

Gradient Patterns

THE IMPORTANCE OF HIGH QUALITY CLOTHES
FOR A REGENERATIVE FUTURE

Design Thinking Studio Sustainability
Summer Term: 2024

Annika Jasmer
Guoda Treciokaite
Luise Schönicke
Till Maximilian Schmitz



“Extending the life of textile products is the most effective way of significantly reducing their impact on the climate and the environment.”

- European Commission, 2022:2.1

Table of Content

Introduction	4	Outlook & Next Steps	41
The Solution / Prototype	8	Team	44
The Design Thinking Path	11	Acknowledgements	45
Understand	13	Coaches and program team	46
Gaining Empathy	18	Credits	47
Synthesis	25	Appendix	48
Point of View	28		
Ideation	30		
Making of the Exhibition	36		

Introduction

The garment industry is one of the **biggest** industries in the world. Depending on the source, between **100** (Ellen MacArthur Foundation, 2017:18) and **150** (Fashion United, n.d.) **billion items of clothing** are being produced each year. The garment industry consumes a lot of resources being the **2nd largest consumer of water** in the world (McFall-Johnson, 2020).

But the **majority** of the consumed garments are **not being worn**. For **every 5 clothing pieces** that are produced, **3 pieces** get **disposed of** or are **burned** (Magnin and Hedrich, 2019). According to a survey from Greenpeace Germany (2015), around **40% of the garments in a closet** are **never or rarely worn**. Many people donate their clothes in good will, but around **89% of all donations end in landfills** or **get burned** (European Parliament, 2023). Currently, textile waste is piling up in the **global south** and is even **visible from space** (Loh, 2023).

Of all products, which are sold online in Germany, it is **garments which do not fit**, that are **mostly returned** by consumers (Lohmeier, 2023). Many of them will **never be sold again** and **are destroyed**, because it is **too expensive** to sort them out and mend them for the next customer. The number of **destroyed goods** is between **30%** (Greenpeace, 2018) and **55%** (Suhr, 2019).

The fit of a garment has a great impact on the **return** and **disposal** of garments. Developing **bodyreal fits** for garments can **prevent textile waste**, **CO2 emissions** can be **reduced** significantly, and **resources** can be **saved**.

Fashion needs to be re-designed.



AI generated image: Fast fashion concept with piles of clothes (Freepik)

Our **design thinking team** consisted of four members, Annika Jasmer, Luise Schönicke, Guoda Treciokaite and Till Schmitz. We started off our **design thinking journey** by focusing on the topic of **material innovation**. At first, we conducted a **survey** on material innovation in fashion, which we shared with our wider network. Through that, we met new people in the field of sustainable fashion, and conducted interviews with them. **The most insightful interview** we had was with *Anke Beutel*, a garment engineer from Berlin. Meeting her was so inspirational, that we decided to base our design thinking project on her work and her research topic - **the importance of body-real fits in fashion**.

Our design thinking journey could be divided into two main parts. Before and after meeting Anke. Before meeting her, we felt lost and were not sure which direction to go in. Annika and Guoda both had a lot of experience and knowledge in the fields of **sustainable fashion** and **regenerative materials**. Paradoxically, it was difficult to be creative, and they kept coming into roadblocks. When we met Anke, we finally found our “**problem space**” - overconsumption and low quality in fashion garments. The defined “problem space” helped us to focus, and allowed us to be more creative within our “**solution space**”.

We came up **three solutions** to showcase and raise awareness on the defined issue: **designing a prototype, making a video and setting up an exhibition**. We can happily share that we managed to bring all of our ideas into life in a short amount of time of a couple of months. We prototyped a white shirt in different sizes and fits, the pattern of which was created by Anke Beutel. We created a video about the importance of body-real fits, in which we featured Anke Beutel, her work and her research. Finally, we set up our final exhibition showcasing the prototypes, the video and posters with important information about our research findings.

We're inviting you to join us on our design thinking journey.

The Solution / Prototype

The idea was to create a prototype to **raise awareness about the fact that fashion brands create clothes that don't fit real bodies**, leading to high fit-related return rates, low customer loyalty and **increasing textile waste**.

Why does pattern design matter?

- Garments need to fit real bodies
- **Development of fit is often neglected** during design of garments by fashion brands
- Fashion brands **outsource pattern making** rather than having in-house pattern cutters
- This **leads to inconsistency of fit and shapes**, especially in bigger sizes
- Fashion brands face **high return rates due to bad fit** in online retail
- A hidden consequence is the **high amount of textile waste which accumulates in the global south**

Advancements around size and fit as well as policy changes are essential for guiding the fashion industry towards a regenerative future. With growing consumer demand for sustainable fashion and tighter environmental regulations, the significance of garment longevity is set to increase, marking a crucial shift towards greater environmental responsibility in the industry.



The three blouses in the exhibition space

Our prototype are **three blouses**, to showcase the importance of well fitting clothes:

- One in size 36 with a body real fit*
- One in size 42 with a body real fit*
- One in size 42 with the same measurements but as a different fit

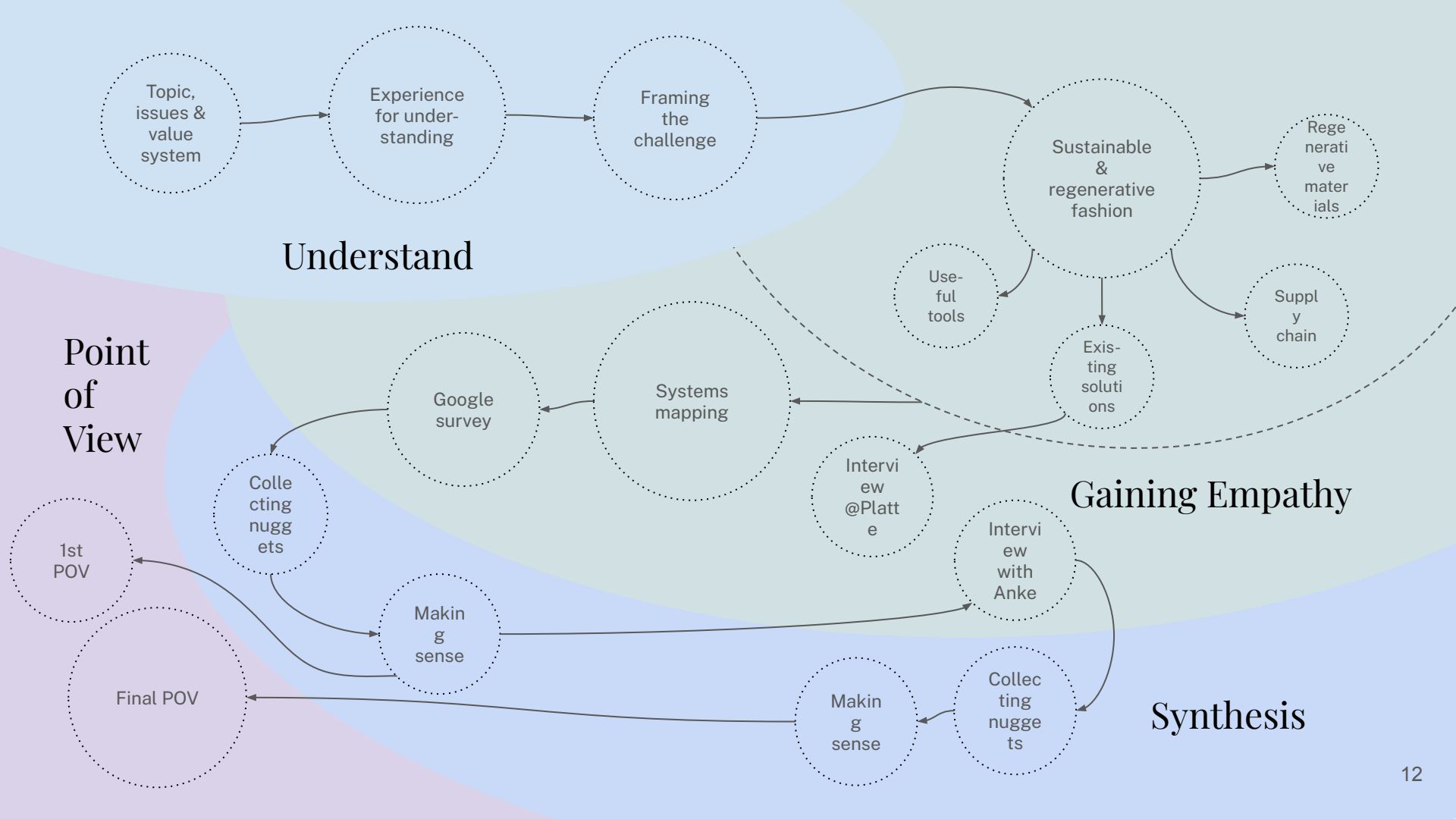
The “same measurement, different fit” blouse is an example of a fast fashion garment, as these brands **don’t consider the changing shape of bigger bodies, which leads to a bad and even uncomfortable fit**, even though the blouse is technically in the correct size.



