Hi, I'm Gustav — a designer. My goal is to delight people through meaningful digital and physical products that are a joy to experience and bring pride to their makers.



1. Horizon

This project was the motivation for my Master's degree in Interaction Design. I knew I wanted to work on a "car project" with the human at the center instead of the car itself.

Over the course of a semester, in a team of eight talented international designers, we developed Horizon from a brief about naturalness in car-driver interaction to a full-scale prototype about redefining the meaning of the car.





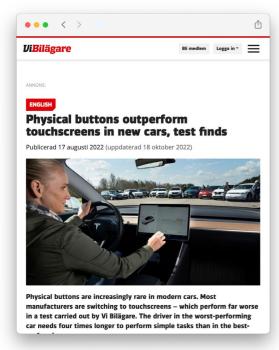


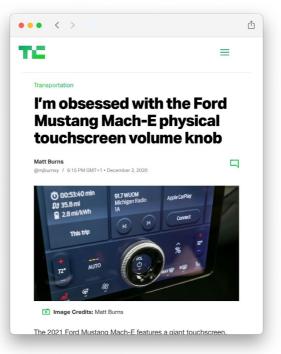






cars. The pain of cluttered controls and increased cognitive burden on the driver to operate these controls leads to a distracted and unpleasant driving experience.





New EVs from Mercedes feature three separate touch-screen displays. Source: Mercedes-Benz AG

Green | Greener Living

Are Car Touch Screens Getting Out of Control?

As electric cars commodify the driving experience, the center display offers a space to stand out. But the big-screen arms race may be accelerating too quickly.

As hare

By Kyle Stock +Follow

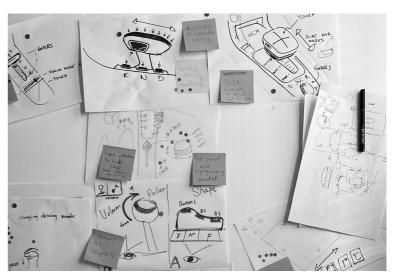




https://horiz.one/video



950km road trip to understand modern cars first hand



exploring gear shift evolutions



prototyping center cluster controls



discussing redesigns of the steering wheel for system controls

Digital Interaction

PAINS

poor information hierarchy and flow

lacking the curiosity to try new car features

screens are distracting while driving

it requires time and effort to study all the controls

controls can be ignored unless you look for something

overwhelming new technologies

assistive driving should assist, not take over

NEEDS

intuitive UI that the user is familiar with

keep up with consistency and UI standards

provide compact and minimal interface

gestural, responsive screen interactions

haptic control of infotainment system

time to learn the controls

clear system feedforward

Design Hints

OPPORTUNITIES

less nested, responsive and contextual user interface

update controls to multi-sensory interactions that allow user to stay focused on the road

short, informative, contextual instructions with glanceable information and clear action

provide user customisation of controls and between manual and autonomous controls

system that clearly communicates the decision of any autonomous changes beforehand

multi-purpose, physical controls, one tangible surface caters to several features

