



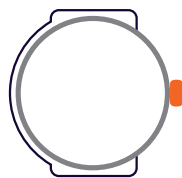
PORTFOLIO | **CERIEL** LUCKER

Some dream to **escape** reality,

some to **change** it forever.

Soichiro Honda

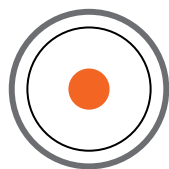
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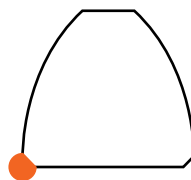
A speaker made of a
train



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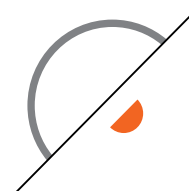
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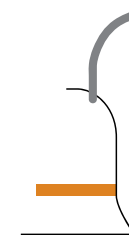
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revisited

Introduction

About me and design

Industrial Design is a very broad term. For me it is the ability to solve the most urgent problems we encounter as human beings and as society. Especially the environmental problems, which are strongly related to how we treat our products and the disposal of them. The circular economy is an inspiration source for me. It not only deals with the environmental constraints, but also with the new business opportunities which emerge from this transition.

Besides design, there is politics. It is the place where important decisions are made. As a member and assistant councillor of the Dutch Labour party I have the possibility to convince other politicians to implement the circular economy and to make my city more durable.

In this portfolio you can see a variety of projects I did over the years. Have fun and who knows we stay in touch!



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Linked-in: [linkedin.com/in/ceriel-lucker/](https://www.linkedin.com/in/ceriel-lucker/)

Curriculum Vitae

Education

2019-Ongoing	Master Industrial Ecology TU Delft / Leiden University Delft / Leiden (NL)	2013-2016	BSc Industrial Design Engineering, Technical University Delft (NL) Honours Programme Bachelor
2017-2018	Master Product Design Strate School of Design, Paris (FR) Best graduation project	2007-2013	Gymnasium, Graaf Huyn College, Geleen (NL) Cum Laude, GPA 8.0/10 (2013)
2015	Minor Product Design, Strate School of Design, Paris (FR)		

Additional courses

2018	Entrepreneurship
2016	Towards circular product design
2013-2016	Honours Programme Technical University Delft (NL)
2015	French course intermediate, CERAN, Spa (BE)

Interests

Tennis Tennis combines both technical and mental aspects. it helps to escape from reality and to remain focused during work.
Music Making music is my way to relax. I play both the piano and the drums. A combination of rhythm and melody.
Nature I've always had a fascination for nature. My designs are often inspired by them. To take care for our local nature, I maintain a public fruit meadow.

Curriculum Vitae

Experiences

2020-ongoing	Board Shift Business Coördinator Association Industrial Ecology	2018-Ongoing	Municipality of Sittard-Geleen (NL) Committee member
2019-Ongoing	NSpeaker Speakers, Geleen (NL) Founder and Owner	2016-Ongoing	Circular Clockworks Watches, Delft Co-founder & co-owner
2019-Ongoing	Plök Fruitevents, Geleen (NL) Organizor	2016	Technical University Delft Msc Student assistant
2018-Ongoing	Rotterzwam Rotterdam (NL) Advisory board member		

Skills

Core competencies

working in teams
quick assessments and analyses
leadership
pragmatic attitude
self-reflecting attitude
auto didactical
social and environmental engagement

Design competencies

3D modeling 
prototyping 
Adobe 
Sketching 

Languages

Dutch 
English 
French 
German 

Curriculum Vitae

Exhibitions/Presentations

2019	GHC-awards Guest Speaker award ceremony Geleen (NL)	2018	Interlycées Presentation circular economy Luxembourg (LU)
2019	Wanted Design Participant Conscious Design New York (US) Presenting of my graduation project	2017	Boijmans van Beuningen Participant Change the System Rotterdam (NL) Exposition disruptive concepts
2018/2017	Dutch Design Week Participant Next way of Living Eindhoven (NL) International design exposition	2017	Doctors without borders Presentation minilab Paris (FR) Transportable lab for monitoring bacterial resistance

