

THE FUTURE OF  
**FURNITURE**  
NEVER REFUSE TO REUSE



A stylized illustration of a room. On the left, a window with a dark frame looks out onto a white sky. Below the window, a green cactus sits on a brown surface. In the center, a white sink is set into a pinkish wall, with a dark, curved faucet. The floor at the bottom is a checkered pattern of brown and white squares.

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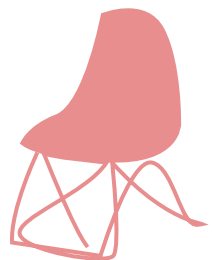
Never be  
afraid of  
change.

@MINNA\_50

# INTRODUCTION.

At first I want to give a small introduction about myself. My name is Jennifer Dierijck and I study Communication and Multimedia Design. I chose this minor because I want to learn to think outside of the box. The core of this minor in my opinion is in the name, designing an innovation for one billion people. In my own words that would mean that I have to come up with an innovative concept, and one billion people can use it in their lives.

In this report I will show you the proces of my innovation. I will tell something about my chosen trends, the insights I got from those trends and my research, the design methods I've used and my final concept and visualizations.



**TRENDS.**

**FORGIVING BY  
DESIGN.**

MEGA TREND: HELPFULL

**NEW LIFE.**

SUSTAINABILITY

**CIRCULAR  
ECONOMY.**

NO MORE WASTE

## DESCRIPTION OF THE TRENDS.

People nowadays have high expectations of products and services. When that expectation doesn't match with the needs and wants, the user expects that the product or service of choice 'magically' adapts to the future of the customer.

Let me give you an example of this trend. According to David Mattin (Global Head of Trends & Insights at TrendWatching) in an article for Next there was a new service in July 2017. Mastercard partner with UK-based mobile wallet Curve offered a new service that allows customers to switch the credit or debit card they used on a purchase up to weeks after the event. It's called "Financial Time Travel". Customers need to connect their bank account and the debit or credit cards to their Curve account.

I think this is a good example of what is possible already in this time and age. But if you look further into 2030, and really think about an innovative way to find possible solutions for the problem the customer is having: they want to have the ability to swap products when they are done with them. Maybe it's because the size doesn't fit anymore, or it's just the product or service itself that doesn't fit the needs of the customer.

It's all about having a product or service that will not only match their needs right now, but also in the future.

I also think it's important to look at sustainability. It's okay that users want a product that lasts, as long as the previous product can be re-used. Let me give you another example that suits this trend in a more sustainable way.

According to Raluca Kişescu (2017) RYU activewear brand offers discounts for existing customers if their size changes. Shoppers could return back the products, buy new ones at half price and the returned ones will be donated to local-fitness related charities. So luckily this trend takes sustainability into account.

According to a survey done by Accenture in February 2017, 78% of customers say they retract loyalty faster today than 3 years ago. Life is getting more spontaneous, therefore they expect the same approach from brands: "don't make me plan ahead, adapt as I change!" While many physical products are fixed, you could still shape a service around that is adaptable. (Raluca Kişescu, 2017)

# DESCRIPTION OF THE TRENDS.

I began my research with the trend Forgiving by Design. But I missed something and I gradually found out through my design methods that I actually really care about sustainability. So I tried to find trends that suits the sustainability and no waste movement. I found the following trends:

## **NEW LIFE.**

Some products decompose at a normal rate, but some take much longer. We need to think of ways to turn this waste into something we can use. Change our linear way of life into an environment friendly cycle. We must try to give NEW LIFE to the scrap we do not need anymore. Re-purpose them in a way that they can be used again.

## **CIRCULAR ECONOMY.**

The aim of the circular economy is to no longer allow products to become waste after their use and, instead, to reintroduce them into the production cycle as secondary raw materials. Closing off material cycles is not only positive for the environment, as resource-intensive industries also profit from the reprocessing of valuable raw materials.

<https://www.trendone.com/en/trend-universe/trends-2018/circular-economy.html>

To get more insight in my trends I've tried to come up with some **how might we** questions. This could give me more insights while searching for a solution for my innovation.

A few questions that I've thought of as a starting point for my innovation:

**How might we make people care more?**

**How might we make people see the importance of recycling?**

**How might we make a circular system for furniture?**

**How might we hack the minds of people to reuse furniture?**

Other important questions could be:

**What if no more mass production of new products?**

**How can we make it easier for people to recycle?**

THE FUTURE OF

# FURNITURE

NEVER REFUSE TO REUSE.

**WHAT IF THERE WAS  
NO MORE MASS  
PRODUCTION OF  
NEW MATERIALS?**

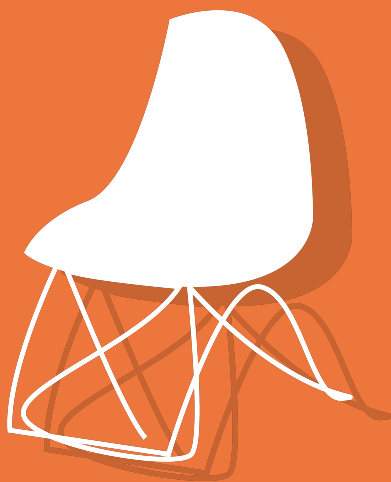


THE FUTURE OF

# FURNITURE

NEVER REFUSE TO REUSE.

