

A future-proof food box

Making sustainable consumption choices easier with design

Graduation report
Arwin Visser



Master thesis

Integrated Product Design
Delft University of Technology

Author

Arwin Visser

Chair

Dr. Jan Schoormans
Professor of Consumer Behavior
Delft University of Technology

Mentor

Ir. Matthijs Buijs
Principal Coordinator Build Your Startup
Delft University of Technology

Acknowledgements

Maybe fighting climate change with a food box wouldn't be the first thing to cross your mind when reading the thesis of a product designer. But, for me, it proves that every problem can be tackled and solved with the designer skill set that I have obtained throughout my studies. Over the last 6 months I have worked on my last student project, where the mission of Goodcase (see appendix A), an interesting design opportunity and a huge societal challenge come together.

Graduating during an epidemic hasn't always been very motivating, but fortunately the people that guided me throughout the project were. Therefore, I want to thank these people in particular.

Jan. Your countless anecdotes and sharp opinions, about everything we talked about, were the reason that I often started and ended our meetings with a laugh. Especially when sitting alone behind your desk all day, these moments were very valuable. Furthermore, your enormous amount of knowledge, experience and practical advice often steered me in the right direction and helped me to push through some of the difficult parts of this project. The TU Delft is going to miss you!

Matthijs. You have been there since day one of Goodcase, as a mentor and coach, and I really appreciate all your time and effort. What makes you a great coach, in my opinion, is that you are really empathetic. You truly understand the problem or difficulties someone is facing and always provide great, practical advice. Also, your calm attitude is contagious and helpful in stressful times. Thank you for all the conversation during our meetings, that helped me a lot throughout my project. Hopefully, for the TU Delft, you will be coaching many more entrepreneurial students in the future.

Alex Klootwijk. Thank you for helping me to take my brainstorm sessions to a whole other level. When I contacted you I wasn't very inspired. But after a couple hours showing me the right tools and theory, I was able to create a semi-professional brainstorm session. And they worked out really well.

All brainstorm participants. Thank you for your time.

Thank you. For reading this report. Hopefully it inspires.

Arwin Visser.

Executive summary

Our food system has a huge impact on the environment and is one of the largest contributors to a global threat: climate change. The meat industry alone accounts for 15% of the greenhouse gas emissions. So, the solution would be eating less meat and dairy. But although the Dutch eat most meat replacers in Europe, the annual meat consumption hasn't declined between 2005 and 2019.

The growing number of vegans and vegetarians in The Netherlands show that it isn't always willingness to eat less meat, but often it is habitual behaviour that is hard to disrupt. Teaching and preaching sustainability is proven to be ineffective, since consumers often filter out information that doesn't result in short-term benefits and personal gain. Filtering out information is to reduce the mental load that consists of several struggles that consumers experience in the cooking process: finding inspiration, sticking to their budget and eating healthy and varied food. And even if consumers consider sustainability, it almost never has top priority.

Therefore, a product or service that wants to help consumers choose to consume more sustainably should, primarily, focus on offering personal value and short-term benefits. In addition, sustainability has to be subtly incorporated, but never be the main attribute of the product.

Consumers are already looking for help with their struggles in the cooking process, like finding inspiration and help online and buying products that make cooking simpler and more convenient, like food boxes. But, research shows that consumers quit their food box subscription, because it is too expensive and they have no control over the size, quality and price of the vegetables. Furthermore, the recipe and herbs/sauce of the food box are considered more valuable than the vegetables.

Therefore, the product that is developed in this project is a food box without vegetables. Instead, consumers receive a recipe, for inspiration and including a shopping list, and a ready-to-use sauce made of natural herbs and ingredients, which helps them with the most expensive and complicated part of a meal. All recipes are vegetarian, which nudges sustainable consumption, without compromising on price and convenience. Vegetables can be purchased in the local supermarket or local market. This increases the physical barrier compared to regular food boxes, but gives the consumer a lot of flexibility in return.

The focus of the solution is to reduce the mental load for the consumer by making eating less meat easier, not more complicated. The target group are generation Y and Z, because these generations are already most sustainable, like cooking and they live online, which make it easier to target them.

Reading guide

This report is written according to the inverted pyramid model. Meaning that the most important information, conclusions and solution, is presented first. There will be references to following chapters where supporting details and research is further elaborated. A quick overview of the report:

Result:

Chapter 1 and 2: Summary of all important conclusions, followed by the design solution.

Proces:

Chapter 3: Defining the problem statement.
Chapter 4: Design challenges, resulting in a design solution.
Chapter 5: User test to test the solution.

Additional:

Chapter 6: Suggestions for the next steps for the solution.
Chapter 7: Additional research
Chapter 8: Appendices
Chapter 9: Sources

Table of contents


1 Intro	5
2 Solution	27
3 Kick-off	40
4 Design challenges	47
5 User test	58
6 Next	62
7 Research	68
8 Appendices	86
9 Sources	121

1 Intro

and insights summary

1.1 The why: climate change

Our food system has a huge impact on the environment and is one of the largest contributors to a global threat: climate change. The meat industry alone accounts for 15% of the greenhouse gas emissions. But the biggest problem is the surface and resources that this industry requires. More than 75% of agricultural land is used for livestock, while returning less than 20% of the global calorie supply and less than 40% of the global protein supply. Millions of hectares of habitable land have been deforested in the last decades and turned into agricultural land, predominantly to grow and raise livestock to provide the world with meat and dairy. The consequence? Disrupted ecosystems and biodiversity, that keeps this planet healthy, destroyed. And with livestock production forecasted to double between 2000 and 2050, the transition towards a plant based diet is going to play a crucial role in fighting climate change. Research on the impact of our food system is elaborated in the following chapter.

A young orangutan with reddish-brown fur is perched on a tree branch in a dense, green forest. The orangutan is looking towards the camera with a calm expression. The background is filled with various shades of green leaves and branches, creating a natural and vibrant setting.

Orangutans in Borneo and Sumatra are threatened with extinction, because of the intensive logging of forest. The land will be used for palm oil plantations and to raise cattle.

Research 1.1: How sustainable is our food?

R.1.1.1 Is our diet really a problem?

In March 2020 the world population was estimated at 7.8 billion people. Experts predict that number to be almost 10 billion by 2050. See Figure 1. That requires the overall food production to increase with 70%¹, and almost double in developing countries where the trend of the growing population is stronger. All the developments that are required to achieve this, demand a price, a high price. Depleted agricultural land, water shortage, human exploitation, animal suffering and, on which we will focus most in this project, climate change. Altogether, the human race faces tremendous challenges the coming decades. With global temperatures rising, oceans warming, glaciers retreating and extreme natural disasters, like the extreme fires in Australia and California in recent years, there is compelling evidence that our climate is changing. But what is the role of food in this context?

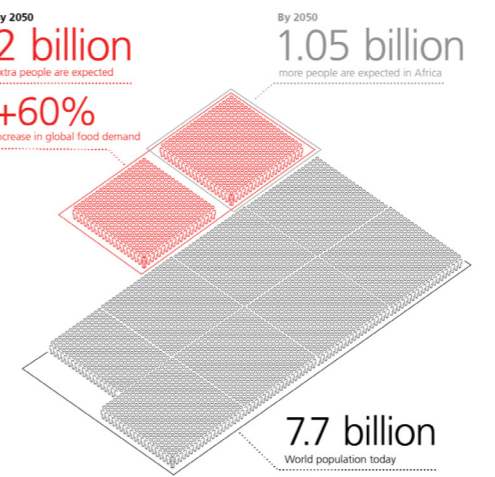


Figure 1. World population by 2050. Source: United Nations, Worldometers, June 2019

Food accounts for 26% of the global greenhouse gas emissions². See Figure 2. Only the meat industry accounts for 15% of the global greenhouse gas emissions. The most important greenhouse gases are carbon dioxide, methane and water vapour. These gases absorb heat that is emitted from the earth's surface, that is heated by sunlight, and is called the greenhouse effect. This is a natural phenomenon. The greenhouse gases are essential to keep the average temperature on earth around 15 degrees celsius instead of -18.³ But the amount of greenhouse gases in the atmosphere are increasing beyond earth's capacity to keep a natural balance. See Figure 3. Too much gases will have a negative effect on all life on earth, temperatures rise and ecosystems get out of balance. In addition, the oceans have absorbed large amounts of carbon dioxide. With warming

What are the environmental impacts of food and agriculture?

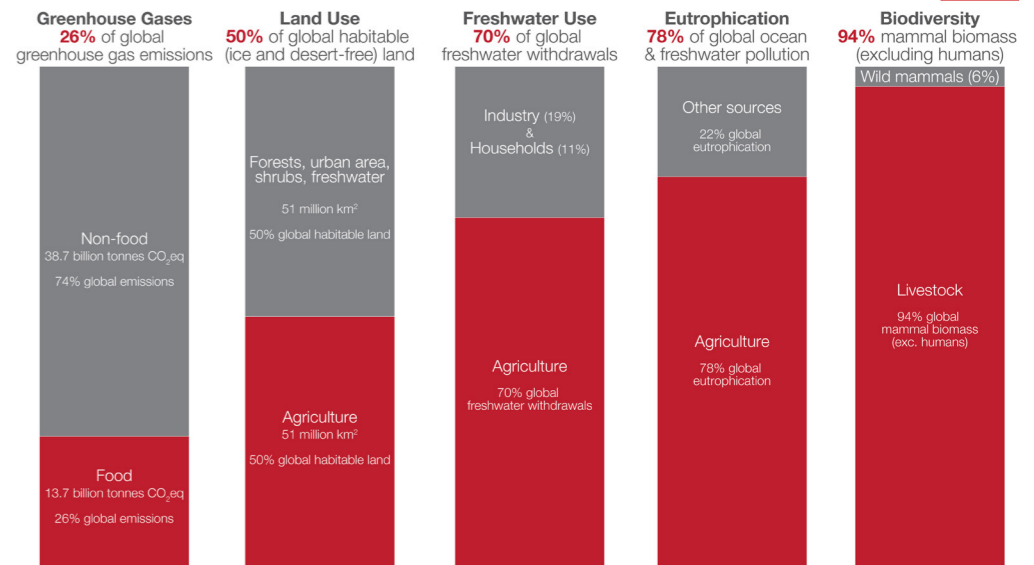


Figure 2. Impact of food and agriculture on the environment. Source: Our World in Data

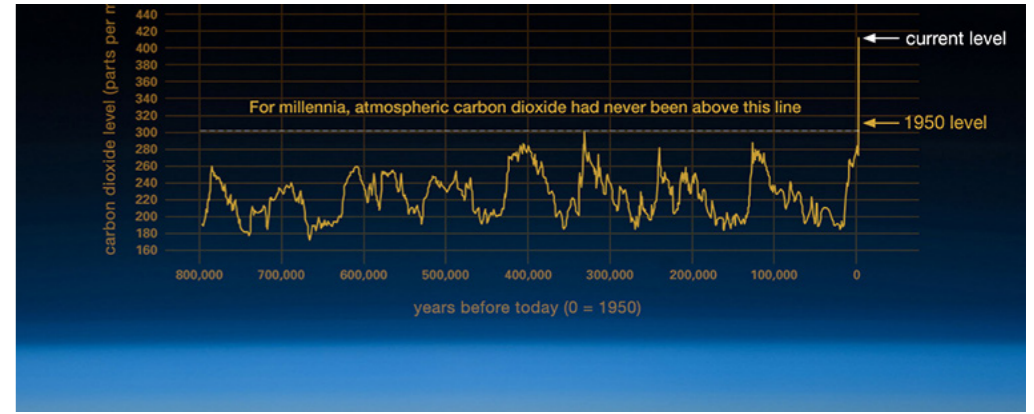


Figure 3. Carbon dioxide levels over time. Source: NASA.

water temperatures the world's coral reefs, on which 25 percent of life depends on, is dying⁴. And, what maybe not many know, is that all the oceans provide critical resources that sustain all life on earth⁵. Over 3 billion people rely on the ocean as their source of protein and 50% of our oxygen

is produced by the ocean.

Next to the greenhouse gas emissions it is the use of agricultural land that has a significant negative impact on the environment. More specific, how we use agricultural land and how we keep expanding it. In 2019 more than 50% of habitable land was used for agriculture, leaving 37% for forests and 11% for shrubs, 1% for freshwater and 1% for urban areas. See Figure 2. If we take a closer look at what purpose we use agricultural land we see that 23% of the land is used for crops, but at the same accounts for 82% of the global calorie supply and 63% of the global protein supply. The meat industry claims more than 75% of agricultural land, while the return on calorie and protein supply is way less. See Figure 4. This demonstrates there is unbalance in the way we use our land. But why is this a threat? There are several reasons. The majority of the agricultural land as we know it was once covered with trees, forests and full of life. In 1700 more than 90% of habitable land was covered in forest, shrubs and wild grasslands. In 2018 that is only 52%, meaning that in a couple centuries more than 4 billion hectares of land have been deforested⁶. All to supply the demand for our meat-based diets. According to WWF this results in the loss of 60% of our global biodiversity⁷, which plays a key role in the functioning of our ecosystems. Deforestation is also a threat because trees and vegetation produce oxygen, store carbon dioxide (one of those greenhouse gases that we emit too much) and provide a natural habitat for wildlife that are part of the biodiversity. And deforestation is still happening today. If we look at Borneo, also used as an example in the documentary 'A life on our planet' from David Attenborough, we see that almost all forest is lost in only 50 years. See Figure 5. One of the main drivers are agricultural purposes for the land, as well as the need for timber and mining charcoal. Another well known example is the rainforest in Latin America. Rainforest needs to make place for agricultural land to supply in our demand for meat, soy and palm oil.

The impact of our food consumption, the meat industry being the largest contributor, on the environment is evident. And with livestock production forecasted to double between 2000 and 2050⁸, we need to act now before it is too late. But how? Experts call for attention to the environmental gains associated with diets lower in livestock products⁹. In other words we need

Global land use for food production

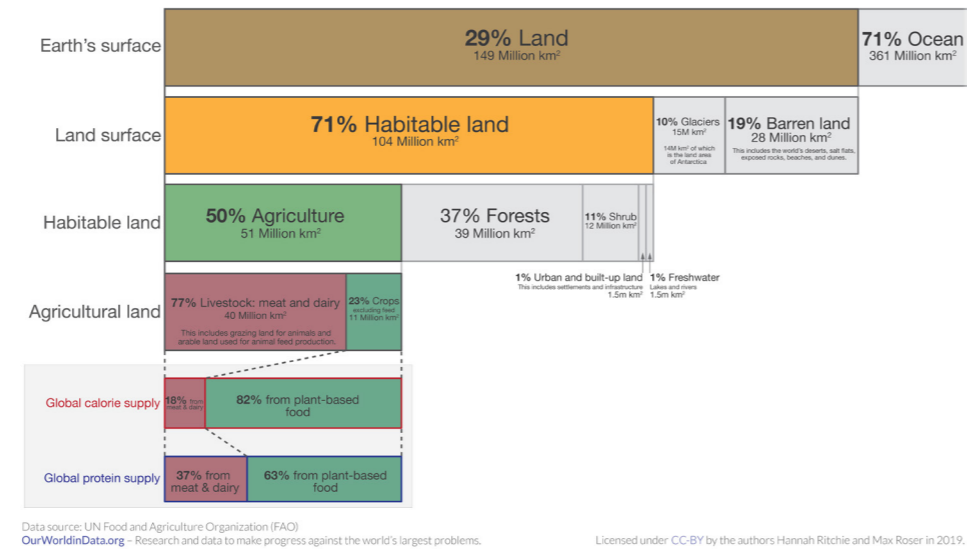


Figure 4. Global land use for food production. Source: Our World in Data

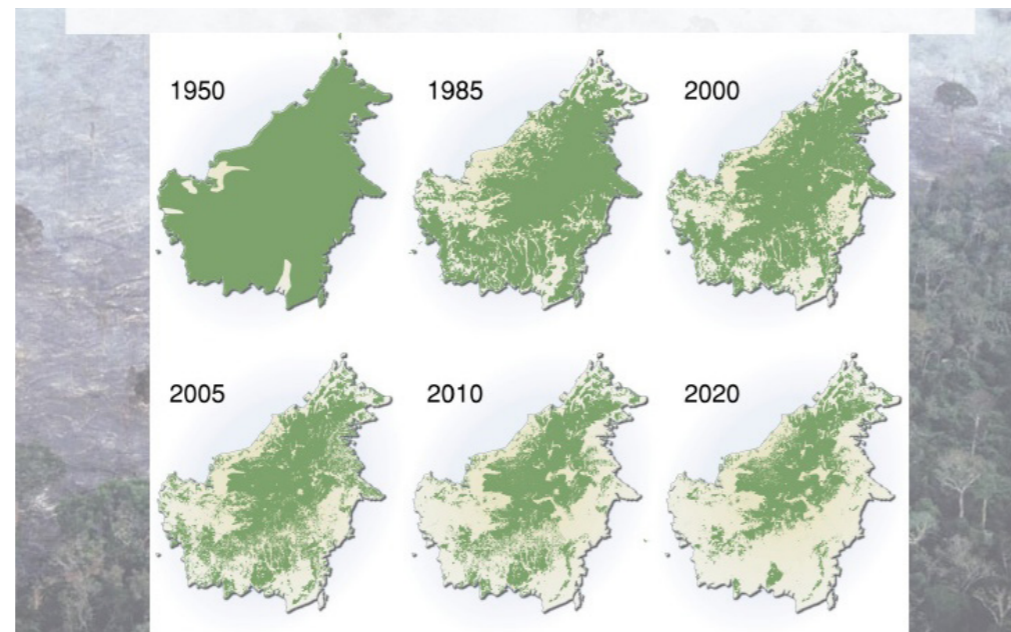


Figure 5. Deforestation of Borneo, with agriculture as main driver. Source: Slideshare education.

to transition from a livestock protein-base to a plant protein-based diet. Less livestock products, like meat, will claim less of the habitable land and allows that land to be forestated again. More forest will restore biodiversity, making the environment more resistant to human impact. In addition, less livestock will directly decrease the greenhouse gas emissions.

Stehfest et al.(2009)¹⁰ calculated the effect of changing our diet in four scenarios until 2050. Three of them are reduction of the consumption of ruminant meat, all meat or all animal products. The data shows that reducing ruminant meat consumption would save around 2700 million hectares of grassland. See Figure 6. That is 2.7 times bigger than the USA and 675 times the size of The Netherlands. One hectare of trees absorbs around 6.4 tonnes of carbon dioxide per year. That means that if we would reforest the area, the trees would be able to annually absorb over 17 billion tonnes of carbon dioxide. In 2017 the USA emitted around 5.33 billion metric tons of carbon dioxide. The USA ranks second in world largest CO2 emissions. In addition, this area will allow for thousands of animal species to live and thrive, restoring part of the 60% of biodiversity we have lost. So far all insights concern global impact on the environment. But if we look

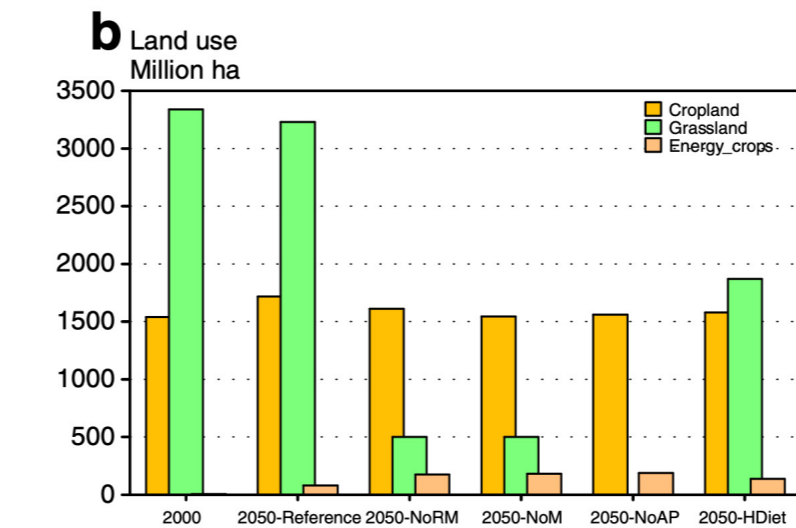


Figure 6. Land use for different diets. NoRM is No Ruminant Meat, NoM is No Meat, NoAP is No Animal Products.

closer at home, at our food consumption in The Netherlands, the numbers don't look promising either. If we consume like the Dutch worldwide, we need almost two planets¹¹. Europe is only home to 7% of the world population, but we use 20% of the world's biocapacity.

Conclusion

The way we consume animal products have proven to contribute to climate change. Reducing meat consumption, and animal products in general, is a key solution to this problem. Our planet needs us to switch to a plant based protein diet, rather soon. But there is a lot of work to be done to let consumers realise the urge of this issue and transition towards a more plant based diet. But this also allows for thriving business opportunities!

R.1.1.2 Is sustainable food an interesting opportunity?

The food market and industry are still predominantly animal-protein driven. Everyday 1.7 million animals in The Netherlands are slaughtered and their meat processed¹², also for export. And the average Dutch consumed 77,2 kilograms of meat in 2018¹³. But the food industry is also changing. Especially in recent years there have been major developments. A lot of plant based alternatives for dairy and meat, that have the most impact on the environment and animal well-being, have been introduced in the market. But who is participating in this transition and how fast is it going?

Large corporations like Mcdonald, Burger King and Subway are introducing plant based products in their menu. Beyond Meat signed a new contract to be the supplier of plant based meat for Mcdonald early this year. Burger King in The Netherlands is working together with the Vegetarian Butcher for a plant based burger and they expect to sell about 650.000 burgers annually¹⁴. Food boxes have grown in popularity, partly because of the COVID-19 pandemic that demanded convenience. Companies in this market, like HelloFresh, Marley Spoon and De Krat, expand their product range with vegetarian and vegan options and they grow in popularity. Over half of De Krat's subscriptions consist of vegetarian boxes. According to research that De Krat conducted among customers that have a vegetarian box subscription they found that only 1 out of 5 never eats fish or meat¹⁵. The others consider themselves as 'flexitarian', stating they eat meat less than twice a week.

Also the variety in plant based alternatives the supermarket has grown. This is an interesting market, because the majority of our society gets their groceries at the supermarket. Meat replacers are especially popular. According to IRI Nederland¹⁶, the revenue from meat replacers in supermarkets have grown over 50% between 2016 and 2018. Also plant based dairy is getting popular. In 2019 the revenue from plant based dairy in all supermarkets in The Netherlands surpassed 100 million euros, a milestone according to market researcher IRI Nederland¹⁷. At the same time, consumers are still not happy with the variety in the supermarket¹⁸. According to Proveg the

relatively low consumption of plant based products is probably due to the limited plant based product range in the supermarket and not the lack of consumer demand.

But not only the bigger companies see opportunities in the limited product range in the supermarket. The developments in the industry have also allowed for many startups to grow and excel in the market and establish a strong brand identity. For instance Beyond Meat, founded in 2009 in the USA and now worth over 10 billion USD by creating plant based meat replacers. The Vegetarian Butcher, founded in 2010 in The Netherlands, had 12 million revenue in 2017 and acquired by Unilever in 2018 for 30 million euros. But there are also countless smaller startups, also in The Netherlands, that have sustainability as their main driver. Through innovation they create unique, sustainable food products and services that go beyond just replacing meat and dairy.

But switching to plant based food is not the only solution to contribute to a more sustainable food system. There are two other important topics that concern sustainability. The first one is food waste. See Figure 7. It is estimated that 30-50% of the food we produce never reaches a human stomach¹⁹. Food waste accounts for 8-10% of the global greenhouse gas emissions and 1.4 billion hectares, 1,5 times the size of China, of agricultural land is used for nothing. Food waste is a result of different factors that also depend on what part of the world the food is produced. In westernized countries the excessive quality standard is one of the drivers of food waste. "Major supermarkets, in meeting consumer expectations, will often reject entire crops of perfectly edible fruit and vegetables at the farm because they do not meet exacting marketing standards for their physical characteristics, such as size and appearance", according Fox et al. (2013)²⁰. Again the supermarkets, but also the consumer perception of food, plays a big role in sustainability. Besides food waste, there is also a social aspect that contributes to sustainability. This mostly concerns the farmers that grow our food close to home, but especially those in developing countries that provide our demand for exotic products like coffee and chocolate. Supermarkets and giant corporations have such strong positions that they can demand ridiculous low prices for products, leaving the farmers with barely enough to sustain themselves and their families. The result is that the

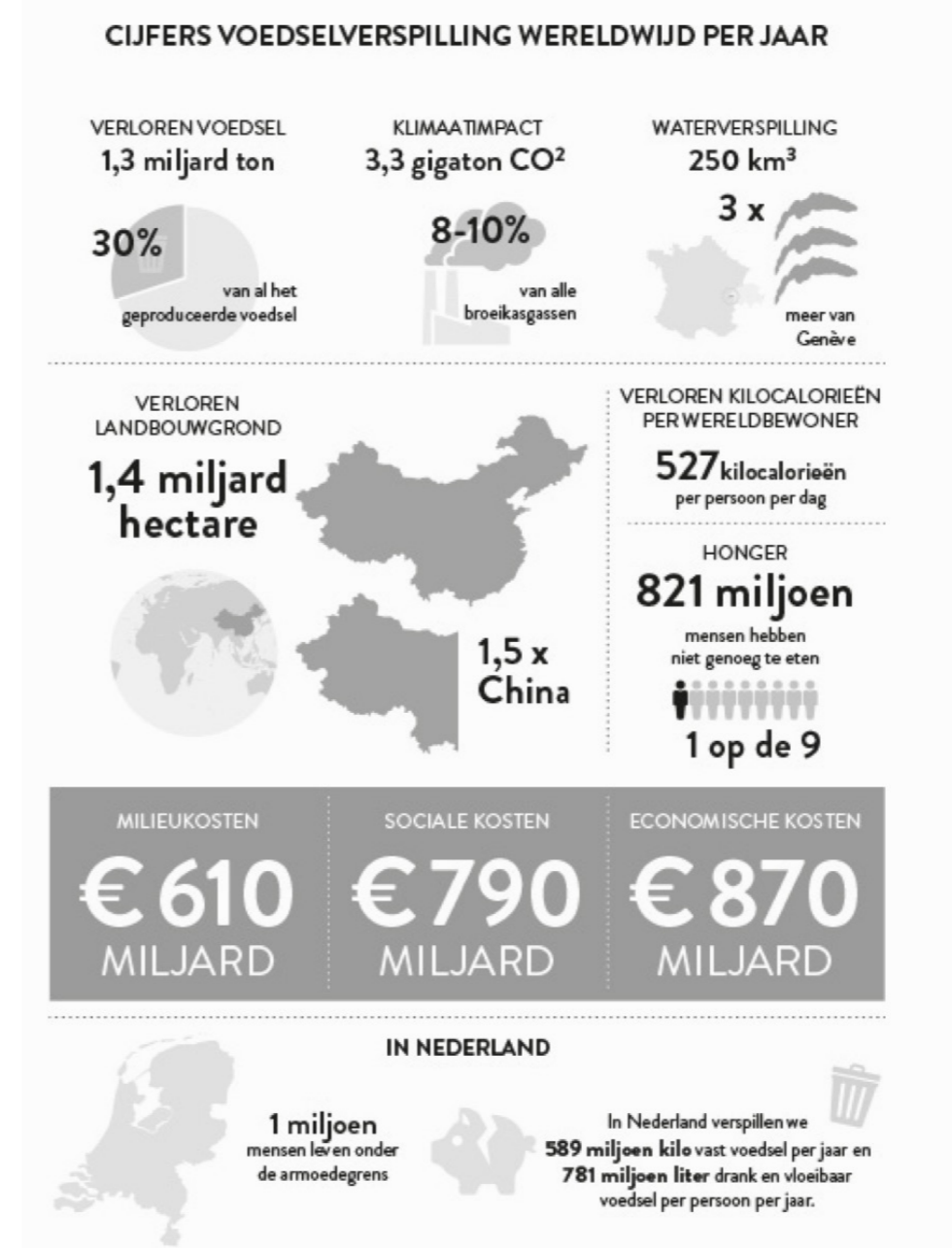


Figure 7. Costs of food waste. Source: Dieet voor een betere planeet.

farmers don't have enough capital to invest in their farms, making them more sustainable and efficient. Food waste and fair prices are additional drivers for the smaller, innovative food startups that Goodcase wants to work with. One example is Wakuli, that fights for a better price for the coffee farmer. They directly buy coffee beans from the farmer and ship it directly to customers, which benefits the farmer and not the supermarket, see Figure 8

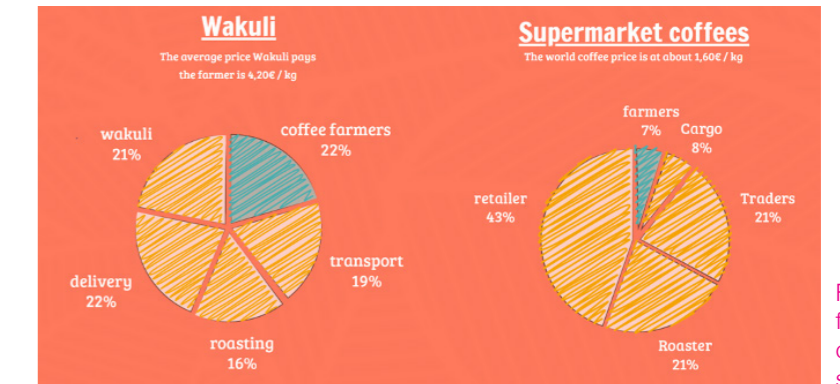


Figure 8. Price for farmers. Wakuli compared to supermarkets.

Conclusion

Plant based products are going to play a key role in the food industry and in our diet. Large corporations, retailers and startups, worldwide and in The Netherlands, are investing in plant based products to supply the growing consumer demand. Analysts from the bank UBS predict that the global market for vegetarian products will be worth 45 billion Euro by 2025, while the Barclays Bank predicts the market for meat alternatives to be worth 116 billion euros by 2029. Unilever, one of the largest food companies in the world, has stated that they aim for an annual revenue of 1 billion euros from plant based products in 5 years from now. The developments are still in an early stage, but this indicates that the market is growing. In addition, not only changing our diet will make a sustainability impact, but also fighting against food waste and social improvements for farmers are sustainability pillars.



Only 3,9% of the Dutch population is vegetarian, including 1,5% that is vegan. See chapter 7.1.

1.2 The numbers look great. Oh wait..

The solution? Eating less meat and dairy. The majority of meat is consumed during dinner, around two thirds. Dinner is also the meal where people put most time and effort in, see chapter 3.3. For the environment, this means that most impact is to be gained with focussing on vegetarian dinners.

Good thing the plant based food market and the share of meat replacers is growing. The global plant based meat market was US\$ 5.6 billion in 2020 and is predicted to reach almost US\$ 15 billion in 2027, see chapter R.1.1.2.

The Dutch consume the most meat replacers in Europe. And with 55% of the Dutch being flexitarian, see chapter 7.1, it looks like we are heading in the right direction. But meat consumption has not declined in the last few years. From 2005 to 2019 the Dutch consumed more than 75 kg meat per year on average²¹. Why is that?

1.3.1 The problem: stuck in habits

The main problem is that consumers, if they are willing to eat less meat, are stuck in their habits: cooking with meat is familiar and easy. Cooking without meat results in additional struggles and requires consumers to think more. How do I replace meat? How am I going to cook a tasty meal without meat? This is elaborated in chapter 3.

The struggles that consumers already run into while cooking, is finding inspiration for what to eat. Followed by sticking to their budget, time pressure and eating varied. What these struggles have in common is that they frequently recur, dinner is everyday, and that they are primarily a mental load: it requires thinking. In this hectic society where we have to think all the time, the time we are willing to spend thinking of our food after a long day is reduced to a minimum. So, although we are trying out meat replacers, the status quo is still what we used to eat a lot: meat.

What happens if we don't want to think? We don't change and keep eating things we already know the way we are used to. Stuck in our habits.

On the other hand, the growing number of vegetarians, vegans and flexitarians show that it is not the willingness to change our diet that we lack. But to speed up the transition, we lack a product or service that makes a plant based diet more convenient, reducing the mental load, and better than existing solutions. This will be further explained in chapter 3.2.



1.3.2 Sustainability (almost) never a top priority

Sustainability isn't always a popular topic and because consumers tend to reduce the mental load when it comes to food, motivating consumers to act and consume sustainably is a tough challenge. Habitual behaviour is hard to disrupt, even when people are motivated and willing to act sustainable. The traditional ways in the last decades of 'teaching and preaching' have not resulted in mass population behaviour change. In addition, It is a misunderstanding that providing 'correct' information leads to behavioural change. Providing only information is ineffective and may only raise awareness on the topic.

Changing behaviour is even harder for consumers that don't have sustainability as a top priority. When sustainability, which are longer-term collective interests and benefits, is one of the many attributes that a consumer needs to consider when purchasing a product, it will often 'lose' from attributes that are beneficial in the short-term. These attributes are often price, taste, availability and convenience. The reason for that is that human beings filter out information. There are two systems that process information. In short, system 1 makes fast automatic decisions based on habits, while system 2 is based on careful consideration. Because we are buying food so often it is a habit, something where we don't want to think too much, consumers rarely use system 2.

Conclusively, a product or service that benefits the consumer's self-interest and is also sustainable, as an additional driver, will likely be adopted quicker than when sustainability is the main product attribute.

Research regarding consumer behaviour is elaborated in chapter R.1.3.

Research 1.3: How our brain works in the food context

R.1.3.1 Theory on sustainable consumer behaviour

This chapter will elaborate on the theory of sustainable consumer behaviour to find out what factors are decisive for consumers to either choose or avoid sustainable products. In addition, strategies on consumer level that could help making more sustainable decisions will be elaborated.

Changing behaviour in general is proven to be very complex and difficult. And because sustainability is not always a popular topic, changing to more sustainable behaviour is even more difficult. According to Verplanken (2018), the traditional ways in the last decades of 'teaching and preaching' have not resulted in mass population behaviour change. In order to know best how behaviour can be changed, it is important to know how decisions are made from a psychological and theoretical perspective.

The behaviour segmentation model

The segmentation model from will be used as a starting point, see Figure 9. This model explains the three core elements of decision making, which are motivation, opportunity and habit. See Figure 10. These elements result in four behavioural segments. High motivation to act and high opportunity to act results in a segment with least unsustainable habits. Low motivation and low opportunity result in most unsustainable habits. Segments A and D are high either high or low on one of the axis and the other way around for the other axis. This model clearly shows why sustainable behaviour is hard to realise. Consumers are either lacking motivation, e.g. they don't hold pro-environmental attitudes, or opportunity, e.g. they lack the financial opportunity or fail to recognize opportunities. The third one is habit. Consumers are not conscious of habitual choices and are, therefore, not actively seeking alternatives. It is a misunderstanding that providing 'correct' information regarding one the three elements in the model leads to behavioural change. Providing only information is ineffective and may only raise awareness on the topic.

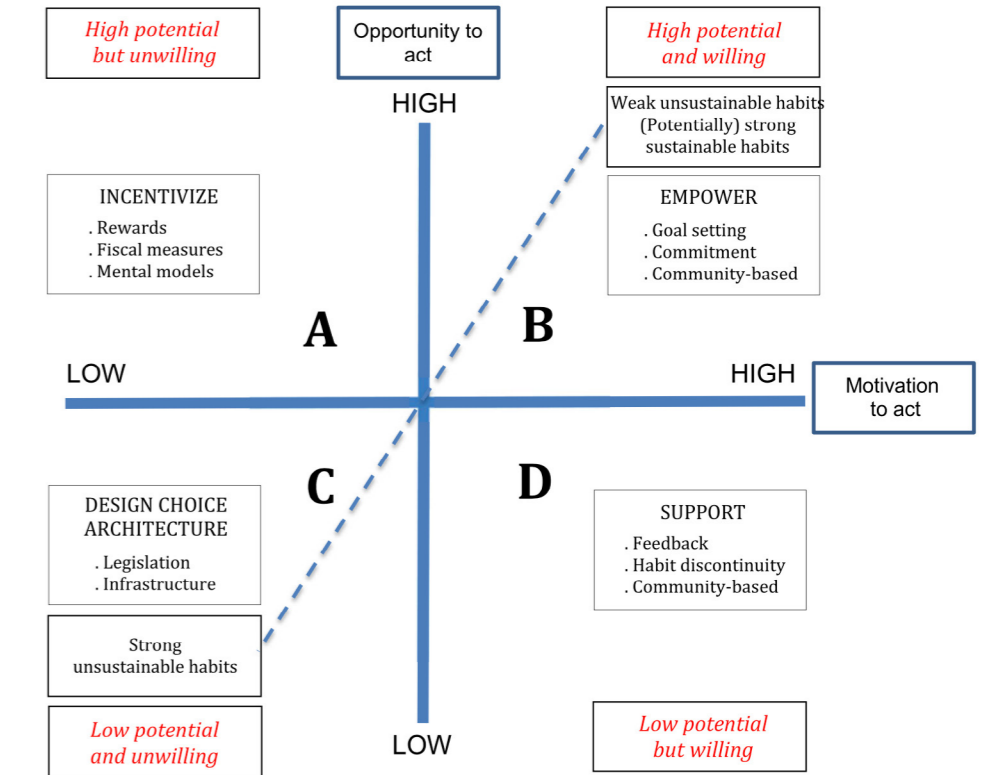


Figure 9. Segmentation model for sustainable behaviour.

Motivation:

Motivation is a key driver of human behaviour and is represented as an intention to act. Intentions are determined by attitudes, social norms and perceived behavioural control.

Attitude:

People are not following rational decision strategies, only considering the costs and benefits of a product, when they are purchasing a product. When environmental-related features are considered, they are competing with other attributes. Unless sustainable arguments are top priority, which is often not true. If people have to choose between many attributes, they tend to reduce the mental load. That means the amount of information to be considered. That leads to considering only the most important attributes. That is why sustainability faces a tough challenge in overcoming a social dilemma, choosing between self-interest and longer-term collective interests and benefits. Furthermore, Verplanken (2018) states that “Sustainability-related values such as preserving nature, protecting the environment, equality and social justice are characterized by a motivation to prioritize the wellbeing of others over personal benefits. These values only guide choices and behaviour if they are part of someone’s sense of identity.” This aligns with the consumer segment that has sustainability in their DNA, according to the BSR lifestyle profiles from chapter 7.1.1.

Social Norms:

Behaviour is influenced by social norms, consisting of injunctive and descriptive norms. Injunctive norms concern what most other people approve or disapprove. Descriptive norms are what most others do. An example to influence sustainable behaviour would be “two-thirds of your neighbours source their energy through renewable sources (Verplanken, 2018). Or “your energy consumption is above average”.