The three prototypes next to each other

* sizeGERMANY conducted a study where they scanned the bodies of people to get the most accurate physique for each size and the corresponding measurements and curves for the clothing patterns. sizeGERMANY also determined that size 42 is the most common size for women in Germany. We based our selection of size and shape of our prototype on those measurements.

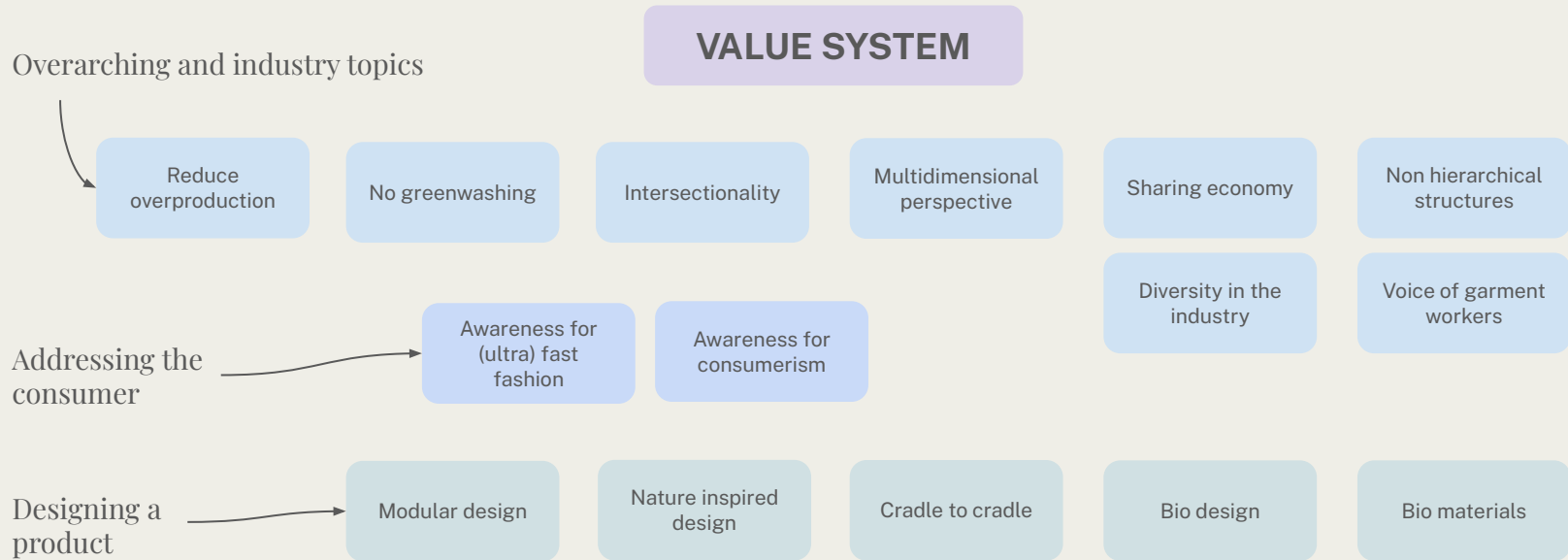
The Design Thinking Path





Understand

Before we started our challenge we had to define for ourselves what we want to work on throughout the program. We quickly found a topic which was of importance for us and where we already had some **experience in: the fashion industry and fashion related material innovation**. We started with a brainstorming concerning the problems and issues related to these topics. From this brainstorming we found topics and aspects that were of great importance for us and therefore we **created our own value system** with these aspects.



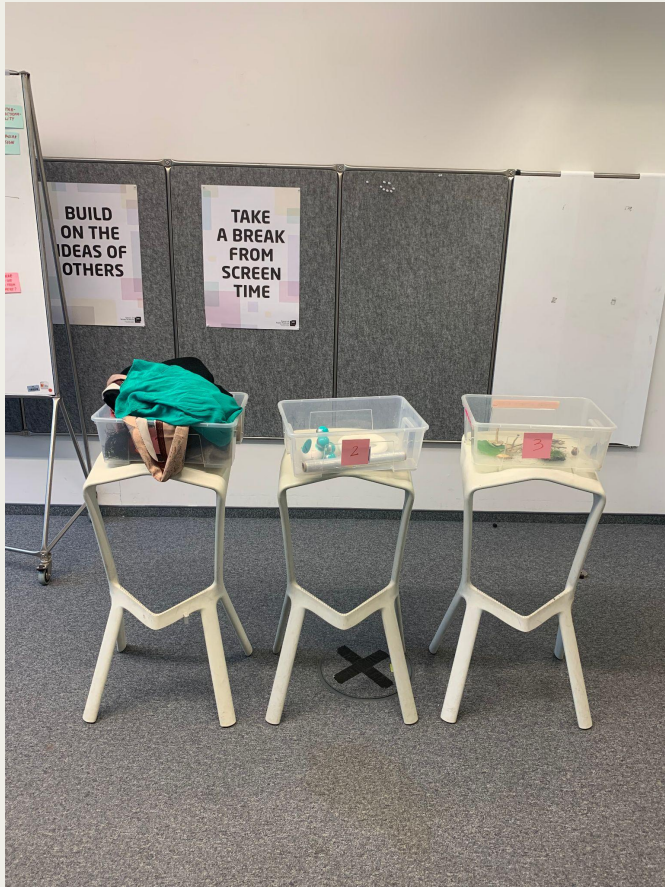
We created the experience “**Mystery Boxes**” introduce other people and team members to our topic. The experience was **a workshop with three boxes where one blind-folded participant** went through each box, and described what they feel and smell.

The **key functions** of the experiment were:

- Connecting the participants with the materials and with nature
- Raising awareness for the issues that exist connected to these materials

Our **initial assumptions** of this workshop were the following:

- Everyone knows and cares about the issues related to materials & fashion industry.
- Everyone has a connection to materials and fashion.
- The issues are very complex and difficult to solve. Not sure which direction to go in.
- Not sure if I will be able to find any new solutions in this problem space, and be able to include all the different aspects that defined



Set-up Mystery Boxes: Boxes with different materials which were to be explored by a blindfolded participant

The **key findings** for this experience were:

- The participant really enjoyed interacting with the different materials. She mentioned how being blindfolded strengthened her other senses, and that she now has a different perspective about materials, especially about the clothes she wears on her body. She usually doesn't think about the materials she wears, but the experience made her reflect on it.
- Other observers said that by seeing the different objects, they were immediately able to label them, and would not have described them in the same way as the participant. This shows that removing one sense, can also remove bias, strengthen other senses, and create new experiences.