**HOW MIGHT WE  
HACK THE MINDS OF  
PEOPLE TO REUSE  
FURNITURE?**



THE FUTURE OF

# FURNITURE

NEVER REFUSE TO REUSE.

**HOW MIGHT WE  
MAKE A CIRCULAR  
SYSTEM FOR  
FURNITURE?**





# RESEARCH INSIGHTS.



When people are stressed, they will stop working on or doing the thing that gave them stress in the first place and do something that they enjoy. The problem is that they lose focus.

the w  
definition to  
travel

78%  
say they  
loyalty  
today  
ago.  
(accenture  
2017)

Self-care:  
people balancing  
lives where people  
preserve their  
longevity and  
in their  
relationships.

People  
travel for  
a season  
Why? When? What  
makes them go back?

People can be  
ignorant because  
they don't know  
the story of the 'victor'  
person.

different  
common

Mind can be  
hacked by:  
1) travel  
2) Observation  
3) Encounters

Why do people  
want exciting  
ways to do  
old things?

# RESEARCH INSIGHTS.

1. "18% of customers say that they **retract loyalty faster** today than 3 years ago." (Accenture survey, 2017)

2. "I throw away items that don't belong in the right bin, just because I **don't know where** else I can throw it away." (Lecturer Patrick)

3. "People expect that a product or service 'magically' adapts to the future of the customer." (desk research)

4. "Customers want to have the ability to swap products if they are done with them." (desk research)

5. "People don't want to plan their lives ahead. They want brands to change with them." (desk research)

I was also wondering why people don't separate trash for recycling. I found that there are three main reasons:

6. Some don't recycle because they really don't care.

7. Some don't recycle because they are unaware of the importance of recycling.

8. Some people don't know how to begin.

Those are really interesting points to start working towards for my innovations.

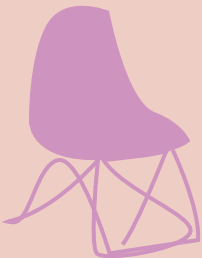
9. Because my innovation is heading towards interior design, I also wanted to have a look at IKEA and how sustainable they really are. I found a document with their 2020 sustainability strategy and these were some of the insights:

- Sourcing 100% of its wood, paper and cardboard from more sustainable sources, defined as recycled or FSC® certified wood
- Using cotton sourced from "more sustainable" sources, such as "Better Cotton"
- That 90% of products will be more sustainable with substantiated environmental improvements
- That as a global business it produces as much renewable energy as it consumes.

I think these are not facts yet because IKEA is trying to live towards these goals.

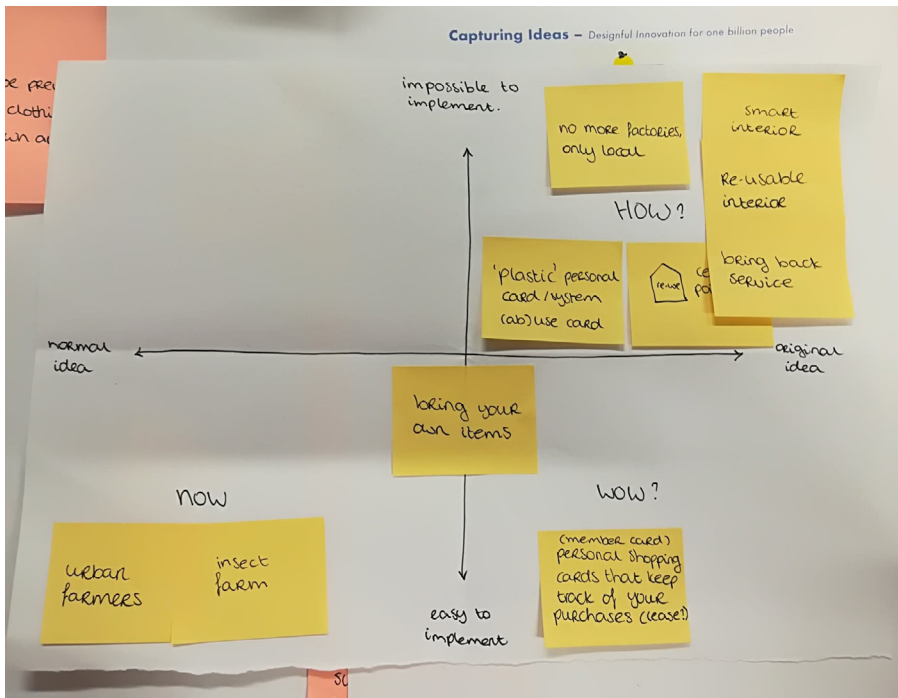
# DESIGN METHODS/PROCES.

7 design methods I've used during  
my proces.



