#### SUX



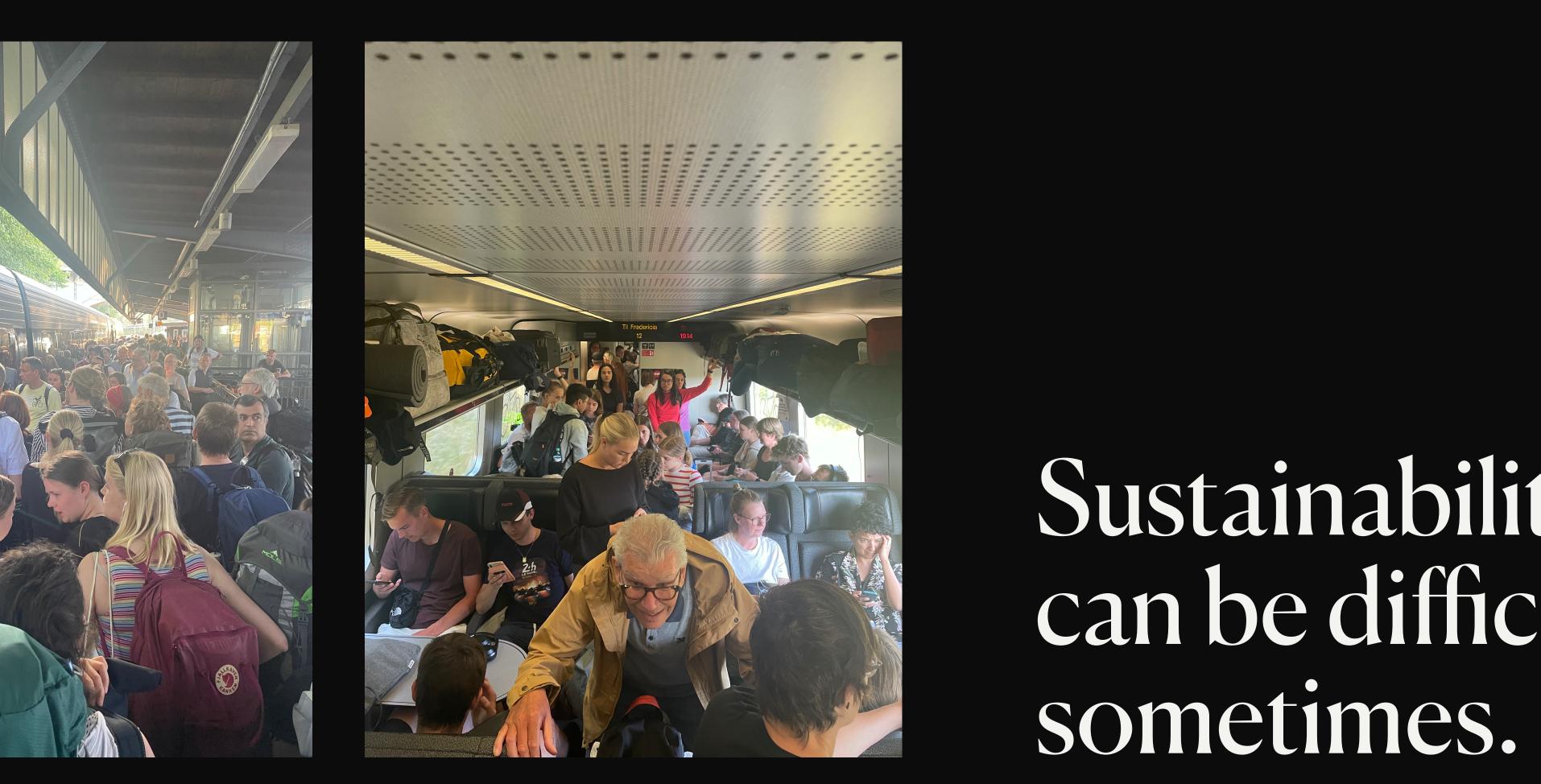


# Sustainable UX in Practise

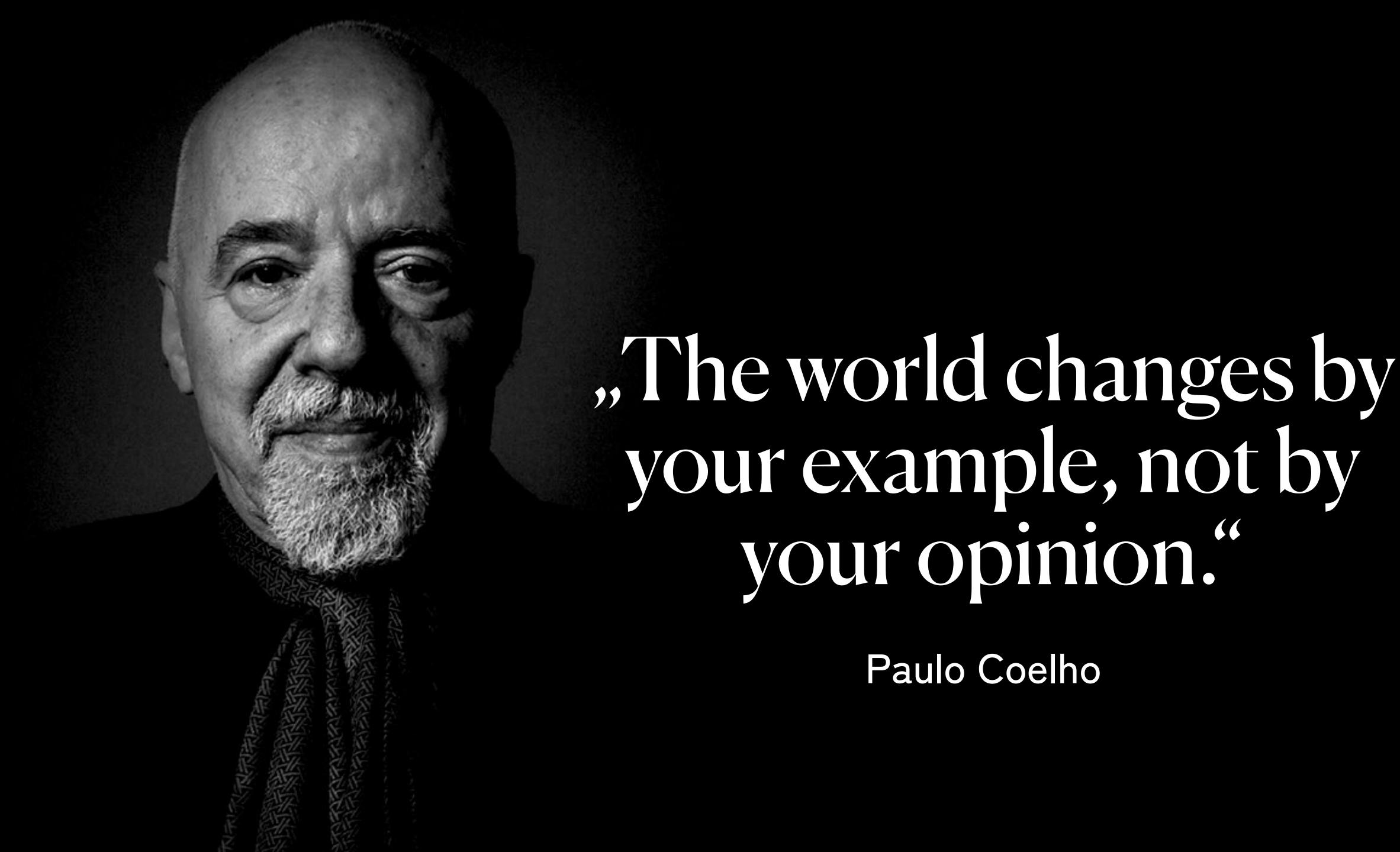


#### SUX





Sustainability can be difficult





#### Thorsten Jonas

Sustainable UX Consultant & Coach Founder "SUX - The Sustainable UX Network"