Perceived behavioural control:

The concept of perceived behavioural control consists of self-efficacy, how easy or hard it is to perform the behaviour, and controllability, the extent to which the performance is up to the actor. Perceived lack of control can prevent a person from behaving sustainably. But, on the other side, the feeling of being in control can motivate a person and can, therefore, be a driver for sustainability. An example is that some people think the government or politicians are in control of eating more sustainable, therefore lacking motivation to eat more sustainable themselves.

Opportunity:

Opportunity is whether a person can act sustainably, not depending on motivation. These can be very practical things, like infrastructure or financial constraints, but can also be personal skills and knowledge.

Habits:

An automatic response to regularly occurring situations. Furthermore, there are individual habits and habits on a societal level.

Figure 10. Explanation of the segmentation values.

Verplanken (2018) proposes certain intervention strategies for each segment, that could possibly lead to more sustainable behaviour:

Segment A might be most receptive to incentives. They are unlikely to be influenced by sustainability arguments. These arguments will be one of the many attributes to consider, and therefore most likely be excluded in the decision making process.

Segment B are the people that are behaving most sustainably or are easily persuaded into making sustainable decisions. But, even sustainable conscious consumers struggle to align their values with actions. In addition, this segment can be used to influence other people from other segments. Goal setting and commitment interventions are typically working best for this segment.

Segment C consists of people that are hardest to convince, lacking motivation and opportunity. Changing laws, legislation or infrastructure work best.

Segment D is motivated to make sustainable decisions, but lacks opportunity. Interventions are required that support, lower barriers or reveal opportunities

R.1.3.2 Decisions: drivers and barriers

As stated before, sustainability faces a tough challenge, according to Verplanken (2018), as a result of people’s attitude: choosing between self-interest and longer-term collective interests and benefits. This aligns with cognitive barriers to sustainability, according to Trudel (2018). There are two psychological systems that work in parallel in any given task:

System 1 makes fast automatic decisions based on familiarity and associated memory. The decisions are then accepted, rejected or corrected and lead to habitual behaviour.

System 2 makes decisions based on careful considerations of available information, using cognitive processing. The benefits of sustainable behaviour are often only achieved years down the road and therefore require system 2. The challenge of sustainable behaviour is that it almost always requires system 2 to override system 1, that requires less effort, less thinking and has more appealing short-term benefits. Therefore, decreasing effort and reducing personal sacrifices will help for system 2 to override system 1.

The benefits of sustainable behaviors are psychologically distant, abstract, uncertain, and difficult for consumers to grasp (Spence, Poortinga, & Pidgeon, 2012). These cognitive barriers to understanding sustainable benefits contribute to consumers’ present bias—the tendency to prefer outcomes that are closer to the present when considering trade-offs between two outcomes (O’Donoghue & Rabin, 1999). There are two possible ways to overcome the present bias. The first is to have people adopt a future focus, making the future more salient in the present or have consumers process more abstractly and with a future focus. The second is making consequences less abstract and more tangible (Verplanken, 2018). For instance, personal experiences with extreme weather conditions increases the awareness of climate change.

Self-interest

People are often motivated to behave consistently with their own

environmental beliefs and to present a positive image of themselves to others for self-signaling benefits (Bodner & Prelec, 2003; Sun & Trudel, 2017), self-identification benefits (Belk, 1988), status benefits (Griskevicius, Tybur, & Van den Bergh, 2010), or reputational benefits (e.g., Semmann, Krambeck, & Milinski, 2005).

Making consumers aware of the potential discrepancy between their self-standards and actual behavior can motivate sustainable behaviors, although through an alternative mechanism. That means, avoiding the guilt associated with self-discrepancy (Higgins, 1987). Behaving consistently with their self-identity allows individuals to view themselves positively, however this also works the other way around. It can also lead to self-defensive behaviours, e.g. denying climate change. (Feygina, Jost, & Goldsmith, 2010).

R.1.3.3 Behaviour regarding food

Different aspects of sustainable consumer behavior in general have been elaborated. This chapter will elaborate on the earlier mentioned difficulties and possible interventions around this topic, in the context of food.

Food behaviour is particularly normative and deeply embedded in cultural norms, often defined by what it is expected to be in its social context. So long as basic needs are met, food choices are determined more by questions of status and identity rather than nutrition and hunger (Dzene & Yorulmaz, 2011). Food selection and consumption are also habitual behaviours that will remain generally stable so long as a person does not experience adverse effects like poisoning or disease (Capaldi, 2006).

According to Muñoz et al. (2016) there are several steps in the behavioural cycle, influenced by a multitude of factors and variables. See Figure 11. The most interesting steps from this cycle around the topic of food will be briefly elaborated.

1. Filtering

Consumers protect their brain from overstimulation, by filtering out most information. This aligns with, stated earlier, that consumers reduce mental load when choosing between several product

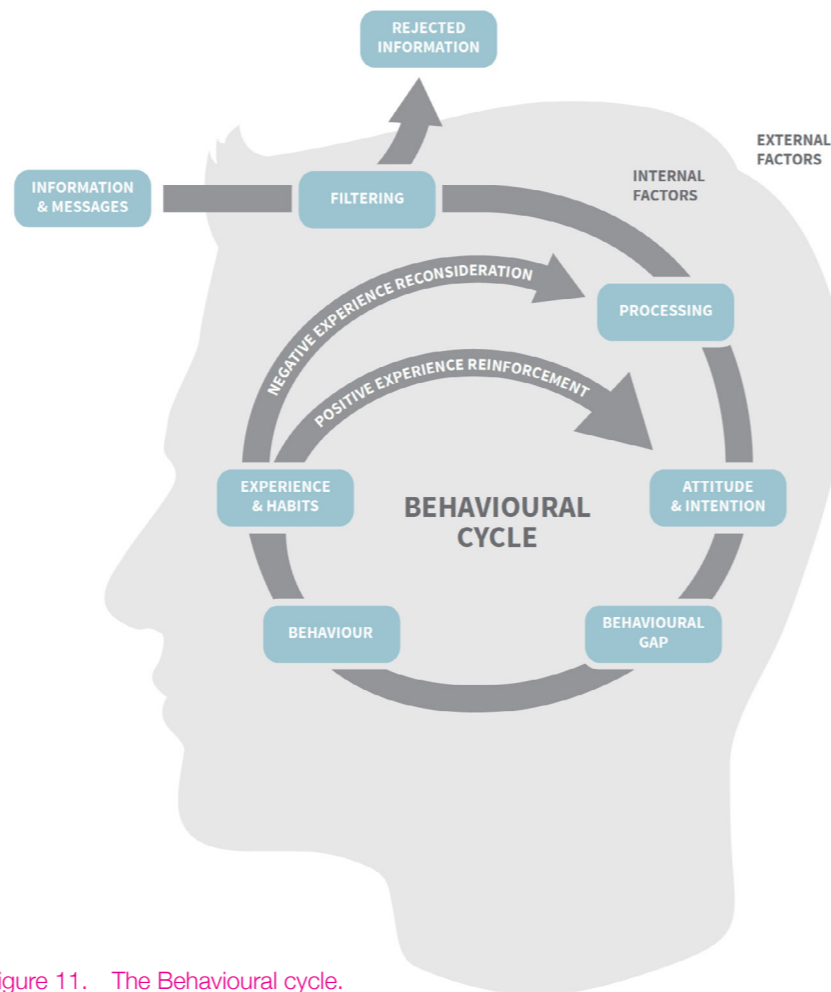


Figure 11. The Behavioural cycle.

attributes. Resulting in leaving out certain attributes that don't benefit them instantly on a personal level, like sustainability. That is why framing the sustainability message the right way is very important to get through the filter and remain one of the attributes for consumers to choose from. A message can be gain-framed or loss-framed. Gain-framed emphasizes the benefits of a behaviour and is directive and motivational. Loss-framed emphasizes the cost and risks from engaging in a certain behaviour, pleads to sacrifice and generates

fear.

Effective messages are awe-inspiring, positive, surprising, useful and gain-framed. Furthermore, "In terms of food consumption, instead of portraying the cruelty of the livestock industry, which will repel consumers, messages should portray the harmony and high status of a vegetarian diet."

2. Processing

As stated in paragraph 3.3.2, from a psychological perspective our brain has two systems for making decisions. These systems align with the terms 'central processing' (system 2) and 'peripheral processing' (system 1). See Figure 12. System 1 and peripheral processing, quick, intuitive and driven by emotions, are mostly used in the context of food. Most consumers are not willing to spend time and resources thinking about food. They go for easy, attractive and common. Also frequency of use plays a role, we have to eat everyday. This requires a lot of mental load if we have to consider sustainability in our food.

There are internal and external factors that play a role in whether central or peripheral processing will be used. For internal roles it can be socioeconomic and demographic factors that affect processing. Gender, age and occupation are of interest. So are young, highly educated consumers with a high income, positively related to willingness to adopt innovative products (Wei, 2005). Culture, social norms and a personal network are external factors.

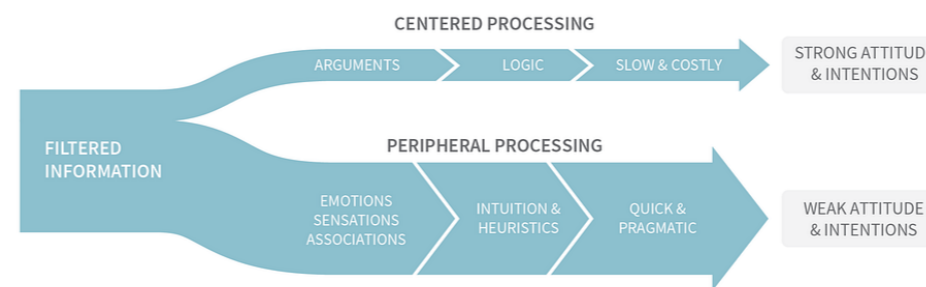


Figure 12. Processing cycle.

3. Experience and habits

What a habit is, is already briefly explained on page 27. But not how certain behaviour can turn into a new behaviour. When consumers have positive experiences, they are more likely to repeat the behaviour and, in the long-term, turn it into a habit. Eating habits are hard to change and dietary regimes hard to follow. At the same time, habits can be used to protect desired behaviours from further change or to securely establish long-term behavioural change (Gardner, 2013).

The quickest way to establish a new habit is to relate the desired new behaviour with an already established behaviour. With time, these chains can develop into routines and habits (Duhigg, 2014; Webb et al, 2010). From an intervention point of view, habit change should focus on establishing new habits instead of trying to deconstruct existing ones.

Conclusion

Changing behaviour is difficult. Therefore, a good starting point would be to target consumers that are already motivated and have high potential (segment B, according to the segmentation model). Segment A is also an interesting groep because of their high potential. But for this segment, sustainability will never be a core driver. Therefore, to increase motivation, it is important that the sustainability message is gain-framed, since personal benefit will always be valued more than environmental benefit. Also, sustainability is competing with other drivers and should therefore also directly gain personal benefit. The consumer should be triggered or nudged into central processing, instead of peripheral processing that lead to unconscious decisions. To form new, sustainable habits it is important to relate to existing habits. Therefore, existing habits need to be researched when designing new product concepts. Segment C is also interesting, although there are no other barriers than price when it comes to potential. When potential would mean discovery of Goodcase, this segment would automatically turn into segment B when these consumers are found and reached out to.



1.4.1 Value over sustainability

Sustainability is often not a product attribute that consumers consider, as a result of reducing the mental load. Therefore, sustainability should be outweighed by attributes that offer the consumer short-term benefits. In other words, the reason why consumers would buy the product is because it offers them so much value, helping them with their struggles that are elaborated in chapter 1.3.1, that it takes the focus off the sustainability attribute. In that way, consumers are buying a sustainable product, without having to consider the sustainability attribute.

So, the question is: **How can we provide value for the consumer?** What is the best way to help them with their inspiration struggle, cooking in not too much time and eating varied without the consumer?

There are products and services that consumers already use to help them with their struggles, elaborated in chapter 3. There is a distinction between mental and physical load. The problem of finding inspiration and cooking varied is a mental load. For this, consumers often use the internet to find recipes and tips. When consumers also don't like to do groceries for dinner or don't have the time for that, there are food box services that solve all their struggles at once. Companies like Hellofresh, Marley Spoon and Dinnerly deliver food boxes, including a recipe and (almost) all ingredients, to the consumer's doorstep. A food box is an interesting option for consumers, because it seems to tick all the boxes concerning the struggles that consumers experience. But, on the other hand, there are still some aspects that consumers don't like and, in addition, the service could be more sustainable.

1.4.2 What not to like?

What consumers don't like, which are also the main reasons for customers to end their Hellofresh food box subscription, is the price of the service and that there is no control over the ingredients, like the quality and price of vegetables for example. Consumers like to feel and touch the vegetables and pick out the best ones. This is elaborated in chapter 4.2.2. Furthermore, people value the recipe and the herb mix the most and the vegetables the least. See chapter 3.3.

The price for the food box is substantial already, but in ratio, it is even more expensive for smaller households. This is elaborated in chapter 4.2.2. And with the growing amount of one-person and smaller households, see chapter 4.1.1, there is a large potential market for a more affordable solution to solve the customer's struggles in the kitchen.



1.5 Cooking trend

A trend, that accelerated during the COVID-19 pandemic, shows that people are putting more time and effort into cooking at home. But the urge for convenient solutions remains. The food box market has increased significantly. But the market of unprocessed vegetables has also increased. This proves that people don't mind the physical effort of buying and cooking their own vegetables. But inspiration is still one of the key barriers that almost 50% of consumers experience according to research, see chapter 4.1.

According to research, 81% of the younger generations (18-34) say they like cooking.²² In general, women cook more than men. In 8 of the 10 households it is the women that take care of dinner.

These insights will help determine the target group, which will be further elaborated in chapter 2.1.

2 Solution

2.1 A better food box

A food box adds a lot of value for consumers, because it reduces the mental and physical load. It seems like the perfect solution for inspiration struggles, it guides the cooking process and ingredients get conveniently delivered, so a consumer doesn't need to buy groceries for dinner anymore. But especially reducing the physical load, by delivering fresh vegetables and meat, makes the box expensive and unsustainable. Therefore, the new food box has a twist: no vegetables and no meat.

By only providing vegetarian recipes and dishes, consumers get nudged to eat less meat. No meat and vegetables means that the box is cheaper than regular food boxes, see chapter 2.4. In addition, the customer gets a lot of flexibility in return. They can buy the vegetables in places they already visit, like the supermarket or local market, and have control of the quality, quantity and size. Also, they never have to pay for vegetables or ingredients they don't like. The ready-to-use sauce, made of natural ingredients and herbs, helps reduce the physical load for the most complicated attribute of a dish. The next paragraphs will further explain the value of the food box.

The target group are people that like cooking, need help with the mental load, inspiration for a dish, but don't mind the physical load of buying their own vegetables. Furthermore, the target group are the younger generations, between 18 and 40 years. These generations are already most sustainable, see chapter 7.1, they like cooking, see chapter 1.5, are busy and want to adopt convenient solutions that make their life easier. Last, they live online, which makes it easier to target them, as will be elaborated in chapter 6.3.3 and 7.1.2.

Indiase curry korma met tofu en paddenstoelen

Wat je krijgt:

Een verse saus die is gemaakt van natuurlijke en biologische kruiden en ingrediënten.

Waar jij voor zorgt:

- Olie om mee te bakken
- 300 gram kikkererwtten
- 150 gram shiitake paddenstoelen (of kastanje champignons)
- 1 blok tofu of vegetarische kipstukjes
- Jouw favoriete rijst voor 3 personen

Instructies:

1. Even genieten, want je gaat namelijk in 15 minuten een lekkere maaltijd op tafel zetten. Let's go!
2. Kook rijst voor 3 personen volgens de aanwijzingen op de verpakking.
3. Snijd de tofu in blokjes of reepjes en de champignons in stukken. Zet een koekenpan op hoog vuur. Doe twee eetlepels olie in de pan en leg de tofu erin. Bak de tofu aan één kant bruin en keer ze vervolgens om zodat beide kanten bruin zijn.
4. Haal de tofu uit de pan en laat uitlekken op keukenpapier. Houdt de pan op het vuur en draai het vuur iets lager. Doe nu de kikkererwtten en de champignons in de pan en laat ongeveer 5 minuten bakken. Blijf omroeren.
5. Voeg nu de saus toe. Als de saus kookt draai je het vuur lager en laat je alles 10 minuten sudderen. Roer regelmatig door de saus om aanbakken te voorkomen. Is de saus te dik? Voeg dan een beetje water toe tot de saus de gewenste dikte heeft en roer goed door.
6. Schep de saus in een kom of op een bord en leg de tofu bovenop. Serveer met rijst en geniet van deze heerlijke en gezonde curry!

🕒 15 minuten
👤 3 volwassenen

Recipe, including a grocery list and easy-to-follow cooking instructions



Ready-to-use sauce made from natural herbs and ingredients and naturally preserved.

Indiase curry

De basis van een heerlijke curry zijn aromatische kruiden. De meeste kruiden worden in India al eeuwen gebruikt voor het maken van deze gerechten. Voeg daar nog een snufje zout, limoensap, kokosmelk voor de romige structuur en tomaat voor de frisheid aan toe en je krijgt deze heerlijke verse curry.

Deze curry bestaat uit alleen natuurlijke ingrediënten, dus geen toegevoegde e-nummers en geraffineerde suikers. En een gezonde hoeveelheid zout. Dat is gezond genieten zoals het hoort. Eet smakelijk alvast.

Ingrediënten:

Tomaat, kokosmelk, limoensap, knoflook, gember, kurkuma, garam masala, komijn, koriander, chili, venkelzaad, zout

Voedingswaarde per persoon:

Energie: 580KJ / 140kcal, vetten: 8,2gr,
Koolhydraten: 12,8 gram waarvan suikers
6,67gr, eiwit: 2,5gr, 1,1 gram



🌱 Lactosevrij 🌾 Glutenvrij
♻️ 100% plantaardig 🌿 Licht pittig

2.2 Why a good idea?

According to research, see chapter 4.2.2, the two reasons that people quit their food box subscription is because it is too expensive and they don't like having no control over the ingredients, like vegetables. Keeping in mind that people don't mind the physical load as much as the mental load, buying your own vegetables will reduce the price of the concept, because there is no need to deal with the expensive logistics of shipping vegetables. Furthermore, people like to pick their own vegetables. Not only can they see and feel the product, but they also have control over the quality, size and price.

2.3 Why is it sustainable?

This concept will only provide vegetarian recipes, no more meat will have the biggest positive impact on the environment. This way consumers can conveniently cook meals that are tasty without meat, which will contribute to changing their meal perception for the better. It is no longer leaving something out or substituting meat for fake meat, but inspiring people to cook a tasty meal that is healthy, quick and affordable. Because the concept focuses on personal benefits, it will be more likely to be adapted by consumers that don't have sustainability as their main driver, as explained in chapter 1.3.2. Furthermore, not shipping vegetables is also more sustainable. Vegetables in food boxes are transported in large cardboard boxes that contain a lot of air. In addition, most consumers that live in a city are already close to places that have the freshest vegetables available. Think about supermarkets or the local market, that offer larger amounts of products that have been shipped, often, efficiently to reduce costs.



I have tried HelloFresh and...

"I don't like that you don't have control on the ingredients and there is no room for your own twist. And it is very expensive. What I do like is that you don't throw stuff away"

"It is easy and good for inspiration. Although I don't like the fact that you need to consume it within 3 days. You lose all your freedom and I don't like that, especially because I never plan that far ahead"

"For that price you expect new and innovative recipes, but at some point the recipes started to look very similar to each other. Also, some recipes are very easy to make yourself and than you feel a bit stupid"

- insights from 3 of the 10 test users, see chapter 5.4.

2.3 How does it work?

Customers can order the food boxes online. They can order separate products or have a subscription that provides a certain amount of sauces and recipes per week. This food box concept allows the customer a lot of freedom and creativity on what vegetables to use, therefore, the product range and recipes will not change every week or month. Instead, for every sauce there will be multiple variations on the recipe, using different sets of vegetables. The amount of sauces and recipes will slowly extend over time, allowing customers to choose from more sauces and recipes, while always being able to reorder the sauces they love. This will be further elaborated in chapter 6.

To be healthy for the customers and for the planet, the sauces, see Figure 13, are made of natural ingredients and are naturally preserved without unnecessary additives, without using excessive amounts of sugar and salt and without animal products. This will be elaborated in chapter 4.1.1 and 4.2.1. After production the sauces will be frozen to maximize the storage time limit, frozen sauces can be kept for months. Once ordered, the sauces will be shipped within 1 or 2 working days by mail and, on average, arrive within 24 hours to the customer. At first, the sauces will be shipped cooled, not exceeding 7 degrees Celsius during shipment. After arrival, the sauces can be kept in the fridge for 6 days to ensure 'freshness' and to nudge consumption. This will be elaborated in chapter 5.

Although this concept has a lot of similarities to existing food boxes, there are also many small differences. Chapter 2.4 will illustrate and elaborate these differences.

Summary of concept pillars:

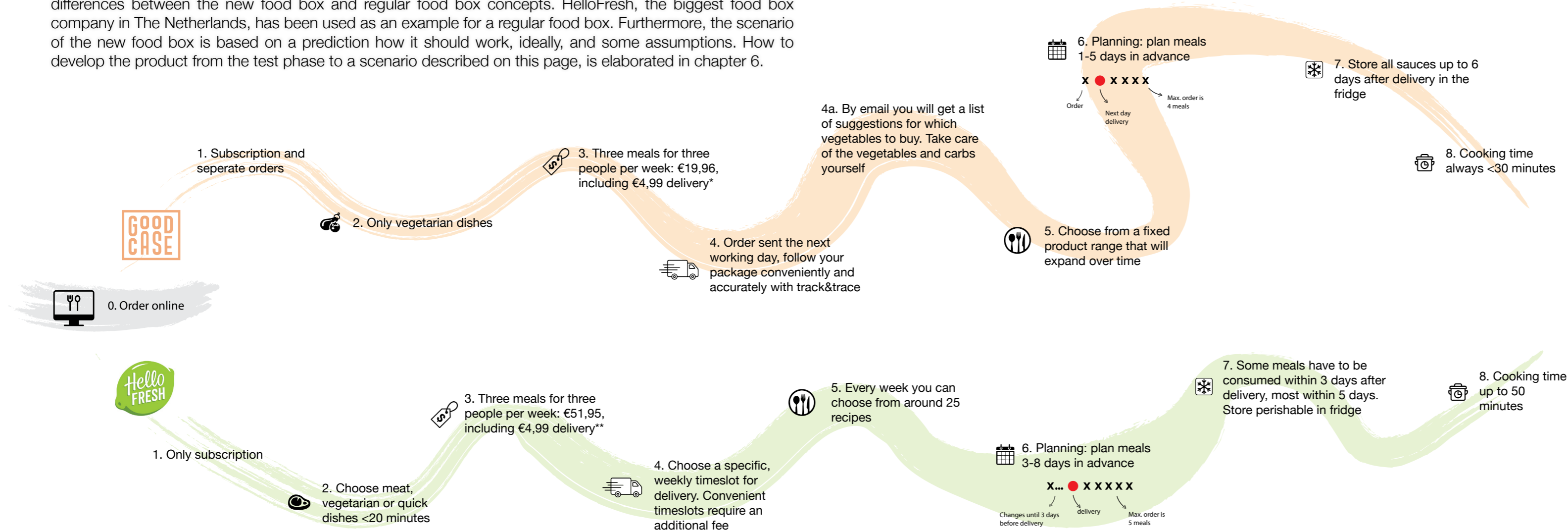
- ✓ A clear focus on mental load reduction, providing the most complicated part of the meal and a recipe, including easy preparation instructions and a grocery list.
- ✓ No need to deal with expensive logistics of vegetables that make the product expensive.
- ✓ Consumers are in charge of the vegetables to secure the best quality and price they can get.
- ✓ Maximum impact with eating less meat by offering vegetarian recipes only.



Figure 13. Example of a sauce: Indian curry.

2.4 Scenario

The purpose of this example scenario is to give an overview of how the concepts work and to illustrate the differences between the new food box and regular food box concepts. HelloFresh, the biggest food box company in The Netherlands, has been used as an example for a regular food box. Furthermore, the scenario of the new food box is based on a prediction how it should work, ideally, and some assumptions. How to develop the product from the test phase to a scenario described on this page, is elaborated in chapter 6.



* see chapter 4.1.5.
** see appendix B.2

Explanation of differences between Goodcase and HelloFresh:

1. Not only subscriptions allow customers to try out products first without any strings attached. An economic incentive, like discounts on the product, can be used to increase subscriptions. Subscriptions increase the retention rate.

2. Vegetarian meals only to minimize environmental impact.

3. A Goodcase box is €30 cheaper than a Hellofresh box. But that doesn't take into account that the Goodcase box doesn't contain vegetables. Appendix B.2 elaborates on the net price difference of the two boxes and additional benefits. **The Goodcase box is, within the given scenario, €12,40 cheaper than Hellofresh.**

4. With HelloFresh you are limited to 4 hour time slots that sometimes require an additional fee. When you order the Goodcase box you receive it the next day by mail, this makes adjusting your planning easy and the customer doesn't need to stay home for the entire time slot.

5. HelloFresh offers a large range of meals that are weekly changing. This offers customers a maximum variety of dishes. But this also requires a team of chefs that are constantly creating dishes. Therefore, to start, the Goodcase box will offer a fixed variety of sauces.

6. The Goodcase box allows customers to be way more flexible. In portion size and preferences, as described, but also in last-minute planning changes. You can make adjustments to your box up to one day before delivery.

7. All sauces can be stored for 6 days after delivery. With HelloFresh some meals need to be consumed within 3 days. Not even taking into account vegetables that can perish sooner.

8. With the ready-to-use sauce in the Goodcase box a meal is always prepared in under 30 minutes.

2.5 Unique selling points

Chapter 2.4 elaborated on the differences between the Goodcase box and regular food boxes, like HelloFresh. Some of these differences are advantages for the customer, but not all these advantages can be used as a unique selling point to market the box. For example, the quick delivery is a good advantage, but it will not be the main driver for customers to choose for the Goodcase box. The recipes that customers can order are important and will contribute to the retention rate, but it will probably not be the main driver to try out the new concept. For the success of the concept it is important to highlight one or two clear unique selling points that focus on a clear, recurring customer pain that is experienced in the cooking process. These USPs are the first thing customers see on the webpage, for example, and will convince them to stay and continue reading. Then, other advantages can be elaborated and explained to help convince the customer to purchase the product.

Inspiration is the part of the cooking process that people struggle with most, see chapter 1.3.1. But inspiration, just as doing groceries and cooking, is just one part of the process that leads to the desired outcome: putting a tasty dish on the table that meets certain expectations and requirements. So, in order to establish the best unique selling point, the customer's desired outcome, pains and expectations of the cooking result should be taken into account. Different unique selling points have been established based on trends and research, see appendix F.

Potential unique selling points

Categories:

Slogan and tagline:

Pain

Usp

Speed:

Cook fresh meals in under 20 minutes.

Easy with our natural ready-to-use sauce and easy to follow recipe. Only add your own vegetables.

Health:

The healthiest food box.

Our sauces are made of natural ingredients and without additives. Only add vegetables for a super healthy and tasty meal.

(Mental) convenience:

Stressed about what to eat every day?

Never again with our food box. We do the stressful thinking, you buy vegetables and do the cooking!

More vegetables:

Do you want to eat more vegetables?

Vegetables are healthy and we help you to make them delicious.

Price:

The only affordable food box.

Premium quality products, only buy your own vegetables.

Sustainability:

Eating sustainable, expensive and complicated?

We make it cheap and easy. We send you a recipe and ready-to-use sauce to cook a delicious, sustainable meal.

2.6 User test

A test with 10 potential customers is conducted, see chapter 5. The test users were sent the sauce to cook a meal according to the instructions on the recipe card. The goal of the experiment was to test the feasibility of the concept and to find what unique selling points are considered valuable. Two unique selling points were chosen to focus on through the packaging of the product: (Mental) convenience and price. The other unique selling points have been subtly incorporated in the design to find out if customers would value these aspects. See Figure 14. Because the test users were all vegetarian, eating more vegetables and eating more sustainable were not used as USPs.

Indiase curry korma met tofu en paddenstoelen 15 minuten 3 volwassenen

Wat je krijgt: Een verse saus die is gemaakt van natuurlijke en biologische kruiden en ingrediënten.

Instructies:

- Even genieten, want je gaat namelijk in 15 minuten een lekkere maaltijd op tafel zetten. Let's go!
- Kook rijst voor 3 personen volgens de aanwijzingen op de verpakking.
- Snijdt de tofu in blokjes of reepjes en de champignons in stukken. Zet een koekenpan op hoog vuur. Doe twee eetlepels olie in de pan en leg de tofu erin. Bak de tofu aan één kant bruin en keer ze vervolgens om zodat beide kanten bruin zijn.
- Haal de tofu uit de pan en laat uitlekken op keukenpapier. Houdt de pan op het vuur en draai het vuur iets lager. Doe nu de kikkererwten en de champignons in de pan en laat ongeveer 5 minuten bakken. Blijf omroeren.
- Voeg nu de saus toe. Als de saus kookt draai je het vuur lager en laat je alles 10 minuten sudderen. Roer regelmatig door de saus om aanbakken te voorkomen. Is de saus te dik? Voeg dan een beetje water toe tot de saus de gewenste dikte heeft en roer goed door.
- Schep de saus in een kom of op een bord en leg de tofu bovenop. Serveer met rijst en geniet van deze heerlijke en gezonde curry!

Wat je krijgt: Een verse saus die is gemaakt van natuurlijke en biologische kruiden en ingrediënten.

Vaar jij voor zorg:

- Olie om mee te bakken
- 300 gram kikkererwten
- 150 gram shitake paddenstoelen (of kastanje champignons)
- 1 blok tofu of vegetarische kipstukjes
- Jouw favoriete rijst voor 3 personen

Indiase curry

De basis van een heerlijke curry zijn aromatische kruiden. De meeste kruiden worden in India al eeuwen gebruikt voor het maken van deze gerechten. Voeg daar nog een snufje zout, limoensap, kokosmelk voor de romige structuur en tomaat voor de frisheid aan toe en je krijgt deze heerlijke, verse curry.

Deze curry bestaat uit alleen natuurlijke ingrediënten, dus geen toegevoegde e-nummers en geraffineerde suikers. En een gezonde hoeveelheid zout. Dat is gezond genieten zoals het hoort. Eat smakelijk alvast.

Ingrediënten: Allemaal biologisch! Tomaat, kokosmelk, limoensap, knoflook, gember, kurkuma, garam masala, komijn, koriander, chili, venkelzaad, zout

Voedingswaarde per persoon:

Energie: 580KJ / 140kcal, vetten: 8,2gr, Koolhydraten: 12,8 gram waarvan suikers 6,67gr, eiwit: 2,5gr, 1,1 gram

Lactosevrij, Glutenvrij, 100% plantaardig, Licht pittig

Wel gemak, wel betaalbaar.

Wééééééér nadenken over wat je moet eten. Herken je dat? En als je dan eenmaal aan het zoeken bent, dan liever een recept met weinig onbekende ingrediënten. Al die dure kruiden die je maar één keer gebruikt en dan een week later kan weggooien, zonde!

De oplossing: een food box. Maar wat dat zo duur maakt is het koelen en vervoeren van al die groentes, en dat terwijl je misschien vlakbij de lokale (super)markt woont waar al die groentes liggen. En dan nog super vers ook.

Daarom nu een nieuwe food box. Niét meer aan het einde van de dag gehaast door kookboeken bladeren, maar wel lekker zelf koken. Kies één van de recepten met bijbehorende saus, gemaakt van verse, natuurlijke ingrediënten. Die krijg je opgestuurd. Alleen nog even zelf groentes kopen op jouw favoriete plek.

Nieuw. De food box die wél betaalbaar is! 😊

Bewaar dit product in de koelkast. Na ontvangst binnen 6 dagen consumeren. Eenmaal geopend direct consumeren.

g

Health: a fresh sauce made of natural, organic ingredients.

Speed: 15 minutes cooking time, to indicate that preparing this meal is quick and easy.

Health: Natural ingredients, no additives, no added sugar and a health amount of salt added.

Health/sustainability: Only organic ingredients

Health: mentioning the daily recommended dose of salt for an adult and how the added amount of salt is low.

Figure 14. The design of the product wrap and recipe card, containing different unique selling points.

2.7 Results and insights

Qualitative feedback sessions with the participants have been conducted to learn more about their context and what they struggle with most when cooking and how they experienced the product. The theory behind the feedback sessions is elaborated in chapter 7.3 and all results in appendix D.

The most important insights about the product:

- Almost all participants adjusted the recipe and gave it their own twist, based on their preferences and groceries they already had. See Figure 15. The majority also mentioned they liked the freedom to make their own adjustments.
- The majority mentioned that they really liked how quick and easy the recipe was.
- Nobody mentioned they valued organic ingredients.
- No additives have a positive association with 'fresh' and healthy. The minority actively tried to cook without, but the majority was not actively avoiding them, although not being a fan.
- A few specifically mentioned they liked the fact you can store it for 6 days.
- Consumers gave a price indication for the product in a range from €2 to €5.
- 700 grams of sauce is a lot for 3 adults.

The most important insights about the context:

- Buying groceries and cooking takes more time than inspiration, although some participants face the inspiration struggle regularly.
- Dinner needs to be healthy, containing enough (fresh) vegetables and protein.
- The majority doesn't use fresh herbs.
- The majority cooks often, but doesn't like cooking more than 30 minutes, except for special occasions.
- Opinions about HelloFresh: Too expensive, too repetitive, losing freedom and creativity, hard to get rid of subscription and no

control on ingredients. One participant was actively using HelloFresh and wouldn't want anything different. It's either hate it or love it.

The most important insights about the feasibility:

- It is possible to make an MVP and make a sauce of natural ingredients that is naturally preserved.
- Products that were shipped cooled, below 7 degrees Celsius, also arrived cooled.
- All shipped products arrived within 24 hours to the customer, one exception of 25 hours.
- Cooling, wrapping and shipping only one sauce doesn't make sense, regarding the use of material and shipping costs.



Figure 15. Two examples of meals that are prepared with different vegetables and with their own twist.

2.8 Marketing

Based on the feedback of the first test users, a new marketing strategy can be created that emphasizes on certain unique selling points. A website landing page is created to demonstrate how these different layers are displayed. See Figure 17.

There are always multiple layers of unique selling points throughout a website that speak to the audience. Who the target group is will be elaborated in chapter 3.1.

The first layer: convincing 10 seconds

The first 10 seconds are crucial for a visitor to understand what you are selling and why it is valuable for them. This can be achieved with a clear headline, additional information in a tagline and a clear visual, like a hero banner, of your unique offer. Information should be useful, unique and ultra-specific. It is also important to speak the visitor's language and feel their pain. Furthermore, it needs to stand out from the competition. See Figure 18.

Based on the feedback, the test users valued a healthy dinner and quick preparation, under 30 minutes, the most. This is also the goal that customers are trying to achieve. What they actually buy, the customer's pain, is inspiration and (mental) convenience to achieve that goal. This will determine how the message in the first layer will be constructed, see Figure 16 for an example.

Example headline:

Example tagline:

The quickest and healthiest food box
Always put a delicious meal on the table in under 30 minutes in just a few simple steps.
Full of vegetables and free of additives.

Figure 16. Headline and tagline examples

The second layer: flexibility and price

Flexibility alone doesn't put a healthy dinner on the table. But once the customer is convinced by the headline and tagline, flexibility can play an important role in why the customer wants to try out the product. Flexibility comes from the possibility to store the sauce for 6 days after delivery and the flexibility that comes from buying your own vegetables: easy to adjust portion sizes, make last-minute changes and only buy good quality vegetables. Furthermore, buying your own vegetables is economically compensated, drastically reducing the price of the box compared to other boxes. See the scenario in chapter 2.4.

Third layer: the product range

Of course, taste is important, if not the most important. If the product doesn't taste good customers won't return. It is also important to explain in this layer that the recipes are not weekly changing, but that the product range expands over time. Last, the price. The products are cheap compared to other food boxes and the sauces all have fixed prices.

Fourth layer: explain healthy

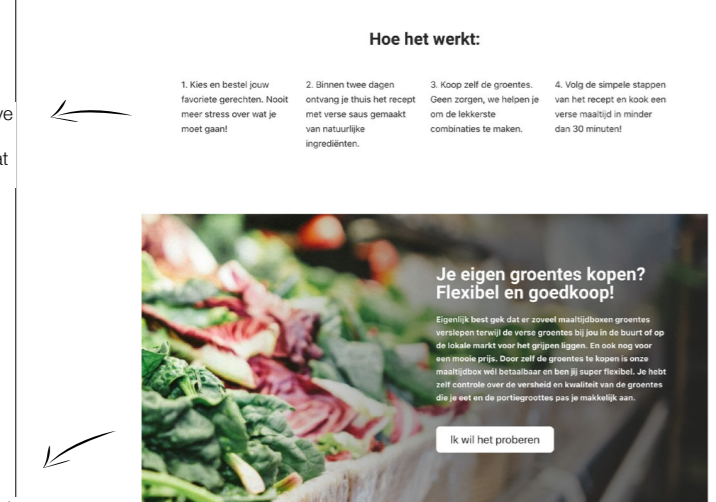
Later on, it can be explained that all recipes are vegetarian for environmental reasons. Furthermore, it can be explained that eating a lot of vegetables is healthy and combined with the natural ready-to-use sauce the complete meal is free of additives and contains a healthy amount of salt.

The word food box helps the customer understand the concept. With the growing popularity of food boxes it has become a familiar term.

The first layer that is crucial to communicate the most important usp and customer value, containing a clear visual of the concept, headline, tagline and call-to-action.



The 'how it works' steps give a simple overview of how the concept works and what customers can expect.



The second layer explains the twist of the concept: buying your own vegetables. And why that is valuable for the customer. It gives them flexibility and control and it makes the box affordable.



Figure 17. Up-to-date website www.meetgoodcase.nl/foodbox



Bekijk alle gerechten

The third layer: food needs to be tasty. But how do you convince customers of taste without them being able to touch, smell or taste it? Sight. Although sight is not actually part of taste, it has a huge influence on the perception of food. That is why visuals play a key role in digital food concepts. The pictures of the meals need to be mouth-watering.



How other customers review your product or service is important in the world of e-commerce. The opinion of another real customer makes a brand trustworthy.

