

Cold water surfing
equipment

“The bucket”



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Introduction

In Northern Europe surfing's popularity rapidly rises. From the Netherlands to the UK, Denmark, Norway or Sweden and Canada and northern USA surfers who mainly surfed warm water and climates have started to surf during the winters at home. The relatively novelty and increasing popularity of this sport has created an immense need for equipment adapted to the freezing cold temperatures.

Surfers currently use different homemade solutions (some adapt equipment from other outdoor sports or just use an IKEA bag) in order to be able to change out in the forest or beach on the frozen snow struggling to even take off their gear (gloves, hoodie or wetsuit) in order to open the car or even their wetsuit zippers.

Objective

The objective of this project is to through an iterative design process commencing with a research study followed by an idea developing process and concept generation process alternated with smaller research phases to develop a conceptual portable piece of equipment that would allow for a more comfortable and enjoyable changing process after cold-water surfing. This conceptual product would be able to be further developed into the manufacturing and sales phase.



The user

The user is a cold-water surfer who lives in the northern countries of Europe and America. The target group is quite broad as it involves men and women from ages 18 to 70. Cold water surfers are divided into two groups, one group has learned to love the cold and the other who only tolerates the cold because they want to surf all around the year.

This year with the covid-19 pandemic many surfers who only surfed in their vacations in the southern countries have started surfing at home.



Field trips

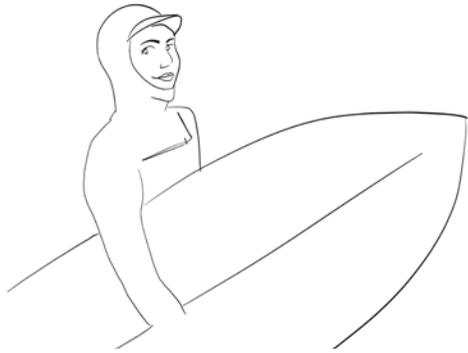
The problems found during the field study were for example the lack of space in the back of the trunk forces the user to store their gear and dry clothes in the same place. Once they change into the gear the clothing they were wearing goes into the same bag or bucket. This could be problematic if the gear is not yet dry from a previous session and after the session the user must take out all the clothes before starting to change since the wet gear has to be stored there.

It doesn't seem to exist a designated space to put the gear while changing unless it is on the same bag or bucket the user is changing on which delimitates the moving space a lot and makes it harder to keep balance.

Once the user starts putting clothes on, it's very easy for the clothes to get wet or dirty because of the wet gear or the dirt on the ground. All these problems make the changing process longer and the user colder and frustrated.



Persona



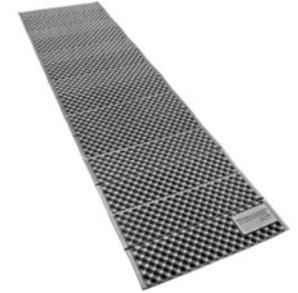
This is called Malin, she's a 34 year-old surfer from Sweden. She started surfing on a vacation abroad and just recently started cold-water surfing at home in Sweden.

She is also a mother to a 1-year-old boy. She has a quite flexible job that allows her to surf sometimes during work hours.

Her partner surfs as well so they can take turns watching the boy and surfing. She and her partner own two cars and a small caravan.



Market study



The market study was focused on three groups, surfing equipment, equipment used nowadays (homemade or adapted) and equipment from other sports that solved the same problem.

