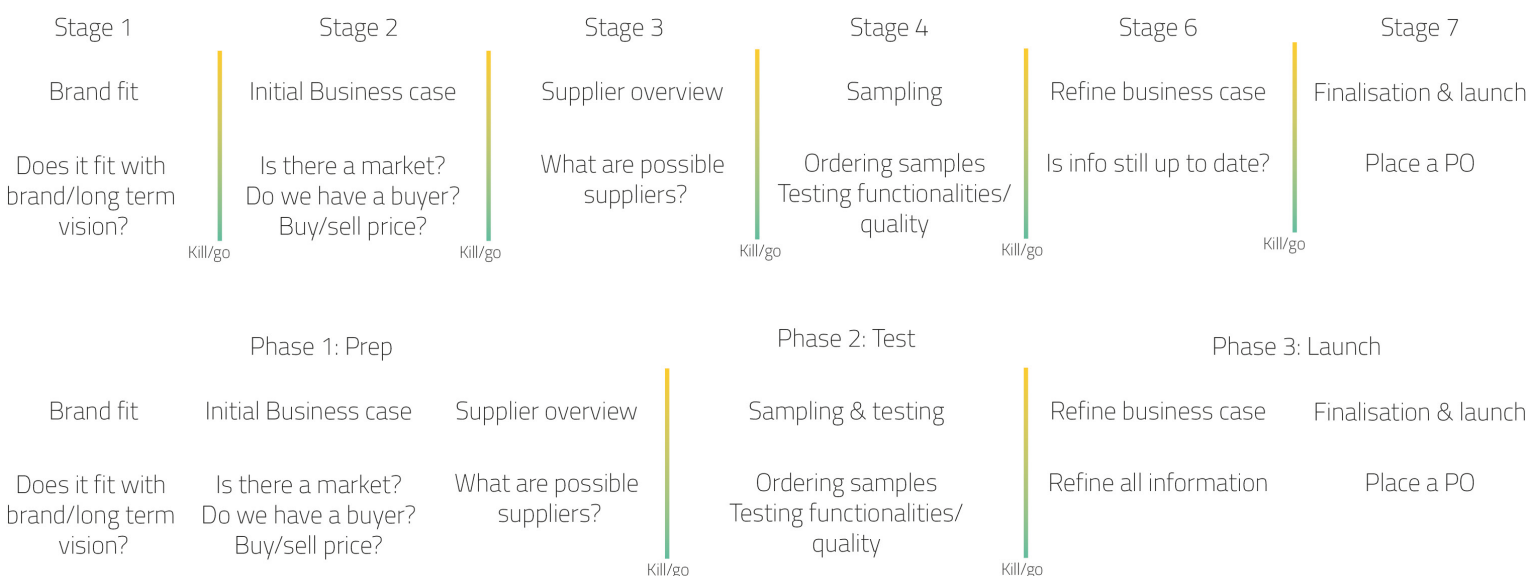
Every week product ideas from employees from the commercial department were placed in front of the funnel to discuss if it had potential of being pursued. Then as time went on the product idea got pulled through all the steps, discussing its current status and evaluating if it was still an idea worth pursuing. It could be the case that the initial business case for a product seemed interesting, but when creating an overview of suppliers it turns out the cost price is too high and the margins would be too low in the end. In such a case the idea gets killed.

These sessions were held weekly to keep iterating on the process and to see what worked and what needed adjusting. One of the more significant changes was creating phases with multiple steps instead of having a kill/go decision after each step. This was due to steps not always being done in the same order: sometimes a buyer for a product was

already found, completing the business case for a product before first discussing if it had the perfect fit with the brand. The initial and final version of the process are shown in figure 23.

In order to make sure this process will stay in use after the project, one of the employees of Hombli is assigned as a manager of this process. She makes sure these meetings are held every week. She also makes sure all products in the process are discussed and new tasks are assigned.

Since the process is now finalised, the decision was made to transfer the sourcing process to a digital tool, to make it easier to use. Since the process is now clear for people inside the company, the need for having it physically on the wall is gone.



40 Figure 23: Product sourcing process first (higher) and last iteration (low)

4.0 The new exploratory innovation process

In line with the desire for Hombli to start creating its own I.P. and becoming more innovative in general, a new innovation process is proposed. This process exists separate from the sourcing innovation process. It uses elements from the lean start up method, where multiple cycles are used to validate assumptions (Reis, 2011). For the sake of making this process clear to the company, the process was used to explore an actual direction in a matter of weeks to see if it was interesting enough to pursue. The process stages are:

1. Finding a direction
2. Exploring through research, interviews and observations if there is a problem worth solving
3. Experimentation with possible solutions for this problem
4. Scaling the solution to a fully fledged product or service

For Hombli the second and third stages are demonstrated, due to the short timespan of the project (figure 24). The main difference between this innovation process and the sourcing funnel is the fact that this process is used to validate unproven ideas. With this process a new problem and its solution can be tested.

