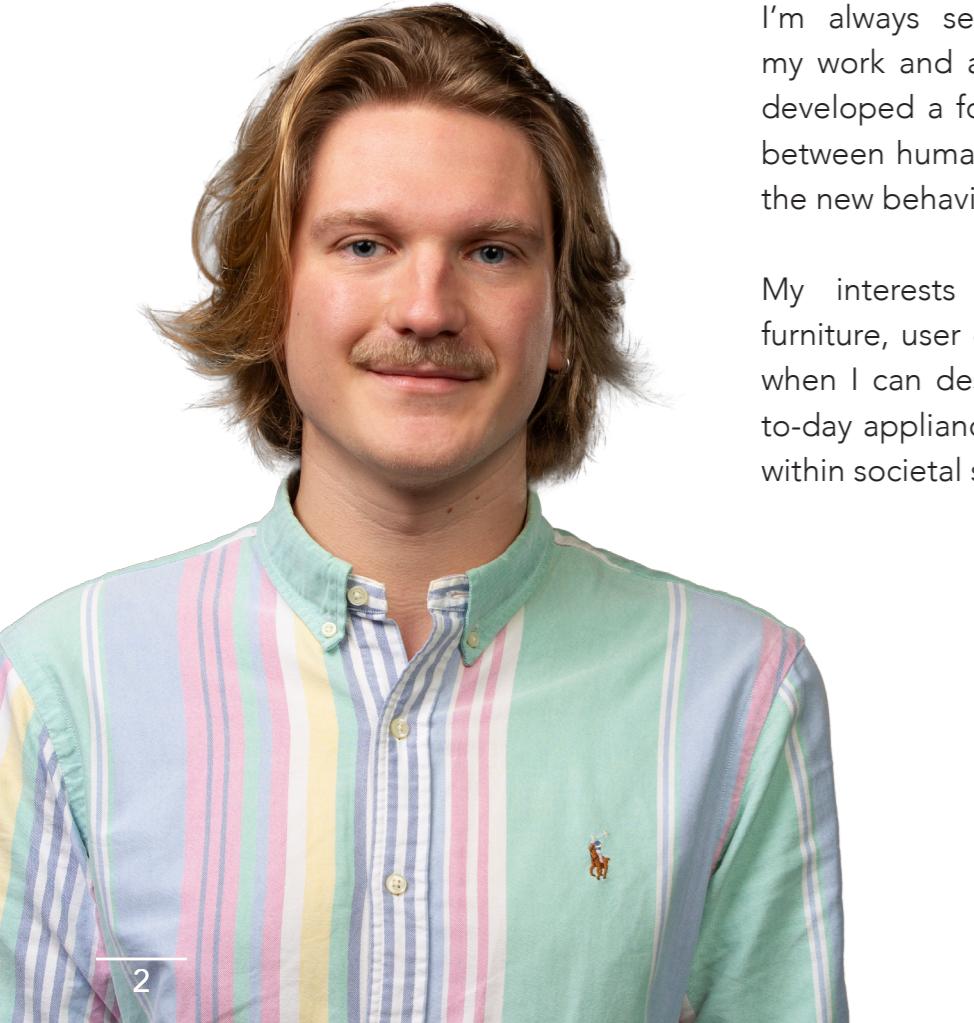


portfolio.

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GIJS WELS



Hi,

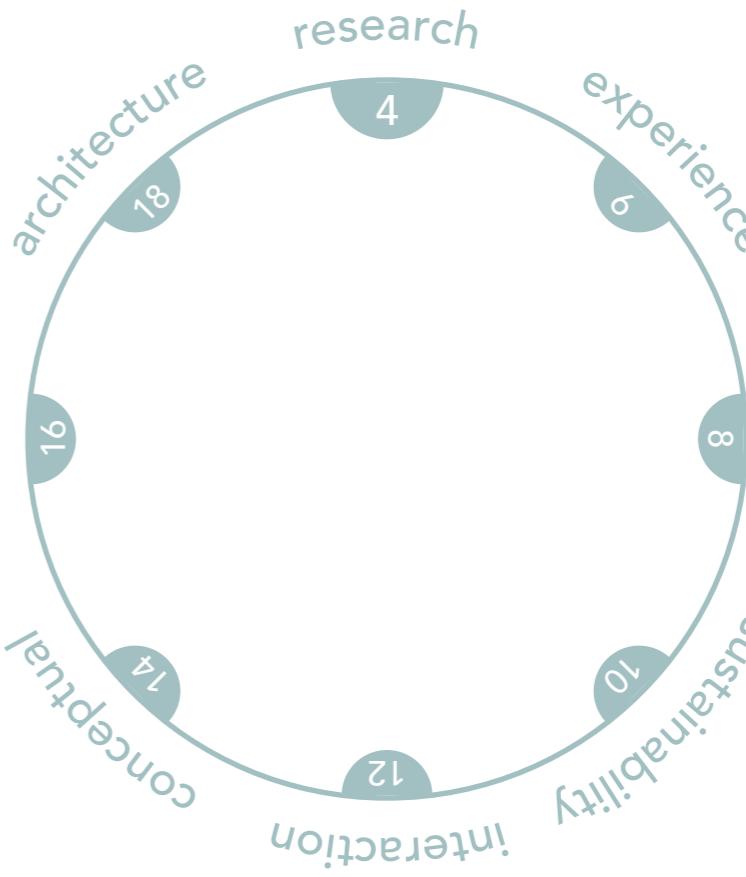
I am Gijs Wels.