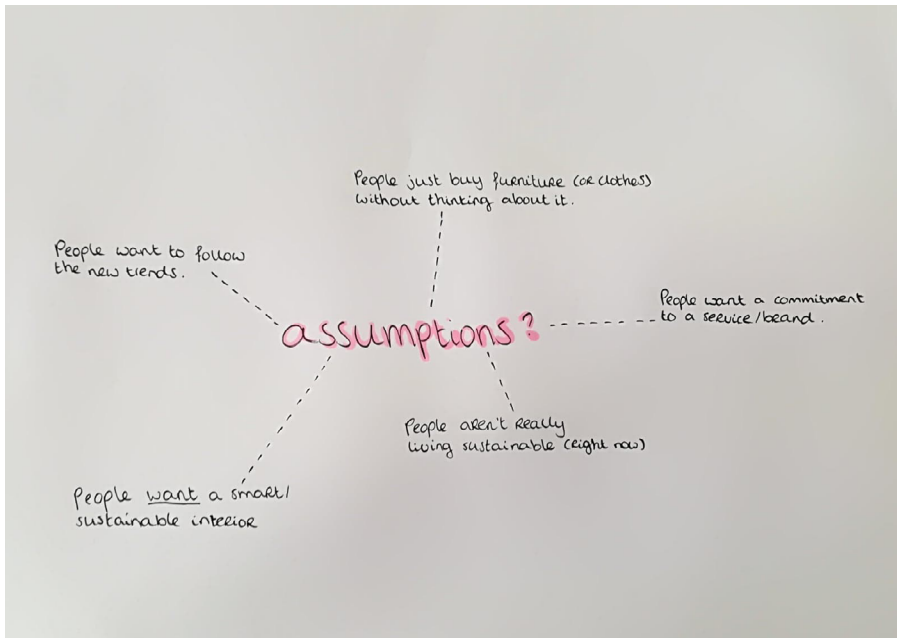
# 1. HOW? NOW? WOW!

One of the first methods I've used to come up with a concept is the How? Now? Wow! Method. With this method you make boxes. You can brainstorm for different concepts and you ask yourself: where does my concept belong? Is it a normal or an original idea? Ease or hard to implement? This way you get a quick overview of how innovative your concept is.



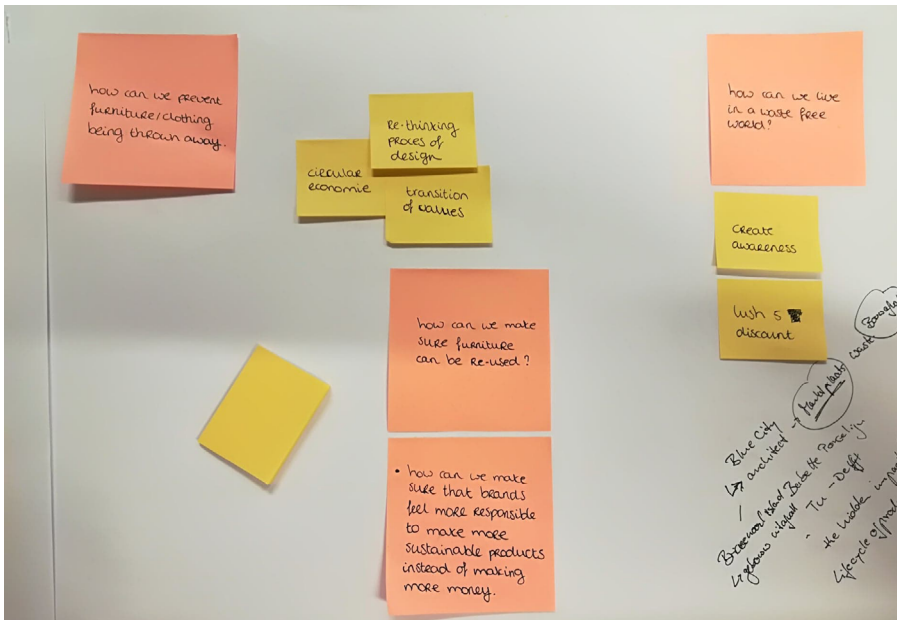
## 2. ASSUMPTIONS.

I also tried a method called assumptions. I've tried to change my mindset and came up with a few assumptions about my innovation. It gave me a different perspective on how to think about subjects and concepts. Because if you write down assumptions you can test if those assumptions are true or false.

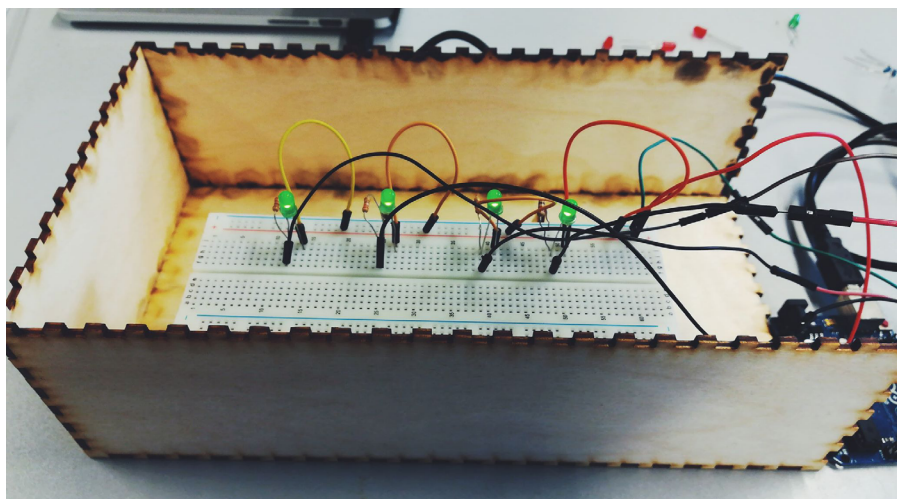


### 3. HOW CAN WE?/HOW MIGHT WE?

One of the other methods where the how can we/how might we questions. By coming up with how can we...questions you can come up with direct and concrete answers. If you come up with a good questions which you can give an answer to, it can give you a solid base of your concept.