The idea for a new product and business model is completely based on initial assumptions. It is vital for any person, team or company that is working on an unproven idea, that they are aware that these assumptions can become pitfalls. Start-ups and engineers tend to first look into the exact workings of a product idea before knowing if the market for this direction is interesting to even look into, or if customers are even interested in your solution.

CB Insights (2020) confirms this by stating that the number one reason start-ups fail is because there is no need for their product or service from the market.

To test and build this innovation process, an example product direction of indoor gardening was chosen. When looking into trends in the trend research phase for the future visioning of Hombli, the increase of plants in the living space stood out (Ikea, 2020). The caring for plants may be something Hombli can provide a useful product for with their experience with sensors and app integration.

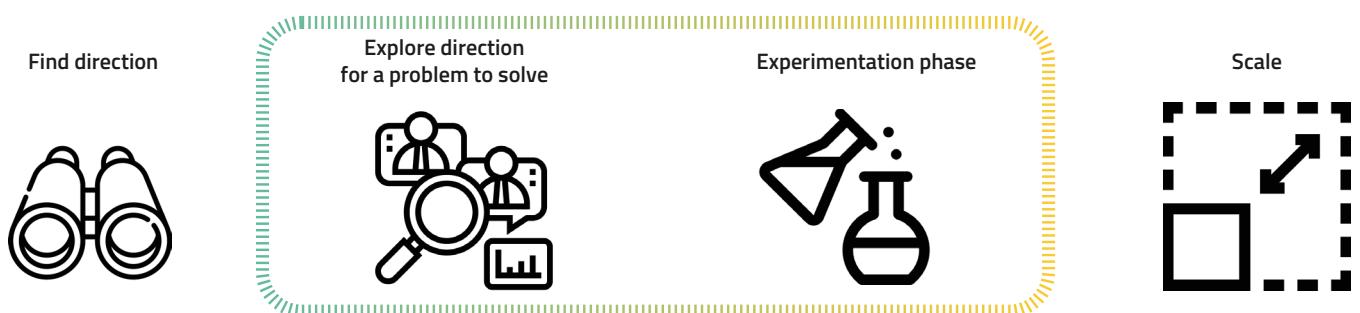


Figure 24: Explore Process visualisation

4.1 Idea Assumptions

At this stage of the process, the beginning of the exploration phase, all assumptions regarding the product are written down and plotted in an assumption matrix.

An assumption matrix is used to plot the impact of the assumption on the business model and the effort it takes to validate the assumption (Ries, 2017; Gutbrod & Munch, 2018). This writing out and plotting of the main assumptions helps with finding out what answers you are looking for in terms of desk research, observations and customer interviews. It also helps with prioritisation of what should be looked into first.

In the plot below (figure 25) most assumptions regarding market fit can be found in the bottom right corner. This corner consists of assumptions that take less effort to validate, but do have a high impact on the success of the business model. Technical feasibility is also of high importance, but it is also a high effort endeavour designing, prototyping and testing a product.

It then makes more sense to prioritise looking into assumptions such as:

- There is a substantial market for plant lovers
- People have trouble taking care of their plants
- People want a smart solution to care for plants

These are assumptions that are easy to (in)validate, making it much quicker to know if you are on the wrong path and another direction needs to be looked into.

The first assumption on market potential was quickly validated through desk research.

