




# **GRADUATION** PROJECT

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4545885

**FINDING VISION IN A  
MELTING LANDSCAPE**

SUSTAINABLE OUTERWEAR  
IN 2040



ONLY TOGETHER WE CAN  
CHANGE THE INDUSTRY

*OPEN WEAR*

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## EXECUTIVE SUMMARY

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New studies state that climate change is projected to harm snow reliability in ski resorts, resulting in shorter ski seasons and increased snowmaking demand and low-lying ski areas may cease to exist. Open Wear is a sustainable outerwear brand that uses sustainable materials and ethical production to produce clothing from 100% recycled plastic. The brand promotes sustainability in the winter sports industry but acknowledges the potential impact of climate change on the industry and its existence.

The report discusses the potential changes in the winter sports industry due to ecological changes, economic interests, human experiences, and cultural values. By creating a world view of winter sports in 2040 and designing a concept product there has been explored how the brand can innovate in this changing world. The 'Vision in Product' method has been used, which focuses on the 'raison d'etre' and uses a worldview created from various context factors such as trends, developments, and principles to design a future vision. The company's strengths, weaknesses and potential opportunities have been analyzed, stating that especially the Open Wear community can be a great asset in the future.

Literature research indicates that winter sports can still be practiced for decades to come, but low ski areas or ski areas with unfavorable locations in terms of snowfall will have to deal with less snow in the coming years. The amount of snow-reliable days seems to be decreasing exponentially.

To understand the impact of these and other factors on the worldview of 2040, driving forces have been created by forming clusters of these factors. A prediction has been made about what the world will look like in 20 years.

Open Wear wants to encourage environmentally conscious people to moderate their ski behavior and to keep enjoying their outdoor escapes. They can do this by making multi-sport vacations more accessible by designing clothing that is created around conditions instead of sports. A digital platform for collaboratively creating future-proof products has been designed to switch from winter clothing to multi-sport clothing. In this way, Open Wear can motivate people to continue to enjoy their outdoor escapes sustainably, without being dependent on a changing climate.





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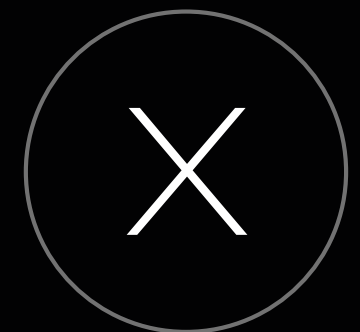
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# CHAPTER 1

# INTRODUCTION



## INTRODUCTION

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## 1. INTRODUCTION

Several new studies have addressed the projected impacts of future climate change on snow reliability in ski resorts. Showing that average ski seasons are projected to shorten along with increases in snowmaking demand. (IPCC, 2022)

Low-lying ski areas will cease to exist, water scarcity will cause problems with snowmaking and high temperatures will increase the risk of avalanches. This creates additional costs for ski resorts which will drive ticket prices up. (Steiger, 2021)

Open Wear is a sustainable outerwear brand focussing on the winter sports scene. The company makes high-quality outerwear pants and jackets. The brand is known for its "open" (transparent) way of working, where they use sustainable materials and ethical production to produce hardshell clothing from 100% recycled plastic. These jackets and pants are perfectly suited for use on and off-slope skiing and snowboarding.

Even though Open Wear tries to build a community with its sustainable clothing to promote sustainability in the winter sports industry and thereby minimize the impact on climate change, the possible scenario of not stopping the warming of the earth should be addressed. The brand's right to exist depends on a natural phenomenon that is facing problems due to climate change which is not only caused by the wintersports industry.

Since winter sports are so intertwined with ecological changes, economic interests, human experiences, and cultural values, it is difficult to predict how winter sports will change in the coming years.

It is important for Open Wear to know how the brand can innovate in these changing times. What value can they add to the winter sports landscape of 2040 and how does their mission resonate with it? The solution will therefore be a world view of winter sports in 2040 and a concept product to explore how the brand can innovate in this changing world.





## 1.1 THE COMPANY

Combining high functionality with ethical production, sustainable materials, and honesty, Open Wear designs products that allow people to continue to ride powder. "Now and in the future."

They designed the first high-quality, fully recycled, and recyclable outerwear jacket, made in an ethical factory, under the best working conditions. The Open One Series (as they call it), crowdfunded by an incredible group of backers, turned into actual products. (OpenWear, 2022)

Now, awarded the ISPO Award Gold Winner and an iF Design Award for product design.

When they started to develop their second generation of products, they had a clear vision in mind:

1. Create the ultimate snowboard and ski outerwear. With a specific focus on ski touring and split boarding.

2. Make it from the most environmentally friendly, highly functional materials.

3. Produce in a factory that cares about the people who produce their garments. In safe and clean facilities, with fair salaries.

4. Delivering it directly to the consumer, making their products more affordable.

The brand has recently made a re-start, launching a new line of clothing. The brand is fully engaged in development for the coming years and is therefore very curious about how the future will evolve and how it should adjust its positioning accordingly. Later in this project, a more extensive company analysis has been done (see Chapter 3.3).

1.2 PROJECT GOAL

As mentioned above it is crucial for Open Wear to understand how they can improve and adapt to the changing times. They should consider what unique contributions they can make to the winter sports industry in 2040, and how their overall mission aligns with this future vision.

The goal of the project will therefore be: Designing a concept product to explore a possible future for the Open Wear company in order to keep their vision relevant in the future. This by focusing on the user-product interactions and creating a worldview of the winter sports industry in 2040.



DESIGNING A CONCEPT  
PRODUCT TO EXPLORE A  
POSSIBLE FUTURE FOR THE  
OPEN WEAR COMPANY IN  
ORDER TO KEEP THEIR VISION  
RELEVANT IN THE FUTURE.

*PROJECT GOAL*







CHAPTER 2

# METHODS AND APPROACH



## METHODS AND APPROACH

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2. METHODS AND APPROACH

During this project, the Vision in Product approach has been used to not only create a future worldview but also to design a concept product from user-product relationships to explore this future world.

The 'Vision in Product design'-method is a method that foremost supports the design of the 'raison d'etre' and therefore defines the goal prior to the means (Hekkert, Van Dijk, 2011). This goal stems from a created worldview, built up from various context factors, such as trends, developments and principles (Figure 1). This method will be used

to break away from what is expected from the winter sports industry and be able to look at what is relevant and meaningful in the future. In this way, OpenWear can play a role in positively changing the branch.

Since the ViP method uses a possible future, it seems interesting to me to see what different futures could look like. After all, the future is undetermined and "open" not inevitable or "fixed". The futures cone (Voros, 2017) showcases these different futures (Figure 2).

The Futures Cone is a visual tool used to help organizations explore different potential future scenarios and outcomes. It is based on the premise that the future is uncertain and that there are multiple potential paths that an organization could take.

That is why I have combined the futures cone and the ViP method to get a better idea of how a future worldview is created and why a particular future is preferable.

VIP

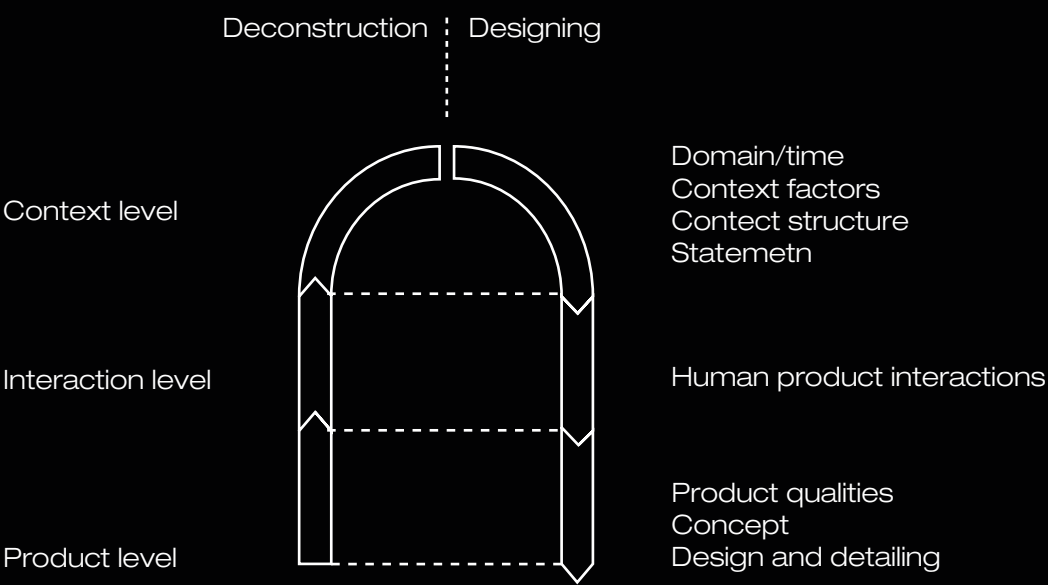


Figure 1 | Vision in Product Design Method scheme

FUTURES CONE

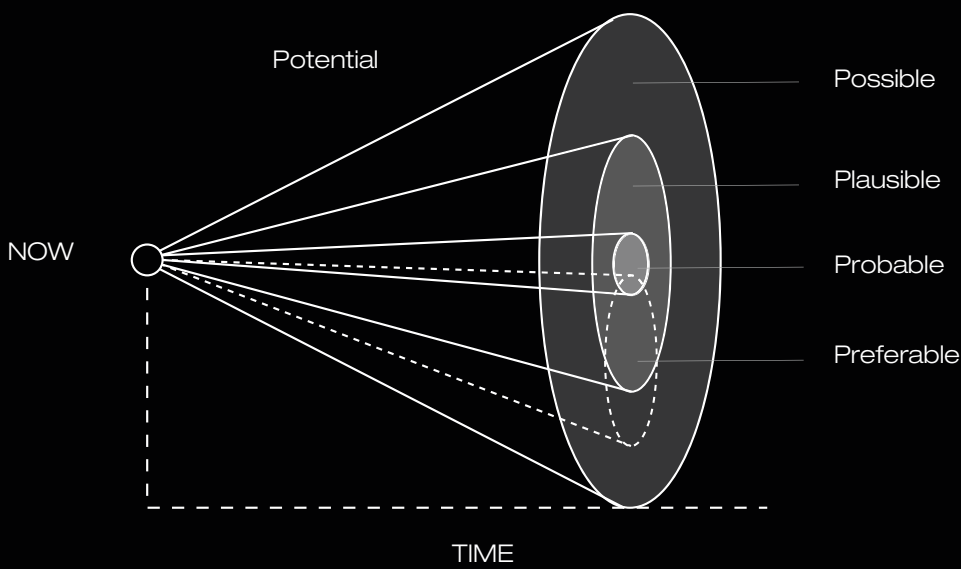


Figure 2 | Futures Cone Method scheme







# CHAPTER 3

## CURRENT SITUATION



### CURRENT SITUATION

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3 CURRENT SITUATION

The current situation is important for predicting the future since it provides a starting point or reference point for making predictions about what might happen in the future. By understanding the current situation, we can better understand the forces at play and the potential outcomes that might result from different actions or decisions. This can help us make more informed predictions about the future and prepare for potential challenges or opportunities that may arise.

First, the current products have been deconstructed to gain insight into the thinking process behind the products on three different levels. In addition, the domain in which the brand and current products are located was examined. And finally, the company was analyzed to see what its strengths and weaknesses are and what potential opportunities should not be missed.

2022

### 3.1 DECONSTRUCTION

To understand the concept and purpose of the current products, they were evaluated on three levels. The design was the solution to the problem at hand when the product was created. The company aimed to create something that would be beneficial to users in their specific context. By examining the reasoning behind the design, we can see the value it holds. However, as this value is based on the context at the time of development, it may change in the future, providing a foundation for new designs.

#### 3.1.1 PRODUCT LEVEL

To be able to answer the question "Why is this design the way it is?". First, we have to look at "the way it is". The product is broken down into material characteristics (Figure 3). At first glance, these characteristics may not seem significant, but they determine the interactions that take place between the product and the user.



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### 3.1.2 INTERACTION LEVEL

At the interaction level, the material characteristics disappear and the invisible properties of the product are analyzed. How the product relates to the user and what emotions it evokes. For example, closing the waterproof zippers provides a satisfying and safe feeling. And the functional options such as air vents and

snow gaiters lead to a supportive interaction where the user feels in control. To find out these interactions, the product was put into use and the above-mentioned characteristics were analyzed. The following interactions are therefore a personal interpretation.

**Intuitive, smooth, satisfying, affirmative, supportive, encouraging, safe, comfortable, in control, confident**

### 3.1.3 CONTEXT LEVEL

In the last step, the connection is made between the interactions and the reason why these interactions were chosen: "the context". This context consists of a lot of factors, of which only a small number have now been mentioned.

- Winter sports must become more sustainable.
- Many (too) expensive outdoor brands
- Many new techniques in the field of textiles and fabrics
- Many clothing brands have publicity issues
- Many problems with working conditions and pollution in clothing factories
- The Freeride world is relatively small
- Ski wear is bright and colorful
- Freeriders want clothing that is comfortable and technical
- Freeriders prefer 3-layer jackets over 2-layer jackets
- "Cool" skiers and snowboards want to look different from average winter sporters
- Sustainability has entered the outerwear industry, yet not really the winter outdoor industry.
- People who buy products want to get involved in the process.
- Waterproofness is a hyped selling point in outerwear clothing.







## WINTER OUTDOOR LEISURE IN EUROPA IN 2040

*DOMAIN*

### 3.2 DOMAIN

In order to narrow the search for a future worldview, a domain has been set in which trends, developments, states, and principles are investigated. This domain is based on the vision and positioning of the Open Wear company.

Since Open Wear operates in the winter sports freeride niche, freeriding has been the starting point of my research. However, it is not clear whether winter sports will still be possible and/or relevant in the future. That is why the domain has been expanded to "Winter Outdoor Leisure". The target group spend their free time and holidays during winter mainly in the snow. They choose to go to the mountains during their days off to enjoy the snow, nature and freeriding. When this activity changes or becomes impossible, it is interesting to see how the target group will make new choices.

Open-Wear is a Dutch company with Swiss roots. Their focus is mainly on the European market. Despite the fact that the decrease in snow reliability will become a problem worldwide, it has been decided to take Europe as a focus. This is to keep the search more in-depth.

Finally, the year 2040 was chosen in the domain. The company would like to know how to anticipate climate change and the associated adjustments in the coming years. 2040 is a leap into the future, and the context will clearly have changed, but it is relevant enough for the company to provide guidance in the coming years.

The domain is therefore as follows:  
Winter outdoor leisure in Europa in 2040

### 3.3 COMPANY ANALYSIS

In a project that creates a vision that will be interesting for the company in the future, it is relevant to see where the strengths and weaknesses of the company lie. Even though 2040 still seems far in the future, the resources and possibilities within a company are very important in realizing potential ideas. For this reason, the company is also included in the analysis of the current situation.

#### 3.3.1 Business Domain

To see which strengths and weaknesses a company has, it is important to first define in which domain the company is located (Sammut-Bonnici, 2015). This does not mean that the company will have to stay in this domain, but it provides insight into the company's current systems and processes.

Open Wear is currently in the outerwear clothing industry, specified in high-end freeride garments. It is worth mentioning that Open Wear wants to change this outerwear clothing industry. They want to do this from the inside out, by offering a better alternative.

#### 3.3.2 Mission

The latter is therefore the basis of their mission.

As they themselves describe their mission: As a collective of passionate skiers and snowboarders, we are out to set a new transparent standard within the outerwear industry.

Combining high functionality with ethical production, sustainable materials, and honesty. We design products that allow us to continue to ride powder.

Now, and in the future (OpenWear, 2022).

#### 3.3.3 Vision

The vision that Open Wear has is divided into 4 themes. Based on these 4 themes, they define the "new standard" described in their mission statement (OpenWear, 2022):

1. Create high-quality snowboard and ski outerwear.
2. Make it the most environmentally friendly
3. Produce it in a fair factory
4. Deliver it directly, making it affordable for more people.

#### 3.3.4 SWOT

SWOT is a strategic tool that is used to help organizations identify their strengths, weaknesses, opportunities, and threats (Sammut-Bonnici, 2015). This tool is often used as a starting point for strategic planning and can help organizations understand their internal and external environments and how they may impact the organization's ability to achieve its goals.

It is interesting to see that the influence of the climate (the reason why this project was started), turns out to be not the only threat to the company. There is something destructive in the current mission of the company. When the outerwear industry has actually become sustainable and fair, something that has been developing that way in recent years, the company will lose its unique selling points. Of course, the company can strive

to remain a leader in this, but when large competitors also start advertising in this area, it is difficult to distinguish itself.

However, there appears to be one more unique selling point that competitors have not yet entered: The community aspect. Designing community-first and therefore not flooding the world with clothing that is questionable whether it actually adds anything is a strong feature. Making this community as large and involved as possible should therefore be the focus of the company. Something that will certainly be included in the design process of this project. With the help of this engaged community, adapting to changes in the future makes it much more certain and increases the company's raison d'être. To see the SWOT analyze see Appendix 2).







# CHAPTER 4

## DEFINING THE FUTURE



### DEFINING THE FUTURE

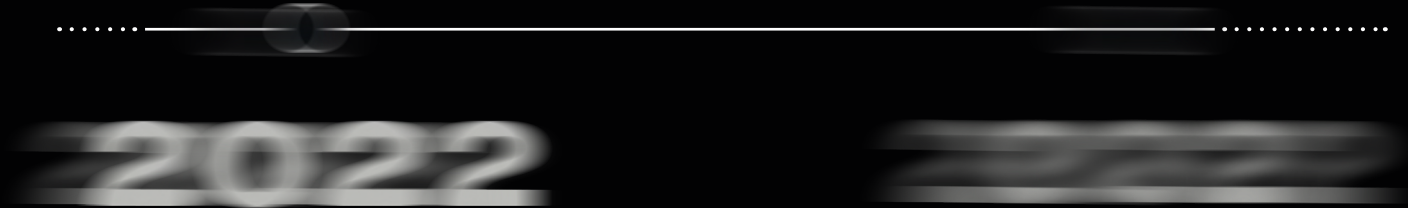
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4 DEFINING THE FUTURE

In order to gain insight into how the future will unfold, a worldview has been created in a few steps. The future is uncertain and therefore no firm claims can be made on the certainty of the worldview. However, by going through the steps of the VIP method (Hekkert, Van Dijk, 2011), a vision is created in a logically reasoned way that can at least be called plausible. By looking at a wide variety of factors and categorizing them into trends, developments states, and principles,

clusters can be formed that overarch a driving force. In addition to scientific studies that make predictions about certain phenomena, these driving forces can form the building blocks for a worldview. However, these forces can reinforce or weaken each other. A future framework has been created for this, which looks at how these driving forces are interrelated. This future framework eventually leads to a future worldview of the year 2040.



4.1 SNOW RELIABILITY

Since the domain of this project is winter leisure in the mountains, where it is assumed that climate change will have a significant influence on this, it is of great interest to investigate what the snow-reliability will be in the coming years.

The fact that the snow reliability will decrease and is already declining due to global warming has been confirmed in many studies. However, it is very complex to give an unequivocal answer to the question of how large this decrease will be.

During an interview with Dr. Robert Steiger, a professor in the field of snow reliability and its

influence on the Austrian economy, he stated that statements should always be made with great caution. Snow reliability depends on so many different factors that they all need to be addressed in order to make anything of a statement (Steiger, R., Personal Communication, August 31, 2022).

Hence, for this report, a specific example is used to show what the snow-reliability is expected to do in this particular case.

First of all, in this study conducted by Dr. Robert Steiger (Steiger, 2010) there only has been looked at a specific area: Tyrol. Tyrol is a state of Austria

in which winter sports are widely practiced. In this area, 3 ski areas have been selected, representing 3 different altitudes in ski areas. A low-, mid-, and high-altitude ski resort. The mean altitudes per ski area were used for the study. (see table 1)

In addition, two different greenhouse gas emission scenarios were taken into account during the study, in which scenario A is the most positive scenario.

To compare the years, it was decided to document the number of days with a snow depth of >30cm. The dashed line (see table 1) shows the 100-day season length benchmark. Anything below this line will notably negatively affect ski resorts.

Conclusion

As can be seen in Figure 4, climate change does not mean the end of white winters in the Alps. High-lying areas in particular, where a lot of snow has fallen in recent decades, seem to be able to offer snow-sure winters for quite some time. Without being able to draw conclusions too quickly, it seems that low ski areas or ski areas with unfavorable locations in terms of snowfall will have to deal with even less snow in the coming years. The amount of snow-reliable days seems to be decreasing exponentially, which means that when ski resorts start to notice the consequences, it only will get worse.