Prizes/Nominations

2019/2018	DJ100 Member sustainable young 100 Sustainable motion
2018	Coup de coeur (favorite) Final graduation project
2018	Agorize 2018 Graduate Design Awards Finalist
2016	IDEAS Award (second prize), IDEAS Laboratory Saint-Étienne (FR) The new co-working experience

Press

2019	Plök ziet kansen in fruit De limburger Link article
2018	Realist met een verhaal De limburger Link article
2018	Parijs 3 jaar geleden De limburger Link article

Political Achievements

2020	Motion Foodforest Municipality Sittard-Geleen
2019	Motion Sustainable Events

Circular Clockworks

The first circular watch

In 2016 I became inspired by the philosophy of the Circular Economy and was eager to be part of this new movement. Therefore I co-founded Circular Clockworks. To show people the full potential of recycled plastics.

In our opinion, the success of the circular economy depends heavily on the image of recycled materials. They really need their image brushed up. Our way to do so? A high-quality watch made from recycled materials. With this product, you wear sustainability and can spread the word about the circular economy.

Not only is this watch designed following the circular economy, but also our service. That's why we buy every watch back to be able to reuse everything.



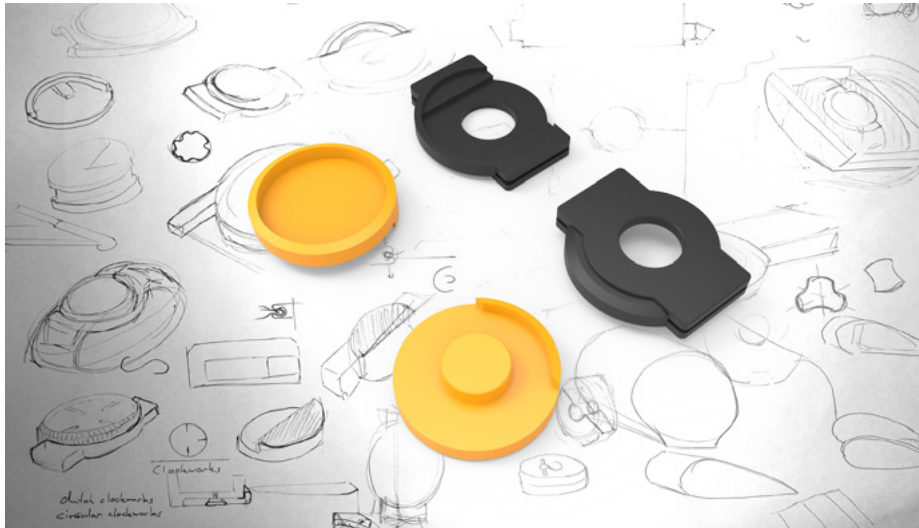
Circular Clockworks



Designing

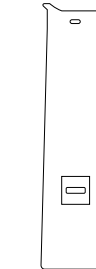
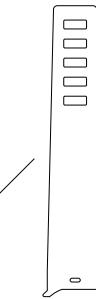


At the beginning we started the project with one simple question. What kind of product would augment the perceived value of recycled materials and would make clear easily to consumers what the circular economy really is about. A watch does it all, because it is already associated with value. And because a watch is a simple product, our choices regarding the circular economy are easily explained.



The circular way

The wristband is made of cut-offs from the shoe industry without metal



Service

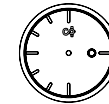
Together with the watch we offer a service where people can get a discount on the first maintenance. When people don't wear the watch anymore, we offer to send it back, to reuse the materials again.



This Swiss movement will be reused when a watch is repurchased.



The Body is made of one piece and therefore material which can be recycled.



This glass can be recycled.