I'm always searching for societal relevance to my work and as a designer and engineer, I have developed a focus on the relationships we create between humans and the designed environment - the new behaviours and experiences they enable.

My interests are human factors, well-being, furniture, user experience, and innovation. I thrive when I can design on different scales. From day-to-day appliances for households to public spaces within societal systems.

"Seeing the same, but seeing it in a way nobody has ever seen it before."  
- Jules Deelder

# me. index.



# research through design.



ahrend

# PausePing

G. Wels (2024)

click for: [extra](#) - [news](#) - [thesis](#)

*How communicating micro-breaks between colleagues can contribute to creating social awareness and improving well-being.*

## continuous testing and refining



## Opportunity

One in five working people in the Netherlands experiences burnout-related symptoms. Micro-breaks keep a steady energy level and are most important during stressful periods. By creating a safe social context, taking breaks is normalised and awareness is created among colleagues.

## Project

In the first half of the research, after analysing the problem, I developed a strategy for initiating sustainable change in work culture. I chose this route because existing products seem to fail when it comes to durable usage. Secondly, a concept was further developed based on newly obtained insights through successive user tests - in realistic office environments - with mockups and prototypes.

## Solution

A device which can be plugged in at your workstation. By communicating breaks, colleagues receive an invite. The notification acts as a friendly reminder and lowers the threshold.



# experience design.



## CoolWatch

E. Andersson, F. Kristoffersson, D. A. Nilsson,  
F. Takvam, F. Verburgh & G. Wels (2023)

click for: extra

Summers are getting warmer, i.e. climate change, and electricity bills are rising. The cooling bracelet brings individual climate adaptation to the home.

### Opportunity

People often experience discomfort around the warmth in their bedrooms. In reaction many energy-consuming and unsustainable solutions are introduced. Cooling the bloodflow at the wrists, feet and neck can help people find their comfort.

### Project

In short, the project revolved around "more by less, creating positive thermal experiences". So, introducing a new product while decreasing electricity usage. Because the idea was fairly simple but allegedly effective, the focus was on testing the physical experience of the user for which I made a functional prototype and simulated a 'hot room'. Mock-ups were made to reflect on the aesthetics and attachment of the product and user.

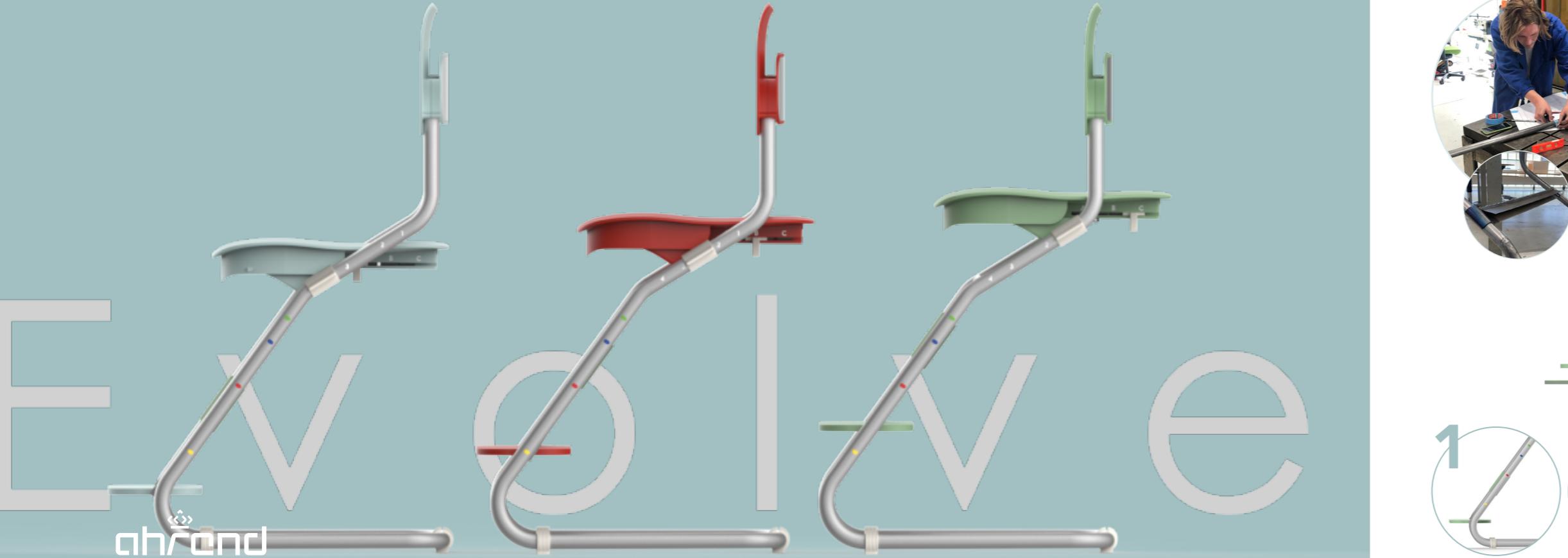
### Solution

A bracelet with an integrated cooling element that you can activate before going to sleep. Because it is placed on the wrist, the body cools down quickly, making it easier to fall asleep.