To frame our challenge we had a look on the different topics we collected within our brainstorming session as well as the value system we created. With this starting point we **selected specific problems we want to address in our challenge:**

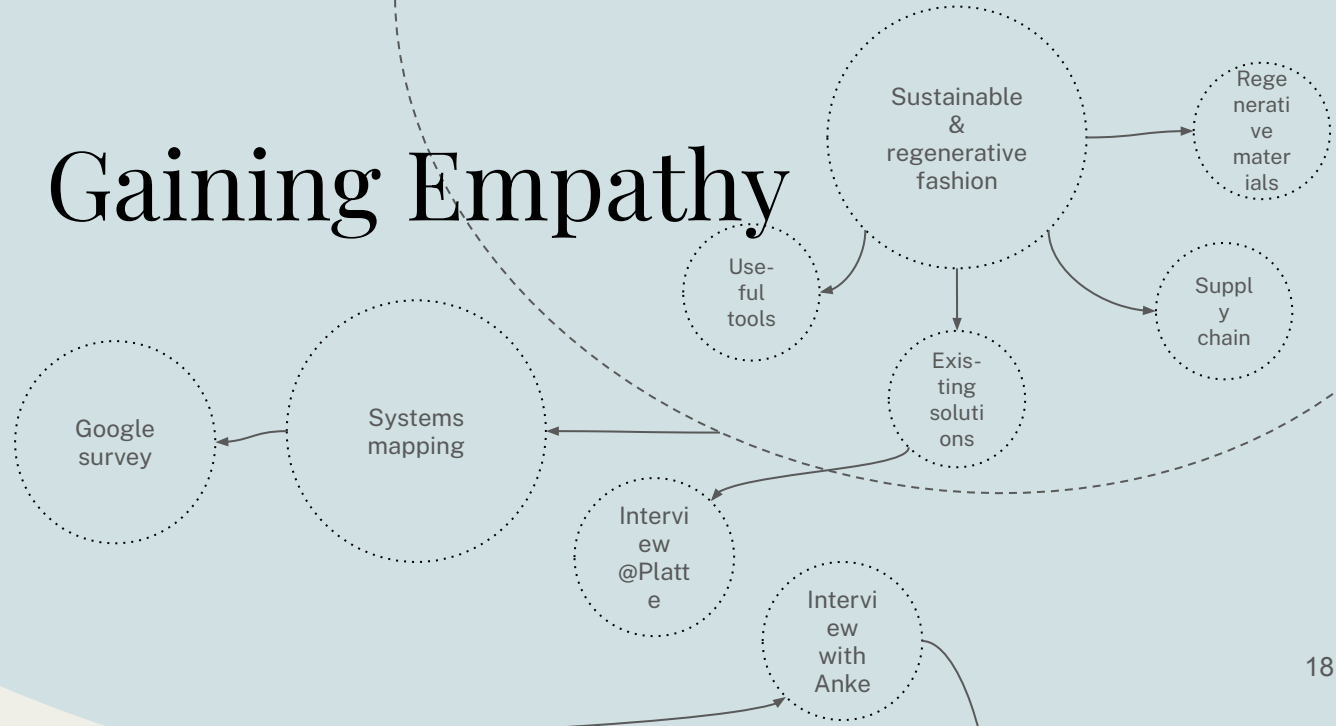
- Materials are too expensive
- Lack of sustainability knowledge
- Lack of sustainable and regenerative material access
- Lack of transparency
- Too early in development (not produced in big quantity)
- Old structures and lack of willingness to innovate
- Green washing

From these defined problems we started to structure and decide how we want to proceed. We decided to focus on a local fashion brand which needs to consider **using regenerative and innovative materials** in order to produce sustainably. It also becomes clear that there must be **a definition of what “sustainability” means for the brand, for us and where EU regulations make definitions.** Considering these aspects first defined our challenge like this:

“In a world where the fashion industry creates negative social and environmental impact, we want to reconstruct the lifecycle of a fashion product for brands considering their environmental, social and governance reporting obligations.”

We received feedback that this challenge should be more concrete. Especially we should define the target segment and a possible use case. At that point we were thinking of making up a use case for sustainable business attire in the premium segment. With roughly defining the challenge we also realised that we needed **more research to become more concrete in our challenge definition.**

Gaining Empathy



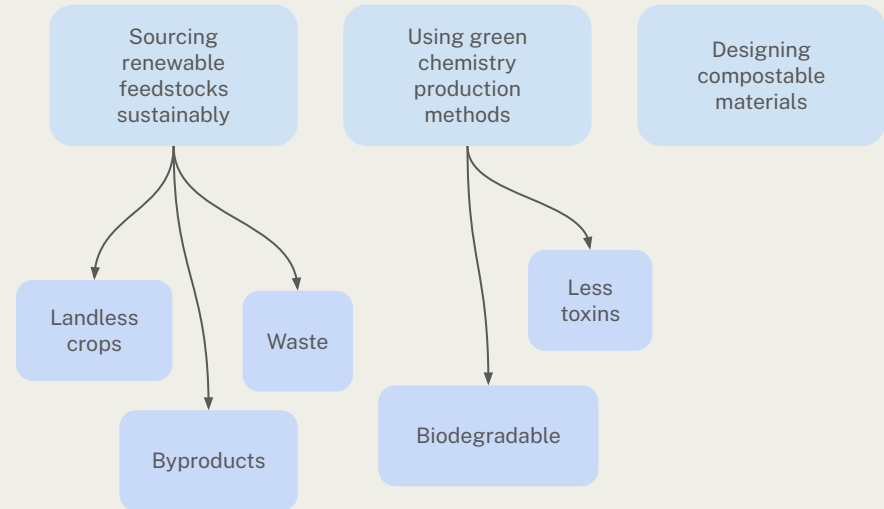
The process of gaining a deeper understanding of sustainability lead us to the term *regeneration* and *regenerative materials*. Regenerative materials are **alternative materials that have a net-positive impact on the environment and society**. Materials which can be regenerative are: packaging, textiles and construction materials.

The negative impact sources in producing the materials are

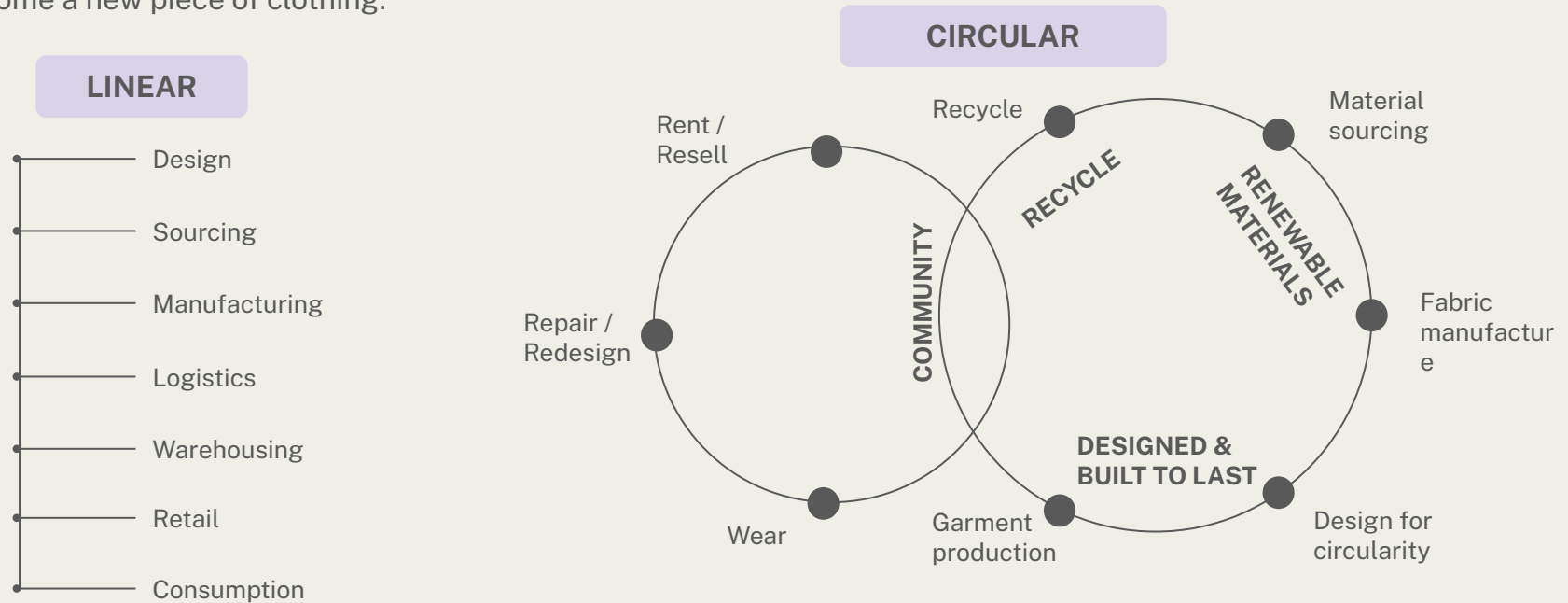
- the extraction of finite resources,
- the toxins released during production,
- the GHG emitted through transport,
- and the pollution through littering or landfilling.