Physical Interaction

NEEDS

environmental and emotional sustainability

position of controls must allow autonomy

primary physical controls to relate to other upgrades

universal positions of digital and physical controls

control by being able to perform repairs themselves

time and safe environment to become familiar

clear system feedforward

PAINS

transition to a newer version is not trustworthy

user ignores controls until specific needs arise

maintenance costs and requirements

cluttered, overlapping and nested controls

pushing random buttons until it works

car controlling the steering wheel without user input

it requires time and effort to study all of the controls

INTERACTIONS

secondary interactions are more problematic than primary interactions

COMPLEXITY

complex, nested information architecture in user interfaces

TANGIBILITY

tangible interactions operate on muscle memory, less distractions

Ethnography Research



making a prototype with arduino



verifying physical placement in situ



assembling the rotary dial with button



making the interface interactive in framer



user interface mockup in cluster screen



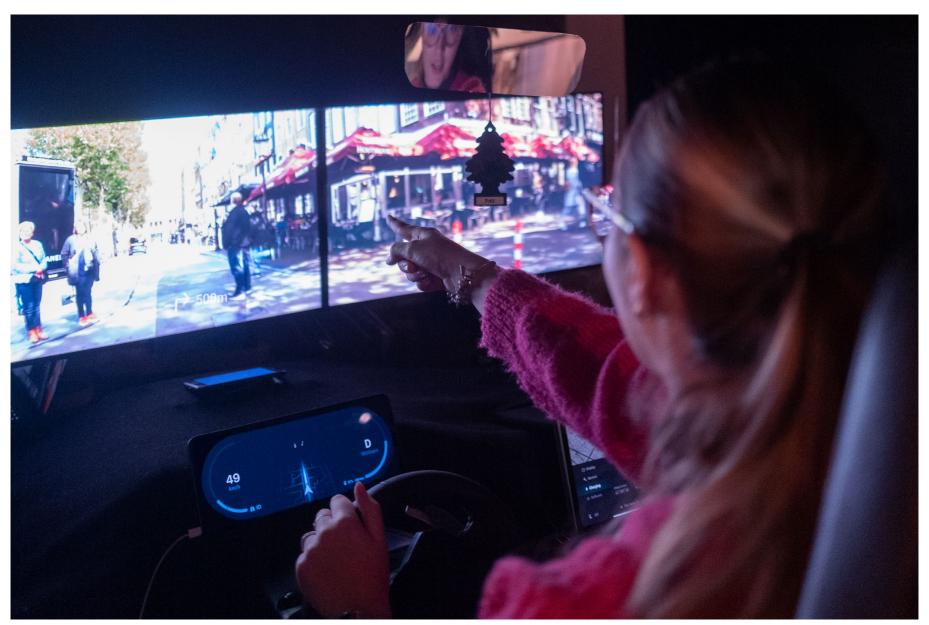
interation of dock and map



preliminary center console screen interface



47th version of the dial



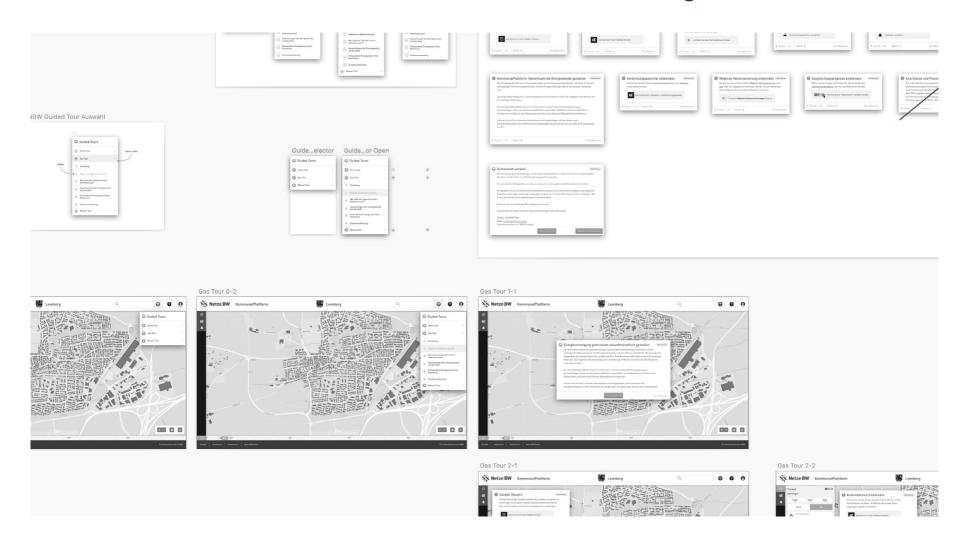
full-scale prototype during a showcase: HUD, cluster screen, center sonsole, and physical slider



project credits — umnah aslam, mojca fortunat, madeleine kiær, xiyu li, ruiyi liu, gustav moorhouse, jan ostrówka, weijian xu