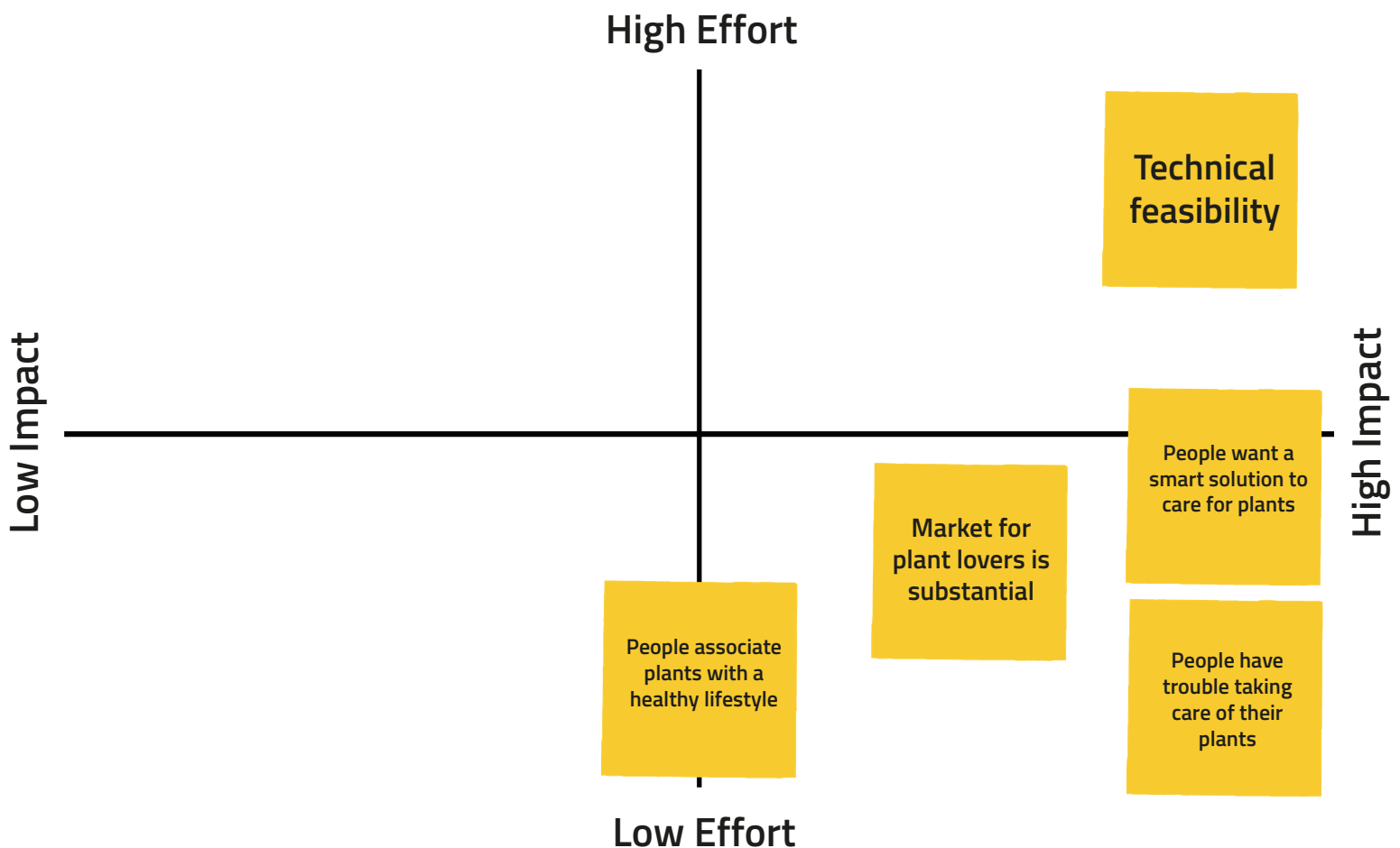


Figure 25: Assumption Matrix on indoor gardening

4.2 Desk Research

By looking for articles and blogs on interior design, it was quickly determined that this direction of indoor plant care is interesting to pursue.

Marantos (2020) and Marsh (2020) showed that indoor plant market sales are soaring recently. Blog posts such as those from Ebert (2020) mention plants becoming a major of interiors again.

And finally facebook groups such as Planten- en Stekjesruil NL (Facebook, n.d.) with over 34.000 members are growing communities focussed on plant trade and care as can be seen in figure 26. This was enough evidence for now to continue diving deeper into this direction.

Figure 26: Planten- en Stekjesruil Facebook page (Facebook, n.d.)



The image shows a screenshot of a Facebook group page. At the top, there is a navigation bar with icons for home, video, marketplace, group, and a menu. Below this is a grid of nine images showing various indoor plants, including a pothos in a grey pot, a hand holding a small plant, a pothos in a white pot, a variegated pothos, a pink and white striped plant, and a variegated pothos in a brown pot. On the right side of the grid, there are icons for Facebook and Instagram. Below the grid, there is a green banner with the text 'Group by Planten- Stekjesruil'. Underneath the banner, the group name 'Planten- | Stekjesruil NL' is displayed in large, bold, black text. Below the name, it says 'Private group · 34.9K members'. To the right of the text is a row of circular profile pictures of group members. At the bottom of the page, there is a navigation bar with tabs for 'About', 'Discussion', 'Guides', 'Announcements', 'Members', 'Events', 'Media', and 'Fi'.

4.3 Interviews

Apart from desk research it is also important to talk to potential customers and hear about their problems and needs. For this step people from my own network were contacted, and since people were used to video calling and were working from home, a 30 minute zoom call was scheduled with little effort. In total 4 people were interviewed. Ranging from full on plant enthusiasts, with having over 30 plants in one house to an average person who just has a few ferns in their room. A semi-structured interview setup was used to approach and discuss their plant care preferences, problems and general experience with having plants. The interview guide can be found in appendix E. With the notes from these interviews an overview was made with preferences and problems people were facing. The overview can be seen below in figure 27.