Regenerative systems **depend on the production, the collection of raw material and the reprocessing of material**.

HOW TO CREATE REGENERATIVE MATERIALS?



The fashion supply chain can get complex, so we started researching on it in order to get a better understanding where in the supply chain our solution could potentially have an impact. We found out that the **conventional supply chain in fashion is linear**, whereas the **ultimate goal should be a circular economy** in fashion. The main difference of these supply chains is that the circular system **considers the life of a garment after the use phase** and therefore also considers different ways of keeping the newly garment in the system for as long as possible until it can be recycled to become a new piece of clothing.



In order to approach the topic of sustainable and regenerative solutions in the fashion industry, we started to **research on existing brands** who consider themselves as **being regenerative**. We divided the research sections to womenswear and menswear. We only listed some of the research to make the **key findings** clear:

- Within womenswear there is a lot more innovation concerning sustainable and regenerative clothing.
- The interpretation and realisation of sustainability differed from brand to brand.
- Certificates are especially being used for proofing the ecological and fair production of the fabrics.
- Within menswear section especially within business attire regenerative solutions do not exist at all.



During the process of gaining empathy and researching in depth we also found some interesting tools along the way. We did not use any of these frameworks or tools in the end, but it gave us a **common ground on how we could think of new ways** concerning our challenge.

- The Circular Systems Navigator **by Henry Willem Müller and Konstantin Remke**

The Circular Systems Navigator helps to create sustainable and regenerative systems by guiding through the creative process. The navigator combines product, service, and business model design to help embedding the solution into existing systems and points out which actors you need to collaborate with to realize your circular future.¹

- The Circular Behaviour Toolkit **by the Danish Design Center**

The Circular Behaviour Toolkit combines the fields of circular economy and behavioral design. The purpose of the toolkit is to put the human factor in a circular context and to provide organizations with tangible methods.²

- Doughnut Economics **by Kate Raworth**

The Doughnut Economics is a concept on a new economic system where the economic is able to bring humanity in the doughnut. It is all about keeping the planetary boundaries through an ecological ceiling and a social foundation, so humanity is able to thrive.³

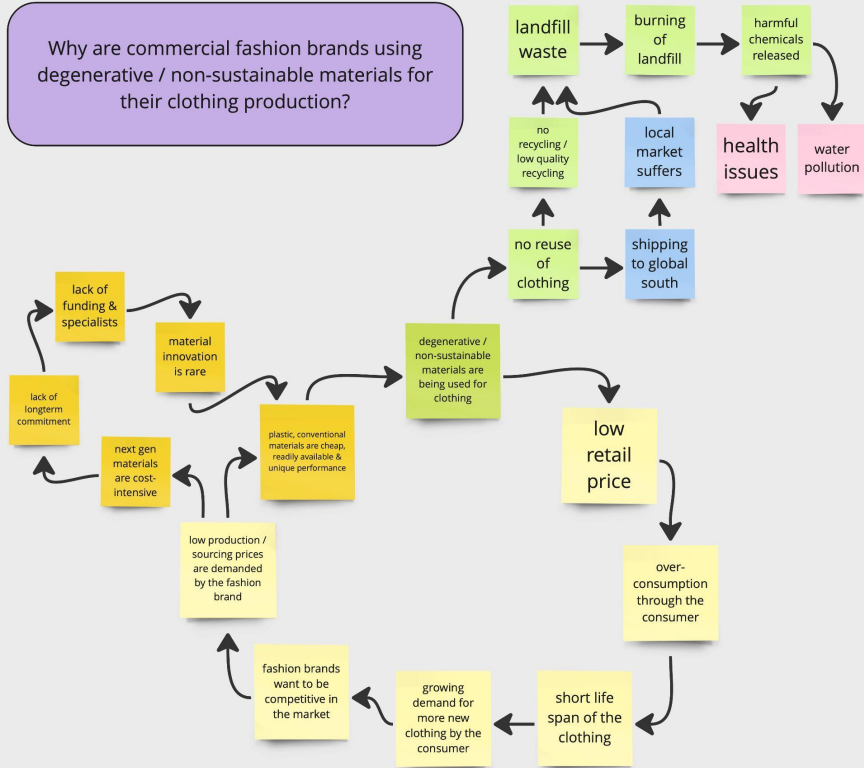
- Methods on safe and circular material choices **from the Ellen MacArthur Foundation**
- The Circular Rebound Tool (**Miro Template**)

¹ Willem Müller, Henry u. Remke, Konstantin. 2024. Circular Systems Navigator: A Process Tool for Circular Systems Design and Rebound Effect Mitigation.

² URL: <https://ddc.dk/tools/the-circular-behavior-toolkit/#>

³ URL: <https://doughnuteconomics.org/about-doughnut-economics>

Why are commercial fashion brands using degenerative / non-sustainable materials for their clothing production?



After collecting all the information through our extensive research, we wanted to summarize this with a map and concretely **address the complex problems within fashion**. There seemed to be one question to be omnipresent:

“Why are commercial fashion brands using degenerative or non-sustainable materials for their clothing production?”

With this question in mind, we created our system map and were able to **define the various causes** throughout the process of clothing production and identified **which factors contribute to the subsequent use of degenerative or unsustainable materials**.

The map was a good **starting point for asking fashion experts** about their perspectives.

GOOGLE SURVEY

We created a google survey to find as many perspectives from any field within the fashion industry. Within the google survey we actively **asked for co-creating on the map** we created next to asking questions about their experiences in their area of expertise and **where the leverage points are in order to change the complex problem**. We sent the google survey to former work colleagues, to the fashion revolution network and shared it on social media channels.

INTERVIEW AT PLATTE BERLIN

Through one of our coaches at d-school we received a contact with the co-founder, **Katherine de Siqueira**, of Platte Berlin. Platte is a local and sustainable fashion retailer as well as a community and event space in Berlin. We asked questions about the brands they are selling and **how they make decisions concerning sustainability standards**. We also **received insights about their customers** and the way Platte wants to teach them sustainability.

INTERVIEW WITH ANKE

Through the fashion revolution network and the google survey we were able to interview **Anke Beutel who is a garment engineer with 20+ years** of experience in the fashion industry. Within this interview we were able to **gain a deeper understanding for her vision on how to reduce fashion waste** and change the fashion system to the better.

Synthesis

Collectin
g nuggets

Making
sense

From the Google survey we were able to receive insights from seven different people with expertise from the fashion industry. We received **insights from the sustainability management, buying and planning, product development and from the NGO sector**. Through the interview with Katherine de Siqueira at Platte we received **a local perspective from a retailer in the creative scene of Berlin**. After collecting all the insights (DT terminology: nuggets), we reduced the amount by **selecting the nuggets that were new to us or seemed to be of high relevance in order to change the complex problem that we created on the system map**. We selected the following nuggets:

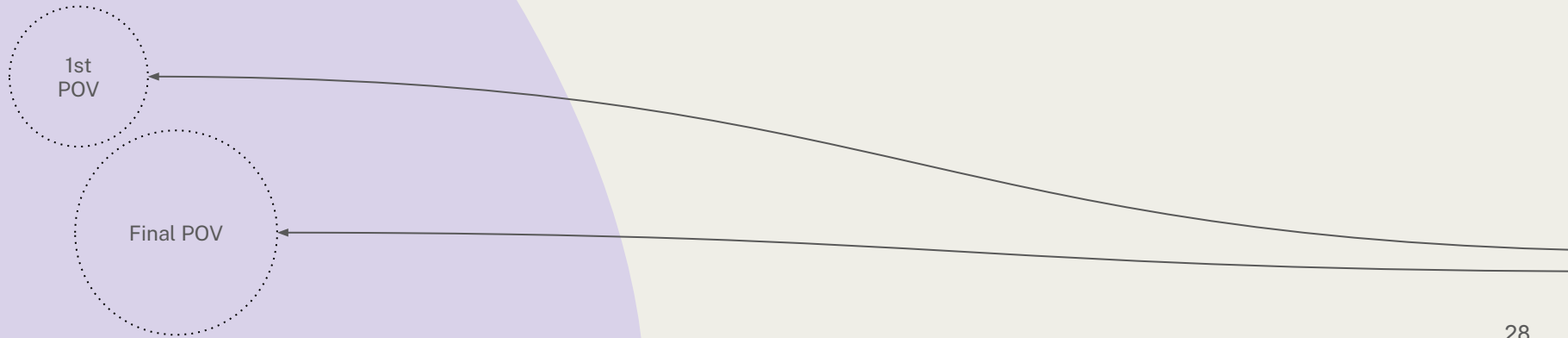
- *"If there were regulations, that would force companies to actually develop qualities that are made to last at least 2 years."* – Anke Beutel, garment engineer & product developer
- *"circular materials (...) were too expensive, quality wasn't as good as of virgin fibres and often not available on the market"* – Anke Beutel, garment engineer & product developer
- *"Internalisation of environmental costs so that companies have economic incentives (focus on the economy as a whole)"* – Sebastian Gimler, Buyer and Planner
- *"Willingness to change and education at fashion brands is lacking. Sustainability currently only add-on"* – Sebastian Gimler, Buyer and Planner
- *"There is no leverage point from my area of expertise to change the system"* – Kai Behrmann, Product developer
- *"The responsibility for using unsustainable materials is lying at the material companies solely"* – Kai Behrmann, Product developer
- *"Doing the right analysis like materiality analysis, risk assessment, SWOT analysis would lead to a business case of sustainability, which is needed for having success in the market."* – Julia Köllner, Sustainability Manager
- *"Knitwear is more sustainable, no waste"* – Katherine de Siqueira, Co-founder at Platte Berlin

The google survey gave us a broad understanding how the participants were thinking about our challenge. As we selected two interesting nuggets from **Anke Beutel** and as we were in contact with her through the fashion revolution network, we were able to conduct a **longer in-person interview** with her. With this interview Anke introduced us to her **vision on how the fashion industry should change in order to reduce fashion waste**. Therefore we were able to select a couple of new nuggets which were of high interest for us. Even though we originally chose a challenge which focussed on material innovation in the fashion industry, we chose to proceed with a nugget which was **focussing rather on the pattern making and fitting of clothes**. Anke's vision on this topic gave us a completely new perspective which added on our own expertises and previous research.



Point of View

1st
POV



The diagram features a large purple curved shape on the left side of the slide. Two dotted circles are positioned on this shape. The upper circle is labeled '1st POV' and the lower circle is labeled 'Final POV'. Two curved arrows originate from the right side of the slide and point towards the circles. The upper arrow points to the '1st POV' circle, and the lower arrow points to the 'Final POV' circle.

Final POV



Anke Beutel, garment engineer in front of sizeGermany dummies

With the main insight from Anke in mind, we started working on our Point of view (POV). The POV helped us to **clarify the actual problem of our persona**. Therefore the definition of the main need and the main hurdle was very helpful for elaborating on the POV. After a few iterations we ended up with the following:

We met Anke, 45 years old, pattern maker with 20+ years of experience working for fashion brands such as Zalando. **She needs** to feel like she is not creating more waste through her job **because we infer that** clothes are not being fitted, low quality materials are used and short-term aesthetic decisions are being made by her team.

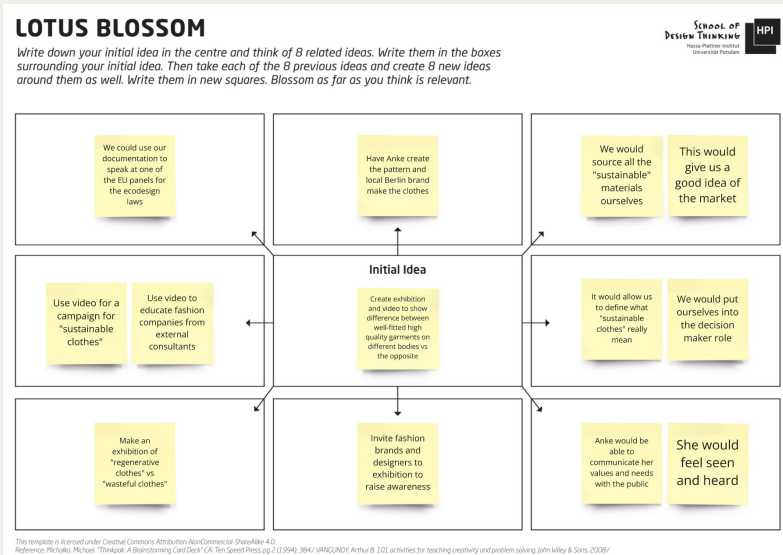


Ideation

To kickstart the **ideation phase**, we asked ourselves:

*How might we help Anke as a pattern maker in the fashion industry so that she doesn't feel like she is creating more waste through her job **in a world where** clothes are not being fitted, low quality materials are used and short-term aesthetic decisions are being made by her team?*

This question helped us to ideate through different methods, one of them is illustrated in the image below.



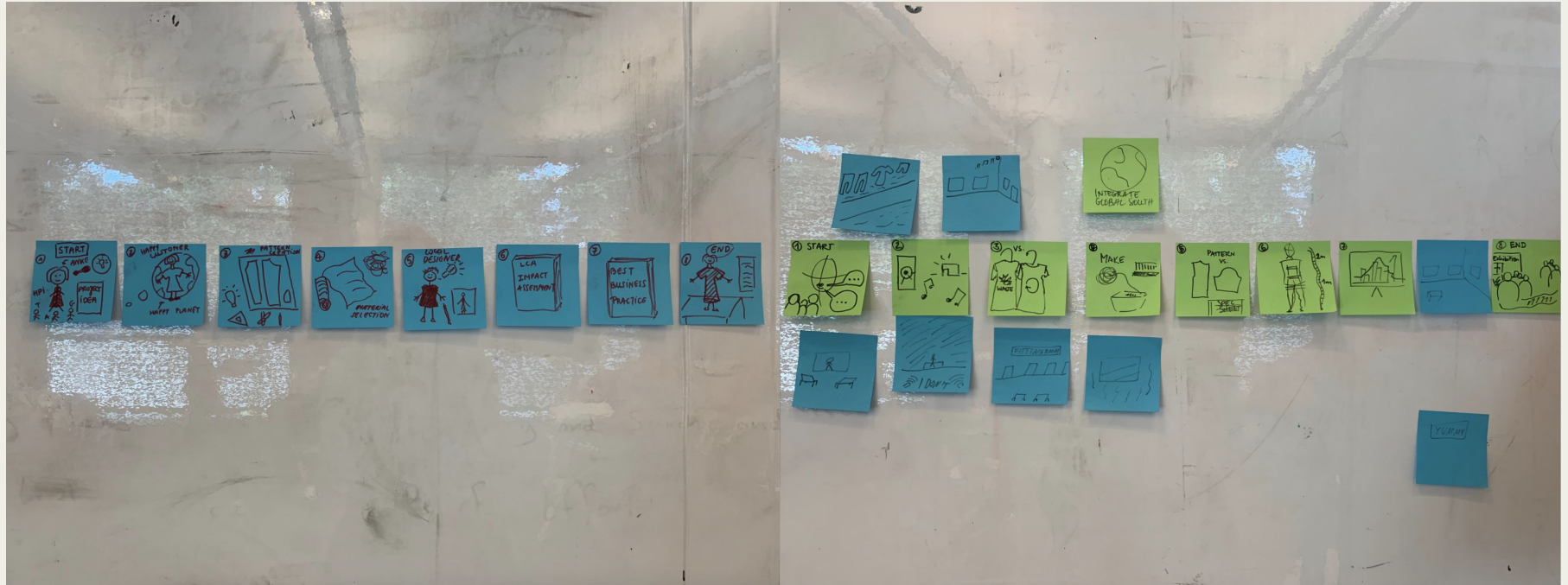
The final idea from this session was threefold: **to create clothes of different fits, showcase them in an exhibition and make a video to spread our message**. Our aim was to show the difference between well-fitted high quality garments on different bodies vs bad-fitting clothes.

We took this idea further and created a **storyboard** for it, which is illustrated on the next page.