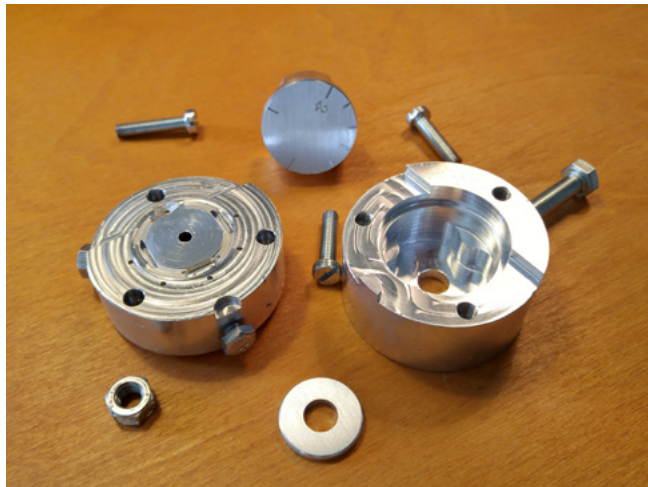


The rubber seal prevents water to creep in. It will be reused.

Exploring



Producing as locally as possible means to build an own injection machine and mould to hand-press our watch. Exploring the limits of Dave Hakkens precious plastics' hand injection machine we came close. We inject parts as a proof of concept, but the technique was not consistant enough to be suitable for production.

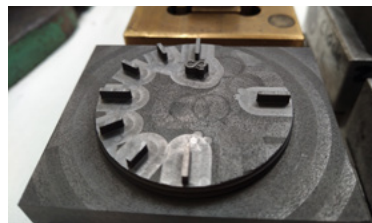


Prototyping



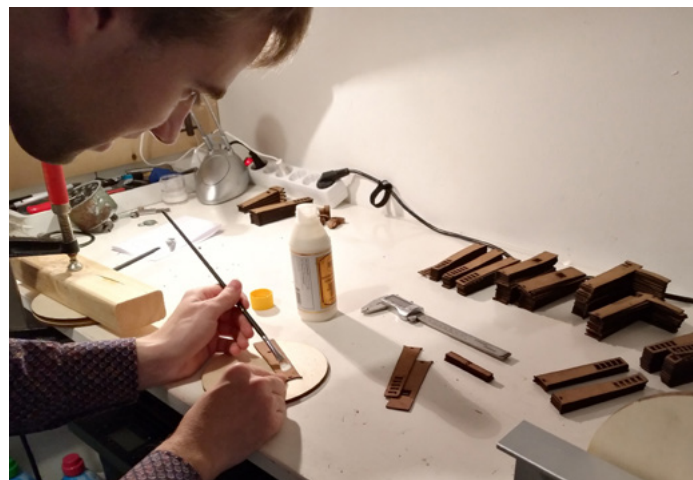
After deciding not to use our own injection machine, we produced a professional mould. Several prototypes were made to ensure the proper working of the watch. Comfort and style were tested by several users. With every prototype the watch improved gradually. The image on the right shows this process and all the iterations we made.





After finishing the mould, the first production took off. With 70 watches pre-sold, our productionline came alive. Few improvements had to be made to produce both fast and consistent.

Producing



Redesigning



Since we launched our first model, people have been asking for a smaller version. It set us a challenge to make the same design smaller and improve it from what we learned out of the first model. The result is a watch which is constructed better and looks more elegant. With the pattern on the dial we looked for the boundaries of plastic manufacturing, still using recycled consumer waste products.



NSpeaker

A bluetooth speaker made from a train

During my study I designed and made speakers on request. During those builds I always used new parts. When I refurbished some 40 year old radios, I noticed that the speakers themselves hardly ever were worn. That's how the idea of a new speaker made from old parts was born.

The NSpeaker (NS stands for the Dutch Railways) is made from 40 year old train broadcasting speakers. Every part that is mounted on a train is designed to endure vandalism and will last more than 40 years. When I got the first speakers I was suprised by the excellent state.





Cut-offs floorpanels

When a trainfloor is renewed they have to cut the panels to their correct size. This leaves strips of wood. It's perfect for making speaker cabinets as they are very durable.

Broadcasting speakers

After 40 years of loyal duty, these speakers don't show the slightest wear or tear. It would have been a tremendous shame if they weren't used again.



Plök

Rediscovering public fruit

The region of south Limbourg has a rich history of fruitmeadows. Before intensive agriculture existed every town and city was surrounded by fruit trees. Now their biodiversity is at stake, municipalities replant old species.

Unfortunately the reconstructed meadows don't get the attention they deserve. The municipality does not prune them regularly and the fruits are hardly used.