Digital Energy Transformation with Enersis

3. UI for Carbon Neutrality





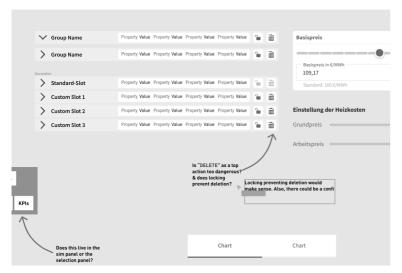
interviewing stakeholders in switzerland



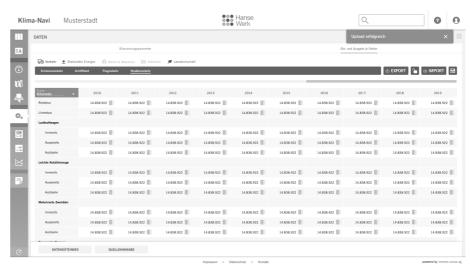
coordinating a co-creation workshop



presenting our findings to the client



live feedback with the design team during lockdown



implementing a table editor for municipal energy data



dashboard interface for an example city



user testing at the client's office



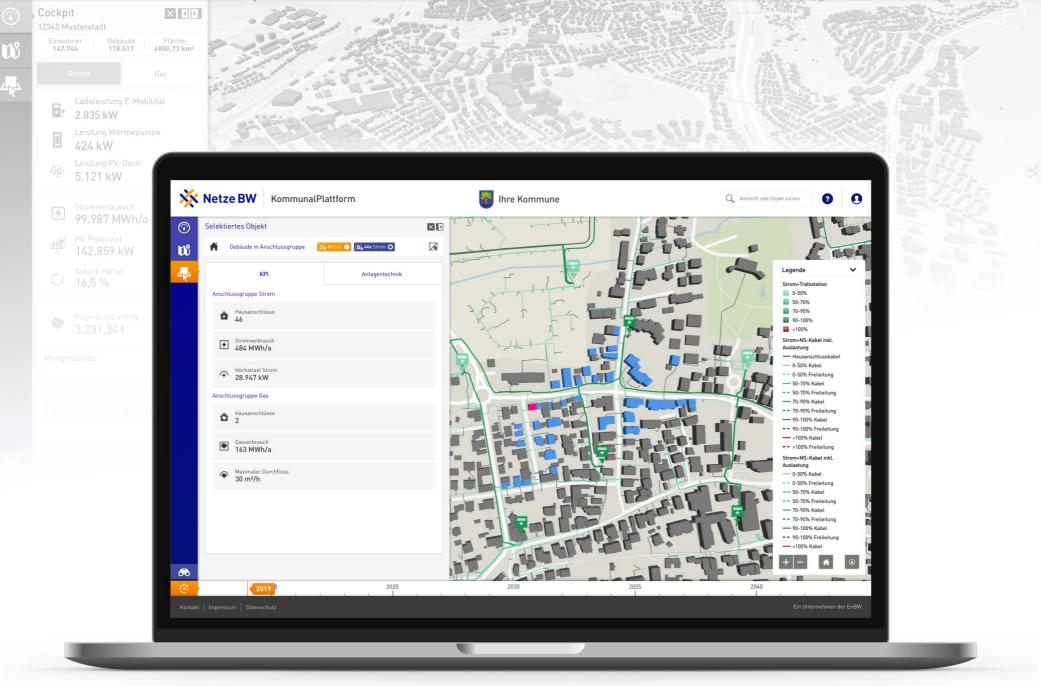
still life from working at the office



shooting an interview for a product video

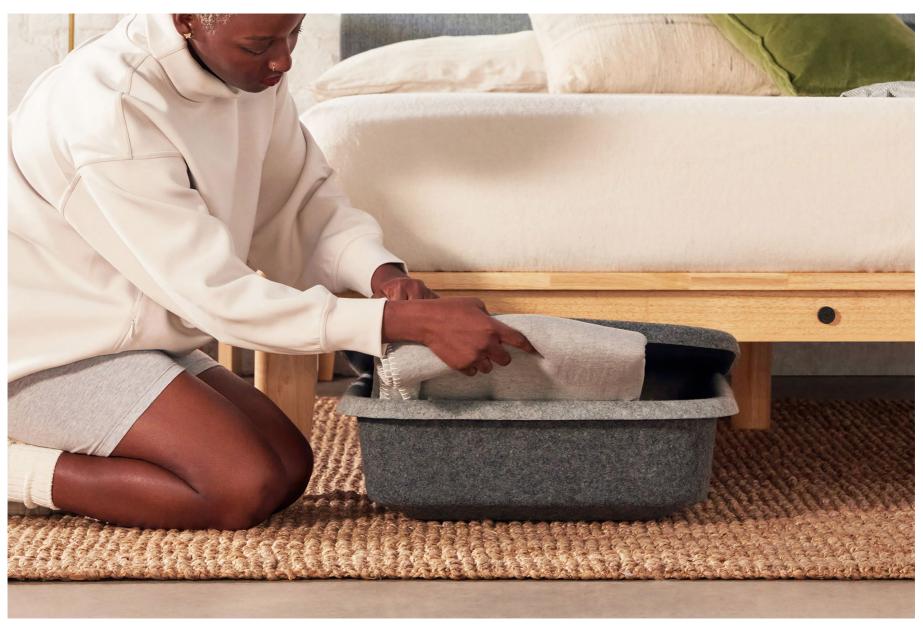