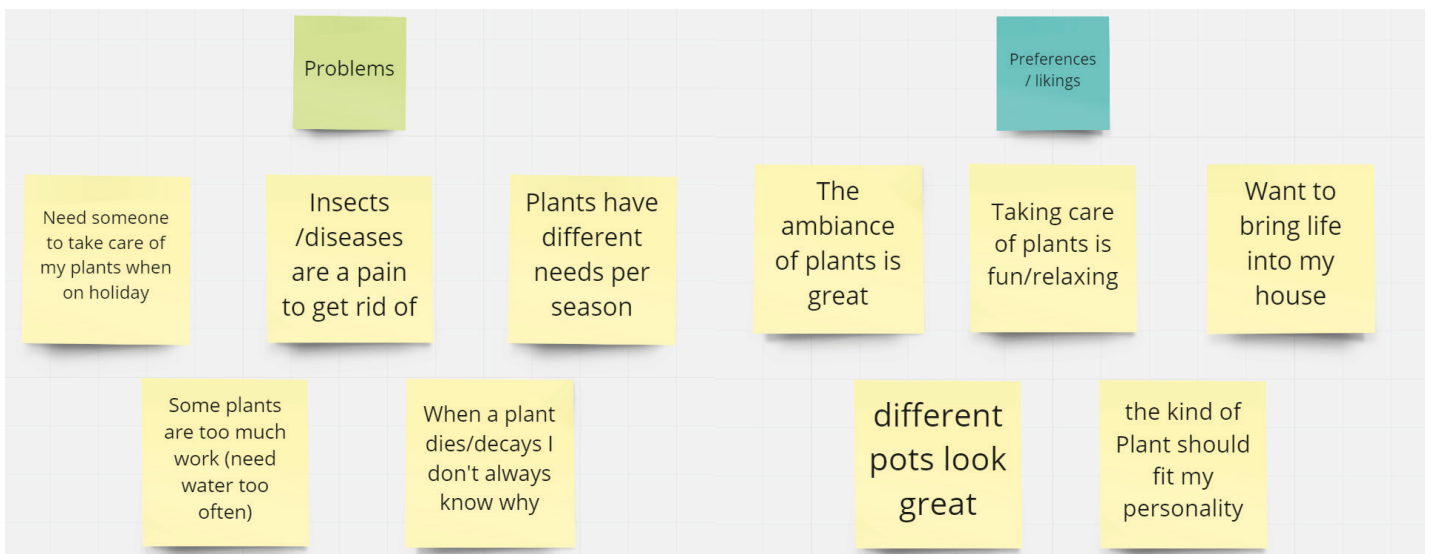


Figure 27: Overview of problems and preferences of plant enthusiasts

4.4 Co-creation of the idea

Together with one of the plant enthusiasts a brainstorm session was performed. As a starting point the different problems and preferences were used to create new product ideas. These ideas ranged from an app that encourages the way you take care of plants to environment control set ups for your plants. The idea that seemed most interesting for both plant enthusiasts and regular plant owners, was the problem of needing someone to take care of your plants while you are away on a trip. Three out of four interviewees also mentioned this problem as one of their biggest pains when it came to taking care of their plants. One interviewee mentioned that there are specialised plant hotels where you can drop your most precious plants. This feeling of knowing your plant is safe and being able to check up on it is the experience the product should provide (see figure 28).

The idea that was formulated was as followed: Before he goes on a trip that is longer than a few days, the user places injectors and small sensors in the soil of the plants. This injector is then connected with a water container like a bottle. The sensor connects to the user's app on their phone and shows the current status of the plant's health. The app has a database containing information about the plants watering need. By combining this information with data that is being gathered through the sensor, the exact amount of water the plant needs can be given by the injectors.

This way the user is assured of having his plants getting the right amount of water while he is away, but he is also able to check how the plant is doing on his phone.