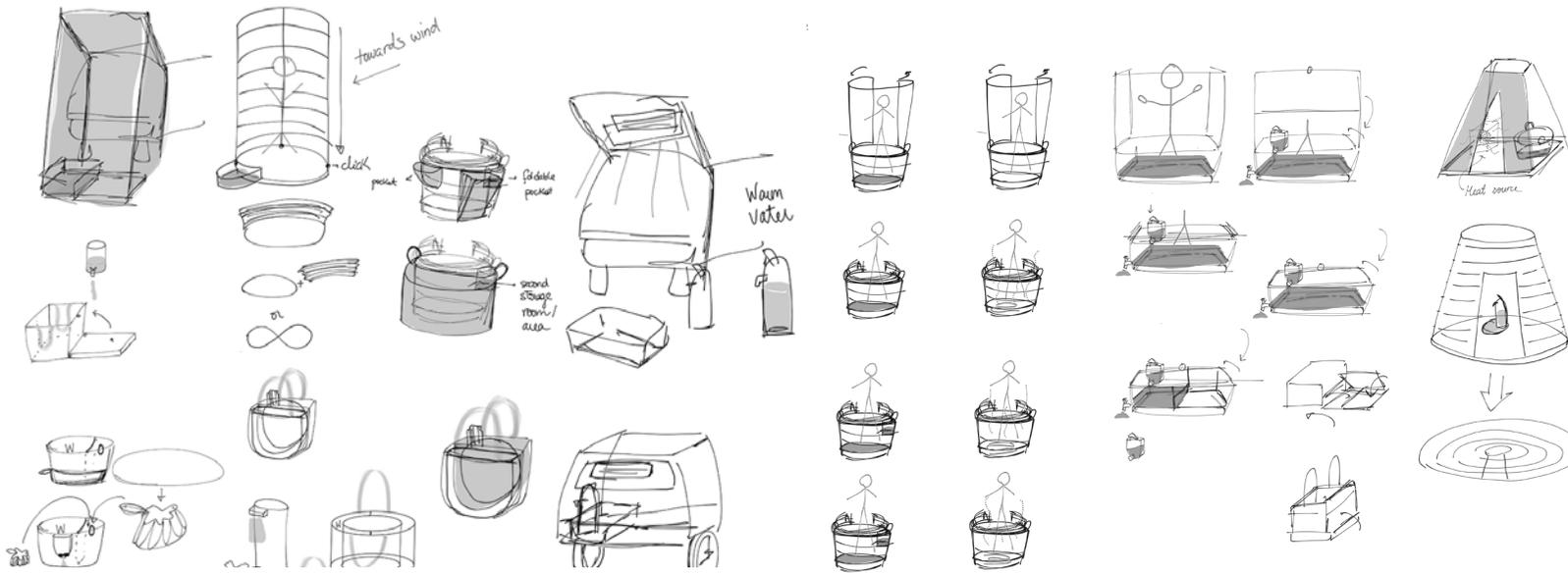
There's some surfing equipment available on the market but none of the equipment is adapted for cold water surfing specifically.

Some of the most important requirements found in the user study are:
Provide isolation against cold ground, maximize changing area and warm up fingers and toes as well as having the mass center close to the body, maximize changing space around user, allow transport of gear and minimize size when not in use.

Requirements



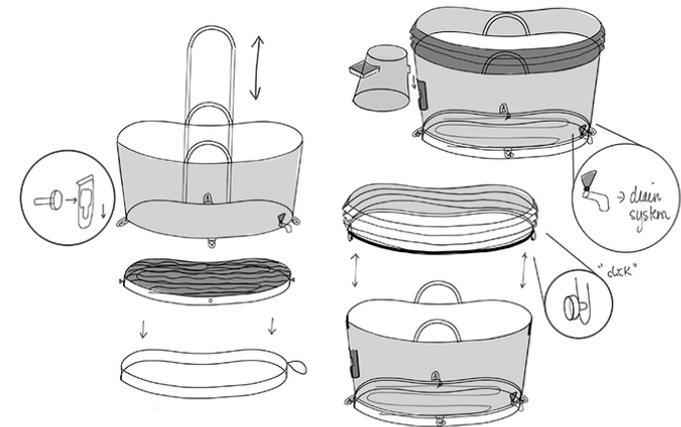
Generation of ideas



The concept generation phase was started with a brainstorming based for each of the functions presented in the functional analysis. For the functions that were easier to draw and overall ideas the method chosen was brain-drawing. From these methods and after many iterations three concepts were chosen amongst all the ideas.