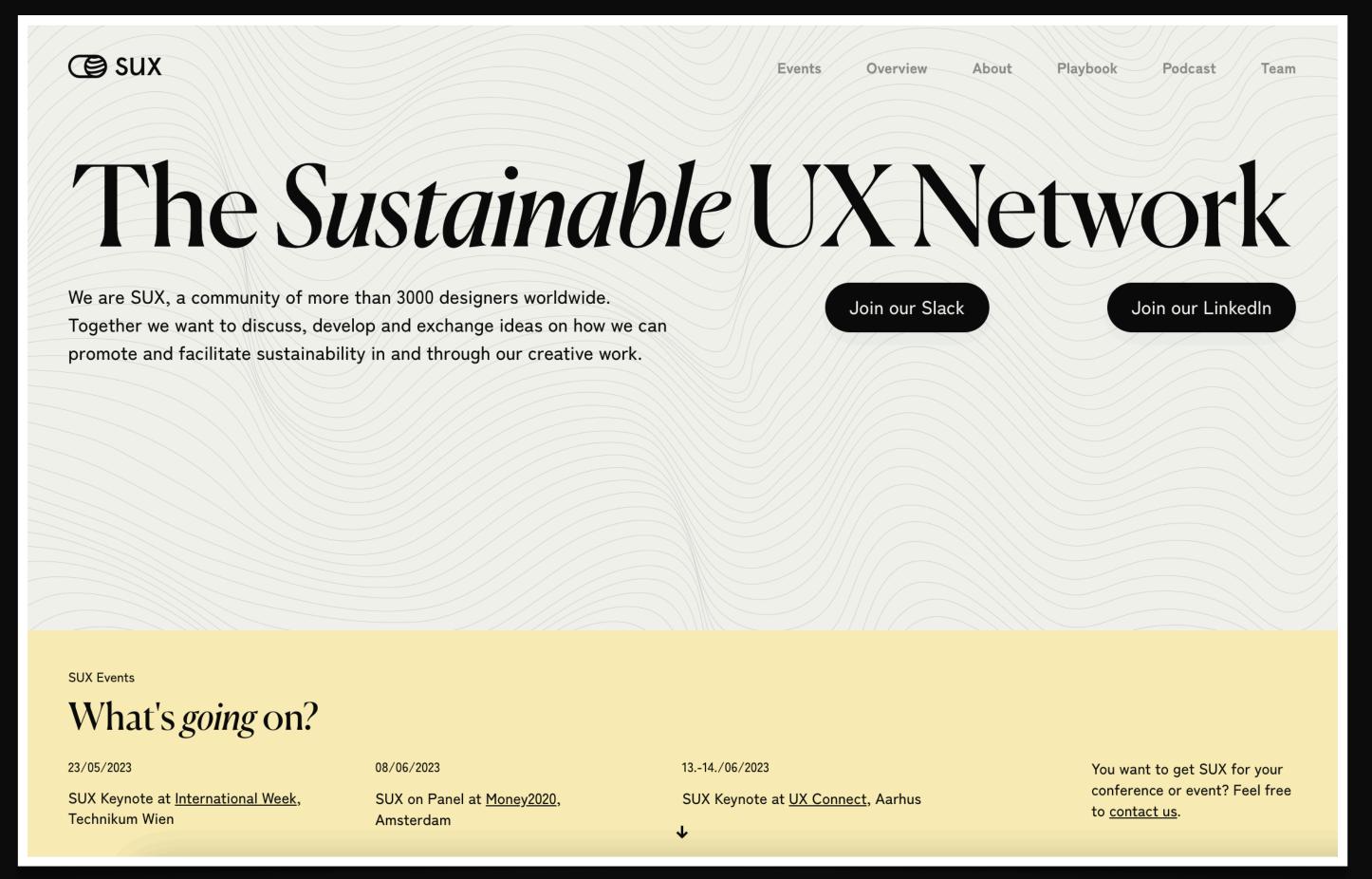
Web: sustainableuxnetwork.com

Web: thorstenjonas.com

Insta: @dolbydigger



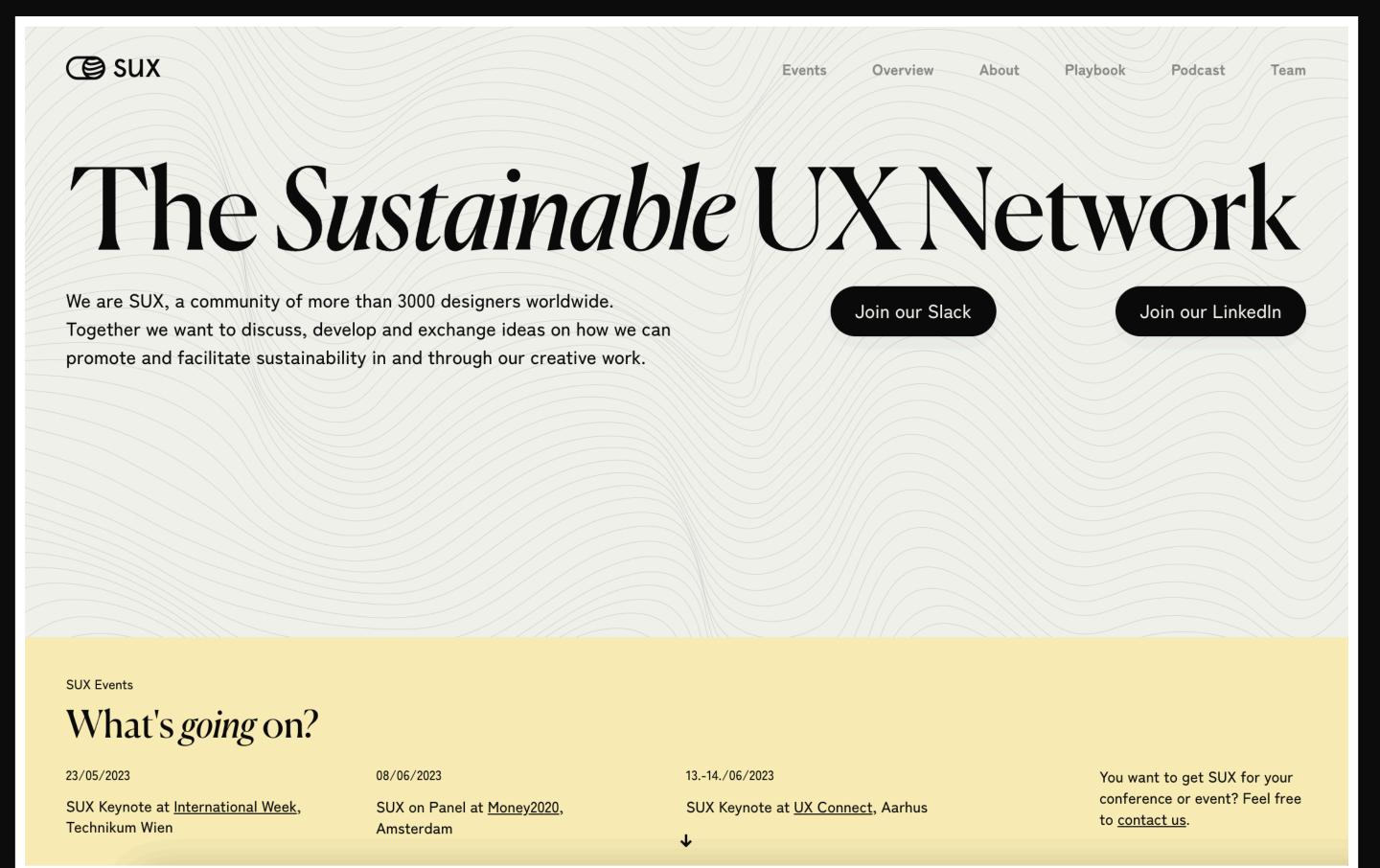


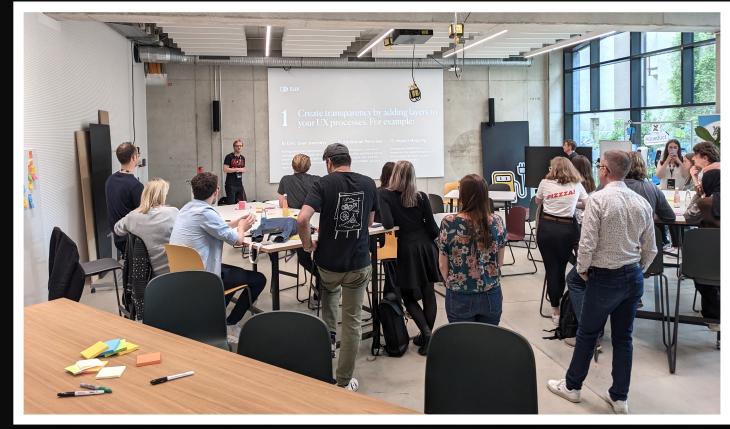


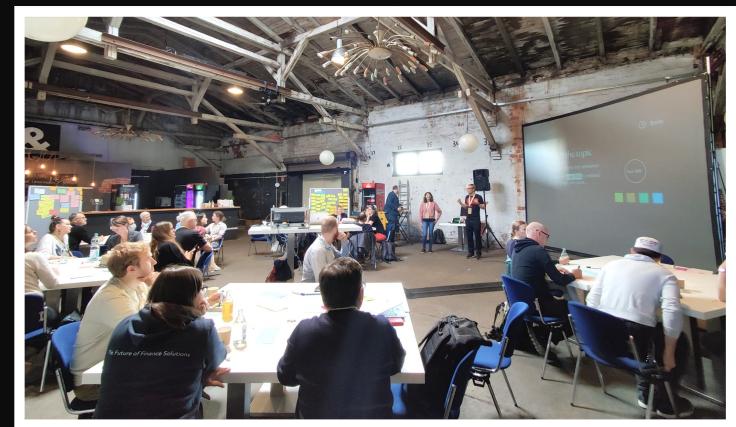




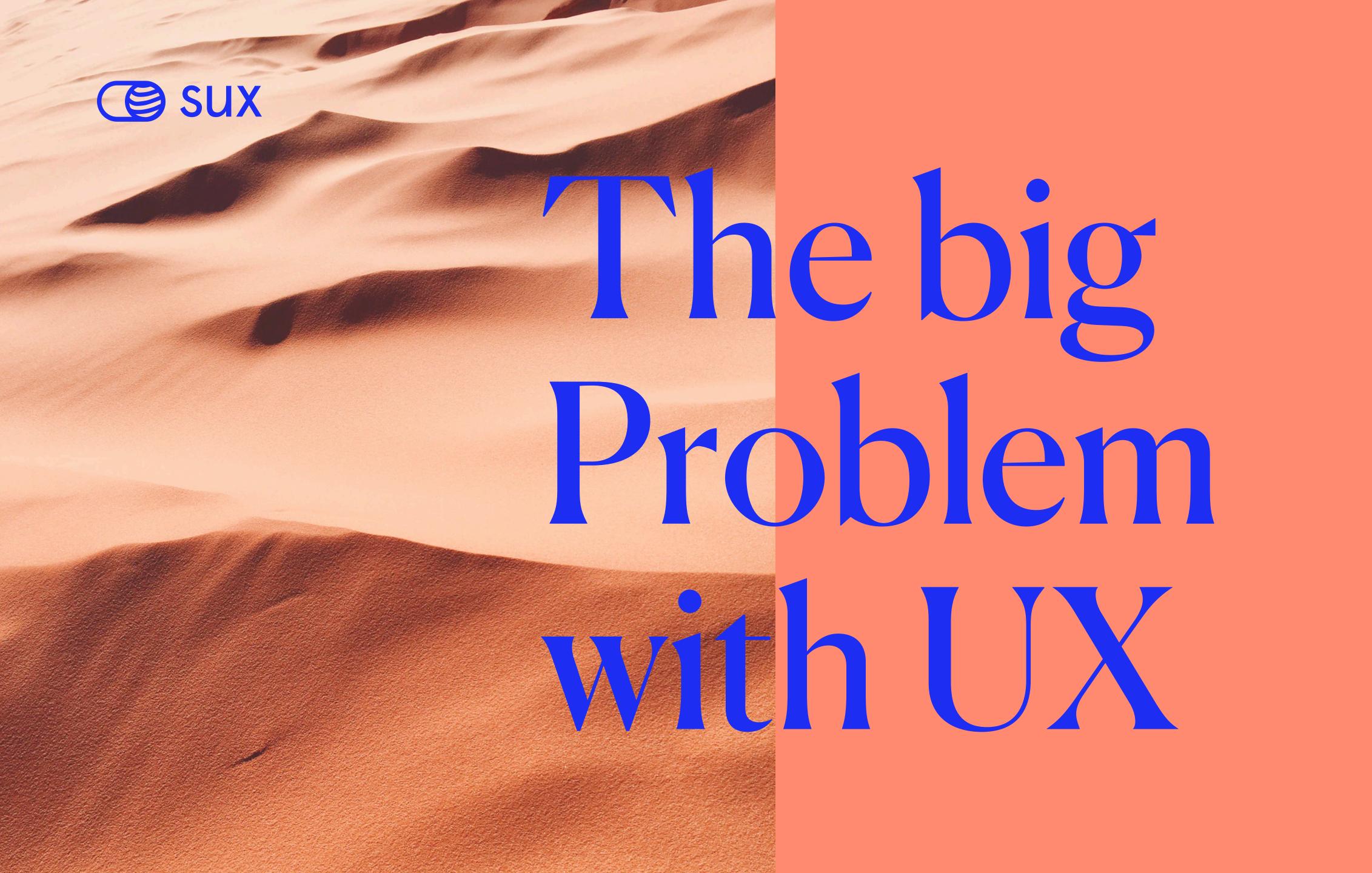








sustainableuxnetwork.com



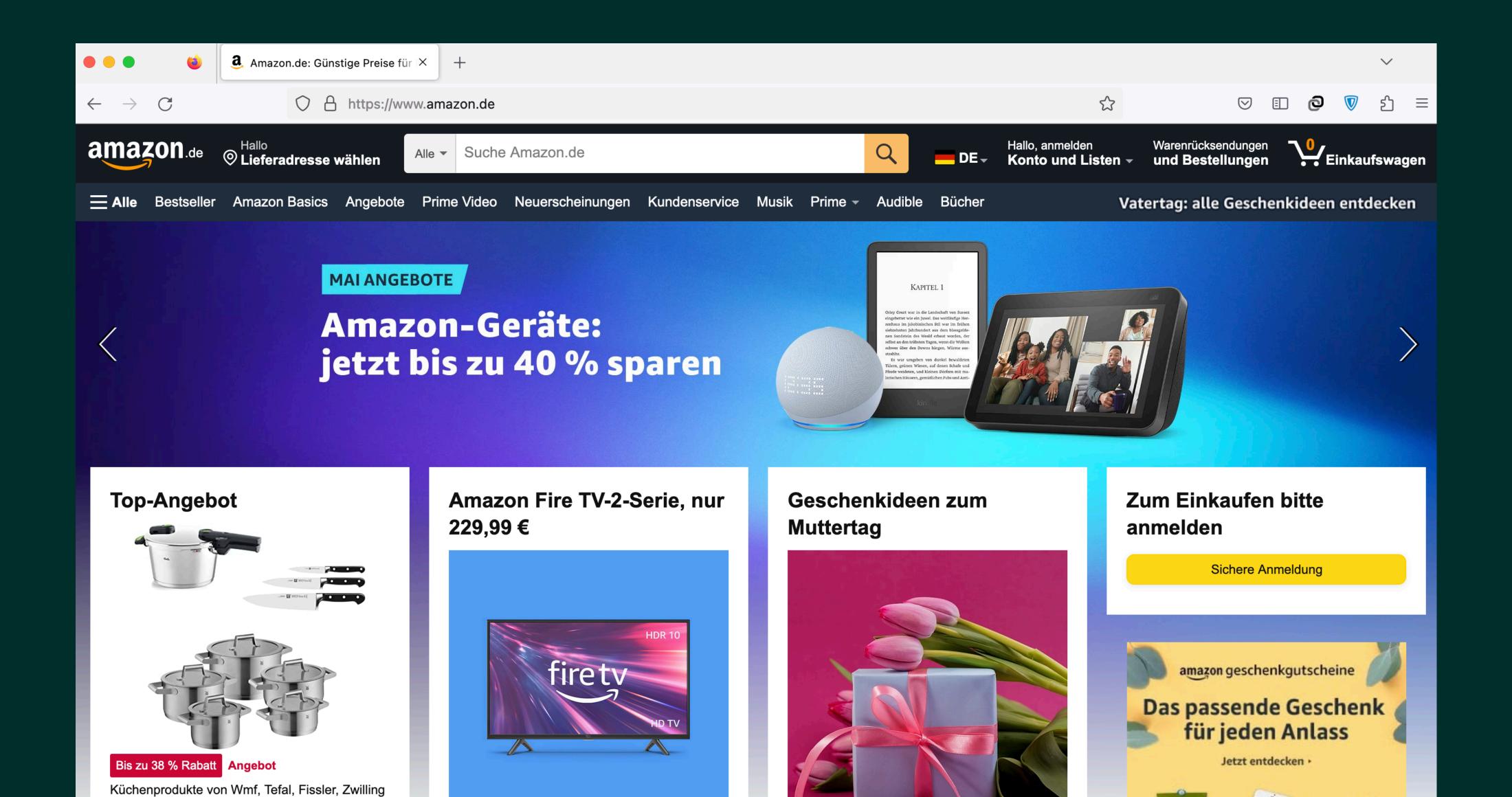


"User experience (UX) design is the process, design teams use to create products that provide meaningful and relevant experiences to users."



### HasUX made it easier to destroy life on earth?







# The Internet is responsible for 3,7% of the global green house emissions per year.

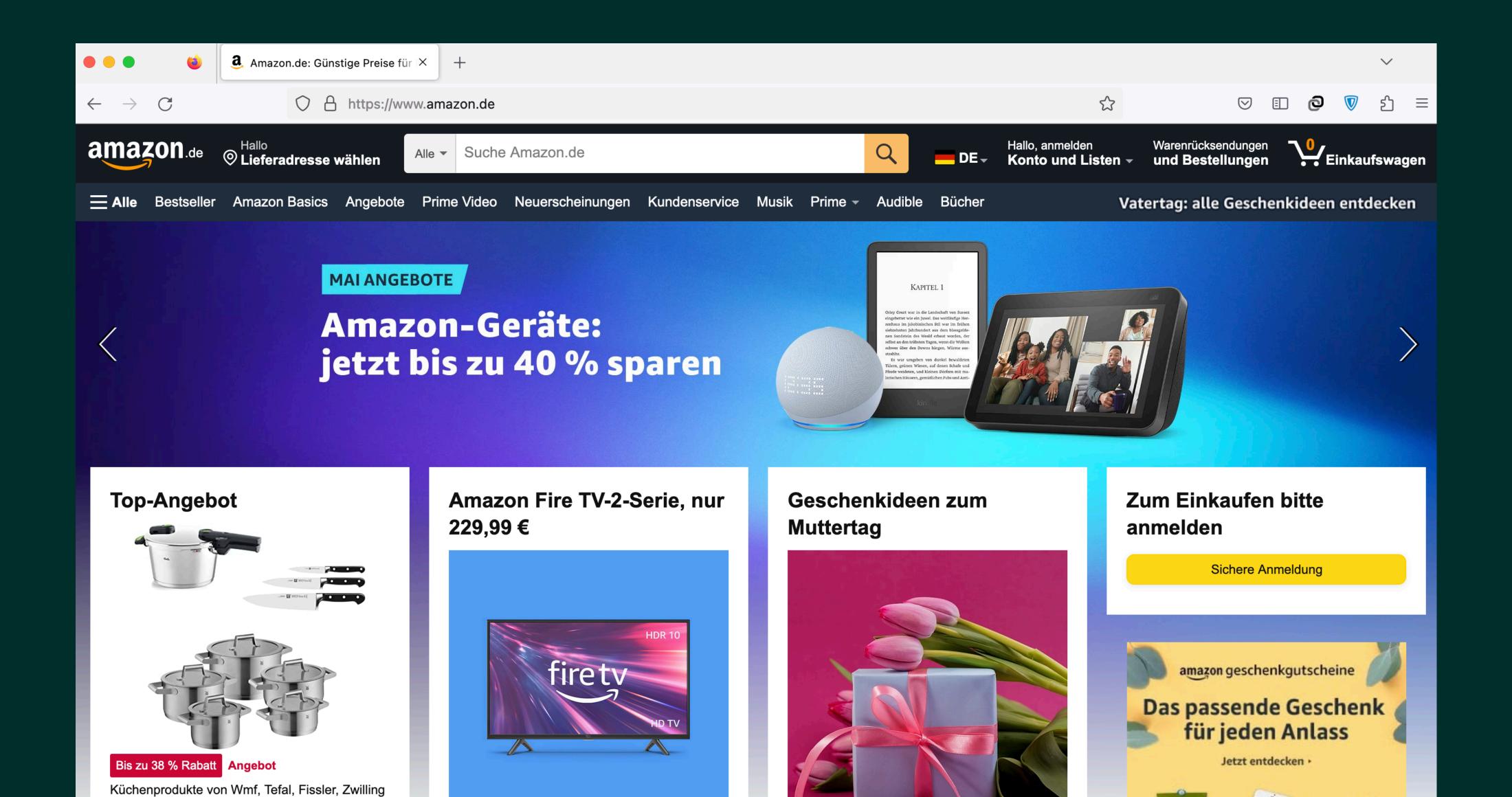
Source: BBC, 2020



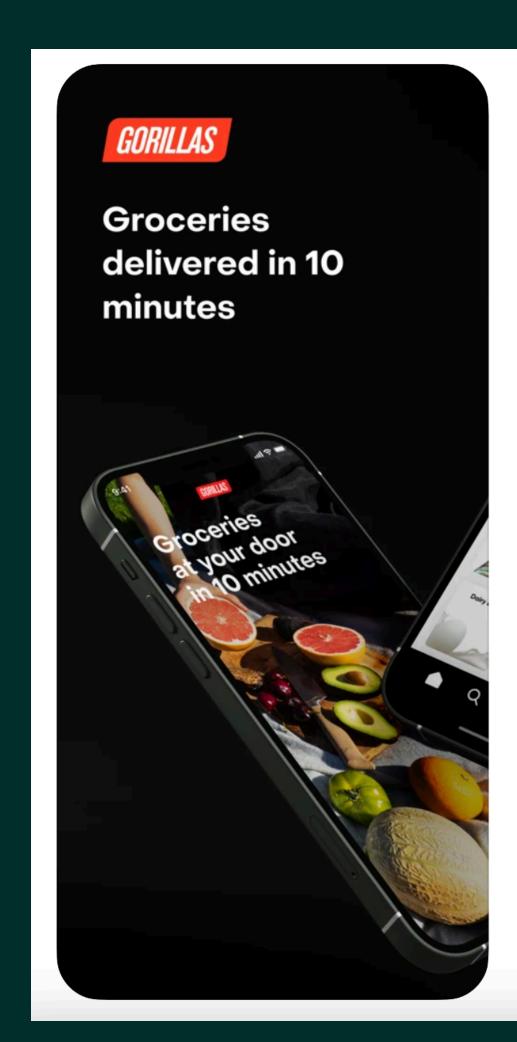
# Truck drivers transport stuff back and forth over months without even one day off.