With Plök we want to revive these meadows. Pruning them ourselves, organizing a yearly fruitfestival and using the fruits to make juice and cider. It's a great succes. People are rediscovering picking fruits themselves and enjoying the beautiful nature around. The meadows are regaining their valuable spot in our local society.

Because of this success our next goal is to establish a fruitforrest in the same region. To celebrate the different edible plants our region has in cooperation with local entrepreneurs.



Fruitfestival



Cider



Oasis

Naturally and Infinitely refreshing

Oasis is a display cabinet for fruits and vegetables to replace a part of our regular fridge. A product that shows the beauty of fresh products so we will not forget them.

However Oasis shows not only our greens, it shows a different approach to product design. Inspired by nature it absorbs water and lets it evaporate to cool the interior. A system without electricity nor harmful substances that will work forever.

Together with Oasis we will waste less food, consume less electricity and will be stimulated to use our products longer.



Analysis



50% of all fruits and vegetables are wasted somewhere in the supply chain.



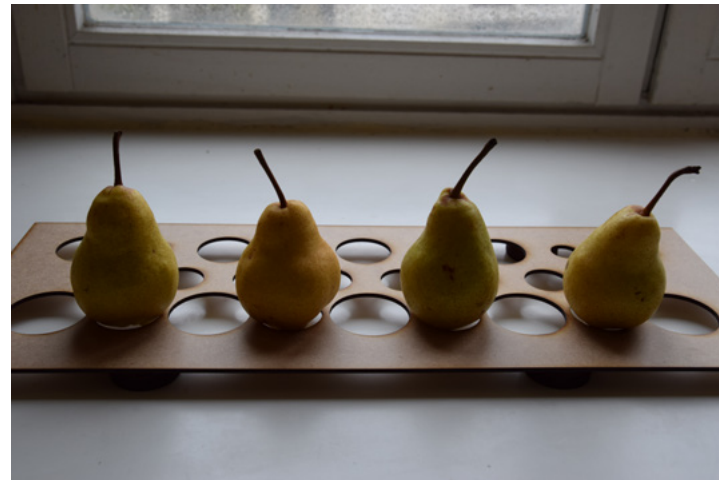
The space and pollution related to this waste is of the same magnitude of Russia



The products that make it to the consumer are often badly stored



Experimenting



What is the best way to store your vegetables without using electricity and can you get most value out of it. To find that out I conducted a number of experiments based on previous methods. From hanging vegetables above water, storing them in a dessert fridge and cultivating mushrooms on coffeewaste and peels. The latter two were very effective at their job but were not yet comfortable in use. However it formed the base for the rest of the project.



Prototyping

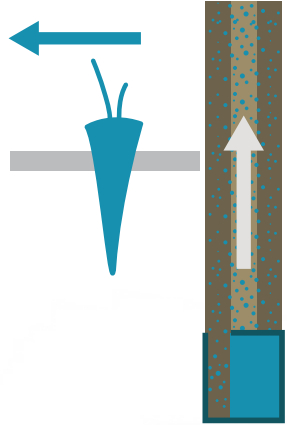


Different mock-ups were used to determine the size needed to store a weekly amount of greens and how to access and interact with them easily. It became clear that it would become a rather large product and therefore an eyecatcher in every kitchen. That's why I also focussed on presenting the fruits in an attractive and chic way so every green becomes a entity of its own.



Working principle

3. Evaporation moistens the interior for perfect conditions



2. Evaporation draws heat from Oasis, cooling the interior



1. Water is absorbed by the sand through the capilar principle from the reservoir



The interior climate will be slightly different for each plateau. And to know to put what where, just think of how it grows. Potatoes at the bottom and apple at the top.