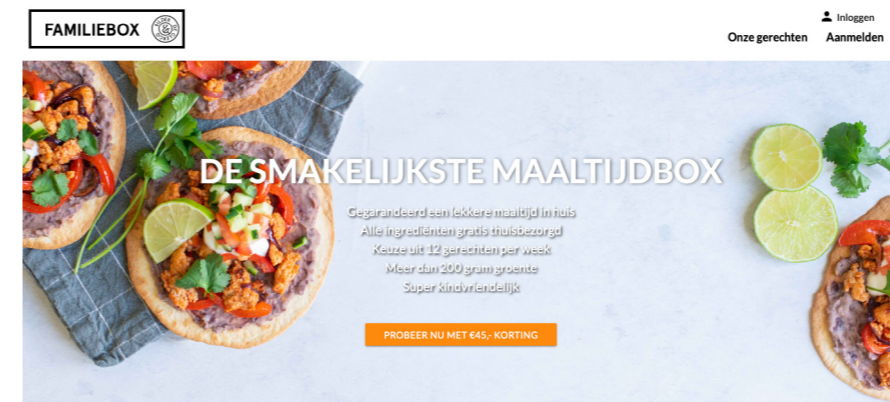
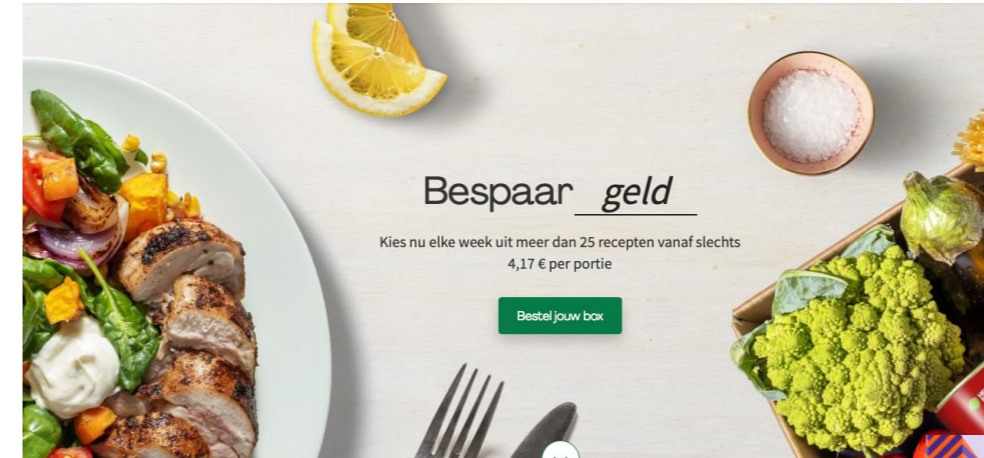


The fourth layer: explain what healthy means. In this section it will be explained that the sauces are made of natural ingredients, without additives and with a healthy amount of sugar and salt. When only adding fresh vegetables, a customer can put a fresh, healthy meal on the table using the sauces in the food box.



There have been several call-to-actions to get visitors to take the next step: choosing meals for in their first box. In that process they will also learn about the price. But for customers that are looking for an economic incentive, there is also a price section on the main page. This part emphasizes that you are not obligated to order large quantities, this will lower the barrier for starters.

HelloFresh is the largest food box company. They are also the only ones not mentioning 'food box' on their hero banner, probably because most people are familiar with the name already. Their USP's are they save the customer time, stress and money. Furthermore, they mention the price per portion.



The Familiebox has more USP's on product level compared to the other three, like 200 grams of vegetables and being child friendly. They are also the only ones that have a clear demographic focus: families.

Conclusion: All other food box concepts deliver all ingredients to customers. So, the twist with buying your own vegetables is unique. Furthermore, there is no concept that focuses on the combination of speed and health.

Marley Spoon is also one of the larger companies. Their unique selling point is taste and the most amount of recipes per week. They also explain the concept of delivering the box with ingredients to customer's doorsteps.



Dinnerly is a concept from the USA. They have a clear focus on price, being the most affordable box and the lowest 'starting from' price.

Figure 18. Hero banners with different USP's of 4 large food box companies

3 Kick-off problem finding

3.1 Introduction

At first, a food box solving the problem described in chapter 2 sounds obvious and straightforward. Especially with so many different food box concepts out there already, it feels like ‘yet another one’. Nevertheless, this solution, with the unique twist of buying your own vegetables and only vegetarian meals, is the result of extensive desk-research, experiments, user tests and several, interactive brainstorm sessions with potential customers.

In short, sustainability is becoming a familiar term in society. But that doesn't mean that consumers act more sustainable, because they are either not willing or they don't know how to. In addition, sustainability is never the only, and often not the most important, attribute that consumers consider when purchasing a product. Therefore, to stimulate sustainable behaviour, the product or service needs to offer attributes, features or incentives that are more valuable to customers than those of existing, non-sustainable, products and services out there.



But how do you offer value to a customer? You take away their pain and, preferably, cheaper, better or faster than the competition. Therefore, this project started with one simple question: What are the pains that consumers experience in their everyday life when it comes to food consumption?

3.2 sustainable behaviour

Changing consumer behaviour in general is a complicated subject. Now, changing consumer behaviour for the better, more sustainable, is even more complicated. Because for many consumers, sustainability is still a vague term and is often associated with expensive and complicated. The main reason why changing behaviour is difficult, is that our behaviour is mainly dictated by habits. Habits are doing things without thinking or making a conscious decision, and therefore hard to disrupt. Unless we have an unpleasant experience, there is no reason to actively look for alternatives. There is no reason to change. That is the problem we face when it comes to food consumption.

Why habits are so difficult to disrupt can be explained by how our brain works and how we process information, the behavioural cycle. According to Muñoz et al. (2016) there are several steps in the behavioural cycle, influenced by a multitude of factors and variables, that result in a habit. See Figure 19.

The most important steps are filtering and processing information. With filtering, consumers protect their brain from overstimulation by filtering out most information. That is why ‘preaching and teaching’ often has no effect, we filter out information we don't deem important. Then processing. Our brain uses two systems to process information and make a decision: central processing, using arguments and logic, and peripheral processing, which is quick, intuitive and driven by emotions. The latter is mostly used in the context of

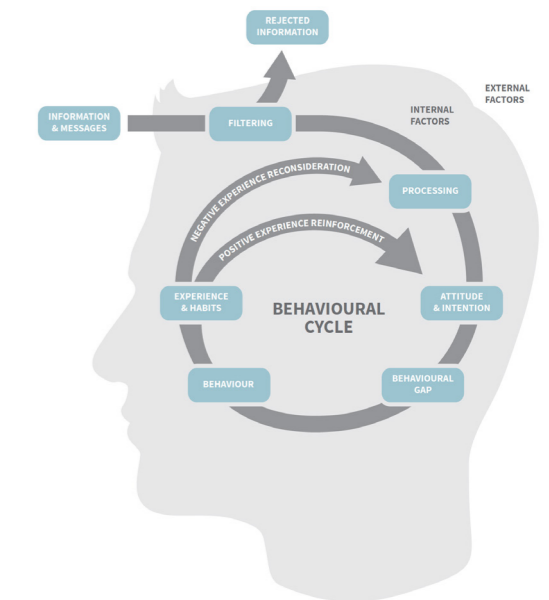


Figure 19. behavioralcycle

food. Most consumers are not willing to spend time and resources thinking about food. They go for easy, attractive and common. Also frequency of use plays a role, we have to eat everyday. This requires a lot of mental load if we have to consider sustainability in our food. More habitual behaviour research is elaborated in chapter R.1.3.

Insight: The quickest way to establish a new habit is to relate the desired new behaviour with an already established behaviour. That is why it is important for the new product or service to tap into an existing food habit that is, preferably, often recurring. Because the more consumers experience their pain, the more they are looking for a solution.

According to the segmentation model of Verplanken (2018), the lack of motivation and opportunity also play a role in sustainable consumer behaviour. First the lack of opportunity. These can be practical things, like infrastructure, financial constraints, skills and knowledge. Then, the lack of motivation. Motivation is determined by, among others, attitude. Attitude towards product attributes. When there are many product attributes to consider, consumers tend to filter out information, like described earlier. This means that if environmental-related features are considered, they are competing with other attributes. Unless sustainable arguments are top priority, which is often not true.

Insight: To increase consumer motivation to act more sustainable, the core attributes of the product or service should offer personal gain. Sustainability should be a nice 'extra' attribute that doesn't make the product more expensive or complicated. To increase opportunity, the infrastructure to buy the product or service should be easy. Ideally, the product is sustainable without consumer's realizing it, because then their negative association of sustainability being expensive and complicated could influence their decision.

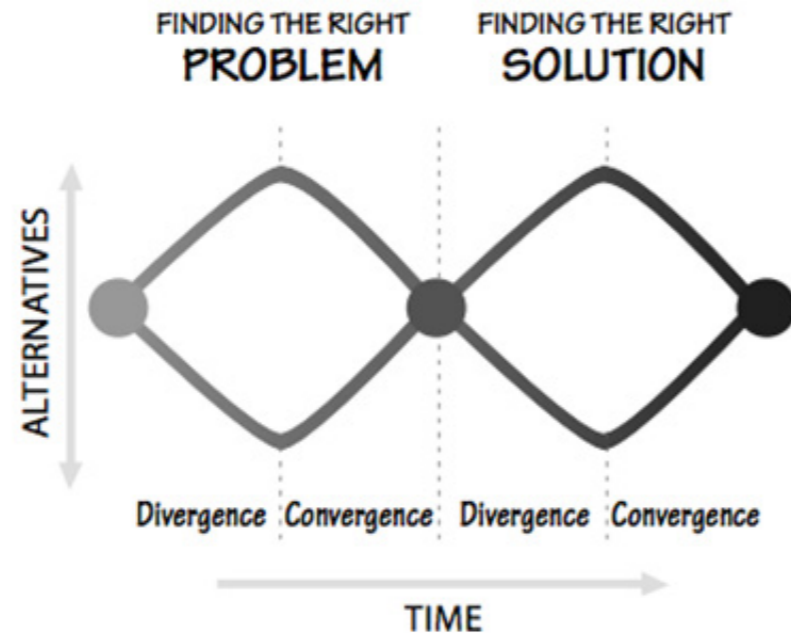


Figure 20. Design Thinking method.

3.3 Brainstorm sessions

For this whole project, the classical Design Thinking method²³ has been used, see Figure 20. For the first three parts, four interactive brainstorm sessions have been conducted using different brainstorm techniques and the online brainstorm tool 'Miro'. All research and results are elaborated in chapter R.3 and appendix E.

The first two brainstorm sessions focussed on empathizing with the consumer. What sustainability in the context of food means for them, what they (don't) know and what they struggle with. This resulted in three problems and design directions:

- Problem:** Outside the house we often go to the same places for food, like the same restaurants or bars, and don't really want to look for better alternatives (remember, habits die hard). **Direction:** How to inspire consumers to consume more sustainable outside the house?
- Problem:** Grocery shopping is also a habit. We not only go to the same grocery stores, but inside the stores it's also habits that drive

our actions. We buy the same stuff, because we know where it is. **Direction:** How to inspire consumers to buy more sustainable products in places they already visit, like the supermarket.

- Problem:** We as consumers are stuck in our perception of what dinner must be. We keep eating meat, because a meal without meat feels unfulfilling. And again, we are not actively looking to change this habitual behaviour.

Direction: Change the dinner perception of consumers and teach them how to cook food without meat.

Another insight was that consumers put most time and effort in preparing dinner, compared to breakfast and lunch. For breakfast and lunch we often don't mind eating the same food for a longer time.

The second two brainstorm sessions focussed on finding which of the three design directions were most relevant and contained more recurring consumer pains that could potentially be solved. The result was that consumers put most time and effort in inspiration for what to eat and buying groceries, cooking came last. More specifically, having to think about what you are going to eat was the most recurring problem that consumers encountered. Reasons were that questions recurred everyday, consumers don't want to think about it after a long day of work, there is so much to choose from and the many attributes that consumers need to consider, like price, taste, health, convenience and sustainability. So, consumers are stuck in inspiration and need help. Looking at the three design directions, the third one looks like the perfect direction to combine with this problem. People look for inspiration and need help and at the same time, they are stuck in their perception of dinner. When they are offered inspiration that contains nudges to change their perception of dinner, too much meat, it is a win-win.

There are two ways that people solve this problem already. They use internet websites to look for recipes and they use food boxes and similar concepts. Because there are already so many recipes on the internet, it is hard to really stand out. There are also different food box concepts out there, but there is less competition than in the recipe market. And keeping in mind the insights from paragraph 3.2, a product or service can really tap

into an existing behaviour, like cooking, and can offer product attributes that make cooking easier and more convenient. Like reducing the mental load and helping people to cook.

The last part focussed on brainstorming what consumers valued most of a 'food box' from supermarkets like Albert Heijn. See Figure 21. What people valued most was the mental convenience, recipe and price. People don't like the small portions, limited storage capacity (2-3 days), paying for something in the package you don't like and limited variety of products. All these things are coming back to limitation and flexibility. Furthermore, people valued the mix of herbs the most, followed by the recipe and last the vegetables. That is where the idea of a food box without meat and without vegetables came to life. A concept that offers attributes for personal gain and contains the parts of the food box that customers value most, offering freedom and flexibility.

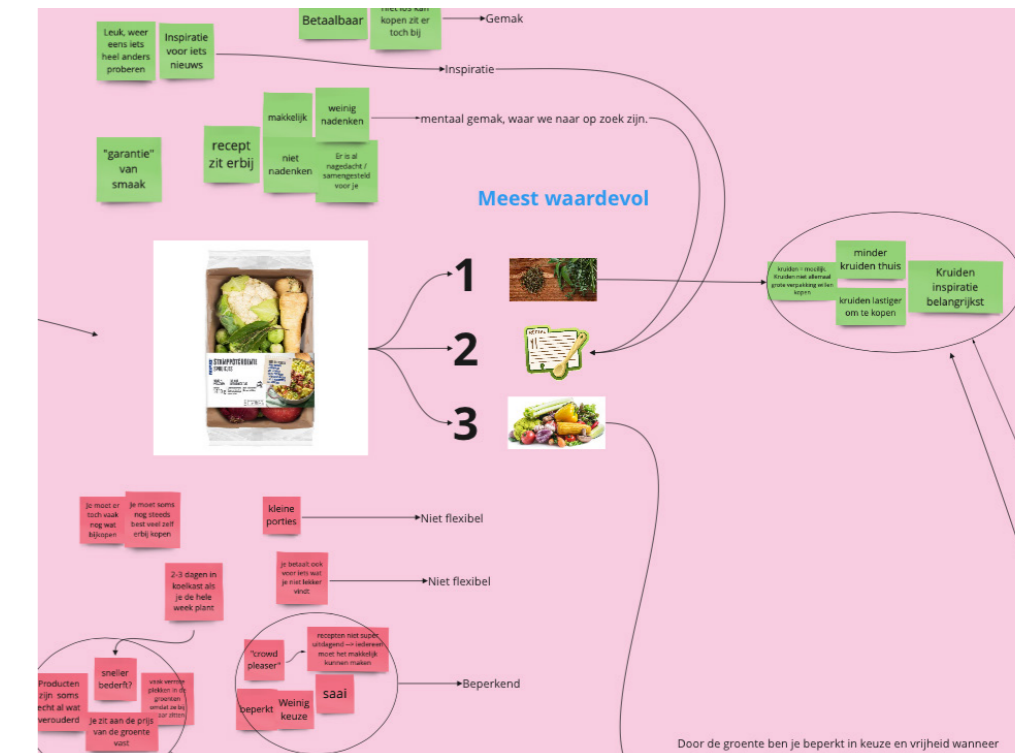


Figure 21. What customers value in a 'verspakket' from Albert Heijn. Snippet from Miro.

Research chapter 3

Four different brainstorm sessions have been conducted with 16 participants. This paragraph will elaborate the theory, the process and the results of these brainstorm sessions. The complete brainstorm results in Miro can be found in appendix E.

R.3.1 The proces

The original plan was to complete the entire cycle of finding the right problem and the right solution in a single brainstorm session:

1. Create context for the starting point.
2. Problem finding (phase 1).
3. Choose a problem (phase 2).
4. Problem understanding.
5. How Can We? (phase 3).
6. Generating ideas, using the 6-3-5 brainstorm technique (phase 3).
7. Choosing the best ideas (phase 4).

Then conduct the same session twice, to have more ideas as output. But it turned out that it is quite hard to create depth in a brainstorm session with limited time and too many different phases. Therefore, the results of the first brainstorm were a lot of abstract, divergent ideas. The new approach, see Figure 22, was to use the different defined problems from the first sessions, phase 1, as the starting point for new brainstorm sessions.

The brainstorm sessions have been put together with the help of Alex Klootwijk. Alex is the co-founder of Slijpstof, a company that helps businesses to solve problems by facilitating online brainstorms. The first insight from him was to use the online tool Miro and the second insight was to create the important first step for the brainstorm: create context. It is important that all participants have the same starting point, within the same context. When the session would have started with a problem straight away, all participants would have created their own context and, therefore, it would have been hard to create depth in the brainstorm. The first brainstorm sessions were really helpful to get experience with facilitating online sessions and a lot of insights have been gained that were used to kickstart the last two sessions.

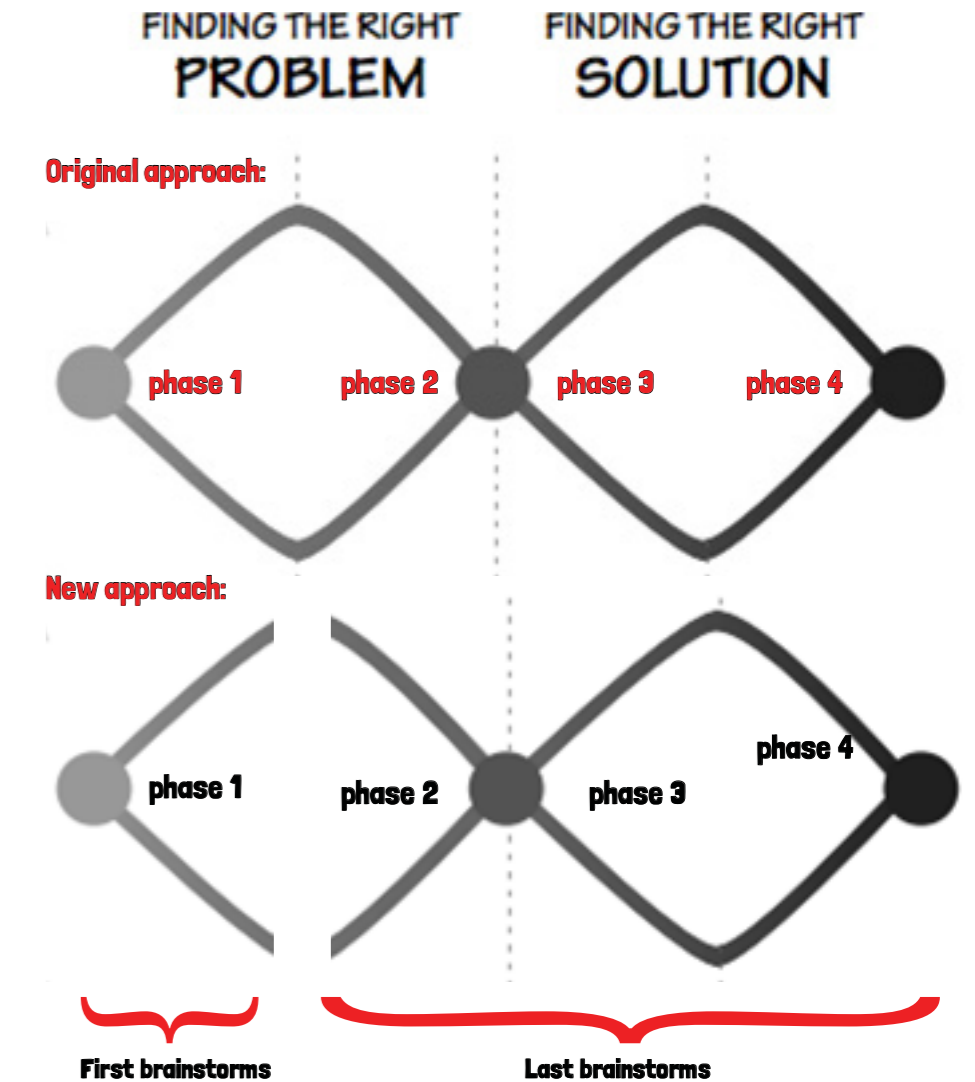


Figure 22. Original and new approach, based on Figure 20.

R.3.2 Idea directions

The result of the first two brainstorm sessions are a combination of different ‘how can we’ questions, that dive deeper into the earlier defined problems that consumers experience when, potentially, consuming sustainable.

These ‘how can we’ questions have been used to create three different design directions, see Figure 23. These three directions are already very concrete, compared to the abstract question that was used to start the first brainstorms. These design directions have been established between the first and last two sessions, without help of any participants. See appendix E for the entire brainstorm result.

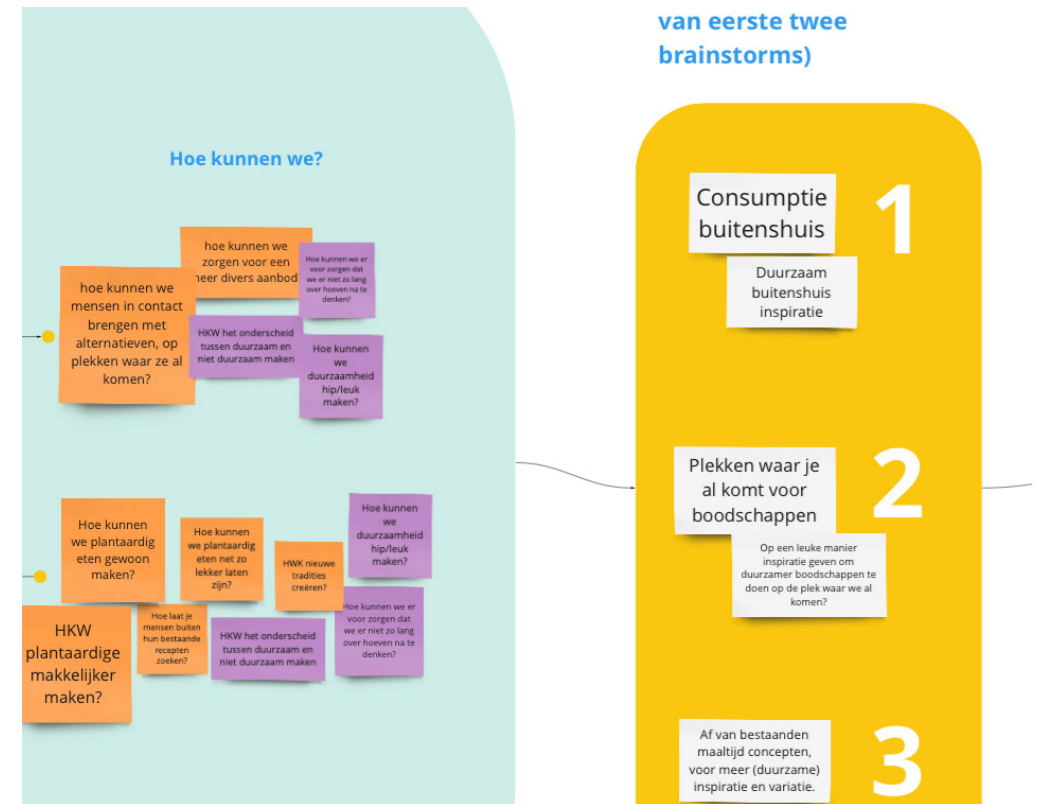


Figure 23. From ‘How can we’ to design directions.

R.3.3 Finding the right problem and solution

The goal of the last two brainstorm sessions is to converge to one design direction, with help of the participants. That will finalise the ‘finding the right problem’ phase of the design thinking method. To converge to one design direction, the brainstorm focussed on finding out where consumers have to put most time and effort in. This led to the design direction that could, potentially, offer most value and personal gain to consumers’ lives. See Appendix E.4.

In the next step, the participants brainstormed how they already solved the problem in their lives right now and how they would make that process more sustainable. One of the results of what they already used to make their life easier was food boxes from the supermarket and from companies like HelloFresh. That is why in the last part of the brainstorm focussed on the pros and cons of these food boxes. When the participants were asked to list the attributes from a food box from most valuable to least valuable, it turned out that all participants valued the vegetables the least. See Figure 24.

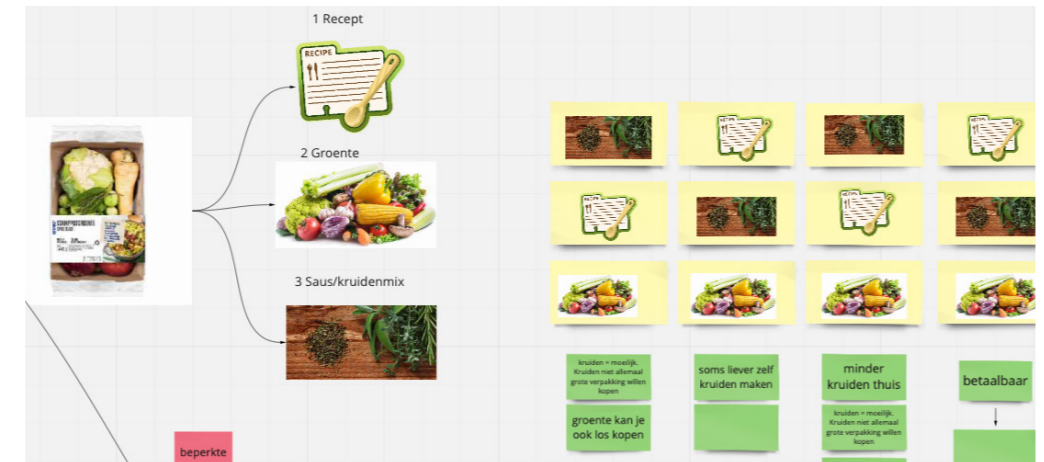


Figure 24. Vegetables are always listed as third, which means least valued.

4 Design challenges

Customers are stuck in the perception of what dinner needs to consist of: too much meat. At the same time they need help with inspiration, hence the enormous amount of inspiration websites and the growing food box market. Therefore, the best product or service offers inspiration, changes the perception of dinner and offers attributes that gain personal benefits for the customer, like (mental) convenience, affordability, saving time and taste. This is elaborated in chapter 1.

This product service is a food box, but without meat and without vegetables. This is elaborated in chapter 2. There is a clear problem that the product is solving. That means that the problem-solution fit is there. The last step is the product-market fit: being in a market with a product that can satisfy that market. See Figure 25.

But how do you design a product with the right product-market fit? To answer that question, the design process has been cut up in smaller parts that are called the design challenges. These different design challenges will result in answers for specific sub-problems and, altogether, define the right product-market fit. The design challenges are:

- **Market:** What is the best target group for this product and how to position the product in the market?
- **Product and distribution:** What value can be added on product level and service level that makes this concept stand out from competition? And how will the production determine the distribution options?

Figure 25. Product-market fit definition.



Product-market fit is a state where you are creating value (product) for a sufficient number of customers that care about that value (market) with an effective means of getting it into their hands (distribution).²⁴

4.1 Market

The goal of this challenge is to find the best target group and define a beachhead market. A beachhead market is a smaller market that consists of customers that are most willing to adapt the new product. This market can help you to improve the product and kickstart the expansion to a larger market. The next step is to find clear drivers and barriers from the target group and translate those to unique selling points that speak to the customers. Last, a concise growth plan will be elaborated.

For this challenge, five of the seven steps to build a consumer brand from Justin Mares²⁵ will be used as a guideline:

1. Find a small, fast growing trend.
2. Use Direct To Consumer to generate customer feedback. Find out how they like the:
 - Product
 - Positioning
 - Pricing
 - Branding
3. Focus on communities (1-2) and make an amazing product
4. People buy function, benefits they can't get elsewhere: USP's (Unique Selling Points). Focus on 1-2 USP's
5. Premium is okay. Also good to focus on with beachhead market, later lower prices for mass market

4.1.1 Trends

There are several trends that are interesting for the development of the food box, these are elaborated in appendix F:

Demographic:

- There is a developing urge for smaller food packages and quick preparation of food, because of the growing number of one person households. From 2.2 million in 2000 to almost 3.1 million in 2020. And not only in the elderly age category, but also in the age 24-34. In that

last age category, there is also a peak in households without kids.

Social-cultural:

- On average we are getting older before we start having kids. That explains the peak from the demographic trend. The people in their late 20s are focusing on their careers. That is why this group is looking for fast and flexible eating options. Fast is defined as 20-25 minutes.
- More plant based food for several reasons: health, animal well being and sustainability
- Back to basics: no additives, origin of products, locally produced and more organic
- Since the COVID-19 pandemic, consumers had more spare time to spend and were looking for activities to do. Cooking became very popular again, but the urge for convenience remained and inspiration is still the largest barrier for consumers, see Figure 26. That is why food boxes became very popular. But also unprocessed vegetables became more popular. This indicates that consumers don't mind the physical effort of cooking as much as the mental effort.

Economic

- Hybrid consumer: more groceries at discounters, but more bio, organic and responsible unique products.

A food box provides solutions where consumers are looking: quick, flexible and not too much thinking. Consumers don't mind putting a little physical effort in cooking. Furthermore, the packaging and portions of a food box can easily be tailored to smaller households. Last, the new food box concept is the perfect example to speak to the hybrid consumer trend. The premium service and product offers an unique experience, while the vegetables can be bought as cheap as possible at discounters.

On product level it is easy to tap into the back-to-the-basics trend. No additives, healthy and organic. How valuable these attributes are for consumers and if they want to pay for them needs to be tested, see chapter 5.

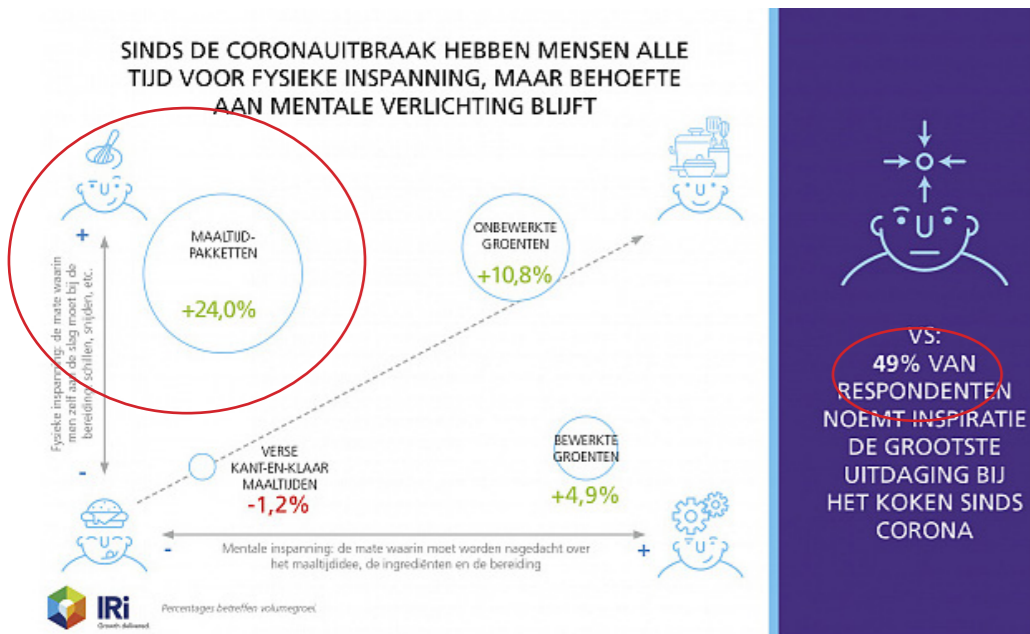


Figure 26. The growth of food boxes during the pandemic due to the urge for low mental effort and normal physical effort. For 49% inspiration is still the largest barrier. Source: FSIN



Figure 27. The five elements for mental convenience: saving time, simplifying, reducing effort, reducing stress and making health accessible.

4.1.2 Direct To Consumer (D2C)

The Direct To Consumer strategy is a trend in the market, see appendix A. It is the best way to get feedback from customers, because as a brand you don't depend on other companies to display or promote your product and you are in direct contact with the customer. In addition, it is possible to offer a unique, enhanced customer experience.

On the other side, D2C (Direct To Consumer) is harder to scale. The CAC (Customer Acquisition Costs) are high, because you need to find every customer yourself, and it is harder to retain them. Therefore, it is a good strategy to start with and improve the product and service together with the customers.

4.1.3 Communities

It is important to focus on a strong community when launching a product. A community is a group of people that have a characteristic in common. When a product speaks to that characteristic that binds the community, it will speak to almost the entire group of customers.

The goal of the food box is to be more attractive than existing food box concepts. But, because there are no recipes containing meat, it would not make sense to target die-hard meat eaters that don't want to give meat up. The best target group are people that would consider not eating meat, for either health, animal well-being and environmental reasons, or people already not eating meat, like vegans and vegetarians. These are the 'green consumers', people that (want to) act sustainable. Within this group, there are two sub categories: dark green and light green. Dark green consumers have sustainability as a core value, embedded in their consumer DNA, with a focus on organic and local. Light green consumers are more curious. They are interested in new products and services that are (more) sustainable, but on the contrary, it should be more expensive, complicated or time consuming. In addition, they shop in regular grocery stores, while dark green consumers tend to visit organic grocery stores

more often. For the new food box concept, the best target group is light green consumers, because in general they are more willing to adapt new products and services and for them the service attributes, like price and fast shipping, are more valuable. See Figure 28.

Within the light green consumer target group, there are people that already don't eat meat, like vegans and vegetarians, and people that are consciously consuming less meat, flexitarians. Only 3.9% of the Dutch are vegan and vegetarians, although this number is rapidly increasing. 55% of the Dutch call themselves a flexitarian. This is elaborated in chapter 7.1.1. Both groups have different drivers, barriers and needs. Because vegetarians and vegans are a much stronger community, often driven by animal well-being, and much smaller it is easier to focus on that community first. It is a stronger community, because their characteristic they have in common is clearly defined: not eating meat. On the other hand, flexitarian is a broad definition, it can differ from eating meat twice a week to not eating meat twice a week. How the flexitarian community will be used to grow and scale the concepts is elaborated in chapter 4.1.6.

The number of vegans, vegetarians and flexitarians is growing. It is mostly the younger generations, generations Y and Z, that are changing their diet and are willing to try and adapt new products and services to help them behave more sustainable. This is also an interesting target group, because these younger generations spend most money on food, compared to other generations, and are most sensitive to convenience and price. Especially the labels 'natural' and 'fresh' scores well. Furthermore, millennials, which are called the burn-out generation, will value the mental convenience attribute of the food box concept. The Direct To Consumer trend will best work for these younger generations, because they live and breathe online. They are used to learn about new products online and ordering products and services over the internet is daily business. This is more elaborated in chapter 7.1.2.

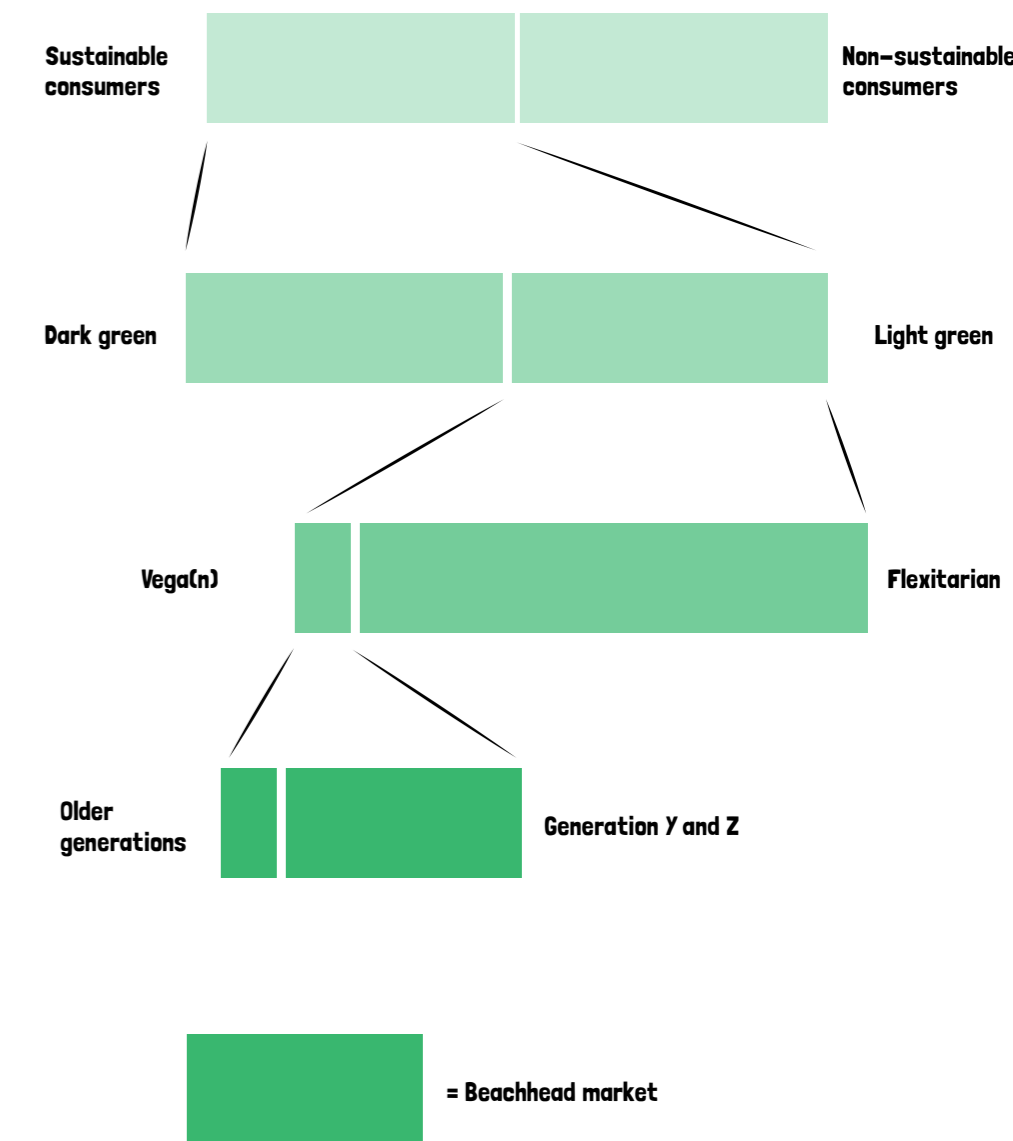


Figure 28. Beachhead market, further elaborated in chapter 7.1.