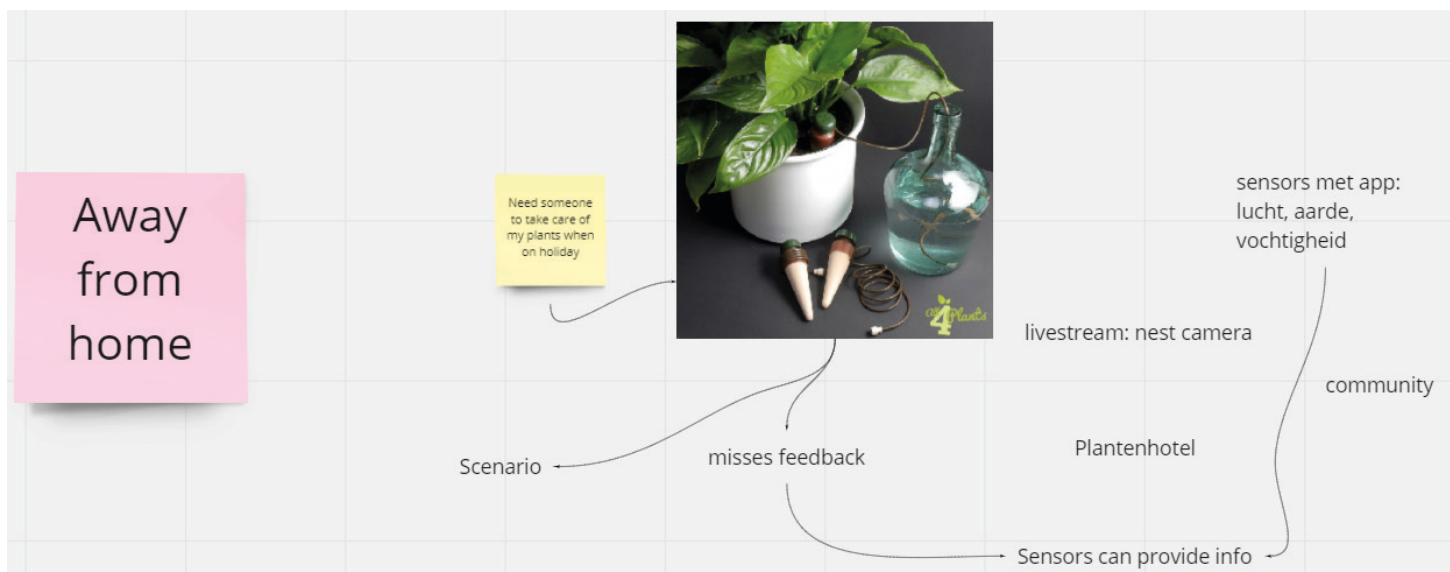


Figure 28: Result of co-creation

4.5 Value Proposition Validation: Smoke Test

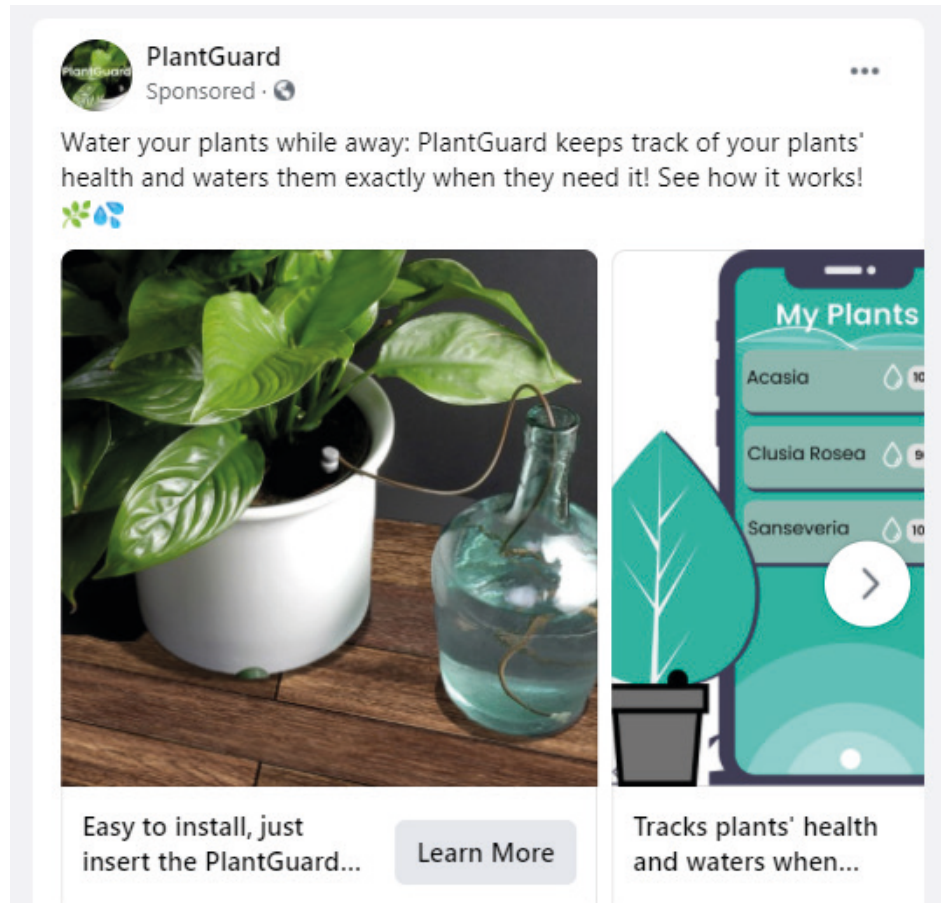
This product idea seems nice, but it is still just an idea. In order to validate if there is interest in such a product, a cheap and simple method is used: the smoke test. According to Cops (2020) a smoke test is method to see if your value proposition has market potential. It is a landing page about your value proposition containing the following:

- The main Unique Selling Point with an interesting image
- 3 Biggest benefits or gains your product provides
- Features describing how these benefits are created
- Credibility regarding your product such as it looking like an actual existing product.

The goal of this test is to see how many people would click the order button to try and buy the product. This percentage of people trying to buy your product compared to your total page visits is the conversion ratio you are interested in. It is a test of purchase intention.

These page visits are generated by running ads such as figure 29. The budget for running these ads was €20 per day. These ads were targeted to people who had interest in plants or gardening and lived in western Europe.