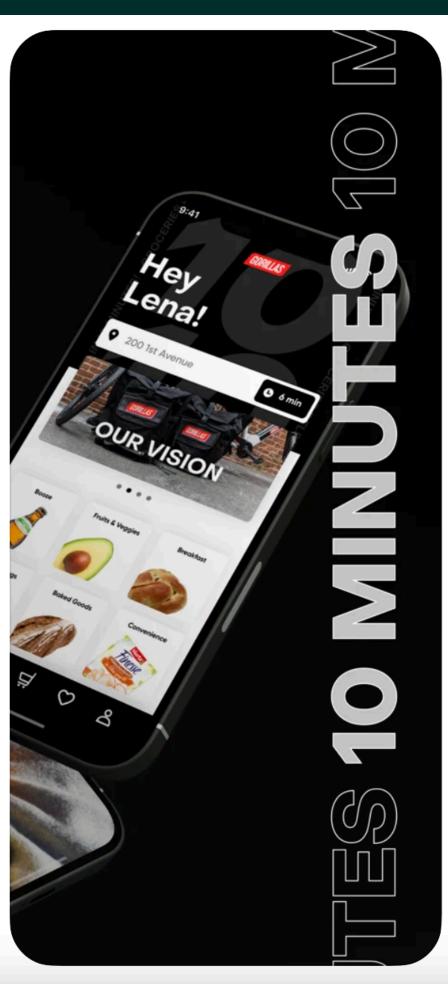
Source: Correctiv, 2022

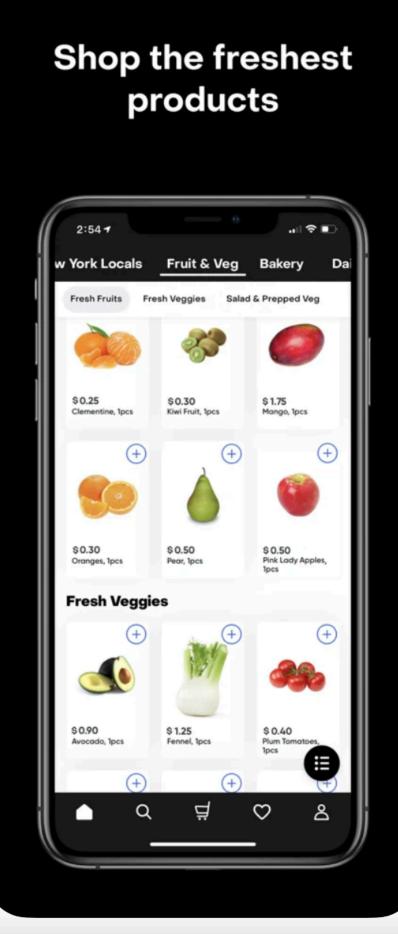


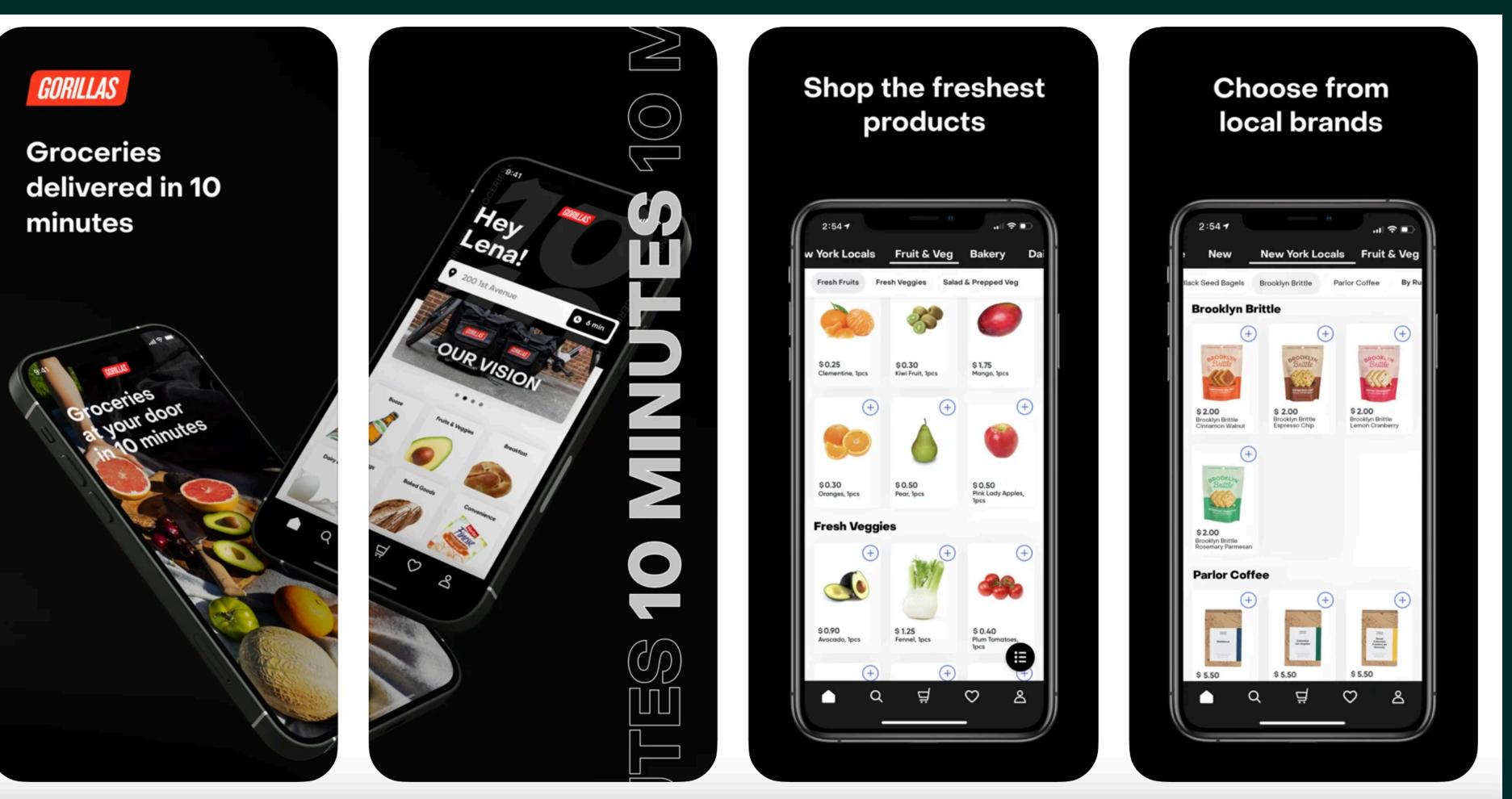












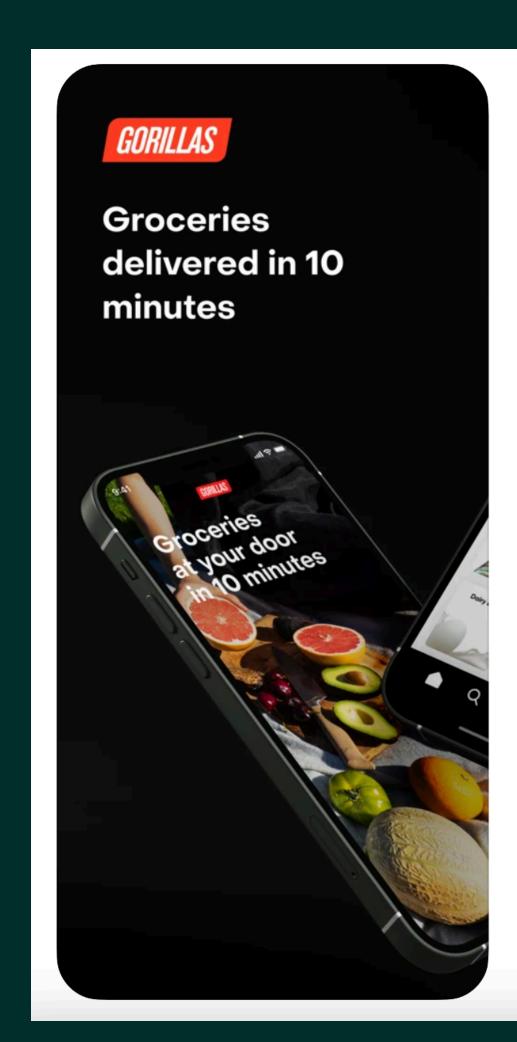


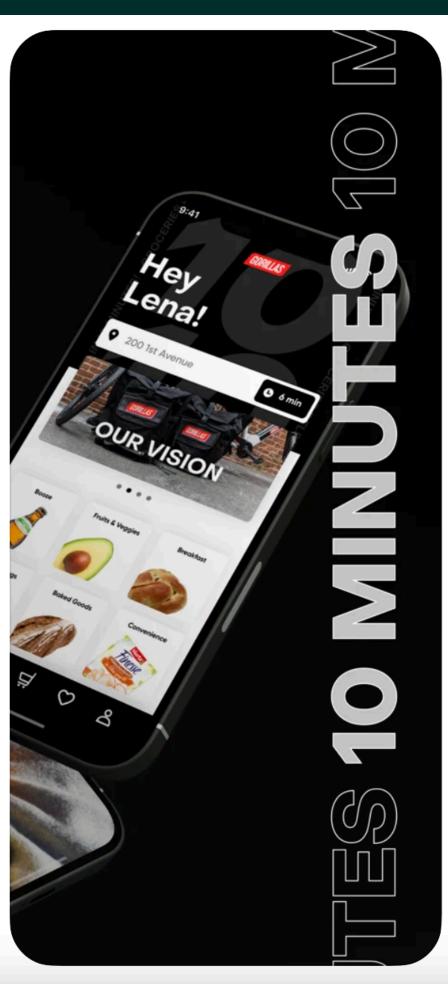
#### Delivery riders are often not even social secured employees.

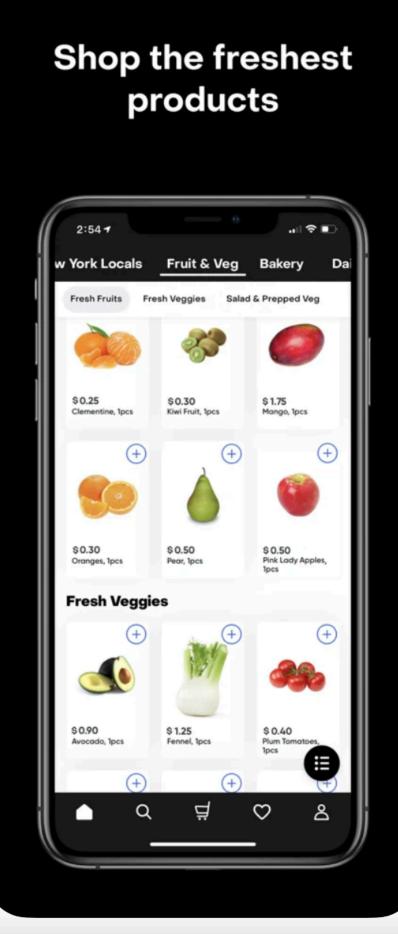


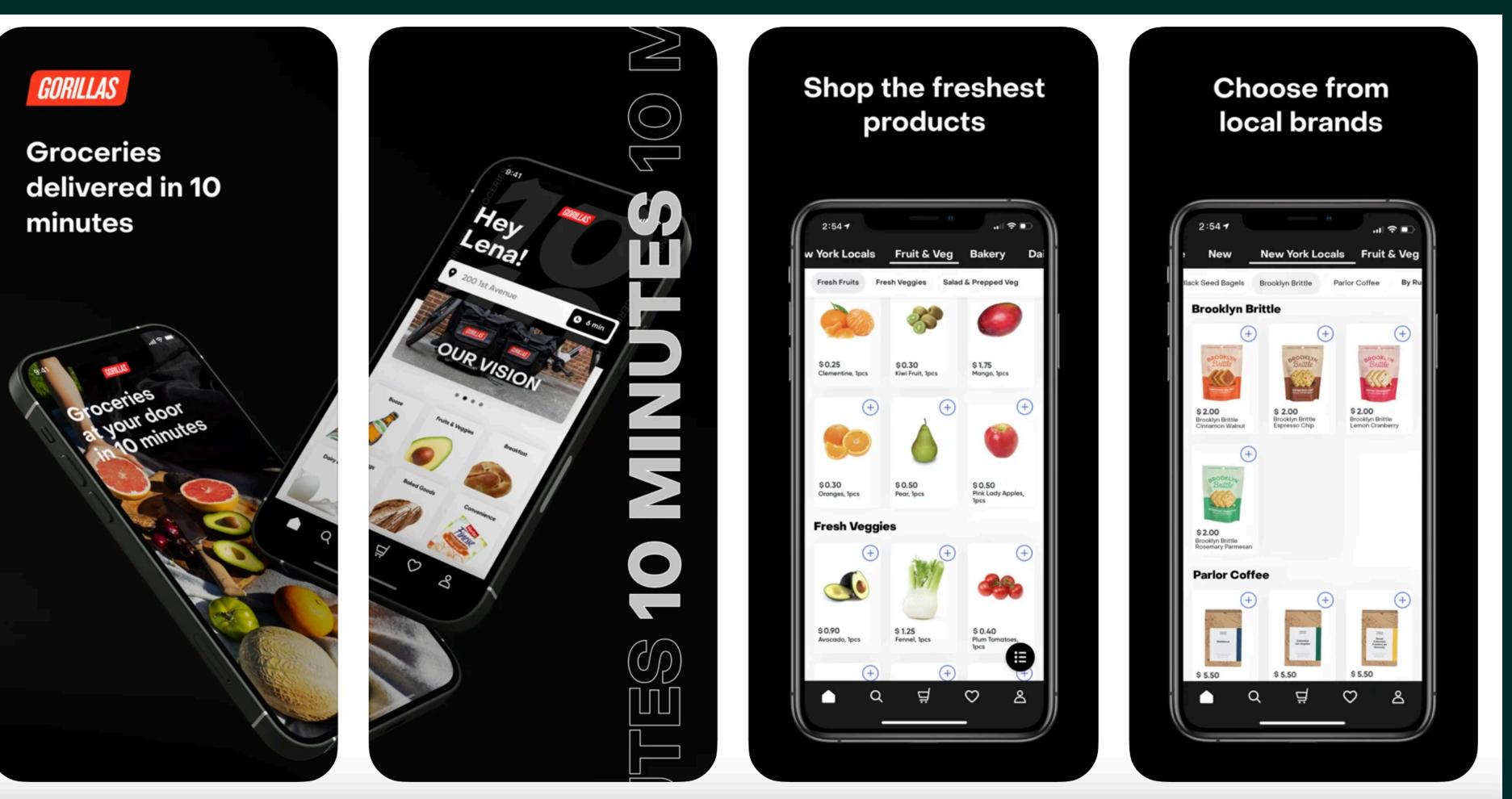
## Small grocery stores in our city die due to the destructing biz-models of Gorillaz & Co.