# 4. LASER CUTTING/MAKE WEEK.





# 5. MOODBOARD.

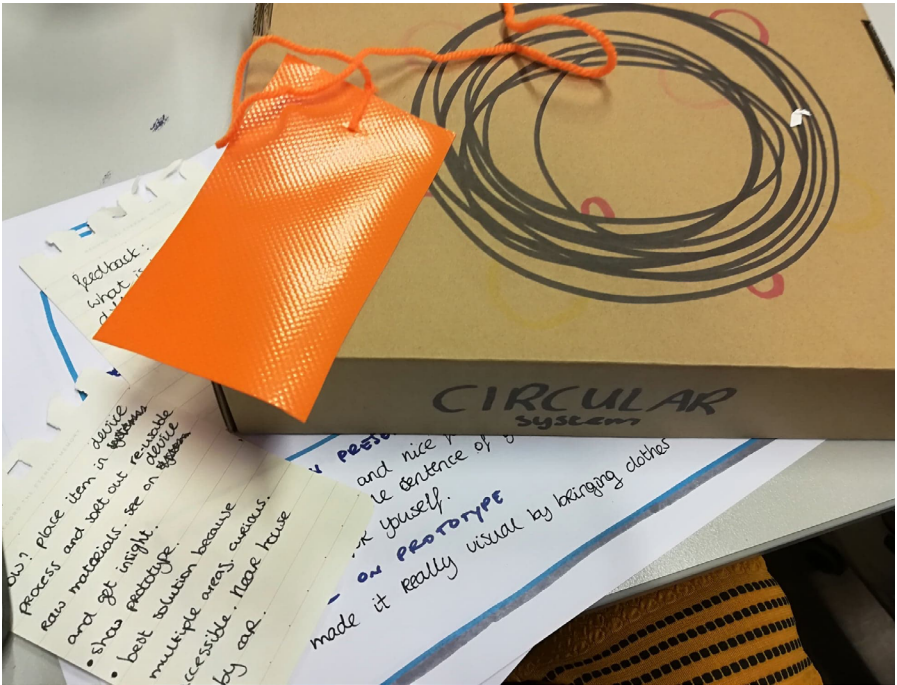
At this stage my concept wasn't really clear yet. I've tried to make it more clear for myself and others and for this method I chose a moodboard. The moodboard consists of different images, drawings and key words. The moodboard really helped me to put different parts of my concept in perspective. This method also really helped me make clear what the key elements of my concept are.



## 6. PROTOTYPES.

One of the latest methods I've used is prototyping. This is the first 3D prototype I've made. This really helped me to make my concept more visual, even though it was a LoFi prototype. It really made me think about what I want and what I don't want with my innovation. I got some really helpful feedback during the Dragon's Den. After the feedback moment I started thinking about the adjustments I had to make to make it more concrete.

The second low-fidelity prototype I've made was a class assignment. For the assignment I used a box to visualize my concept. I've decided to use the outside and the inside to make my concept more clear. I used a lot of different materials to experiment with and images to visualize my target group.









## 7. CULTURAL PROBE.

During the trip in Barcelone I've decided to design a cultural probe. I designed a few assignment on a probe to get some more insights. I wanted to know how much knowledge people already had on raw materials, hacking furniture and sustainability.

I also designed my cultural probe in Spanish just in case my target group couldn't speak English.

The insights I got where that some people who already worked in the field of expertese, like the woman you see on the next page, didn't already have a lot of knowledge on sustainability. She worked in a sustainable hostel where they reused for example furniture from the construction. So that was a assumption on my behalf.

Some people like the man on the next page, who owned a fairtrade coffee and tea shop, did have a lot of knowledge because he was already interested in my theme.

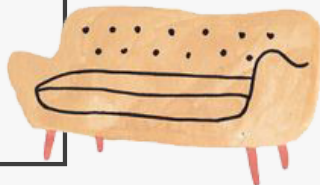
After Barcelona I've decided to make my concept as easy as possible for my target group, because not everyone has the knowledge to act on their own.



# ROOM RÖULETTE

What kind of reusable materials are in this couch?

**1**



How would you give this chair a makeover?

**2**

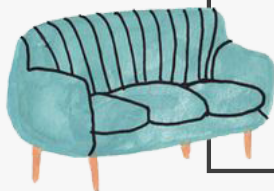


What do you know about raw materials?

**3**

What could you use a couch for instead of sitting?

**4**



# PROTOTYPE EXPOSITION.

For the exposition I collected all my prototypes until now. I've showed not only the prototypes that worked out, but also the "failed" ones. For instance, I've tried to use the lasercutter but this time it didn't work out the way I wanted to.

For my latest prototype I've used the orange rib chair to make my idea more clear.

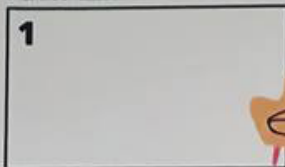
I've also collected feedback from Saskia, Jaap, Boyie and Giann. I'll show this feedback in the following pages. I've also thought of the takeaways and my follow-up actions.



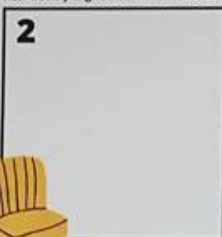


# ROOM RÖULETTE

What kind of reusable materials are in this couch?