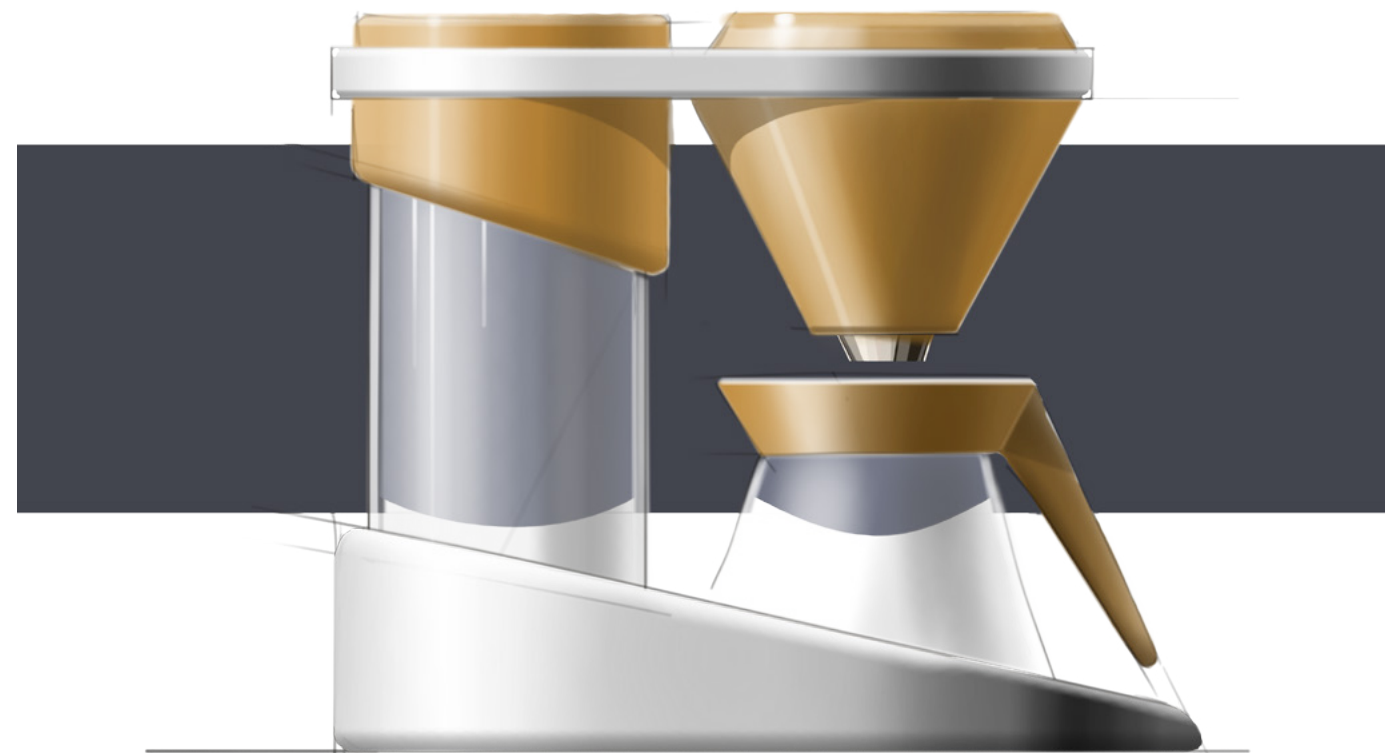


15	85	+
↑	↓	↑
12	100	-
°C	%H ₂ O	C ₂ H ₄

The middle

Renders, sketches & prototypes

For the middle of this portfolio, I have a little surprise. Many projects that are worth to mention are described here briefly. I will show a variety of sketches, smaller projects and prototypes I made over the years. Most of them are personal projects. In this way I want to give an overview of what I like to do in my spare time.





This cloth hanger is standing on it's support enabling easy grip and an iconic look.



Smartwatches are appearing everywhere. As a dutchman I created one for cyclists. It shows you the way, so there is no more need to get out your phone.

This lamp was made for KATABA. It is a lamp that can be used in various settings. It can be put on a table, hung up on the ceiling or lain down on the floor. It's all up to you.