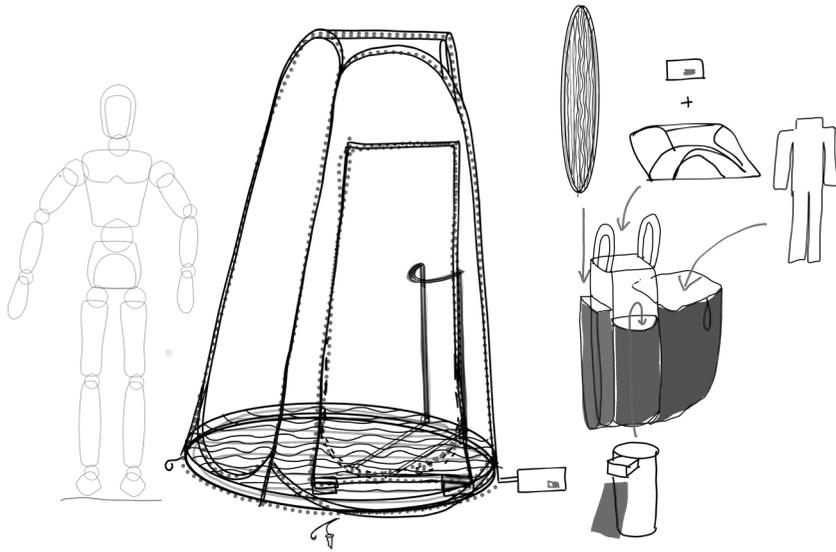
Concept 1



The first concept is called "The bucket" and is an improved and adapted version of the current surfer's bucket.

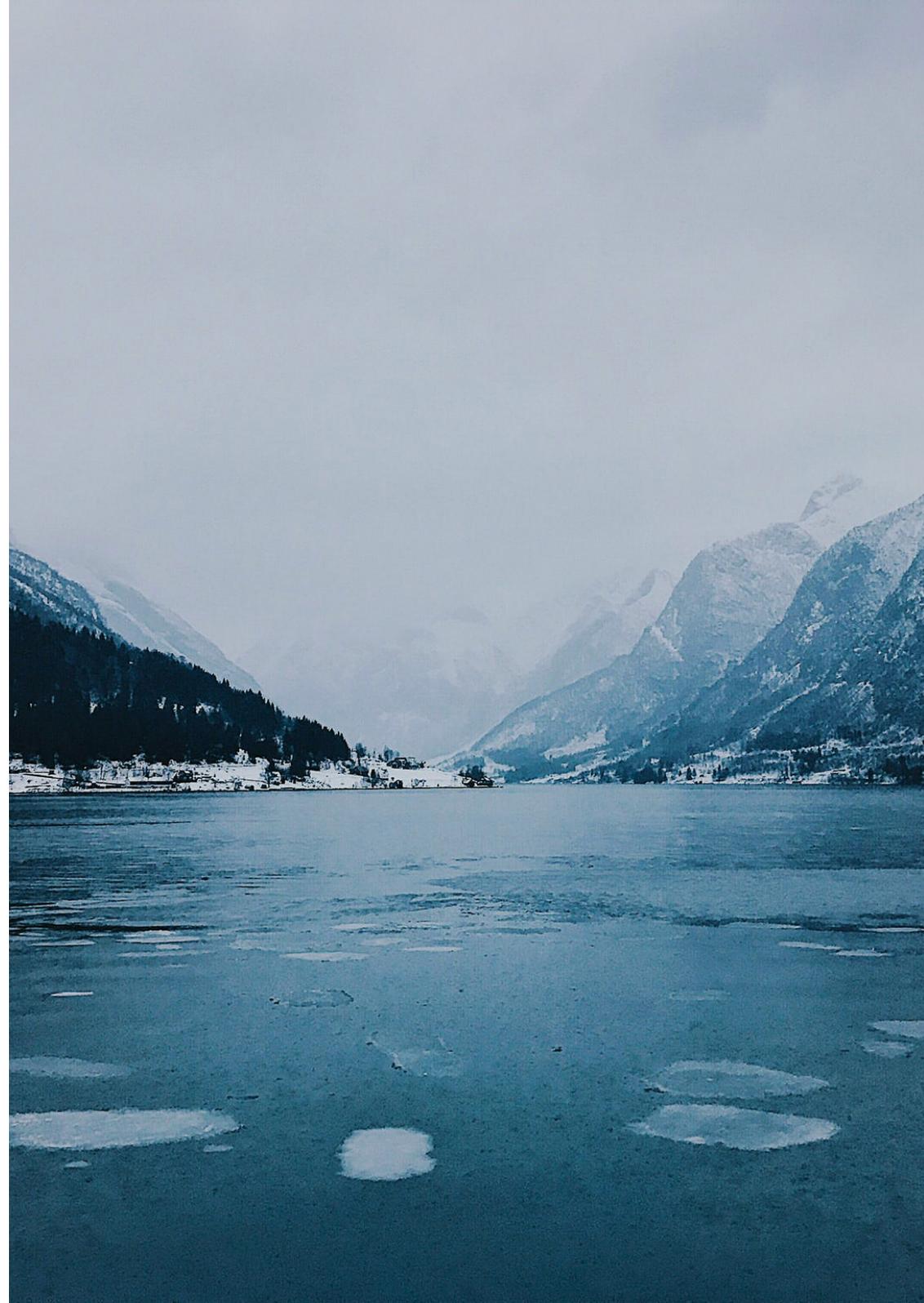
A rounded bucket with adjustable straps where gear can be stored is completed with a mat and a screen.