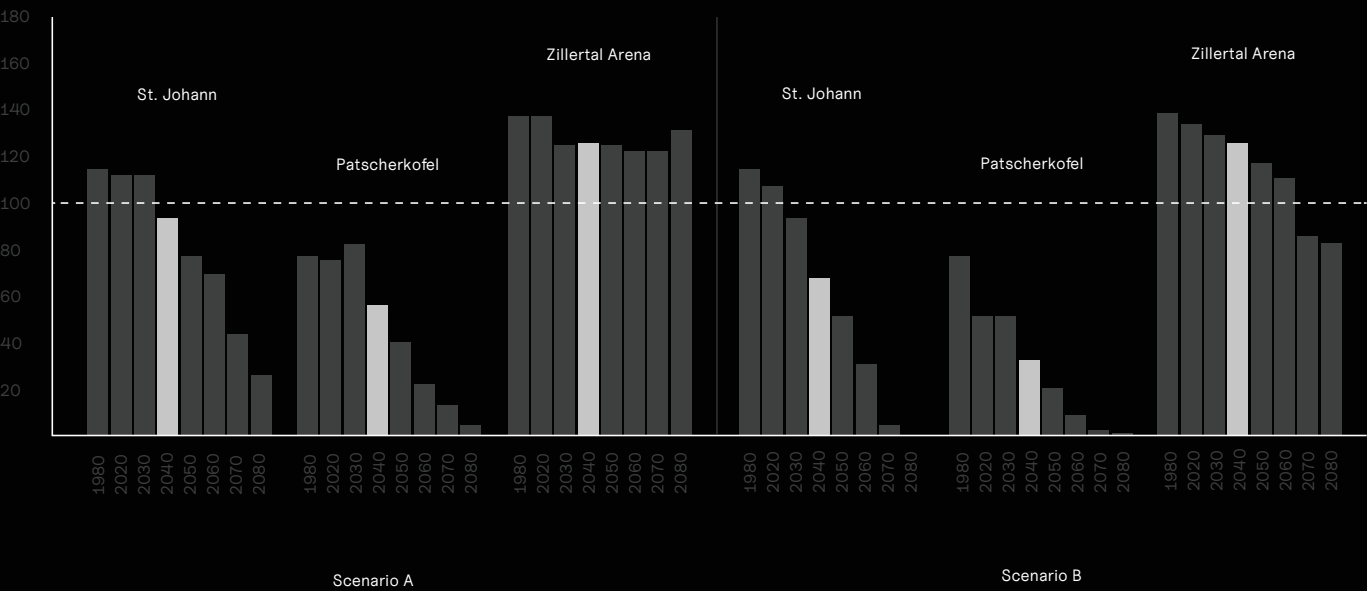


Figure 4 | Predicted snowfall in 3 areas (Steiger, 2010)

Ski Area	Elevation range (m)	Mean altitude of ski slopes (m)
St. Johann	668-1605	1100
Patscherkofel	903-2247	1500
Zillertal Arena	1259-2502	1900

Table 1 | Ski Areas and mean altitude (Steiger, 2010)

4.2 CONTEXT FACTORS

The next step in the process is collecting 'context factors'. These little pieces of information should be relevant to the context, set by the domain. Factors serve as building blocks of the future context which will be given shape in the later stages of ViP. A factor can be anything from a factual statistic, to a subjective belief of someone, although factors are not supposed to be influenced by the designer and should be free of their personal values (Hekkert & van Dijk, 2011). Factors fall under one of four categories: trends, development, states, and principles. Below is a brief explanation of each of them.

- Trend: a change in human behavior or society. Often a more qualitative piece of information.
- Development: a change concerning technology and society. Often a more quantitative piece of information.

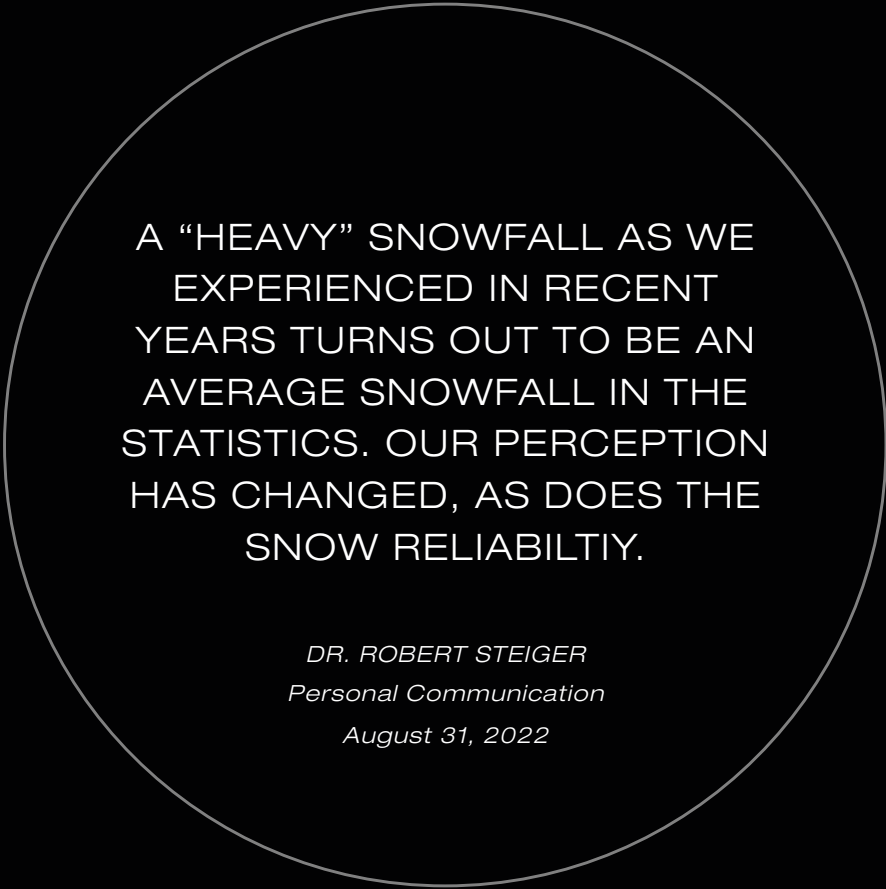
State: often has to do with culture, and can be considered stable. A state will still hold up in the future context.

Principle: something that will never change, like laws of nature. It can be assumed that a principle will always be relevant.

In addition, factors can be linked to eight different topics. These topics give the designer insight into how well their factors cover the topics a context is usually defined by. The topics, including the matrix that shows the factor coverage are collected in Table 2. As the factor matrix table shows, in total 117 factors were found. The full list can be found in Appendix 3.

	cultural	psychological	demographic	sociological	economic	ecological	technological	Freeride	
Developments	5	3	8	6	3	10	6	-	
Trends	5	7	3	3	8	2	13	-	
States	6	7	2	-	5	2	2	6	
Principles	1	2	-	2	-	-	-	-	
	17	19	13	11	16	14	21	6	117

Table 2 | Context Factors





## 4.3 CONTEXT STRUCTURE

Based on individual factors, it is difficult to understand how the world will thrive in the coming years. Individual factors can change, be misunderstood, or become irrelevant to the domain. That is why there has been looked at larger themes that will play an important role in the world of 2040. For this, separate factors are linked together to form a cluster. The clusters represent a range of factors that collectively indicate development or direction. Within the VIP method, these clusters are therefore referred to as Driving Forces (Hekkert & van Dijk, 2011). Each Force has a certain power, speed, and direction. Clustering is a

process in which not everything falls into place at once. That is why it is an iterative step that can be adjusted or refined throughout the process.

The 10 cluster themes for this project are listed on the left. Each cluster has a name and a short explanation describing the Driving Force.

Which factors together form which cluster can be seen in appendix 4.

### 1. RAISING RESPONSIBILITY

The future generation consumers start to act more conscious when problems become visual.

### 2. DOCTOR NATURE

The world will wake up to mental health problems, human-nature relationships will be a part of the solutions.

### 3. THE WORLD IS YOUR OYSTER

People will be able to travel faster, work stops being location bounded and everything will and needs to be possible.

### 4. SPREAD AND ADAPT

Outdoor sports are becoming more diverse, inclusive and connected.

### 5. TRIGGER AND CONVINCE

Too much information and too much choice lead towards a society with multiple truths and shorter attention thresholds.

### 6. BE PREPARED

Game and sport will be connected. Indoor activities in combination with technology help people prepare for outdoor activities.

### 7. GRAB IT WHEN YOU CAN

Snow seasons will be shorter and more unsure, resorts and sporters will have to act by the day.

### 8. SORRY FOR YOUR LOSS

Freeriding is part of a lifestyle, it's expensive to start and they are the first to stop due to lack of snow

### 9. LET IT GO

Ski resorts do everything they can to let people ski. Even if this causes nature or experience to suffer.

### 10. SEE AND BE SEEN

Fashion as a way to express yourself will remain popular. Choices will determine who you are.

4.4 FUTURE FRAMEWORK

The clusters with their driving forces as described above indicate a direction. Some clusters can therefore conflict and/or reinforce each other. In either case, this can lead to new opportunities or challenges. To bring these new movements together in the domain, future events are discussed in a narrative way, enhanced with accompanying visuals (Figure 5). These events lead to the world view in the next chapter.

Future Events

Snow reliability will become less and less in the coming years. In 2040, the snow seasons will have decreased by about 30-40 percent. And winter sports on real snow are only possible in high areas on much fewer days. High-altitude ski areas, therefore, do everything they can to make the season last as long as possible. Investing in snow cannons, slope preparation and snow preservation, therefore, plays an important role. Low-lying areas can no longer afford these measures and are focusing on activities that do not require snow. Due to the inconsistency of the snow quality, ski resorts decide to make their prices dependent on the day. This helps spread the number of people who want to use the slopes on good days. The growing consciousness about

environmentally friendly living raises question marks among ski enthusiasts. Ski shame, the high prices and artificial white/green mountains create a barrier for the new generation of winter sports enthusiasts. Established winter sports enthusiasts are also questioning the activity. Ski areas are trying to make their image more sustainable. Partly due to the high energy prices, there will be solar panels and electric ski lifts in the resorts. Due to the lack of a thick layer of snow, the local ecosystem also suffers. To protect this, rules have been drawn up on where and when you can go outside the ski areas. Where traditional piste skiing becomes more exclusive, outdoor sports become more diverse and inclusive. Special areas are also designated for this to protect nature. This broadens the winter outdoor landscape from the high and busy Alps to lower areas closer to the users. These areas capitalize on the benefits of exercising in nature. Mental health and stress relief play a big role in the future. Especially during the dark winter months, there is a need for mental relaxation. Exercising in nature can be a great solution to this. Sports holidays, wellness resorts and workations (combinations between vacation and work) are slowly becoming the new image of winters in 2040.



Figure 5 | Future Framework

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## 4.5 WINTERSPORTS IN 2040

A Future Narrative has been written to bring the upcoming developments to life, to make them more controversial and to start the dialogue. This does not scientifically state which developments will play a role but outlines the domain in 2040 in a narrative manner. This story as if it were an intro to a film is substantiated by a cinematic representation of the story (Figure 6).

### 4.5.1 STORY

It is quiet in the breakfast room. It is half past eight in the morning, but most people are already on their way out. Michael walks sleepily past the yogurt buffet. A good start to the day. He looks outside during his cup of coffee. The sun shines. Good news. It would stay dry all day.

Unfortunately, he has a meeting with the marketing department first this morning. Otherwise, he would have already left. A group of mountain bikers quickly check their tire pressure before they start their first descent. They are Germans. He came across them yesterday while out for a hike. Nice guys, but he won't disturb them.

He settled on the bench by the deck. It is now his favorite spot. Nice and quiet by the pool, with a good view of all departing sporters. When he starts his meeting, he sees a group of free-riders getting ready to take the ski lift. From a distance, the slopes seem to be well-covered. Smart that they leave early. The snow will be too soft this afternoon. Tomorrow he will also get up a little earlier and make a few descents.

This afternoon he will boulder at the reservoir, and then a relaxing afternoon in the swimming pool. The hike home always makes him ice cold. But that makes the dive in the afternoon extra delightful. Hey, I'm already on hold. Good morning everyone, I'm joining online this week...





Figure 6 | Worldview



4.6 FUTURE SCENARIOS

The plausible worldview in 2040 just outlined here is no guarantee for how the future will turn out. For this reason, it is called a “plausible” worldview. On the basis of the Futures Cone, we broaden this worldview with a Preferable and a Possible worldview. Despite the fact that this project is based on the most plausible scenario, it is good to take multiple scenarios into account as Open Wear. People’s actions are not always predictable and certainly, the phenomenon of ski shame can play an important factor in the future of winter sports. In an ideal scenario (Preferable), ski shame does not become an issue at all. When winter sports areas make important choices in the field of sustainability and the local flora and fauna, the need to stop the intensive use of slopes is much smaller. As a result, the prices will still rise, but this mainly results in a decrease in one-week holiday tourists. As a result, the amount of winter sports enthusiasts can be better distributed over the shortening of the season, and relatively little will change for winter sports enthusiasts over the next 20 years.

However, the hope that winter sports areas will actually do/can do enough is not the most realistic. Choices will mainly be made economically. To be able to make enough turnover, ski areas will at all costs keep as many slopes open as possible

with the help of artificial snow and even more connecting high-altitude ski areas.

It could therefore also be possible that ski shame is increasing much faster than thought. When society and media “hype” in a negative way how bad the current way of winter sports is, it is possible that people with a green heart decide to stop winter sports. As a result, the ski areas receive such a financial blow that they do not have the time and resources to turn winter sports into a sustainable alternative. Moreover, the image has already been ruined, and motivating people to go back to winter sports will be extremely difficult.

However, just like with flight shame, the developments in ski shame is expected to go a bit more smoothly. Winter sports are so stuck in people’s system that it needs time to really wear out. In addition, people are inclined to look for alternatives, which low-lying ski areas are necessarily already working on.

Therefore, the presented worldview is the most plausible and is taken as the starting point for the further design process.



PLAUSIBLE



PREFERABLE



POSSIBLE







# CHAPTER 5

## FUTURE VISION



### FUTURE VISION

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5 FUTURE VISION

To move from a plausible worldview to a new vision, there has been looked at how Open Wear should relate to the world. A positioning that has been made in the form of a design statement. Since the aim of this project is to create a vision for the year 2040, a concept product has been

designed to illustrate how this vision can be put into practice. An interaction analogy was used to move from a vision to a design. By using this analogy, product quantities can be parsed that apply to the new design.



2040

OPEN WEAR WANTS  
TO STIMULATE  
ENVIRONMENTALLY  
CONSCIOUS PEOPLE TO  
MODERATE THEIR SKI  
BEHAVIOUR AND TO KEEP  
ENJOYING THEIR OUTDOOR  
ESCAPES

*DESIGN STATEMENT*

## 5.1 DESIGN STATEMENT

In a world where winter sports have become part of outdoor holidays and workations, where the focus is on physical health, mental health and escaping the daily chaos, Open Wear wants to make it possible to enjoy all the beautiful things nature has to offer in the most sustainable way. Where possible in the snow, but also outside in the rain, wind and rough cold winter mountains. Although the intensive way winter sports are done now (full weeks on the slo-

pes) is still possible in various places in the future, this does not seem to be the most sustainable way. Therefore, the Design Statement for this project is as follows:

Open Wear wants to stimulate environmentally conscious people to moderate their ski behavior and to keep enjoying their outdoor escapes.



## 5.2 INTERACTION ANALOGY

Elaborating on the design statement, it is important to avoid the feeling of obligation. The feeling that we "have to". That's not our choice. That something is taken from us. This feeling increases the chance that people will be offended. Instead, the goal is to encourage people to "cut down a bit". To give people the feeling that they are in charge of their own choices and in this way decide to consciously do winter sports.

To make this feeling more tangible and to dissect it into something that is actually usable during design, an interaction analogy has been made. In this analogy an interaction has been chosen that should symbolize the feeling that we want to achieve with the final design.

In this case, the situation was chosen when someone helps his/her friend move. A move (in this scenario) is a conscious, personal choice towards a better life. However, that does not mean that moving is easy. Leaving behind a house and per-

sonal belongings with so many memories can be an emotional moment. Someone who helps you with this transaction and therefore guides you in a specific way.

"The interaction should feel like helping a friend pack stuff to move"

- Supportive
- Future-oriented
- Decisive
- Motivating
- Understanding
- Convincingly
- Positive

The product qualities that describe this interaction are listed above. These qualities (or part of them) are used during design to find the right "tone of voice" for the design.



THE INTERACTION SHOULD  
FEEL LIKE HELPING A  
FRIEND PACK STUFF TO  
MOVE

INTERACTION ANALOGY

## PAY PER USE

CONCEPT 1

## MULTI-SPORTS

CONCEPT 2

## THE SABBATH

CONCEPT 3

### 5.3 CONCEPT DIRECTIONS

A brainstorm was done to see in which ways the design goal could be achieved. During the brainstorming session, the focus was on the design goal itself, the interaction qualities, the company and the domain. Three concept directions were extracted from this brainstorming session. Three

different ways in which the design goal would be answered. Each concept direction does not indicate one concept, but a direction in which the solution should be located.

The three concept directions are explained below.

## Concept 1

# Pay Per Use

Makes it possible to own more clothing

Stimulate to do more different sports

Future orientated  
Understanding



Figure 7 | Concept Direction 1

### 5.3.1 CONCEPT DIRECTION 1

The first concept direction indicates a new way of making money. By moving away from the normal "pay for a product" principle, a lot of opportunities arise to stimulate "to cut down a bit". For example, by switching to a Pay-per-use model, where the customer only pays for the product when it is actually used (when it is taken out of the closet or bag), it is easier to switch between the outfits you want to wear every day (Figure 7). It makes it easier to own more different types of clothing without feeling like you have to use it often to make it profitable. In this way, Open Wear stands next to the customer in an "understanding" way and facilitates a complete wardrobe without having to pay the costs.



### 5.3.2 CONCEPT DIRECTION 2

The second concept direction indicates a new way of making clothing. Instead of designing sport-specific products, Open Wear can make products that are designed for use in a variety of sports (Figure 8). In this way, the user is always ready to switch between sports and try out new activities without the need of purchasing new garments. In this way, Open Wear supports the customer to step out of their niche in a "positive" and rather "decisive" way.

## Concept 2 Multi-Sports

Layering system to  
encourage multiple sports

Always ready to change  
activity

Supportive  
Decisive



Figure 8 | Concept Direction 2

Timon van Middendorp 4545885



## Concept 3

# The Sabbath

Make the obvious  
connection

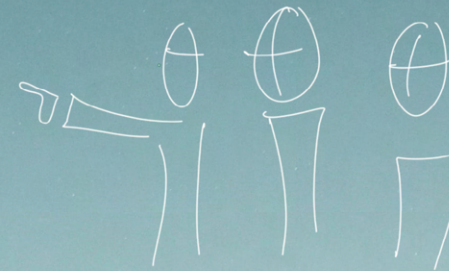
1 Day for the mountain

Decisive  
Motivating

create  
Awareness

Marketing  
Tool

UNESCO event



Celebrate To  
Moderate

Figure 9 | Concept Direction 3

### 5.3.3 CONCEPT DIRECTION 3

The last concept direction indicates a new way of marketing. By creating more awareness about the environmental impact of the "intensive" way, in which winter sports are using the mountains, people will start to "moderate" their behavior because of their personal compassion. To make the obvious connection between the use of - and its impact on the mountains, by organizing a collective "sabbath" event (Figure 9), a day when nobody uses the mountain, Open Wear can raise awareness for the problem.



5.4 CONCEPT DIRECTION CHOICE

There has been chosen to continue with the second concept direction: Multi-sports clothing (Figure 10).

During the brainstorming with ideas about what role the community can play in these concepts, I came across an interesting issue, that I expect to add value to Open Wear.

As a relatively small and starting clothing brand, Open Wear will be releasing new clothing items in the coming years. Their capacity to delve into a completely new revenue model, or source of income, is currently not large enough to initiate the desired change in the coming years. Therefore, the ability to Stimulate Moderation through their current business model is an effective solution.

The question must then be asked, how we can best stimulate the new winter sports behavior by means of this multi-sport clothing? The brand

analysis has shown that Open Wear needs to strengthen even more in its collaboration with the community. Fighting fast fashion by only making stuff that the community asks for is a unique selling point that needs to be preserved and highlighted.

This creates a field of tension that seems very interesting to me and where interaction design can offer a solution (Figure 11).

How can Open Wear develop products to guide people in the right direction while the community has to feel in charge of the products to develop? How do "Stimulate to moderate" and "Community in the lead" go together in future product developments? As a result, it will not be a fashion project, but an interaction design project in which the solution answers how this dilemma can be solved.