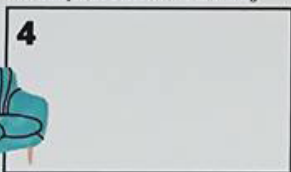
How would you give this chair a makeover?



What do you know about raw materials?



What could you use a couch for instead of sitting?



Some people don't have enough knowledge to imagine what they could do to reuse furniture.

If you ask some people how to give furniture a makeover, it will be something simple like changing the covers. Some people don't see a lot of possibilities.

While some people do see a lot of possibilities and can imagine lots of options to reuse furniture.

I think the diversity in insight depends on your background, work and interests.

WHAT DO YOU DO FOR SUSTAINABILITY?  
¿QUÉ HACES PARA LA SOSTENIBILIDAD?

maybe too simple and not in context  
next time I would maybe go to a home interior boulevard.



# 8. BUSINESS MODEL CANVAS.

I want to develop a clear plan on how to grow my idea into something bigger

## BUSINESS MODEL CANVAS



## BUSINESS MODEL CANVAS: THE FUTURE OF FURNITURE



THE FUTURE OF

# FURNITURE

NEVER REFUSE TO REUSE



# CONCEPT DESCRIPTION.

## Focus

My concept has a focus on circular economy and sustainability. I combined these theme's with the direction: interior and especially furniture.

Because of scarcity, in a few years, people are forced to look at other options to (re)use raw aterials, for instance: make use of the raw materials of the products they already own or recycle the reusable materials. I've tried to come up with a solution for the problem that people don't know how to reuse raw materials. With my concept I've tried to make it as easy as possible for the user of my service. After a lot of interations I came up with the concept: The Future of Furniture.

## The concept

The Future of Furniture helps you get more insights on circular use of your interior. You can now track the value of your furniture.

At this moment you scan the RFID chip with your phona and an application opens up. After a few years you can activate the RFID chip and a holographic screen appears. On this screen you can see a timeline, the timeline tracks your furniture troghout the years. In this application you can see how valuable your furniture is still worth.

When you don't want your furniture anymore, you have two choices: bring your item back to the store where you bought it, and get a gift voucher of the value of your furniture so the raw materials can be reused. Or you can get a makeover of your purchase of the same value. The choice is yours, but never refuse to reuse!

# ONE BILLION PEOPLE.

## Target group & 1 billion check

My target group are people who buy furniture from IKEA, Leen Bakker, Jisk and other stores from this segment. People who live a busy life and don't have time to give their own furniture a makeover so that they can reuse materials, but do think it's important to live a more sustainable life.

## Opportunities

To come back on my insights from the reason why people need this innovation:

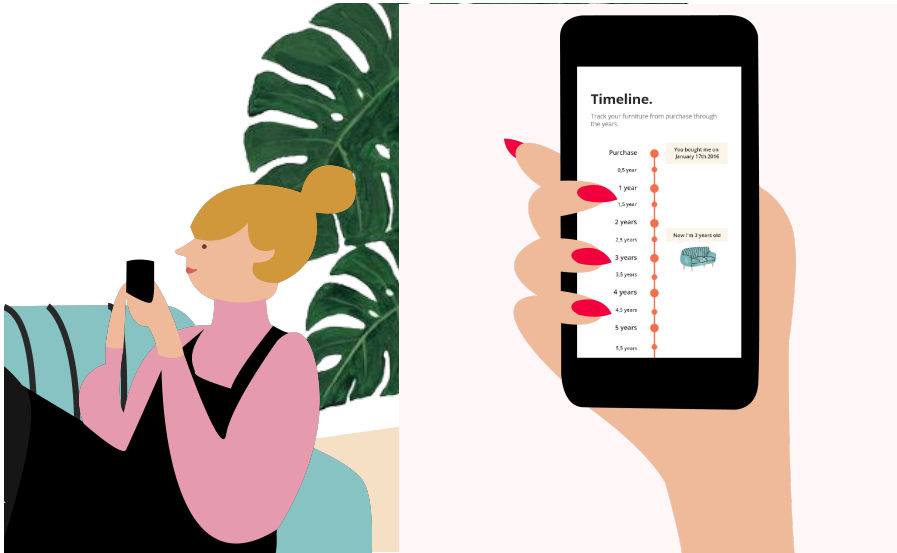
- Some don't recycle because they really don't care.
- Some don't recycle because they are unaware of importance of recycling.
- Some people don't know how to begin.

With my innovation I want to focus on the fact that people don't know where to begin. To give them a more simple solution I think people will be more aware of what kind of raw materials can be re-used, how people can do it. And also if people are not so creative or not into DIY, I want to give them the option to bring back old products so the usable raw materials go back to the store where they bought their furniture. This will make my innovation also circular.

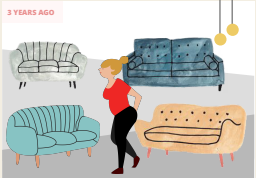
## Innovation

The innovative part of my contact is the RFID chip and the holographic screen in the future. I wanted to make my concept feasible for the near future but I also wanted to think of the future in about ten years when the technology will be even further than it is now.

# STORYBOARD.



3 YEARS AGO



Sara is walking in an interior store because she wants to buy a new couch. Her old one wasn't worth saving anymore, she thought so she threw it away. She gets some information on a new technology that's implemented in her couch, but doesn't really know what to do with that information yet.