still life from working remotely with a crappy laptop



4. Underbed Storage





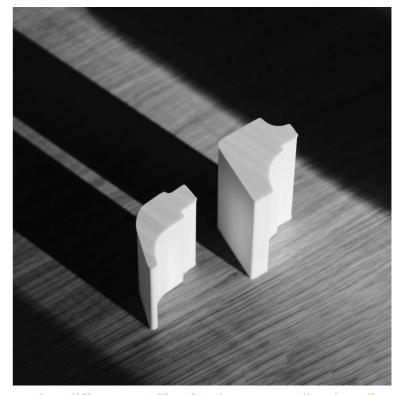
this recycled felt bin lives under your bed, always ready for quick access



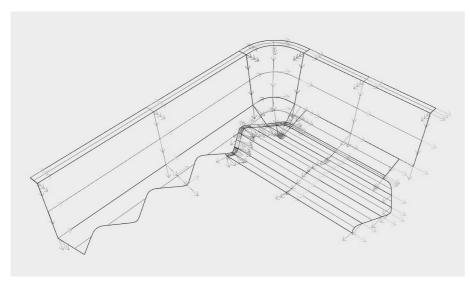
early prototypes were made from wood



first version was too heavy and damaged the floor



testing different profiles for the surrounding handle



the angles make it easier to slide on carpet



we cnc machined a test pattern



validating material strength



the cast steel mold to produce the bins



designed to keep an extra layer nearby



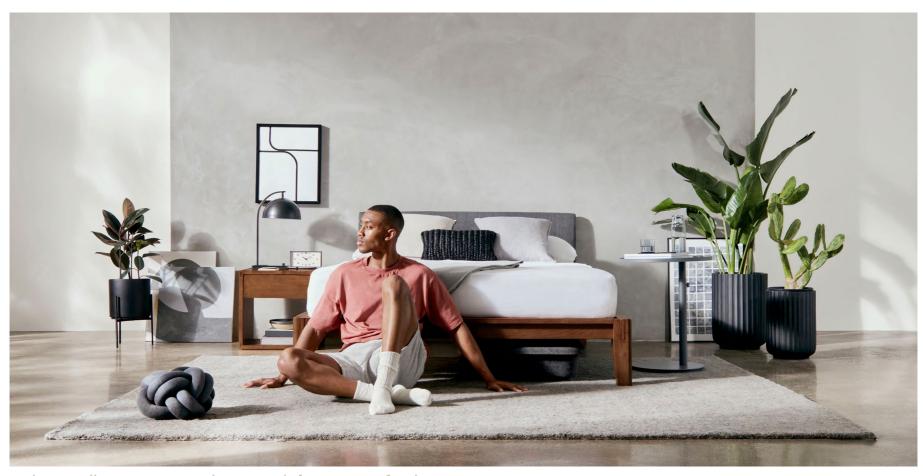
optimised to slide well, even on chunky rugs