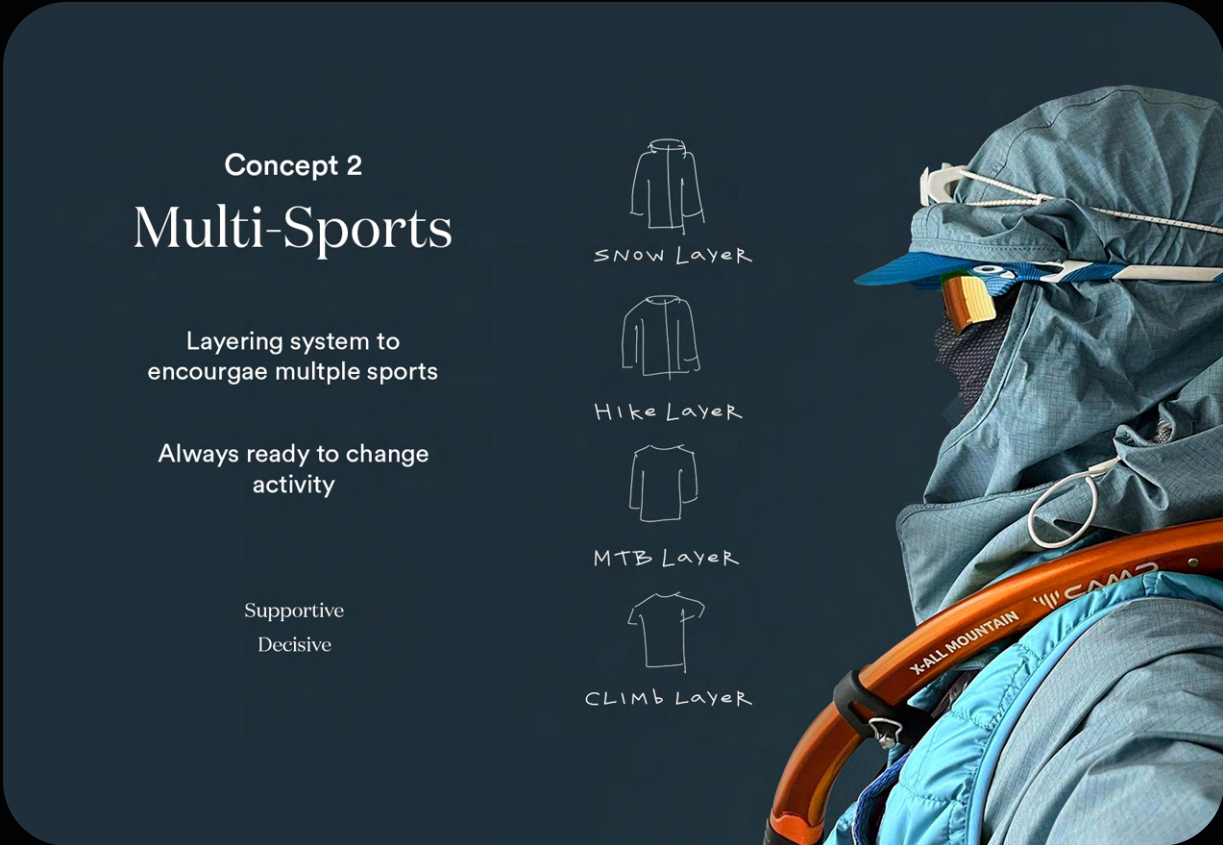


Figure 10 | Concept Direction 2

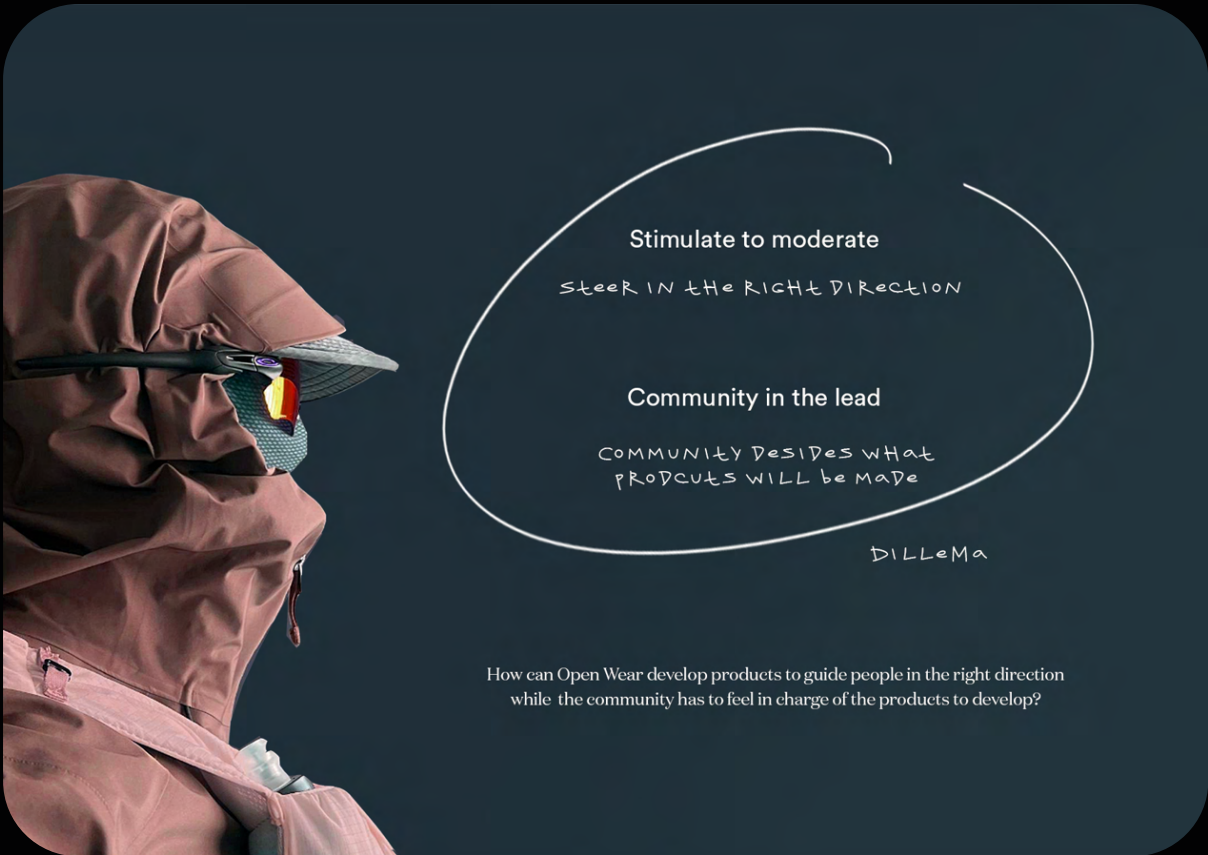


Figure 11 | Concept Dilemma

Timon van Middendorp 4545885







## CHAPTER 6

# EXPLORATIVE PROTOTYPING



### EXPLORATIVE PROTOTYPING

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6.1 EXPLORATIVE PROTOTYPING

Since the searching area is still divided into two parts (Figure 12) including both parts simultaneously in one design process is a complex challenge. To avoid room for failure and missed opportunities, each part will be explored in different cycle. Per cycle, a prototyping goal is set. This goal describes what part of the interaction vision is explored. The two cycles are related, but they both have their own prototyping goal each

exploring different aspects. The end result of the design process will be created by combining the information gathered from each iteration of prototyping. The process will involve exploring different ideas and narrowing them down to the best one. The final prototype does not have to be in a specific format, it can be anything that effectively communicates the intended design to Open Wear.

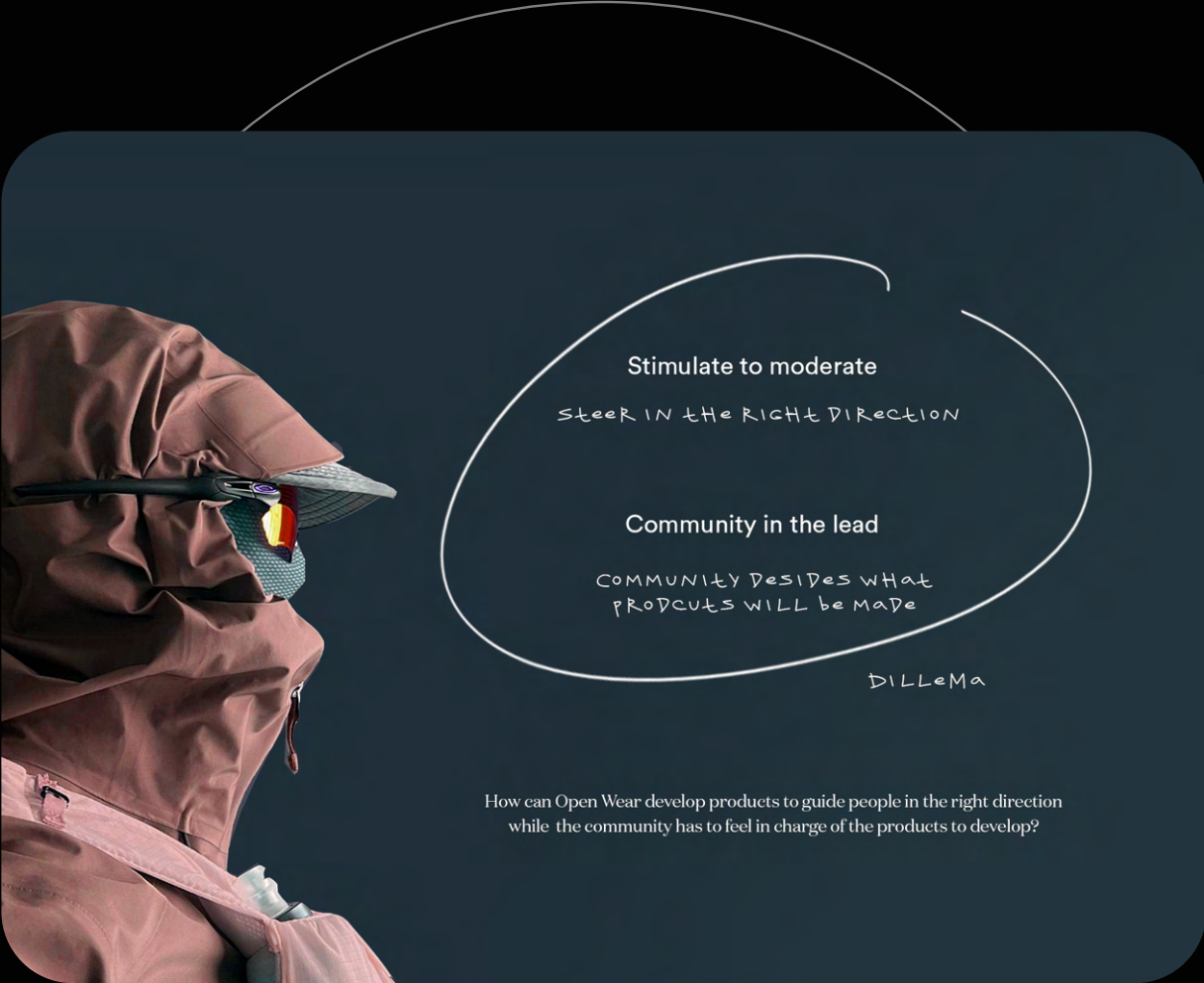


Figure 12 | Concept Dilemma

Timon van Middendorp 4545885



# 6.2 PROTOTYPE 1

## 6.2.1 GOAL

To get the community in the lead of the design process.

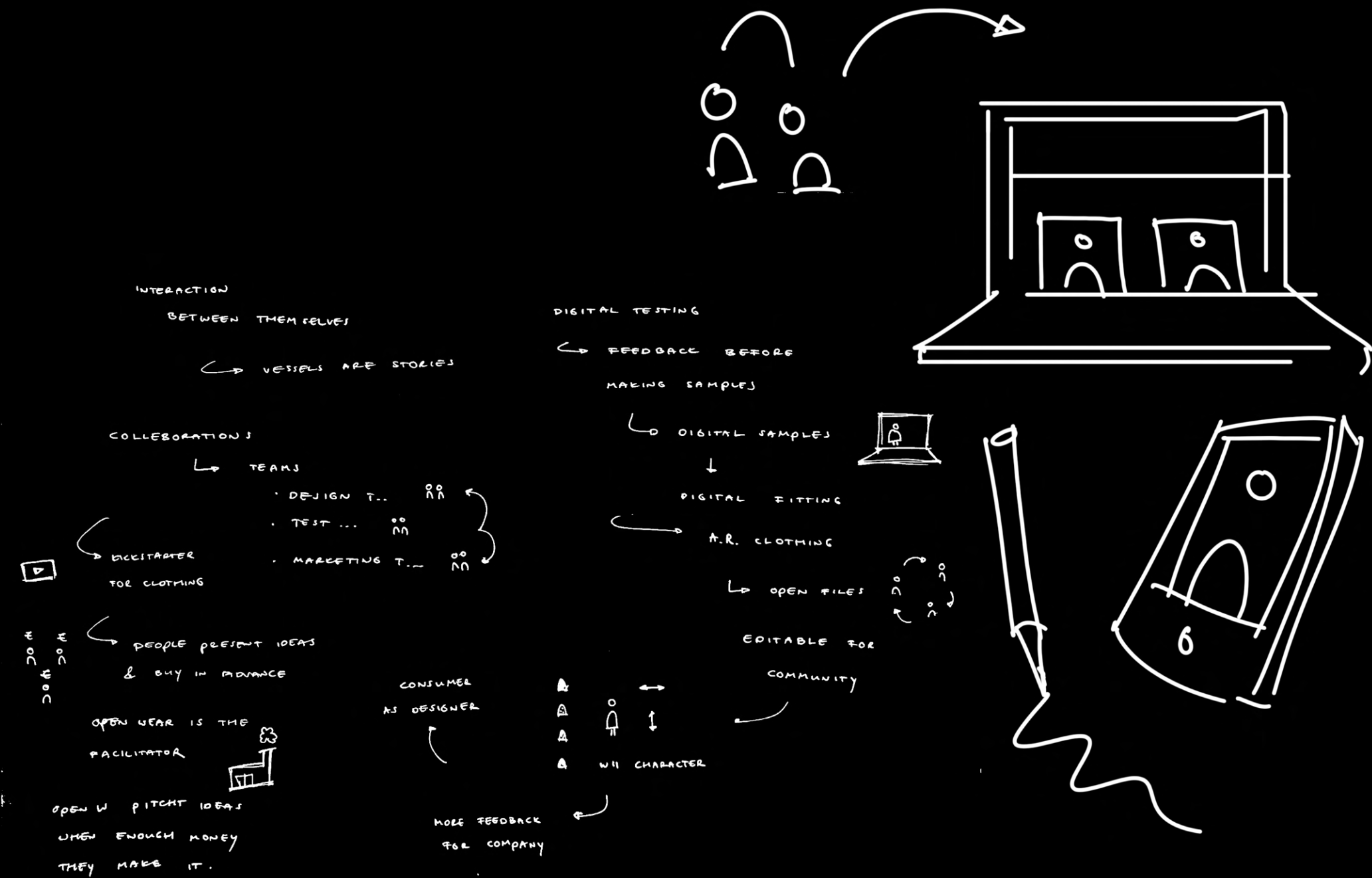
## 6.2.2 IDEATION

The ideation was focussed on how to create an involved community and how this community can be in the lead of the design process.

## 6.2.3 CONCEPTUALIZATION

The designed concept is an extension of the current community page on the Open Wear website. Currently, this page is used for sharing stories and updates from within the company. Community members can like and comment on these stories. However, this interaction is very minimal. Stories get few responses and community members can't connect with each other.

In the designed concept, this community page will become a platform to engage people in the design process (Figure 13). In addition to the fact that members can also share their own content and people can respond to each other, it is also possible to contribute ideas or concepts yourself. Because people can react and iterate on each other, designs are created that can ultimately be added to the Open Wear product portfolio. 3D Fashion Design technologies make it easy for members to design new clothing items themselves (Figure 14). New techniques such as AR fitting make it possible to fit and improve these concepts.



PLATFORM TO ENGAGE PEOPLE  
IN THE DESIGN PROCESS

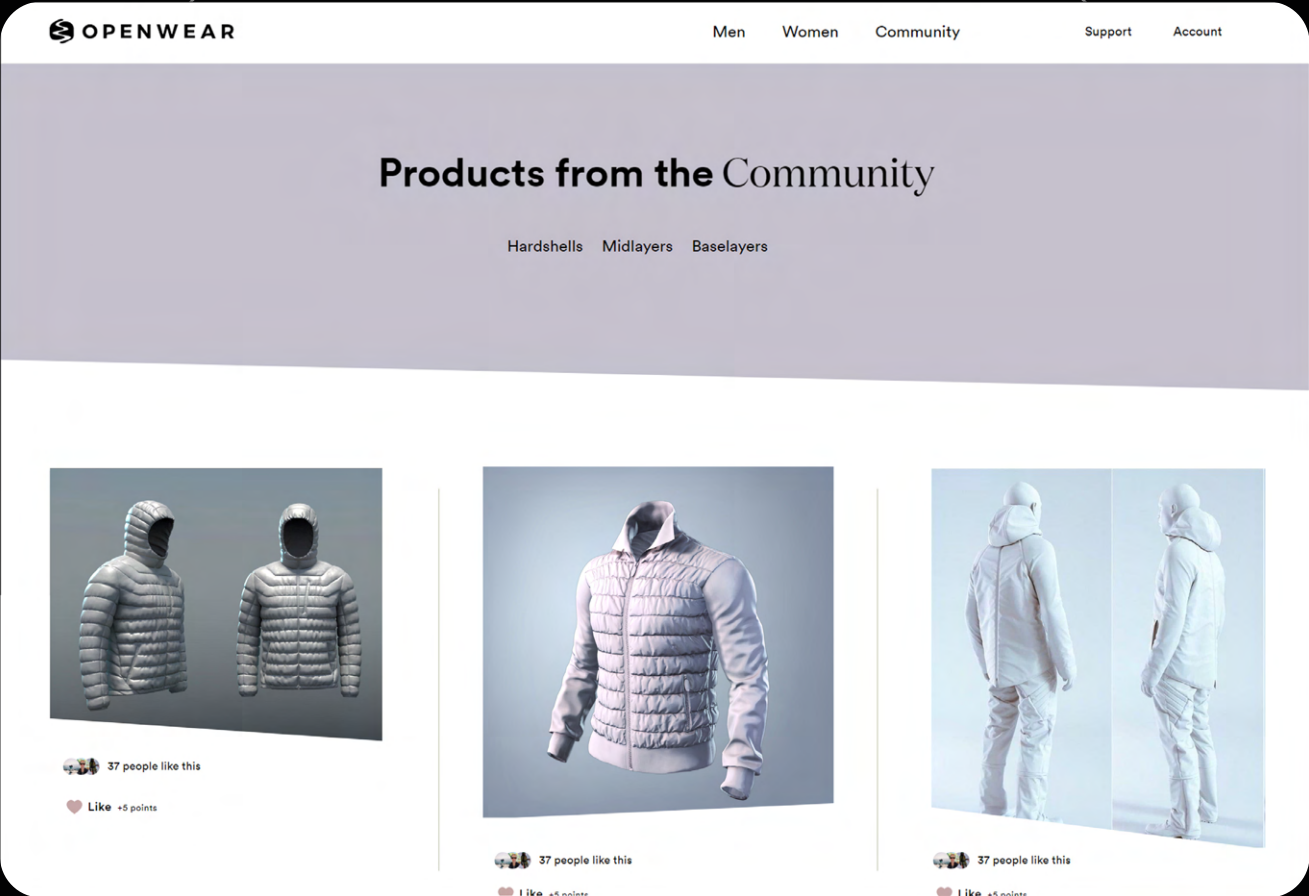


Figure 13 | Community Platform

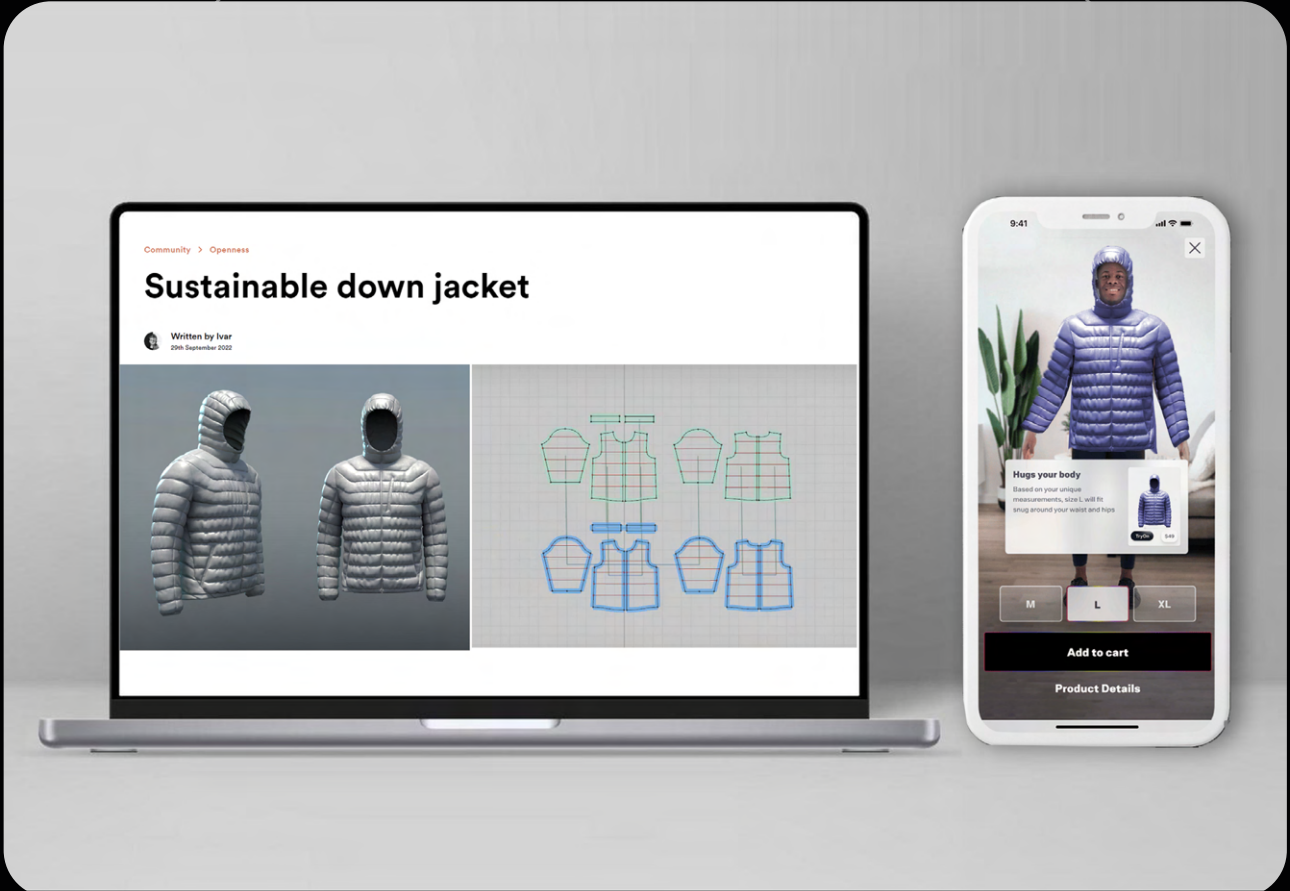


Figure 14 | Design Tool

PEOPLE CAN CREATE THEIR OWN CONCEPTS  
TO SHARE WITH THE COMMUNITY

## 6.3 PROTOTYPE 2

### 6.3.1 GOAL

To stimulate a moderate ski behaviour by designing multi-sports clothing

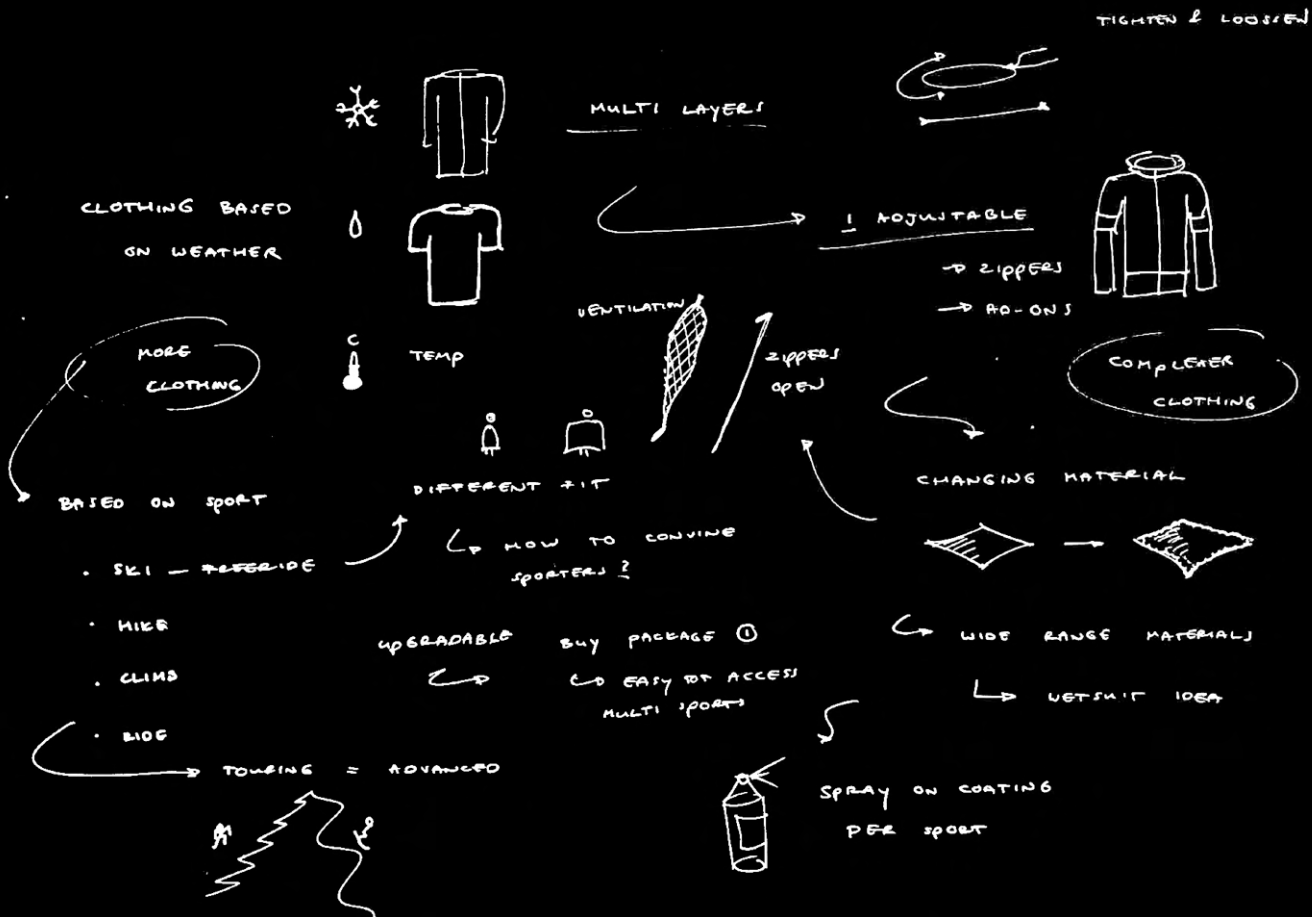
### 6.3.2 IDEATION

The ideation was focussed on how to design clothing that suits all outdoor sports and how it stimulates to a moderate ski behaviour.