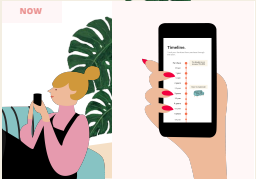


She decided on the blue couch to give her interior some colour. She goes to the register to pay and takes the couch home.



Sara is enjoying her couch everyday. She watches tv on her couch, scrolls through her phone and sometimes eats dinner there in the evenings when she has a moment for herself.

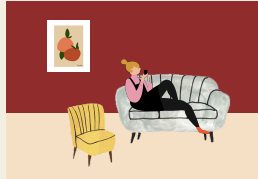
NOW



After a few years Sara doesn't really like the colour of her couch anymore. She doesn't want to throw her couch away, mostly because she wants to live more sustainable. She remembers that she was told about a new technology in her couch, does some research on the website of the interior store. After that she scans the couch and a timeline pops up. She goes through the application and makes the choice to give her couch a makeover.



The Future of Furniture pickup service picks up the couch of Sara. In the store her couch gets the makeover Sara chose in the application. The fabrics that are replaced will be reused. The couch gets a makeover of the same value the materials that are replaced are worth.



Sara gets her renewed couch back. Now she can enjoy her couch for a few more years. After a few years she wants to buy a new couch. But instead of throwing it away, she makes use of the Future of Furniture application again. She let her couch be picked up and the interior store reuses all the reusable raw materials, and Sara gets a gift voucher from the store with the same value of those materials.

THE FUTURE OF

# FURNITURE

## NEVER REFUSE TO REUSE



### WHY

Nowadays people still don't know where to bring their furniture to recycle. Far too often people leave their furniture on the corner of the street. Some people also lack insight if we talk about sustainability. In combination with a busy life and no time or enough motivation to do something about it, this problem remains unchanged. In a future where scarcity of raw materials is a fact, there needs to come a solution to this problem.



### WHAT

The future of Furniture helps you get more insights on circular use of your interior. This service will make it as easy as possible **for people who are too busy, but still care for a more circular economy and want to live a more conscious life.** The goal is to have less mass production of new materials and make sure raw materials can be reused more often. In the end this service will help people to live a more sustainable life in an easy way. But how will we accomplish this?

### HOW

An RFID chip will be implemented in your furniture. Through this chip you can track the value of the raw materials. You can scan the RFID chip with your phone and an application opens up, in the future you activate the chip and a holographic screen appears. There you can see a timeline and track your furniture through the years. After undetermined time you have two choices: bring your item back to the store where you bought it, and get a gift voucher of the value of your furniture so the raw materials can be reused. Or you can get a makeover of your purchase of the same value. The choice is yours, but never refuse to reuse!





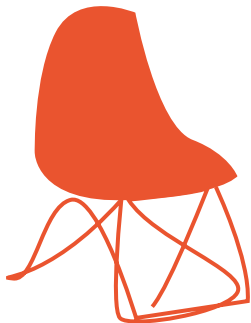
# QR CODE TO PROTOTYPE.



## HIGH FIDELITY PROTOTYPE.

For my final prototype I've used a QR code to go to my clickable prototype instead of a RFID code, because that is something I couldn't link yet. This was the best option for now to visualize my concept and prototype. For the final exposition I've used the laser cutter to engrave the QR code on wood. This would visualize the RFID chip that would be implemented in the furniture.

For the future use of my concept I've used Photoshop to create an image to give a better idea of how this would look like. The RFID chip would be inside the couch, so if you would activate the chip, an virtual/holographic screen would appear. The clickable prototype and the holographic screen would have the same content.



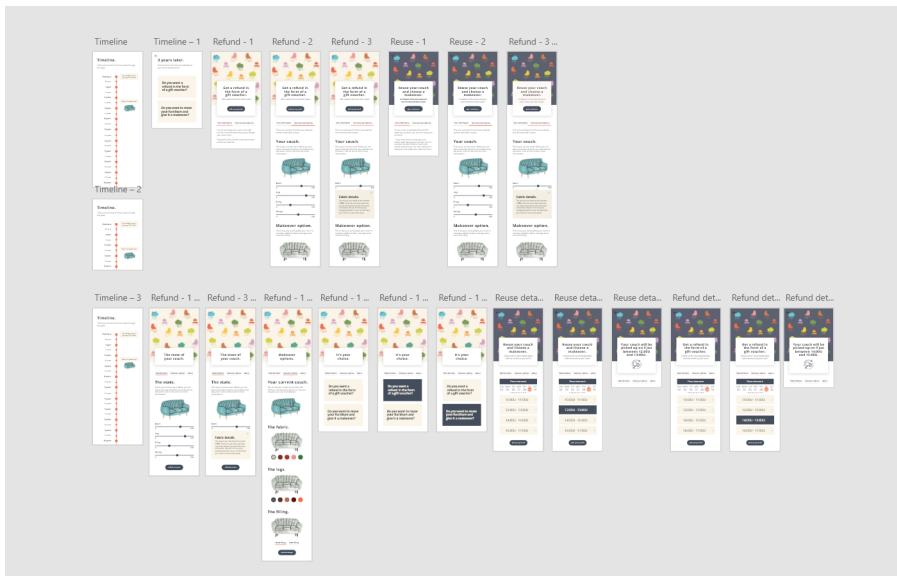
# HIGH FIDELITY PROTOTYPE.