### evaluating experiences



# ergonomics.



# Evolve

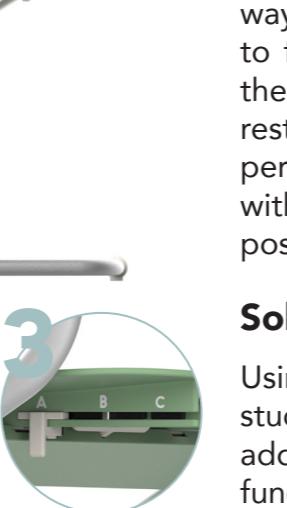
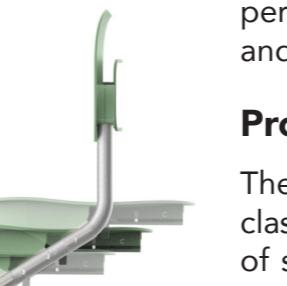
S.N. Bhamidi, L. Bonitta, Z. Ghasia, F. Kihl,  
F. Kriekaard & G. Wels (2022)

click for: extra

One comfortable chair that fits all primary school students and creates an environment to improve their performance!



## prototyping (mechanisms)



## Opportunity

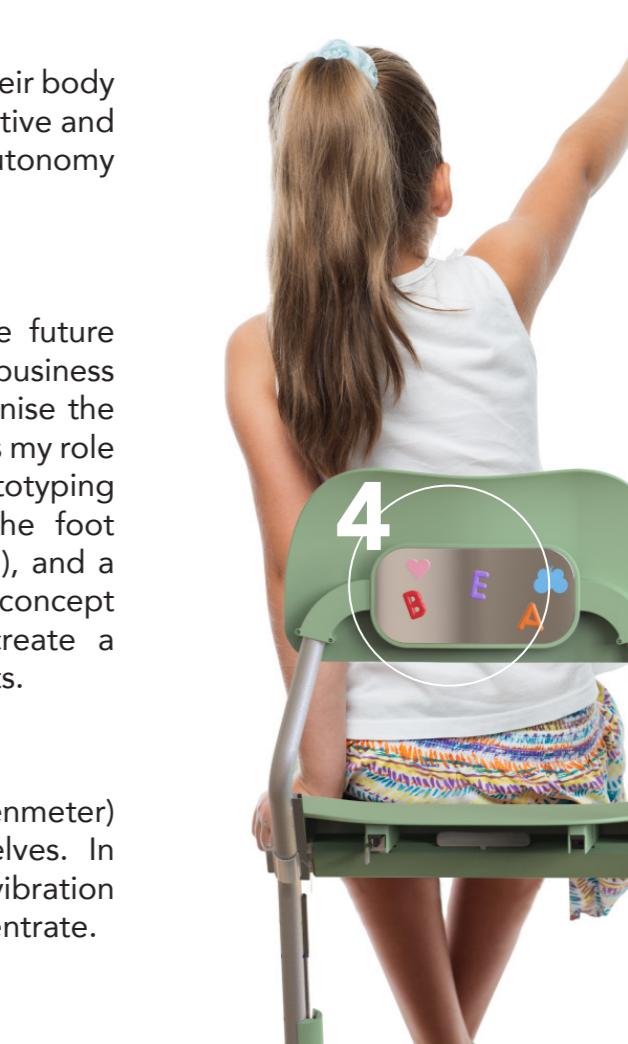
Children often use chairs that do not suit their body dimensions, causing bad posture. An adaptive and personalised workspace offers more autonomy and contributes to a healthier classroom.

## Project

The project started with a vision for the future classroom. Ahrend just stepped into the business of school furniture and wants to revolutionise the way we look at education. Therefore, it was my role to focus on aesthetics, meaning and prototyping the adaptability; mechanisms to alter the foot rest (1), seat height (2) and seat depth (3), and a personalisation feature (4). I evaluated the concept with children from different ages to create a positive product experience for all students.

## Solution

Using a colour-coded system (PeterBeenmeter) students can alter the chair by themselves. In addition, the chair has a low-frequency vibration function for those who need help to concentrate.





**A!** Aalto University  
School of Arts, Design  
and Architecture

# sustainability.

The project focuses on designing products and environments in balance with nature. Emphasis lies on the playful and calming aspects of nature through simple and biodegradable design.