Concept 2

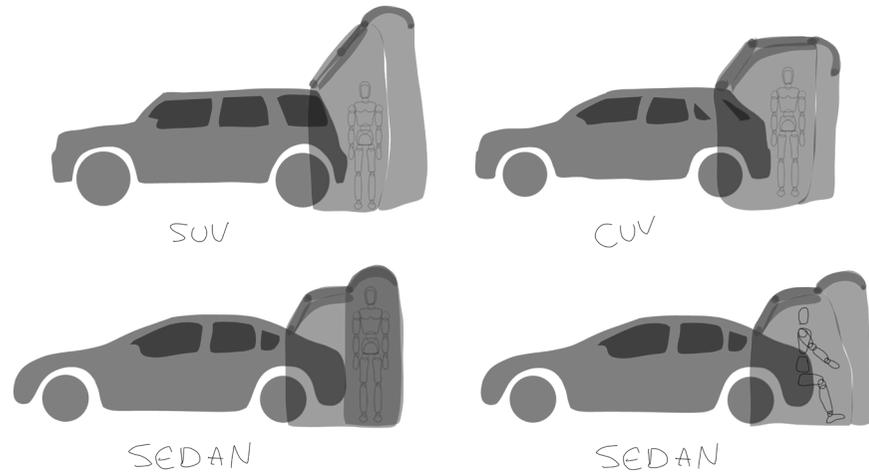


The second concept was an inflatable tent with pressurized air conducts that could be inflated and deflated by an air compressor and then stored in a case. It was vertical one-person tent with no floor, instead a mat can be placed for the user to stand on.

This case had outer pockets where the mat and the thermos could be stored as well as a waterproof bag for the surfing gear. The case could fit easily in the trunk of the car