I also tested my prototype one last time with my target group, Daphne de Brabander (student with a busy life) and Cidi Davidse (UX designer at Inter IKEA Systems).

I got feedback to look at the timeline. I also need to think about the option to look at the state of the furniture, at which point in the application does this need to occur? I'm also going to look at the options for the makeover part of the application.

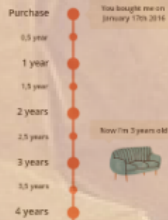
I also got some feedback on the style of the screens. I ofcourse applied this feedback to my prototype. In the picture below you can see the before and after.

I gave my prototype more detail and depth and changed the order. If you go to the next page you can scan the QR code to go to the clickable prototype.



### Timeline.

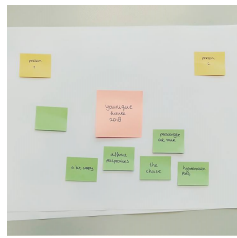
Track your furniture from purchase through the years.



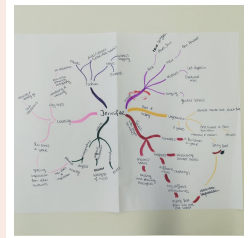
# DESIGN PROCESS.



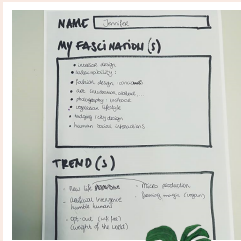
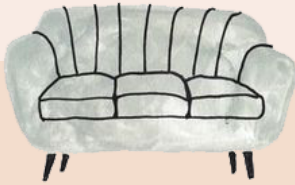
The first presentation about our trend Younique.



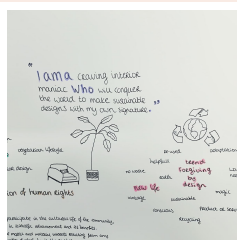
Younique trend brainstorm.



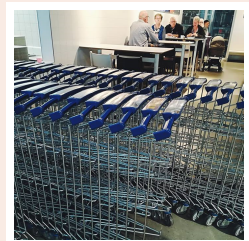
A mindmap about myself.



First concrete template.



"I am a..." an interesting workshop where my theme was a little more clear already.



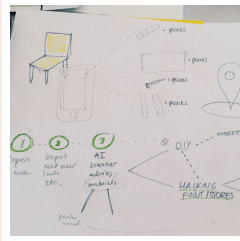
Field research in IKEA. The first time I saw these carts for the restaurant.



# DESIGN PROCESS.



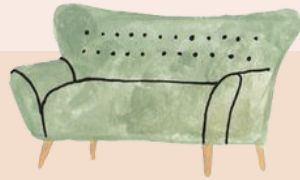
I've learned a lot in the make week, like using the laser cutter, the 3D printer and the vinyl machine.



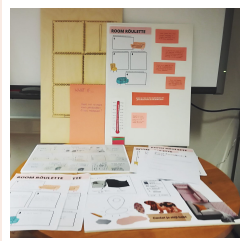
A rough sketch visualization of my concept and how everything needed to come together.



A moodboard Always helps getting a clear vision of your concept.



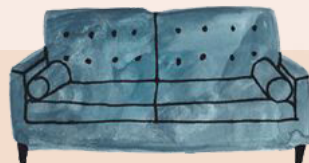
To make my concept more clear I draw every step out in a storyboard. The feedback was that it was too long and therefore not easy to follow.



At the prototype exposition I've got some more feedback on my concept to make it more concrete.



During this assignment I tried to visualize my concept in a box. I've used the outside and the inside. This helped me to see the flaws and the things that needed more attention.



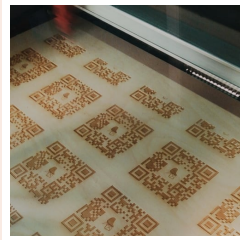
# DESIGN PROCESS.



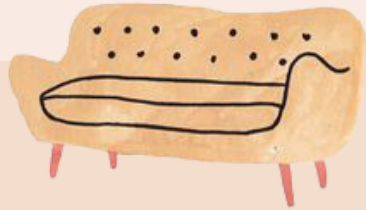
In Barcelona I've tested my cultural probe with the locals. This man had his own fairtrade coffee and tea shop.



Applying the last feedback to my prototype.

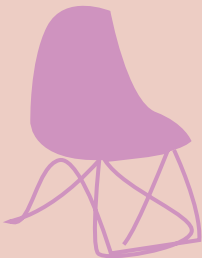


Lasercutting my QR code for the exposition.



# REFLECTION EXPO.

the feedback and my own  
reflection on the exposition.





# REFLECTION EXPOSITION.

## FEEDBACK DURING EXPO.

During the exposition I've asked people to write down some feedback on a form I designed. A few people gave comments and feedback about my innovation.

## REACTIONS OF THE AUDIENCE

- I should get a patent on your idea, because I think this is a really unique concept.

- Maybe you could show some materials to give people a better idea what you could expect when you get a makeover

- I'm a real fan of this concept and I would definitely use this for myself!

- You have a clear story and you really thought your concept through.

- Maybe you can implement the chip in the fabrics in stead of a chip. This is even more sustainable.