On the next page in figure 30 you can see the main part of the landing page that was created using landen.co. As of writing this report the page is still live at <https://plantguard.landen.co>.



The image shows a Facebook advertisement for PlantGuard. At the top left is the PlantGuard logo, a green circle with a plant icon, followed by the text 'PlantGuard' and 'Sponsored · 🌐'. Below this is the main text: 'Water your plants while away: PlantGuard keeps track of your plants' health and waters them exactly when they need it! See how it works!' followed by a small plant icon. The ad features two main images: on the left, a photograph of a green plant in a white pot with a glass bottle of water connected to it by a thin tube; on the right, a smartphone screen displaying the 'My Plants' app interface with a list of plants: 'Acasia', 'Clusia Rosea', and 'Sanseveria', each with a water drop icon and a percentage. Below the images are two text boxes: 'Easy to install, just insert the PlantGuard...' and 'Tracks plants' health and waters when...'. A 'Learn More' button is positioned between these two text boxes.

Figure 29: Facebook ad for smoke test

Your plants are safe with me

Water your plants while your away: PlantGuard keeps track of your plants' health and waters them exactly when they need it.

Order yours →



Do it yourself

No need for other people to take care of your plants when you're away: you have full control with our remote system.



Check wherever you want

You can check your app to view how your plant is doing, anywhere around the world and adjust the amount of water it receives if you so desire.



Easy to install and use

Installing takes only a few mins. The sensor will adjust the amount of water the injector gives, tailored to each individual plant.

How does it work?

PlantGuard is set up in no time



Easy to install and use

When setting up your PlantGuard you first insert the sensor and injector into the plant pot.



Check anywhere

The app shows the status of your plants wherever you are. A sensor indicates the plant's health in the app and when their watering is.



Do it yourself

Go on a trip without having to ask people to take care of your plants. After your trip you can remove the injectors and only use the sensor to keep track on how your plants are doing.

Figure 30: Landing page from <https://plantguard.landen.co>

Results

After only three days 1152 people clicked on the landing page and 260 people proceeded to click on the order button. This was a conversion rate of 23%. This is an extremely high number compared to an industry average of 2.31% (Bond, 2020). On this order page people were shown that the product is still in development and they could leave their email address and any comments they had.

Skewed initial result: 23%
CVR compared to industry
standard of 2,31%

There were however some issues. The product did not have a price shown anywhere. It could be that people were just curious to find out how much it costs or find out further details on the product.

It is therefore not such a good simulation for actual purchase intention.

To have a more convincing test an additional product page was added, displaying price, more details regarding the product and actual purchase buttons. This product page can be seen on the next page in figure 31.

Also when people pressed a purchase button they were led to a page asking them to leave their e-mail if they want to place a pre-order. Anyone who leaves their contact information is seriously interested in the product.

The results were interesting. During the 4 days this test was run 2760 people clicked on an advertisement and landed on the home page. 1129 of these people (41%) clicked on the order button leading them to the product page shown here on the right. Finally 83 people actually clicked on the purchase button resulting in a conversion rate of 3% compared to the original 2760 people that clicked the ad. This percentage is much more realistic and a great result. Additionally seven people left their contact information. These people are great to contact and ask if they are willing to share their thoughts on the product and the issues it solves. These could be valuable lead users that you can co-create another iteration or test initial prototypes with.

Final result: 3% CVR
and 7 people wanting
to pre-order



PlantGuard Starter kit

The starterkit contains everyting to begin taking care of your plant when you're away

- 3 Injectors**
Smart Injectors for up to three plants
- 3 Sensors**
3 small discrete sensors to meausure your plants' conditions.
- Application**
An app to connect your sensors data with the injector and to view how your plants are doing.

Get yours

PlantGuard can grow with your always expanding jungle

<p>PlantGuard starter kit Get started today</p> <p>€59,99</p> <ul style="list-style-type: none"> ✓ 3 injectors ✓ 3 sensors ✓ App with regular updates ✓ Expendable with more PlantGuards <p>Purchase</p>	<p>PlantGuard Single for 1 plant</p> <p>€19,99</p> <ul style="list-style-type: none"> ✓ 1 sensor ✓ App with regular updates ✓ Expendable with more PlantGuards <p>Purchase</p>
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Made with umso

Figure 31: Product page from <https://plantguard.landen.co>

5.0 Project Conclusion

The goal of this project was to figure out how Hombli could become a more innovative brand with a distinguishable story through the use of design.

In order to achieve this goal, Trend Spotting was used to create a new future direction for the brand. This new direction focusses on home well being instead of just user friendliness and simplicity. This direction provides more clarity on what products Hombli should launch and it makes them stand out more from the competition.

Next to that the company's current way of innovating (incrementally) was redesigned using a User Centered Design approach. By iterating on this process together with the employees of Hombli, a new process emerged. This process is now implemented in the organisation and used to select what products the company is going to launch under its brand.