blends into any space

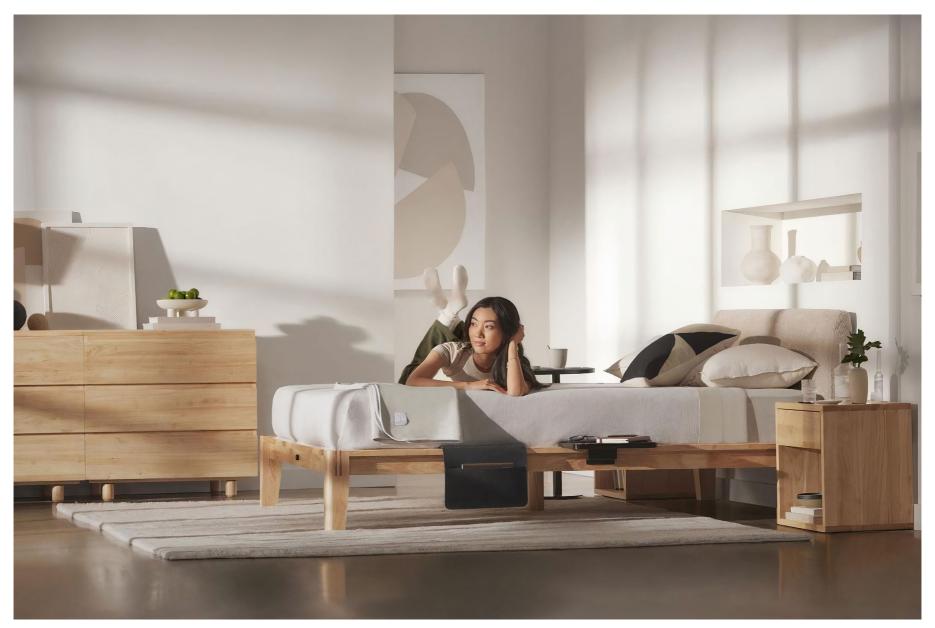


lid protects contents from dust



project credits: gustav moorhouse and slate werner for thuma





project credits: quentin de coster, gustav moorhouse and slate werner for thuma



model-making of wall panels



using paper to simulate japanese shōji doors



prototyping a (now-rejected) hanging unit



testing accessibility for wheelchair users



testing the stacking height



using foamcore to build prototypes



validating the single-drawer unit sizes



the top finishes off the assembly



drawer modules are stacked to the desired arrangement



lots of space for your favourite pieces



previous page and this page: marketing photos by thuma

An Alternative to Pharmaceuticals

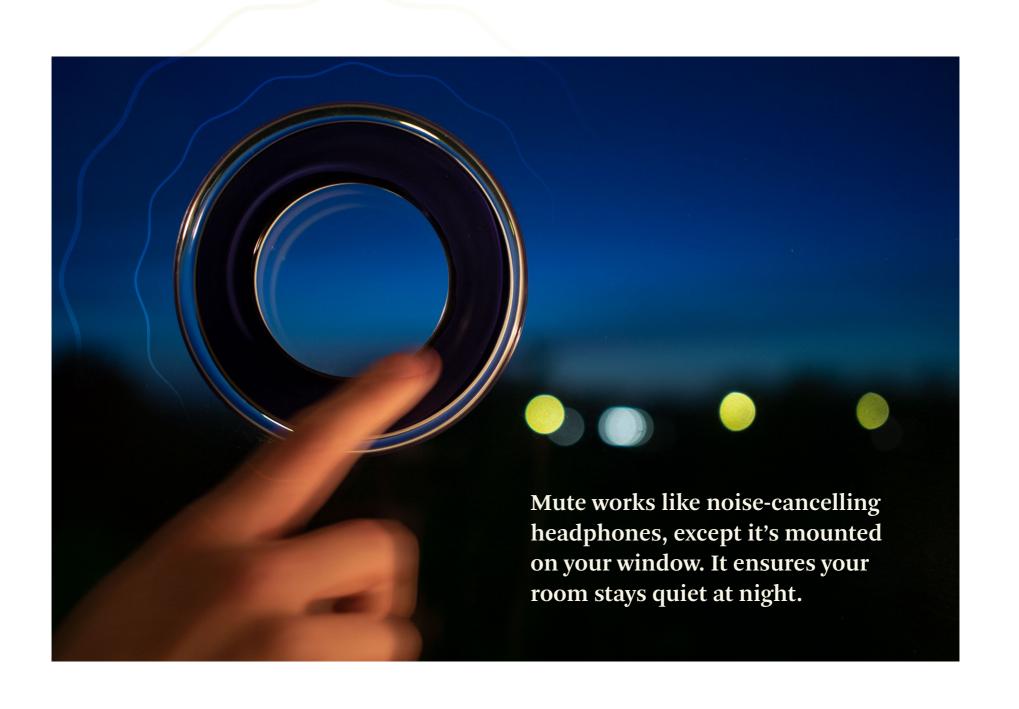