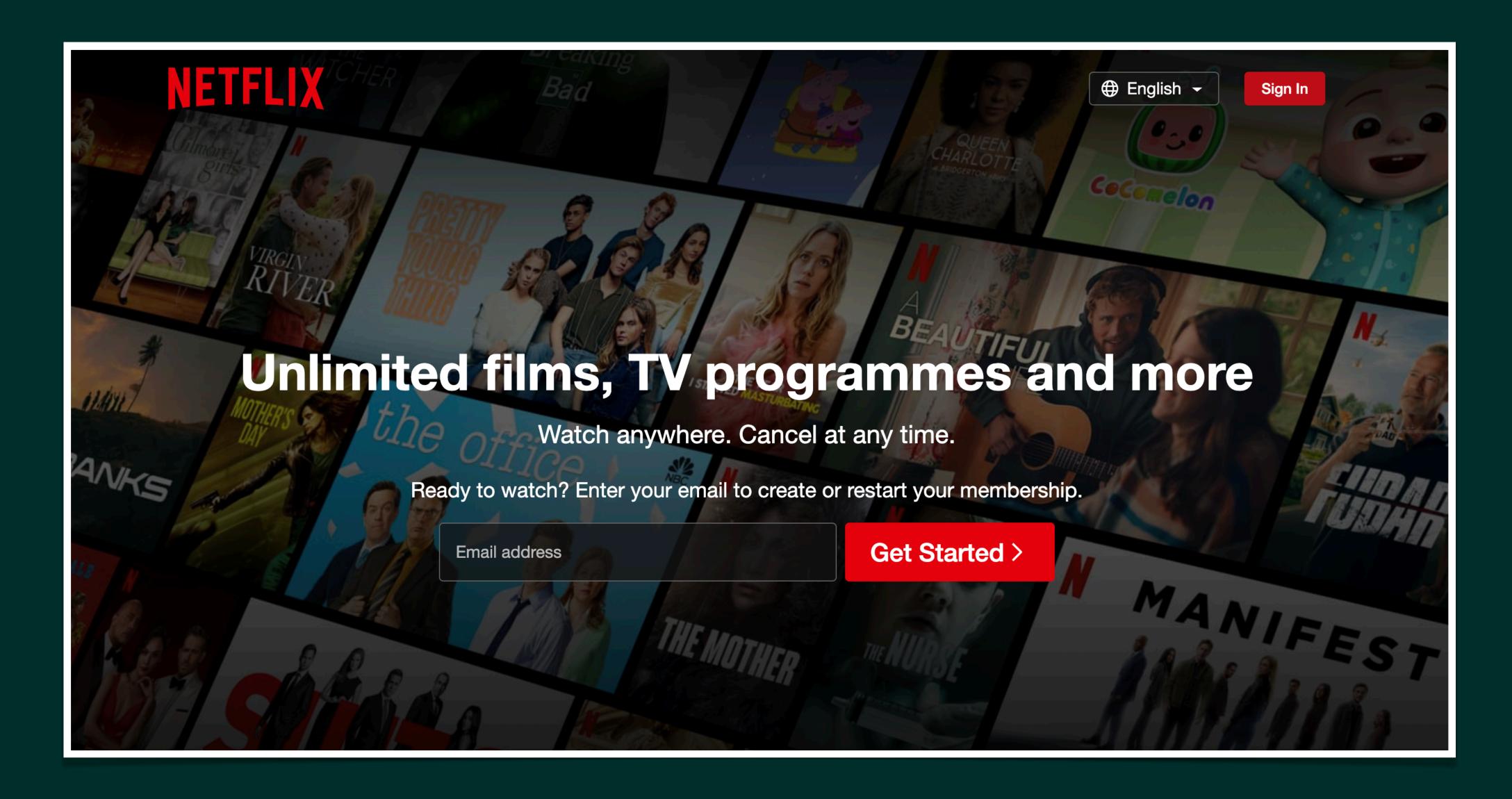












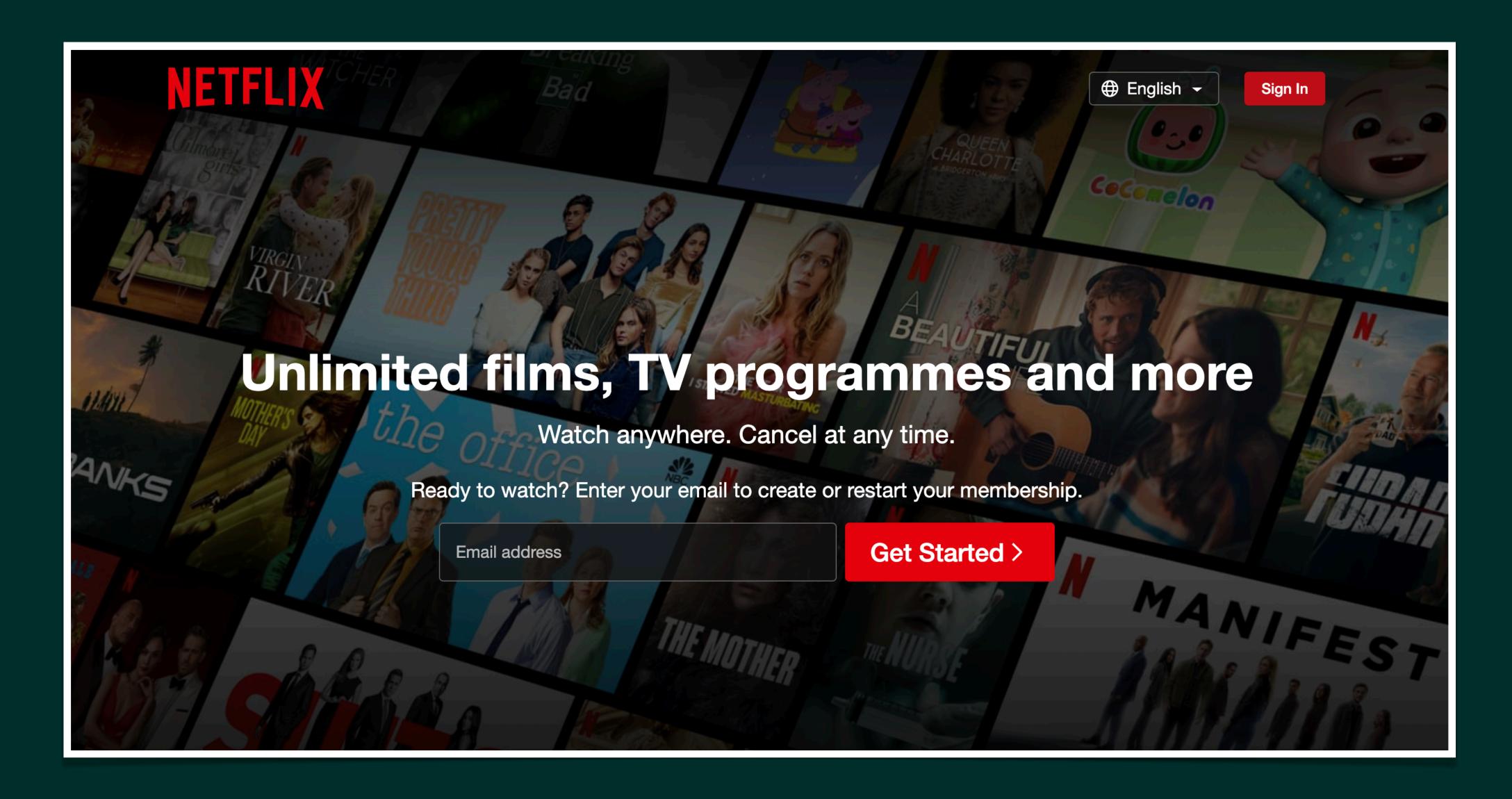


A society that suffers on mental health, gets trapped in Autoplay and Recommendations.



# Sometimes we spend more time searching for a movie than watching one.

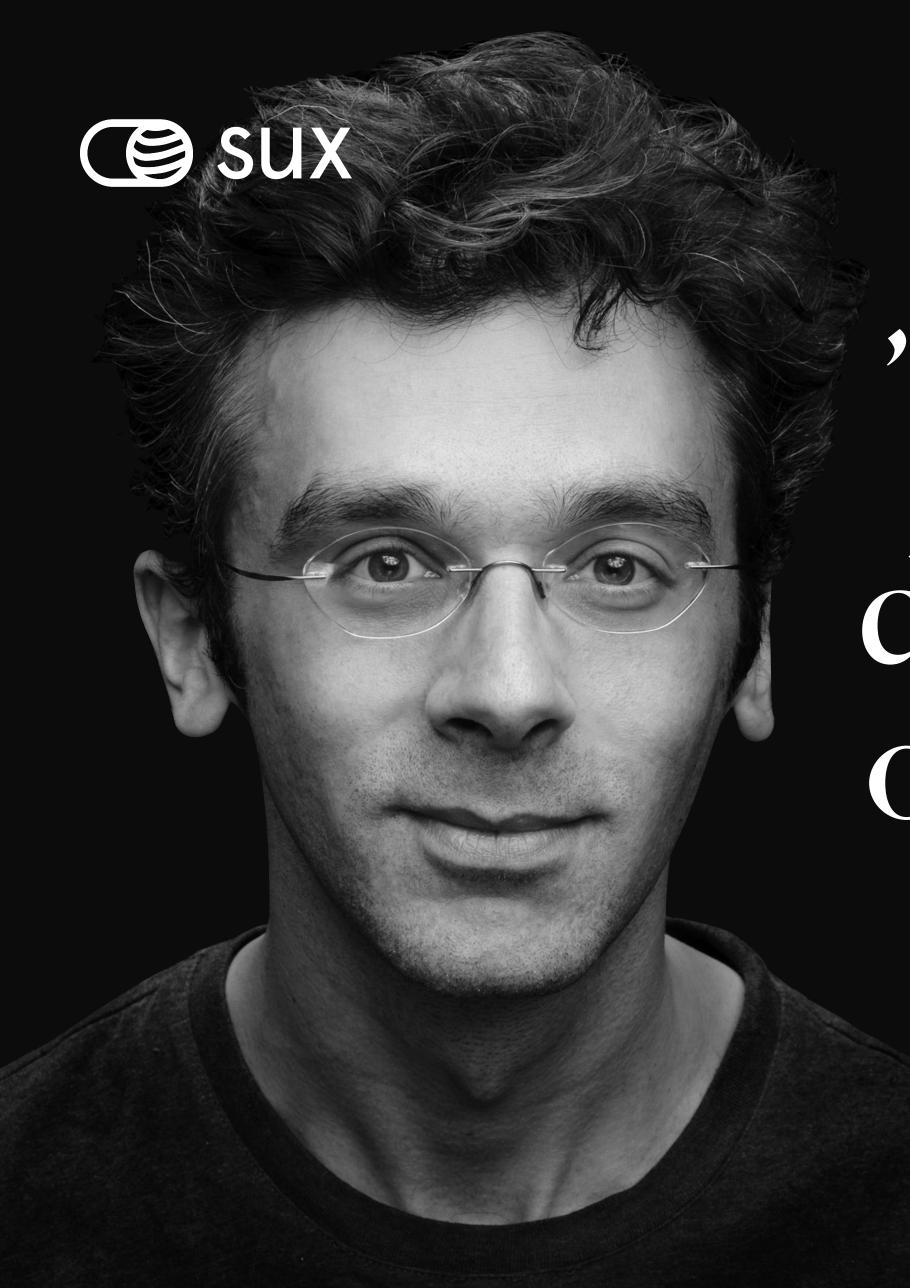






### Too often

someone else pays the prize for "good UX"



"When designers center around the user, where do the needs and desires of the other actors in the system go?"

Kevin Slavin



## Stop designing ,for the user!



### We need to move from a human to a humanity and environmental centered design approach.





## Design for all aspects of Sustainability



What have we won, if we save the world only for us, who were lucky enough to be born on the rich side of the planet?



Or what have we won, if we save the planet, but continue having more and more cases of depression and burnout?