Furthermore a new innovation process is introduced. This exploratory way of validating new ideas is put in practice with an actual product idea: indoor plant care. By validating assumptions with desk research, interviews, co-creation and a smoke test, this idea is validated and iterated on further by the company. Indicating that this new innovation process has had a positive impact.

Although these initial results were positive, the company needs to be willing to keep these processes alive in the organisation to benefit from them in the long run.

5.1 Next steps and recommendations

Pursuing the direction of well being

The main benefit of now having a more clear direction is having a better grasp at knowing what to look for in terms of products and experiences. This does however also mean that it eliminates some possibilities for the brand. In order to become this recognisable well being brand, it would be unwise to focus on devices that do not match or outright contradict this story.

It is also advisable to re-evaluate at least once per year if this current direction is still distinguishable enough from the competition. Otherwise Hombli runs into the same predicament it had with its current strategy.

In line with the previous recommendation, Hombli can send out a survey among its users some time in the future when more well being products are launched. Hombli can then see if customers are indeed satisfied with this new direction and it can see if these are existing customers that buy these products, or that it brings in newcomers.

The sourcing innovation process

In order to keep this process working, it is vital for the company to do these weekly meetings. It is important that one person manages the meeting. This person makes sure the meeting does not take too long and he or she has an overview of what products need to be discussed. Hombli already has a person in place for that which is great. However they do need to be vigilant for slipping back into old habits. During the last few weeks at Hombli, it was sometimes difficult to get everyone in the same room for the meeting.

Next to that there also needs to be looked into if enough products are killed or not in the long run (Cooper, 2008). If every idea gets through the process, it loses its use. On the other hand if nothing gets through, the kill/go gates are probably too strict.

The exploratory innovation process

For this process there are a number of recommendations. Due to the fact that people are already quite occupied with the day-to-day tasks from the sourcing innovation process, it can be quite hard for Hombli to find the time to pursue new directions. It is however vital that this does happen. Preferably Hombli assigns this task to one employee whose sole job it is to pursue new directions. This person preferably has a background in design or business development and has experience in working with validation techniques and unproven ideas. Someone with a background in start-ups for example would be a good fit for this role. An added benefit of an employee dedicated to this process, is that they are independent from the sourcing funnel. Large corporations tend to also dedicate separate teams in a venture, independent from the company, to minimise the influence of the rest of the firm on their innovation process (Pisano, 2015).

Working together with marketing is also something to take into consideration for this process. With their expertise on targeted advertisements and landing pages, it was easy to progress quickly.

If Hombli gets more used to working with the exploratory innovation process and it has enough employees to focus on it, the process can easily be scaled up. Multiple directions could be looked at the same time, comparing conversion rates to see what direction has the most potential. By doing multiple of these explorations at the same time, the chances obviously also increase for finding an idea that is successful.

In order to make sure the exploratory process is actually used, certain KPI's can be assigned to it. By making it required to do this process at least once a quarter, it comes on people's calendar, because they have to work with it. Having a KPI can also give some insurance that the company is actively looking for new directions.

5.2 Reflection on the chosen approach

A limit to this research is the fact that follow up interviews of the Hombli survey did not yield new insights. Meeting in person or via webcam could have been more useful, since the interviewee's appearance and interior is then visible, giving more insight on their personalities and living situations. Asking all these small details over the phone was not doable.

Due to time constraints some aspects of the exploratory process were not performed. First of all the idea finding stage was skipped. Performing the actual research and validation rounds were chosen to show the company that the process can work, no matter what idea you start with. With more time the ideation process of the company would have been further analysed and brainstorm sessions with employees could help show if there is lack of ideas or creativity inside Hombli. Now there is simply no sure answer to that question.

Next to that more time should have been spent on validating the initial assumption that the plant care market was big enough. Next time a market sizing calculation should have been done to give some indication on what Hombli could earn on this direction.. For the sake of this project and the limited time that was left in the final few weeks, this step was skipped.

It would also have been interesting to validate multiple idea directions at the same time. This way they could be compared with one another to see if one has more potential than the other. Figuring out the process for one direction proved to be hard enough.

The last step of this process was also not performed due to time constraints. This final step of the exploratory process would also have been valuable to research. Finding the sweet spot for having done enough validation to scale up to an actual product would have been insightful.

5.3 Reflection on my Personal development

What did I learn that I will take with me in my future career?

One of the most valuable things I have learned during my time at Hombli, was that you constantly need to be aware of who you have in front of you when you discuss something as vague or complex as an innovation process. I learned that each employee has a different view on innovation and different biases because of their experiences and educational backgrounds. This showed me the importance of using tools such as boundary objects to make your message or strategy visible, making it much easier to explain and discuss.