We also asked ourselves: *“what would be the end goal of our idea?”*. We realised that **the most impactful change** we could bring would be to bring our idea to the EU and try to implement it into the EU Strategy for Sustainable and Circular Textiles. This goal gave our idea a new dimension.

Different ideation methods and results.

Ideation



Storyboard of our video and exhibition idea.

The storyboard was focused on the **before** - the making of the prototypes (garments of different sizes and fits) & the video, and the **after** - the exhibition itself and showing the video to the public.

We rephased our question to be more precise in our ideation:

How might we ensure that Anke, 40, a product developer at Zalando, can create long-lasting garments that fit real bodies in a world where fashion brands create clothes that do not fit real bodies (esp. bigger sizes) leading to high fit-related return rates, low customer loyalty, and increasing textile waste?

We ideated further, eventually coming up with the final idea dashboard, illustrated below.

IDEA DASHBOARD
Illustrate, flesh out, and develop one of your ideas.
Note: Dashboards need to be self-explanatory and work without anybody explaining it.

Name: Annika, Luise, Guoda Team Name: Passion for Fashion Date: 13.06.24

Idea Name & Tagline
Gradient Patterns: showcasing the importance of making pattern design fit for the future.

1. Who is this idea for? Describe the intended user of the prototype.
The intended user is a female product developer with 20+ years of experience in the fashion industry who wants to create long-lasting garments that fit real bodies in a world where fashion brands create clothes that do not fit real bodies (esp. bigger sizes) leading to high fit-related return rates, low customer loyalty, and increasing textile waste.

2. Why is this idea relevant? Pick up on some core research findings that inform this idea.
This idea addresses the growing concern of increasing return rates in the fashion industry, which is a significant barrier to sustainable fashion. Research shows that 20-30% of garments are returned due to fit issues, leading to significant waste. The idea leverages the power of pattern design to create garments that fit a wider range of body types, reducing return rates and increasing customer loyalty. It also addresses the environmental impact of the fashion industry by promoting long-lasting, well-fitting garments that reduce the need for frequent purchases and disposal of ill-fitting clothes.

3. What exactly is the idea? Describe in max. 100 words what the idea is and what it does and how it works.
The idea is to create an interactive website or app that provides a personalized pattern design for each user based on their body measurements. The website/app will allow users to input their measurements and select a garment style. The system will then generate a custom pattern that fits their body perfectly, reducing the risk of returns and increasing customer satisfaction. The pattern will be provided as a downloadable PDF file that users can use to create their own garments at home.

4. What does the idea look like? Sketch it here.
The sketch shows a user interface for the interactive website/app. It includes a form for entering measurements, a selection of garment styles, and a preview of the generated pattern. The pattern is shown as a set of pieces that can be cut out and sewn together. The sketch also includes a small diagram of a person's body with measurement points.

5. What do you want to build? Which form/technology do you need to use to build this prototype?
The prototype will be a web-based application. It will require a user interface design, a database for storing user measurements and generated patterns, and a backend system for processing the data and generating the patterns. The application will be built using a web development framework like React and Node.js.

Final idea dashboard.

Our final idea was called “*Gradient Patterns: showcasing the importance of making pattern design fit for the future*”.

This idea was designed for Anke, 40, a product developer at Zalando, with 20+ years of experience in the fashion industry. She wants to create long-lasting garments that fit real bodies in a world where fashion brands create clothes that do not fit real bodies (esp. bigger sizes) leading to high fit-related return rates, low customer loyalty, and increasing textile waste.

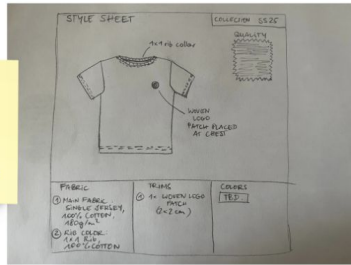
We also wanted to inform regular people and make them feel empowered through our prototype to make more conscious decisions while shopping, as well as make fashion companies realize their responsibility to offer customers more well fitting and sustainable clothing.

The exhibition aims to showcase **the importance of designing patterns for real bodies**. In today's fashion industry, patterns of garments are designed by using the scaling system, which is based on a pre-defined "standard" shape and size. At least **1/3 of online shop returns are fit related**, with **most brands discarding returned items** and not selling them again. Through this exhibition, we wanted to communicate that it's important to create patterns according to real bodies, and that **using correct grading systems can improve the wearability and longevity of a garment**.

The fashion industry is one of the biggest polluters worldwide and **fashion waste needs to be reduced to tackle the huge amounts of clothes that end up in landfill**. Long-lasting garments (good fit, durable and high quality material) are more sustainable and should be a focus of fashion brands for their long-term economic planning.

The idea was to create an interactive exhibition to **shed light on the waste problem** of the fashion industry while **highlighting possible solutions through pattern grading and more sustainable materials**. The storyline is told along the whole garment development process, e.g. recording the making a t-shirt while using the grading as well as the scaling system. With this recording we want to **show the difference it makes when body real fits are created** through pattern making with the grading system: **long lasting garments and less fashion waste**. These garments will be exhibited to the public. They will be worn by a model (shown through photographs & video recording) and showcased on a mannequin in the room.

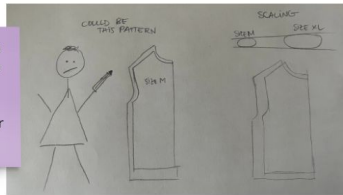
creating the tech pack for the pattern maker or production site



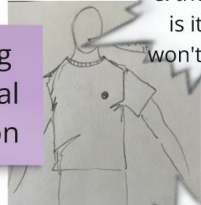
	S	M	L	XL	
BACK LENGTH	58	60	62	64	PRINT
CHEST	48	52	56	60	2-4
ARMHOLE	19	19	19	19	2-4
BODY WIDTH					
SHOULDER					
NECKLINE					
NECKLINE PATTERN					
COLLAR WIDTH					



pattern creation only referring to measurement chart and just scaling for bigger sizes



fitting on real person

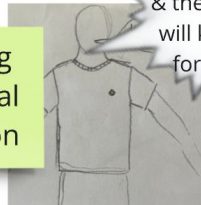


It fits weird & the fabric is itchy, I won't keep it

pattern creation considering real bodies and using grading system for bigger sizes



fitting on real person



I like the fit & the fabric, will keep it for long

Final sketch of our idea.

Making of the Exhibition

While drafting the blouses, we **worked through several decision rounds to determine which measurements, fabric and quality of manufacturing** would make the most sense to illustrate the interplay of size, fit and material while keeping the available time for sewing the prototype in mind.

We were able to get the necessary **patterns from our project partner Anke Beutel**. The **buttons were 3D-printed by valupa**, a startup focussed on developing sustainable closures (buttons, buckles, clasps) for the fashion industry.



Closeup of the buttons



Selection of samples from Valupa during the exhibition

To make the discrepancy between a garment with body real fit and a cheaply produced garment even more apparent, **shortcuts were taken during the sewing** of the “same measurements, different fit”-blouse in size 42.

Similar shortcuts are common in the fast fashion industry to cut costs, by either not including structural supports like interfacing, or lengthening stitches which reduces the time needed for sewing.

The **Gradient Pattern Documentary** is the introduction into the topic for visitors of our exhibition as it is shown to everyone before they have a look at the other exhibition stations. This is to **create a common ground of knowledge and build an emotional connection** between the viewers and the issue we are presenting.

The documentary is a compilation of three segments:

- An **interview with Anke Beutel about her mission** and experiences working in the fashion industry as a garment engineer for the past 20+ years
- **Educational content** about the current garment production process, the state of the world when it comes to fashion waste and its impact on the environment
- **Process sequences of constructing and sewing** our three prototype blouses



Screenecap from the documentary



<https://youtu.be/P2U5oUUDsmw>

Our **main prototypes were the three blouses**, but especially for showcasing our work we focussed on creating an exhibition around the prototypes. This was to illustrate the knowledge we gained throughout the project and **create an immersive and educational experience**.