#### SUSTAINABLE GEALS DEVELOPMENT GEALS





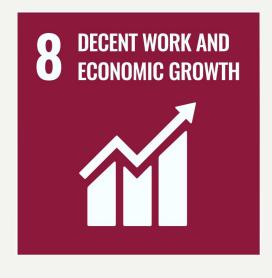
































https://sdgs.un.org/goals



## Enhance existing Tools wherever it is possible



#### It's much easier to sneak new perspectives into existing frames, that creating totally new frameworks.



### Create Transparency



# Create transparency about the negative impacts of the experience on strategic level.

# 1 Ecosystem Mindmap

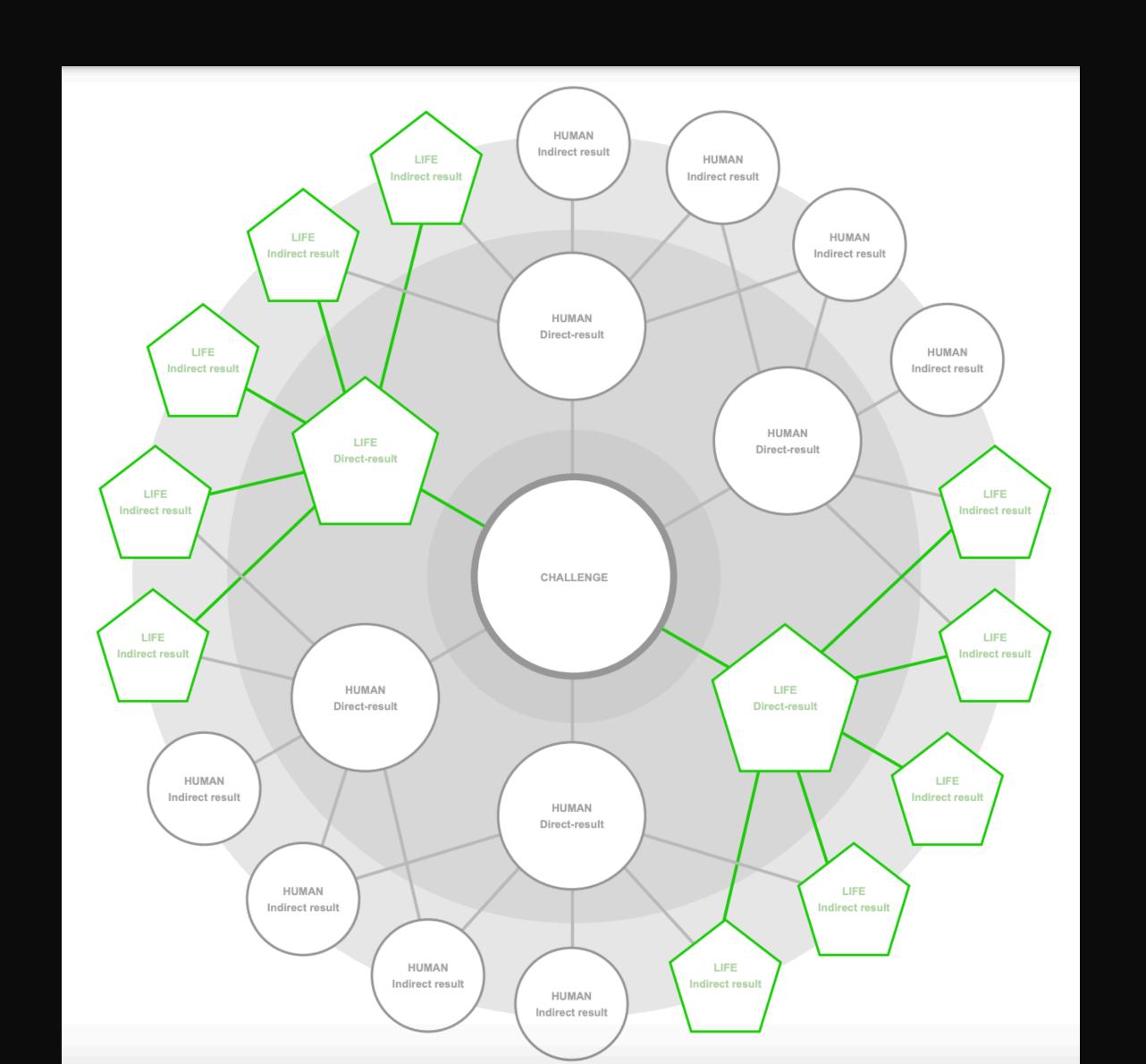
Put your product in the center and build a Mindmaps of the surrounding ecosystem. Who interacts with it. Who and what is infliuenced or affected by it. What ressources are necessary, direct and indirect. Etc.

# 2 Business Model Canvas

Enhance Business Model Canvas by Sustainability layers (e.g. negative + positive impact)



# Ecosystem Mindmap / Holistic Futures Wheel



Source: Future Scouting
https://futurescouting.com.au/



The Sustainable Business Model Canvas

### ű Value Propositions Customer Relationships Key Partners Key Activites Customer Segments What type of relationship does each of our Customer Segments expect us to establish and maintain with them? For whom are we creating value? Who are our Key Partners? What Key Activites do our Value Propositions require What value do we deliver to the customer? Our Distribution Channels? Who are our key suppliers? Which one of our customer's problems are we helping to solve Who are our most important customers? Which ones have we established? What bundles of products and services are we offering to each Which Key Resources are we acquiring from partners? Customer Relationships? How are they integrated with the rest of our business model? Which Key Activities do partners perform? Revenue Streams? Mass Market Niche Market Segmented Diversified Multi-sided Platform Which customer needs are we satisfying? How costly are they? CATEGORIES: Optimization and economy Reduction of risk and uncertainty Asquisition of particular resources and activities CHARACTERISTICS: EXAMPLES: Personal Assistance Dedicated Personal Assistance Customization "Getting the Job Done" Design Brand/Status Price Cost Reduction Risk Reduction Accordibility Self Service Automated Services Communities Co-Creation Key Resources Channels Through which Channels do our Customer Segemnts Our Distributions Channels? want to be reached? Customer Relationships? How are we reaching them now? Revenue Streams? How are our Channels integrated? Which ones work best? TYPES OF RESOURCES: Which ones are most cost-efficient? Physical Intellectual (brand patents, copyrights, data) How are we integrating them with customer routines? CHANNEL PHASES: 5. After Sales (post-purchase customer support) ... of products & servides and Value Proposition 1 Cost Structure Revenue Streams What are the most important costs inherent in our business model? For what value are our customers really willing to pay? Which Key Resources are the most expensive? For what do they currently pay?

SAMPLE CHARACTERISTICS:

How would they prefer to pay?

INSTRUMENTS:

How much does each Revenue Stream contribute to overall revenues?

What ecological or social benefits is our business model generating?

Asset Sale Subscription Fees Licensing Usage Fee Lending/Renting/Leasing Brokerage Fees

Who are the beneficiaries? Are they potential customers?

Eco-Social Benefits

FIXED PRICING:

Based on: www.businessmodelgeneration.com

Which Key Activities are most expensive?

**Eco-Social Costs** 

EVALUATION INSTRUMENTS:

Which Key Resources are non-renewable?

Value Driven (focussed on value creation, premium value proposition)

What ecological or social costs is our business model causing?

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Be view a copy of this license, visit this plicest incommon applicate early by an ATV core and a letter for Construction Common, and The South Francisco, California, 49(8), USA.

Version:

# Sustainable Business Model Canvas

Source: CASE Project

https://www.case-ka.eu/index.html%3Fp=2174.html



# Create transparency about the negative impacts of the experience on analysis level.

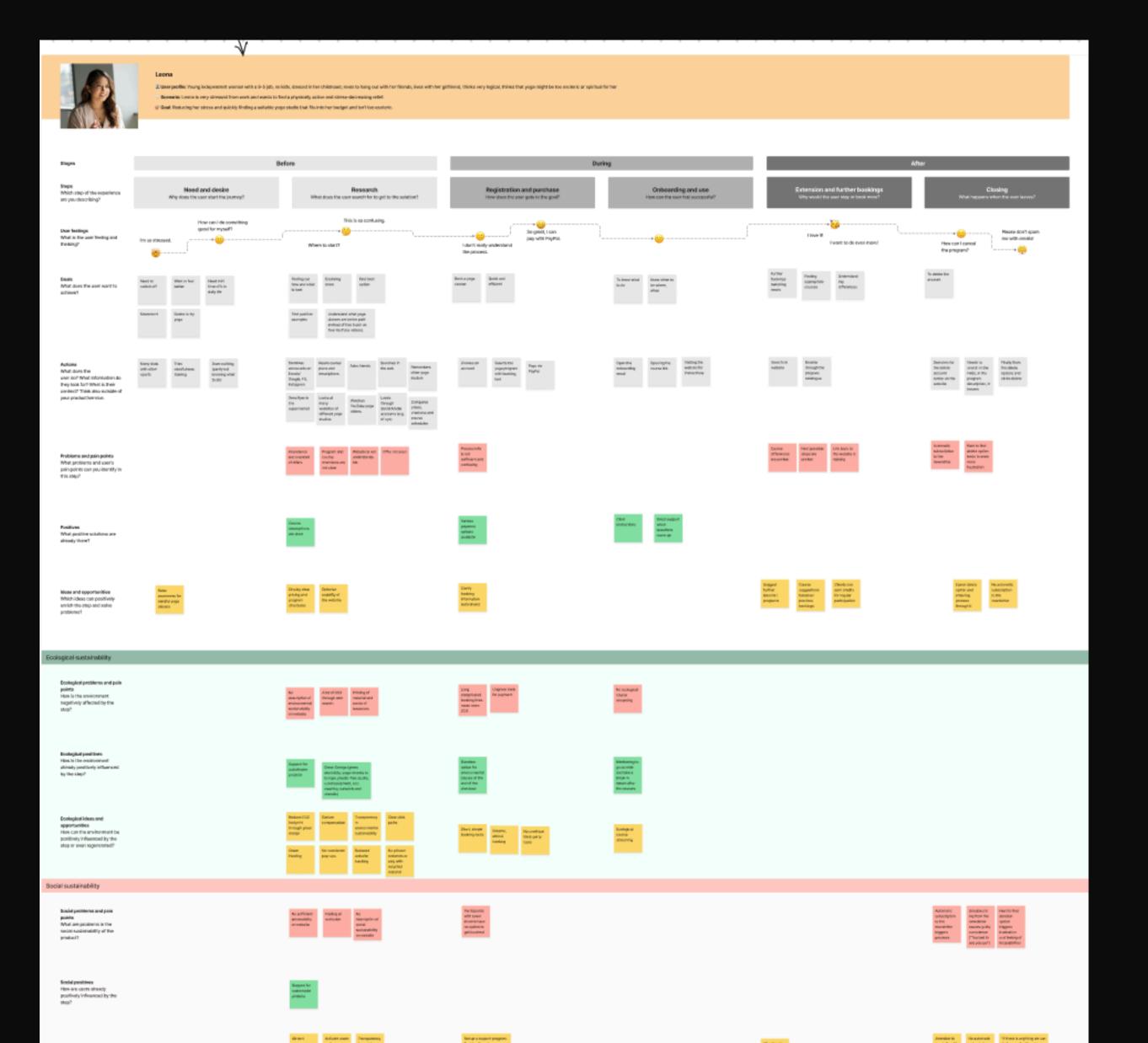
# 1 User Journey

Enhancing User Journeys by a layer that shows for example energy usage of every step and wherefrom this energy comes or why it is needed.

## 2 Personas

Create Personas not only for the users, but also for non-users or even non-human actors. By doing this you give all actors a "seat at the table".

# SUX



# User Journeys

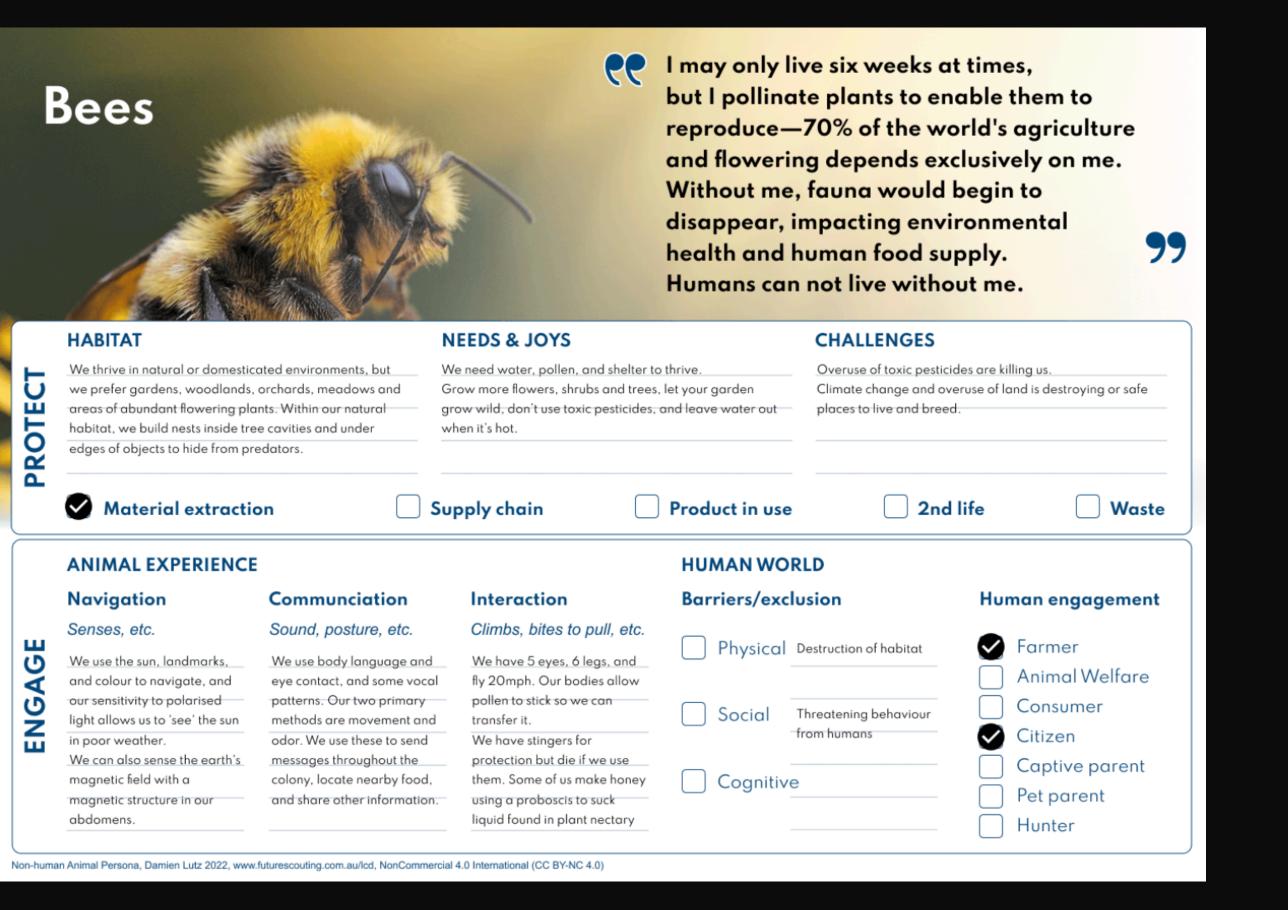
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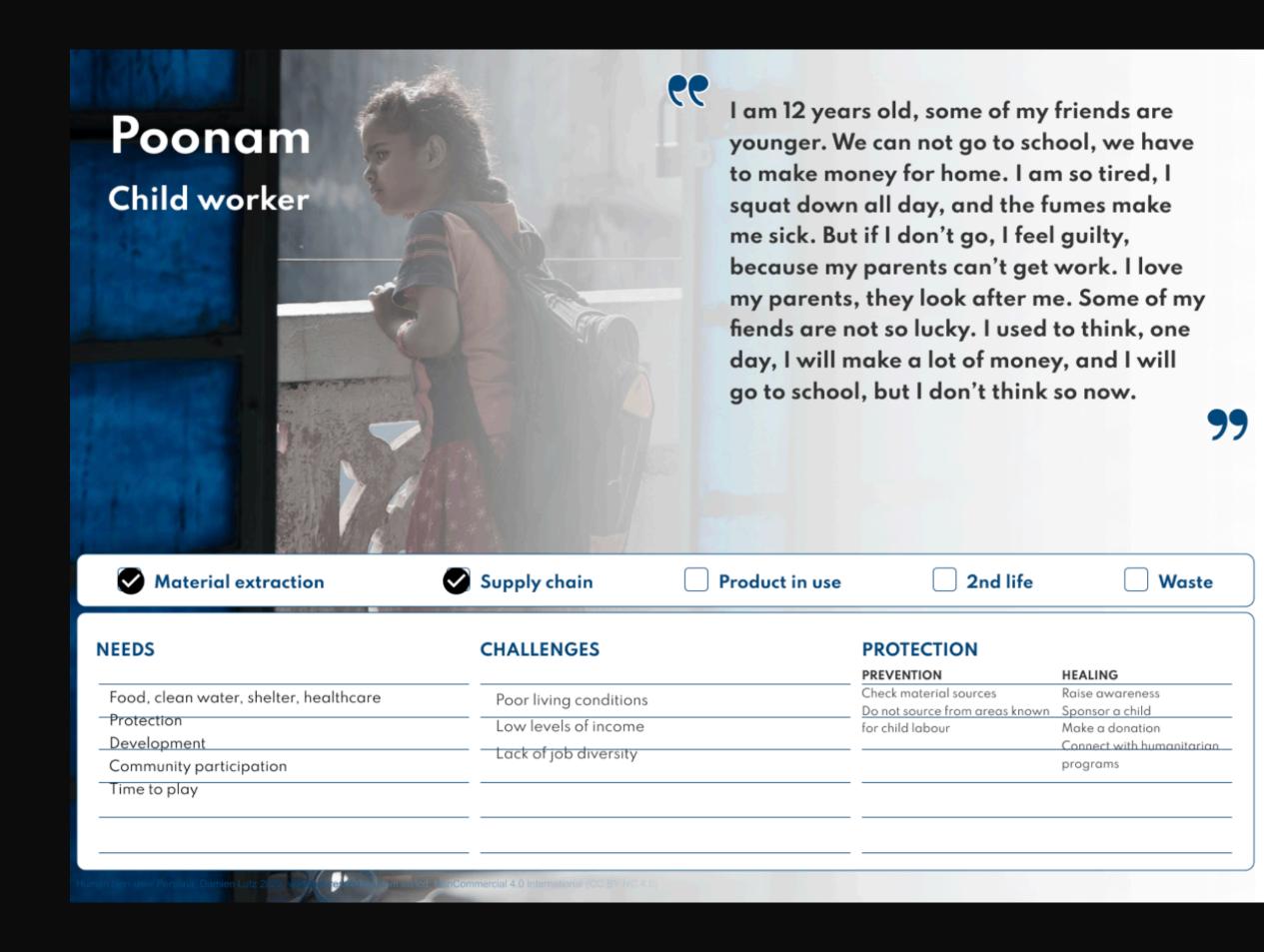
Green the Web