Another valuable lesson was that something so industry and company specific like an innovation process, can only be designed by actually doing it with the employees of the company. At first I was quite hesitant to adjust the current process, but there is just no way to know what the ideal process is before actually using it. It taught me to take a deep dive and iterate on the responses instead of trying to figure it out on my own.

Next time I also would keep my focus more on the end goal. I had the tendency to sometimes stick too long to a particular task and just kept diving deeper into it. A good example of this was looking into the customer data in the back-end. Diving in those numbers and trying to find connections between different products and users has cost me quite some time, while in the end a fraction of this data is actually useful for my story.

I also had an experience regarding stress and project management. During the project I was already applying for a traineeship and I was working in a start-up one day a week. This did give me more stress than I anticipated. Especially during the final weeks while writing the report when I was working full time at my traineeship already, I did notice this was not a healthy way to live and work. I sometimes was so stressed I could not get any work done at all. In the future I hope to avoid this. In my traineeship I already have a more tight planning on my project and I lowered the amount of time I spend on my start-up. I have learned to not always say yes to every opportunity that passes by, because you simply can not do everything at the same time.

What were my personal goals?

My first personal goal was to have more impact with this project. Project results from courses were often not used by companies and during those projects I never really felt a part of a company. This graduation project did give me the opportunity to have an impact and to be a part of a team. My suggested sourcing innovation process is actually implemented and the direction of well being is adopted in the company's strategy. During the project itself, people were always happy to answer my questions and they were more than willing to try my proposals and to think along with me. This gave me quite some confidence in my abilities as a strategic designer, which is something I have my doubts about sometimes.

The second goal I wanted to achieve was to see if my second masters from RSM gave me an additional benefit in this project. I think having this prior knowledge on innova-

tion in general and innovation processes in particular did indeed give me an advantage over a 'regular' SPD student. I noticed that I could quickly distinguish what kind of innovation took place in the different brands of the company and how the existing process was quite similar to Stage Gate. The sooner you identify these factors in a company, the quicker you can act on it and propose adjustments or alternatives.

Nevertheless I also notice that having a design background is very useful in this sort of project. Working on a project where you do not know the outcome of is something I learned during my time at Industrial Design Engineering. Being able to try possible solutions and iterating on those solutions is something I did not get taught in my masters of Innovation Management. In my opinion it was more the theoretical knowledge that was the main benefit of this RSM masters, whereas IDE gave me the tools and way of thinking to come to a good result.

Thirdly I wanted to learn more about IoT and benefits it can bring. This goal is something I learned about by just working on this project, but I did not actively dive into the technical aspects such as communication protocols or all the different possibilities of IoT. I did not need this in depth knowledge during my project, so I did not spend that much time on learning all about IoT.

Lastly I wanted to innovate inside a company. Having had several courses on idea validation and entrepreneurship, it was interesting to try and apply this theory inside a company that has not done so before. I think I was able to do this with Hombli, by testing out the new innovation process in practice, by validating if a product idea had any potential. Currently a new product design intern is pursuing my direction of indoor gardening and plant care further, providing some initial indication that my direction exploring helped achieving this goal. To see if the new innovation process really catches on, would require to check in later with the company, but for now I am content with the results.

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IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

! USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT

Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

Save this form according the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !



family name _____
 initials _____ given name _____
 student number _____
 street & no. _____
 zipcode & city _____
 country _____
 phone _____
 email _____

Your master programme (only select the options that apply to you):

IDE master(s): IPD Dfl SPD

2nd non-IDE master: _____

individual programme: - - - (give date of approval)

honours programme:

specialisation / annotation:

SUPERVISORY TEAM **

Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair _____ dept. / section: _____
 ** mentor _____ dept. / section: _____
 2nd mentor _____
 organisation: _____
 city: _____ country: _____

comments
(optional)
 :
 :

! Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v..

! Second mentor only applies in case the assignment is hosted by an external organisation.

! Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

APPROVAL PROJECT BRIEF

To be filled in by the chair of the supervisory team.

chair _____ date ____ - ____ - ____ signature _____

CHECK STUDY PROGRESS

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: _____ EC

YES all 1st year master courses passed

Of which, taking the conditional requirements into account, can be part of the exam programme _____ EC

NO missing 1st year master courses are:

List of electives obtained before the third semester without approval of the BoE

name _____ date ____ - ____ - ____ signature _____

FORMAL APPROVAL GRADUATION PROJECT

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks ?
- Does the composition of the supervisory team comply with the regulations and fit the assignment ?

Content: APPROVED NOT APPROVED

Procedure: APPROVED NOT APPROVED

comments

name _____ date ____ - ____ - ____ signature _____

_____ project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date _____ - _____ end date _____

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

space available for images / figures on next page

introduction (continued): space for images

image / figure 1: _____

image / figure 2: _____

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

[Empty space for Problem Definition with a vertical dashed line on the left side]

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

[Empty space for Assignment with a vertical dashed line on the left side]

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date _____ - _____ end date _____

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, Stick to no more than five ambitions.

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FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

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