## NatureSeat

S. Feins, K. Miyajima, D. Sikorski, H. Wei & G. Wels (2023)

*An active sitting space for Otaniemi campus locals that provokes creativeness by using the natural environment.*



### Lie down like a frog on a leaf

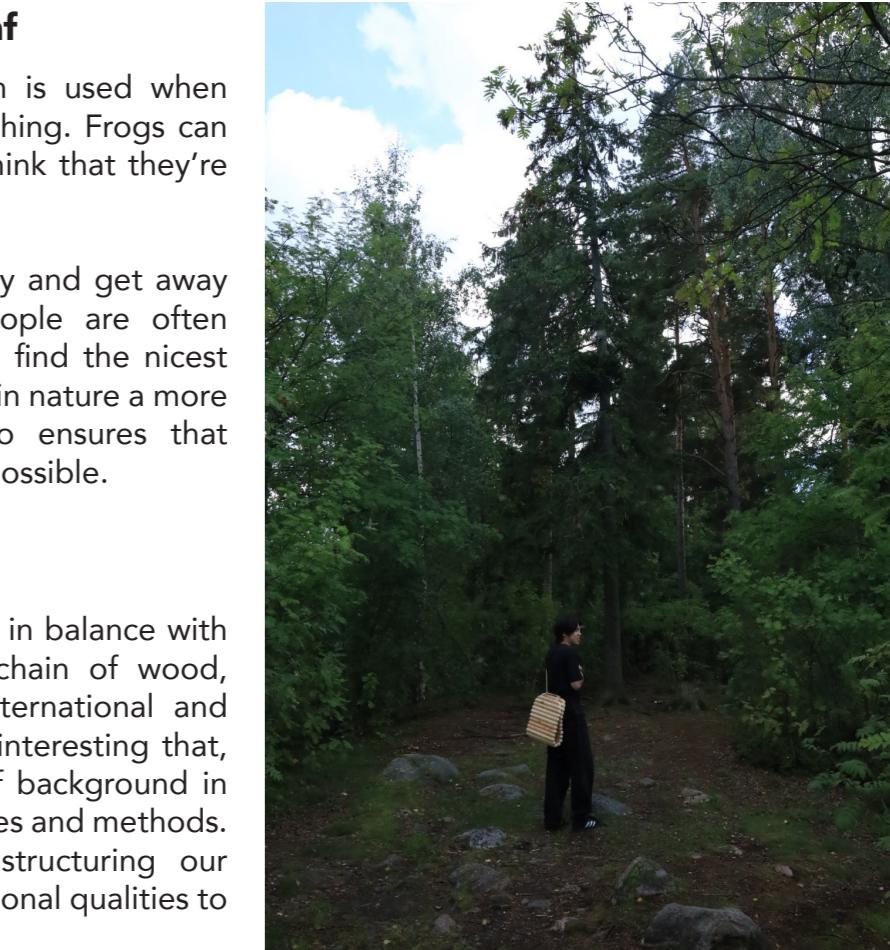
In Polish there is a saying which is used when people sit back, relax and do nothing. Frogs can sit still for a long time. I like to think that they're enjoying nature.

Nature is often used to rest, enjoy and get away from the hustle and bustle. People are often very curious by nature and try to find the nicest places. This solution makes sitting in nature a more comfortable experience but also ensures that people stay as close to nature as possible.

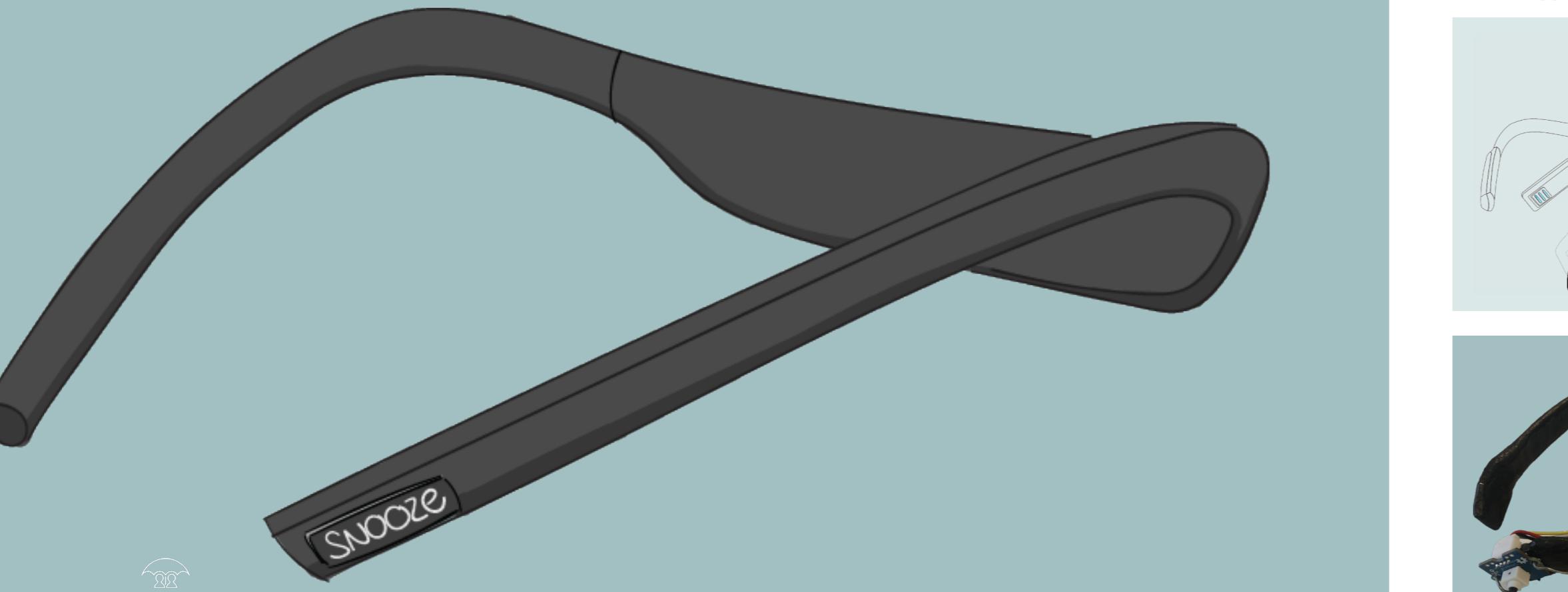


### Project

This project is all about designing in balance with nature and learning about the chain of wood, from tree to product. In this international and multidisciplinary group I found it interesting that, although we all had some sort of background in design, we had different approaches and methods. I proceeded with the role of structuring our process and organising all our personal qualities to optimally benefit from them.