4.1.4 People buy function

People often don't buy a product because it is pretty. They buy a product that gives them a benefit they can't get somewhere else. Or a benefit that is better or cheaper than they get somewhere else. The benefit a customer gets needs to be translated into a Unique Selling Point (USP). One or two strong USPs communicate and explain the benefits of the concept to customers and help to position the product in the market.

The concept is purposely marketed as a food box, a service, rather than just a sauce (product) with a recipe. This is elaborated in chapter 4.2. The word food box is not associated with single use and, therefore, will motivate consumers to use the product more often. Furthermore, choosing to market the solution as a service determines that the main USPs will focus on the service level. Rather than promoting the attributes on product level, like natural ingredients and the origin.

At first, the concept is focused on mental load reduction and will take away the customer pain of the lack of inspiration. But, inspiration is not a function. It is a tool. Therefore, the benefits that customers pay for should be aimed at the goals that the customer tries to achieve in the kitchen: putting a meal on the table. There are many different product attributes that can be translated into an USP and help to stand out from competition. Based on the trends in chapter 4.1.1, consumers are looking for healthy options, like natural, no additives and organic. Furthermore, there is a strong urge for quick and flexible options. Of course taste and price are also important benefits, although these benefits will become more relevant when the customer is already attracted to your concept.

Health and speed are the functions that will be focused on at first, this is explained in chapter 2.8.

4.1.5 Premium is okay

The use of natural ingredients and no additives is valuable and something where customers want to pay extra for. Furthermore, the product is conveniently delivered to your doorstep. Therefore, the food box is competing with other food boxes. But the customer still needs to buy their own vegetables, therefore the concept needs to be cheaper than food boxes that deliver the complete meal.

But, because the concept offers premium service and a premium product, the sauce, it can be more expensive than similar products in the supermarket. A good price range per sauce, 3 servings, would be around €5-7. Based on customer feedback and price comparison between food boxes and supermarket prices, elaborated in appendix B. Later, the price can be reduced to make it more competitive when entering a larger market.

4.1.6 Growth plan

There are several stages in growing a startup, but only the last one has to do with scaling. The first stages are all about testing and validating the product in order to find the right Problem-Solution fit, Product-Market fit and Channel-Product fit. See Figure 29.

The key element in validating a product, often based on research and assumptions, is customer feedback. Building and testing a MVP, a minimal viable product, and testing it with real, potential customers is very valuable. Furthermore, it is important to first focus on a small niche market, solving a clear, and hopefully often recurring customer pain. In chapter 5 the user test to validate the defined customer pain will be elaborated. Only until after the product is tested, validated and improved, it is time to scale.

The beachhead market for the food box, defined in chapter 4.1.3, will be used to test and validate if vegetarians and vegans that want to cook a healthy meal in under 30 minutes, but lack inspiration and don't want

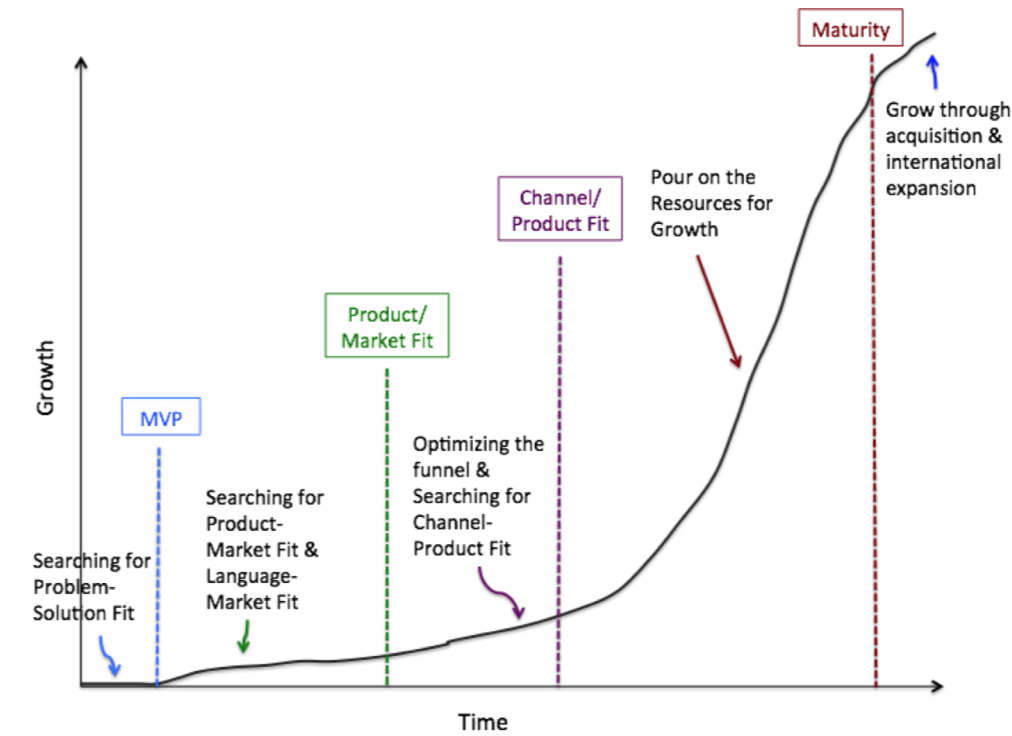
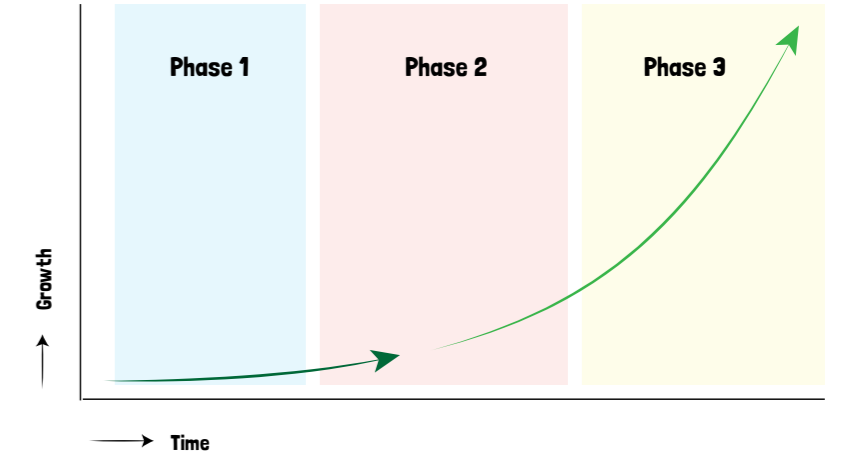
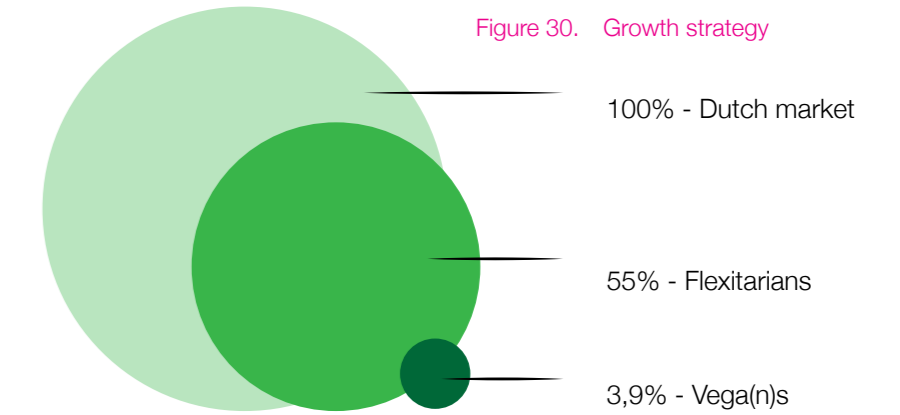


Figure 29. The five growth stages for a startup. Source: medium.com

to think about it too much, are looking for this service. Focus on a strong community and smaller market is important, because it makes identifying and finding potential customers easier. It is much easier to target vegans and vegetarians, because of the clear characteristics, than people that eat less meat. But, although the amount of vegetarians and vegans is growing, there are still many more flexitarians. Almost 700.000 against almost 10.000.000, respectively, see chapter 7.1.1. Therefore, the food box can be developed and validated with the vega(n) community, but it will only be possible to scale when flexitarians will be targeted too. See Figure 30 for the growth plan.



Phase 1: Create more recipes and test on taste. Validate the convenience of the concept using the D2C channel. Validate the main USPs, healthy and quick, with the beachhead market. Also focus on one city, this will be elaborated in chapter 6.

Phase 2: The concept is successfully developed and improved, based on customer feedback. The beachhead market is a success and is now saturated. Start finding traction in the flexitarian market and start the process of validating USPs again. At the same time, start exploring new distribution channels. Also, create even more recipes.

Phase 3: When phase is successful, start scaling within the flexitarian market, using different distribution channels.

4.2 Product and distribution

The concept is purposely marketed as a food box, as elaborated in chapter 4.1.4. The reason for this is to maximize mental load reduction. The customer doesn't just pay for a sauce and a recipe, but they save time and stress because they don't have to think about what is healthy. In addition, they pay for the convenience and guarantee that they can cook a healthy meal in under 30 minutes. These are the elements of mental load reduction, see Figure 27 .

But, to justify the premium price for the product, it also needs to offer enough value to the customer. Value where the customer wants to pay extra for and that makes the product stand out from competition. On one hand there is competition from the ready-to use sauces in the supermarket and on the other hand, there is competition from existing food boxes that offer the complete meals to the customer's doorstep.

So, how can the concept stand out on product level and how on service level?

4.2.1 Product level

Products from Albert Heijn have been used as an example. There are two categories: the dry herb mixed and the ready-to-use sauces, see Figure 31.

Within the dry category there are different levels. The cheap ones (1), varying from €1,20 to €2, only contain dry herbs. These mixes contain a lot of salt, sugar and additives and the customer still needs to buy all the other ingredients. Furthermore, they are not always vegetarian and never organic. The other level is the more elaborated herb mixed (4), that sometimes contains dried products, like raisins and rice. The price varies between €3 to €4,50. They still contain added salt, sugar and additives,

although much less than the cheaper ones. Also, no organic options. Then there are the ready-to-use sauces (2 & 3). These are more convenient, because these sauces don't require preparation time. But these sauces contain a lot of added sugar, salt and additives.

The sauce in the food box can stand out on different product attributes. Offering organic options and natural preservation, not adding an excessive amount of sugar and salt and no additives. This can be achieved by making 'fresh' sauces, this will be elaborated in chapter 5. The dried herb mixes and ready-to-use sauces of the supermarket don't need to be refrigerated, because they are processed and packaged under certain circumstances in an industrial environment. Making a fresh sauce that needs to be refrigerated will result in a shorter due date, but will increase the customer's perception of how healthy the product is, as elaborated in chapter 4.2.3. A more extensive product comparison is elaborated in appendix B.



Figure 31. Example products from Albert Heijn

4.2.2 Service level

HelloFresh has been used as an example food box to see how the service of the new food box concept can stand out, and compete, with existing food boxes.

Overall, the logistics of shipping all ingredients, like HelloFresh does, is:

- Expensive: think about packaging, storing and shipping all the meat and vegetables in cooled circumstances.
- Labour intensive: Creating all the new recipes every week and filling and shipping the boxes with their own delivery cars.
- Complicated: with so many stakeholders and different, fresh ingredients there is so much that can go wrong.

Not shipping meat and vegetables and not changing all the recipes every week will make the new food box concept a lot cheaper and logistically less complicated. Furthermore, when researching the service of HelloFresh and going through the customer journey, several points have been detected where the Goodcase box can exceed:

1. The amount:
The more portions per week, the cheaper the service is. If you order a box for two people for 3 meals a week, a customer is charged €41. Almost €6 per meal per person. When ordering 5 meals for 6 people, a customer is charged €120, which is 'only' €3,83 per meal per person. See Figure 32. The ratio difference is probably due to the labour costs. The time to fill and deliver a box for 1 or 2 persons is probably not much lower than filling and shipping a box for 6 people. Furthermore, there is a trend, elaborated in chapter 3.1.1, that one person households are increasing and there is an urge for smaller food packages. The sauces from the Goodcase box are easy to be packaged in smaller portions, without taking extra effort. Therefore, this concept can really score well for smaller households, since the price is in ratio more attractive than HelloFresh.

2. No meat:
Something where a lot of vegetarians are getting frustrated about is that

the price remains the same when taking out the most expensive ingredient: meat. The same for HelloFresh. A vegetarian box has the same price as a regular box with meat. See Figure 33. This won't nudge sustainable behaviour either. The Goodcase box won't have this frustration, since all sauces are vegetarian.

3. Delivery:
As elaborated in chapter 1, when ordering a HelloFresh food box, a customer is obligated to plan ahead and is stuck to certain delivery time slots. For the most convenient time slots a customer will be charged extra, see Figure 34. With the Goodcase box, the sauces will arrive within 24 hours after ordering. This will allow a lot more room for last minute changes and is easier to plan ahead.

4. Flexibility:
Once the HelloFresh is ordered, a customer is stuck to the portion sizes and can't make last-minute changes, when one more person wants to join for dinner for example. With the sauces from the Goodcase box a customer can easily adjust portions sizes by adding more vegetables, for example, and be more flexible to last-minute changes.

Research shows, see Figure 35, that customers quit their HelloFresh subscription because it is too expensive and they would like to pick their vegetables themselves. The customer has no control over the size, quality and origin of the ingredients.

5. Due date:
Most of the meals from the HelloFresh box need to be consumed within 3-5 days. This is because of the due date of the meat and because the vegetables are perishable. The sauce from the Goodcase box can be kept in the fridge for 6 days, giving more freedom. This is elaborated in the scenario in chapter 2.4.

2. Kies het aantal personen en maaltijden

Aantal personen: 1 2 3 4 5 6

Maaltijden per week: 3 4 5

Vlees, vis & veggie

2 Personen / 3 Maaltijden per week

6 porties voor € 5,99 per portie

Prijs € 35,96

2. Kies het aantal personen en maaltijden

Aantal personen: 1 2 3 4 5 6

Maaltijden per week: 3 4 5

Vlees, vis & veggie

6 Personen / 5 Maaltijden per week

30 porties voor € 3,83 per portie

Prijs € 114,96

Figure 32. Price comparison HelloFresh

1. Kies jouw menuvoorkleur

Vlees, vis & veggie

Veggie

2. Kies het aantal personen en maaltijden

Aantal personen: 1 2 3 4 5 6

Maaltijden per week: 3 4 5

Vlees, vis & veggie

2 Personen / 3 Maaltijden per week

6 porties voor € 5,99 per portie

Prijs € 35,96

Bevoering € 4,99

Totaal € 40,95

1. Kies jouw menuvoorkleur

Vlees, vis & veggie

Veggie

2. Kies het aantal personen en maaltijden

Aantal personen: 1 2 3 4 5 6

Maaltijden per week: 3 4 5

Veggie

2 Personen / 3 Maaltijden per week

6 porties voor € 5,99 per portie

Prijs € 35,96

Bevoering € 4,99

Totaal € 40,95

Figure 33. Price comparison HelloFresh

✓ zaterdag: 08:00 - 12:00
zaterdag: 18:00 - 22:00 (+ €0,99)
zondag: 09:00 - 17:00
zondag: 17:00 - 22:00 (+ €0,99)
maandag: 07:00 - 12:00 (+ €0,99)
maandag: 09:00 - 13:00 (+ €1,99)
dinsdag: 07:00 - 12:00 (+ €1,49)
dinsdag: 09:00 - 13:00 (+ €1,99)
woensdag: 07:00 - 12:00 (👍)
woensdag: 09:00 - 13:00 (+ €0,49)
donderdag: 08:00 - 17:00 (👍)
donderdag: 18:00 - 22:00 (👍)

Figure 34. Delivery time slots

retention rate of 70% after twelve months, indicating that after a year 70% of customers is still subscribed to their service. HelloFresh only retains 15% of its customers after a year (Trip, 2018). This gives reason to have a look at the factors that attract consumers to online subscription meal kits and the differences in perception compared to offline meal kits, since these gain in popularity (DistriFood, 2018).

A lot of applied research has been conducted by market research agencies into the drivers and barriers of both online subscription and offline meal kits (e.g. Drost, Van der Wal & Baas, 2015). Commonly found drivers are convenience, variation and inspiration. Established barriers are the fact that people prefer to pick their groceries themselves, them not liking the dishes available, the obligation of having to subscribe for a service in the case of online subscription meal kits or the price. However, little academic research has been conducted within the specific field of both online subscription or offline meal kits (e.g. Hertz

Figure 35. Why HelloFresh customers quit their subscription²⁶.

4.2.3 Distribution

With the help of the founder of Freggies, a plant based entrepreneur, the following steps have been identified in order to the food box to be a success on product level:

- Taste. Taste is briefly mentioned throughout the report, but it is the most important product attribute for the food box to be successful. When a product is not tasty, it doesn't matter how easy, affordable or convenient it is. Therefore, the sauce and recipe are top priority.
- Usage and distribution. How will the product be delivered, used and produced?
- Packaging. Not all sauces look attractive, therefore the packaging needs to look good and at the same time communicate the 'freshness' of the sauce it contains.

Taste

It is best to start with kitchens that make use of herbs and sauces and where meat is not the focus. This concerns the more exotic kitchens, think about food from Asia, the Middle East and South-America. The first recipe for the user test was a vegan Indian Curry. The Indian kitchen was the most tasty kitchen according to a poll in a vegan and vegetarian Facebook group. This is further elaborated in chapter 5.2.

Usage and distribution.

Fast shipping and delivery is a crucial factor, on service level, for the success

of the concept. It starts with the user scenario, because the user scenario determines how the product is produced. How the product is produced determines how the product needs to be shipped.

The product is either delivered frozen, fresh or ambient (room temperature). Frozen would make the logistics complicated and expensive. Ambient is difficult to achieve with natural ingredients and no additives and without industrial equipment. Fresh is the best option. Fresh means that the due date is around a week, when preserved naturally, and it needs to be shipped and stored under 7 degrees Celsius. Cooled delivery must be feasible and the limited due date can also nudge consumption, consumers feel obligated to eat it. The production method, natural preservation and cooled delivery will be elaborated in chapter 7.2.

Packaging

Because of the preservation technique used to produce the sauce, the sauce for the user test was packed in transparent plastic. To communicate that the sauce was fresh and made of natural ingredients, the wrap, containing all the product information, was made of cardboard paper. How the wrap was designed and which nudges it contained is elaborated in chapter 2.6.

4.4 requirements

Based on the design challenges, described in chapter 4.1 and 4.2, there are several product requirements for the product and service. These requirements will be used as a starting point and guideline for different tests and, finally, the user test. Based on these tests, the requirements will also be adjusted and improved. This will be elaborated in chapter 5.

Marketing

1. The communication of the concept should be focussed on the target group: vegans and vegetarians first.
2. The main USPs are health and speed.
3. The price for a sauce for 3 persons ranges between €5 to €7.

Product level

1. The products, sauce and recipe, should be plant based.
2. The sauce shouldn't contain additives.
3. The sauce should not contain an excessive amount of added sugar and salt. Not more than 3 grams salt per person per meal, which is 50% of the recommended daily amount per adult. (BRON)
4. The product should be made of organic ingredients
5. The sauce needs to be naturally preserved and, after delivery, needs to be consumed within 6 days.
6. The sauce should contain all the necessary product information, elaborated in chapter 7.2.
7. The packing material should be safe to use with food.

Service level

1. Price should be attractive for smaller households (trend). The price per portion will, in ratio, not decrease when ordering more meals for more people.
2. The sauces should also be offered in smaller portions, for one-person households and two-person households.
3. Every sauce should come with a easy-to-follow recipe with clear instructions

Distribution

1. The products must be ordered online and shipped within 1-2 working days with PostNL, so the box arrives within 24 hours after dispatchment.
2. The products should be shipped cool, never exceeding 7 degrees celsius.
3. If possible, the products should be shipped in a letterbox, to minimize packaging volume and increase delivery convenience.

5 User test

5.1 Introduction

A user test has been conducted to test the feasibility of the concept, test the product requirements that are based on research and to validate which USPs are most valuable and appealing to users. This paragraph will elaborate on the process of the user test, from production to interviewing test users and the results.

5.2 Production proces

The concept is a food box with a twist: customers need to buy their own vegetables. To mimic regular food boxes, the recipe was printed separately from the sauce wrapping, containing all the product information.

As elaborated in chapter 4.2.3, taste is important. So, which kitchen or dish should be chosen for the user test? This question was asked to consumers within the beachhead market, vegans and vegetarians, through Facebook groups. These Facebook groups, that have thousands of members that are engaging everyday, illustrate that this is a very strong community. Because they are already familiar with dishes without meat, their inspiration can be used for kick-off this user test. There is a strong preference for exotic kitchens, predominantly the Asian kitchen is popular, see Figure 36. In particular the Indian kitchen, this makes sense, because around 40% of the Indian population is vegetarian. That is why for the user test a Indian curry has been selected, see Figure 37. The recipe is slightly adjusted and improved with the help of an Indian chef, see appendix C.2. This recipe was then used to create the recipe card, containing the cooking instructions and the products that consumers needed to buy themselves, like the vegetables.

The next step is preparing and packing the sauce, in a way that it is naturally preserved for the defined time frame of 6 days after delivery. It is hard to determine the due date without professional research and lab tests, but the following steps have been taken to preserve the sauce, minimize the

development of bacteria and guarantee food safety:

- Freezing after production and cooled shipment.
- Add salt and natural acids, like citric acid.
- Heating the product during production.
- Vacuum packing.
- Plant based ingredients.

More research regarding preservation is elaborated in chapter 7.2.

Once the sauce is packed, it will be frozen. When food products are frozen, the bacteria and parasites can't reproduce²⁷, which will extend the life time. Freezing the sauces gives more flexibility, because a sauce can be produced in bigger batches and be stocked. In addition, freezing helps cool shipping, because the starting temperature is -18 degrees celsius. It will take more time for the product to exceed the limit of 7 degrees celsius, obligated by Dutch law²⁸. This will give more room and flexibility in the shipping process, since the average delivery time of PostNL is around 24 hours.

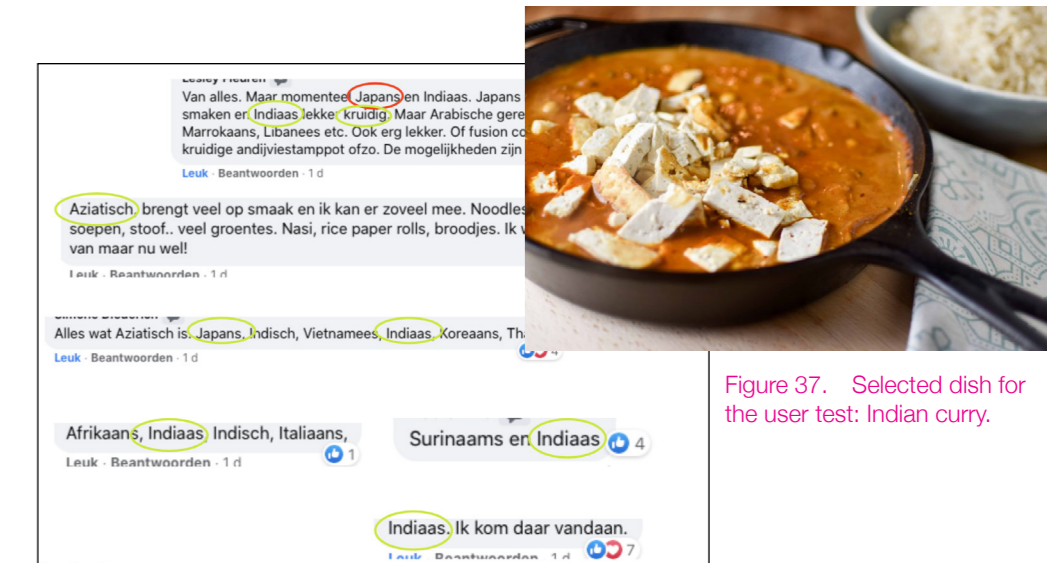


Figure 36. Responses from the vega(n) community.

Figure 37. Selected dish for the user test: Indian curry.

It was a challenge to figure out if someone can just prepare food and sell it. After extensive desk research and reaching out to experts, it became clear that it is possible when certain requirements are met and enough information about the product is provided. For example, it is important to provide the ingredients, nutritional value and a due date. All this information has been incorporated in the design of the product wrapping, see chapter 7.2.2. Cardboard paper is used for the wrap, because of its natural and organic appearance.

5.3 Shipping

During the process of the production of the sauce, wrap and recipe card, the shipping method was validated. The frozen sauce was, together with an ice pack, wrapped in insulation material, see Figure 38. The ice pack and insulation material were left over from previous experiments from Goodcase and were solely used to test and validate the feasibility of shipping the sauce. Efficiency and appearance can be improved later.



Figure 38. Sauce, ice pack and insulation material.

The package was shipped with PostNL from Rotterdam to the Hague and was delivered after 19 hours. At arrival, the ice pack was .5 degrees celcius and the sauce 2.2 degrees. The 19 hours was within the predefined limit of 24 hours and the sauce didn't exceed the 7 degrees celsius limit, to guarantee food safety. The test is more elaborated in appendix C.1.

5.4 User test

After the successful delivery test, it is time to do a user test with real, potential customers. The test users have been acquired through the same Facebook group that was used to validate what kitchen and recipes people prefer for vegetarian meals, see appendix C.3. This test will focus on validating which of the USPs, elaborated in chapter 2.5, will be most valuable.

To create a bigger batch of products for the user test, a community kitchen was rented in Rotterdam, called Flours&Sours. See Figure 39 for a picture, more images of the ingredients and cooking process for the user test in appendix C.4. This kitchen also provided the freezer where the products could be stored until shipment. Unfortunately, due to last-minute changes and time pressure, there was no time to test different portion sizes. All participants received a sauce for a meal for 3 adults.

At the time of the user test there was no website yet. Therefore, on the back of the wrap there is a story that elaborates on the convenience and price USPs, mentioning that this food box is the affordable solution for inspiration struggles. The participants were asked to participate in a user



Figure 39. Cooking the sauce batch for the user test, more photos in appendix C.4.

test, testing out a new product. They didn't know it was a food box. The first test was to see if people would understand the concept and what to do, without too much information and instructions upfront. This went really well, they all knew they had to cook with the product and get the vegetables themselves.

To get quantitative feedback, 8 out of 10 participants have been interviewed for around 30 minutes, using Zoom. These feedback sessions were really helpful to find out what people valued in the concept, but also what people considered important in their life regarding buying groceries, cooking and eating dinner. The theory of how the interview has been set up is elaborated in chapter 7.3 and all results in appendix D.

5.5 Results

Six participants lived outside Rotterdam and were sent the sauce and recipe, see Figure 40, with PostNL. Five out of six were delivered within 24 hours and one package was delivered after 25 hours. The addresses were spread out over the Netherlands, see appendix C.5. Four participants lived in Rotterdam. These sauces were not wrapped with an ice pack in insulation material, but directly delivered from the freezer to the user, by bike and in in a letterbox. See Figure 41. In a frozen state, the sauce can be outside the fridge for several hours before exceeding the 7 degrees celsius. The conclusion for shipping the products is that the ice pack and insulation material are expensive and take a lot of work. Especially for just one sauce. The more you send, the more efficient it is.

The results have been elaborated in chapter 2.7. All the results of the user test are elaborated in appendix C. But the biggest insights that have lead to the focus on the 'health' and 'speed' USPs are:

- Customers value no additives more than organic ingredients. And in general value the 'natural' and 'fresh' attributes of the product, that has a strong link with health.
- The majority tried to cook in under 30 minutes and speed was really a priority.
- The one requirement for dinner is that it needs to contain fresh

- vegetables, really emphasizing the healthy aspect of the vegetables.
- People really liked that you could store the sauce for 6 days, offering flexibility and freedom.
- Everyone cooked dinner for 4-6 days a week.

These insights will be used to determine the next steps and marketing plan for this food box, elaborated in chapter 6.



Figure 40. The package for test users living outside Rotterdam.



Figure 41. The package for the test users living in Rotterdam.

6 Next

All insights and results from this project can be used to determine what the next steps are in developing the product and service of the future-proof food box. This chapter will elaborate on these next steps, covering different aspects of the product and service to improve and providing practical steps for following designers or entrepreneurs. The following aspects will be covered:

1. Shipping
2. Product development
3. Marketing
 - a. product range
 - b. One location first
 - c. Finding the target group
 - d. Sales channels
4. Portion sizes

6.1 Shipping

Shipping the food box with carrier partners, e.g. PostNL, is a crucial part of the proposition. But shipping costs are high. Especially when the product needs to be cooled during transport, which makes the parcel much bulkier. Large parcels don't fit in the mailbox and that makes the shipping costs higher, going from €4,10 to €6,75 (PostNL standardized prices). That price difference has a large impact when only shipping one, two or three sauces.

Ideally, the products would be tailored to fit a mailbox. During the user test, the sauces within Rotterdam were delivered in a mailbox. One sauce was around 700 grams and almost took up the whole space in the A5 mailbox. See Figure 42. One of the insights of the user test was that 700 grams was quite a lot for 3 persons. When reducing the amount of sauce and using an A4 letter box, it should be possible to fit at least three sauces in one box. But, that means that the product can't be kept cool during transport. This will be elaborated in chapter 6.3.

6.2 Product development

Legislation around food and food safety is complex and strict in The Netherlands. On the other hand, a lot of rules and laws are vague and



Figure 42. Product in an A5 letterbox.

outdated in the fast paced food landscape. During the user test, food safety was taken very seriously. Therefore, the products were cooled during transportation, never exceeding the maximum of 7 degrees Celsius.

But cooling the products makes shipping extra expensive and requires additional packaging labour. Because the products are shipped frozen and delivered within 24 hours, how long would a product really be above 7 degrees Celsius? And would that immediately have a negative impact on food safety? These questions arose when working on the user test, but weren't answered due to the lack of time and expertise.

First, the product is plant based. Animal products are a much bigger risk regarding food contamination, because they contain a lot more microorganisms that could, potentially, make a person sick. In addition, the product is consumed within 6 days and the packaging is also vacuumed. All these precautions, and the short time that the product would exceed the 7 degrees Celsius during shipping, gives the feeling it is also possible to ship the products without the ice pack and isolation layer. To prove this assumption, it would be best to test this in a specialised food lab. There are several labs in The Netherlands that can test a food product and determine the contamination process over time. Wageningen University has a research lab, but there are also commercial companies like Agrolab in Rotterdam. An experiment could be to ship 6 products (because the sauce needs to be consumed within this time frame) to this lab, completely similar

to when the products would be shipped to a customer. One packaging will be opened and analyzed every day. This could give an indication how long the sauce could be kept outside the fridge. It could even be a couple days, that would make the logistics much simpler and cheaper.

The circumstances under which the product is produced and packaged also determine the due date of the product. Using industrialized packaging techniques, described in chapter 7.2, can also determine if the product can be kept outside the fridge. But, using these techniques is expensive and is only affordable when producing products on a large scale.

Analyzing the product or using industrialized packaging techniques is expensive and is only worthwhile when the business has grown to a point that products are shipped nationwide on a large scale. First, it must be figured out if the concept has any traction at all. The lean startup method would suggest to start very small first with building, measuring and learning from customer feedback. See Figure 43. This will be elaborated in the next paragraph.

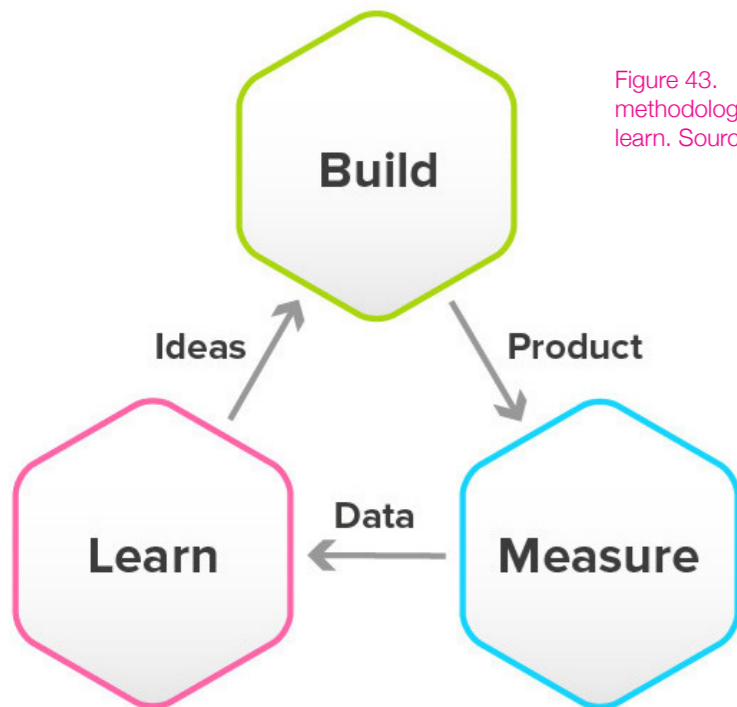


Figure 43. The Lean Startup methodology: build, measure, learn. Source: CallTheOne

6.3 Marketing

Marketing will play a key role in the success of this food box. At the same time, marketing is also a challenge, especially without a budget. The following steps are suggested.

6.3.1 Product range

The test users were provided a curry sauce. That is also the only product that was produced during this project. But to kickstart this concept, it would be best to extend the product range with 4 more sauces. With 5 different products in total, the customer has more to choose from and at the same time, different recipes can be tested. At the starting point it is all about gathering feedback, so receiving feedback on the taste of the sauce is important.

To choose new sauces, the same technique can be used as during this project: ask people. See chapter 5.2. Asian cuisines are very popular, among vegetarians and vegans, but also in general. These cuisines are known for their unique tastes and use of herbs and spices. If a vegetarian meal is extremely tasty, it will make using meat for taste redundant. Furthermore, these cuisines often have meals where ingredients are mixed before serving, like the curry from this project. In the Dutch cuisine the meal ingredients, like meat, vegetables and carbs, are served separately. Leaving out meat has a much bigger impact on the meal experience compared to a curry, where leaving meat out is more subtle and doesn't have too much impact on taste. There are a lot of countries in Asia that all have a unique cuisine, so there is a lot to choose from when extending the product range. Especially the Indian, Japanese and Thai cuisine are especially beloved. This would be a good starting point.

6.3.2 One location first

It is best to focus on one location first, for two reasons:

First, it is best to start small and focus on traction and getting to know your customer. To do that, it is not necessary to ship throughout the whole Netherlands. This goal can be achieved when only targeting one city for example.

Second, as described, shipping products cooled is complicated and expensive. Operating in one location keeps the logistics much simpler and cheaper. Shipping locally can be straight out of the freezer without the need for an ice pack and isolation material. Delivering small batches can be done on a bike, for example. But, simultaneously to selling and gaining traction locally, the process of testing the products on contamination when keeping it outside the fridge can start as well. If the result would be that the products don't have to be shipped cooled, expanding nationwide would be much easier. Which location is suited best will be elaborated in the next paragraph.

6.3.3 Finding the target group

It is always difficult to exactly determine who to target and how to attract these people, especially the latter. The first step is to use market segmentation, dividing the market into different groups of potential customers. There are roughly four types of market segmentation²⁹:

- Demographic segmentation
- Psychographic segmentation
- Behavioural segmentation
- Geographic segmentation

Based on all the results and insights of this project, two types of segmentation can be used to determine the target group: demographic and behavioural segmentation.

Demographic:

The result of chapter 7.1 is that generations Y and Z are the best target group for Goodcase, but also for this food box concept. One of the main reasons is that most vegetarians and vegans are younger than 40 and they have sustainability and animal well being in higher regard than older generations. Within this age category, the 'freedom chasers' and 'sharp individuals' that like cooking healthy and quick are an interested target group. These are highly educated youngsters between 18-34, value sustainability and they like to adopt new products into their lifestyles. Highly educated youngsters are mostly living in large cities like Amsterdam, Utrecht and Eindhoven. This is elaborated in chapter 7.1.2. Their political preference can also be used to help target this group of consumers. Most highly educated youngsters

that have sustainability in high regard vote for the left and progressive parties, like Groenlinks, ChristenUnie and D66, see Figure 59. Where most of these voters live aligns with where most highly educated people live. Furthermore, millennials are sensitive to convenience and together with generation Z they are critical when it comes to food. They learn about new products online and avoid brands that drive mass consumption. In addition, health is important for these generations.

Behavioural:

One of the most important features of marketing is the problem-solution fit. Is the product really solving the problem that consumers are experiencing? The problem that the food box is solving is that people don't want to think about what they are going to eat. The solution is to help these consumers by making choosing what to eat easier, with the USPs of cooking healthy, excluding meat, and quick, in less than 30 minutes. So, the characteristics that this behavioural segmentation group has in common is that they want to cook more healthy and quick, need help with the mental load and don't mind spending time in the kitchen and buying their own groceries.

It is much easier to target consumers based on their demographic characteristics than on the behavioural characteristics. Behaviour can't be easily expressed in numbers and figures. Furthermore, the behaviour segmentation also includes potential customers that are not highly educated, between 18-34 years old and living in big cities. And also the other way around, there are also customers within the demographic segmentation that would buy the product for different reasons than healthy and quick. So, the two segmentations are somehow interlinked, but can also be separated, see Figure 44.

So, what are the best sales channels to reach these customers from these two segmentation groups?

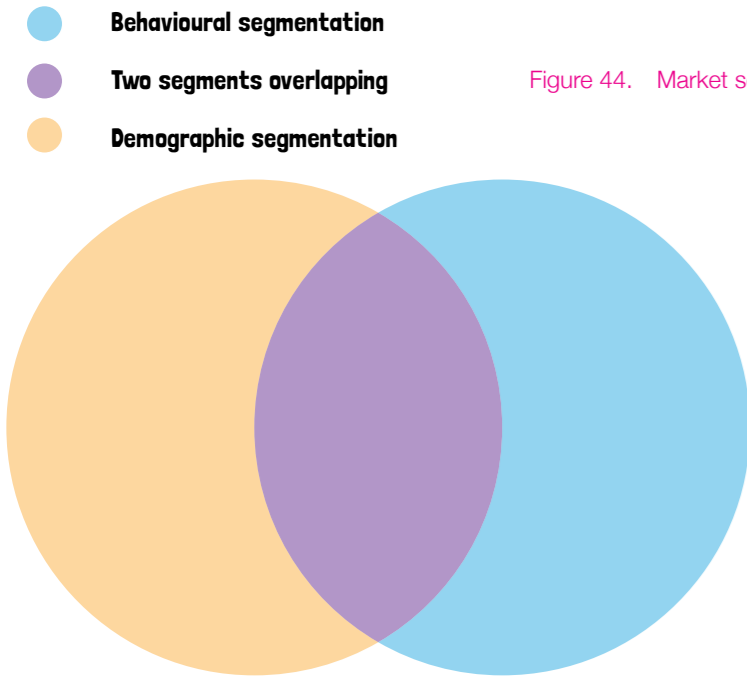


Figure 44. Market segmentation.

can be ordered online through the webshop. This is an important sales channel, because an online webshop can be used to position the brand and to experiment with separate sales and subscriptions.