www.figma.com/community/file/1207376705533494920/ Sustainability-infused-User-Journey-Mapping



## Personas





Source: futurescouting.com.au/non-human-and-non-user-personas/



# Derive KPIs and Goals



# We need to set additional goals an KPIs where we can.

## 1 Create additional KPIs

Add additional KPIs. e.g. "how much CO2 emissions does our product/ experience cause in one month?"

# 2 Set "do-able" goals

Short term: What can we do better in the next 6 months
Long term: where do we want to be in 2 years.



# Design for all actors in the system



# Everything we build is part of a bigger system. We must not design for our users only, but for all actors.

## **1 Actor Personas**

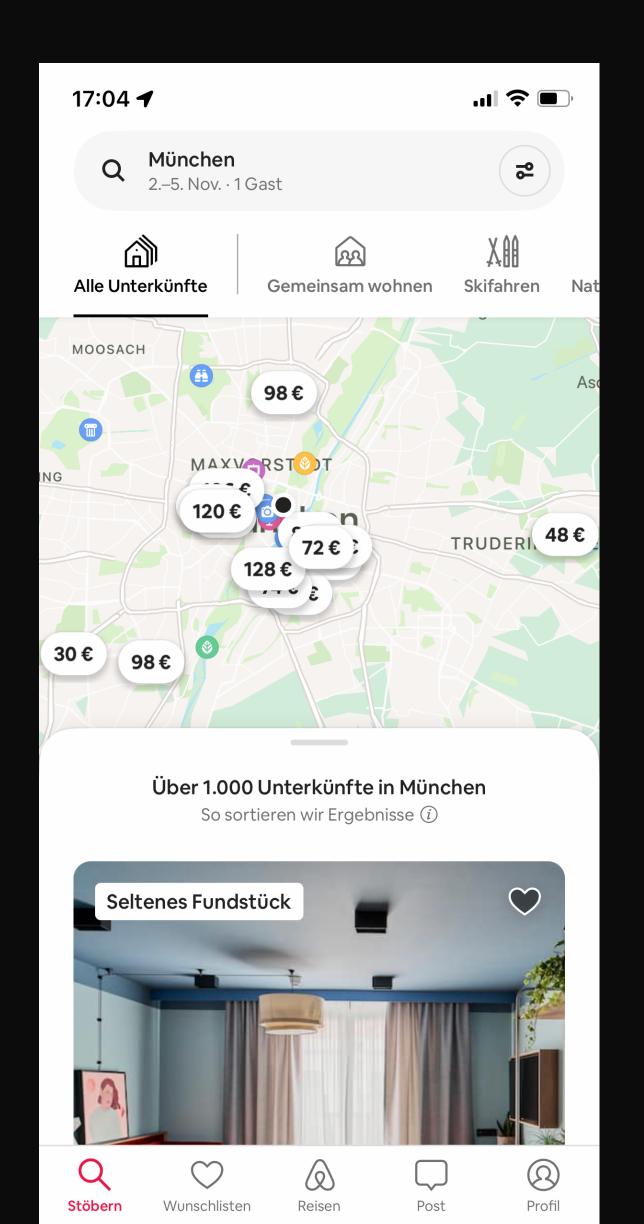
Create personas for all relevant actors in the system. Human and non-human.

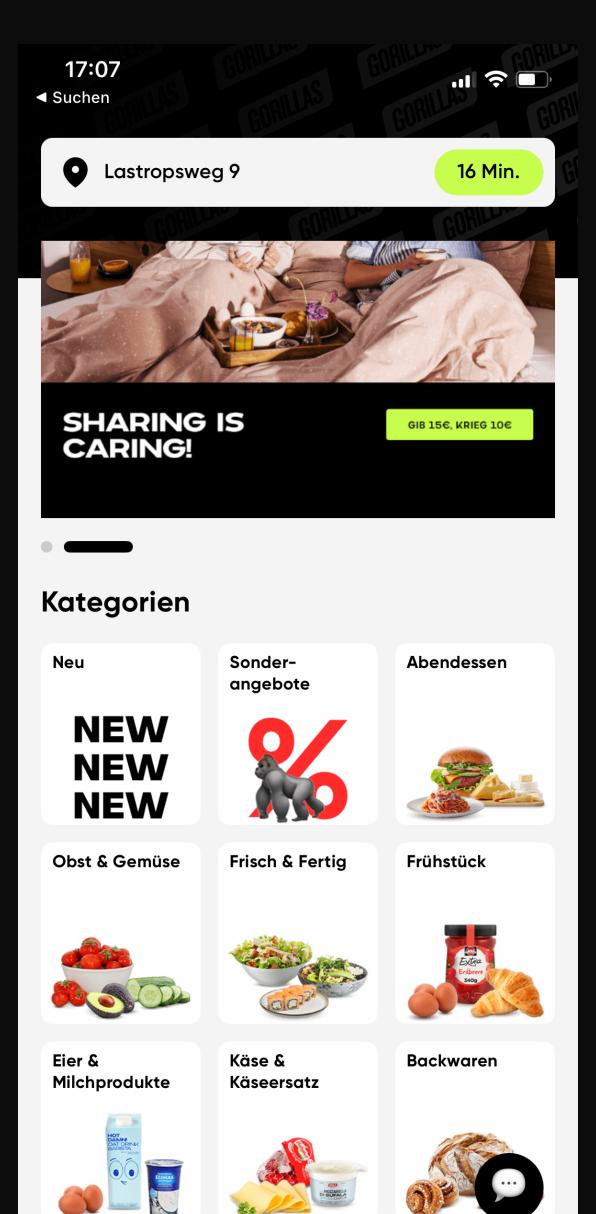
# 2 User convenience vs Actor well-being

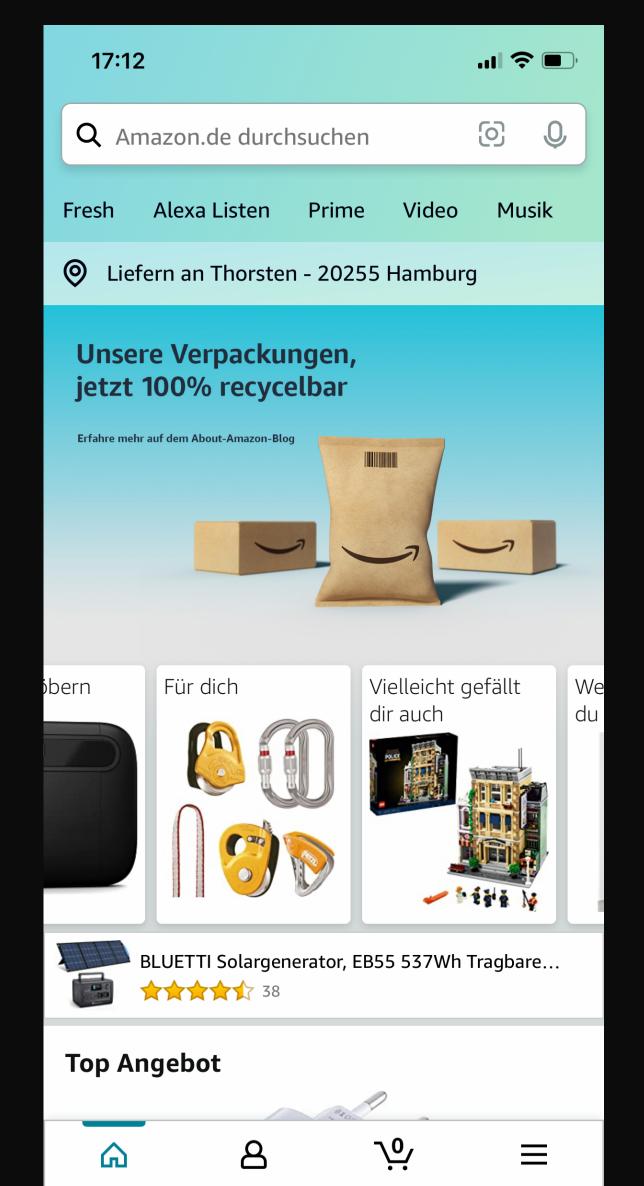
Use the personas to discuss and decide along the user journey, where actors are negatively impacted and where a little less convinience for the user could make difference.



# User convenience vs Actor well-being







Source:
AirBNB
Gorillas
Amazon



# We must not exclude people from our products and experiences

# 1 Accessibility

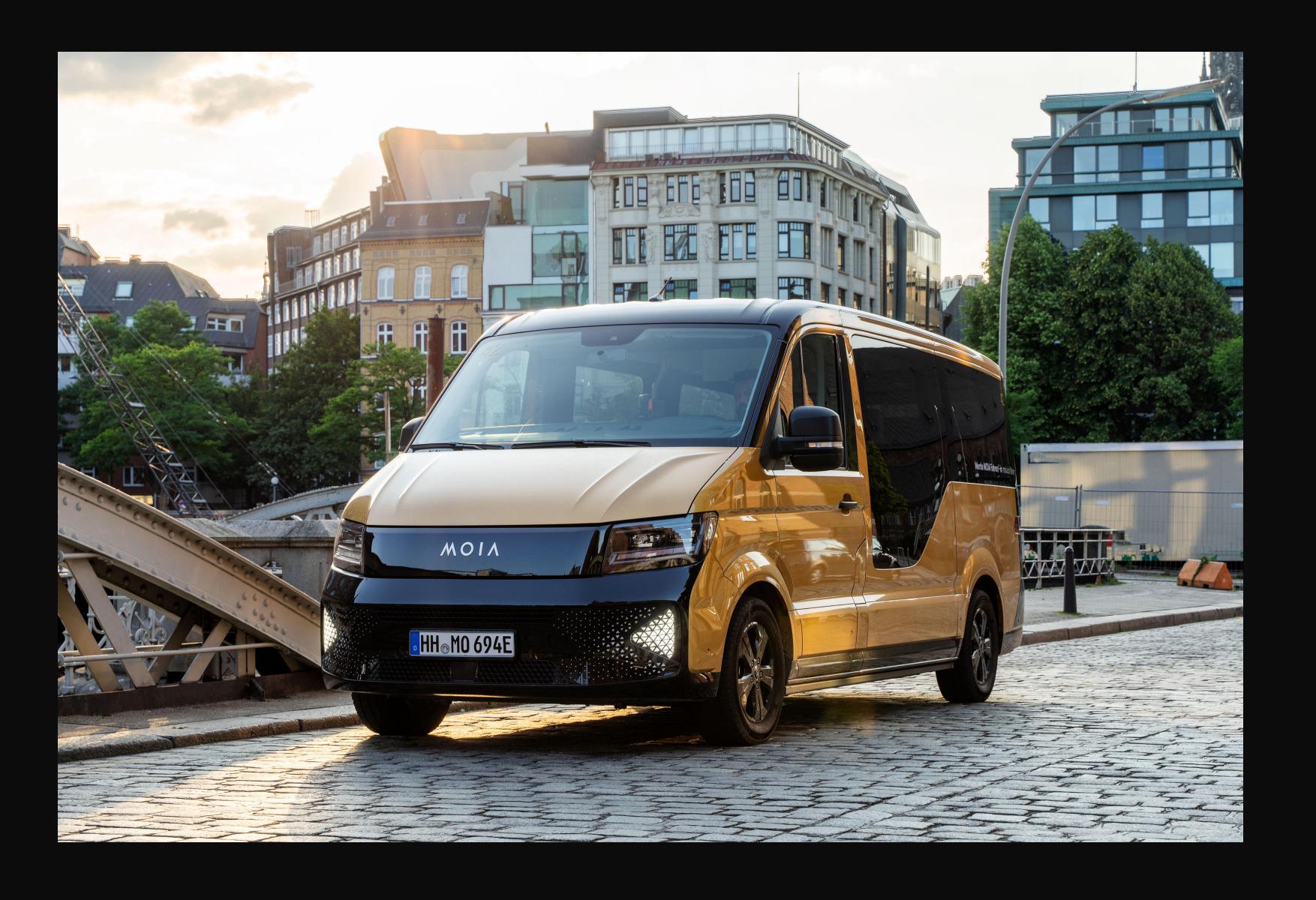
Still needs to get more focus. But regulations help a lot here. But, it's not about fulfilling the minimal regulations, but rather what is the best result possible.