### 6.2.3 CONCEPTULISATION

Prototype 2 offers a solution to the multi-sports clothing concept. By expanding the layering system that is currently already used by many free-riders, clothing can be designed for any weather condition (Figure 15). Since outdoor sports are becoming more and more diverse, it has been decided to base the clothing on weather conditions. By giving each layer a function (such as keeping out water and/or snow) and making this layer adjustable for freedom of movement or temperature regulation, the consumer can personally choose which layers he or she wants to use for each sport.

Some sports require sport-specific features on the clothing (such as an avalanche whistle for freeriding or Kevlar reinforcements for rock climbing)(Figure 16). During the design process, it must be carefully considered how these features can be added, without making the design overly complex.





LAYERING SYSTEM BASED ON WEATHER  
CONDITIONS INSTEAD OF ACTIVITY

**Condition Based Layers** Customizable layers for specific use



Figure 15 | Condition Based Layers

**Condition Based Layers**

Visible multi-sports features



Figure 16 | Visible features

SPORT SPECIFIC FEATURES TO KEEP  
THE FUNCTIONALITY

## 6.4 CONCLUSION

To find out which facets of the prototypes are successful and which ones cause problems, the prototypes were presented to free-riders. During a conversation, the most important plus and minus points emerged. The findings of this test form the principles of a new concept (see chapter 7).

### 6.4.1 PROTOTYPE 1

The first prototype was very popular, but it did raise some questions. Is the customer able to design these things themselves? What skills are required for this? The freeriders indicated that it is often easier to give feedback afterward than to come up with something from scratch. In addition, the functional fit cannot be tested. The fact that

you can contribute ideas during the design phase is greatly appreciated. After years of using products, they have a lot of knowledge about what works and what doesn't. "Even if designing yourself would not work, giving feedback and voting on concepts is very cool."

### 6.4.2 PROTOTYPE 2

The second prototype mainly raised questions. The idea of basing layers on conditions rather than sports seems to be a good choice. Especially with the increasingly diverse outdoor world. However, specific sports require specific features. This makes the clothing increasingly complex. In addition, adding different layers of clothing is not immediately obvious to everyone. Communication becomes very important. There are still people

who don't understand how a 3L system works. Let alone that there are even more layers that are individually customizable. This design leads to a lot of designer choices, but when done right can be ideal for sports. The free-riders indicate that they already own items of clothing that they use for many things. With a good rainproof layer and different layers of warmth, you are already a long way.







# CHAPTER 7

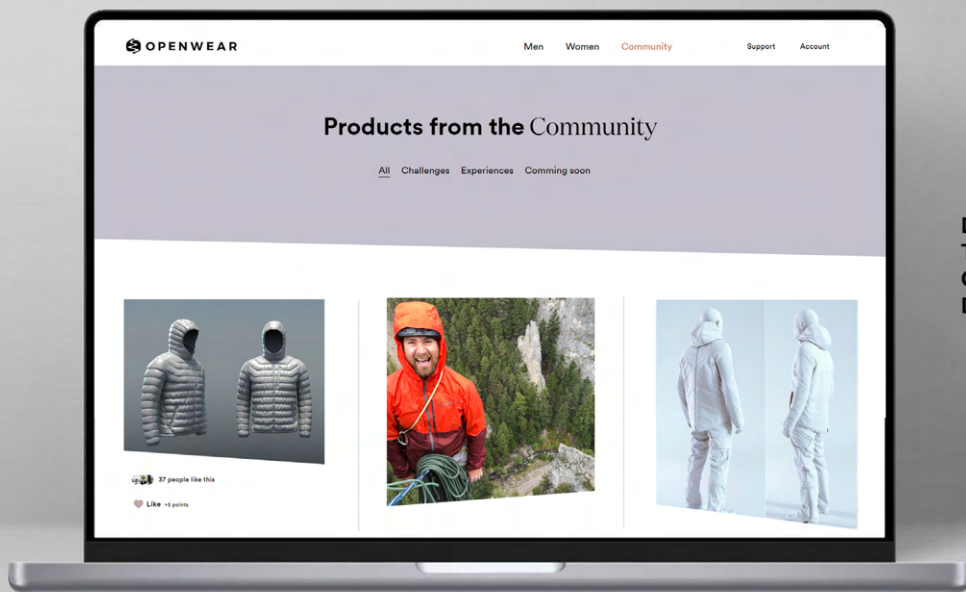
# CONCEPT



## CONCEPT

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DIGITAL PLATFORM  
TO ENGAGE  
COMMUNITY IN  
DESIGN PROCESS

Figure 17 | Digital Platform



Figure 18 | Design Challenge

## 7 CONCEPT

### Digital Platform

The concept designed from the insights of the past test is a digital platform that is used to engage a community in the design process (Figure 17). It allows members of the community to participate in the design process, provide feedback and ideas, and collaborate with design teams to create a product that meets their needs and expectations.

It should be user-friendly and accessible, and allow members of the community to easily share their ideas and collaborate.

The use of a digital platform to engage a community in the design process has several benefits. It allows Open Wear to gather a wide range of perspectives and ideas from the community, which can help to inform the design of the product. It also allows the community to feel invested in the design process and to see the product as something that has been co-created with them.

### Challenges

Design challenges are created by presenting the community with specific challenges or problems that need to be solved (Figure 18). This allows Open Wear to steer the community in a particular direction, such as multi-sport clothing, and to focus their ideas and feedback on a specific problem or opportunity.

To create a design challenge, Open Wear identifies a specific problem or opportunity that needs to be addressed. This could be a technical challenge, such as developing a new type of garment, or a user-centered challenge, such as improving the usability of a product (Figure 19).

Once the design challenge has been identified, Open Wear presents it to the community and invites them to submit ideas and solutions. This may involve creating a contest or competition, where

members of the community can submit their ideas and compete for prizes or recognition.

It is possible to reward winners or involved community members with a sample product. This product does not have to be paid for and is used to collect functional and detailed feedback (Figure 20).

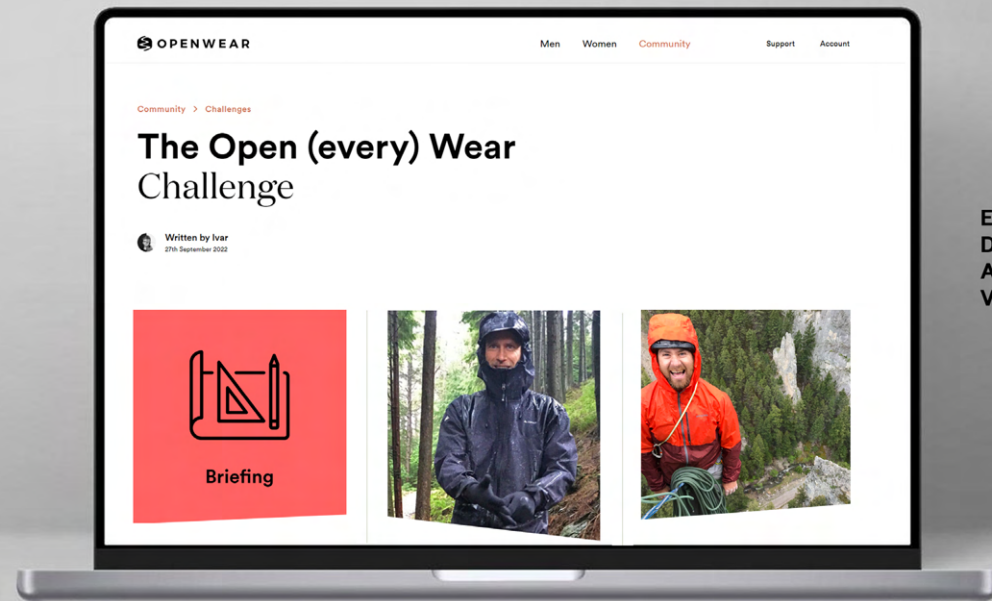
### User Roles

Since designing new products is not for everyone and the step to participate in the community should be as low as possible, the challenges do not only consist of design assignments. Community members can be called upon in various ways to share knowledge, experiences and their opinions (Figure 21). In this way, everyone can contribute to the final products. The involvement of members can therefore take place in many different ways. This can be from liking ideas or choosing the best concept to submitting a completely new piece of clothing.

### Design Tool

The platform features a built-in design tool that allows people to easily create, edit and drape their designs on a digital model, and also export to 2D patterns (Figure 22). These tools can help users quickly and easily create concept designs, and make changes and adjustments as needed, without the need for physical samples or prototypes.





EXPIERENCES ON  
DIFFERENT SPORTS  
AND CLOTHING ARE  
VALUED

Figure 19 | Experiences

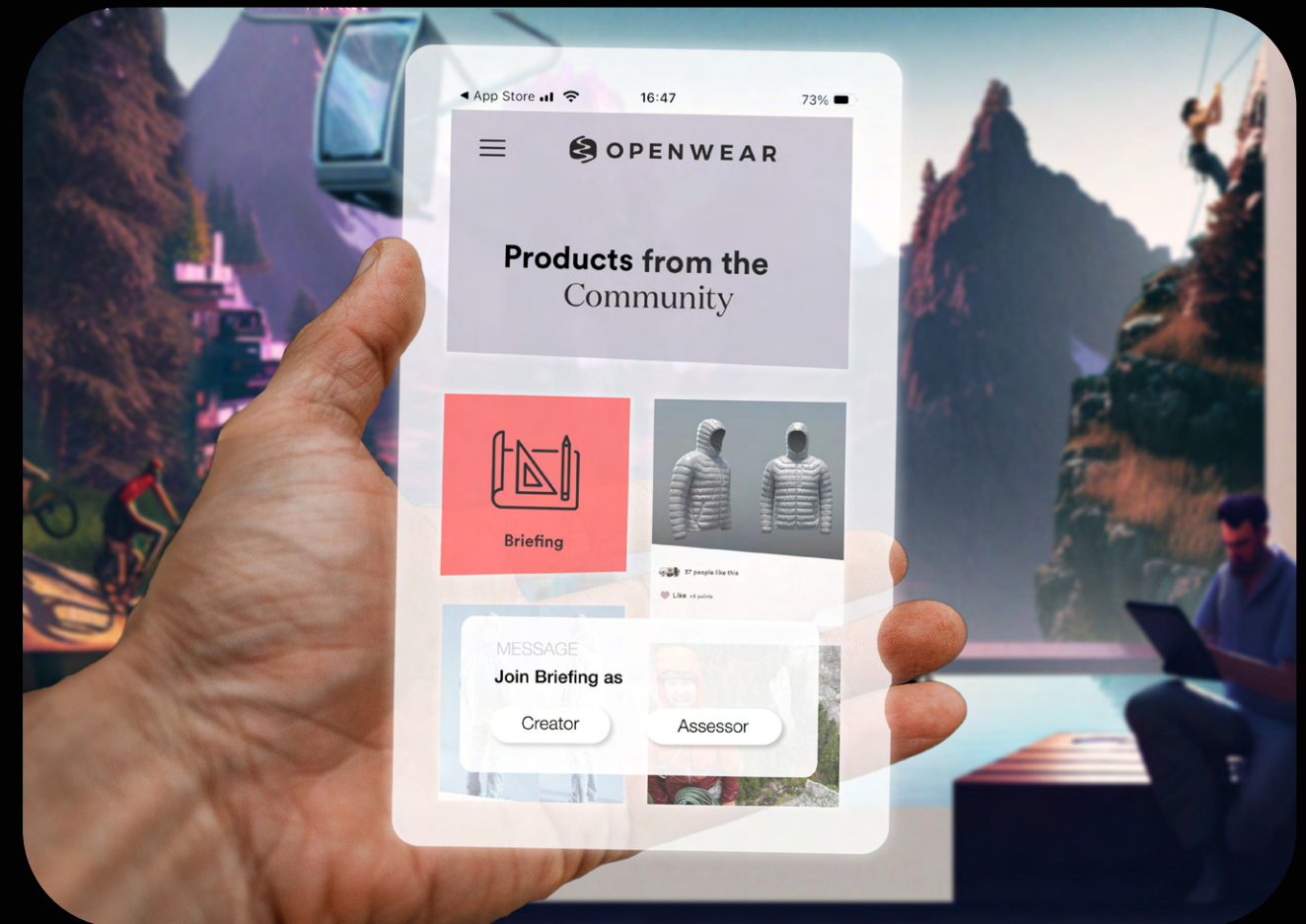
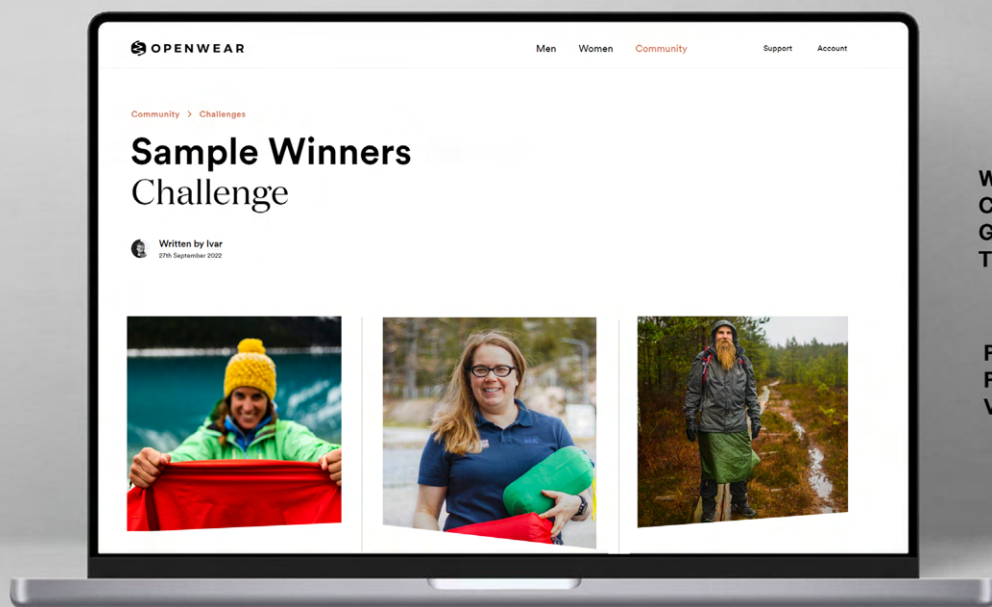


Figure 20 | Creator/Assessor



WINNING  
CONCEPTS/IDEAS  
GET SAMPLES TO  
TEST

PEOPLE CAN BUY  
PRODUCTS THEY  
VOTED FOR

Figure 20 | Sample Winners



Figure 22 | Design Tool



7.1 VALIDATING THE CONCEPT

Feasibility, desirability, and viability are three important criteria that are often used to evaluate the potential success of a product or project.

Feasibility refers to the ability of a product or project to be completed successfully, given the available resources, technology, and expertise. To discuss the feasibility of the concept, a meeting was held with a Fashion Designer. B. van Drenth is a specialist in the field of fashion and the design of outdoor clothing.

Desirability refers to the level of interest and appeals that a product or project has to the target market. A product or project is considered desirable if it meets the needs and expectations of the target market and is likely to be well-received. To find out if this is the case with this concept, a test was done with 5 male and 1 female free-rider with a focus on the desirability of the concept.

Viability refers to the potential for a product or project to be profitable and financially sustainable. Since the concept is a recommendation for the year 2040 and there are no major adjustments in terms of the business model, a roadmap has been made to show how this concept can be realized and at which moments focus is needed. This is to support the long-term success of the concept.

The insights of these three criteria form the basis of the final design (Chapter 8).



7.1.1 FEASABILITY | FASHION DESIGNER

While discussing the feasibility of the concept with fashion designer B. van Drenth, a number of new insights were gained regarding the design. These insights are listed below and divided into themes: Community design and multi-sports clothing.

Community Design

B. van Drenth compares the community-first design with a collaborative process to athletes which is more often done in the sportswear industry. In this, the athlete is an experienced expert and has an enormous amount of knowledge regarding the functionality of the design. This often involves small details that are extremely important in sportswear. In addition, she indicates that a community can be of great importance in seeing where problems and wishes lie with the target group. It is dangerous when a fashion designer does not interact with the people who will use it.

“Fashion design normally always starts with a major investigation into the desired result. A way to bundle feedback and work into useful information in a streamlined way would be extremely valuable.”

The concept of actually having the community design with the help of 3D programs also seems feasible. These techniques are becoming increasingly popular in the fashion industry and fewer physical samples are already being made by being able to make a pre-selection using these techniques. However, designing outdoor clothing is very technical and details play a major role. Details and fit are difficult to extract from such 3D models

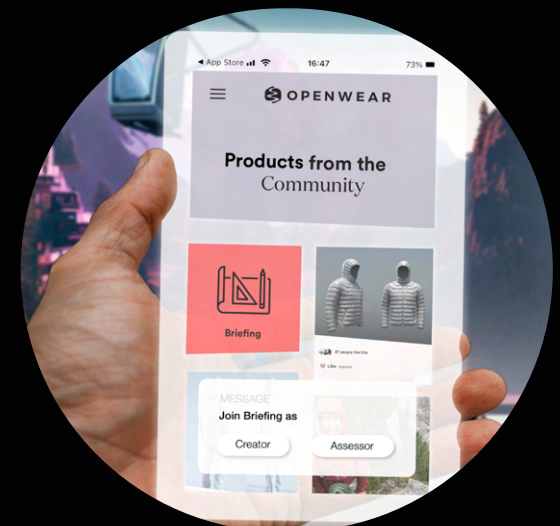
when they can only be digitally fitted. Guaranteeing a brand identity and style in clothing also raises questions for the fashion designer. If everyone supplies their own designs, this can be at the expense of the brand identity. It is often easy to see which designer has designed clothing. This strengthens the brand.

Multi-sport

B. van Drenth is very optimistic about the desirability of a multi-sport clothing line. “It seems to be a trend to have your wardrobe as empty as possible”. Clothing for very specific moments or activities is becoming less popular, but the feasibility of this is a challenge. The fashion designer certainly believes it is possible but indicates that it has been tried before and that concessions often go wrong. Clothing, especially in the outdoor industry, should not become a compromise. The functionality must be at least as good as an alternative in every area. That is why the focus should perhaps be on just a few sports at the start, or there should be looked at sports whose clothing properties overlap reasonably well.







### 7.1.2 DESIRABILITY | FUTURE CONTEXT

To find out whether the concept is desirable for the future target group, a test was done with 5 male and 1 female free-rider. To allow the target group to move into the future, the Design Fiction method (Grand, 2010) was used.

Design fiction is a method of testing the desirability of a product or concept by creating a fictional scenario that represents how the product might be used in the future. This allows to evaluate the potential appeal and value of the product and to identify any potential challenges or issues that may arise.

This future scenario consisted of telling the worldview and going through a "future purchase process" of clothing using AR technology and your own avatar (see appendix 7). Although these techniques already exist, it is no guarantee that buying clothes will actually be like this in the future, but it helps the user to get into a different mindset. The one of the year 2040.

During this scenario, the user is introduced to the concept. During an evaluation interview with the

participants, it was examined whether and in what way the concept is desirable.