Sales on location

But online advertisements are not free, and to use them well it requires a budget. Because the algorithm needs time to learn about the people that click on the ads and use that information to display the ad to people with similar characteristics and interests. In addition, online advertisements would only target consumers from the demographic segmentation. There are also consumers that are outside the demographic segmentation, but within the behavioural segmentation. As said, targeting on behaviour is much more complicated than targeting on demographics. But, one method could be to display the product in a location that a large variety of people visit regularly. A poster or flyer can be used to speak to the potential customers within the behavioural segment.

Because the food box provides for dinner, it would make sense to display the products in a location that people visit when buying groceries and ingredients for dinner. At the same time, the location should allow for the product to be sold. That would be the supermarket for example. But as a starting business it is almost impossible to reach the supermarket shelves without connections. In addition, the supermarket is also a highly competitive environment. Another place that people visit regularly to buy ingredients and groceries is the local market. For this location, it would be best to work together with the stands that already sell a product that customers from the food box need: fresh vegetables.

Selling on a location like the local market would be ideal, because the product would be exposed to a lot of potential customers and it doesn't require much financial investment. Almost 50% of the Dutch population visit the local markets at least once a month³⁰. All age categories are represented among visitors, see Figure 45. And fruits and vegetables are the number one reason that people visit the market (76%), followed by flowers (58%) and cheese (52%).

There are large markets in cities like The Hague and Rotterdam. And

in Rotterdam there are already 12 local markets that each have a lot of vegetable stands. Enough options to try out this sales channel.

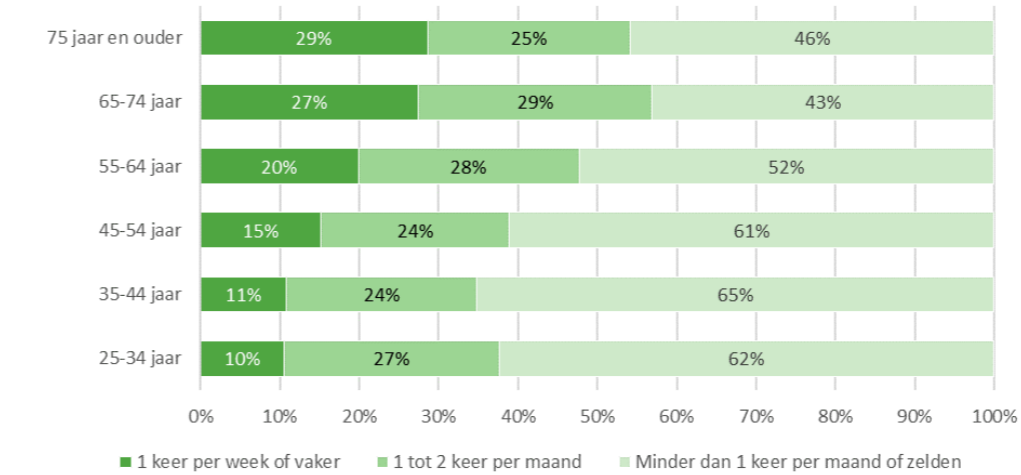


Figure 45. Age categories of local market visitors.

probably more expensive, in ratio. Which makes smaller packages more profitable than larger packages. For example, a sauce for two persons is €4, for three persons it is €5 and for four persons it is €6. That means that selling two packages for two persons is more profitable than selling one package for 4 persons. Of course, the material costs and labour needs to be deducted from that extra profit, but packaging is easy and not very labour intensive.

6.3.4 Sales channels

Online shop

Younger generations learn about new products online, through social media for example. Furthermore, these generations are getting used to buying everything online, see chapter 7.1.2. Therefore, the demographic segmentation would be ideal to target online. Social media platforms like Youtube, Instagram and Tiktok are widely adopted throughout the younger generations and offer sophisticated advertisement tools that allow companies to specifically target a certain group of consumers. Especially with the clear demographic characteristics and focusing on one location, online advertisements are a really good tool to target a specific target group. The content of these advertisements can focus on the behavioural segment, highlighting the healthy and quick USPs and other benefits of the products. Simple A/B testing can test which features or what content will be most engaging, driving consumers to the webshop. The products

6.4 portion sizes

The users during the user test were provided a package for 3 persons. One of the trends was that there is a growing demand for smaller and more convenient food packages due to the increasing amount of smaller households. The difficulty that regular food box companies face is that the smaller the box, the more expensive it becomes, in ratio. That is because the amount of work to put together a box for 2 people for 2 days is almost similar to packaging a box for 6 people for 4 days. The price for a larger box is therefore, in ratio, much cheaper than a smaller box. That makes regular food boxes less attractive to smaller households.

The new food box concept doesn't need to deal with these logistics, so smaller boxes can in ratio have the same price as larger boxes. This can be really attractive to smaller households. It is really easy to package the sauce in portions for 2, 3, 4 or more people. In fact, smaller packages are

7 Research

7.1 Target group

We know that our diet has a major impact on the planet, elaborated in chapter 1.1. We know that this offers market opportunities worth pursuing with Goodcase, elaborated in chapter 1.2. This chapter will elaborate on which part of the Dutch population would be most suited to connect with the market opportunities. Once the target group is defined, the consumer behaviour of this group will be elaborated. The goal is to create a framework of purchasing drivers and barriers that can be used as a starting point for the new product concepts for Good case.

7.1.1 Who are sustainable consumers?

The Dutch population is around 17,5 million. Considering age, there are roughly four generations: Baby boomers, generation X, millennials (generation Y) and generation Z. See Figure 46. The millennials and generation Z are the 'convenience generation' and combined represent 40% of the total population, which is roughly 7.6 million people³¹. See Figure 47.

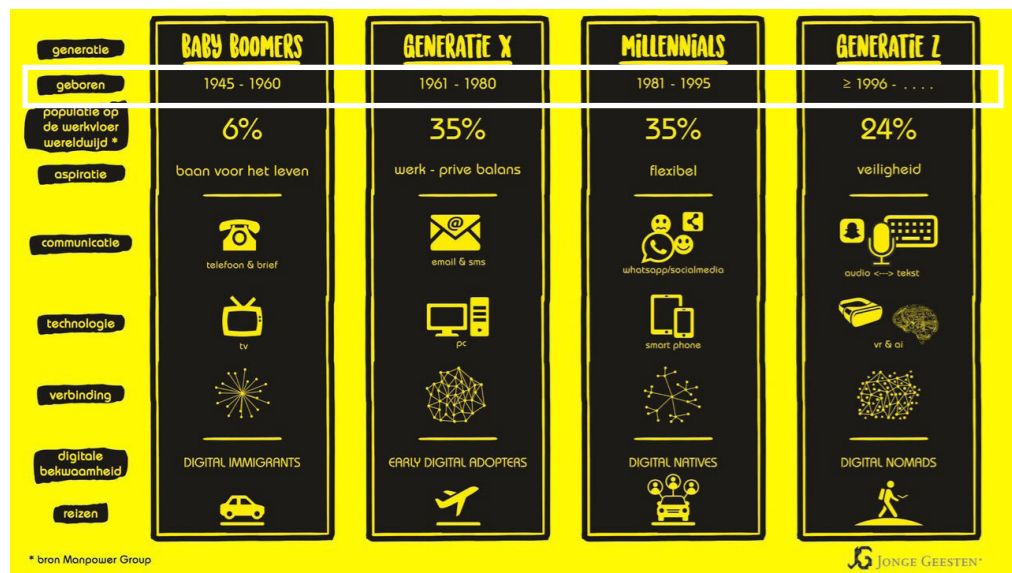


Figure 46. Society consists of roughly four generations, based on age.³⁷

Inwoners naar leeftijd in Nederland

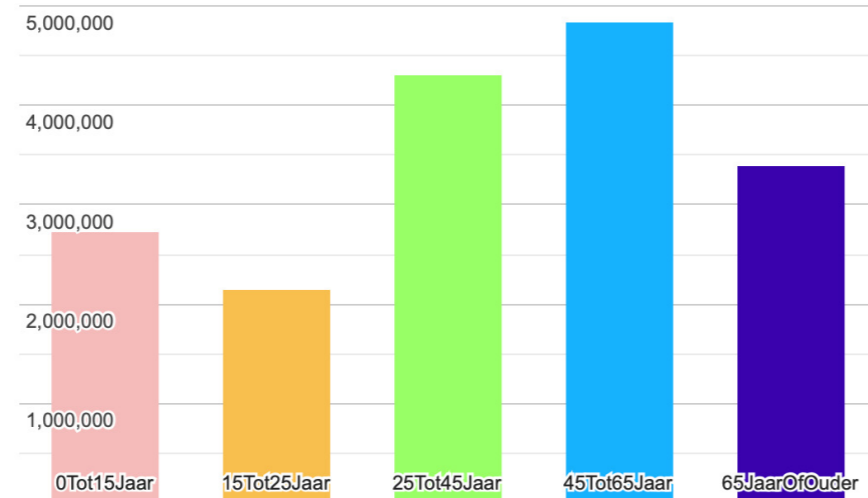


Figure 47. Roughly 7.6 million people from age 0 to 40, which are generation Y and Z.

Diet

3.9% of the Dutch population is vegetarian, including 1.5% that is vegan. This accounts for 678.600 vegetarians, including 261.000 vegans³². Research shows that 55% of the people are 'flexitarian'³³. The definitions can be found in Figure 48. 31% eat meat 5 or 6 times a week with dinner. We consume one third of our meat during other moments than dinner, consumers often only consider their meat consumption during dinner. A vegetarian diet is most popular among generations Y and Z. Almost 7% of people in this category eat vegetarian every day, accounting for around 480.000 people. In general, more women are vegetarian and vegan than men. See Figure 49.

Consumption

31% of the Dutch inhabitants state they are going to eat less meat in 2021 for the next generations. 40% of people younger than 40 state that eating

meat everyday is not from this time³⁴ and 2.4 million people joined the movement 'a week without meat'³⁵. Furthermore, 66% of the people state they are aware of the impact of meat. Across all age categories, men eat more meat than women, see Figure 50. But despite all these statements, meat consumption has risen, although supermarkets sold less meat. One of the reasons to explain the rise of meat consumption is that we eat more meat when we are going out for food. Almost 75% of the Dutch never had a meat-replacer in 2018³⁶. This indicates a large gap, and huge opportunity, between people wanting to eat less meat and the lack of options they have tried. Popular meat alternatives are fish, egg, mushrooms and meat-replacers. See Figure 51.

Meat consumption is interesting because it has the most impact on the environment and eating meat is so deeply rooted in our habits that changing is hard. But what about dairy, that has the most impact after meat? The average daily dairy consumption in The Netherlands is 352 grams. This consists of milk (42%), yogurt (15%) and cheese (9%). Men consume more dairy on average than women, see Figure 52. Research shows that the demand for milk in the supermarkets is in decline, while the consumption of cottage cheese has increased with 20%. See Figure 53.

Vegetarian: No consumption of dead animals, like meat and fish.
Vegan: No consumptions of all animal products, like meat, dairy, eggs and honey.
Flexitarian: Not eating meat for at least 3 times a week during dinner.

Figure 48. Definitions of different diets.

Als je een warme maaltijd eet zonder vlees, vervang je het vlees dan door een ander product? (n=1.249)



Figure 51. Popular alternatives to meat (2015)³⁸

Dutch population 17.500.00 in 2020

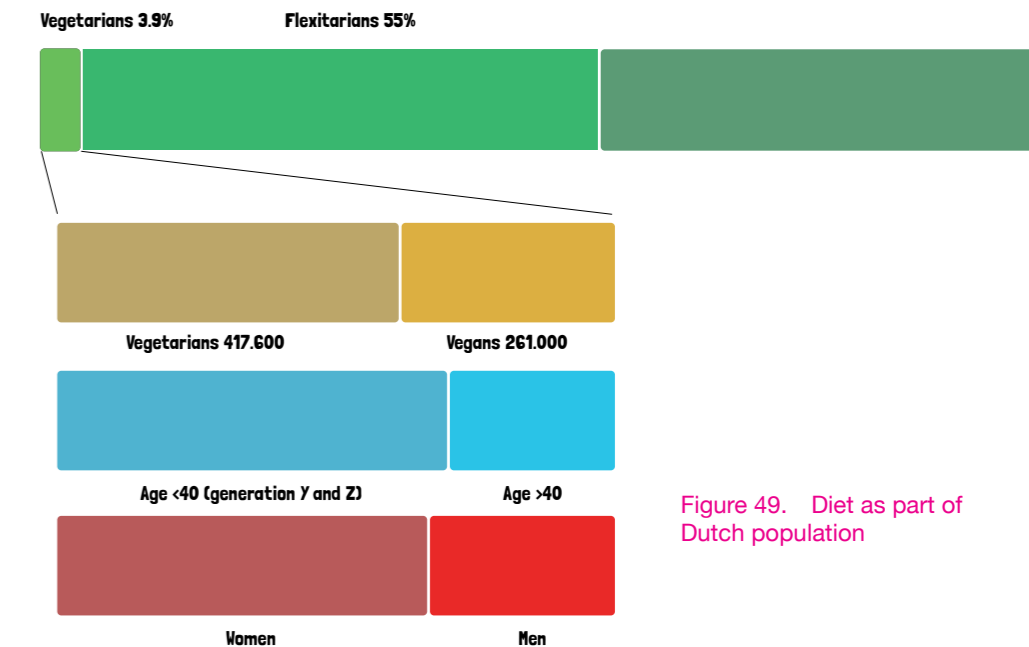


Figure 49. Diet as part of Dutch population

Consumptie van vleesproducten naar leeftijd en geslacht

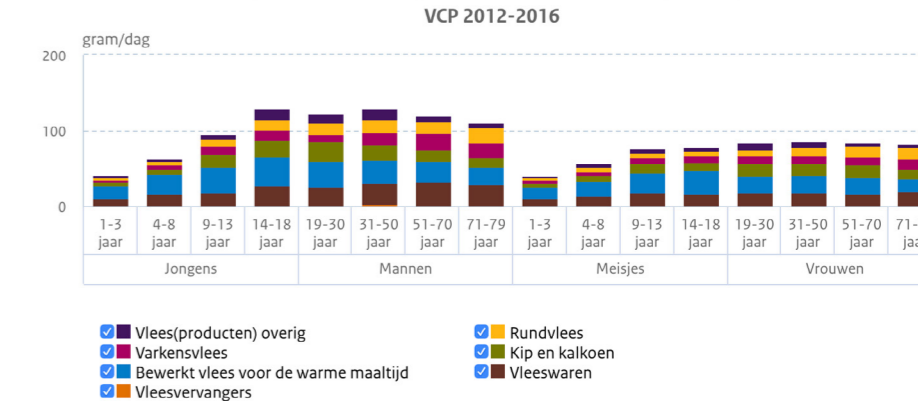


Figure 50. Meat consumption women vs. men.

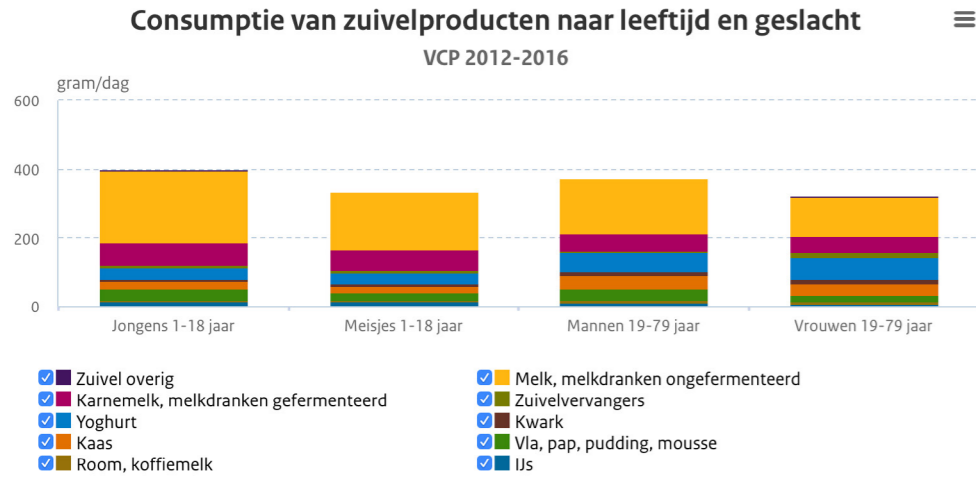


Figure 52. Dairy consumption men vs. women

How we perceive sustainability in society

How much consumers consider sustainability when purchasing products or services differs per sector³⁹. The impact on the environment, like energy consumption, and on our personal lives, like food and health, are considered as most important by, respectively, 75% and 73%. Fashion and insurances are considered least important by, respectively, 54% and 42%. 58% of all consumers state that their trust in brands grows when they contribute positively to the environment, this was 46% in 2016. This shows a clear trend in consumer awareness around the topic of sustainability. Although, 43% of consumers mistrust the sustainability claims companies make. This also aligns with one of the top 4 drivers and barriers for consumers to consume more sustainably. The top two drivers: 42% states that a more sustainable world starts with yourself and 24% states that we really need to focus now on sustainable consumption. The top 2 barriers: 31% think sustainability is too expensive and 26% they don't trust everything around the topic of sustainability yet. See Figure 54. When looking at motives to consume sustainable, consumers are led most by intrinsic motivation and a feeling to be responsible for next generations. Personal advantage and status is considered less important. See Figure 55 for the top 3 motives, that are examples of intrinsic motivation.



Figure 54. Top drivers (dark blue) and barriers.



Figure 55. Top three motives to consume sustainable

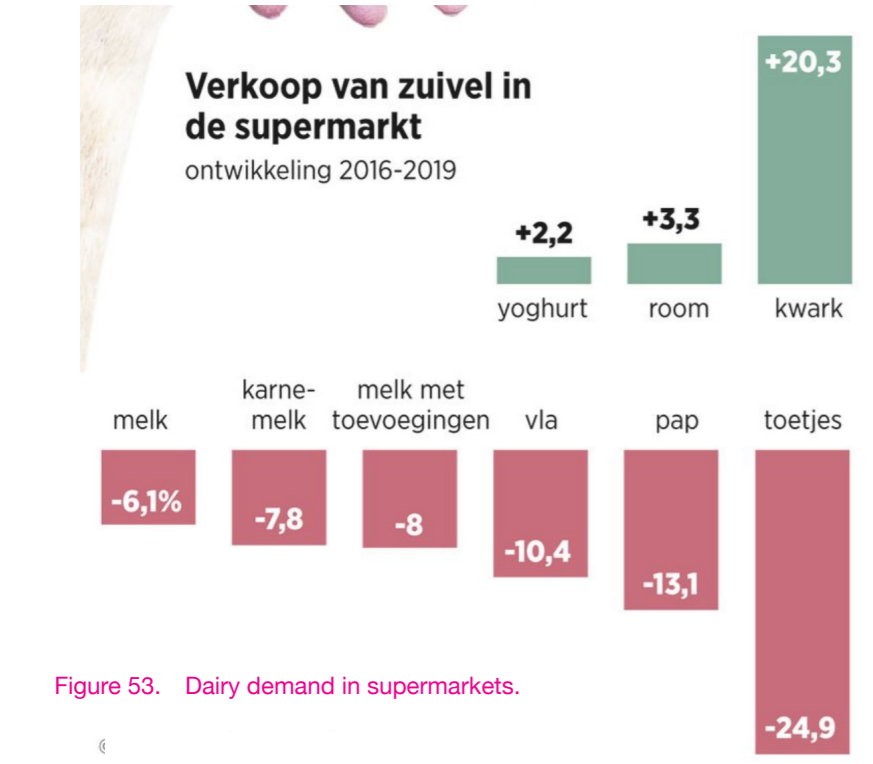


Figure 53. Dairy demand in supermarkets.

Lifestyles in sustainable behaviour

According to MarketResponse, lifestyles are a powerful tool to explain and dictate human behaviour. Their BSR (Brand Strategy Research) tool helps to reveal consumer drivers, based on their lifestyles. There are two axis in the model. The first one is the social logic axis, defining until to what extent a person feels part of a group. The second is the psychological axis, defining until to what extent people express emotions. Are they expressive or modest? This tool was used by b-open and MarketResponse⁴⁰ to identify how much sustainability plays a role within different lifestyles. When it comes to sustainable behaviour there are roughly four lifestyles. See Figure 56.

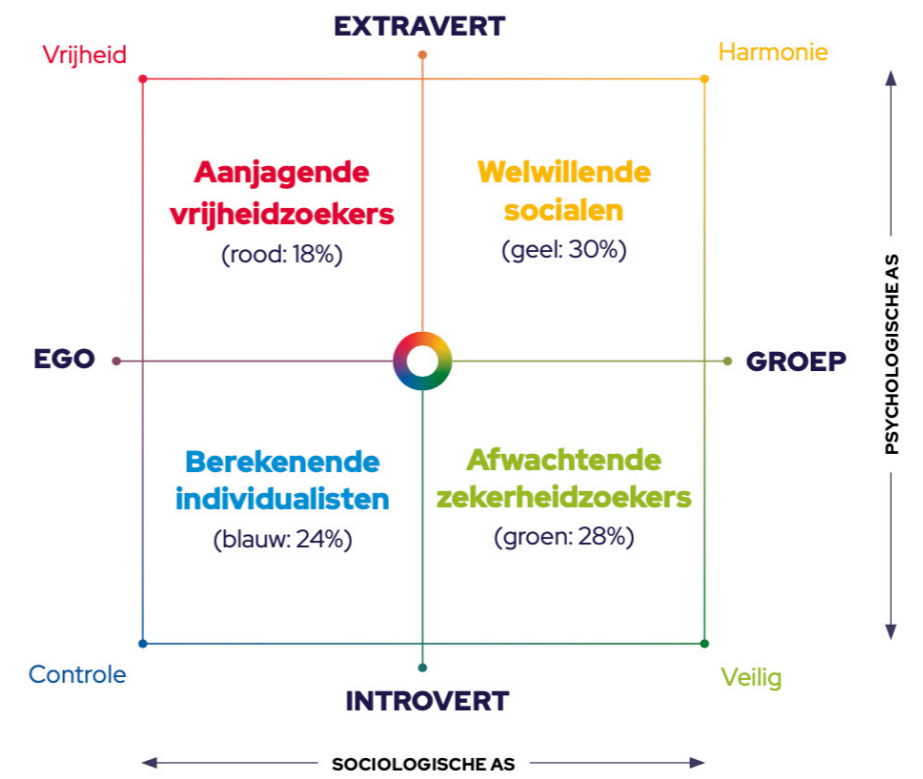


Figure 56. Four lifestyles within sustainable consumer behaviour, explained in the four colored segments

Freedom chasers

This group represents 18% of consumers. They are extraverted and individualistic. Mainly highly educated women and men from 18-34 years old. This group values freedom, human rights and conservation of biodiversity and nature. They love innovation and doing things different. They are too busy to compare a product on price and quality, but they are interested in the origin of the product and the story behind the product should be right. Overall this group is intrinsically motivated to save the planet. 'A better world starts with yourself'. This also aligns with the top motives and drivers elaborated in the previous paragraph.

Sharp individuals

This group represents 24% of consumers. They are as individualistic as the freedom chasers, but more introverted. They are also interested in sustainability, but it needs to suit their personal interest and needs to meet a certain quality level. They don't mind that sustainable products are more expensive, especially if these products give them a certain status. They like innovation and are, behind the early adopters, the first to try new products. They like shopping in specialty stores. Mainly men, highly educated and between 18-34 years old. They care more about the working environment of the product supplier.

Willing socialists

This group represents 30% of consumers. They love shopping and consuming, but are not particularly interested in sustainability and conscious consumption. Sustainability needs to be close to their personal lives. If they contribute to the environment, they do it for the people around them. They are interested in health, recycling and using less or sustainable packaging material. Also animal well being is a driver. This group is mainly women from all age groups that have an average education.

Willing socialists

This group represents 30% of consumers. They love shopping and consuming, but are not particularly interested in sustainability and conscious consumption. Sustainability needs to be close to their personal lives. If they contribute to the environment, they do it for the people around them. They are interested in health, recycling and using less or sustainable packaging material. Also animal well being is a driver. This group is mainly women from all age groups that have an average education.

Conclusion

There are three different consumer categories when it comes to sustainable food. First, the consumers that already made permanent changes in their diet, like completely switching to plant based food. Second, consumers that are willing to eat less meat and dairy and are open to experiment with plant based food, but are not yet making permanent changes. This is a huge group, when considering the amount of flexitarians and people participating in the ‘week without’ meat movement. The fact that 75% of consumers never had a meat replacer also indicates the gap, and opportunities, within this group. Third, there is the group of people that are unwilling to make dietary changes for the environment. Overall, the decline of dairy consumption aligns with the decline of meat consumption.

Awareness of meat and dairy consumption leading to dietary changes is most evident among people younger than 40, the generations Y and Z. Also the lifestyle of these generations, according to the lifestyle model, align with sustainable consumer behaviour. Although the drivers differ, from intrinsic motivation to sustainability as a driver for status. Other lifestyles are less invested in sustainability or even sceptic. The main driver for sustainability, ‘to start with yourself to improve the world’, align with the lifestyle of generation Y and Z. The main barrier, that sustainability is too expensive, can be assigned to the lifestyles that are not invested in sustainability. Price is less of an issue for the younger generations, because they are more willing to pay for sustainable products. Also, when looking at the near future, to 2030, this ‘convenience generation’ has the most purchasing power⁴¹. Taking over the lead from the baby boomers, that are less interested in sustainability.

Conclusively, the generations Y and Z are the most interesting target group for Goodcase. They are highly educated and they have, relatively, made most dietary changes and show to be more willing to reduce meat and dairy consumption. Overall, facilitating change is easier than convincing to change. Furthermore, sustainability in general is rooted in the DNA of this target group, which helps making conscious choices regarding food.

7.1.2. Characteristics of generations Y and Z

Chapter 1.1 concluded that generations Y and Z are the most interesting target group for Goodcase. According to FoodService Instituut the generations Y and Z will take over the food market within 10 years⁴². They want to combine convenience with enjoying responsible food. Furthermore, food is part of the lifestyle and is considered more important than for the older generations. ‘You are what you eat’ is one of the trends. This chapter will elaborate on the following characteristics of the generations Y and Z:

- Demographics
- Politics
- Shopping behaviour
- Online behaviour
- Binding strategies
- Careers and time management

Demographics

Figure 57 shows the percentage of the population younger than 40 years and, therefore, begin part of generations Y and Z. Furthermore, 20% of millennials, that are not students and don’t have a family, live in the 4 biggest cities in The Netherlands. 30% of these millennials live in smaller cities and 50% live outside the cities. According to the BSR lifestyle model, the younger generations that are interested in sustainability are also highly educated. Around 1.6 million people are highly educated (at least HBO or WO) between the age of 15 and 40. Most of them live around the city or in the area where they have been educated. Highest percentage of the

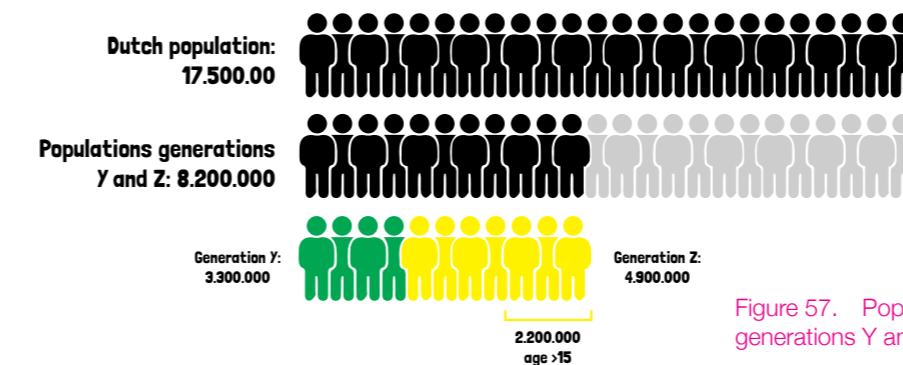


Figure 57. Population of generations Y and Z.

population that is highly educated is in Utrecht and Amsterdam. Followed by Leiden, Wageningen, Nijmegen, Groningen, Delft en Eindhoven. Figure 58 shows an overview of which provinces and cities are most populated and where most educated people live.

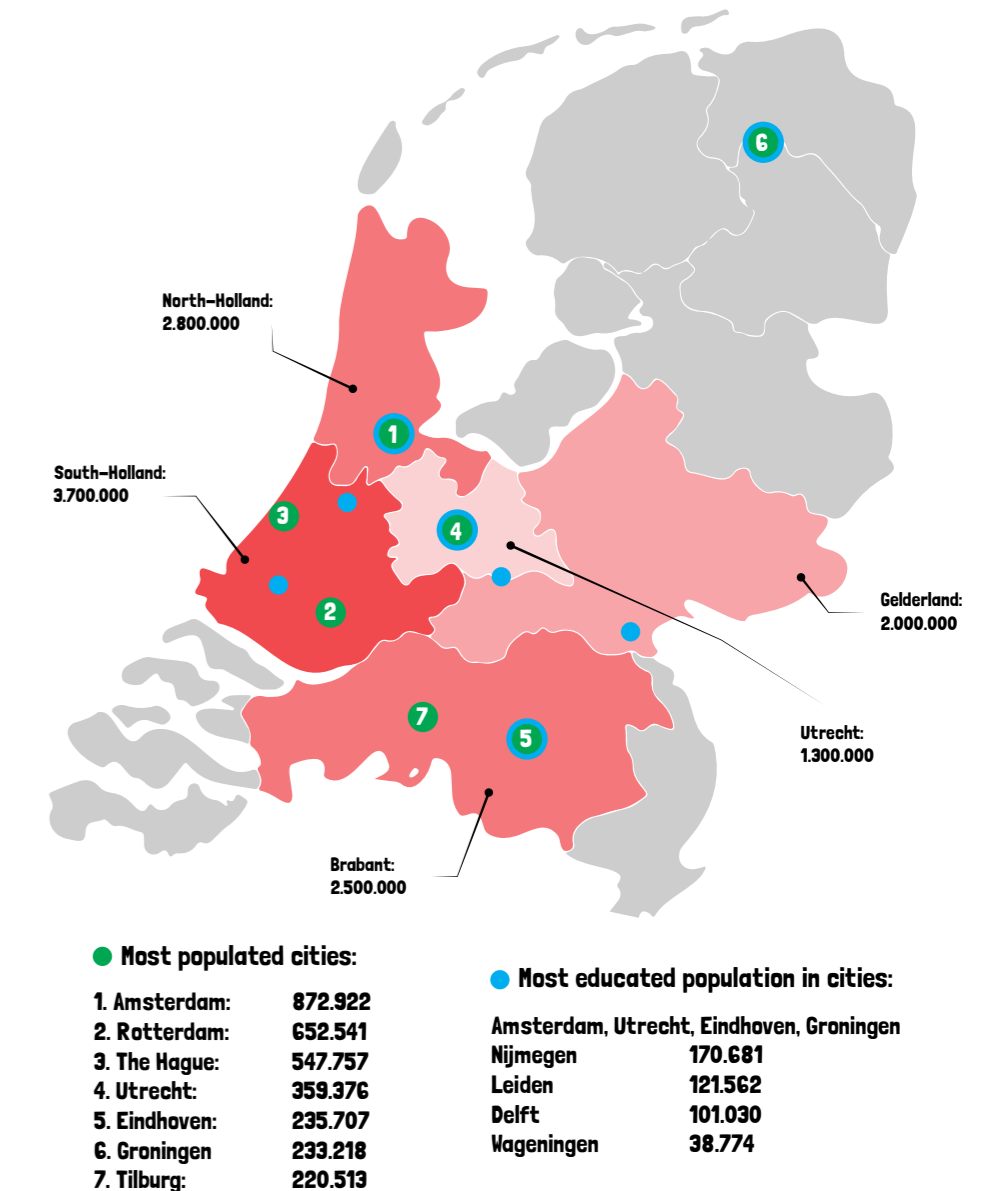


Figure 58. Most populated provinces and cities in The Netherlands. Source: CBS

Politics

Educated youngsters are most aware of sustainability challenges and are willing to act. This should also align with their political interest and political party they support. Climate change, conservation of nature, animal well-being and sustainability are strong drivers among the progressive political parties. Examples are GroenLinks, D66, Partij van de Dieren and ChristenUnie. According to the NOS, GroenLinks is the party that collected the most votes from people between 18-35 during the elections of 2017⁴³. Followed by ChristenUnie and D66, that also have sustainability as a strong driver, and SGP. In addition, D66 and GroenLinks have collected most votes from high educated people. Figure 59 shows where people that voted for left, progressive parties live. Most people live in the cities and areas with universities, where the population is most educated. Like Amsterdam, Utrecht, Wageningen, Nijmegen and Groningen. This also aligns with the results shown in Figure 58. Conclusively, the sustainable drivers from political parties and who vote on them align with the sustainable consumer profiles from chapter 7.1.1.

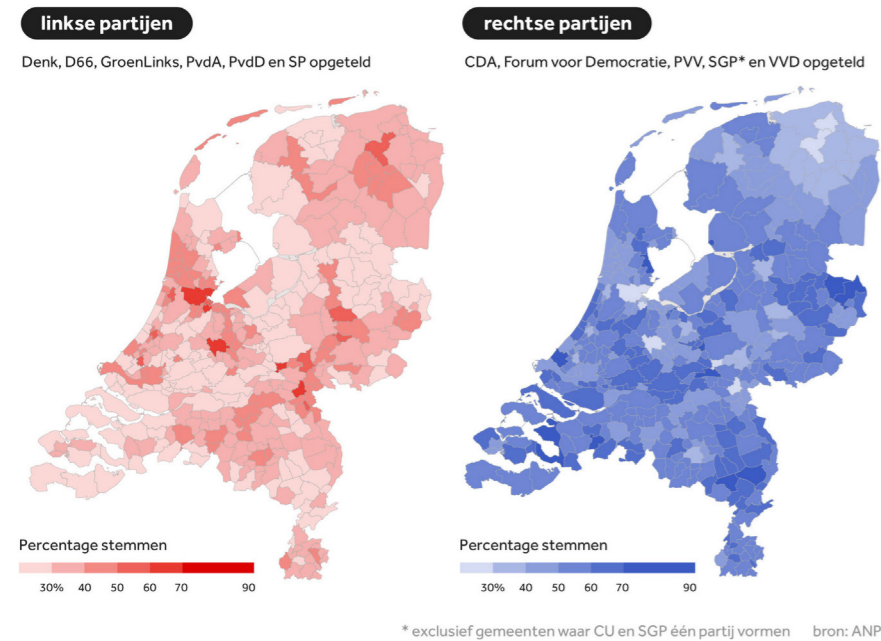


Figure 59. Population that votes for left, progressive parties. Source: ANP

Shopping behaviour

According to a study in the USA, millennials spend approximately the same amount of money on food as older generations. But, a larger percentage of that amount is spent on out-of-home food, like restaurants. Older generations spend more money on groceries⁴⁴. The same trend is shown in expenses of the Dutch generations. In 2019, according to FSIN, millennials spend approximately €1500 on out-of-home food, while generation X (born after 1960) only spend €1239⁴⁵. Going out for dinner is part of their lifestyle. The most recent trend is that millennials boost the food delivery market. It is convenient, especially during the pandemic, and it saves time.

Millennials value experiences more than possessions and are also interested in the experience around their purchase. Generation Z is brought up during economic crises. They are more aware of the fact that money can run out and want to get the most value out of their money. They are more sensitive to deals and special prices, or e.g. free shipping.⁴⁶

Millennials are foodies and are sensitive to price and convenience. Labels like 'fresh' and 'natural' score high. Generation Z is even more food-minded than millennials. They learn about new products through social media. They avoid brands that drive mass consumption and are more attracted to brands that are quirky, stand out and are social responsible.⁴⁷ Furthermore, grocery shopping is more entertainment than an obligation. A unique experience and storytelling are important for them.

Generation Z is critical when it comes to food, they often want to eat more responsibly. But they are lured into the current standards of the food market when they enter the consumption landscape, that are driven by price, taste and quantity. It is hard to resist these drivers when they are not familiar with the story of sustainability. That is why for generation Z sustainable food shouldn't be too expensive and too complicated⁴⁸. Furthermore, generation Z is hybrid regarding health and convenience. They chose explicitly to be healthy, but in other moments they explicitly chose to be not healthy. Strict, but indulging themselves in convenience in other moments. According to Dagevos, it is important to connect the short term and the long term goals. A product needs to fulfil the current needs,

like affordable, tasty and healthy, but also contribute to the environment on the long-term. In addition, change requires a certain amount of knowledge. Therefore, providing information to raise awareness is key in changing our consumption behaviour.

Health is important for this generation. They pay attention to sugar, fat and calories. Salt and carbs are considered less important. On the other hand, like stated before, the mindset regarding health is also hybrid. 43% of this generation, according to research, demand themselves to eat healthy for dinner at least three or four times a week. On the other hand, 63% allow themselves to eat unhealthy food once or twice a week. Furthermore, to save time they sometimes skip a meal and eat snacks instead, especially when they are on the go. On average they spend around €4,62 on an out-of-home snack.⁴⁹

Online behaviour

Consumers are buying more online every year. In 2019 all Dutch consumers spend 25,8 billion euros on online purchases, 7% more than 2018⁵⁰. In 2015 it was only a little over 16 billion euros⁵¹. 96% of the Dutch population older than 15 years purchased something online in 2019. One of the main drivers for growth in the online market is the category food/nearfood. This category has grown 24% in 2019⁵². Followed by lifestyle products, 19%, and household electronics, 16%. The younger generations order more food online and also the delivery market for groceries is growing.

A laptop and smartphone are the most popular devices for online purchases. Although smartphones are rapidly growing as the favourite device to purchase products online, see Figure 60. 77% of Dutch online customers have used a smartphone for a purchase⁵³. Mobile shopping is most popular among millennials, see Figure 61. Furthermore, more consumers use a smartphone for online banking, especially generations Y and Z. See Figure 62. The most popular online payment method in the Netherlands is iDeal, used by 93% of consumers. One of the biggest barriers for online purchases are high shipment costs, 57%, and no free return, 42%. Consumers don't like to pay for shipping costs separately, although they realise that a delivery fee is part of the price they pay eventually. The biggest driver is price/quality ratio, 78%, and good delivery service, 59%. See Figure 63.