# 2 Non-User Users

Switch the user persona perspective. Determine the users, who CANNOT use the product and why. Determine, if these people SHOULD be able to use it.









# Design for less Carbon Emissions



# We need to make designing for energy savings the new normal.

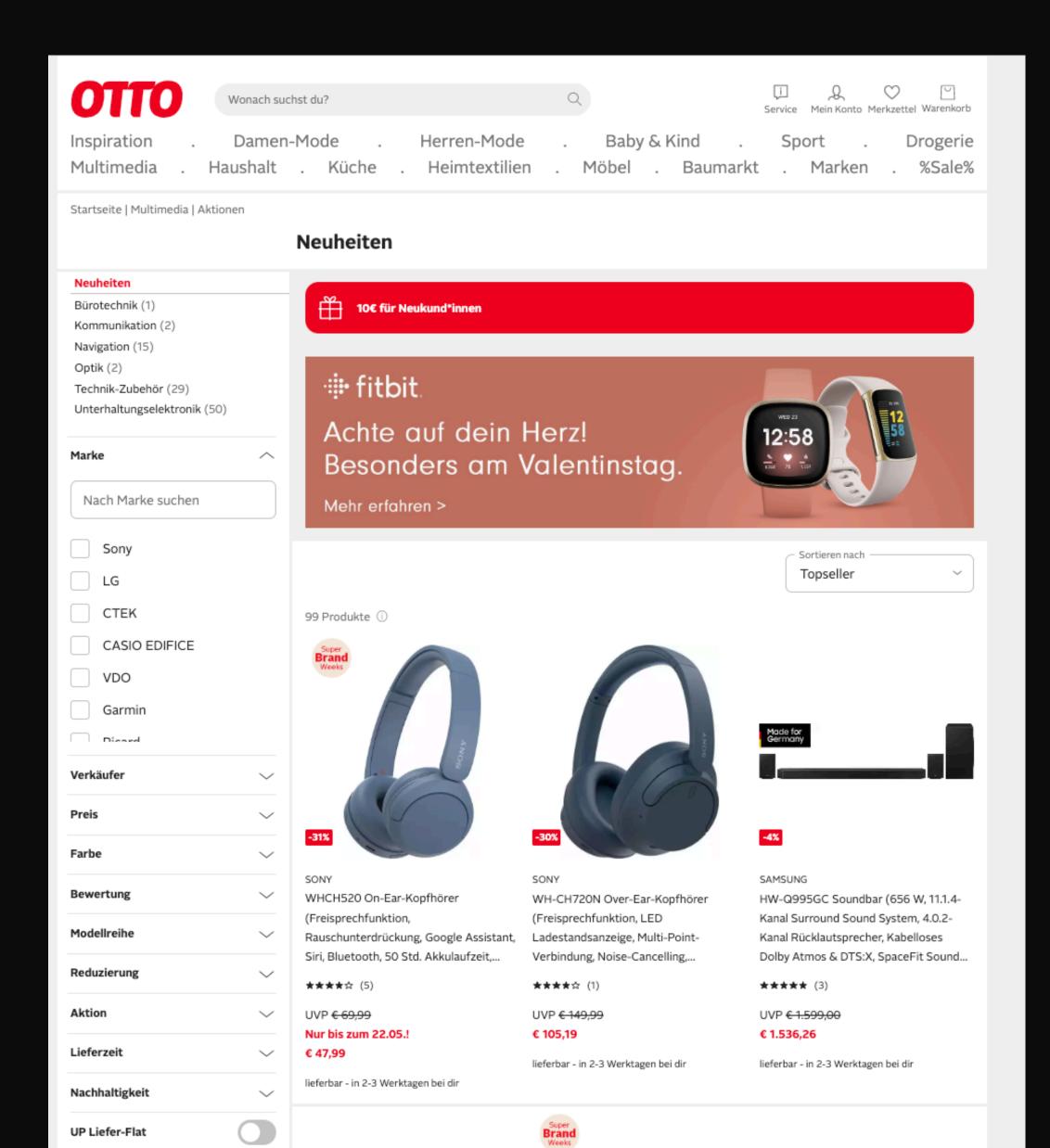
# 1 Design

There a various ways to websites using a lot less energy without big compromises in design decisions: Colors, Fonts, Elements, etc.

# 2 User Journeys

Optimize User Journeys, for the good of the user and the energy consumption. Less steps → less page views → less energy consumed





# Design for less carbon emissions

Source: **OTTO** 

https://www.otto.de



# And we need to talk about AI. You will use it, but use it wisely and less than you would want to.



### HRIS STOKEL-WALKER BUSINESS FEB 18, 2023 7:88 AM

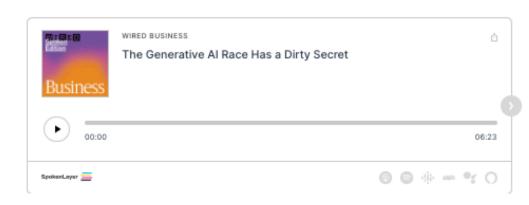
### The Generative Al Race Has a Dirty Secret

Integrating large language models into search engines could mean a fivefold increase in computing power and huge carbon emissions.



ILLUSTRATION: JACQUI VANLIEW; GETTY IMAGES

IN EARLY FEBRUARY, first Google, then Microsoft, announced major overhauls to their search engines. Both tech giants have spent big on building or buying generative AI tools, which use large language models to understand and respond to complex questions. Now they are trying to integrate them into search, hoping they'll give users a richer, more accurate experience. The Chinese search company Baidu has announced it will follow suit.



But the excitement over these new tools could be concealing a dirty secret. The race to build high-performance, AI-powered search engines is likely to require a dramatic rise in computing power, and with it a massive increase in the amount of energy that tech companies require and the amount of carbon they emit.

"There are already huge resources involved in indexing and searching internet content, but the incorporation of AI requires a different kind of firepower," says Alan Woodward, professor of cybersecurity at the University of Surrey in the UK. "It requires processing power as well as storage and efficient search. Every time we see a step change in online processing, we see significant increases in the power and cooling resources required by large processing centres. I think this could be such a step."

FEATURED V	IDEO
D	We're actually right in the mission
	GREEN 2022: James McBride
on Decari	oonizing the World
MOST POPUL	AR
MOST POPUL	
MOST POPUL	SECURITY
MOST POPUL	SECURITY The US Is Openly Stockpiling Dirt
MOST POPUL	SECURITY
HOST POPUL	SECURITY The US Is Openly Stockpiling Dirt on All Its Citizens  BELL CAMERON
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HOST POPUL	SECURITY The US Is Openly Stockpiling Dirt on All Its Citizens DELL CAMERON  SECURITY UFO Whistleblower, Meet a Conspiracy-Loving Congress
HOST POPUL	SECURITY The US Is Openly Stockpiling Diron All Its Citizens  BELL CAMERON  SECURITY  UFO Whistleblower, Meet a Conspiracy-Loving Congress  MATT LASLO

# Design for less carbon emissions

"Third-party analysis by researchers estimates that the training of GPT-3, which ChatGPT is partly based on, consumed 1,287 MWh, and led to emissions of more than 550 tons of carbon dioxide equivalent."

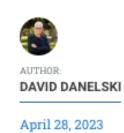
Source: Wired

https://www.wired.com/story/the-generative-ai-search-race-has-a-dirty-secret/



### UC RIVERSIDE News





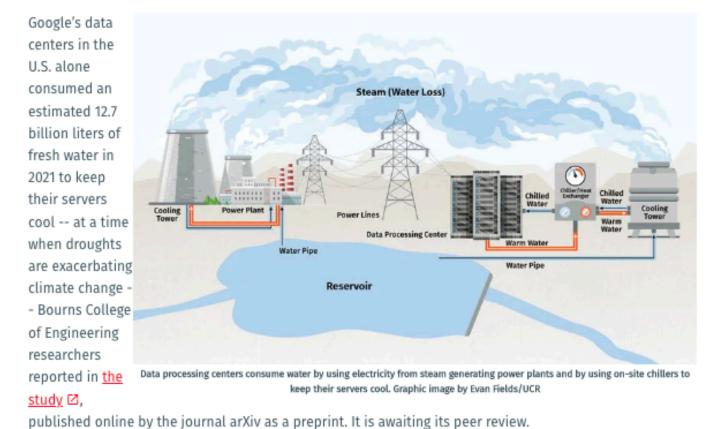






ery time you run a ChatGPT artificial intelligence query, you use up a little bit of an increasingly scarce resource: fresh water. Run some 20 to 50 queries and roughly a half liter, around 17 ounces,

Such are the findings of a University of California, Riverside, study that for the first time estimated the water footprint from running artificial intelligence, or AI, queries that rely on the cloud computations done in racks of servers in warehouse-sized data processing centers



# Design for less carbon emissions

"Run some 20 to 50 queries and roughly a half liter, around 17 ounces, of fresh water is lost in the form of steam emissions."

Source: University of California, Riverside

https://news.ucr.edu/articles/2023/04/28/ai-programs-consumelarge-volumes-scarce-water



# Design for more sustainable Users



# We need to help our users to act more sustainable.

## 1 Educate Users

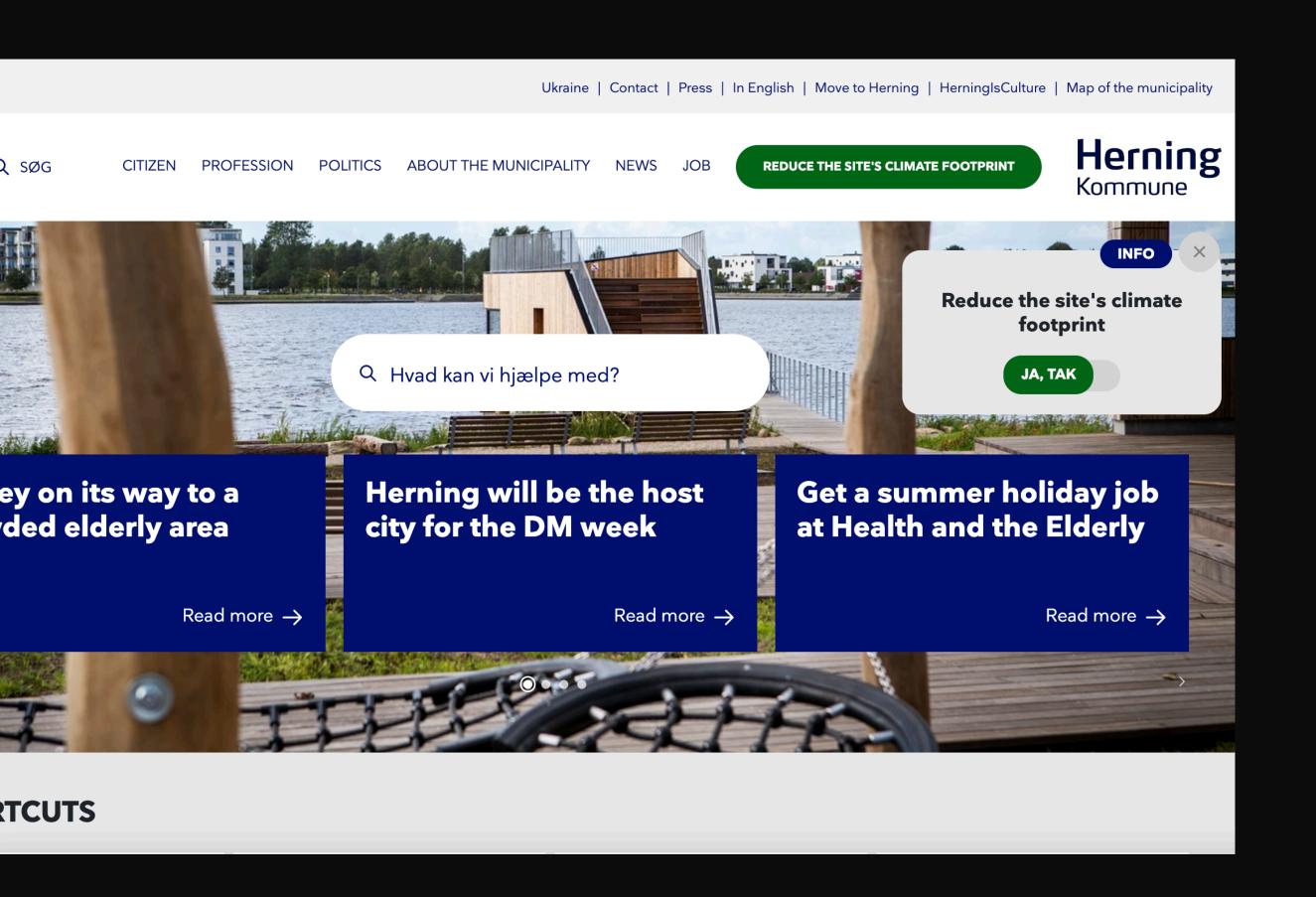
Explain the impact and offer a low impact alternativ. For example in Webdesign pages with less pictures and colors or less emails, for example.