The main insights from this are that involvement within the design process is highly sought after, but that the threshold to contribute to this should be as low as possible. Giving feedback and ideas should be super easy. Preferably yourself when you are experiencing problems in practice. An hour on your phone to draw a design is for some people, but a lot of people won't start this. However, many free-riders would rather be a creator than an assessor. If a sketch, a photo, or a few words to share an idea would suffice, it would make the threshold a lot lower. It is also good to realize that there are a lot of different types of people. It's not whether you're a creator and like making stuff or you want to get involved by posting photos of yourself. It is precisely the activities between them, where you can use your own experience to improve a product, that users see as an appealing feature.

7.1.3 VIABILITY | ROADMAP

A roadmap is a visual tool that is used to illustrate the viability of a concept by outlining the key milestones, goals, and actions that need to be completed in order to bring the concept to market (Simonse, 2018). A roadmap typically includes a timeline that shows when each milestone or goal is expected to be completed, and may include details about the resources, team members, and other factors that are needed to achieve these goals.

The community plays an extremely important role in terms of the viability of the concept. Creating an engaged group of people who are enthusiastic and want to invest time in your brand requires a good approach. That is why the main focus of the roadmap is to indicate that investments must be made in the community as soon as possible. Since the interaction with the community is now mainly vertical (Open Wear - Readers), it is not clear how big the involvement is already. To strengthen this involvement, it is important to start by eliciting a response from the community. By having a platform in 2025 where people can easily indicate

their preferences in terms of new clothing and share their own experiences with similar products, horizontal (members-members) contact will also be created. In this way, Open Wear can expand its product portfolio (multiple layers) in a way that the community feels more involved (Figure 23).

When in the following years, community members also get a platform to share ideas, to which other members can provide feedback, a dynamic group of people that feel really part of the brand and slowly become part of the design process is created.

When it is time in 2040 to design a new type of line, multi-sports clothing, Open Wear has an enthusiastic group of people who come up with initiatives and concepts themselves. A source of knowledge and inspiration for designing complex outdoor clothing.

	HORIZON 2025	HORIZON 2030	HORIZON 2040
USER ROL	As decision-maker	As Feedback bringers	As creators
ACTIVITY	Sharing Experiences	Sharing Ideas	Sharing Concepts
INTERACTION	Comment on each other	Eleborate on eachother	Creating new Challenges
CLOTHING	Multiple Layers	Multiple Sports	Multi-sports
WHAT IS NEEDED	Community Platform	Ambassadors	Creating Tool
FOCUS	Get People on the Platform	Activate users	Encourage Initiatives

Figure 23 | Roadmap







## CHAPTER 8

# FINAL DESIGN



## FINAL DESIGN

8. Final Design

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# 8 FINAL DESIGN

Open Wear wants to stimulate environmentally conscious people to moderate their ski behavior and to keep enjoying their outdoor escapes. They can do this by making multi-sport vacations more accessible. By designing clothing that is created around conditions instead of sports, it becomes easier for the consumer to switch between sports. To switch from winter clothing to multi-sport clothing, the Open Wear community is used. Open Wear is a community-led brand that only makes products that the community needs. How can Open Wear develop products to guide people in the right direction while the community has to feel in charge of the products to develop?"

I introduce you to Open Wear's new community platform, a digital platform for collaboratively creating future-proof products. As the platform and the role of the user evolves over time to achieve the desired result, the concept is explained on the basis of three horizons: 2025, 2030, and 2040 as an endpoint.



# 2025

In 2025, the year of the platform's release, the focus should be on acquiring and retaining users. This can be achieved by first targeting the current community and expanding it by offering valuable and relevant content, and providing a seamless user experience. Additionally, it's important to actively listen to and address the needs and feedback of the community to ensure they feel valued and continue to use the platform.

## User Rol | As decision-maker

The role of the user evolves over time. In the early stages, users may simply be consumers of content or services, but as they become more familiar with and invested in the community, they may begin to contribute their own content, provide feedback, and even help to shape the direction of the community.

In this first stage of the community, the user is invited to share their opinions and make decisions in order to become an active participant in the design process. This approach values the user's input and ensures that the final product meets their needs and preferences.

## Activity | Sharing Experiences

One of the main benefits of sharing experiences in a community is that it can provide inspiration for others. When someone shares a story about adventures or achieving a goal, it can give others the motivation and encouragement they need to do the same. It can be interesting to read and become a reason to be more active on the platform.

## Interaction | Comment on each other

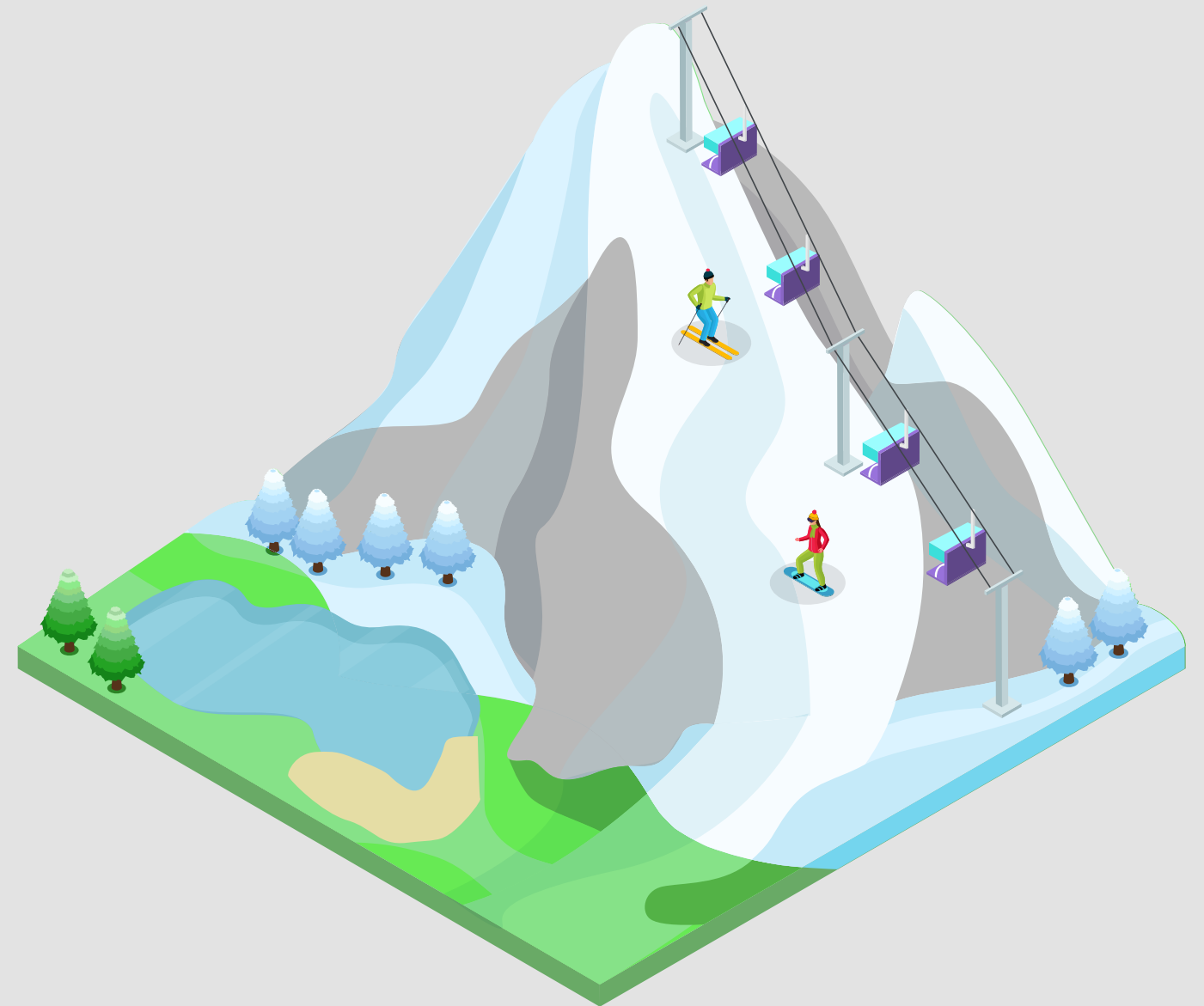
Another important aspect of sharing experiences in a community is that it helps to foster a sense of connection. When people share their stories, they open up a dialogue and create opportunities for others to relate and connect with them. This can lead to stronger relationships and a greater sense of belonging within the community.

## Clothing | Multiple Layers

In terms of the clothing to be produced, Open Wear should first focus on broadening its portfolio. By first being able to offer a complete 3-layer system, they have more knowledge and expertise to later expand this system to multi-sports clothing

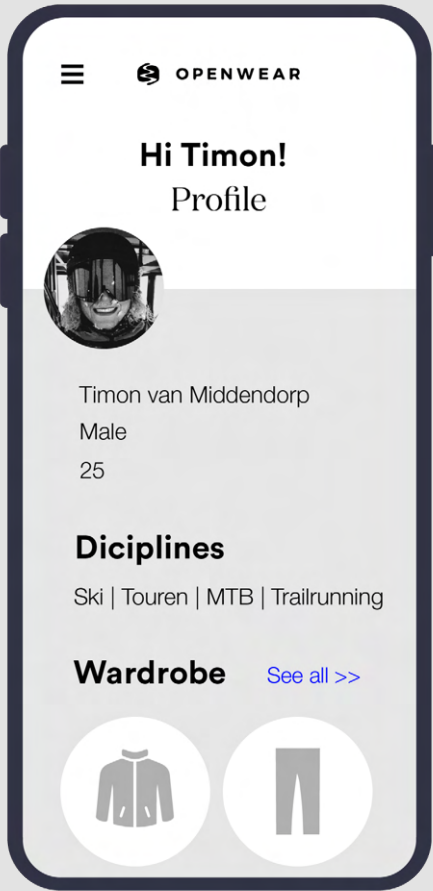
## What is needed? | Digital Platform

In order to realize this platform, the current community page must be expanded. This can be done in the current form such as a website, or in a new form such as an App.

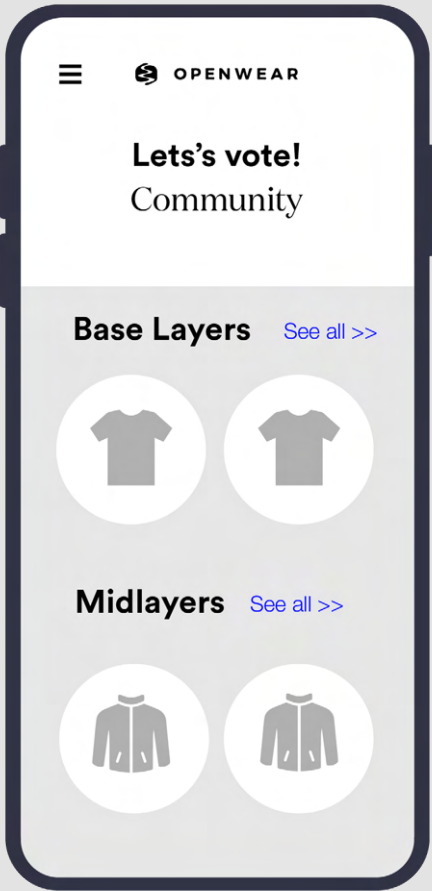




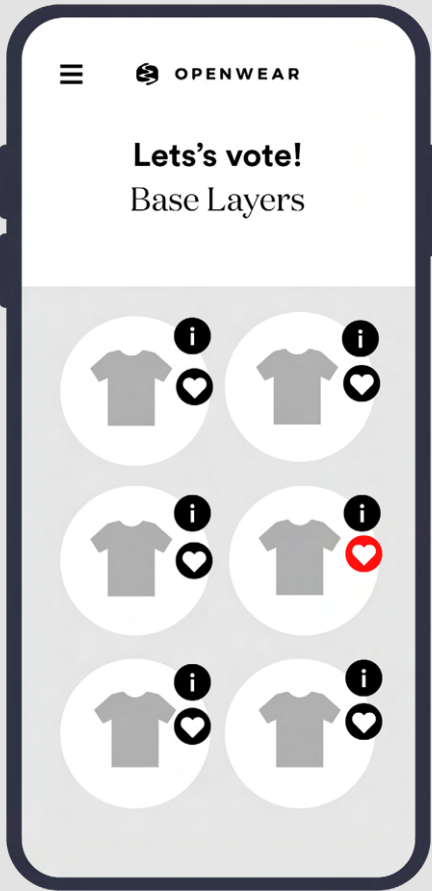
Users will create a profile, which states their preferred sports and clothing.



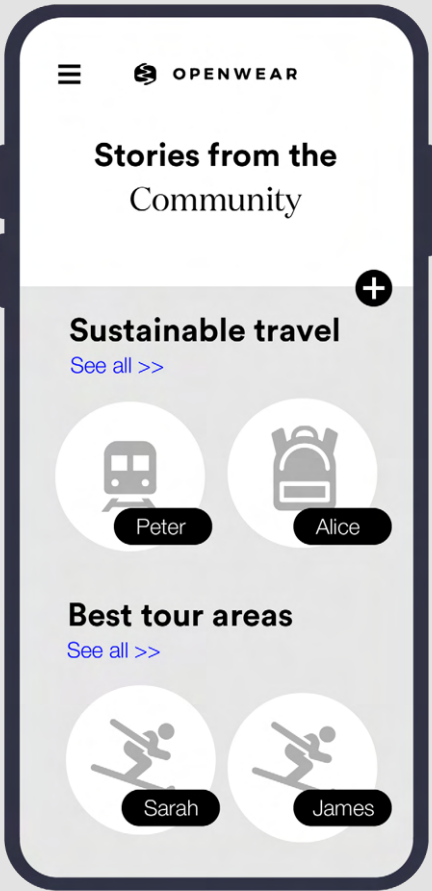
The user's role is to make decisions between designs created by Open Wear.



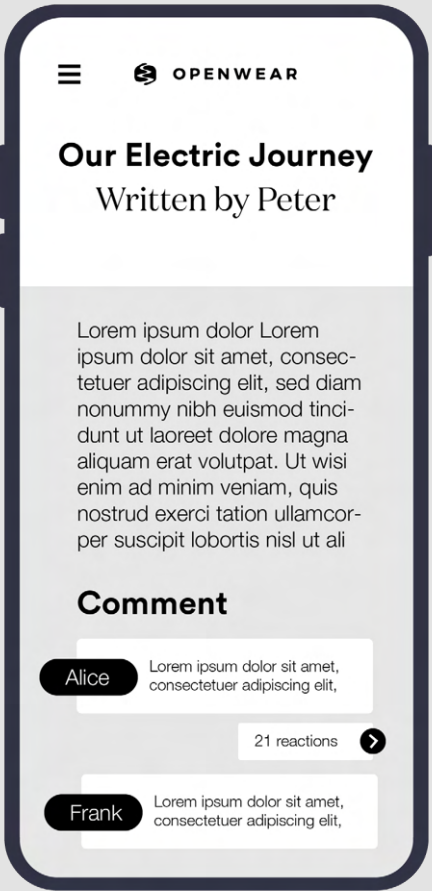
Based on these choices, it is determined which concepts will be produced.



Users can read and write about their experiences.



By interacting with each other, the platform becomes lively, providing knowledge and inspiration for users.



# 2030

In 2030, the focus should be on activating users to participate in the design process. There are several ways to activate users in a community such as encouraging interaction through discussions and polls, recognizing and rewarding active members, providing valuable content, leading by example and encouraging feedback and suggestions.

## User Rol | As Feedback Bringers

Building an engaged community takes time and effort. It requires the creation of a welcoming and inclusive environment, the provision of valuable content and resources, and the cultivation of a sense of belonging and ownership among members. As the community grows, it is important to continue to engage with users and to provide opportunities for them to take on more active roles.

In this second stage of the community process, users are invited to share feedback and respond to each other's input. Inviting users to share feedback and respond to each other, helps to create a sense of community and shared ownership of the final product, and also allows for multiple perspectives to be considered in the design process. This can lead to more creative and effective solutions that meet the needs of a diverse group of users.

## Activity | Sharing Ideas

Sharing ideas and improvements for new products within a community is essential. It allows for a diverse range of perspectives and opinions to be heard, resulting in more creative and innovative solutions. However, for this to be effective, it should be as easy as possible for community members to share their ideas.

## Interaction | Elaborate on each other

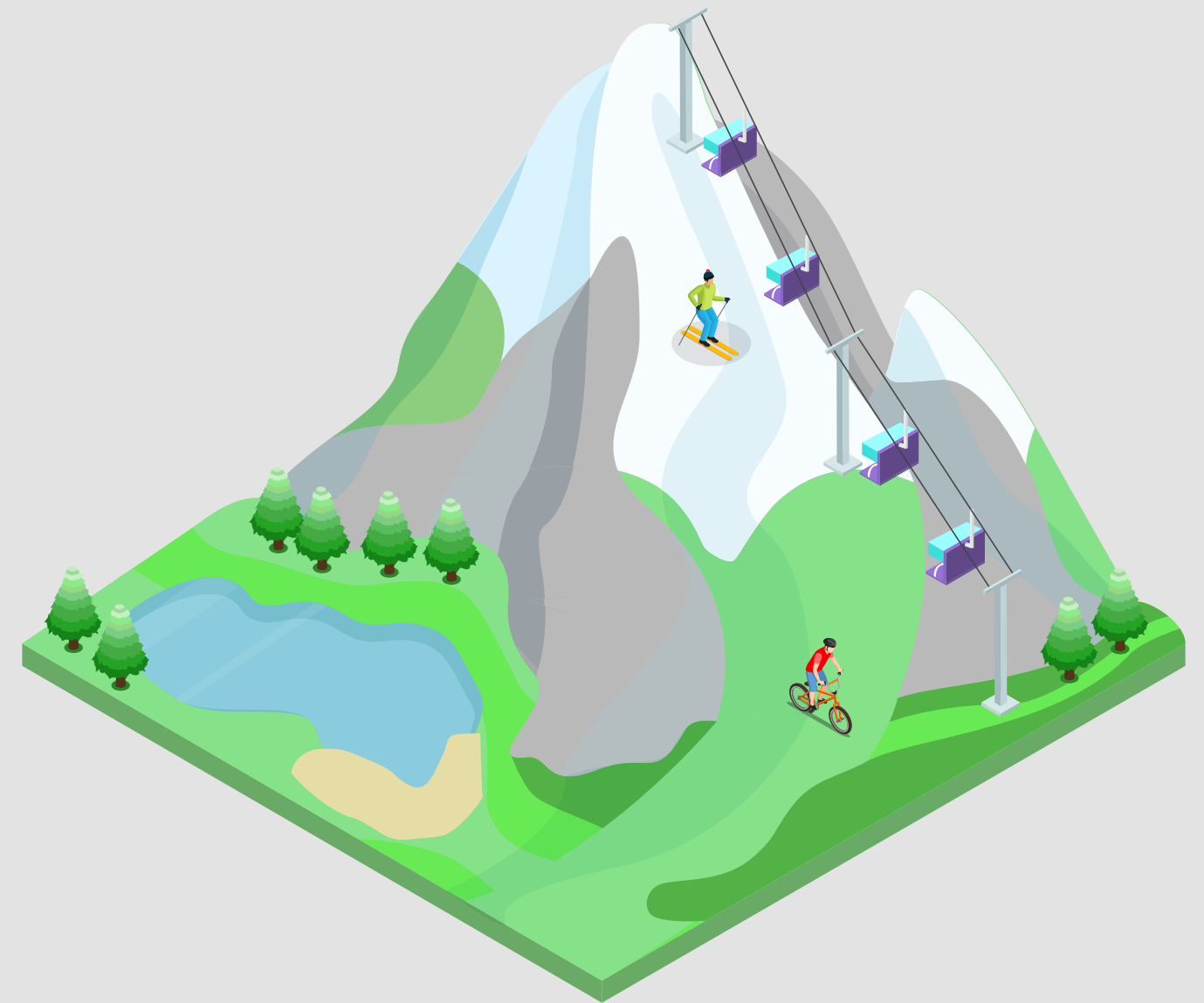
elaborating on each other's ideas is crucial for the creative process. It allows for a deeper understanding of the concept and the potential to turn a good idea into a great one. By brainstorming, collaborating, and providing feedback and critique, individuals can build on each other's ideas, bringing in new perspectives and insights that can take the concept to the next level.

## Clothing | Multiple Sports

In this period it is important to take the first step towards multi-sports clothing. Without starting designing, information can be collected about which other sports the community is currently doing and which alternatives to winter sports are coming. By leading by example with the help of ambassadors during the summer periods, people can be motivated to share their experiences and wishes in a broader area.

## What is needed? | Ambassadors

The Open Wear ambassadors are fully involved in the development of winter sports. Often these are guides or athletes who spend entire seasons in the snow. In the summer periods, these ambassadors often give training in summer alternatives such as mountain biking. Because these ambassadors are so involved with the changing landscape, they can be used for new input and great stories to inspire the community.