5. The Sound of Silence





This university project for a US-based direct-to-consumer pharmaceutical company focused on an ethos to "take less".

We proposed a new meaning for the company. Instead of over-the-counter drugs to treat symptoms, we designed a family of products that targeted the root of the problem: stress.





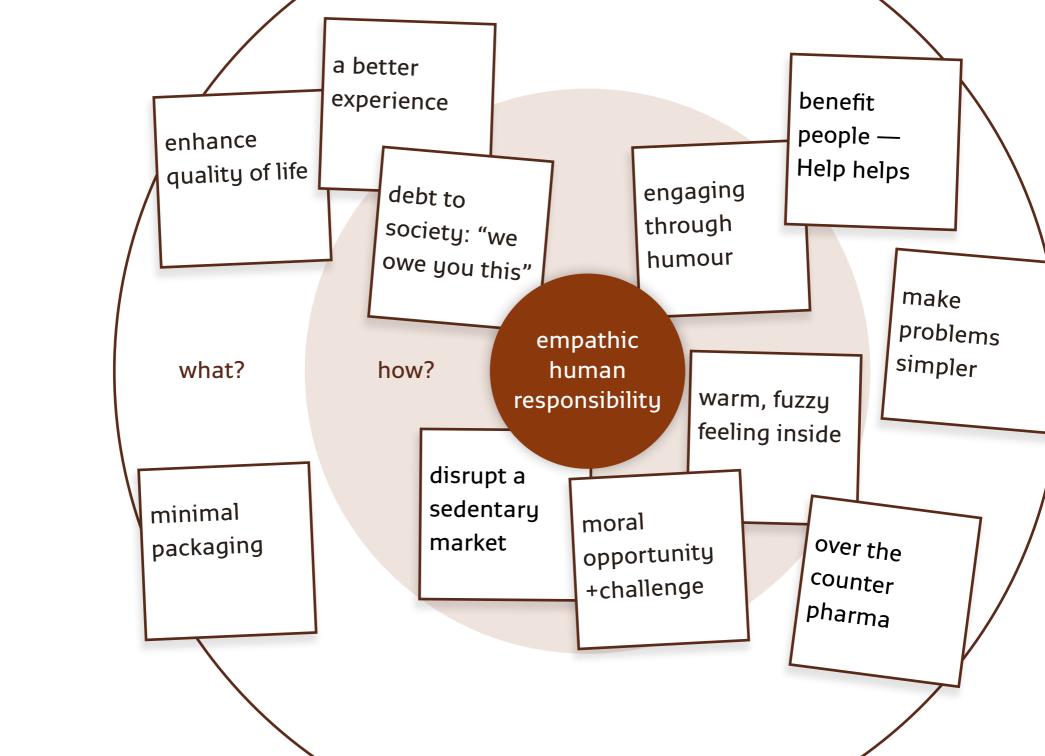
turning high-density foam on a lathe



components drying after spray-painting



the acrylic top was first cnc-machined, then hand-polished



Thanks for reading!



I'm currently finishing my MSc in Interaction Design at Politecnico di Milano, writing my thesis on naturalness in car-driver interactions.

It's very nice here in Italy, but I'm looking for the next chapter.

moor.house/cv