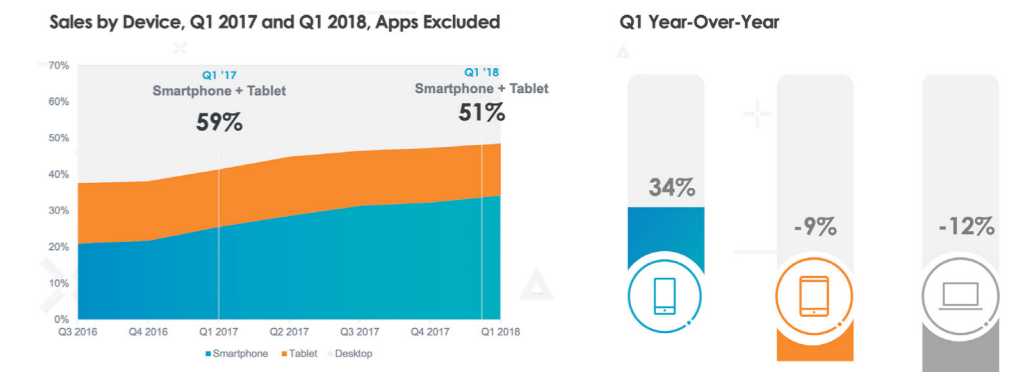


Figure 60. Sales per device in The Netherlands. Source: Criteo⁵⁷

OP WELKE APPARATEN KOOP JIJ PRODUCTEN VIA INTERNET? | BASIS: 18+ (n=2.392)

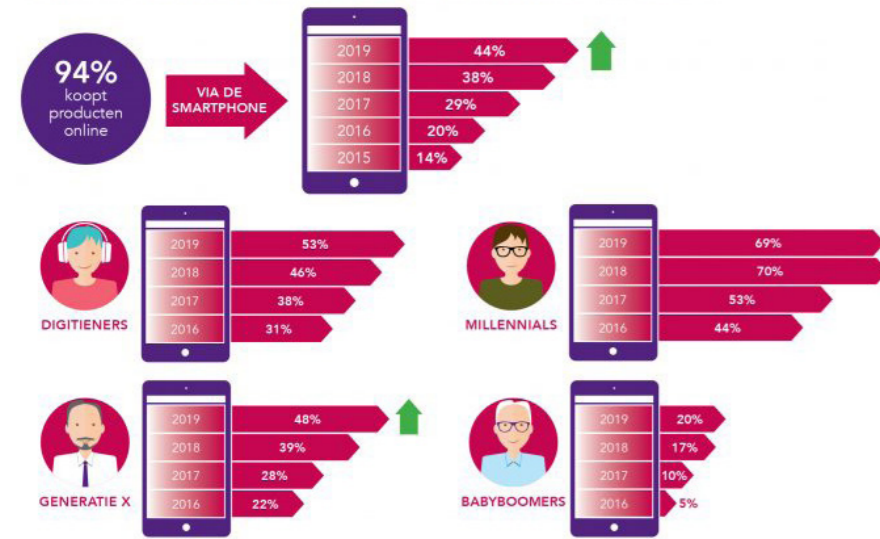


Figure 61. Generations that use a smartphone for online purchases

WAAR HECHT JIJ WAARDE AAN BIJ HET ONLINE KOPEN VAN PRODUCTEN? BASIS: 18+ (n=2.402)



Figure 63. Barriers and drivers in online shopping behaviour

WAAR ERGER JIJ JE WEL EENS AAN BIJ HET DOEN VAN ONLINE BESTELLINGEN IN HET ALGEMEEN? BASIS: ONLINE KOPERS (n=2.238)

product videos, live videos and webinars. Generation Z prefers photos and videos over text, which need to be appealing because their attention span is only 8seconds⁵⁶.

REGELT BANKZAKEN VIA SMARTPHONE BASIS: 18+ (n=2.392)

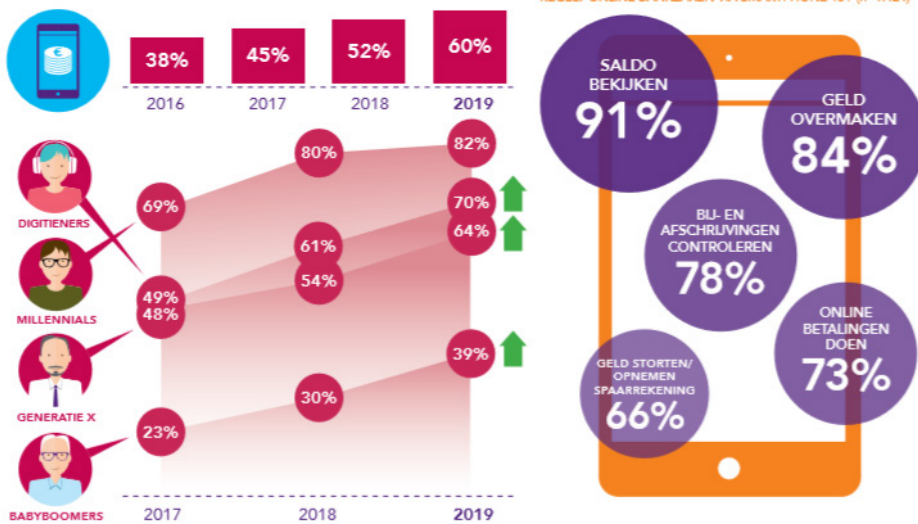


Figure 62. Use of smartphone per generation for online banking.

As stated, the younger generations often use social media to get to know new products and services. But generations prefer different social media platforms, see Figure 64. Video is especially popular among younger generations with platforms like Youtube, but also Instagram. Instagram, originally a photo app, has introduced more video content options because video is growing so popular. IGTV, longer videos, to compete with youtube and shorter videos, that are called 'reels', to compete with the popular platform TikTok. Generations Y and Z are spending, respectively, 143 minutes and 114 minutes on social media per day. It is not a surprise that companies are spending more of their budget on social media and online marketing in general. In 2018,41% of the marketing budget was spent on online marketing, in 2020 that was 45%⁵⁴. That also results in more online product advertisements. That younger, online generations are engaging more with digital advertisements is no surprise. Also, the younger generations are more likely to act after seeing a digital advertisement, resulting in online and offline purchases⁵⁵. See Figure 65. The fastest growing tool in online marketing is online videos, the budget for online video will double between 2016 and 2021. Think about video campaigns,

Bij welk social media kanaal doe je de meeste ideeën op voor aankopen van producten?

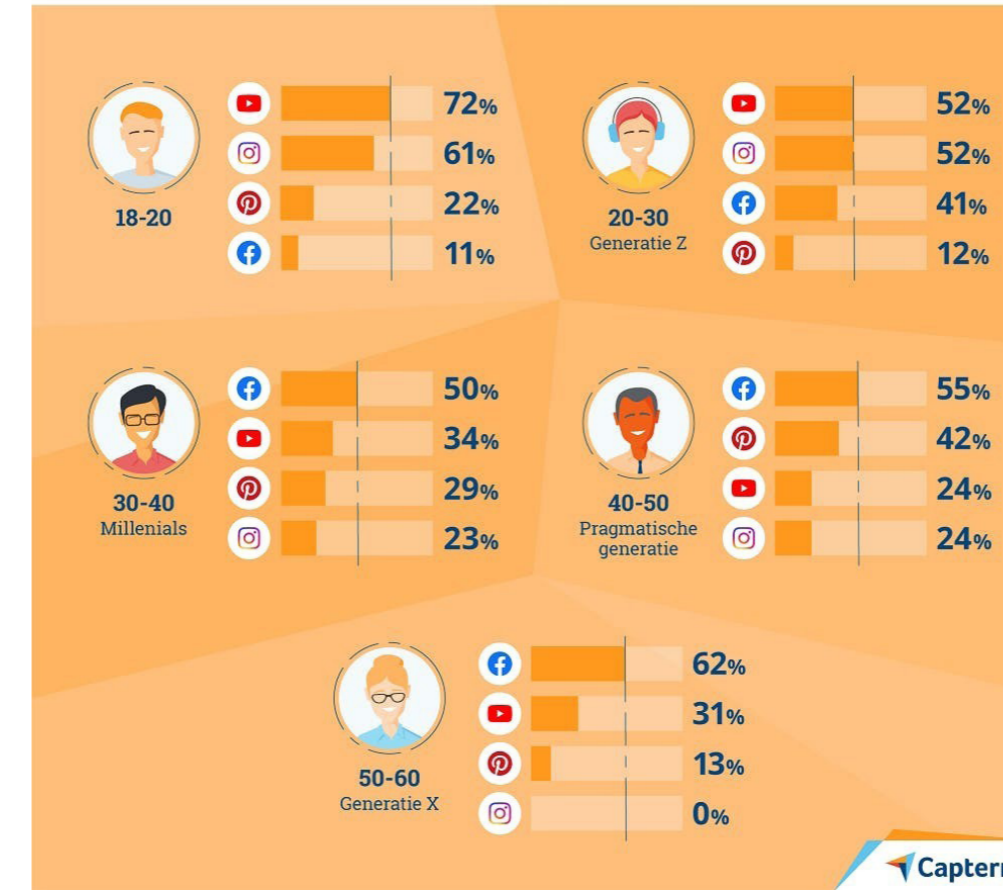


Figure 64. Preferred social media channels per generation to learn about new products.

What have you done upon seeing a sponsored image ad in search results?

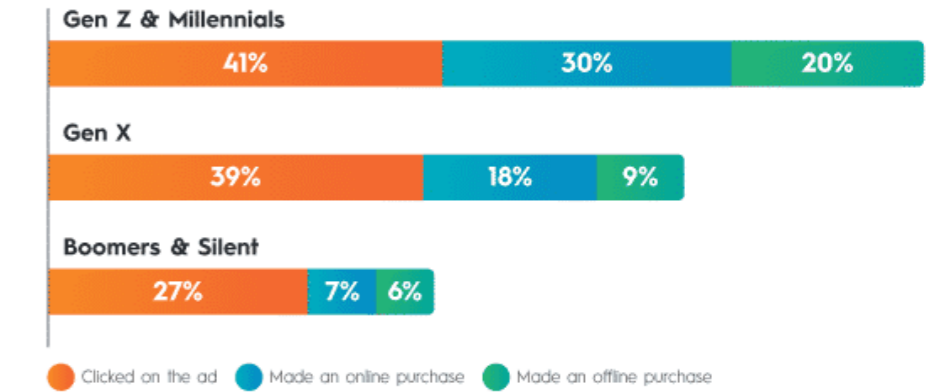


Figure 65. Responses to sponsored ads per generation.

7.2 Production / test

7.2.1 Preservation

Producing and packing food requires knowledge. Therefore, the plan was to produce the sauce for the user test together with a chef and entrepreneur with expertise in the field of plant based food development. The chef's knowledge and experience with producing and packing food could be used to guarantee food safety for the product and test users. But, because the chef's quote exceeded the available budget, working together was no option.

Therefore, the plan was to produce the sauce without help. But is that even possible? Are you allowed to make, pack and ship food to (potential) customers? To answer that question, several experts have been contacted for advice. Especially Pinar Coskun, from Erasmus Food Lab in Rotterdam, gave a lot of interesting insights during a phone call and a 30 minute Zoom call. She mentioned several techniques to naturally preserve food that kickstarted my desk research. Overall, the insights from the experts lead to building enough confidence that it was actually possible to make the sauce.

The main research question for this challenge is: how do you produce, pack and ship a food product and guarantee food safety?

Annually, around 680.000 people in The Netherlands get sick from food infection⁵⁸, as a result of eating food that is infected by bad bacteria, viruses or parasites. Most food infections are a result of eating animal products, like meat, dairy and fish. But it can also happen with fruits and vegetables. Bacteria are microorganisms that can't be detected with the naked eye and can't be seen, smelled or tasted⁵⁹. Hygiene is most important to don't get bacteria in food, but once they are in, they reproduce fast in these conditions:

- Temperatures between 10 and 40 degrees celsius.
- In a nutritionally rich environment. Bacteria love protein and carbs.
- A moisture environment

To keep the reproduction of bacteria to a minimum and extend the lifetime of the product, it is important to preserve it. Preservation keeps the food fresh, while maintaining taste, nutritional value and texture. There are several ways to naturally preserve food⁶⁰:

- Cool it. In the fridge, max 7 degrees celsius, to minimize reproduction of bacteria and the freezer to stop reproduction. Stopping reproduction doesn't mean killing the bacteria.
- Adding sugar and salt. This withdraws fluids from the product.
- Adding acid. Bacteria don't like acid rich environments.
- Drying products. Bacteria can't grow, or barely, without fluids.
- Heating the product kills most, and above 100 degrees celsius all, bacteria.
- Eat as soon as possible. Keeping the time window for consumption as short as possible reduces the amount of time for bacteria to reproduce.

There are also packing techniques to preserve food⁶¹:

- vacuuming. Vacuuming takes the air out of the packaging. No oxygen prevents oxidation, a process that affects taste, texture and nutritional value.
- High pressure pasteurization. Microorganisms are killed under high pressure. Cooled, the product can be stored for several weeks.
- High pressure sterilization. High pressure combined with high temperatures. This technique enables the product to be stored outside the fridge.

The high pressure techniques require industrial tools and equipment. Therefore, these techniques can't be used for the user test. That excludes 'ambient' sauces from the scenario. That leaves two options: frozen or cooled.

Frozen delivery is expensive, since it requires specific packaging and same-day delivery service from a specialised company. This is a good option when transporting more, or more expensive, products. But for just one product, the transportation cost would be tremendously high compared to the costs of the product. That leaves one option to guarantee food safety: cooling the sauce after production and during transport. Cooling is the most important part for preserving food. Other preservation techniques that were used to guarantee food safety:

- Only plant based ingredients.
- Keeping the time window for consumption after delivery attractive, but limited: 6 days. This number allows for more flexibility than regular food boxes, but also guarantees food safety.
- A little salt added.
- Natural acid added.
- Heating the product during production to 100 degrees celsius.
- Vacuuming the package.

Especially for this user test, the FoodSaver FSV2860 Top Line Vacuum System has been purchased. See Figure 66. This machine can vacuum plastic packages. This product also came with plastic bags to store food. These plastic bags have been used to guarantee food safety as well.



Figure 66. FoodSaver FSV2860 Top Line Vacuum System. Top picture from Coolblue.nl and the bottom picture from the user test with plastic food bags.

7.2.2 Product information

There are strict rules about the requirements for packaging a food product. The packaging needs to contain clear information of the content. The Netherlands food and consumer product safety authority (NVWA) issued a handbook with guidelines for food labeling. Article 9 of this report elaborates on the required information on the food label, the following are applicable for the user test:\

1. Name of the product;
2. List of ingredients;
3. allergen labeling;
4. kwantitatieve ingrediëntendeclaratie (KWID);
5. Amount, volume or weight;
6. Due date;
7. Special instructions;
8. Name and address of the producer;
9. Country of origin;
10. Nutritional value (all nutritional value of the ingredients accumulated);

See Figure 67 to see how these requirements are incorporated in the design of the wrap of the sauce. Step 4 has been left out, because of the complexity of calculating the amount of ingredients in ratio. Step 8 and 9 have been left out, because I was doubtful to connect company Goodcase to the user test. Just in case something went wrong. For the user test, food safety was regarded as more important than providing these missing steps.

Wel gemak, wel betaalbaar.

Wééééééér nadenken over wat je moet eten. Herken je dat? En als je dan eenmaal aan het zoeken bent, dan liever een recept met weinig onbekende ingrediënten. Al die dure kruiden die je maar één keer gebruikt en dan een week later kan weggooien, zonde!

De oplossing: een food box. Maar wat dat zo duur maakt is het koelen en vervoeren van al die groentes, en dat terwijl je misschien vlakbij de lokale (super)markt woont waar al die groentes liggen. En dan nog super vers ook.

Daarom nu een nieuwe food box. Niét meer aan het einde van de dag gehaast door kookboeken bladeren, maar wel lekker zelf koken. Kies één van de recepten met bijbehorende saus, gemaakt van verse, natuurlijke ingrediënten. Die krijg je opgestuurd. Alleen nog even zelf groentes kopen op jouw favoriete plek.

Nieuw. De food box die wél betaalbaar is! 😊

Bewaar dit product **in de koelkast**. Na ontvangst binnen **6 dagen** consumeren. Eenmaal geopend direct consumeren.

Indiase curry

De basis van een heerlijke curry zijn aromatische kruiden. De meeste kruiden worden in India al eeuwen gebruikt voor het maken van deze gerechten. Voeg daar nog een snufje zout, limoensap, kokosmelk voor de romige structuur en tomaat voor de frisheid aan toe en je krijgt deze heerlijke, verse curry.

Deze curry bestaat uit alleen natuurlijke ingrediënten, dus geen toegevoegde e-nummers en geraffineerde suikers. En een gezonde hoeveelheid zout. Dat is gezond genieten zoals het hoort. Eet smakelijk alvast.

Ingrediënten:
Tomaat, kokosmelk, limoensap, knoflook, gember, kurkuma, garam masala, komijn, koriander, chili, venkelzaad, zout

Voedingswaarde per persoon:
Energie: 580KJ / 140kcal, vetten: 8,2gr, Koolhydraten: 12,8 gram waarvan suikers 6,67gr, eiwit: 2,5gr, 1,1 gram

Lactosevrij, Glutenvrij, 100% plantaardig, Licht pittig

De BMI staat in 6 gram voor een volwassenen

5. The product was weighed after packing and the correct number written down with a pen.

Figure 67. Product information.

7.3 Interviews

Valuable information and feedback can be retrieved from a user with an interview. The better the interview, the more value the retrieved information contains. ‘Did you like the product?’ is a question that only contains superficial information and opinions. The key to a good interview is mainly the preparation. What do I really want to find out?

The hypothesis for this experiment is: Consumers experience a large mental load when choosing what to eat for dinner, therefore they need, or already use, products and services to make their lives easier.

So, the goal of the interview is to find out if people experience that mental load from the hypothesis. The mental load is the consumer pain that is part of the Problem-Behaviour fit, which is part of the The Problem-Solution fit canvas, see Figure 68. In addition, the interview was also conducted to understand what customers value most in the food box that they received. So in short, we want to know more about their behaviour and context and more about their experience with the product.

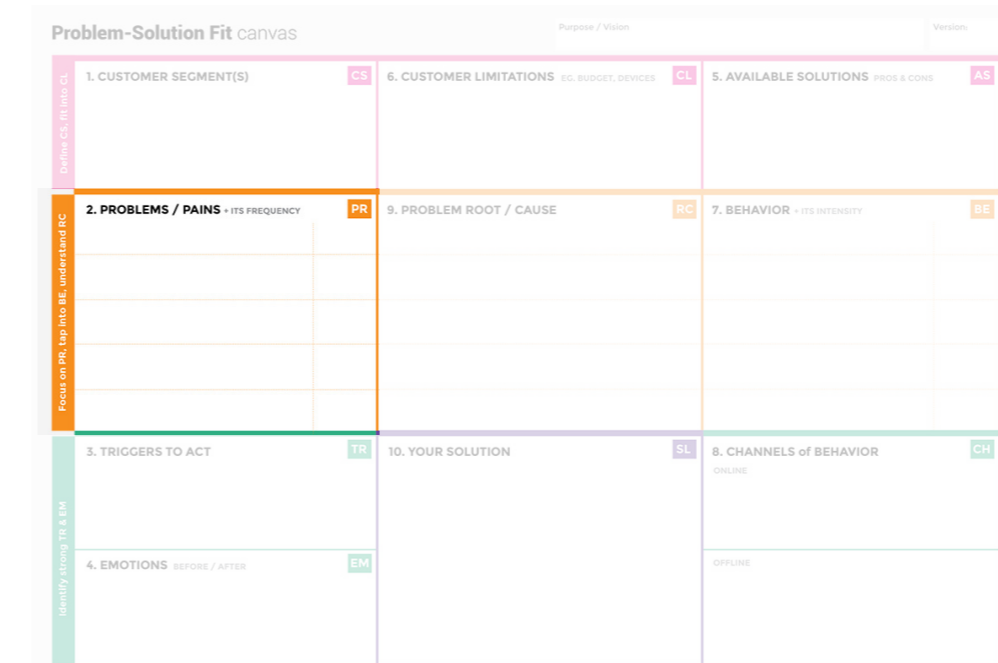


Figure 68. Problem-Solution fit canvas

A smart user interview consists of the right formulated questions. These insights have been gathered to help formulate the right questions.

How to conduct user interviews⁶²:

- Don't ask leading questions
- Don't ask people what they want
- Ask open ended questions
- Don't ask yes no questions
- Don't make assumptions. Ask the stupid questions.
- Ask the same question from multiple angles
- Never mention other users
- Embrace silence
- Don't be afraid of the truth

Book The Mum Test⁶³

- Focus on the user's life to find out if they experience the problem
- focus on the past, not the future: when was the last time that you... how did you solve that yourself before?
- How important is the problem for your user?
- Prevent from going into pitch mode
- Don't mention your product or service at all.

All the questions from the interview and answers from 8 out of 10 users are elaborated in appendix D.

8 Appendices

Appendix A: Goodcase

A.1 What is Goodcase?

The conclusion of chapter R.1.1 was that the transition towards a more sustainable diet is necessary and already started. This opens doors to business opportunities. With Goodcase we explore these opportunities to contribute in the transition towards a more sustainable diet. Goodcase is a startup that I founded within the Build Your Startup course in the fall semester in 2020, with 3 fellow IDE master students. This chapter will shortly elaborate on what Goodcase is and how the startups works.

The goal of Goodcase is to accelerate the transition towards a more sustainable diet. We want to achieve that by facilitating low barrier steps that are fun for consumers to try and explore sustainable food, tailored to their lifestyle. The vision is that if consumers try and explore tasty, sustainable alternatives in a fun and convenient way, that they are more willing to adept sustainable products in their diet. We provide an experience, consumers taste sustainable products, but at the same time we tell the story of each product and how it contributes to a better environment. For the products we partner up with sustainable food startups, that are producing beautiful products but heavily depend on the supermarket to reach a larger audience.. Goodcase is a strong opportunity for them to market their products.

The first weeks after the start of the course were mainly focussed on talking to potential customers and brainstorming business opportunities. Once the idea of exploring sustainable food was elaborated, we conducted three pilots. In these pilot rounds we sold 97 Goodcases, see Figure 69, to 80 unique customers, containing 729 sustainable products in total divided over 3 pilot rounds. We worked together with 16 relatively small, innovative food startups in The Netherlands. We put different sustainable products in a box for people to discover and try. We interviewed at least 10 customers every pilot round, learning from their experience and gaining insights in how we could develop our product.

A.2 Suppliers

We work together with innovative Dutch food startups that produce food according to at least one of the three sustainability pillars, see Figure 70. These startups have sustainability, and often animal wellbeing, as their main driver. They produce sustainable food alternatives to, mostly, animal products. This often means, but is not limited to, plant based products. For these startups to scale they need to reach a large consumer base, which often means the supermarket. But the monopoly and strong position of the supermarkets towards suppliers is troublesome and competition in the shelves is extremely high. Big supermarkets like Jumbo, Albert Heijn and Dirk van den Broek are at war, a price war. Fighting over consumers and lure them into their stores with guarantees for the lowest price⁶⁴. This



Figure 69. A Goodcase from the third pilot

means the margin on products gets smaller and this has consequences for the entire production chain. Retailers determine the consumer product price, for the suppliers there is no room for negotiation⁶⁵. Another result of the strong position of supermarkets is that suppliers are getting in financial trouble, not being able to market their own products or, even worse, have to make concessions on the food quality. Conclusively, Goodcase will help suppliers in an early stage to market their products and tell their story. Hopefully, we can help them not be dependent on supermarkets later on.

A.3 Direct-to-consumer (D2C) trend

According to research of the ABN AMRO bank in 2019⁶⁶, food producers are looking for ways to directly reach consumers. Half of the consumers stated they would buy directly from food producers if products are cheaper or when they are unique and cant be found in the supermarket. the D2C (direct to consumer) market allows food producers to learn from their customers, determine their own price and product range and create their own brand experience, which is limited in the supermarket. One of the main challenges in logistics and returning revenue. Although consumers buy from Goodcase and not from producers directly, this still shows the growing opportunity of reaching customers without the supermarket.

Sustainable food pillars

1. Plant based

Reducing or replacing consumption of animal based products has the most positive impact on our planet. Especially for meat and dairy. Less greenhouse gas emissions and less agricultural land needs to be used for a plant based diet. In addition, switching to plant based food leads to less animal cruelty. Which is also an important driver for consumers.

2. Reduce food waste

Food waste is painful and has a large impact on the environment. One way to reduce food waste is to consume less and throw less food away in restaurants and households. Another important way is to process and consume food that is perceived as imperfect, not meeting our westernized quality standards, and would otherwise be thrown away!

3. Social sustainability

One aspect is fair prices for the farmers that grow crops, here in The Netherlands but also on the other side of the world. Fair prices enable investments that benefit life on the farm and the environment. Another aspect is helping people in societies that have a distance to the labour market with job opportunities.

Figure 70. Three sustainability pillars

A.4 The last barrier: consumers

Changing our diet will change the impact on the environment and there are enough innovative food producers that will supply in the growing demand for sustainable products. The very last step is up to us as consumers.

Consumers determine the pace of the transition towards sustainable food. How they fill their baskets in the supermarket and what recipes they chose for dinner. Fortunately, there is already a trend in the food market that benefits the environment. According to research in 2020, the number of vegetarians has grown by 150% in the last two years⁶⁷. Also the amount of vegans, that take out all animal products of their diet, has grown. Also the sustainability awareness among consumers has grown in recent years, resulting in consumers spending more money on sustainable products. 36% of the Dutch population is willing to pay extra for sustainable products in 2018⁶⁸. This was only 29% in 2016. Popular product categories are organic food, electric cars and fashion.

But for the majority of consumers there is still room to improve when it comes to their diet. Consumers are often willing to eat more sustainably, but lack time and effort that prevents them from action. Our 21th century shopping standard demands convenience and products need to fit our lifestyle. In addition, consumers want to know more about the origin of their food and where it comes from. Consumers are interested in short chains, products directly from the farmer to your plate. The COVID-19 pandemic has been an accelerator in this trend. In 2018 farmers had a turnover of 271 million euros, this has doubled since the pandemic⁶⁹.

Appendix B: Price comparison

B.1 Price Hellofresh plan

A Hellofresh box costs €51,95 for three meals. One meal consists of three portions. This includes delivery of €4,99. Information retrieved from Hellofresh.nl/plans.

1. Kies jouw menuvoorkeur



Vlees, vis & veggie



Veggie



Familie



Lekker snel

De populairste recepten, gevarieerd en met een twist - vis, vlees en vegetarisch.

2. Kies het aantal personen en maaltijden

Aantal personen: 1 2 3 4 5 6

Maaltijden per week: 3 4 5 6

Vlees, vis & veggie
3 Personen / 3 Maaltijden per week
9 porties voor € 5,22 per portie

Prijs	€ 46,96
Bezorging	€ 4,99
Totaal	€ 51,95

1. Kies jouw menuvoorkeur



Vlees, vis & veggie



Veggie



Familie



Lekker snel

Gevarieerde en verrassende recepten zonder vlees en vis - met o.a. groente, noten en zuivel (kan dierlijk stremsel bevatten).

2. Kies het aantal personen en maaltijden

Aantal personen: 1 2 3 4 5 6

Maaltijden per week: 3 4 5 6

Veggie
3 Personen / 3 Maaltijden per week
9 porties voor € 5,22 per portie

Prijs	€ 46,96
Bezorging	€ 4,99
Totaal	€ 51,95

B.2 Hellofresh vs. Goodcase

The Goodcase box is, of course, much cheaper than the Hellofresh box. But it also contains less. From a consumer's perspective it is interesting to find out the net savings. Meaning, is buying a Goodcase box and vegetables separately cheaper than Hellofresh's proposition, delivering a complete meal? And is the net saving worth the extra time and effort for the consumer? For a comparison, the cost of the meal that was offered to test users, see chapter 4, will be calculated and multiplied by three.

The price of the Hellofresh box is fixed in the given scenario of chapter 1: **€51,95**. The price for a Good case box is also fixed in the same scenario: **€19,96**.

The following ingredients are required, see Figure 2:

- Oil, which is assumed that consumers have already.
 - Rice 225-300 grams
 - Chickpeas 300 grams
 - Shiitake 150 grams
- (or Chestnut Mushrooms)
Tofu 1 piece

The cost of these ingredients that consumers need to buy separate, information retrieved from AH.nl, is:

Price:

- AH Basmati rice 400 grams: €1,45.
This means 100-175 grams leftover or for an additional person to join dinner.
- AH Chickpeas 400 grams: €1,09.
100 grams of chickpeas leftover. Extra hungry? Add them to the meal!
- Shiitake 100 grams: €2,50.
Chestnut Mushrooms 250 grams: €1,29.
Shiitake is quite an expensive and rare mushroom species. It can easily be substituted by the more regular and much cheaper

- mushrooms.
- AH Organic Tofu natural 375 grams: €1,49.

Total with shiitake mushrooms: **€6,53**.

Total with chestnut mushrooms: **€5,32**

When taking the most expensive meal ingredients, including the shiitake mushrooms, the total cost of the Goodcase box is €19,96 + three times €6,53. That is €39,55 in total. That means that the Goodcase box is (€51,95 - €39,55) **€12,40 cheaper than Hellofresh**.

Of course, that same €12,40 is to compensate for the physical effort of buying your own vegetables. But on the other hand, this example comparison doesn't elaborate on the flexibility that a customer gets in return. The meals can easily be adjusted in portion size, with the leftovers the meal can also be shared with four people and the customers can also choose to substitute ingredients to their preference. For example, when they don't like tofu, they use meat replacers or anything else to their liking.

In addition, when buying vegetables in a supermarket or local market, a consumer can also utilise local and temporary discounts. Vegetables, and all other products, are discounted every week throughout all supermarket chains in The Netherlands.

BBQ AH Biologisch Tofu naturel

1.49
375 g

+

AH Biologisch Tofu naturel

SHIITAKE

2.49
100 g

+

AH Shiitakes

BIO AH Kikkererwten 0%

1.09
400 g

+

AH Kikkererwten 0%

BBQ KASTANJE CHAMPIGNONS

1.29
250 g

+

AH Kastanje champignons

BIO AH Basmati rijst

1.45
400 g

+

AH Basmati rijst

Information from ah.nl

Appendix C: User test

C.1 Testing cooled delivery

This test focussed on validating that the sauce would arrive below 7 degrees celsius when shipped to a customer with PostNL.

For the test a ready-to-use sauce from Albert Heijn was used. See Figure 71. This sauce was packed in a plastic bag, vacuumed and frozen. After being frozen for 24 hours, the sauce was wrapped, together with an ice pack, in insulation material. See Figure 74. It is important that the insulation material is airtight, because heat transfers heat easily.

At first, the goal was to make a sauce that could fit a letterbox. But the frozen sauce packaging was much bigger with the ice pack and insulation material than expected at first. This was the first insight.

The package was delivered at a PostNL drop off point and needed to travel to The Hague, see Figure 72. To minimize time outside the fridge or freezer, I asked the PostNL drop off point at what time the packages are being picked up every day. I made sure to drop off the package just before that time. Sending a package costs €6,75.

I asked the person that received the package to measure the temperature of the sauce and ice pack at arrival. The track&trace code that PostNL provides when sending a package was used to determine arrival time. See Figure 73. The package was sent at 16:00 and arrived at 11:00 the next morning. The sauce was 2.2 degrees celcius and the ice pack 0.5 degrees.

This validated the assumptio that PostNL delivers a package within 24 hours on average and that the sauce would be below 7 degrees celsius in that scenario.



Figure 71. Filling the plastic bag with sauce and vacuuming it.

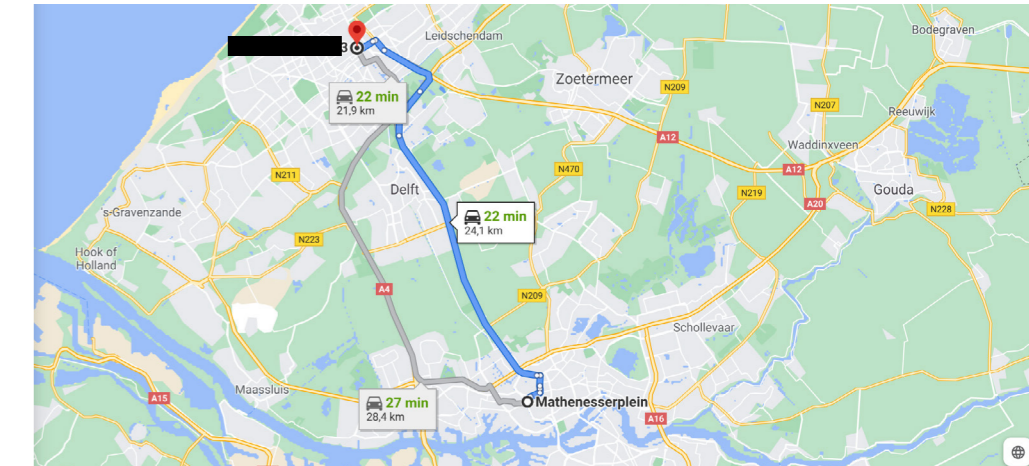


Figure 72. Delivery from Rotterdam to The Hague.



Figure 74. Sauce, ice pack and insulation material.

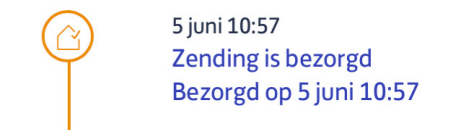


Figure 73. Using the PostNL track&trace code to check arrival time.

C.2 Recipe

The original recipe was retrieved from myfoodblog.nl and was the perfect pick, because it was tasty, completely plant based, it contained several herbs and all additional information was provided, like cooking time and instructions.

Original recipe and information:

Ingrediënten

300 gram kikkererwten

150 gram shiitake paddenstoelen (grof gesneden)

1 blok tofu (in dunne plakjes gesneden)

400 gram tomatenblokjes (uit een pak of blik)

2 teentjes knoflook (fijn gesneden)

2 cm verse gember (fijn gesneden)

1 el kurkuma

1 tl garam massala poeder

1 tl komijnpoeder

1 tl korianderpoeder

1/4 tl chilivlokken

1/4 tl venkelzaad

250 ml kokosmelk

olie naar keuze

voor erbij: naan brood of rijst

^ Aanpassen porties: 1x 2x 3x voor 3 personen

Ingredients for the curry sauce.

Zo maak je het



Tofu curry korma met paddenstoelen

Recept afdrukken

Vorbereidingstijd	10 minuten	Keukens	Indiaas
Kooktijd	15 minuten	Gangen	Hoofdgerecht
Totale benodigde tijd	20 minuten	Diëten	Eivrij Geschikt voor zwangere vrouwen

- 1 Zet de koekenpan op hoog vuur.
- 2 Giet olie in de pan en leg de tofuplakjes erin. Bak de tofu aan één kant bruin en keer ze vervolgens om zodat beide kanten bruin zijn.
- 3 Haal de tofu uit de pan en laat uitlekken op keukenpapier. Houd de pan op het vuur en draai het vuur laag.
- 4 Voeg de knoflook, gember, kurkuma, garam massala, komijnpoeder, korianderpoeder, chilivlokken en venkelzaad toe en bak enkele minuten terwijl je de kruiden blijft omscheppen.
- 5 Voeg de paddenstoelen en kikkererwten toe en bak deze circa 3 minuten mee. Schenk vervolgens de tomatenblokjes erbij, samen met de kokosmelk en laat 10 minuten op laag vuur inkoken.
- 6 Eet de vegan curry korma met rijst of naanbrood.

To see if the recipe could be improved in any way, an Indian chef from my roommate's network was approached for tips and insights. With her help, I used fresh tomatoes instead of packaged diced tomatoes. Also, I wanted to use fresh herbs instead of powdered herbs, but she told me that powdered herbs are fine to use and have their own taste, therefore, changing to fresh herbs wouldn't be a good idea.

I also added onions, based on the chef's input.

Hi arwin. It was a busy day so couldn't reply you before. I saw the recipe seems good, just a small change which I think should happen. Here in the recipe onion tomatoes everything is in coarse form not in the pureed. According to me it should be in pureed form. My recipe for the curry is - take some oil in a pan, add the zinger and garlic, add onions. Saute for few minutes till it turns golden brown, add all the spices, mix it, add tomatoes then, cover it for 5 minutes until it turns soft. Once it cool down then pour it all to a mixer grinder until it turns to a paste. Then in a pan take some oil, add the soft / boiled chickpeas, and mushroom, Saute of for 3-4 minute, add the curry we made, then add coconut milk and boil it for 5-6 minute. Garnish with fresh coriander leaves. 15:17

This is my version of making curries for such recipes. 15:18

The one you mentioned is also good but that's not in the form of proper curry or puree. 15:19

Use whichever you like 15:19

C.3 Test users

my original message in a vegetarian and vegan Facebook group and the results.

All day vegetariërs en veganisten

Private group · 3.4K members

Arwin Visser
May 19 · 🌐

Vegetariërs gezocht!

Ik doe mijn afstudeerproject bij een startup die focust op duurzaam eten. Ik heb een nieuw product ontwikkeld die het makkelijker maakt om lekker, gezond en duurzaam te koken.

Wat is het?

Het is een all-in-one saus, gemaakt van biologische kruiden en ingrediënten, die jouw groentes super lekker maakt. Zonder e-nummers en met een normale hoeveelheid zout. De saus wordt naar je opgestuurd per post en er zit een recept bij die je gemakkelijk kunt volgen.

Meedoen

Meedoen is gratis. Het enige wat je hoeft te doen is de saus gebruiken in combinatie met het recept en daar dan na een week eventjes over (video)bellen om je ervaring te delen.

Voor wie?

Ik ben op zoek naar 10 vegetariërs tussen de 23-45 jaar die recentelijk (max. 2-3 jaar) zijn overstapt naar een vegetarisch dieet en nog wel wat hulp kunnen gebruiken om snel een lekkere, gezonde en plantaardige maaltijd op tafel te zetten.

Ik ben op zoek naar verschillende soorten huishoudens, dus van 1-persoonshuishoudens tot kleine gezinnen.