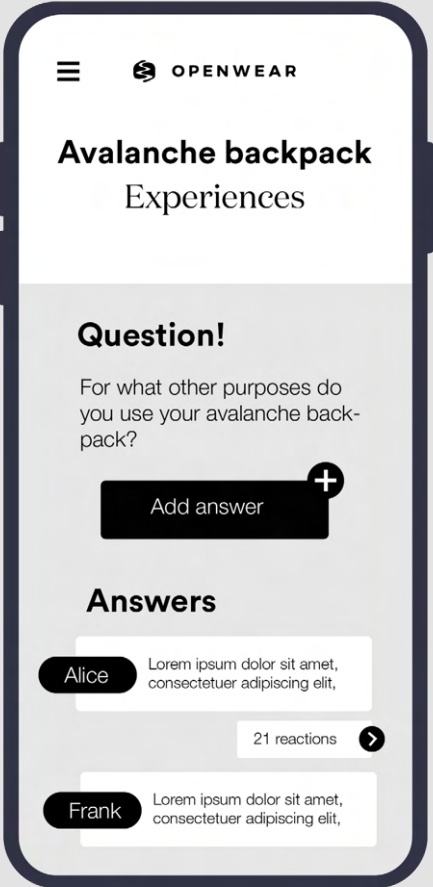
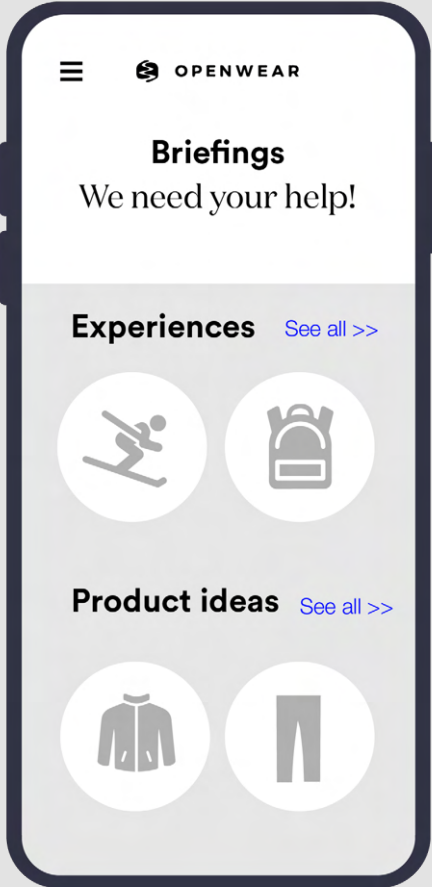
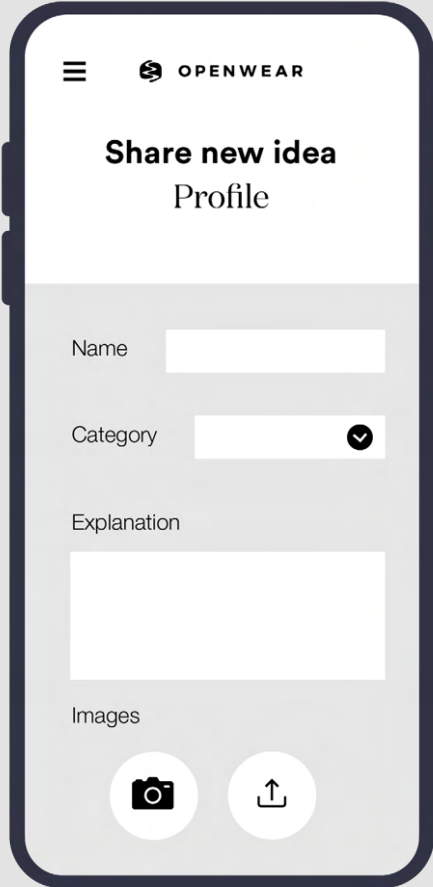
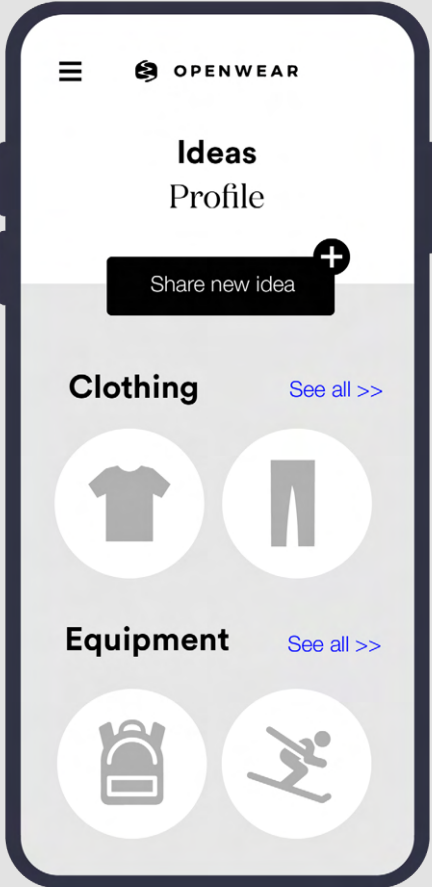
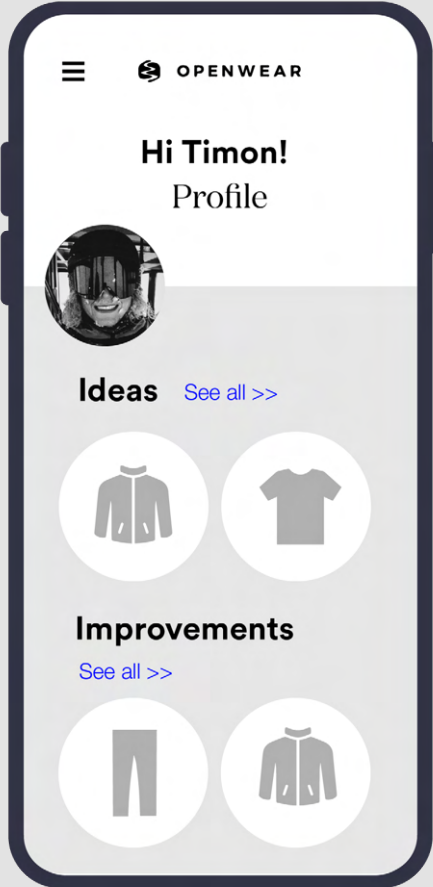




Users can now share ideas and improvements

The platform consists of an easy-to-use feature for uploading a photo of a current product or expressing short ideas, and providing quick feedback to the platform while using the products.

Briefings in the form of challenges encourage users to share ideas and experiences that lie outside the winter sports field. Users can give feedback and interact with each other.



# 2040

In 2040, the focus should be on stimulating initiatives. The role of the user will have evolved even further, with many individuals taking on leadership positions within the community and actively shaping its direction and goals. In order to build a strong and engaged community, it will be important to continue to provide opportunities for users to participate and make their voices heard.

## **User Rol** | As creators

In addition to the mature and involved attitude of the community, users are enabled to offer actual concepts. This allows the community to independently come up with ideas, develop concepts and improve and inspire each other.

## **Activity** | Sharing concepts

Where open wear used to work out all the concepts, this can now be done by the community itself. This ensures a much faster and more dynamic design process, which can lead to more creative and specialized designs.

## **Interaction** | Creating new challenges

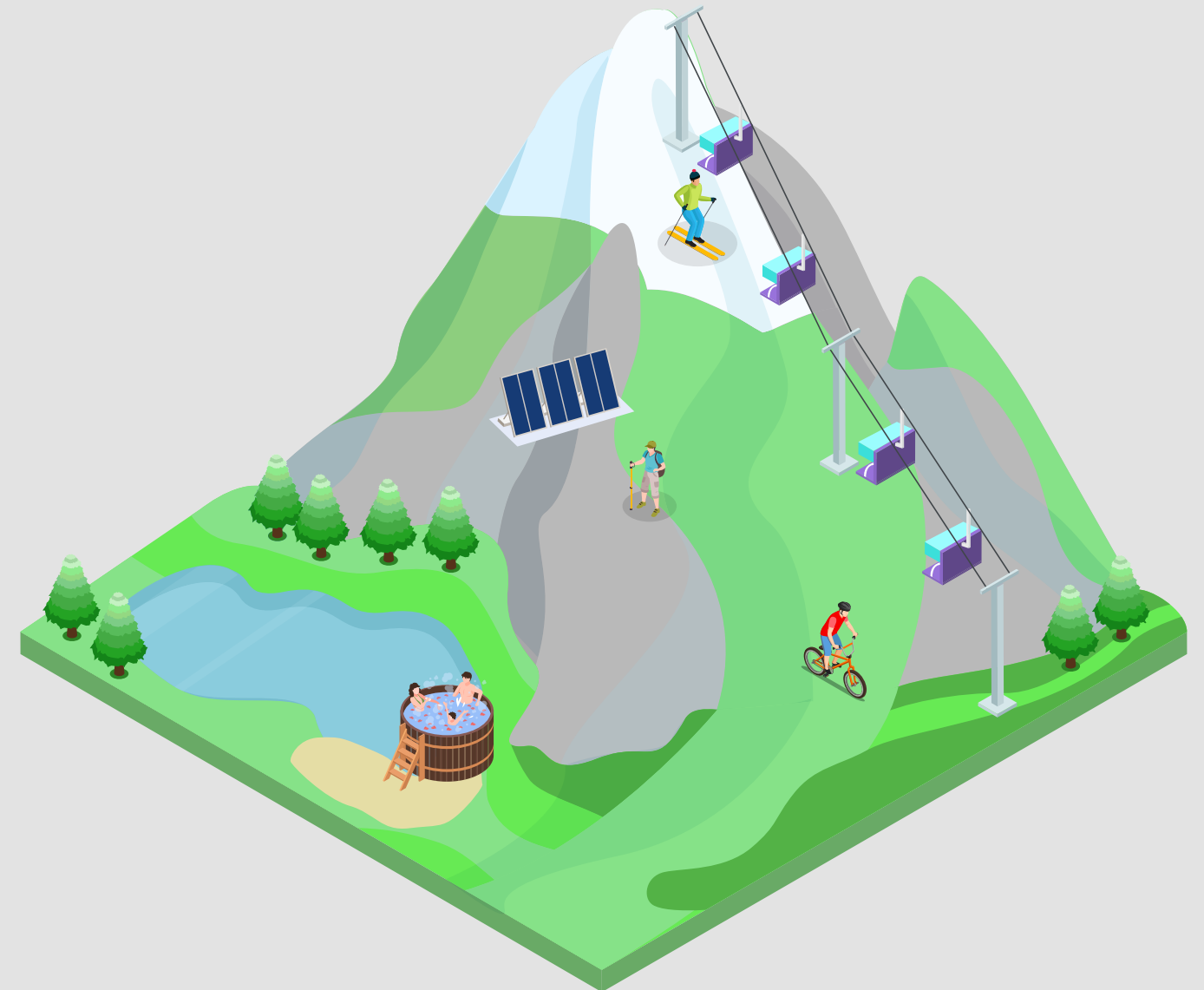
The community will also be given the opportunity to start briefings themselves. As a result, new customer needs can be shared and tested more quickly.

## **Clothing** | Multi-sports

Due to the fast, creative and specialized workflow, products can be designed that transcend sports. Since people no longer perform the same sports for whole weeks, people have a need for clothing that can be used for multiple activities. Open Wear can stimulate this development through briefings and examples.

## **What is needed?** | Design Tool

To make it possible for the community to work out actual concepts, a design tool must be made that can be used to create complete concepts with little experience. Developments in AR, 3D modeling and AI must be further developed to make such a tool applicable. With the developments of these techniques in recent years (and even months), this seems realistic for 20 years from now.

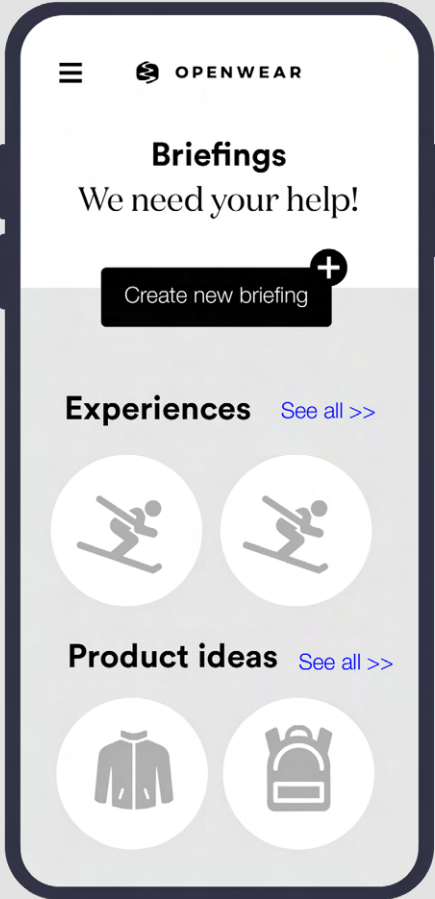
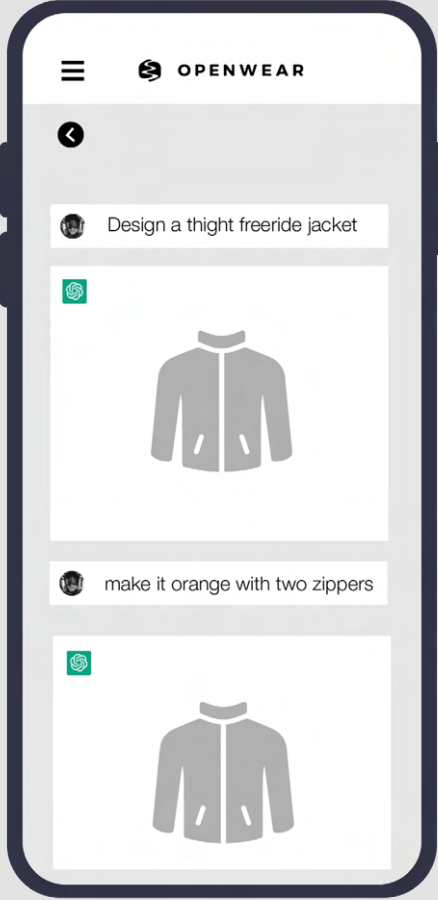
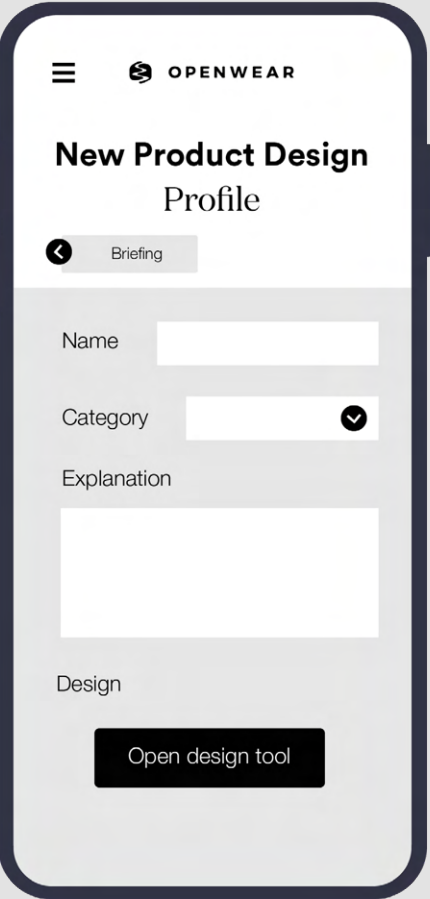




The biggest adjustment is the implementation of a design tool. With the help of this tool, people can design clothing and equipment up to a concept level.

Using developed technologies such as Augmented Reality, 3D scanning, and AI, it is possible to contribute concepts to the community in a few simple steps. Using the community's involvement and their experience in outdoor sports, it is possible to create products applicable to multiple sports and activities.

The community is mature enough to start briefings and project groups itself. Community-led multi-sport design is a reality.









CHAPTER 9

**CONCLUSION**



**CONCLUSION**

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9 CONCLUSION

The goal of this graduation project was to design a concept product to explore a possible future for the Open Wear company in order to keep their vision relevant in the future.

With the help of the VIP method (see chapter 2) a successful step into the future has been taken to make a prediction of what a possible future for the Open Wear brand could be.

By first analyzing the current situation (see chapter 3), it became clear that there are great opportunities for Open Wear to involve the community more. When sustainability and openness become less unique selling points (since other companies are improving that as well) and the winter sports scene has to adapt to climate changes, it is important to understand the needs and wishes of your users. By turning this into an engaged community, you reduce the chance of losing your customer base.

The future is not yet certain and Open Wear wants to exert a positive influence on this future in the coming years.

To see how Open Wear can best do that, Chapter 4 looked at how the future is likely to change. Scientific studies indicate that winter sports can still be practiced for decades to come. High-lying areas in particular, where a lot of snow has fallen in recent decades, seem to be able to offer snow reliable winters for quite some time. Without being able to draw conclusions too quickly, it seems that low ski areas or ski areas with an unfavorable location in terms of snowfall will have to deal with less snow in the coming years. The amount of snow-reliable days seems to be decreasing exponentially, which means that when ski

resorts start to notice the consequences, it only will get worse.

To see what influence this (and many other factors) have on the worldview of 2040, driving forces have been created by forming clusters of these factors. By putting these Driving Forces together, a prediction has been made about what the world will look like in 20 years. The intensive way of doing winter sports that many people are used to seems to come to an end and multi-sport holidays seem to be the future.

Open Wear wants to stimulate environmentally conscious people to moderate their ski behavior and to keep enjoying their outdoor escapes.

They can do this by making multi-sport vacations more accessible. By designing clothing that is created around conditions instead of sports, it becomes easier for the consumer to switch between sports. To switch from winter clothing to multi-sport clothing, the Open Wear community is used.

A digital platform for collaboratively creating future-proof products has been designed.

In this way, Open Wear can continue to motivate people to continue to enjoy their outdoor escapes in a sustainable way, without being dependent on a changing climate

9.1 DISCUSSION

Designing for the future is a difficult task as it involves predicting and anticipating on changes and uncertainties that may arise. This can be challenging due to the unpredictability of future events and trends, making it hard to know what future users will need and want. The rapid pace of technological advancements can also make it hard to predict which technologies will be adopted and used in the future, as well as the potential consequences of using new technologies. Additionally, societal and cultural changes can also affect the way people interact with products and systems, making it hard to anticipate how future users will interact with them.

9.2 RECOMMENDATIONS

In order to establish and grow a successful outer-wear business, I highly recommend investing in an engaging community. Building a community of passionate and dedicated individuals will provide a strong foundation for your venture and ensure a steady stream of support. It's important to test the capability of the community to support your business and ensure that it aligns with your goals. To stay competitive in the ever-changing winter sports industry, it is crucial to stay informed of new developments and trends. The field of winter sports is constantly evolving, and staying up-to-date on the latest advancements will help your business stay ahead of the curve. Additionally, with climate change affecting winter sports, it's important to keep an eye on how low-lying areas are adapting and what alternatives they will offer. Practicing sustainable ways of winter sports is also crucial to avoid negative perceptions and maintain a positive image.

In terms of fashion and technology, it's important to keep an eye on trends in online clothing sales as well as new technologies such as AR, 3D modeling, and AI. These advancements can provide new opportunities for innovation and growth in the

The project's approach to involve the community in the design process was chosen to reduce dependence on trends and developments, but it also presents uncertainty in terms of the community's competencies in the field of product development.

The design of multi-sport clothing is also still a big challenge. It is uncertain to what extent this clothing stimulates to moderate ski behavior and easier switching between sports. Additionally, the technical feasibility of the design tool on the platform is uncertain, as it relies on rapidly developing technologies such as AR, 3D modeling, and AI.

fashion and technology aspects of the platform. It is also informative to start a fashion design project in the field of multi-sports and to test its operation. This can help you better understand the possibilities.

Overall, investing in an engaged community, staying informed of new developments and trends, and practicing sustainable methods, are all crucial steps to establishing a future-proof company.



9.3 PERSONAL REFLECTION

As I reflect on the completion of this project, I am filled with a sense of accomplishment and pride. The six months spent working with Open Wear on designing for the future have been incredibly enlightening, and have greatly enhanced my understanding of current trends and developments in the industry. My goal as a designer and as a person is to play a positive role in shaping the future, and this project has only reinforced that motivation.

As a winter sports enthusiast, the subject matter of this project holds a special place in my heart. Collaborating with Open Wear was a truly enjoyable experience, as they provided me with the freedom and resources to explore and discover the best ways to create value. The VIP method was an invaluable tool for keeping the project organized and on track. It helped me stay focused on the next steps, even when my mind was prone to wander and consider peripheral ideas.

Overall, I am incredibly satisfied with the results of this project and the progress I have made in achieving my learning goals. Although I had initially hoped to create a physical product, I am proud to present the final concept to Open Wear. It is my belief that this concept will provide the company with a solid foundation for a creative and diverse future.

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Steiger, R., Personal Communication, August 31, 2022 (Snow Reliability)







CHAPTER X

**APPENDIX**



**APPENDIX**

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# IDE Master Graduation

## Project team, Procedural checks and personal Project brief

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

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

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

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

### STUDENT DATA & MASTER PROGRAMME

Save this form according the format “IDE Master Graduation Project Brief\_familyname\_firstname\_studentnumber\_dd-mm-yyyy”. Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !

family name van Middendorp 5891

initials T.G. given name Timon

student number 4545885

street & no. \_\_\_\_\_

zipcode & city \_\_\_\_\_

country \_\_\_\_\_

phone \_\_\_\_\_

email \_\_\_\_\_

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

IDE master(s): ☐ IPD ☒ Dfl ☐ SPD

2<sup>nd</sup> non-IDE master: \_\_\_\_\_

individual programme: - - (give date of approval)

honours programme: ☐ Honours Programme Master

specialisation / annotation: ☐ Medisign

☐ Tech. in Sustainable Design

☐ Entrepreneurship

### SUPERVISORY TEAM \*\*

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

\*\* chair Paul Hekkert dept. / section: HCD

\*\* mentor Charlotte Kobus dept. / section: DOS

2<sup>nd</sup> mentor \_\_\_\_\_

organisation: OpenWear

city: Stoutenburg-Noord country: Netherlands

comments  
(optional)

⋮

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

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

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

**APPROVAL PROJECT BRIEF**

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

chair Paul Hekkertdate 04 - 08 - 2022

signature

Paul  
Hekkert - IO

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Paul Hekkert  
- IO  
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**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: 30 ECOf which, taking the conditional requirements into account, can be part of the exam programme 30 EC

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

☒ YES all 1<sup>st</sup> year master courses passed☐ NO missing 1<sup>st</sup> year master courses are:

C. van  
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Date:  
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+02'00'

name C. van der Buntdate 06 - 09 - 2022

signature

**FORMAL APPROVAL GRADUATION PROJECT**

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

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

Content: ☒ APPROVED ☐ NOT APPROVEDProcedure: ☒ APPROVED ☐ NOT APPROVED

comments

name Monique von Morgendate 20 - 09 - 2022

signature

Finding vision in a melting landscape: sustainable outerwear in 2040

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 30 - 06 - 202228 - 11 - 2022

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, ...).