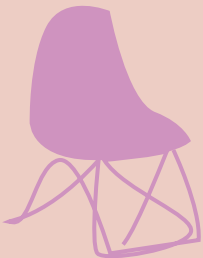
- Maybe you can think about the "do it yourself" part, for people who want to do a makeover themselves.

## MY REFLECTION

I think I got some usable feedback that I would definitely apply in my concept. I think I want to work out the "do it yourself" part in my concept and the "QR / RFID" code could be a part of the fabric as a artistic detail. This would a more sustainable solution if this would work but I would have to do some more research on this.

# MY EXPOSITION BOOTH.

A description and visualization of  
my booth during the exposition.

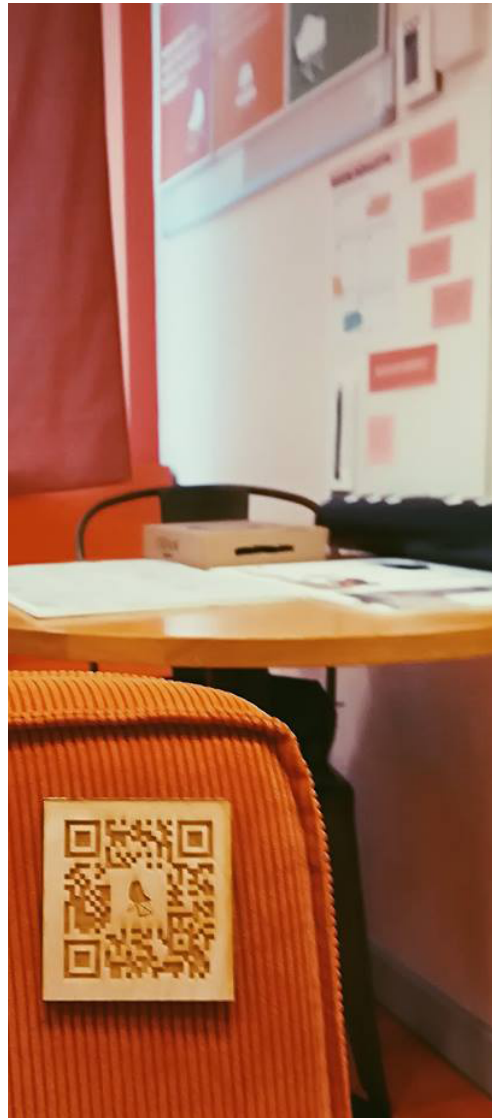


# MY EXPOSITION BOOTH.

## BOOTH PLAN AND EXECUTION

Before the expo I made a plan for my booth. I wanted it to look like a cozy home because it would fit my concept about furniture. I hang up a curtain, set up some tables and chairs. On the first table I lay down all my prototypes. On the other table I set up my laptop with the video I made, the booklets I designed with my proces and high fidelity prototypes. Around the tables I hang up all my designed posters with my concept description and "how might we-questions".

I also attached my high fidelity prototypes, the QR codes which linked to my clickable prototype, on the chairs. This way I could visualize my concept in an easy and interactive way.





## BIBLIOGRAPHY.

Mattin, D. (2017a). 5 Key Trends for 2018 that could reshape your business. Geraadpleegd op 11 september 2018, van <https://nextconf.eu/2017/12/5-trends-2018/>

Brand Consultant (2017, 28 november). Trendwatching Report 2018: Influencer marketing, Shopstreaming and Forgiving by Design. Geraadpleegd op 11 september 2018, van <https://ralucakisescu.ro/trendwatching-report-2018-influencer-marketing-shopstreaming-and-forgiving-design>

Pinterest (2018, 11 september). Inspiratie [Foto]. Geraadpleegd op 11 september 2018, van QUOTES VIA <https://nl.pinterest.com/guendesign/t-y-p-o-g-r-a-p-h-y/>

Jeena (2017, 28 december). Why many people still don't separate their trash for recycling? Geraadpleegd op 16 november 2018, van <https://www.quora.com/Why-many-people-still-dont-separate-their-trash-for-recycling>

IKEA. (2014, 1 juni). People & Planet Positive IKEA Group Sustainability Strategy for 2020. Geraadpleegd op 16 november 2018, van [https://www.ikea.com/ms/en\\_US/pdf/reports-downloads/sustainability-strategy-people-and-planet-positive.pdf](https://www.ikea.com/ms/en_US/pdf/reports-downloads/sustainability-strategy-people-and-planet-positive.pdf)

Nini, J. (2018, 14 maart). How Sustainable Is IKEA, Really? Geraadpleegd op 16 november 2018, van <https://ecowarriorprincess.net/2018/03/how-sustainable-is-ikea-really/>

Price, S. (0000, 1 januari). The Five R's: Refuse, Reduce, Reuse, Recycle, Rot. Geraadpleegd op 16 november 2018, van <https://meowmeowtweet.com/blogs/blog/the-five-rs-refuse-reduce-reuse-recycle-rot>

Ringstorm, A. (2018, 7 juni). IKEA to use only renewable and recycled materials by 2030. Geraadpleegd op 16 november 2018, van <https://www.reuters.com/article/us-ikea-sustainability/ikea-to-use-only-renewable-and-recycled-materials-by-2030-idUSKCN1J31CD>

<https://humans-machines-progress.com/reportage/raw-materials-too-valuable-to-waste>



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