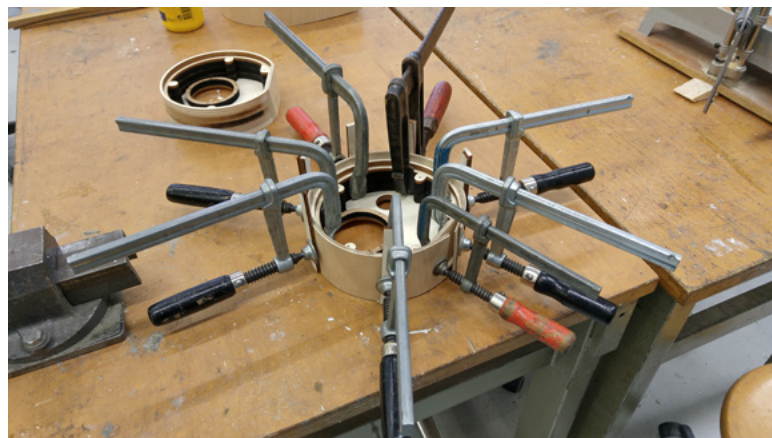
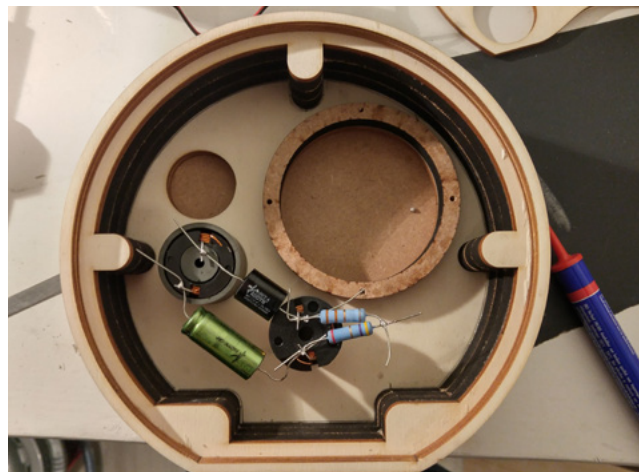


HIER
BEGINT
DE ZEE
NIETS INGOOIEN
AUB!



WEEGELS - WEEFT

Every year tons of plastic end up in the ocean. A part of this plastic is coming from us. This sign is saying: 'Here starts the sea, don't throw something in!'. This template was used in different cities of the Netherlands to prevent people from wasting down the drain!



After building my first speakers from a kit I, had to design and build my own speakers as well. This table speaker has bluetooth in it, playing every song you want.





Designing and building this wine cellar was a search to simplicity and elegance, but practical use at the same time. All bottles are spaced perfectly with good vision at them to pick them up.

MiniLab

One lab, one pallet

MiniLab is a transportable laboratory to examine bacterial infections and resistance in poorly accessible zones.

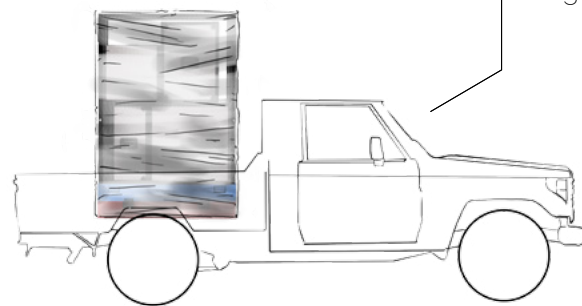
The Lab is designed to fit on one standard pallet where all apparati are packed in standard flight cases. The available space in the various machines also is used to stock all consumables needed for one mission.

The Lab is designed with the principle that everything that is transported has to have a function. The frames protecting the Lab form the main structure and the crates are used for storage or table.

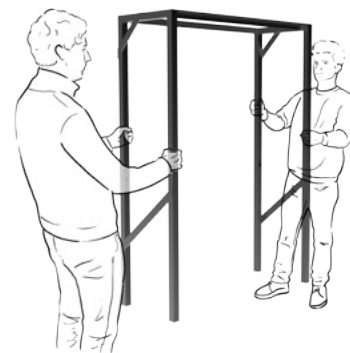
Together with the MiniLab goes a database where all data is collected to give an overview of the bacterial resistance of specific zones.