Open Wear is a sustainable outerwear brand focussing on the wintersport scene. The company makes high quality outerware pants and jackets. The brand is known for their "open" (transparent) way of working, where they use sustainable materials and ethical production to produce hardshell clothing from 100% recycled plastic. These jackets and pants are perfectly suited for use on and off slope skiing and snowboarding.

Even though Open Wear tries to build a community with their sustainable clothing to promote sustainability in the wintersports industry and thereby bringing climate change to a halt, the growing problem must be faced. The brand's right to exist depends on a natural phenomenon that is facing problems due to climate change.

Several new studies have addressed projected impacts of future climate change on snow reliability in ski resorts. Showing that average ski seasons are projected to shorten along with increases in snowmaking demand. (IPCC, 2022)

Low-lying ski areas will cease to exist, water scarcity will cause problems with snowmaking and high temperatures will increase the risk of avalanches. This creates additional costs for ski resorts which will drive ticket prices up. (Steiger, 2021)

Since winter sports are so intertwined with ecological changes, economic interests, human experiences and cultural values, it is difficult to predict how winter sports will change in the coming years.

It is important for Open Wear to know how the brand can innovate in these changing times. What value can they add to the winter sports landscape of 2040 and how does their mission resonate with it? The solution will therefore be a world view of winter sports in 2040 and a concept product to explore how the brand can innovate in this changing world.

IPCC. (2022). Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press.

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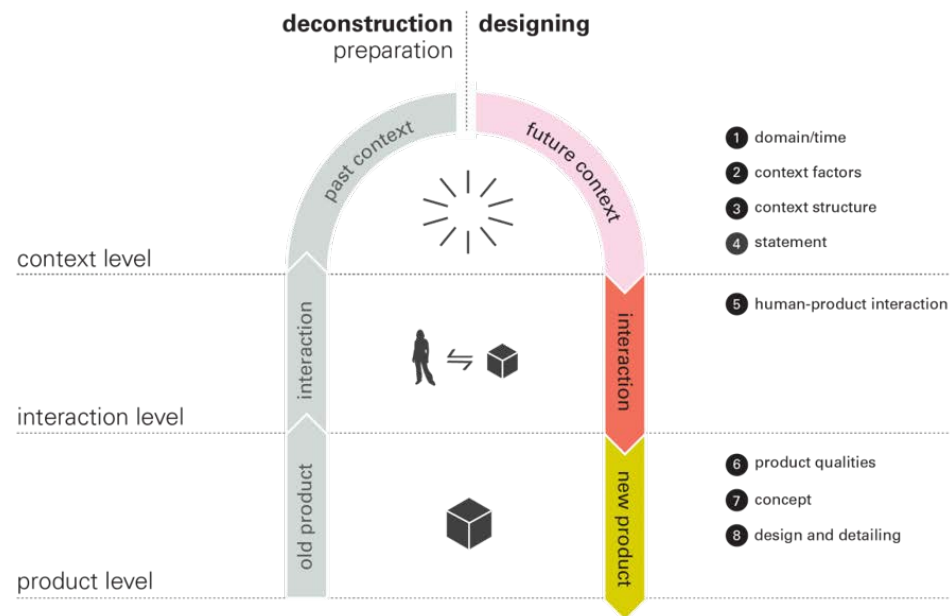


image / figure 1: VIP method



image / figure 2: Open Wear product portfolio

## 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.

The problem can be divided into three topics:

1. The impacts of future climate change on snow reliability in winter sports areas depending on natural snowfall.
2. The uncertainties about how stakeholders will respond (including winter sports enthusiasts, the winter sports industry and the tourism industry of these areas).
3. The question how Open-Wear can add value and innovate in these changing times.

It has been decided to design for the year 2040 as this will likely be a period in which a lot will change within the winter sports scene, but where the results of the research are not too far away for the Open Wear company to be relevant now.

In addition, this research will look at the winter sports scene in Europe. Snow reliability is a worldwide concern, but since winter sports have many underlying motives and factors that can influence this, it has been decided to only take Europe as scope.

Since Open Wear is a clothing brand, it has been discussed whether the brand wants to stick to clothing or whether expanding the portfolio would be an option. Open Wear thinks openness and sustainability are very important, which is their motivation to be open to new products and ideas that contribute to their vision.

## 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.

Designing a concept product to explore a possible future for the Open Wear company in order to keep their vision relevant in the future. This by focusing on the user-product interactions and creating a world view of the winter sports industry in 2040.

During this project I want to use the Vision in Product approach to not only create a future worldview but also to design a concept product from user-product relationships in order to explore this future word.

The 'Vision in Product design'-method is a method that foremost supports the design of the 'raison d'être' and therefore defines the goal prior to the means (Hekkert, Van Dijk, 2016). This goal stems from a created worldview, built up from various context factors, such as trends, developments and principles. This method will be used to break away from what is expected from the winter sports industry, and be able to look at what is relevant and meaningful in the future. In this way, OpenWear can play a role in changing the branch in a positive way.

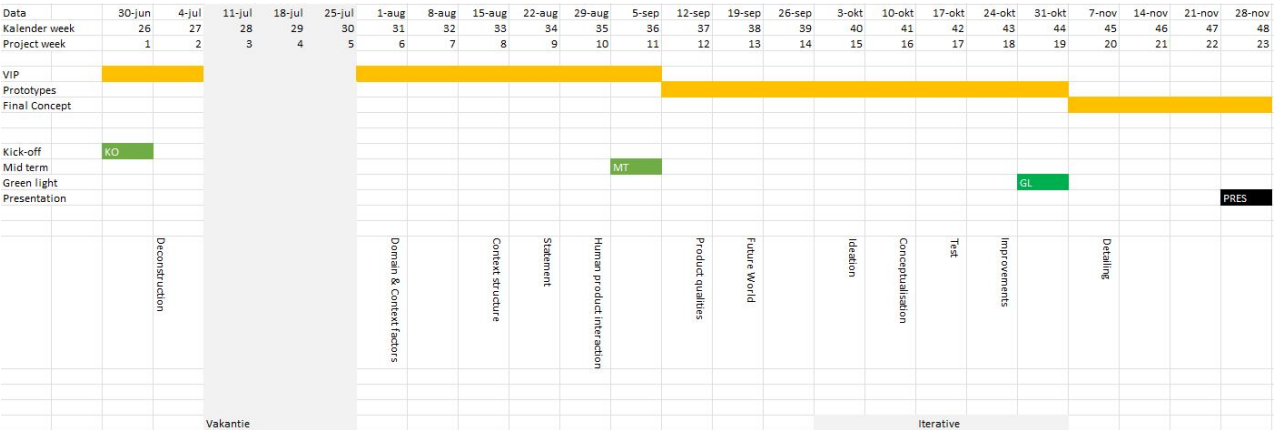
Since the ViP method uses a possible future, it seems interesting to me to see what different futures could look like. After all, the future is undertermined and "open" not inevitable or "fixed". The futures cone (Voros, 2017) showcases these different futures. That is why I am interested in combining the futures cone and the ViP method to get a better idea of how a future worldview is created and why a future is preferable.

Hekkert, P., van Dijk, M (2011). VIP Vision in Design. Van Haren Publishing.  
Voros, J. (2017). Big History and Anticipation. Handbook of Anticipation, 1–40.

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 30 - 6 - 2022 28 - 11 - 2022 end date



MOTIVATION AND PERSONAL AMBITIONS

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

With my graduation project I want to prove that I am capable of creating a grounded future worldview and to use this worldview as the context for a new concept design. With my personal ambitions to work in the outdoor and winter sports branche I'm very interested in how this industry wants/needs to adapt to changes in the future. Especially for a sustainable company as Open Wear it is very fascinating to see whether their vision and goals are achievable and how even the sustainable brands should change their direction.

In addition, it is very interesting to see which interactions and experiences play an important role for winter sports enthusiasts and how this potential void will be filled by alternatives.

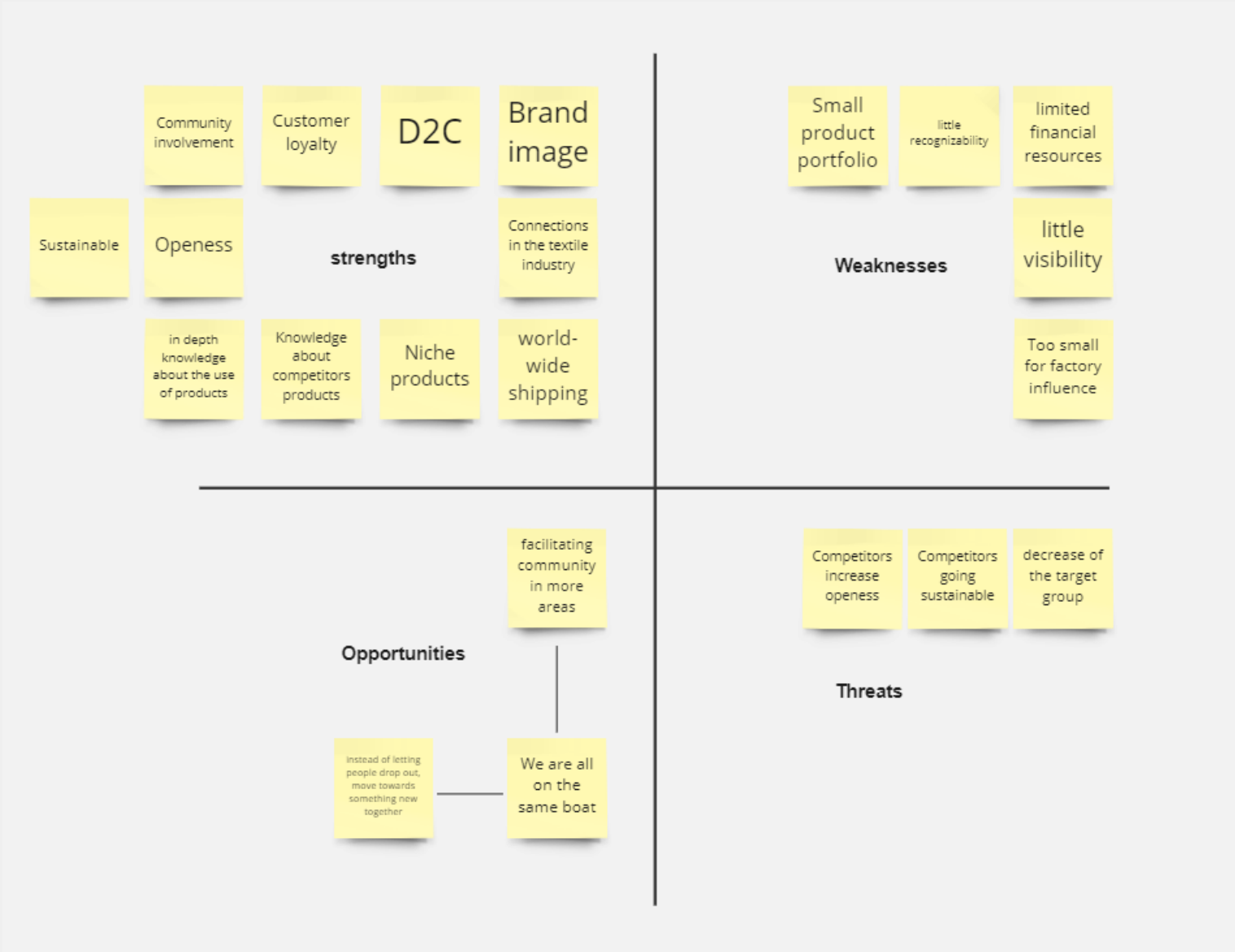
My learning ambitions within this project are:

- Learning how to predict possible futures by collecting and combining small pieces of evidence.
- Learning how to change possible futures into preferable futures using interaction design.
- Learning how to show a company the direction they should take to keep their vision relevant in the future.

FINAL COMMENTS

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





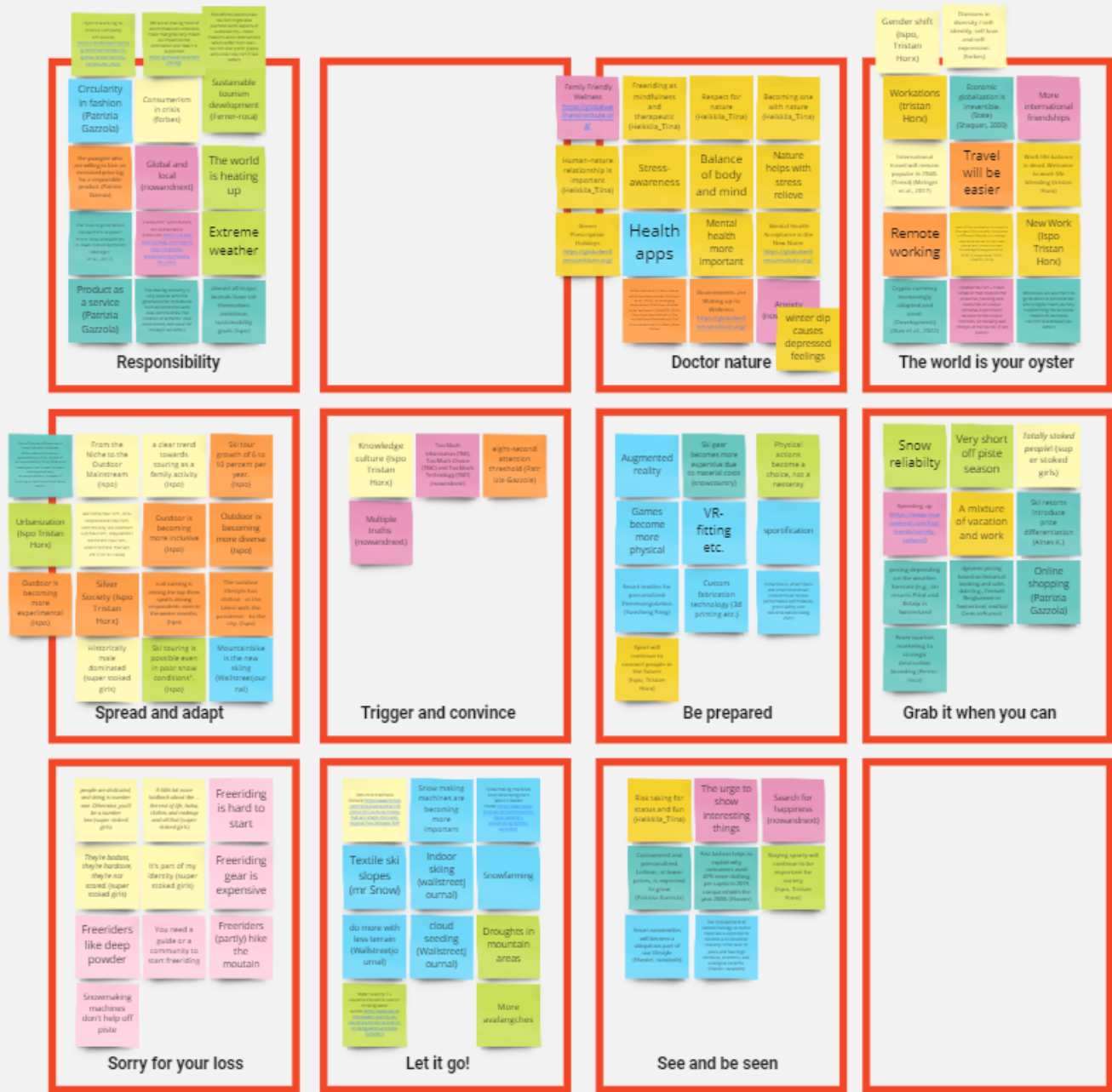
APPENDIX 3 | LIST OF CONTEXT FACTORS

	Factor	Type	Field	Source
	People tend to return to their traditions	Development	Cultural	<a href="https://www.forbes.com/sites/kianbakhtiari/2022/02/20/7-cultural-trends-that-will-shape-2022-and-beyond/?sh=2600afec768f">https://www.forbes.com/sites/kianbakhtiari/2022/02/20/7-cultural-trends-that-will-shape-2022-and-beyond/?sh=2600afec768f</a>
	Stereotype gender activities disappear "Gender shift"	Development	Cultural	(Ispo, Tristan Horx)
	People increasingly act in society more as individuals rather than as a group. Individualization	Development	Cultural	(Ispo, Tristan Horx)
	There is an increase of divisions in diversity / self-identity, self-love and self-expression.	Development	Cultural	Forbes
	There is a development of knowledge sharing as an appropriate behavior (Knowledge culture)	Development	Cultural	(Ispo, Tristan Horx)
	Mental health becomes more and more important	Development	Psychological	
	Mental Health Acceptance is becoming the New Norm	Development	Psychological	<a href="https://globalwellnessinstitute.org/">https://globalwellnessinstitute.org/</a>
	Travel time becomes shorter and shorter	Development	Demographic	
	Outdoor is becoming more inclusive	Development	Demographic	Ispo
	Ski tour growth of 6 to 10 percent per year.	Development	Demographic	Ispo
	Outdoor sports are becoming more diverse	Development	Demographic	Ispo
	Outdoor is becoming more experimental	Development	Demographic	Ispo
	Society is growing older in almost every part of the world	Development	Demographic	(Ispo, Tristan Horx)
	Millennials tend to favor places which are less popular (S, chiopu et al., 2016), i.e. emerging destinations that they consider to be "authentic" (UNWTO, 2016); they show less interest in the conventional destinations that their parents tend to favor	Development	Demographic	Eran Ketter
	Governments are Waking up to Wellness	Development	Demographic	<a href="https://globalwellnessinstitute.org/">https://globalwellnessinstitute.org/</a>
	There is an increase in international friendships	Development	Sociological	
	There is an increase in Anxiety problems	Development	Sociological	<a href="https://www.nowandnext.com/top-trends/society-culture">https://www.nowandnext.com/top-trends/society-culture</a>
	All processes and interactions in society are speeding up	Development	Sociological	<a href="https://www.nowandnext.com/top-trends/society-culture">https://www.nowandnext.com/top-trends/society-culture</a>
	There is an increase in problems because of Too Much Information (TMI), Too Much Choice (TMC) and Too Much Technology (TMT)	Development	Sociological	<a href="https://www.nowandnext.com/top-trends/society-culture">https://www.nowandnext.com/top-trends/society-culture</a>
	Truth shifts toward multiple truths. People can choose what they believe is truth	Development	Sociological	<a href="https://www.nowandnext.com/top-trends/society-culture">https://www.nowandnext.com/top-trends/society-culture</a>
	The future generation consumers support more local economies in 2040	Development	Economic	Metzger et al., 2017
	Crypto currency is increasingly adopted and used.	Development	Economic	Xiao et al., 2022
	One of the key differences in travel behavior between Millennials and previous generations is their choice of accommodation. First, Millennial travel gave rise to peer-to-peer/ sharing economy accommodation, instead of booking a traditional hote	Development	Economic	Eran Ketter
	The world is heating up	Development	Ecological	
	Extreme weather is occuring more often	Development	Ecological	
	Snow reliabilty is decreasing	Development	Ecological	
	Water scarcity is becoming a big problem: EU countries forced to restrict drinking water access	Development	Ecological	<a href="https://www.dw.com/en/water-scarcity-eu-countries-forced-to-restrict-drinking-water-access/a-62363819">https://www.dw.com/en/water-scarcity-eu-countries-forced-to-restrict-drinking-water-access/a-62363819</a>
	There are more and more avalanches	Development	Ecological	
	Off piste seasons are getting shorter	Development	Ecological	
	The population shifts from rural to urban areas	Development	Ecological	(Ispo Tristan Horx)
	Physical actions become a choice, not a nesseray	Development	Ecological	
	Sustainable tourism is becoming more and more popula	Development	Ecological	Ferrer-roca
	This off-the-beaten-track tourism might also promote some aspects of sustainability – these travelers avoid destinations which suffer from over-tourism and prefer places with under-tourism	Development	Ecological	Eran Ketter
	Snow making machines are becoming more important	Development	Technological	
	Augmented reality starts being used in day to day practises	Development	Technological	
	Circularity in fashion is becoming more important	Development	Technological	Patrizia Gazzola
	Within a few decades, more than half of all salaried workers (especially in emerging countries, where labor force in the industry is concentrated), will be displaced by automation techniques and advanced technologies in the fashion industry	Development	Technological	Patrizia Gazzola
	Snow making machines keep developing even when it doesnt freeze	Development	Technological	<a href="https://www.snow-forecast.com/whiteroom/new-all-weather-snowmaking-system-launched/">https://www.snow-forecast.com/whiteroom/new-all-weather-snowmaking-system-launched/</a>
	Snowfarming is increasing to open ski seasons earlier	Development	Technological	
	Outdoor sports switch from the niche to the mainstream	Trend	Cultural	Ispo
	There is a clear trend in Decreasing consumerism	Trend	Cultural	Forbes
	There is a clear trend towards touring as a family activity	Trend	Cultural	Ispo
	The Metaverse will be controlled by jurisdictions	Trend	Cultural	Forbes