# interaction design.

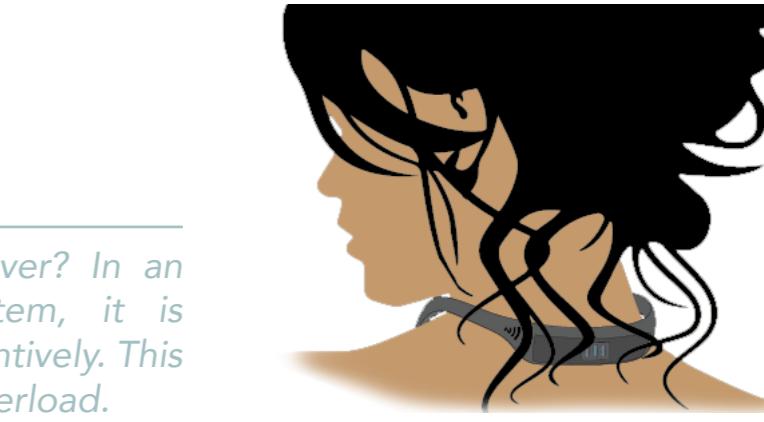


## NurseNurse

M. Drummen, B. van der Linden, B. Verhoeff,  
G. Wels (2018)

click for: extra

Who takes care of the caregiver? In an overburdened healthcare system, it is important to keep staff fit preventively. This product monitors the muscle overload.



### Opportunity

Caregivers are often not aware of the hazards and (unknowingly) prioritise clients over their own well-being. To aim for prevention, a PHI-device (Personal Health Information) could warn caregivers and trigger positive awareness.

### Project

In this project I took the role of contacting our target audience. After conducting interviews I organised a day where we could experience and observe how it is to be a caregiver. The focus was to provide the user with information rather than changing behaviour. This strategy seemed more affective because of clueless caregivers and the impasse in which the healthcare system finds itself. Herafter I validated the prototype through user tests.

### Solution

The PHI device detects - enduring - muscle tension to provide immediate feedback. An informative application is introduced to gather employee feedback and accommodate daily data and tips.