Because of that, the documentary was shown in a **mini movie theatre**. The room had seating options, very dim lighting, a big screen and was separated from the main exhibition space. One of the team members was in the movie room to answer questions immediately after the screening, which was well received by the visitors. We were able to **start a conversation and guide the visitors towards the exhibition stations** that were of the most interest to them.



Boxes with information on fabrics and samples to touch

In the middle of the room we **offered information on different fabrics**, e.g. what they are made of, how they are produced, and the environmental and social impact of the production. The selected materials were the following: Cotton, ECONYL®, Hemp, Kombucha-leather, Nylon, Polyester, SEACELL®, Silk, TENCEL®, Wool

We **provided posters about the research** and the transcript of the interview shown in the documentary, as well as **additional information about how size and fit is handled in the fashion industry**, for people to read through in their own pace.

The exhibition consisted of **four main stations:**

- Three blouse prototypes
- Our project documentary
- The materials station
- Posters documenting our research and project progression

There were **five additional aspects to create a well-rounded show:**

- One **video showing the three different blouses** and how they fit on the body during movement
- One **screen cap video of the creation of a tech pack** (the information package which a fashion designer or brand would send to a manufacturer for the production of a garment)
- **Button samples and flyers from VALUPA**, who provided our 3D printed blouse buttons from sustainable material
- A **pile of old clothes** in the middle of the room to visualize the fashion waste problem
- An **interactive feedback wall** where visitors can write down their answers to some thought provoking questions



Showing how the blouses fit bodies of different sizes

Outlook & Next Steps

Feedback we received from the first run of our exhibition which we will incorporate with new elements and improve in the next iteration:

- People would like **more actionable information as a takeaway**. They were not able to translate the internal enthusiasm for change – which came up while watching the documentary and going through the exhibition – into steps they could take in their own lives, which left them feeling frustrated
- More **concrete highlight on our supplier of sustainable buttons** (valupa), as their contribution was not very clear to the visitors
- **Clearer description plaques on some stations** of the exhibition, e.g. the video showing the making of a tech pack
- Making the knowledge we compiled on the **posters and exhibition items available online to be shared on social media** to gain more visibility from the fashion community
- **Improve the individual stations** to make it easier for us to exhibit multiple times in the future
- Possibly **add a section** to talk about the topic of “being in fashion” and the pressure that creates with the change from two fashion seasons a year to 52 fashion seasons for fast fashion brands

We want to **improve the documentary video** with the right image and music licenses to **make it available to be shared online** and on social media.

Next steps: We will be showcasing an improved version of the exhibition at the NIO house in Berlin in November 2024.

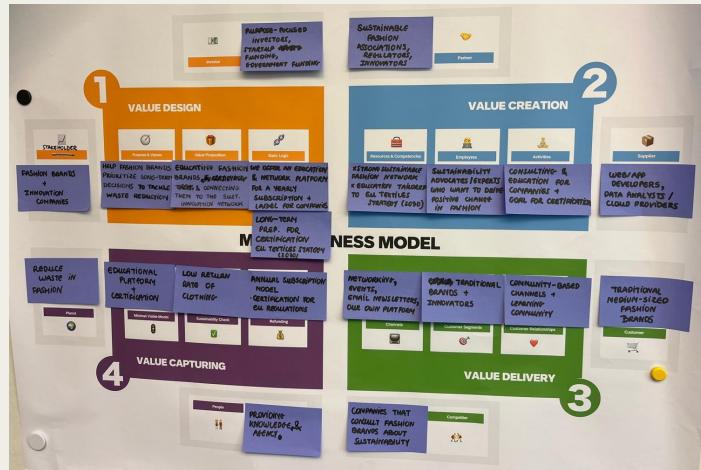
Translating our design thinking idea into a business model through the **Meta Business Model** was a helpful exercise which allowed us to ideate on how to solve our defined problem in the real world.

Our purpose & values were to help fashion brands prioritize long-term decisions to tackle waste reduction by educating them & connecting them to the sustainable fashion network. Our basic logic would be to **offer an education platform & network for a yearly subscription and provide a label to the companies within the network**. We would **create a certification for the brands for the EU Textiles Strategy** which will come into effect in 2030, that the brands will have to comply to. Our stakeholders would be fashion brands & innovation companies. Our investors would be purpose-focused investors, start-up funding, and government funding.

We would **create value by providing the fashion brands with a strong sustainable fashion network and education tailored to the EU Textiles Strategy** which they would have to comply to by 2030. Our employees would be sustainability advocates & experts who'd want to drive positive change in fashion. Our **main activities would be consulting & education** for companies so they can be certified. Our partners would be sustainable fashion associations, regulators and innovators. Our suppliers would be web/app developers, data analysts and cloud providers.

Our channels of communication would be **networking, organising and attending events, sending email newsletters, and our own online platform**. Our customer segment would be **traditional brands and brands who want to innovate**. Our customer relationships would take place through community-based channels and via the learning community. Our competitors would be companies who consult fashion brands about sustainability.

Our minimal viable product would be an educational platform and providing a certification. Our “sustainability check” would be measuring that fashion brands have a lower return rate of clothing after working with us. We would refund our investors by **gaining profit through the annual subscription model and fees for certifications**. Our value for the people we’d work with would be providing knowledge and agency. Our **value for the planet would be reducing waste from the fashion industry**.



Translating into a business idea

The Meta Business Model canvas.

**TILL
MAXIMILIAN
SCHMITZ**

Business Administration
& Economics, Sales
Management
till.m.schmitz@gmail.com

**ANNIKA
JASMER**

Fashion Design &
Project Management
annika.jasmer@web.de



**GUODA
TRECIOKAITE**

Polymer Science &
Experimental Design
guodatr@gmail.com

**LUISE
SCHÖNICKE**

UX Research &
Digital Design
luise_schoenicke@yahoo.de

The Gradient Patterns team with our Project Partner Anke Beutel (mid.)

Thank you!

to ANKE BEUTEL

For inspiring us and guiding us through the project

www.whitepattern.clothing

to VALUPA

For their collaboration and supplying us with buttons

www.valupa.de

to ALL RESEARCH PARTICIPANTS

For their invaluable contributions

Coaches and program team

OUR COACHES

Jeremias Schmitt
Design Thinking Coach
5Wx new ventures
hijeremias@gmail.com

Dipl.-Ing. Marco Eisenberg
Design Thinking Coach
Program Manager for “Global Engineering Teams”
marco.eisenberg@icloud.com

PROGRAM TEAM at the HPI d-school

Dr. Claudia Nicolai
Academic director
HPI School of Design Thinking
claudia.nicolai@hpi.de

Thomas Grundnigg
Program Lead
Academic Programs
HPI School of Design Thinking
thomas.grundnigg@hpi.de

Jochen Nünning
Co-Program Lead
Academic Programs
HPI School of Design Thinking
jochen.nuenning@hpi.de

Acknowledgements

Hasso-Plattner-Institute
School of Design Thinking

Prof.-Dr.-Helmert-Str.2-3
D-14482 Potsdam Germany

Email: office-d-school@hpi.de

Web: www.hpi.de/d-school

*These ideas were created by a multidisciplinary team
of students at the HPI d-school.*



DESIGN THINKING JOURNEY

The whole process documented on our Miro.

↳ Miro Board

https://miro.com/app/board/uXjVKQgouOU=?share_link_id=46921236388

TOOLS FOR SUSTAINABILITY

The selection of tools we gathered throughout our research and their explanations.

↳ Miro Board

https://miro.com/app/board/uXjVKQ4ipLU=?share_link_id=203568705834

CO-CREATION ON SYSTEM MAP

Within our survey we gave participants the chance to co-create with us on a Miro board.

↳ Miro Board

https://miro.com/app/board/uXjVKJlu_RA=?share_link_id=164029204202

SURVEY RESULTS

All results and every reply of each candidate can be found on this google sheet.

↳ Google sheet

https://docs.google.com/spreadsheets/d/1zhxqxCs6VOKCpZQEaX_WH8-8wMnboMtS7ZrGNJoCWy4/edit?usp=sharing



CIRCULAR SYSTEMS NAVIGATOR

by Henry Müller & Konstantin Remke

0 Introduction

Welcome!

The Doughnut Economics Navigator is a process diagram that guides you through the steps of creating a circular system. It is designed to be used as a template for your own work.