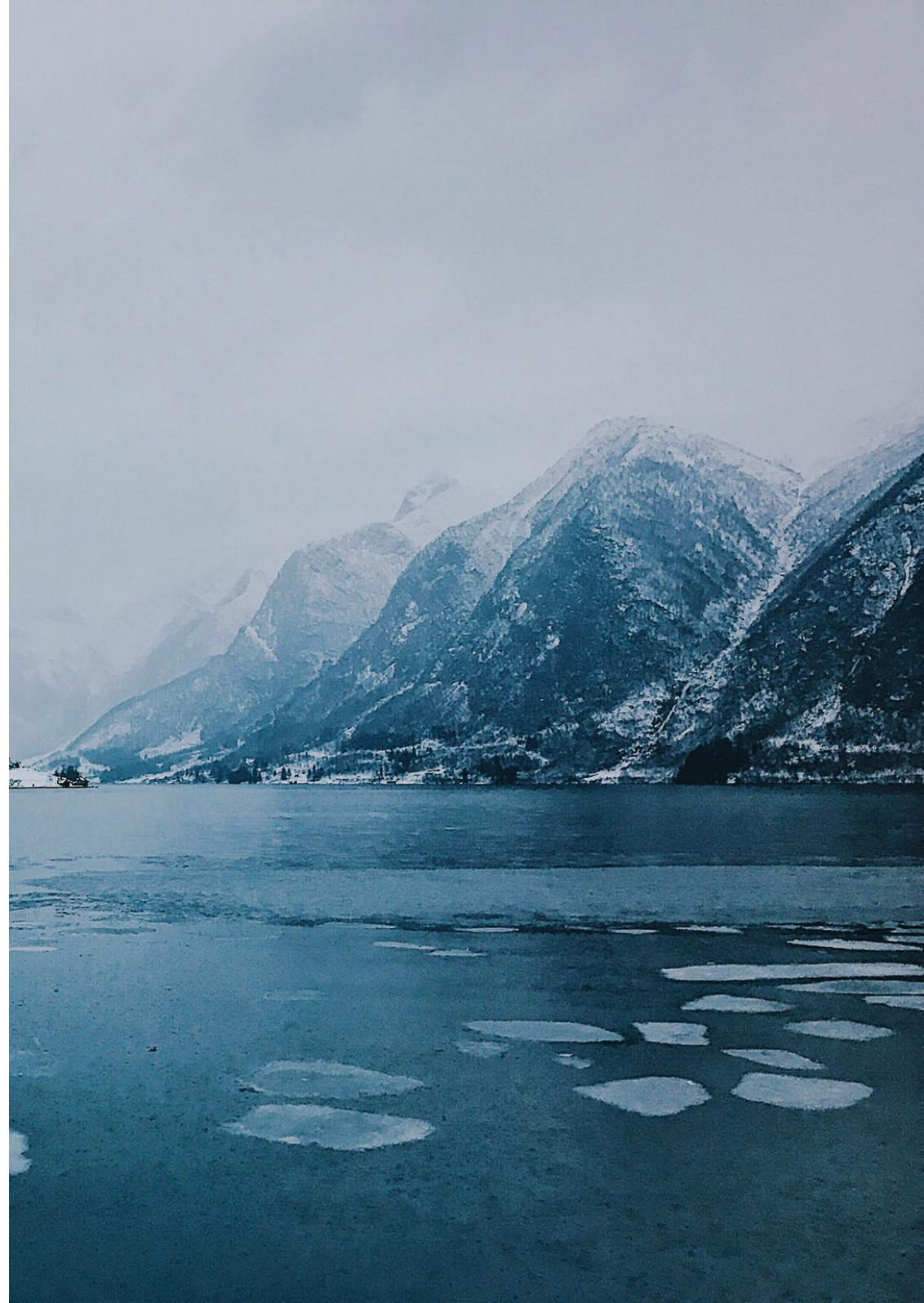


Concept 3



The screen was an adaptable structure that could be positioned over the trunk's door and adapted to fit many different models of cars for maximized changing area.

The waterproof screen could also be combined with a mat to improve the changing experience. When not in use the screen could be folded and stored in a waterproof case.



“The bucket“



The final product is a changing piece of equipment adapted after the needs of the user and of cold-water surfing. The bucket is composed of the bucket itself and an isolating mat to stand on while changing. The picture to the left shows The bucket in its compact setting.

Conclusions

A conceptual portable piece of equipment that will allow for a more comfortable and enjoyable changing process after cold-water surfing was developed. This was the objective of the project and it's considered to have been achieved.