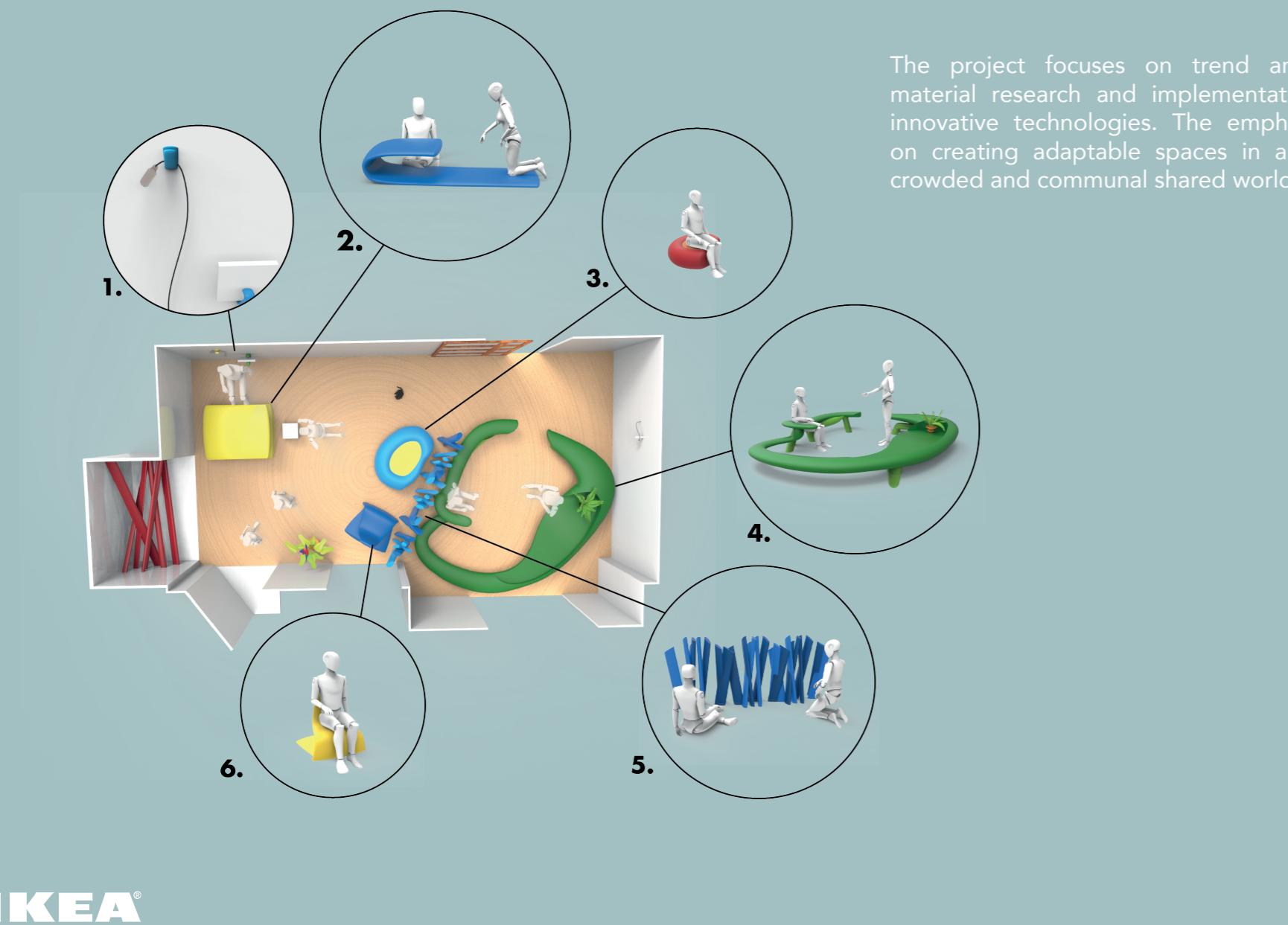
### concept to prototype



### mobile application



# conceptual.



K. Thomas, C. Vooren, J. Webbers &  
G. Wels (2018)

# Möbler

MÖBLER is Swedish for 'furniture' and is the future of living: Build what you want, when you want and where you want!

## Opportunity

The future of living is smaller, like communal living or student dorms. The ideal playground for new adaptive concepts, materials and technologies.

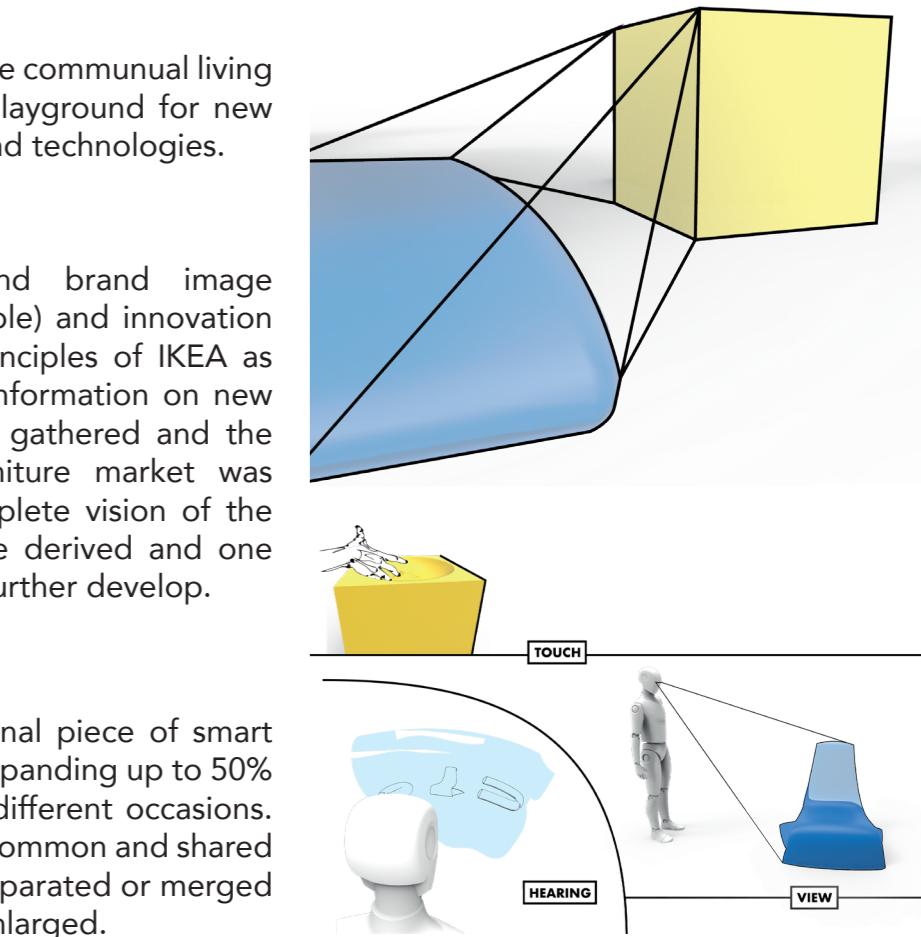
## Project

The project revolved around brand image (business), trend analysis (people) and innovation (technology). Including the principles of IKEA as a guide line. From the start, information on new materials and technology was gathered and the contemporary household furniture market was analysed. All to sketch a complete vision of the future. Multiple concepts were derived and one was chosen in consultation to further develop.

## Solution

The MÖBLER is a multifunctional piece of smart furniture. By contracting and expanding up to 50% of its size, it can be used for different occasions. MÖB is specially made for the common and shared room because blocks can be separated or merged so furniture can be shared or enlarged.