Target Group

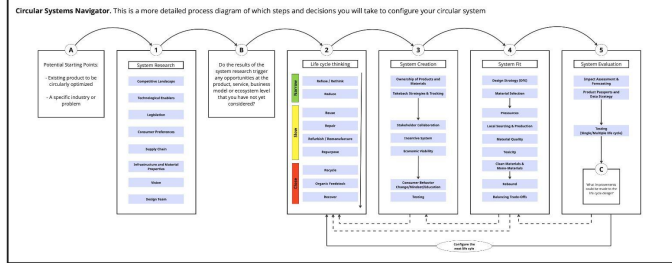
Chief of Enterprise	Business Development	Industry Clubs	Industry Approach
Customer Background	Business & Design Professionals	Students	Up to Internal users

Phases in the Circular System Navigator

Target Group

Chief of Enterprise	Business Development	Industry Clubs	Industry Approach
Customer Background	Business & Design Professionals	Students	Up to Internal users

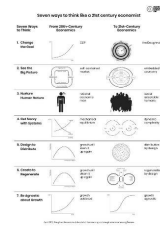
Phases in the Circular System Navigator



doughnuteconomics.org

About Doughnut Economics | DEAL

Meet the Doughnut and the concepts at the heart of Doughnut Economics.



Deep design shapes what organisations can be and do in the world



How much value can we extract from this organisation?



How many benefits can we generate through this organisation?



www.ellenmacarthurfoundation.org

Methods

We've lined up a number of activities to help you understand, define, make, and release circular innovations.

miro.com

The Circular Rebound Tool Template | Miroverse

Discover how Ankit Das does The Circular Rebound Tool in Miro with Miroverse, the Miro Community Templates Gallery. View Ankit Das's Miro templates.



skc.dk

The Circular Behavior Toolkit

Skip to content With The Circular Behavior Toolkit, we aim to provide businesses, organizations, and design studios with a tangible method for working with behavioral design in the context of a circular economy. Scroll down to watch a video introduction...

CO-CREATION ON SYSTEM MAP

For all insights please enter the Miro Board.

Dear participant, you made it to Miro and you are about to **co-create with us!** Here is some guidance for you, so it doesn't get too messy.



Choose one of the templates with this sticker.



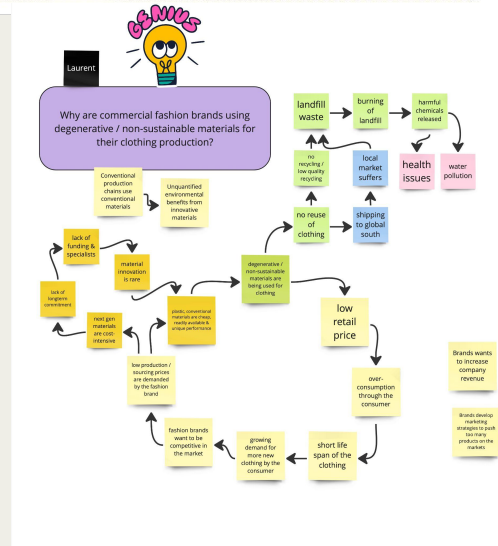
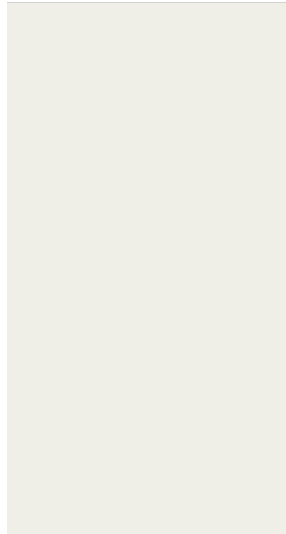
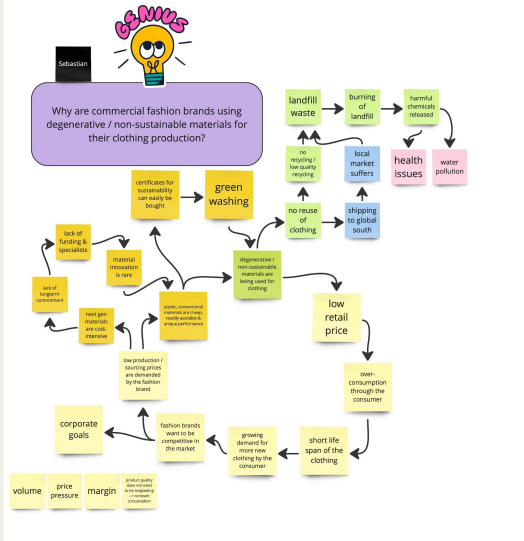
Add your name above, so we can match it with your filled out survey. Get started with your visions and ideas!



Done? Great work! Just delete, the "Need Feedback"-sticker and add this "Genius"-sticker to your template.



Return to the tab with the google survey and answer the last questions - you are about to be done. Thank you!

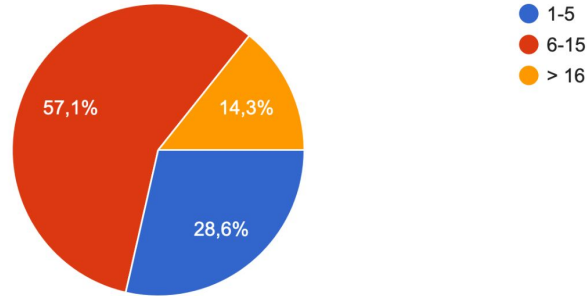


SURVEY RESULTS

For all replies and insights from the participants, please enter the link to the google sheet.

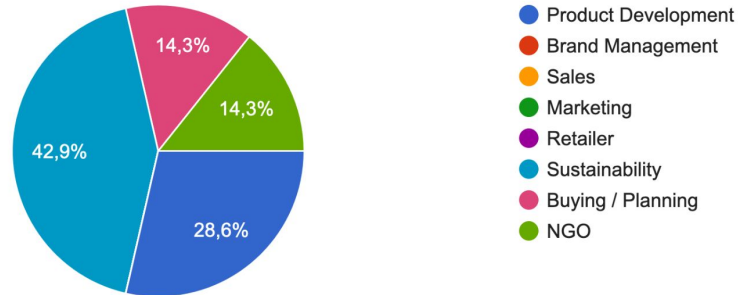
How many years of experience do you have in the fashion industry?

7 Antworten



What is your field of work within the fashion industry?

7 Antworten

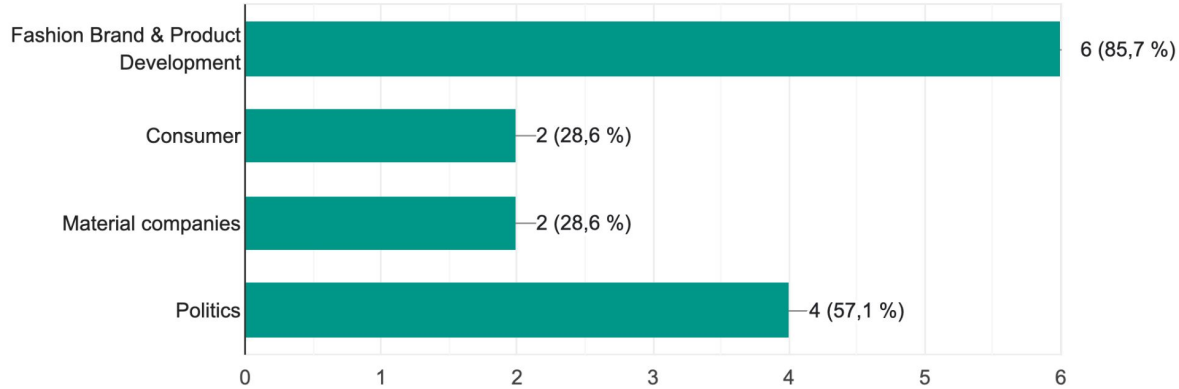


SURVEY RESULTS

For all replies and insights from the participants, please enter the link to the google sheet.

Where do you see the main responsibility for the described complex problem?

7 Antworten



Do you see any leverage points from your profession / area of expertise concerning the research question? (Why are commercial fashion brands us...changed to using regenerative materials instead?)

7 Antworten