	Wellness tourism, eco-responsible tourism, community led (bottom up) tourism, staycation/ domestic tourism, older/retired market, etc	Trend	Cultural	Ferrer-roca
	There is an increase in stress-awareness	Trend	Psychological	
	Balance of body and mind has become more important	Trend	Psychological	
	People start to go on Workations (a mixture of vacation and work)	Trend	Psychological	Tristan Horx
	People start to gon on Green Prescription Holidays	Trend	Psychological	<a href="https://globalwellnessinstitute.org/">https://globalwellnessinstitute.org/</a>
	Average work is changing into New Work	Trend	Psychological	Ispo Tristan Horx
	Work-life balance is dead. Welcome to work-life blending	Trend	Psychological	Ispo Tristan Horx
	Remote working has become more populair	Trend	Demographic	
	the youngest are willing to face an increased price tag for a responsible product.	Trend	Demographic	Patrizia Gazzola
	The outdoor lifestyle has shifted - at the latest with the pandemic - to the city.	Trend	Demographic	Ispo
	Although everything becomes more global, people also tend towards local initiatives	Trend	Sociological	nowandnext
	creative tourism – travel behavior that involves the proactive planning and execution of unique personal experiences tailored to the unique interests, personality and lifestyle of the tourist.	Trend	Sociological	Eran Ketter
	Wellnesses have become more familiy friendly	Trend	Sociological	<a href="https://globalwellnessinstitute.org/">https://globalwellnessinstitute.org/</a>
	Ski resorts introduce price differentiation	Trend	Economic	Alnes K.
	Skiresorts are moving towards dynamic pricing based on historical booking and sales	Trend	Economic	e.g., Zermatt Bergbannen in Switzerland, and Val Cenis in France
	Ski resorts tend to pricing depending on the weather forecast	Trend	Economic	e.g., ski resorts Pizol and Belalp in Switzerland
	Ski gear becomes more expensive due to material costs	Trend	Economic	Snowcountry
	Online shopping has increased immensely	Trend	Economic	Patrizia Gazzola
	Product are increasingly being seen a service	Trend	Economic	Patrizia Gazzola
	Tourism marketing is changing into strategic destination branding	Trend	Economic	Ferrer-roca
	The sharing economy is very popular with this generation for its features such as connection with local communities, the creation of authentic local experiences, and value for money	Trend	Economic	Eran Ketter
	Hybrid working to reduce company emissions is trending	Trend	Ecological	<a href="https://sustainabilitymag.com/top10/top-10-global-sustainability-trends-for-2022">https://sustainabilitymag.com/top10/top-10-global-sustainability-trends-for-2022</a>
	We are all placing more of an emphasis on conscious travel that genuinely makes an impact on the destination and how it is supported	Trend	Ecological	<a href="https://globalwellnessinstitute.org/">https://globalwellnessinstitute.org/</a>
	Games become more physical	Trend	Technological	
	Online shopping methods are becoming easier	Trend	Technological	
	Sport and gaming is intertwining (sportification)	Trend	Technological	
	Online stores are getting more creative with technological innovations ( VR)	Trend	Technological	
	Health apps are being used more often	Trend	Technological	
	Custom fabrication technology is becoming more accesible (3d printing etc.)	Trend	Technological	
	In the future, smart fibers and smart textiles will present three trends: performance optimization, green safety, and industrialization	Trend	Technological	Dang, 2021
	Smart textiles for personalized thermoregulation is becoming more accesible	Trend	Technological	Yunsheng Fang
	People are starting to mountainbike instead of skiing	Trend	Technological	Wallstreetjournal
	cloud seeding is being used more often to generate snow	Trend	Technological	Wallstreetjournal
	Ski resorts are doing more with less terrain	Trend	Technological	Wallstreetjournal
	Textile ski slopes are being used as a snow replacement	Trend	Technological	mr Snow
	International travel will remain popular in 2040.	State	Cultural	Metzger et al., 2017
	Freeriders see themselves as Totally stoked people!	State	Cultural	super stoked girls
	people are dedicated, and skiing is number one. Otherwise, you'll be a number two	State	Cultural	super stoked girls
	Freeriders are badass, they're hardcore, they're not scared.	State	Cultural	super stoked girls
	Freeriders are a little bit more laidback about like ... the rest of life, haha, clothes and makeup and all that	State	Cultural	super stoked girls
	Freeriding is part of their identity	State	Cultural	super stoked girls
	Nature helps with stress relieve	State	Psychological	
	Becoming one with nature helps with mental health problems	State	Psychological	Heikkila_Tiina
	Respect for nature is important	State	Psychological	Heikkila_Tiina
	Freeriding can be used as mindfulness and therapeutic	State	Psychological	Heikkila_Tiina
	Sport will continue to connect people in the future	State	Psychological	Ispo, Tristan Horx
	Freeriding is a High-risk sport	State	Psychological	
	winter dip causes depressed feelings	State	Psychological	
	Part of the motivation to travel is the search for novelty: to explore a different lifestyle, to undergo new experiences, to visit new places and to acquire new knowledge (	State	Psychological	Cavagnaro et al., 2018; S,chiopu et al., 2016; UNWTO, 2016

	People knowadays have an eight-second attention threshold	State	Demographic	Patrizia Gazzola
	Trail running is among the top three sports among respondents even in the winter months	State	Demographic	Ispo
	Consumer sentiments on sustainable products	State	Sociological	<a href="https://sustainabilitymag.com/top10/top-10-global-sustainability-trends-for-2022">https://sustainabilitymag.com/top10/top-10-global-sustainability-trends-for-2022</a>
	Economic globalization is irreversible.	State	Economic	Shaquan, 2000
	almost all major brands have set themselves ambitious sustainability goals	State	Economic	Ispo
	Customized and personalized fashion, at lower prices, is expected to grow	State	Economic	Patrizia Gazzola
	Millennials are also the first generation to demonstrate a fully digital travel journey, transforming the business models of countless tourism businesses	State	Economic	Eran Ketter
	Fast fashion helps to explain why consumers used 47% more clothing per capita in 2015 compared with the year 2000	State	Economic	Elsevier
	Staying sporty will continue to be important for society	State	Ecological	Ispo, Tristan Horx
	Ski touring is possible even in poor snow conditions	State	Ecological	Ispo
	Smart nanotextiles will become a ubiquitous part of our lifestyle	State	Technological	Elsevier, nanotech
	The improvement of nanotechnology on textile materials is expected to become a billion-dollar industry in the next 10 years, and has huge technical, economic, and ecological benefits.	State	Technological	Elsevier, nanotech
	Freeriders like deep powder	State	Freeride	Snowcountry
	Snowmaking machines don't help off piste	State	Freeride	Snowcountry
	Freeriders (partly) hike the moutain	State	Freeride	Snowcountry
	You need a guide or a community to start freeriding	State	Freeride	Snowcountry
	Freeriding is hard to start	State	Freeride	Snowcountry
	Freeriding gear is expensive	State	Freeride	Snowcountry
	Outdoor sports are historically male dominated	Principle	Cultural	super stoked girls
	People take risk taking for status and fun	Principle	Psychological	Heikkila_Tiina
	Human-nature relationship is important	Principle	Psychological	Heikkila_Tiina
	People have the urge to show interesting things	Principle	Sociological	nowandnext
	Everybody is in a search for happiness	Principle	Sociological	nowandnext







We see the ship sinking  
We must make choices  
We want and can a lot

"Ski shaming"

Choices determine who we are  
Visible for everyone



Outdoor trips as mindfulness  
Market opportunities

There is no more money being made



Ignore everything

Consume

We just keep going



Only travel for longer time

Short fast trips

Workations

Multiple sports



Less attractive

Easier to Access

First to stop

Deepest in



Community movements

Don't let go of community

Gathering close to mountains enjoying some days of snow

Sporty, adventurous people

Training the body

Hiking, Mountainbiking, Skiing, Bouldering

HUMAN PRODUCT INTERACTION

“INTENSIVE ANIMAL FARMING”



“INTENSIVE SNOW/MOUNTAIN USE”

EAT CONSCIOUSLY



SKI CONSCIOUSLY



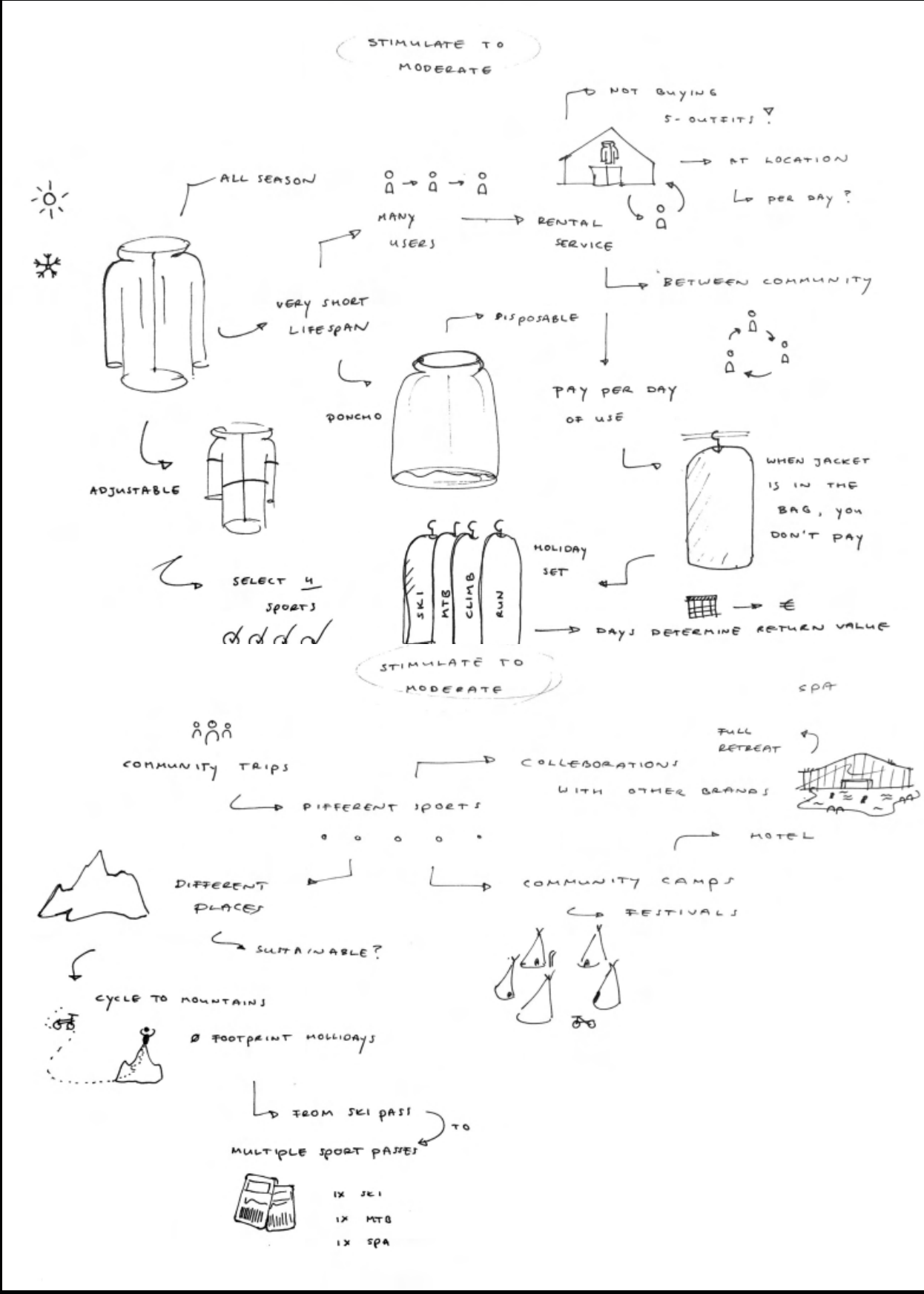
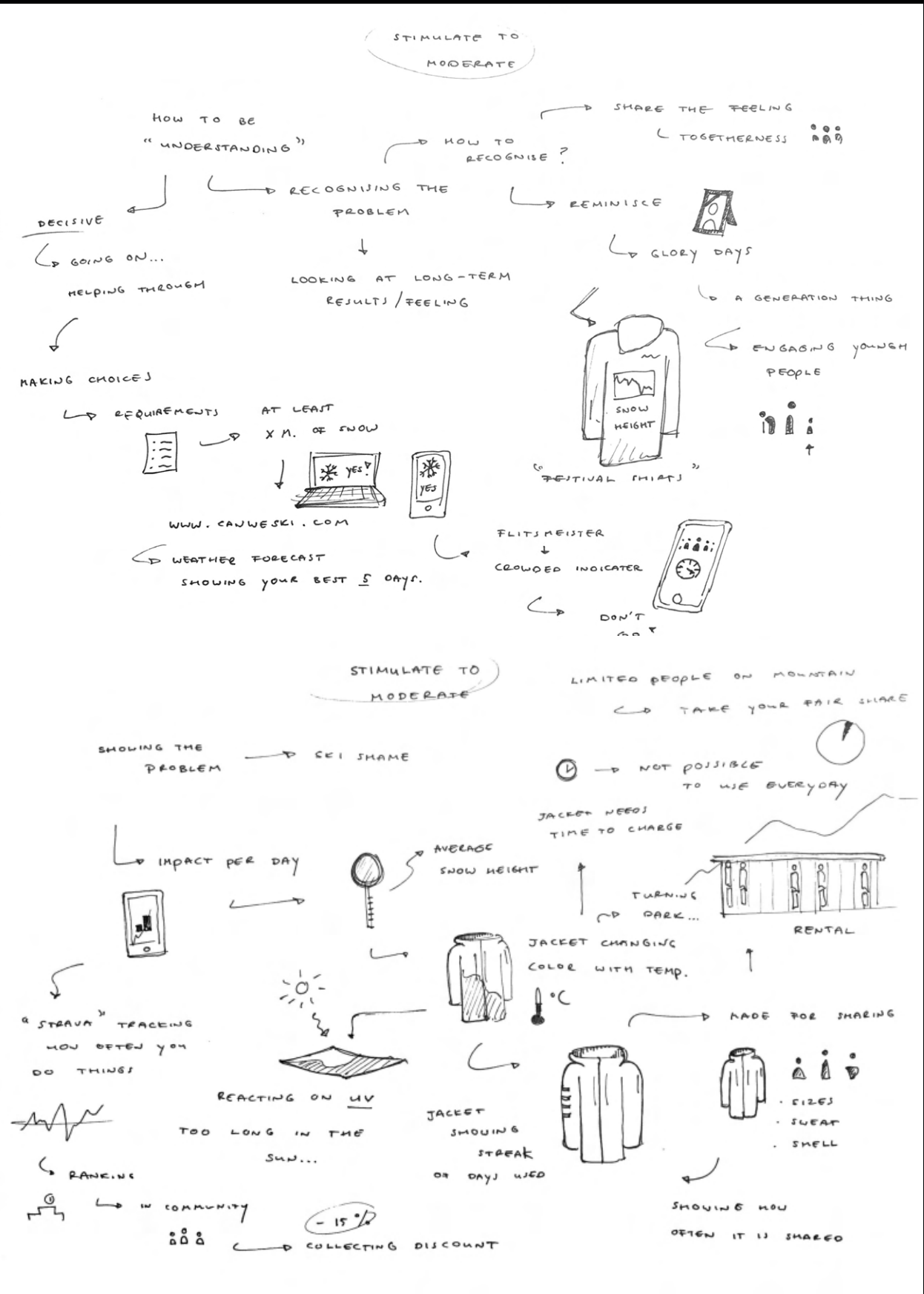
THE INTERACTION SHOULD FEEL LIKE  
GOING FOR A RUN ON A MORNING OFF

SELF MOTIVATED  
CONCIOUS  
GOAL ORIENTED  
UNCOMFORTABLE  
DRIVEN  
EMPOWERMENT

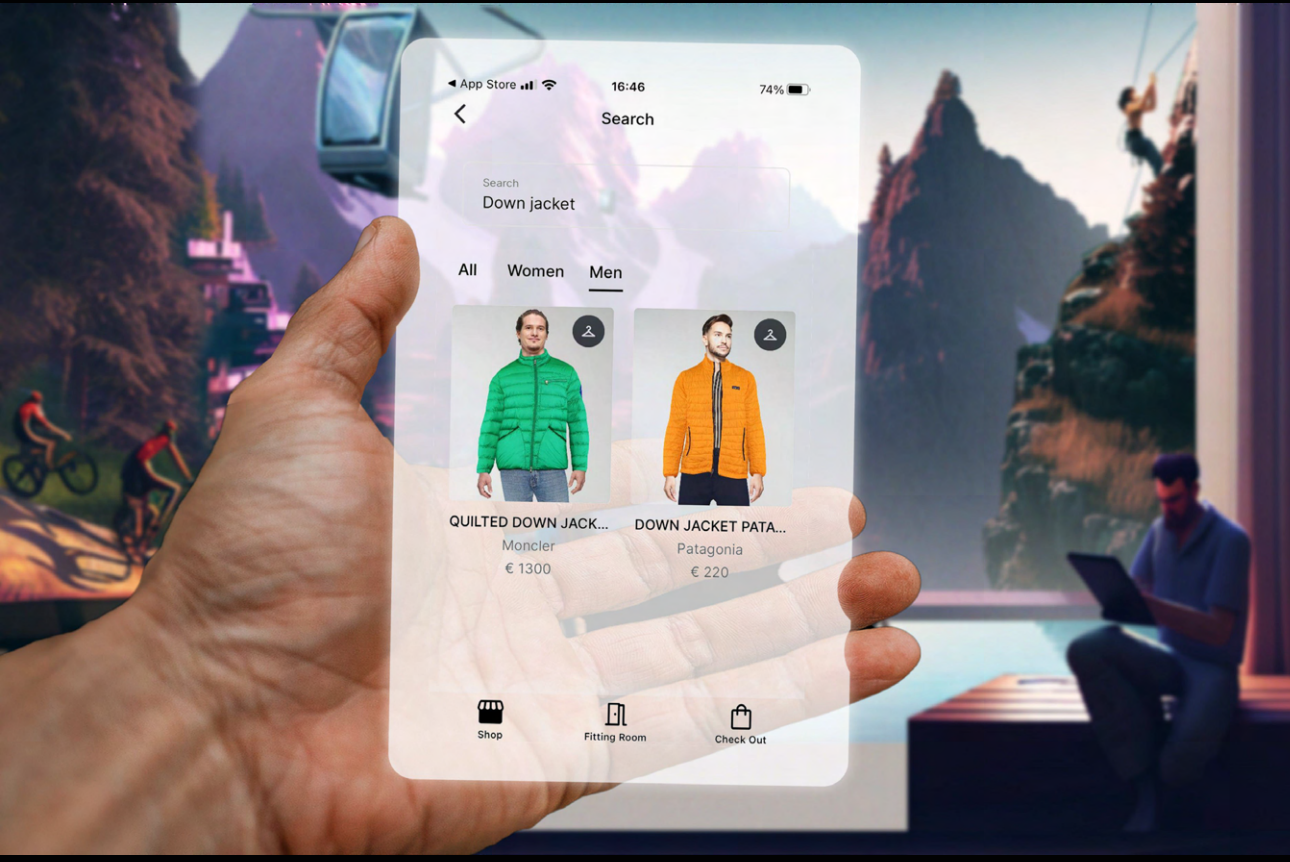
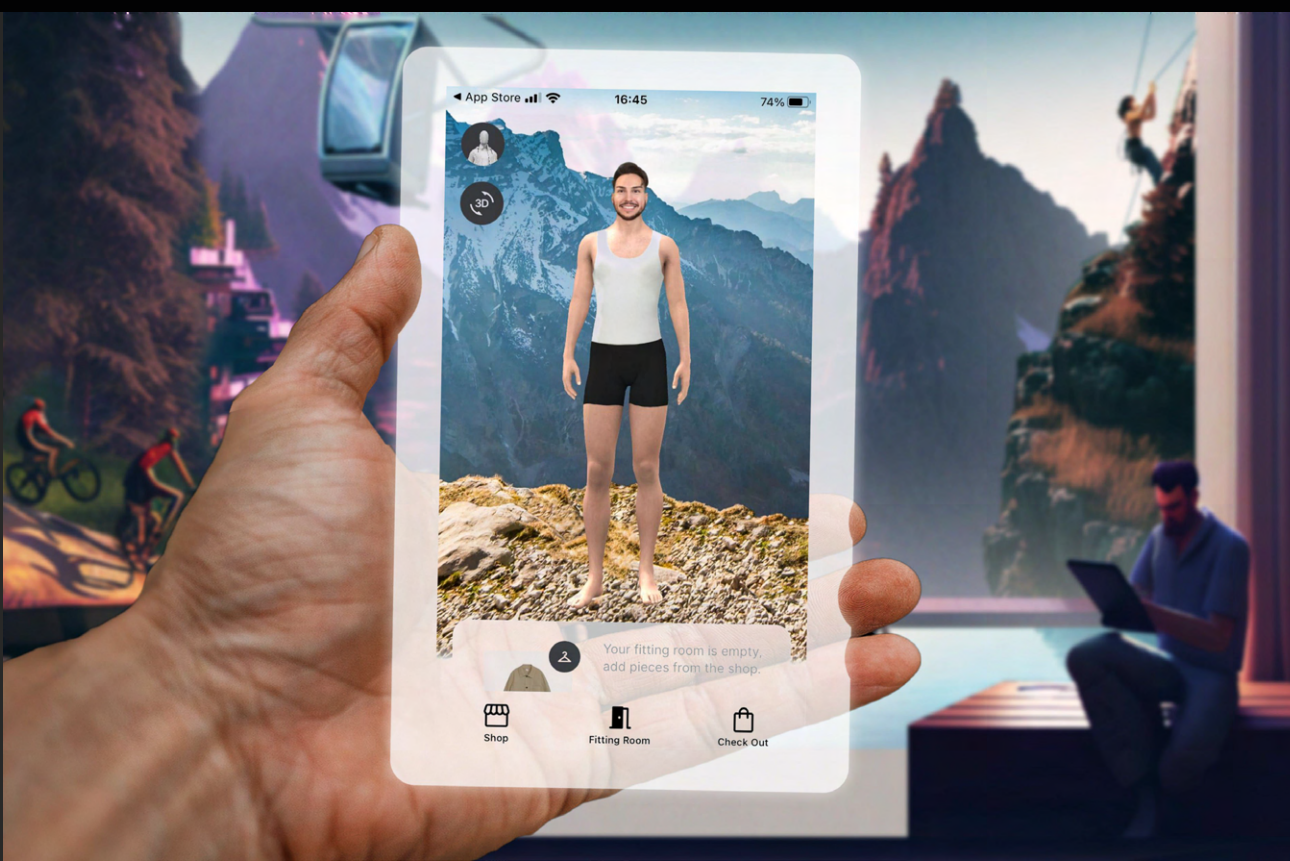
THE FEELING THAT WE “HAVE TO”  
THAT IT’S NOT OUR CHOICE  
THAT SOMETHING IS TAKEN FROM US

STIMULATE TO “CUT DOWN A BIT”  
TO MAKE CONCIOUS CHOICES  
WHEN WE WANT TO









Timon van Middendorp 4545885