## adaptive concept



# climate adaptation.



The project focuses on finding and designing new technologies to combat the urban heat island effect. The emphasis lies on implementing existing technologies and assisting governments in this transition.

## StadsOase

G. Wels (2021)

*The StadsOase offers a movable green oasis for bustling places in the city. It's not just a green future, it's a flexible green future!*

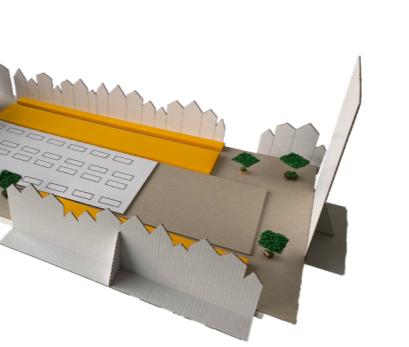


### Opportunity

Cities are affected by the urban heat island effect and cause problems for residents during summer times. The most sustainable solution is bringing green and adaptivity to urban areas.

### Adaptive Functionalities

The square is multi-useable. Like a real oasis, the spot is used by locals for all kinds of activities. Plants and trees are placed in various large CORTEN-steel pots, which can be picked up and placed wherever. In the hustle and bustle of the city, within the greenery, an oasis of peace unfolds.



### Project

During the problem analysis I discovered that there were already so many amazing technologies available. But unfortunately, in conversation with the municipality of Delft, I noticed that somehow it was hard for governmental institutes to implement those products effectively and as a system. Therefore, I chose to adjust my scope to assist those organisations by developing a manual.

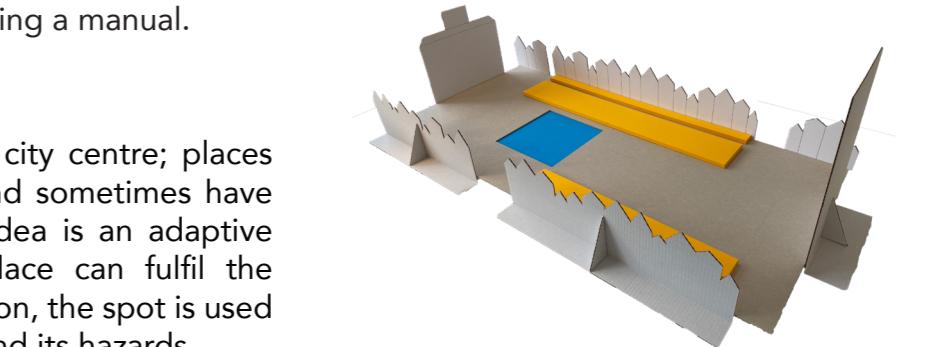
### Solution

Targeting busy squares in the city centre; places that fulfil multiple functions and sometimes have a historical appearance. The idea is an adaptive urban oasis wherefore the place can fulfil the wishes of all residents. In addition, the spot is used to inform people of the issue and its hazards.



### Water Source

The square is self-sufficient. Like a real oasis, the spot has a hidden water source. Underneath a water tank collects rainwater. Regular pavement is replaced by water-permeable tiling. The water is used for watering the plants and trees during dry periods.



cture. W

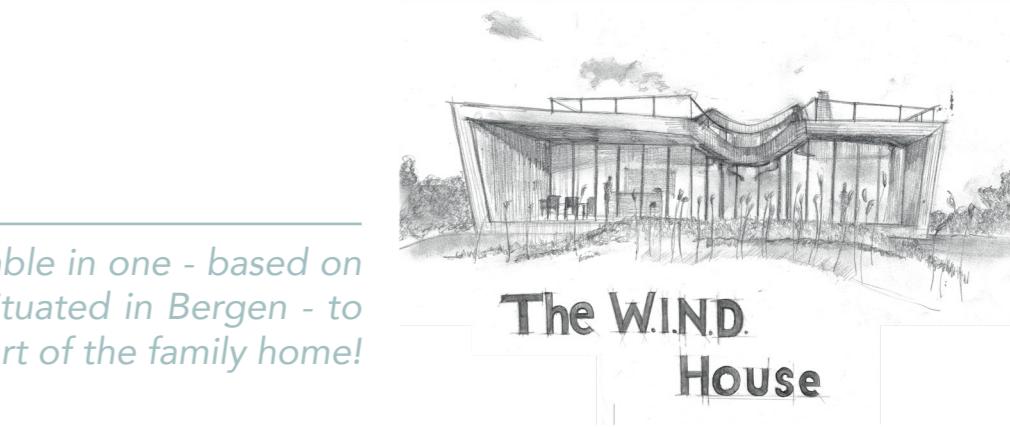


ound architecture  
n feeling for the  
The emphasis is  
· the building in  
kups.