Vind je het leuk om mee te doen met deze pilot en herken jij jezelf in het profiel? Stuur me dan een bericht! De test zal begin Juni ongeveer plaatsvinden.

Groeten,
Arwin

All Comments ▾

[Redacted]
Hi Arwin, mijn man en ik zouden evt mee willen doen hoor 😊 sinds 2,5 jaar vegetariër
Like · Reply · 8w

[Redacted]
Wil graag mee doen. Je hebt een bericht. ...
Like · Reply · 8w

[Redacted]
Ik ben ook geïnteresseerd 😊
Like · Reply · 8w

[Redacted]
Ik heb interesse maar ik ben helaas al te lang een vegetariër 😞
Like · Reply · 8w

↳ **Arwin Visser** replied · 1 Reply

[Redacted]
Geïnteresseerd, gezin van 4 (kinderen 5 & 6) Sinds 3 maanden vega 🍌 en wil niet meer terug 😊
Like · Reply · 8w

[Redacted]
Leuk. Doe graag mee met man en kind.
Like · Reply · 8w · Edited

[Redacted]
Ik doe ook graag mee. We zijn dol op spaghetti en saus

C.4 Cooking proces at Flowers&Sours

All necessary ingredients for the curry sauce.



In the F&S kitchen, dicing all the tomatoes, garlic, ginger and onions.



Let the ginger, garlic and onions fruit and add the tomatoes and herbs.

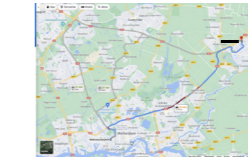


Adding the coconut milk and blend everything together.



C.5 Shipping results

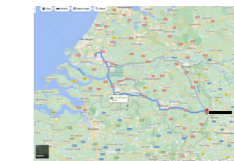
6 out of the 10 users lived outside Rotterdam, spread out over The Netherlands.



Gouda



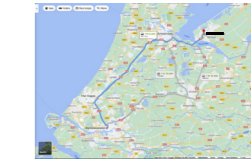
25 hours



Venlo



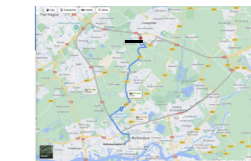
22 hours



Almere



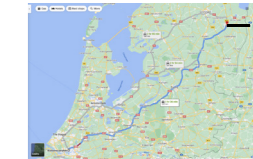
21,5 hours



Zoetermeer



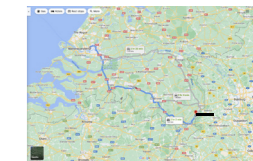
18,5 hours



Veendam



21 hours



Reuver



17,5 hours

Appendix D: Interviews

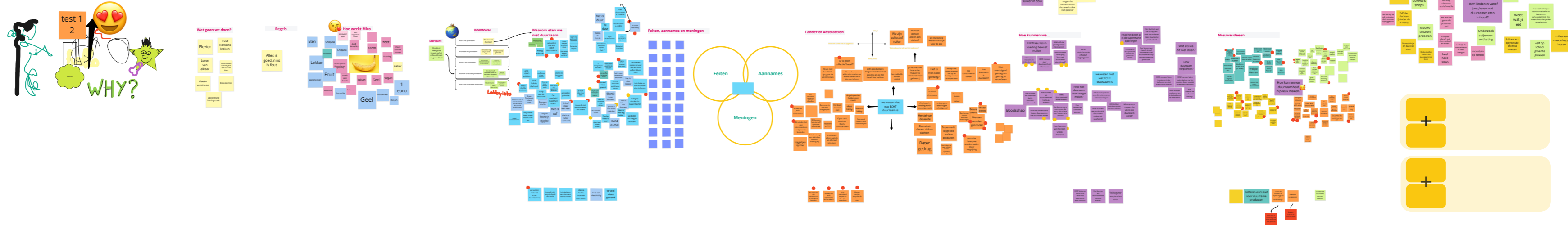
Context:									
Hoever vaak kook je per week?	Bijna alle dagen zelf koken.	5x per week. Probeerde voor twee dagen te maken.	4x	6 keer	5-6 keer koken	5 hello fresh per week, andere buiten de deur	3 keer zelf, de rest kookt je vriend	5 dagen	
Hoeverveel tijd besteed je eraan?	Drie kwartier max. Liever koter.	20 minuten of 25.	Klein uurtje, 45 minuten. Minder dan AVG	Half uur drie kwartier. Voor vrienden en familie wel een uur. Leuk om te koken	Half uur	Liefst snel, welke zijn Vega zijn belangrijk en geen champignons. Hello fresh genoeg keuze elke week.	30 minuten niet langer	Sinds paar dagen vegan, soms makkelijk en soms uitgebreid. 20 minuten is makkelijk	
Hoever vaak per week ben je in de supermarkt of lokale markt? Hoever is dat met de fiets?	Picnic. 1x per week bestellen. Makkelijker. Druk leven met wisselende diensten en kids. Dus easy. Druk leven.	Voor dat ze werkte 4 per week, nu ze werkt 1-2 keer per week. Veel in 1x.	3-4 keer per supermarkt. Woont vlakbij de supermarkt	3 keer	3x twee supermarkten en groenteboer. Soms naar toko of slager	Ah bezorgen.	3 keer	Iedereer vrijdag lokale markt voor hele week. Eens per week supermarkt en soms even snel dingetjes	
Kook je vaak met verse kruiden? Wat anders?	Za probeert het. Pakje zakje voor makkelijke soms.	Verse knoflook wel. Vers is best wel duur. Tenzij markt, maar niet echt tijd voor.	Laatste tijd meer. Meer gedroogd. Gedroogd altijd vers in huis. Plantjes staan daarna te verpieteren. Vliest soms kruiden in	Ui en knoflook en basilicum.	Verse kruiden en zelf verse plantjes. Tis vaak voor een specifiek voor 1 product en dan de rest weg -> zonde. Kleine verpakkingen of invriezen. Ze betaalt liever meer dan dat ze weggooit. Weggooien echt een dood doener	Verse kruiden prima om zelf te snijden	Bijna nooit met verse kruiden. Knoflook wel vers		
Eet je vaak AVG of?	Best snel buitenlandse keukens.	Nooit AVG, vaak wok en rijst. Couscous. Oneindige inspiratie met rijst.		Bijna nooit Hollandse kost	Nooit AVG, 1x per week voor haar vriend. Hele sback up lijst met vaste gerechten, vaak met kruiden die houdbaar zijn. 1x per week nieuw recept met veel nieuwe ingrediënten. Allerhande en vrienden en Pinterest	De groentes van hello fresh zijn altijd wel prima, soms wel klein bv. Maar ze vind zichzelf dan ook een zeur.			
inspo, boodschappen of koken? Waar gaat fysiek het meeste tijd inzitten? En nadenken? Welke vind je het minst leuk?	Veel tijd Bedenken om te eten, inspiratie. Minst leuk is boodschappen. Moet letten op de kosten, in de supermarkt snel verleid tot slechte aankopen	Meeste tijd in boodschappen. Boodschappen ook minst leuk. Inspo en koken juist leuk.	Snijden van groente en zonder pakjes en zakjes, veel groente zelf snijden. Vitamine is beter als je zelf snijdt. Inspiratie minst leuk. Wat moet ik nu weer eten?	Inspiratie meeste tijd. Inspiratie is super leuk, maar ze heeft moeilijke eters. Dus ze probeert groentes lekker te maken. Ze moet wel een lijstje hebben met wat ze moet halen, dan gaat het super snel. Als ze niet weet wat	Boodschappen en koken. Boodschappen meeste nadenken.	Hello fresh voor afwisseling en dat het al uitgewerkt is. Haar man kan dat ook makkelijk maken. Lekker makkelijk en iedereen kan het doen. Jaar lang al elke week 5 dagen.	Het meeste tijd naar zoeken naar recepten en inspiratie. Boodschappen doen het minst leuk.	Fysiek = verse groente halen en van de markt is beter. Inspiratie is veel nadenken. Een keer per week groente halen end an per dag bekijken wat je eet. Minst leuk aan koken is opruimen. Boodschappen minst	
Wat voor eter ben jij, waar moet avondeten aan voldoen bij jou?	Warm avondeten. Qua samenstelling niet echt avondeten. Probeerde wel veel groentes. Maar eet nooit zonder groentes. Behalve pannenkoeken.	Verse groente -> zelf snijden. Gesneden is duurder. Variatie en gezond. Gezond is zo minst mogelijk toegevoegd, zo min mogelijk kant en klaar. Nooit kant en klare sausjes. Zelf lekker maken met kruiden, rassen hanut. Gedroogde kruiden. Sojasaus.	Gezond, verse groente. Niet te zout, zoals die kant en klare maaltijden. Liever geen e-nummers.	Voldoende proteïne, vegetarisch. Voldoende groente. Koolhydraten maakt minder uit. Bij pasta vega balletjes voor gehakt en vaste dingetjes.	Fijn om 1 gerecht te hebben met genoeg groente. No go varkensvlees	Avondeten moet gezond, met groentes erin. Afwisseling belangrijk, variatie.	Groene groentes, broccoli boontjes. Groente met een bite. Dingen met een sausje wel lekker. Makkelijk kerjap zoet zuur, snelle oplossing.	Eiwitrijk producten. Flexibel als gezin. Vleesvervanger ook niet. Biologische boer groentes kopen. Gezondheid en principe = lokaal en ongespoten	
Als je nu moet koken, hoe pak je dat dan aan?	Op een dag dat ze vrij is beetje zoeken. Van te voren bestellen bij picnic wat je nodig hebt. Vaak naar de stad voor dingen die ze niet hebben bij picnic. Kruiden en ingrediënten die ze niet bij picnic hebben. Picnic is basic. Ze is wel gemotiveerd om gekke dingen te proberen af en toe en dan is het extra halen niet erg. Inspiratie struggle: dagen mee bezig, na bestellen van picnic is alweer druk met lijstje van volgende week. Haar man vind dingen bedenken lastig en kids alleen pizza -> alle inspiratie moet van jou komen. Pinterest en Facebook voor inspo. Soms Netflix syndroom.	Wat ligt er nog in e koelkast? Wat kan ik daarvan maken? Koop dan wat er nog bij moet. Zo efficiënt mogelijk omgaan met wat ze heb, weggooien is not done. Grote boodschap is beetje op basis van eerdere ervaringen. Seizoen ook belangrijk.	Hoe zonder zakjes? Smakelijk vind ze goed met recepten. Zelf saus maken, rijstazijn. Zelf sausjes maken. Vind je het een nadeel als je overal alleen lepeltjes van nodig hebt? Zo koopt grotere bakjes als ze het vaker doet. Ze kijkt naar recept en of het lekker lijkt, maar als het er ingewikkeld uitziet dan houdt de boot wel op. En of ze al paar dingen in huis heeft, als het te gek is qua nieuwe soorten dan wil ze niet nog meer kopen	3x per week supermarkt, 1x per week grote boodschap. En andere keren wat vergeten. Dan bedenkt ze ook wat ze gaat eten voor die 1x. Ze plant de week op sportdagen en normale dagen. Sporten is snel. Redelijk vaste recepten, soms andere saus bv.		Inspiratie komt van googelen wat ik nog heb. Potjes en zakjes. Bedenkt per dag wat ze eten. Koken gaat snel. Bij uitzondering een keer lasagne, maar niet iemand van de stoofpotjes. Beetje snel eten. Als ze thuiskomt bedenken wat ze gaat eten.			
Wat vind je het minst leuk aan koken?	Vlees bakken. Dingen afblussen.	Afwas en opruimen	DAT ZE nit altijd zin heeft. Koken is wel functioneel. Dat het elke keer terugkomt is het minst leuk, maar wel gezond eten	Opruimen en snijwerk. Plastic niet leuk.		Koken niet super leuk, dus niet echt fan.	Achteraf schoonmaken. Alles zoveel mogelijk in 1 pot voor schoonmaken. Nooit AVG.	Het leukste: Gezin na het eten tevreden	
Specific:									
Heb je wel eens inspiratie problemen als vegetariër?	Als vega niet echt. Ze laat vlees weg. Vlees weglaten niet echt gevoel dat ze iets mist. Knop om. Veel meer bezig met gewicht en geen vlees is beter voor gewicht. Voor de dieren heel zelig.	Inspiratie geen probleem. Meer idee dat flexitariers tegen inspiratie aanlopen.		Ze heeft wel eens dat ze niet weet wat ze moet eten. Dan wordt het een vega wrap, is snel en makkelijk. 1x in de week komt dit voor.	Wekelijks inspiratie problemen. Discussie tussen vriend en ik. Wat wil je eten? Samen iets kiezen. Boodschappen wel een groter probleem dan inspiratie.	Inspiratie is grootste reden en gemak. Boodschappen halen is ook een gedoe.	Vervangt veel vlees door corn. Vega spekjes goor. Ze moet voor twee koken, maar vriend eet veel vlees. Inspiratie is geen probleem en eventueel makkelijk eten, broodje ofso	Inspiratie is niet echt heel ver weg. Variatie is wel lastig. Voor het eten zorgen is wel dagelijkse bezigheid omdat ze niet werken. Soja brokken van alles mee maken. Vooral van internet. Geen vaste site, geen vast persoon. Zoekt inspiratie pp basis van ingrediënt.	
Hoe los je dat op?			Op een website turen. Kost veel tijd. Zoekt dan iets wat lijkt op wat ze al kent. Of slaat goede recepten op. Ideeën opdoen. Planning voor dagje ema.	Wrap met Vega. Pinterest voor inspiratie en ze heeft 1 kookboek, maar die ligt op zolder. Eet vaak zelfde basis gerechten. Met soepen wel volgens recept	Als haar vriend er niet is eet ze andere dingen die haar vriend niet eet. Veel diepvries dingen haalt ze wel voor gemak. Voorgebakken aardappels. Gemak en niet te duur. Allebei belangrijk. Doperwten in bik, diepvries en vers -> smaak, prijs en gemak wordt dan diepvries.	Hello fresh failliet is overstappen op concurrent			
Wat is nu jouw manier om groente lekker klaar te maken?	Ze houdt veel van plain groentes.				Veel kruiden en sausjes. Veel soja en kerjap. Zelden Knorr etc. Alleen als Knorr heel veel tijd scheelt -> 1x in de drie maanden max. Waarom? Niet zo lekker als dat je het zelf maakt. Indiase keuken is lastig.	Groentes koken, of stomen als ze bereid is meer tijd ertin te steken. Weinig zout. Kinde van 10 maanden eet mee. Niet teveel peper. Niet teveel sambal. Knoflook overal in. Ui bv. Groente altijd vers.			
Wat vind je van maaltijdboxen? Heb je er wel eens 1 gehad, waarom wel niet?	Heel leuk iniatief. Ze haalt maaltijdpakketen via picnic. Wriendin heeft helloworld, maar is erg duur. Betaalbaar als je alleen bent (gek) maar niet voor 4.	Nooit geprobeerd. Uitgebreidere recepten dan dat je zelf zou doen. Ze woonde alleen eerst, dus dan voor 1 persoon is onzin.	Nooit gekocht. Ze weet niet precies wat het is.	Hello fresh geprobeerd en marlet spoon. Hello fresh veel zelfde, ze verwacht nieuwe innovatieve recepten van maaltijd boxen. Marley was beter, maar ze kwam ook recepten ook tegen die ze makkelijk zelf kan maken.	Het kan makkelijk zijn, veel inspiratie. Super duur en nadeel is dat je binnen 3 dagen moet eten. Bewegingsvrijheid kwijt. Maakt wel een week planning, maar werkt nu nog niet. Plan max 3 dagen vooruit. Hoe	Wel eens over nagedacht. Te duur. Porties goed en smaak goed passen is belangrijk. Korte maaltijden is wel een must.	Hello fresh wel eens gedaan. Geen grip op wat we aten. Geen grip op wat er in je maaltijd zit. Maar toch gevoel dat er geen eigen twist in zit. Minder voedselverspilling is goed. Voor zelfde geld haalde ze meer groente en eigen gerechten maken. Duur		
Als de prijs lager was, zou je het dan willen?	Prijs lager dan niks tegenhouden.		Je houdt niet van super gemak	Marley spoon wel, hello fresh wel zelfde. Marley spoon beter variatie.	Dan willen overwegen. Maar nadeel is dat je niet van je abonnement afkomt.	5 dagen is 10je per maaltijd. Minder dan 5 maaltijden wordt het te duur. Het bijt wel echt een week goed.	Nee ngeen hello fresh als het goedkoper was. Voorkeur naar zelf met eigen handen en ogen te kiezen		

					maakt. moiaase keuken is tastig.			
Wat vind je van maaltijdboxen? Heb je er wel eens 1 gehad, waarom wel niet?	Heel leuk inatief. Ze haalt maaltijdpakketen via picnic. Vriendin heeft helloworld, maar is erg duur. Betaalbaar als je alleen bent (gek) maar niet voor 4.	Nooit geprobeerd. Uitgebreidere recepten dan dat je zelf zou doen. Ze woont alleen eerst, dus dan voor 1 persoon is onzin.	Nooit gekocht. Ze weet niet precies wat het is.	Hello fresh geprobeerd en marlet spoon. Hello fresh veel zelfde, ze verwacht nieuwe innoverende recepten van maaltijd boxen. Marley was beter, maar ze kwam ook recepten ook tegen die ze makkelijk zelf kan maken.	Het kan makkelijk zijn, veel inspiratie. Super duur en nadelig is dat je binnen 3 dagen moet eten. Bewegingsvrijheid kwijt. Maakt wel een week planning, maar werkt nu nog niet. Plan max 3 dagen vooruit. Hee	Wel eens over nagedacht. Te duur. Porties goed en smaak goed passen is belangrijk. Korte maaltijden is wel een must.	Hello fresh wel eens gedaan. Geen grip op wat we eten. Geen grip op wat er in je maaltijd zit. Maar toch gevoel dat er geen eigen twist in zit. Minder voedsalverspilling is goed. Voor zelfde geld haalde ze meer groente en eigen gerechten maken. Duur.	
Als de prijs lager was, zou je het dan willen?	Prijs lager dan niks tegenhouden.		Je houdt niet van super gemak	Marley spoon wel, hello fresh wel zelfde. Marley spoon beter variatie.	Dan willen overwegen. Maar nadelig is dat je niet van je abonnement afkomt.	5 dagen is 10je per maaltijd. Minder dan 5 maaltijden wordt het te duur. Het blijft wel echt een week goed.	Nee ngeen hello fresh als het goedkoper was. Voorkeur naar zelf met eigen handen en ogen te kiezen	
Het product								
Als je het product zou moeten omschrijven aan een vriend/vriendin, wat zou je dan vertellen?	Makkelijk en lekker. Simpel om de curry al te krijgen en zelf dingen bij te kopen. Vriendin was enthousiast.	Niet omschrijven als een box. Dus meer een maaltijd idee met een voorzet. Een saus. Er wordt met je meegedacht wat je gaat koken en wat erbij zit is een saus.	Een gezonde, kant en klare saus. Het komt heel gezond over. Vega kickstuckjes niet in jumbo. Met verse bio saus, word ze ook gemotiveerd om biologisch te kopen. Voor 3 personen erg veel.	Super lekker, iedereen eigen twist. Opsturen is niet makkelijk, en mensen blijven niet thuis voor alleen een curry. Beter dan houdbare	Dat je het moeilijke gedeelte van het gerecht krijg je thuis gestuurd en makkelijk te maken. Verse ingrediënten alleen maar toevoegen volgens een simpel stappenplan. Stuk langer houdbaar is PLUS	Soort hello fresh waar je zelf de ingrediënten moet kopen, alles zit erbij alleen zelf groente	Saus waarbij je zelf alleen de basis hoeft te doen: carbs en eiwitten. Snel en makkelijk. Meer vertrouwen erin hebben dat het snel klaar is. Simpel gerechten. Gemakkelijk en meer vrijheid in dingen eruit te doen. Ze wist niet hoelang het houdbaar was dus direct gegeten. Bloemkool er zelf bij	Product heb ontdekken wat neutraal is voor heel veel gezinnen en personen. Makkelijk in bereiding. Waar je zelf nog een twist aan kunt geven.
Wat vond je heel goed en wat heel slecht?	Fijn dat de saus kant en klaar was. Het recept was heel simpel om te volgen, geen lastige en moeilijke dingen.	Beschrijving heel leuk met instructies. Proces van maken is leuk en voelde toch beetje interactief. Had de saus ingevoren. En paste door de briefbus is handig.	Na ontvangst 6 dagen bewaren was goed! Wat er allemaal inzit en dat er geen troep in zit. Vind dit niet vallen onder pakjes en zakjes, geen e-nummers! Stimuleert om gezonder te kopen. Duurde wel langer dan 15 minuten.	Smaak mag pittiger, maar ze eet zelf pittig. Korander vind ze niet lekker Kokosmelk proefde ze niet erg	Heel chill ingrediënten toevoegen die ze zelf niet kent, dus leuk om te proberen -> verfrissend Verfrissend dat het super snel klaar was en smaak toegankelijk Verpakking goed, op de ducttape na	Leuke verrassing en goed gekoeld. Spreek minder aan omdat het minder smak is.	Consistentie wel fijn. Jammer dat in plastic zit. Goed gekoeld aankwam. Bewust boodschappen zonder plastic. Komkommer niet in de folie.	Verzenden geen voorstander. Teveel materiaal. Mag dichterbij huis en plekken waar je af kunt halen mss.
Kwam het pakje goed aan?		Zelf bezorgd				Goed gekoeld	Kwam goed binnen. Gekoeld was prima. 4 uur kwam ze thuis en was nog prima gekoeld.	
Wat viel je op aan de instructies?	Tofu was uitgekoeld. Tempah gebruikt, was prima vervangingen .			Duidelijk. Kook eerst de rijst, verdelen in stappen tegelijkertijd	Saus echt stuk dikker gemaakt, met maizena. Portie was groot, maar fijn.	Duidelijk, maar 15 minuten is wel te kort	Duidelijk en makkelijk	Goed recept en goed uitgelegd
Wat viel je op aan de info op de verpakking?	Fijn dat ze dagen houdbaar was.	Vergeeten (denk ik) Hoelang kon je de saus bewaren: 6 dagen. Dat weet ze wel. Wat ze denkt dat goed is: vertellen waar de ingrediënten vandaan komen, lokaal werken met leveranciers? Herkomst van groente. Geeft meerwaarde ten opzichte van de supermarkt.		Heeft alleen naar de ingrediënten gekeken.	Fijn dat het transparant is en bevat weinig ingrediënten! Geen extra e-nummers. Niet actief zonder e-nummers, maar vaak verse dingen dus natuurlijk. Ze vermijdt het niet.	Heeft niet naar de wrap gekeken. Zat die er wel op?	Had de wrap weggegooid. Niks gelezen.	(Had ze denk ik niet gelezen)
Je bent natuurlijk vega, zijn er andere dingen die je absoluut niet in je eten wilt hebben naast vlees?	Geen voorstander van koriander.	Veel groente, houdt ze van.	E-nummers, geen dierlijke e-nummers. erwtes. Ze probeert veganistisch te eten. Proeft zo veel mogelijk vers. liever geen worteltjes uit een potje. De pastasauzen gebruikt ze wel.	1x per week vlees is biologisch belangrijk dat er goed portie groente in zit	Vlees en vis			
Kook je actief zonder e-nummers? Wat vind je van biologisch	Niet actief zonder e-nummers. Idee heel mooi, zo veel mogelijk biologisch. Nadeel duur. Eieren altijd bio. Amandelmelk ook toen ze daar veel mee deed, ook geen prijsverschil. Vlees voor haar man is bio.	E-nummers noemt ze niet zelf. Bewerkt voedsel probeert ze te vermijden. Bewerkt is ongezonder -> suiker en zout. Niet meer dan nodig aan zout en suiker. Kant en klaar is 1 brok suiker. Biologisch zegt niet zoveel. Is alleen duurder. Ze weet niet echt wat biologisch is, wat ze wel gek vindt dat het in plastic is verpakt.	Biologisch, te duur voor een student. Later wel meer biologisch.		Vind e-nummers niet echt boeien. At hiervoor biologisch vlees, geen bio groente. Bio is voor de dierenwelzijn	Let niet actief op e-nummers. Eerst wel. Nu bij als eten klaar is. E-nummers is vaag en snap je niet echt wat ze doen. Biologisch is fijn, altijd duur. Ze wil er wel meer voor betalen, zeker ook voor haar kindje.		
Wat vond je ervan dat je zelf je groente moet kopen, maar wel een saus en recept thuis te krijgen?	Gemengde gevoelens. Opzich fijn. Zn maaltijdbox zit er wel iets bij wat soms niet goede kwaliteit is. Zelf halen bij de super is verser. Makkelijker als je niet zelf naar de supermarkt hoeft. 2x per maand in supermarkt. Das niet veel.	Idee heel leuk. Ze vroeg zich wel af wat de toegevoegde waarde is. Insteek is wel echt voor inspiratie. Ze heeft niet echt hulp nodig met koken. Ze bedenkt op het moment dat de koelkast leeg is ome en planning te maken.	Fijn, want dan kan ze zelf alles toevoegen wat ze wil. Mensen die koken niet leuk vinden vind het lastiger. Wat als de winkel het niet heeft? Kan je niet alles in de winkel kopen.	Veel beter concept dan hello fresh. Langer houdbaar! Je krijgt de saus die je kan kiezen. Dus ook de variatie is belangrijk, dat je ingrediënten zelf kan verwisselen. zak was wel groot	Voor haar passend, omdat ze niet teveel hoeft na te denken. Maakt vaak dingen op met lekkere sausjes. Fijn voor mensen die van vers houden, maar wel kieskeurig. Niet gebonden aan hello fresh of dit of dat	Voor veel vega en vegane goede uitkomst om snel eten op tafel te hebben. Ze koken zelf veel met kruiden. Deels bio en deels niet bio.		
Ben je prijsbewust als het om eten gaat? Budget per week/maaltijd?	Budget per week. 5 euro per maaltijd.	Euroshopper variant. Geen budget voor maaltijden, voor haarzelf altijd zuinig. Ze is wel prijs bewust, maar weet geen individuele prijzen.	Beetje, is niet erg als het duurder is als goed is. Meer dan tienje vaak.	Courgette in de aanbieding koopt ze wel. Vleesvervangers kijkt ze niet naar prijs. Ze heeft wel budget per week, maar ze gaat er wel doorheen.	Vroeg er wel, nu niet meer. Budget per maand. 250 voor eten voor 2. Nu niet in de winkel.	Weel in de bonus.	Ja. Zondag checkt ze waar welke aanbiedingen zijn. Geen idee wat ze aan eten uitgeeft.	Niet prijs bewust. Kijkt wel naar wat het product kost, maar geeft liever euro meer uit aan bepaald product uit de streek of biologisch. Geen budget per week/maaltijd. Two courgettes voor 1,50 of 2
Hoeveel was je kwijt aan ingrediënten?	Ongeveer 4-5 euro.	Shittake was prijzig, maar haalde ze niet. Denk gemiddeld.	5 euro ongeveer	3 euro, duurste was spinazie.	Ze denkt 3,5-5 euro. Voor de saus 4,50 of 5 euro. 3,30 per maaltijd per persoon is een redelijke prijs, maar ze geeft er meer voor omdat het allemaal natuurlijke ingrediënten	5,46 euro ingrediënten. Saus 3-4 euro voor 3 personen 8-9 euro. Goedkoper dan hello fresh. Porties waren goed -> 2 mannen erbij en was prima	Even rekenen, ze had zelf ingrediënten: 5 euro. Prima voor 4 mensen. 5 euro vind ze de saus word. 2,50 per dag vind ze heel goedkoop.	Kikkerevten en champignons kopen. Goedkope maaltijd. 4 euro. Kookt vaak onder de 8 euro. Ze haalt een keer in de zoveel tijd verse kruiden in pot en die
Hoe duur was je maaltijd/wat vind je een goede prijs?	5-7 euro. 11 euro totaal wel veel.	3 porties van gemaakt, maar ze had er 5 van kunnen maken. €3,50.	10 euro waard. Ze vind dat er veel in de saus zit! (Gulle moeder). Vers heel belangrijk	2-3 euro voor de saus. 3 euro per persoon. Heeft saus laten inkopen en voor 2 gegeten.				
Wat vind je van een maaltijd box waar je zelf je groentes moet kopen?	Inspiratie is wel super fijn. Zou het aanraden aan die vriendin.	Voor heel veel mensen een goed concept, maar zij heeft geen last van inspiratie. Het is goed, want het motiveert om zelf te koken. De omschrijving geeft motivatie om zelf iets te maken, iets lekkers. En altijd terugvalt op wat je al kent. Inspiratie.	ze zou het ideaal vinden. Verschillende sauzen die vers waren zonder e-nummers en ook nog aangepast worden naar eigen behoefte. Fijn dat het binnen half uur klaar is, zeker na avondje sporten. Koelchap is volgens haar 'vers'. Vers spreekt haar aan. 4 sauzen zou goed zijn. 15-20 euro met recepten. Ingrediënten belangrijk.	Ze zou het per keer willen en is niet niet iets voor haar. Je gaat wel steeds nieuwe dingen eten wat leuk is. Ze Wilk niet vastzitten aan dingen, dus per keer mss. Suggesties op de kaart om zelf dingen toe te voegen. Verse blaadjes koriander. Suggestie! En het hoeft niet perse.	Wel heel interessant voor mensen die inspiratie en afwisseling wil maar het niet kunnen betalen.	Meer combinaties van groentes laten zien, dat mensen zelf kunnen bepalen	Mailje van tevoren sturen met wat ze moeten hebben. 5 dagen speeltijd is perfect voor ruimte. E-nummers vind ze belangrijk dat die er niet inzitten. Actief zonder e-nummers. Luce positie dat ze alleen voor eten hoeven te zorgen.	

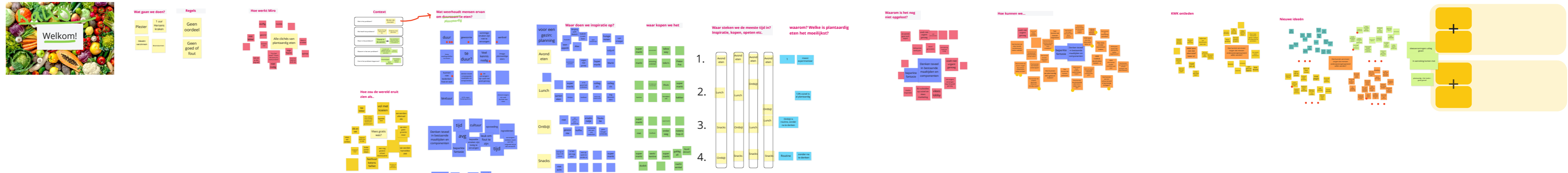
Appendix E: Brainstorm results

E.1 First two bra

Brainstorm 1



Brainstorm 2

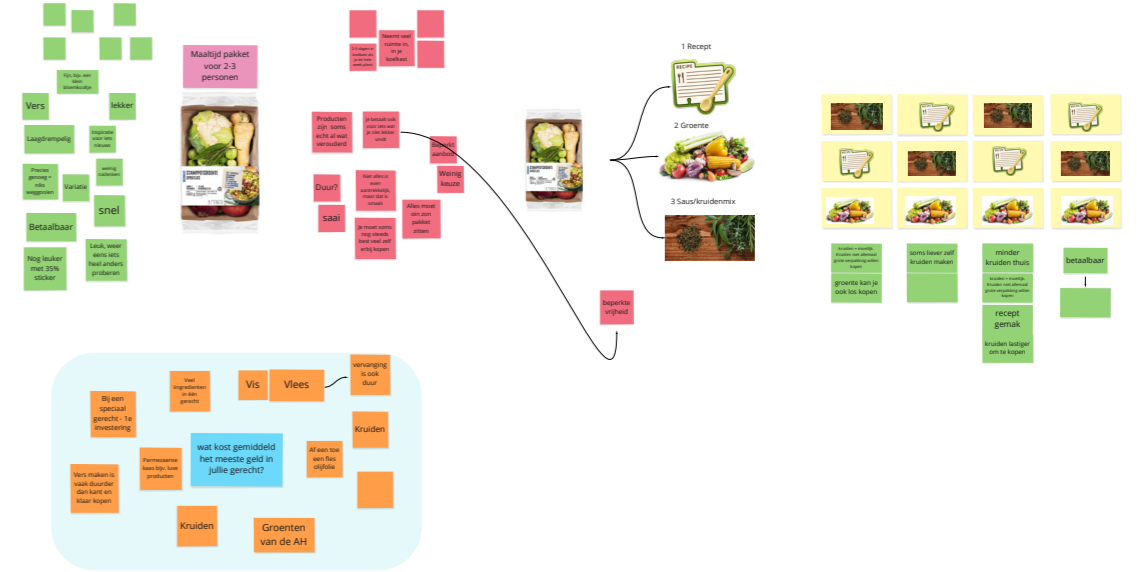
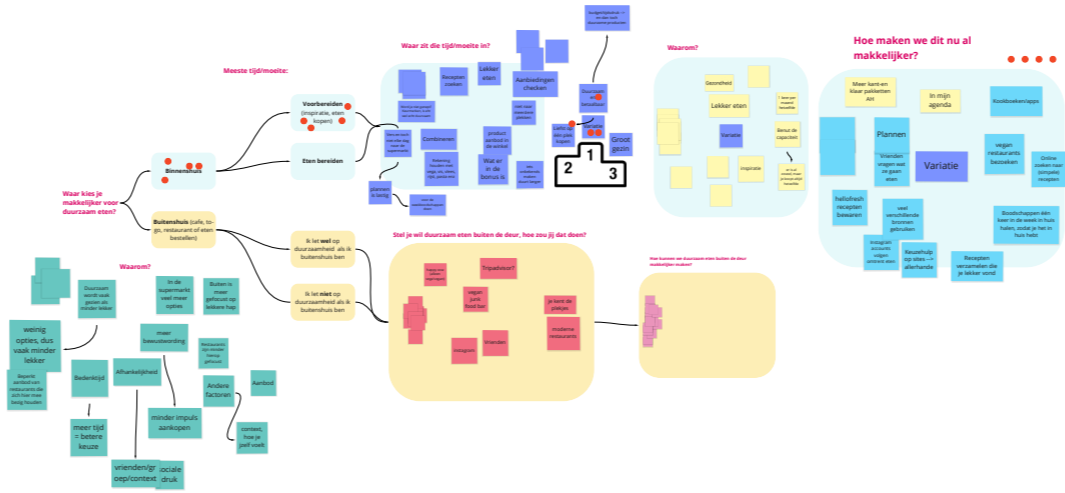


E.2 Last two brainstorms

Brainstorm 3



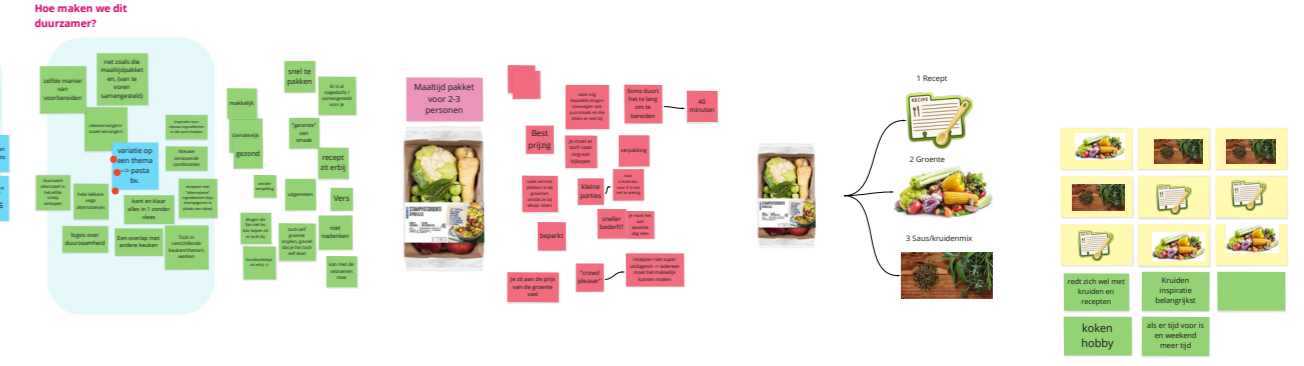
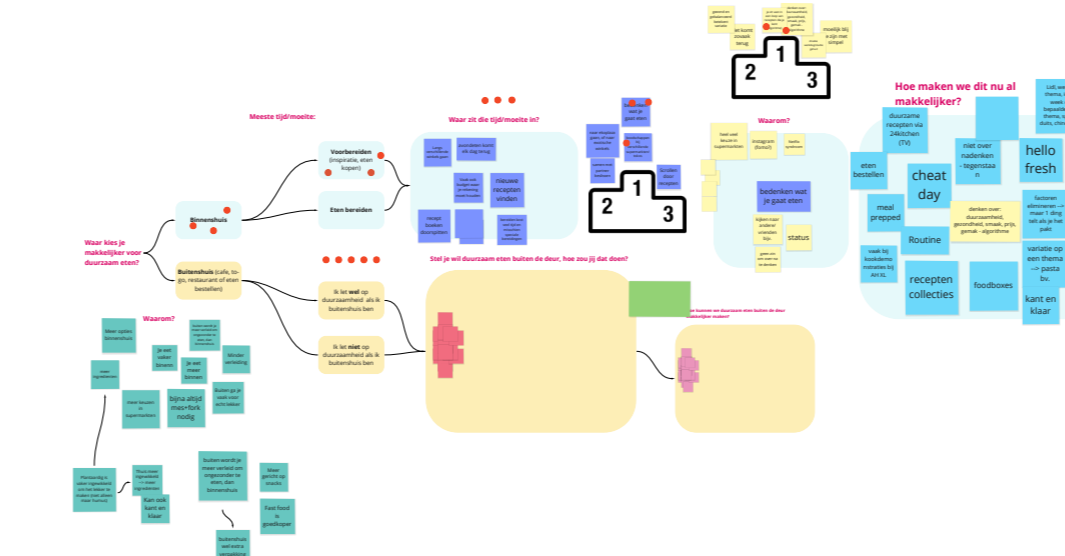
Wat gaan we doen?
Plezier
Leren van elkaar
Brainstormen