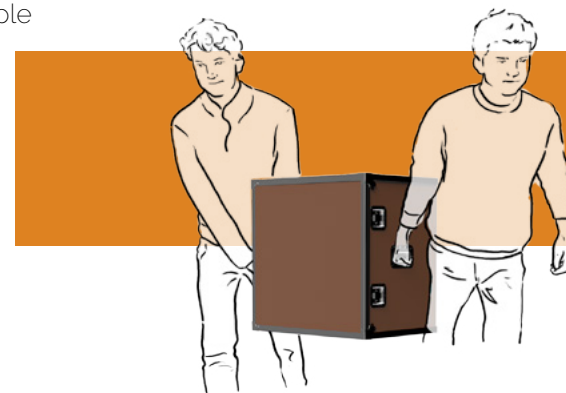
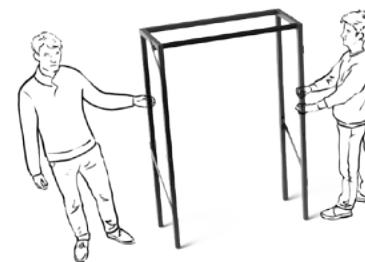
Selection for shipment



Transportation
fitting in every 4x4

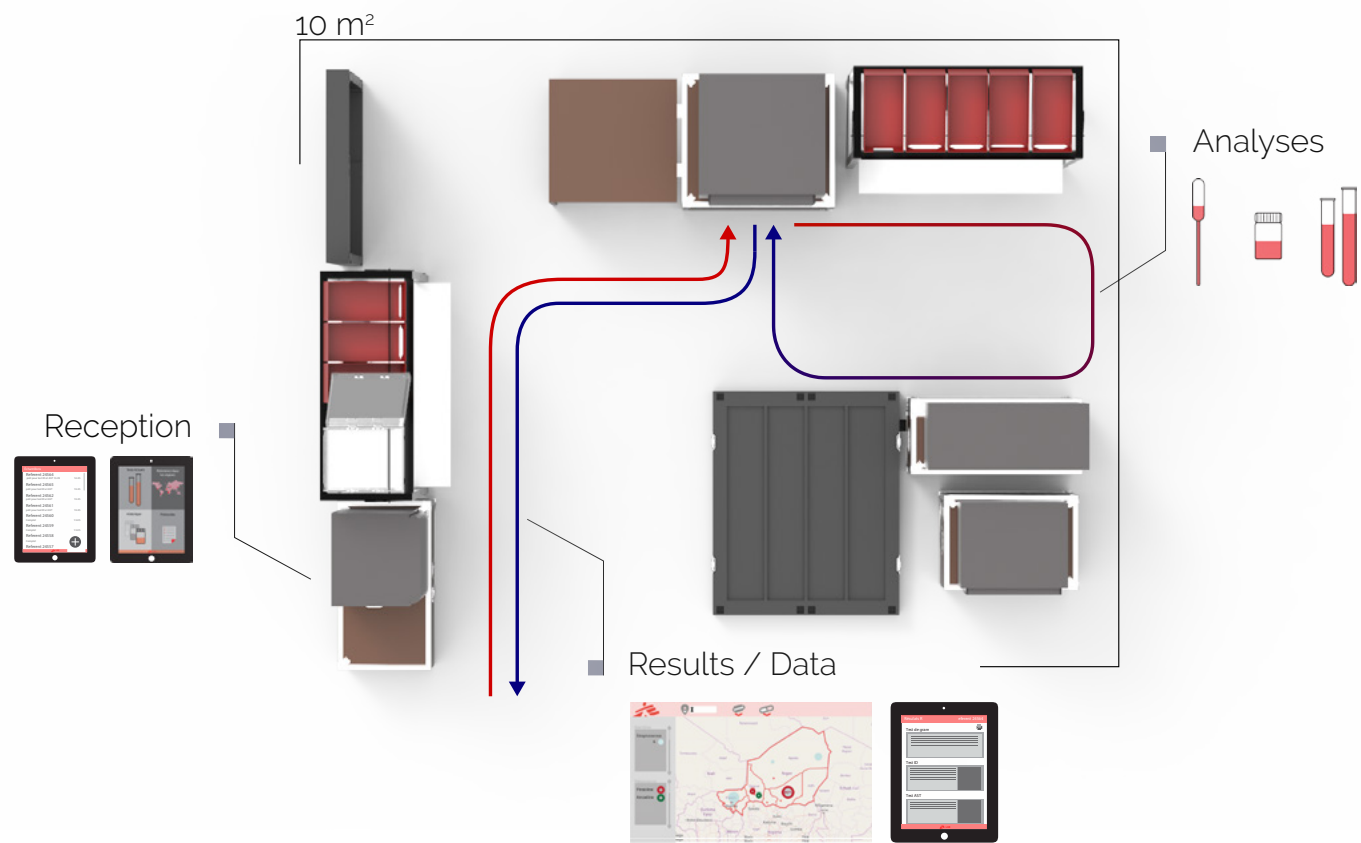


Deployment on site
with only two people



Fixed order
Thanks to the labeling





LOX

Ordered and safe

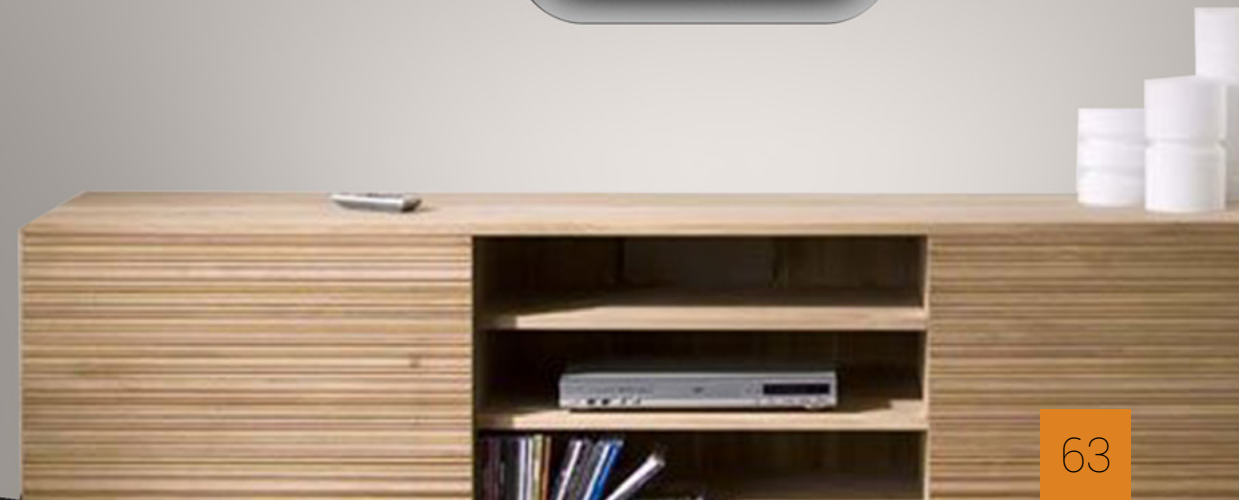
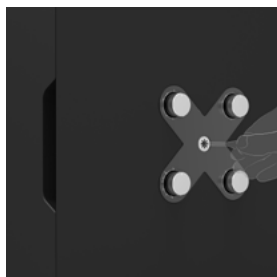
Lox is the new series safes. One that has a durable exterior, but interior that will evolve with your needs.

To enhance the feeling of security, Lox does not have a visible handlebar. It is elegantly incorporated in the monocoque.

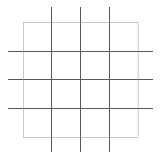
When opened the appearance changes completely. A raster divides the interior in cubes measuring 9x9 cm. All modules available are based on this grid. For every need there is a module available. No matter when dealing with paper documents, jewelry or digital appliances.

Along with Lox goes a service to keep up with your changing life. Modules are chosen carefully in the beginning, but can be changed when needed. And when you leave for a long time, you are able to stock your possessions with us. Using the empty safes from banks around the corner





Personal layout



Guarding service



Change of modules



Citrease

The juice is worth squeezing

Citrease is a mechanical juicer, which anyone can handle. Normally small mechanical juicers require a lot of force. Those which do not are too big for a normal kitchen.

Citrease has a spindle mechanism which spins the fruit apart from the vertical force. Thanks to this, the required force is minimized.

The design is based on an expired patent, where this spindle mechanism was introduced. We turned this patent in a new design in the style of Alessi.