# Sofa

019)

*A swirling sofa and t  
the W.I.N.D. house s  
enhance the social pa*



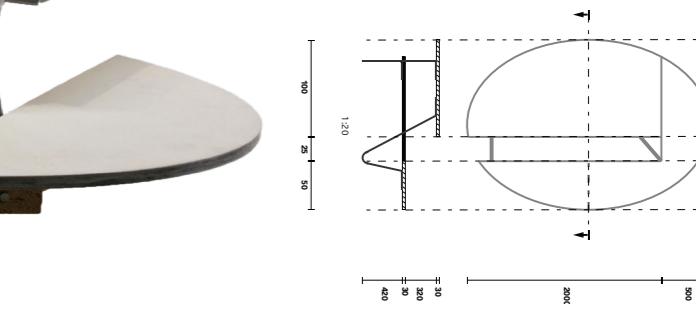
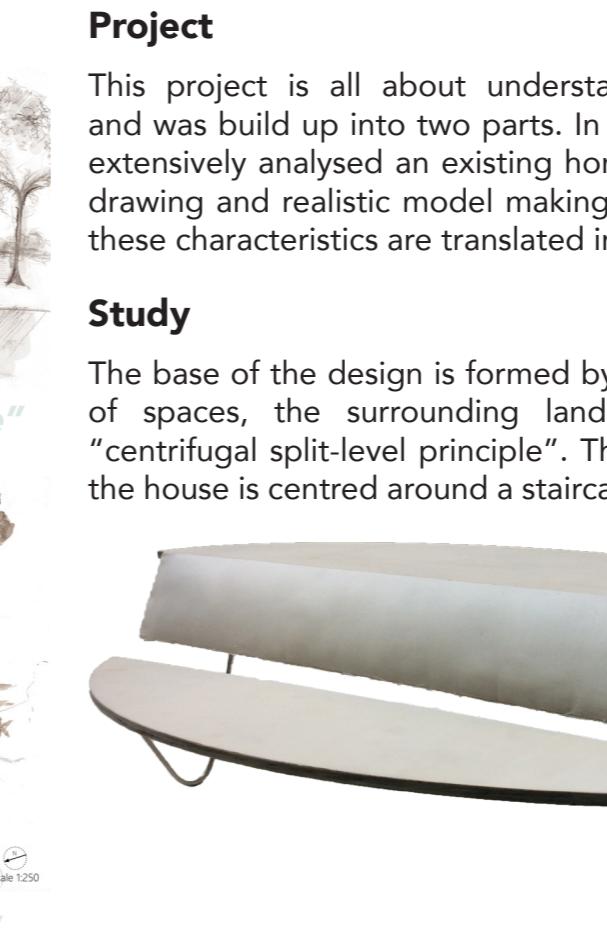
there are no hallways present in the building, and all the spaces flow into each other.

Pro

This project is all about the tree and was build up into two parts. The first part was extensively analysed and the second part was drawn as a detailed drawing and realistic model. In the following sections these characteristics are discussed.

S+

The base of the design is of spaces, the surrounding "centrifugal split-level principle" the house is centred around.



# ide.

# thanks.

Bye,

Thank you for looking into my portfolio!

I hope you enjoyed reading about the projects I am very proud of. Who knows, maybe we will see each other in the future!

You can find information about my extracurricular projects on my CV. For more information and videos about my projects, visit my website:

[gijswels.github.io](https://gijswels.github.io).

Kind regards,  
Gijs Wels



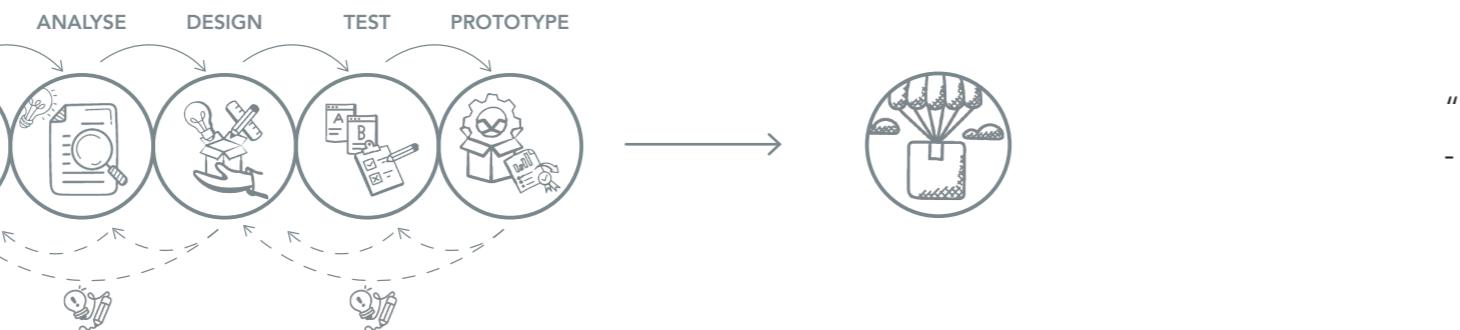
Industrial Design Engineering (IDE) combines technology, people, and business with design.

Because of its human-centered focus, I have learned how to analyse (societal) issues, target groups, and markets and how to translate opportunities into concrete solutions.

With the stakeholders involved from the beginning I start designing; constantly checking if I meet their wishes and needs. My strength lies in my curiosity and my drive for social contribution.

Integrated Product Design (IPD), takes this a step further. Advanced prototyping, concept design, human-system interaction and experience design are all part of this. From concept to go-to-market product. Taking into account the vision, materials, and manufacturing.

With enthusiasm, I analyse, set up tests and observe. I have an affinity for research, an inquisitive mind, and excel when ideas need to be turned into action.



"If you are aware of the limits, you can work limitless within it."  
- Jules Deelder