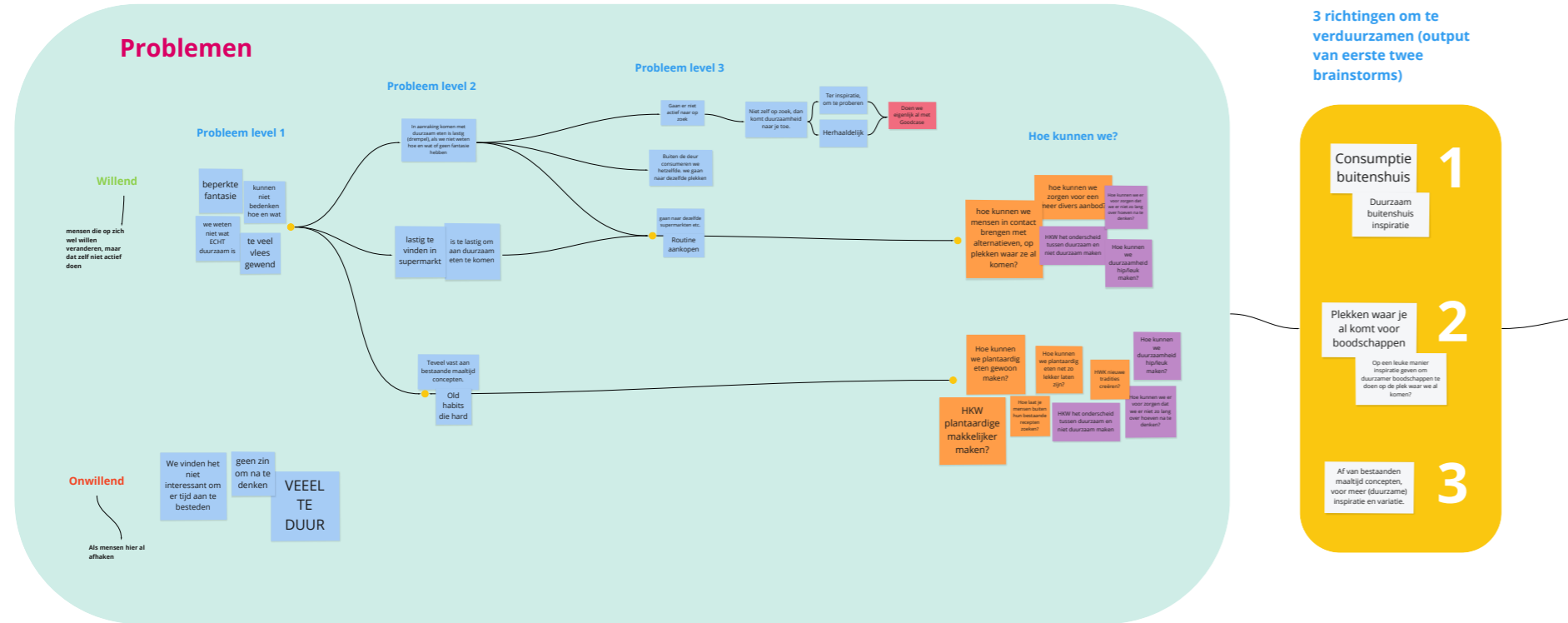
Brainstorm 4



Wat gaan we doen?
Plezier
Leren van elkaar
Brainstormen

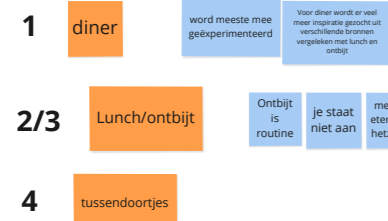


E.3 Overview results first brainstorm and design directions

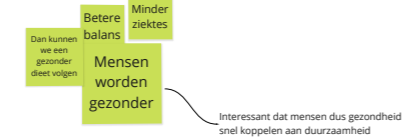


Andere inzichten

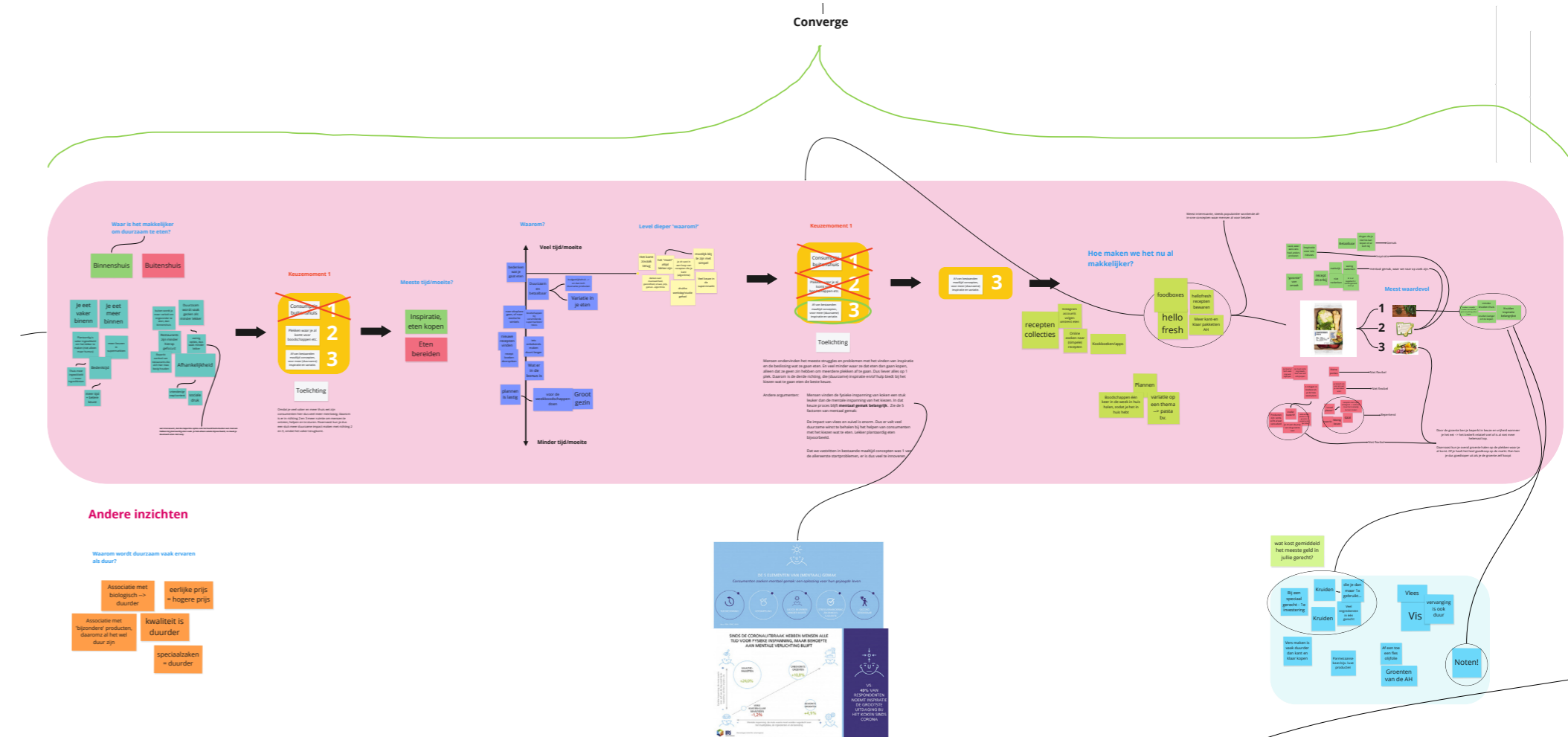
Waar steek je het meeste tijd in



wat gebeurt er als alles opens duurzaam is:



E.4 Overview results last brainstorm



E.4 Concept direction

Concept richting



Appendix F: Trends

Finding trends is the first step to find opportunities to create product-market fit: being in a market with a product that satisfies the market. Are there any relevant trends that the product or service can tap into? The definition of a trend is “a general direction in which something is developing or changing” [Oxford Languages]. Trends are interesting, because they predict or influence consumer behaviour. Either way, this offers insights and opportunities to satisfy consumer needs and, therefore, the market.

One of the methods to detect trends is analysing the DEPEST factors that influence business and can't be controlled⁷⁰. DEPEST stands for Demographic, Economic, Political, Ecological, Social and Technological. All these factors are macro areas to analyse the environment of a company, with a product or service, operates in. All relevant trends in the food context for this project, according to the macro areas, will be elaborated. The ones used for this project are highlighted in chapter 4.1.1

Demographic:

- households consist of less people. One person households are growing strong until 2030⁷¹, see Figure 75 Especially in the age category 25-33 there is a peak in one person households. This leads to the urge for smaller and more convenient food packages.
- More households where both parents work, leading to less time to prepare food.

Economical:

- Hybrid consumer: more groceries at discounters, but more bio, organic and responsible unique products⁷².
- Supermarketisation⁷³:
 - power of supermarkets is growing
 - less supermarket chains
 - people buy more in supermarkets and less in specialty stores
 - The market is dominated by only a few players, determining the retail price, product range and variety

Political⁷⁴:

- The government is holding back in nudging and really influencing sustainable consumption. There is a focus on communicating product information to consumers, but not a clear policy on sustainable and healthy consumption. Therefore, the future can't rely too much on politics and governmental influences.

Ecologisch:

All the developments regarding the loss of biodiversity, scarcity of freshwater, scarcity of agricultural land and climate change that are elaborated in chapter 1.

Social-cultural⁷⁵:

- Sustainability. For more and more consumers it is important that the product is produced with care for the environment. Also, animal well-being plays a larger role in the decision making process of consumers.
- Consumers want to know more about the food they consume. Origin is important, just as where and how it is produced.
- Health. Consumers are becoming more aware of the impact of food on their health. Less salt, less processed and also less meat.
- Back to basics: no additives, origin of products, locally produced. Consumers are looking increasingly for natural food products, not processed and with less ingredients that everyone knows, in addition to leave out additives.
- A fair trade trend.
- Organic food from a health perspective. Consumers are concerned about the use of toxic chemicals that are used in producing fruits and vegetables. There is a growing demand for organic food that is produced without these chemicals. One of the barriers for organic food is that consumers think it is expensive, complicated and that they lack knowledge. See Figure 76.

Technological⁷⁶:

- New developments and techniques to produce plant based meat and

cultured meat.

- Smart packaging. In the future, packaging of food becomes smarter and can, therefore, contribute to food safety and sustainability. Smarter packages can extend the product due date and sensors can notify if a product contains too much bad microorganisms.

Regio's	Particuliere huishoudens: samenstelling		Meerpersoonshuishoudens	Niet-gehuwd paar	Gehuwd paar	Eenouderhuishoudens	Particuliere huishoudens: grootte				
	Totaal	particuliere huishoudens					Totaal	Totaal	2 personen	3 personen	4 personen
Nederland	2000	6 803 008	2 272 219	4 528 789	657 579	3 440 642	384 517	2 242 256	897 408	945 509	44
	2005	7 040 965	2 449 378	4 641 587	747 056	3 402 433	444 124	2 517 627	905 839	975 043	44
	2010	7 316 144	2 669 516	4 716 628	836 539	3 339 959	486 250	2 417 798	907 781	970 519	42
	2015	7 663 198	2 867 797	4 797 401	934 671	3 275 358	545 289	2 512 123	923 286	961 010	40
	2020	7 997 800	3 079 778	4 918 022	1 037 200	3 250 231	589 975	2 610 601	938 515	961 314	40
Amsterdam	2000	404 579	223 525	181 254	46 056	95 774	36 175	104 134	38 269	25 567	1
	2005	407 784	236 235	182 631	46 938	91 629	38 606	101 083	39 948	27 418	1
	2010	422 073	235 891	188 182	52 948	90 125	38 731	103 147	40 923	29 174	1
	2015	449 209	247 417	201 792	63 813	92 545	39 974	111 352	42 007	31 995	1
	2020	475 368	258 962	216 406	75 988	97 165	40 383	122 266	43 536	33 081	1

Figure 75. One person households growth from 2000-2020. Source: CBS.

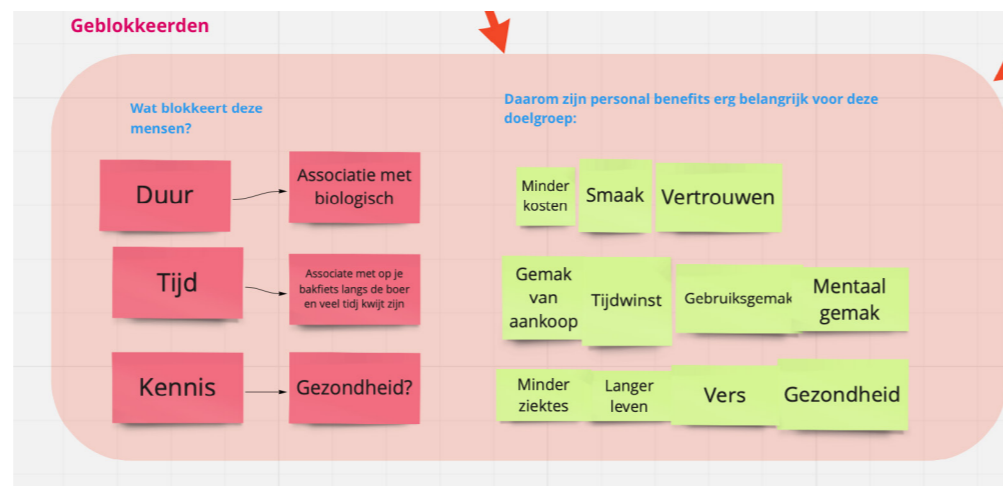


Figure 76. Barriers for organic food consumption. Source: brainstorm.

Appendix G: Project brief

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

family name	Visser	Your master programme (only select the options that apply to you):
initials	A W given name Arwin	IDE master(s): <input checked="" type="radio"/> IPD <input type="radio"/> DfI <input type="radio"/> SPD
student number	4227328	2 nd non-IDE master: _____ (give date of approval)
street & no.	_____	individual programme: _____
zipcode & city	_____	honours programme: <input type="radio"/> Honours Programme Master
country	_____	specialisation / annotation: <input type="radio"/> Medisign
phone	_____	<input type="radio"/> Tech. in Sustainable Design
email	_____	<input checked="" type="radio"/> Entrepreneurship

SUPERVISORY TEAM **

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

** chair	Prof. dr. Jan Schoormans	dept. / section:	DOS
** mentor	Ir. Matthijs Buijs	dept. / section:	DOS
2 nd mentor	_____	organisation: _____	_____
comments (optional)	_____	city: _____	country: _____
:	_____		
:	_____		
:	_____		

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.

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30

Page 1 of 7

Procedural Checks - IDE Master Graduation

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: 52 EC

Of which, taking the conditional requirements into account, can be part of the exam programme 27 EC

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

YES all 1st year master courses passed

NO missing 1st year master courses are:

name J.J. de Bruin date 02 - 03 - 2021 signature _____
 J. J. de Bruin, SPA
 Digitally signed by J. J. de Bruin, SPA
 Date: 2021.03.02 11:18:53 +0100

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

- adapted version (separate) approved, after discussion with the chair; the chair has indicated that he will steer the student more emphatically in the IPD direction by designing something physical

_____ comments

name Monique von Morgen date 16/3/2021 signature MvM

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30

Page 2 of 7

Initials & Name A W Visser Student number 4227328

Title of Project Consumer transition to a more sustainable diet facilitated with product design

Consumer transition to a more sustainable diet facilitated with product design

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 15 - 02 - 2021

04 - 08 - 2021

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, ...).

This graduation will take place within the startup Goodcase (www.meetgoodcase.nl) - currently being reconstructed), which I, together with 3 fellow master students, founded in the Build Your Startup course in September 2020.

Goodcase Goal

The goal of Goodcase is to accelerate the transition towards a more sustainable diet. We want to achieve that by facilitating (small - low barrier) steps in the right direction in a fun and convenient way. The vision is that if consumers try and explore tasty, sustainable alternatives in a fun and convenient way that they are more willing to adept sustainable products in their diet.

What we have done

In a short period of time we have sold 97 Goodcases to 80 unique customers, containing 729 sustainable products in total divided over 3 pilot rounds. We work together with relatively small, innovative food startups in The Netherlands that have beautiful food products, but struggle to find a larger audience until their products can be found in the supermarket. We put different sustainable products in a box for people to eat, try and explore, in addition we tell people more about the product. Why the product is sustainable for example.

Why?

The eating habits of a substantial, growing group of Dutch consumers is slowly changing. This doesn't necessarily mean disruptive changes, like switching to a completely new diet, but often small changes. For example less meat and more plant based products. At the same time consumers also want to know more about where their food is coming from and if it supports local businesses. All consumers within that group have their own motive that activates them, these can roughly be categorised (based on the motives to eat less meat, that is overall known to have most impact on the environment *) in sustainability, animal well-being and health. The focus of the startup lies, for now, on the first category: sustainability. Within that target group there are consumers that are already eating sustainable, but there is also a large group that wants to eat more sustainable. But they lack the time to research sustainable food, they don't want to compromise on taste and price and because of their busy, hectic lives the convenience factor is also important. With Goodcase we introduce tasty food, that contributes in its own way to a better environment, (see attached image for examples), from Dutch food startups to this target group. The product mix is tailored to their needs and the Goodcase will be delivered at their home, meeting the current convenience standards.

*1 source: <https://www.natuurenmilieu.nl/nieuwsberichten/onderzoek-67-nederlanders-is-flexitariet/>

space available for images / figures on next page

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30

Page 3 of 7

Initials & Name A W Visser

Student number 4227328

Title of Project Consumer transition to a more sustainable diet facilitated with product design

Personal Project Brief - IDE Master Graduation

introduction (continued); space for images



image / figure 1: The Goodcase team that continues after the Build Your Startup course.



image / figure 2: The Goodcase from the third pilot round.

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30

Page 4 of 7

Initials & Name A W Visser

Student number 4227328

Title of Project Consumer transition to a more sustainable diet facilitated with product design

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.

As described in the intro, sustainability, animal well-being and health are the main motives for people to (slowly) change their diet. But customers also have different purchase drivers, habits and preferences. The goal of this project is to create new product concepts for Goodcase that are tailored to the needs of the target group. So the main problem for this project can be defined as 'how to achieve the best Customer Fit, creating a product that aligns best with the needs and purchase drivers of the consumers that have sustainability and animal well-being as their main motive (excluding health as primary motive) to change or wanting to change their diet?'

The sub-questions will act as guidelines for the project are:

Problem-Solution fit:

1. Who are the consumers that have sustainability and animal well-being as their main motives for changing or wanting to change their diet?
2. What are their needs, pain points and problems that they encounter when researching, purchasing and eating products that are worth solving? And what are their purchase drivers and factors that influence their decision making?

Product-Market fit:

3. What are the trends in the food industry that are interesting for the described target group? And how does the competition tap into those trends?
4. How does the competition look like in the food market and what are the strongest USP's from competitors? Which clear USP's can be created for the new product concepts for Goodcase that will help the company position itself in the market and stand out from competition?

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.

The goal is to create new product concepts for Goodcase and choose the most promising that can be implemented in the startup. Most likely, but not limited to, these concepts will be themed food boxes that contain the right product mix with products from innovative Dutch food startups. The most important requirement is that every product concept should solve a clear problem (consumer need) that is worth solving for a specific target group, within the group of consumers that have sustainability and animal well-being as their main motive to change their diet. Second, the purchase drivers should be clear and translated into strong USP's that will help creating a marketing strategy. The USP's can be different for every concept, because the target group and their drivers can be, and probably are, different.

Last, every concept should contain a clear business model and marketing strategy. This will help to assess which concept will be best to proceed with on the short term and which concepts would work better in a later stage of the startup.

A clear plan and overview of the project will be elaborated in 'planning and approach section'.

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30 Page 5 of 7

Initials & Name AW Visser Student number 4227328

Title of Project Consumer transition to a more sustainable diet facilitated with product design

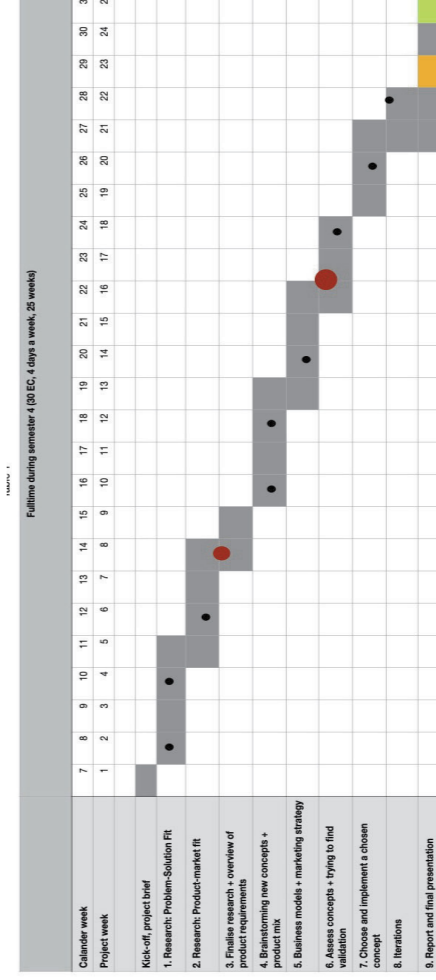
PLANNING AND APPROACH **

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 15-2-2021

4-8-2021

end date



Start at February 15, week 7. Graduation planned in week 31, the first week of August.

Meeting with the supervisory team every two weeks. Midterm evaluation in week 14, green light meeting in week 17.

Handing in report in week 29.

Plan

Research: step 1, 2 and 3 from the planning as elaborated in the Problem Definition

Ideation: Step 4 and 5. Creating a clear table of requirements, derived from research, to start the ideation phase. Ideation leads to new concepts. In addition, design different business models and marketing strategies for each concept.

Assessing: Step 6 and 7. Create SMART goals for each concept and create a framework to assess the concepts. Implement, test and validate concepts.

Step 8: Iterations. Feedback and insights gathered from experiments can lead to iterations and tweaks.

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30 Page 6 of 7

Initials & Name AW Visser Student number 4227328

Title of Project Consumer transition to a more sustainable diet facilitated with product design

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.

It was only when I returned from an 1,5 year adventure abroad, during my master, when I started to think about what I really wanted to become as a designer. Based on what I had seen abroad, I decided that I want to use my skills to help people and planet. That is why I chose to help design the Jerrycan waterfilter (<https://jerrycanfilter.com>) for people in Africa for the AED course. I started more motivated than ever and the project was graded with a 9.5.

After that I decided to join the Build Your Startup course to combine my entrepreneurial mindset and my goal to do something for the planet. The result is Goodcase. I am very passionate about this startup, because I really like the lean, entrepreneurial approach and I fully believe in the mission.

What I don't like is to work on a promising project and throw everything away after the deadline. That is why I want to graduate within the startup and use my graduation in a way that we can use it for the future of Goodcase.

I want to learn more about how designing, as we are taught in Delft, can be connected to the business side of the startup. How insights from research can be translated into design propositions, that after that can be directly implemented in the startup.

Furthermore, I would like to learn more about co-creating products with our existing consumers. How can valuable information be retrieved from customers, using an MPV for example, and be translated into design iterations that take the product to the next level.

FINAL COMMENTS

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

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30 Page 7 of 7

Initials & Name AW Visser Student number 4227328

Title of Project Consumer transition to a more sustainable diet facilitated with product design

9 Sources

1 World summit on food security. (2009). Feeding the world in 2050. FAO. <http://www.fao.org/3/k6021e/k6021e.pdf>

2 Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*, 360(6392), 987-992.

3 Mann, M. E. (2019). Methane. *Britannica*. <https://www.britannica.com/science/greenhouse-gas/Methane>.

4 Gibbens, E. (2020). Scientists are trying to save coral reefs. Here's what's working. *National Geographic*. <https://www.nationalgeographic.com/science/article/scientists-work-to-save-coral-reefs-climate-change-marine-parks>

5 Ocean health and human well-being are inseparable. (n.d.). The David and Lucile Packard Foundation. <https://www.packard.org/what-we-fund/ocean/why-its-important/>

6 Ritchie, H. & Roser, M. (2021). Forests and Deforestation. *OurWorldInData*. <https://ourworldindata.org/forests-and-deforestation>

7 Chow, R. (2017). WWF: 60% of Global Biodiversity Loss Due to Land Cleared for Meat-Based Diets. *EcoWatch*. <https://www.ecowatch.com/biodiversity-meat-wwf-2493305671.html>

8 Stehfest, E., Bouwman, L., van Vuuren, D.P. et al. (2009). Climate benefits of changing diet. *Climatic Change* 95, 83–102 (2009)

9 Tyedmers, R. & Pelletier, N. (2010). Forecasting potential global environmental costs of livestock production 2000–2050. *PNAS*. <https://www.pnas.org/content/pnas/107/43/18371.full.pdf>

10 Stehfest, E., Bouwman, L., van Vuuren, D.P. et al. (2009). Climate benefits of changing diet. *Climatic Change* 95, 83–102 (2009)

11 Wat is een Ecologische Voetafdruk? (n.d.). WWF. <https://www.wwf.nl/kom-in-actie/voetafdruktest>

12 Vleesproductie; aantal slachtingen en geslacht gewicht per diersoort. (2021). CBS. <https://opendata.cbs.nl/#/CBS/nl/dataset/7123slac/table?ts=1628000700751>

13 Vleesconsumptie stijgt licht, ondanks populaire vleesvervangers. (2019). NOS Nieuws. <https://nos.nl/artikel/2303077-vleesconsumptie-stijgt-licht-ondanks-populaire-vleesvervangers.html>

14 McDonald's komt met eigen vleesvervanger, de McPlant. (2020). RTL Z. <https://www.rtlnieuws.nl/economie/beurs/artikel/5195957/mc-donalds-vegetariers-mc-plant-vleesvervangers>

15 Boxsem, I. (n.d.). Grote daling vleesconsumptie door abonnement op vega maaltijdbox. *De Krat*. [vleesconsumptie-door-abonnement-op-vega-maaltijdbox

16 Vleesvervangers bezig met snelle opmars, verkoop vlees daalt. \(2019\). NOS Nieuws. <https://nos.nl/artikel/2297492-vleesvervangers-bezig-met-snelle-opmars-verkoop-vlees-daalt.html>

17 Van Loon, V \(2019\). IRI: 'plantaardige zuivel' passeert omzetgrens € 100 miljoen. *Foodpersonality*. <https://www.foodpersonality.nl/iri-plantaardige-zuivel-passeert-omzetgrens-e-100-miljoen/>

18 Klant: 'Te weinig plantaardig in supermarkt'. \(2020\). *DistriFood*. <https://www.distriFood.nl/assortiment/nieuws/2020/07/consument-te-weinig-plantaardig-in-supermarkt-101136448>

19 / 20 Global Food. Waste not, want not. \(2013\). Institution of Mechanical Engineers. <https://www.imeche.org/docs/default-source/default-document-library/global-food--waste-not-want-not.pdf?sfvrsn=0>

21 Dagevos, H., Verhoog, D., Horne, H. van, Hoste, R. \(2020\). Vleesconsumptie per hoofd van de bevolking in Nederland, 2005-2019. Wageningen Economic Research. Nota 2020-078. 14 blz.; 2 fig.; 2 tab.; 6 ref.

22 Van Vliet, L. \(2019\). Vrouwen domineren anno 2019 nog steeds de keuken. *EenVandaag*. <https://eenvandaag.avrotros.nl/panels/opiniepanel/alle-uitslagen/item/vrouwen-domineren-anno-2019-nog-steeds-de-keuken/>

23 Norman, D. \(1990\). *The Design of Everyday Things: Revised and Expanded Edition*

24 Dharmesh. \(n.d.\). How To Find Product-Market Fit And Keep It. *The Path Forward*. <https://thepathforward.io/startup-guide-find-product-market-fit/>

25 Mares, J. \(@jwmares\) \(2020\). If you're starting a consumer brand, here are the 7 key areas to focus \(thread\). <https://twitter.com/jwmares/status/1387819545663004675>

26 Lindt, N. \(2019\). MEAL KITS FOR DINNER. Wageningen University & Research \(WUR\). <https://edepot.wur.nl/495484>

27 Bacteriën. \(n.d.\). Voedingscentrum. <https://www.voedingscentrum.nl/encyclopedie/bacterien.aspx>

28 Eisen temperatuur levensmiddelen. \(n.d.\). NVWA. <https://www.nvwa.nl/onderwerpen/markten-en-evenementen-eten-en-drinken/eisen-temperatuur-levensmiddelen>

29 Katsabaris, T. \(2020\). What is marketing segmentation? *Insider*. <https://useinsider.com/what-is-marketing-segmentation/>

30 Esselink, R., Lenderink, T., Nijenhuis, H. \(2018\). *De marktbezoeker*](https://www.dekrat.nl/blog/grote-daling-</p></div><div data-bbox=)

I&O Research. <https://www.cvah.nl/de-marktbezoeker/>

31 Bergevoet, R. (2019). In 2030 ziet de foodwereld er zó uit . FSIN. <https://fsin.nl/actueel/blog/in-2030-ziet-de-foodwereld-er-zo-uit>

32 Forsegroei vegetariërs en veganisten. (2020). Onderzoek 'Vegatrends 2020'. PanelWizard/KIEN. <https://www.vegetariers.nl/organisatie/pers/persberichten/forse-groei-vegetariers-en-veganisten-onderzoek-vegatrends-2020>

33 De Waart, S. (2020). Consumptie Cijfers & Aantallen Vegetariërs. Nederlandse Vegetariërsbond. <https://www.vegetariers.nl/serverspecific/default/images/File/Factsheet1Consumptiecijfersenaantallenvegetariersv3.3juni2020.pdf>

34 Penders, D. (2021). Jaarlijkse Vegamonitor: Steeds minder mensen zien zichzelf als vleeseter. *Natuur & Milieu*. <https://www.natuurenmilieu.nl/nieuwsberichten/jaarlijkse-vegamonitor-steeds-minder-mensen-zien-zichzelf-als-vleeseter/>

35 Boerdam, I. (2020). 2,4 MILJOEN DEELNEMERS VOOR WEEK ZONDER VLEES 2020. Week Zonder Vlees. <https://weekzondervlees.nl/24-miljoen-deelnemers-voor-week-zonder-vlees-2020/>

36 De Waart, S. (2020). Consumptie Cijfers & Aantallen Vegetariërs. Nederlandse Vegetariërsbond. <https://www.vegetariers.nl/serverspecific/default/images/File/Factsheet1Consumptiecijfersenaantallenvegetariersv3.3juni2020.pdf>

37 Bontekoning, H. (2013). *Jonge Geesten*. <https://www.jongegeesten.nl/generaties/>

38 De Waart, S. (2020). Consumptie Cijfers & Aantallen Vegetariërs. Nederlandse Vegetariërsbond. <https://www.vegetariers.nl/serverspecific/default/images/File/Factsheet1Consumptiecijfersenaantallenvegetariersv3.3juni2020.pdf>

39 / 40 Hoe belangrijk vindt de consument de maatschappelijke rol en duurzaamheid van de merken die hij koopt? (2020). Resultaten derde kwartaal 2020. b-open & Marketresponse.

41 Bergevoet, R. (2019). In 2030 ziet de foodwereld er zó uit . FSIN. <https://fsin.nl/actueel/blog/in-2030-ziet-de-foodwereld-er-zo-uit>

42 Van der Ziel, T. (2019). Foodshopper wil vooral goed gevoel. FSIN. <https://fsin.nl/actueel/nieuws/597/foodshopper-wil-vooral-goed-gevoel>

43 Jong of oud, man of vrouw; wie stemde op welke partij? (2017). NOS Nieuws. <https://nos.nl/collectie/12197/artikel/2163382-jong-of-oud-man-of-vrouw-wie-stemde-op-welke-partij>

44 Kras, J. (2017). Millennials geven hun geld aan hele andere dingen uit dan hun ouders. *Welingelichte Kringen*. <https://www.welingelichtekringen.nl/economie/709596/millennials-geven-hun-geld-aan-hele-andere-dingen-uit-dan-hun-ouders.html>

45 'Millennials eten het vaakst buiten de deur: voor ruim 1500 euro per jaar' (2020). RTL Z. <https://www.rtlnieuws.nl/nieuws/nederland/artikel/4983611/jongeren-restaurant-omzet-horeca-1512-euro-jaar>

46 Pouw, S. (2021). Millennials versus Gen Z: de beste marketingbenadering voor deze lastige jongeren. *Salesforce*. <https://www.salesforce.com/nl/blog/2019/09/Millennials-versus-GenZ-de-verschillen-en-beste-marketingbenadering.html>

47 WIE ZIJN DE NIEUWE GENERATIE CONSUMENTEN? (2020). Callebaut & FSIN. https://www.callebaut.com/sites/callebaut2019/files/files/CAL_Blog_Nieuwe%20generatie%20consumenten.pdf

48 Van der Ziel, T. (2019). Foodshopper wil vooral goed gevoel. FSIN. <https://fsin.nl/actueel/nieuws/597/foodshopper-wil-vooral-goed-gevoel>

49 WIE ZIJN DE NIEUWE GENERATIE CONSUMENTEN? (2020). Callebaut & FSIN. https://www.callebaut.com/sites/callebaut2019/files/files/CAL_Blog_Nieuwe%20generatie%20consumenten.pdf

50 Hoeffnagel, W. (2020). Online uitgaven van Nederlanders in 2019 gestegen. *Dutch IT Channel*. <https://dutchitchannel.nl/641309/nederlanders-besteden-meer-online.html>

51 Nederlanders shoppen in 2015 voor € 16,07 miljard online. (2015). *Retail Insiders*. <https://www.retailinsiders.nl/updates/bericht/nederlanders-shoppen-in-2015-voor-16-07-miljard-online>

52 Hoeffnagel, W. (2020). Online uitgaven van Nederlanders in 2019 gestegen. *Dutch IT Channel*. <https://dutchitchannel.nl/641309/nederlanders-besteden-meer-online.html>

53 Van Leeuwen, Q. (2019). Het online aankoopgedrag plus de klantbeleving in Nederland. *Customer Talk*. <https://www.customertalk.nl/artikelen/onderzoek/het-online-aankoopgedrag-plus-de-klantbeleving-in-nederland/>

54 De Sousa, S. (n.d.). Welk budget moet je vrijmaken voor online marketing? *Whello*. <https://whello.nl/marketing-tips/online-marketing-tips/welk-budget-moet-je-vrijmaken-voor-online-marketing/>

55 Carr, T. (2020). How Gen Z, Millennials & Boomers Really Feel About Online Ads. *Criteo*. <https://www.criteo.com/blog/genz-millennials-boomers->

online-advertising/

56 GENERATIE Y VS GENERATIE Z. (n.d.). Recnaton. <https://recnaton.nl/generatie-y-vs-generatie-z/>

57 Global Commerce Review. (2018). Criteo. <https://www.criteo.com/wp-content/uploads/2018/05/Criteo-2018-GCR-Q1-Report-Netherlands.pdf>

58 Aantal zieken gelijk ondanks lichte stijging aantal uitbraken voedselvergiftiging. (2015). RIVM. <https://www.rivm.nl/nieuws/aantal-zieken-gelijk-ondanks-lichte-stijging-aantal-uitbraken-voedselvergiftiging>

59 / 60 Bacteriën. (n.d.). Voedingscentrum. <https://www.voedingscentrum.nl/encyclopedie/bacterien.aspx>

61 Conserveren. (n.d.). Voedingscentrum. <https://www.voedingscentrum.nl/encyclopedie/conserveren.aspx>

62 Thornton, P. (2019). How to conduct user interviews. UX Collective. <https://uxdesign.cc/how-to-conduct-user-interviews-fe4b8c34b0b7>

63 Fitzpatrick, R. (2014). The Mom Test. CreateSpace Independent Publishing Platform

64 Twee grote supermarkketens verlagen de prijzen; volgt de rest? (2017). NOS Nieuws. <https://nos.nl/artikel/2196136-twee-grote-supermarkketens-verlagen-de-prijzen-volgt-de-rest.html>

65 Koelemijer, K. (2016). Zijn supermarkten crimineel? RTL Z. <https://www.rtlnieuws.nl/economie/column/443626/zijn-supermarkten-crimineel>

66 Morren, R. (2019). Producent zoek korte route naar consument, maar treft rocky road. ABN AMRO. <https://insights.abnamro.nl/2019/06/producent-zoek-korte-route-naar-consument-maar-treft-rocky-road/>

67 Vegatrends 2020: forse groei vegetariërs en veganisten. (2020). Bio Journaal. <https://www.biojournaal.nl/article/9263263/vegatrends-2020-forse-groei-vegetariers-en-veganisten/>

68 Steeds meer mensen betalen extra voor duurzame producten. (2018). RTL Z. <https://www.rtlnieuws.nl/nieuws/artikel/4445561/steeds-meer-mensen-betalen-extra-voor-duurzame-producten>

69 Kamsa, M. (2021). De boer aan huis: we willen meer eten zonder 'tussenschakels'. NRC. <https://www.nrc.nl/nieuws/2021/02/05/de-boer-aan-huis-we-willen-meer-eten-zonder-tussenschakels-a4030709>

70 Daalhuizen, J. (2014). Delft Design Guide: Design Strategies and Methods. BIS Publishers B.V.

71 Zantinge, E.M., Van Bakel, A.M., Van Loon, A.J.M., Ocké, M.C. (2017). Drijvende krachten van de voedselconsumptie en het voedselaanbod.

Achtergrondrapport bij 'Wat ligt er op ons bord? Veilig, gezond en duurzaam eten in Nederland.' RIVM. <https://rivm.openrepository.com/bitstream/handle/10029/620814/2016-0194.pdf?sequence=1&isAllowed=y>

72 Groeneveld, C. (2020). De 5 grootste foodtrends volgens de Rabobank. VMT. <https://www.vmt.nl/ingredient-product/nieuws/2020/02/de-5-grootste-foodtrends-volgens-de-rabobank-10140255>

73 / 74 Zantinge, E.M., Van Bakel, A.M., Van Loon, A.J.M., Ocké, M.C. (2017). Drijvende krachten van de voedselconsumptie en het voedselaanbod.

Achtergrondrapport bij 'Wat ligt er op ons bord? Veilig, gezond en duurzaam eten in Nederland.' RIVM. <https://rivm.openrepository.com/bitstream/handle/10029/620814/2016-0194.pdf?sequence=1&isAllowed=y>

75 Groeneveld, C. (2020). De 5 grootste foodtrends volgens de Rabobank. VMT. <https://www.vmt.nl/ingredient-product/nieuws/2020/02/de-5-grootste-foodtrends-volgens-de-rabobank-10140255>

76 Zantinge, E.M., Van Bakel, A.M., Van Loon, A.J.M., Ocké, M.C. (2017). Drijvende krachten van de voedselconsumptie en het voedselaanbod.

Achtergrondrapport bij 'Wat ligt er op ons bord? Veilig, gezond en duurzaam eten in Nederland.' RIVM. <https://rivm.openrepository.com/bitstream/handle/10029/620814/2016-0194.pdf?sequence=1&isAllowed=y>