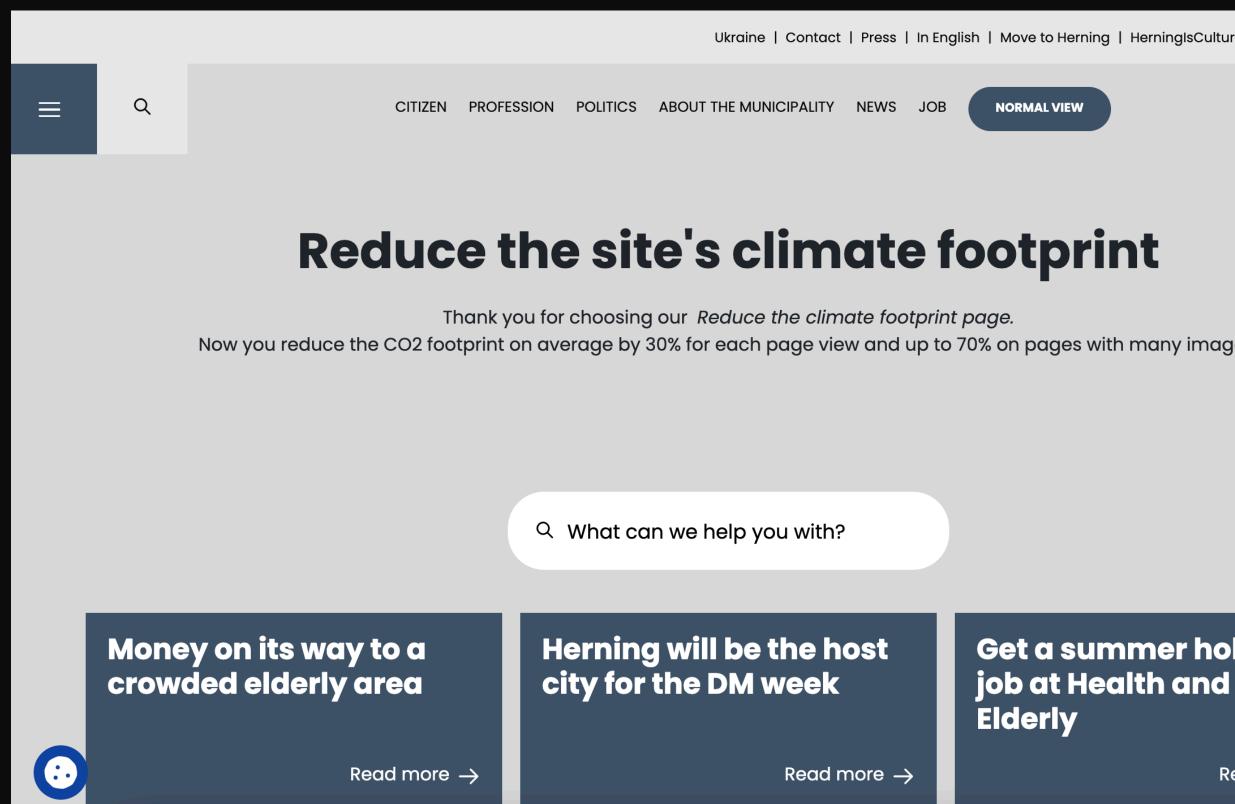
## 2 Sustainable Defaults

Make the more sustainable choice default wherever possible. Could be emission wise as well as all other aspects of sustainability.



# Design to drive sustainability

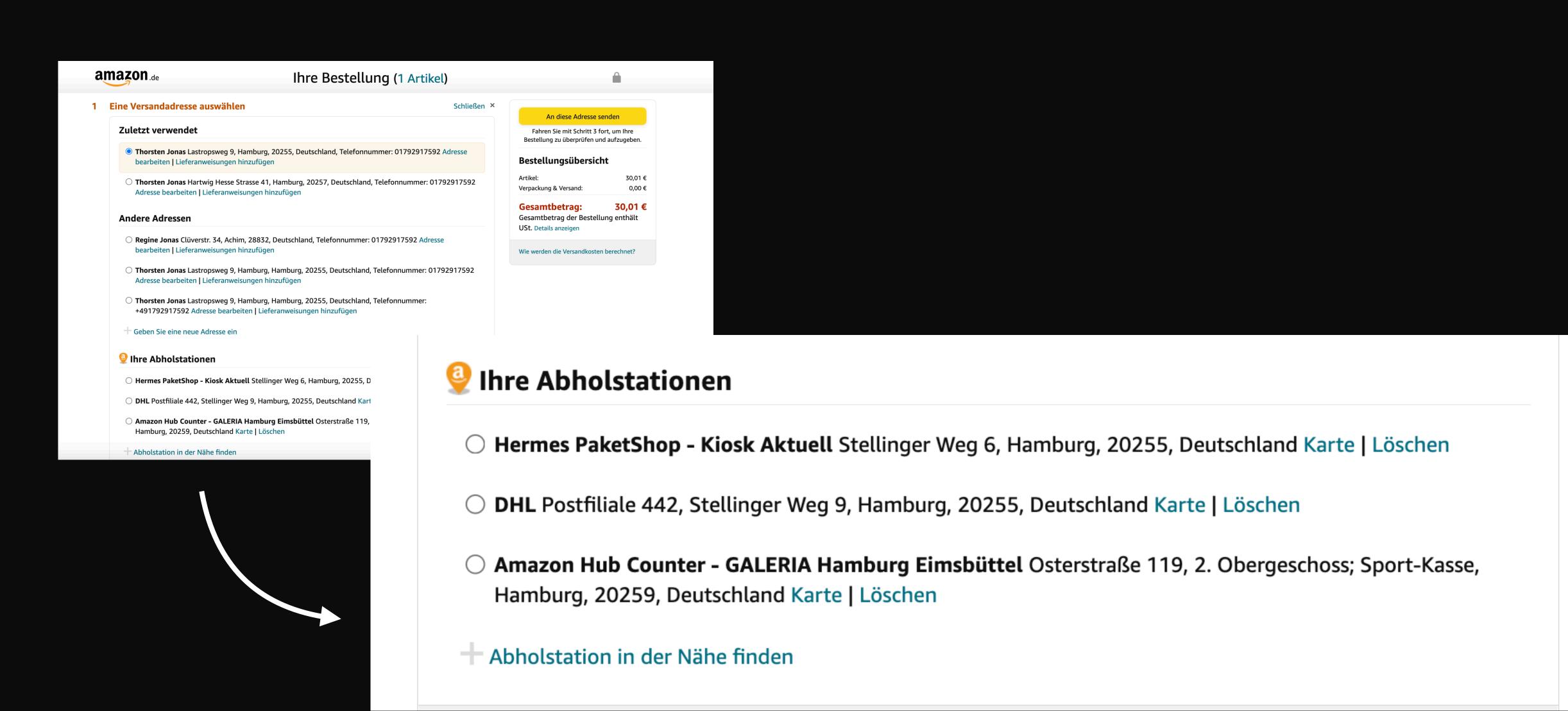




Source: https://www.herning.dk/



# Design to drive sustainability





# Design for less User Addiction



# We need to design for the good of our users instead of stakeholders (only).

# 1 No endless scrolling / Autoplay

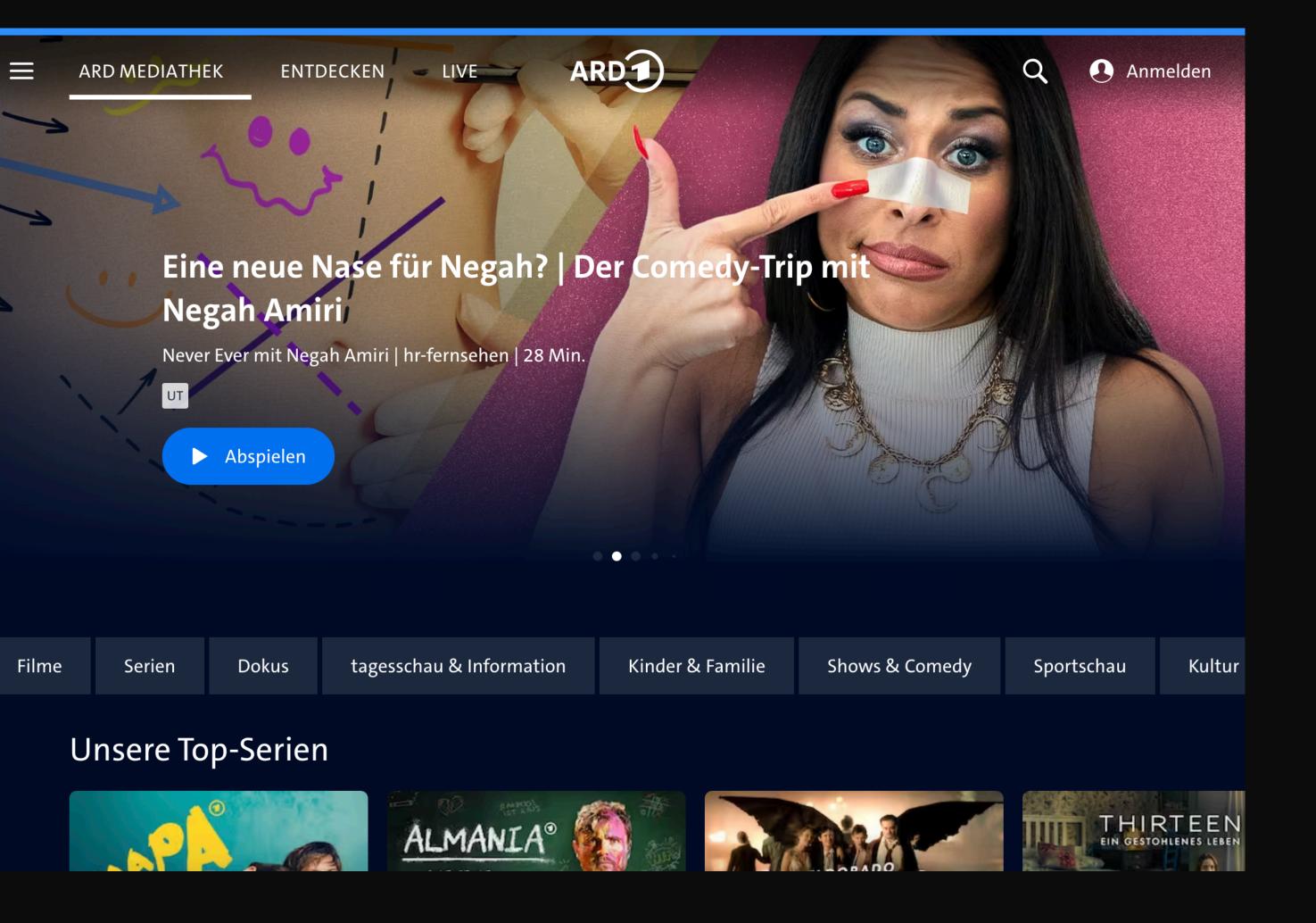
Endless scrolling or Autoplay are for many reasons not good for our users. They are the main vehicle to fulfill Stakeholder KPIs like "time spent with product"

# 2 Make users leave (and return)

We have UX KPIs (e.g. Time on Task) that do exactly what we want. But we must return to focus on them. We need to build products that make our users leave as fast as possible (to return soon) instead of holding them as long as possible.



## Avoid User Addiction



Source: ARD Mediathek

https://www.ardmediathek.de/



# But, the business-people say it makes us no money, but only additional costs.



# Sustainability is good for business and necessary to still have a business in 5 years.

# **Argument 1: Market demands**

Consumers demand more and more "sustainable products". Sooner than later it won't be enough anymore to just paint a product "green" to fulfill these demands.

# **Argument 2: Regulations**

Regulations already happen. More will come. Some sooner, some later. Accessibility is a good example. Same is in the making for CO2 emissions and ESG.



# Design for business

# edie

Sustainability

Net-Zero

Business leadership

News Topics Business Leadership Month Mission Possible Podcasts Resources Events Clubs More

### HSBC adds greenwashing to risk matrix

By <u>Sarah George</u>

22nd February 2023



The addition was confirmed through the bank's latest annual report and accounts this week, which also confirmed Q4 2022 profits of more than £4.3bn – an increase of some 90% year-on-year.

"Expectations with respect to the intersection of environmental, social and governance (ESG) issues and financial crime as our organisation, customers and suppliers transition to net zero, are increasing, not least with respect to potential 'greenwashing'," the report states, in a section on top and emerging risks driven by external factors.

"Companies also face a heightened regulatory focus on both human rights issues and environmental crimes, from a financial crime perspective," the report adds.

Elsewhere in the report, HSBC confirms that it will update its climate plan by the end of the year, including new measures to measure and address climate-related risk. "We are also enhancing our

Source: edie

https://www.edie.net/hsbc-addsgreenwashing-to-risk-matrix/



"We found that organisations that focus on sustainable product design not only stand to gain from improved compliance, reduced emissions, and reduced resource scarcity concerns, but can also reap benefits such as increased revenue growth and improved relationships with customers and employees."



# Question and discuss projects



# Most of the products or experiences we build have at least some negative impacts. But this is also a chance for impact.

# 1 Decide which projects you take

If you can, decide where to put your energy. It is important to help changing these who are not doing good, but also everybody has his or her own boundaries and need to respect them.

# 2 Show stamina

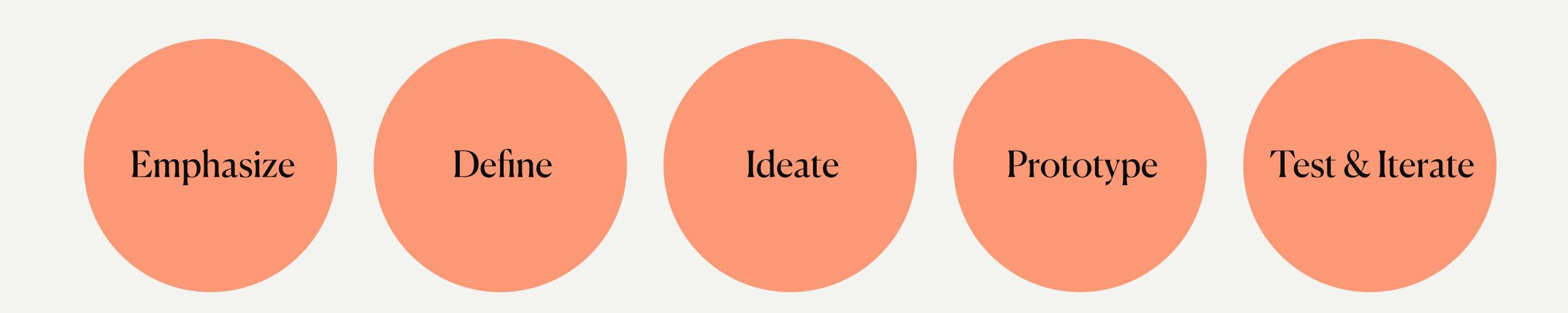
Things will never change with the first discussion. It is a process, that takes time. On the one hand we need to create the basis for discussion while also changing directly what we can.



# Make Sustainability the new default



# Sustainable UX is part of all steps of our Product Design Processes.





### Careful use of resources

Sustainable Business Model Canvas

**Unintended Consequences** 

**Problem Framing** 

Enh. User Journey

Emphasize Define

**Empathy Mapping** 

Non-Human Personas

Non-User Personas

Enh. Service Blueprint

Social Friendly Design

Carbon Friendly Design

Women centric design

Ideate Prototype

**Educational Design** 

**Positive Nudging** 

**Inclusive Design** 

**Sustainability KPIs** 

Test & Iterate

**Short & Long Term Goals** 



# SUX is a minaset.

We need to change the way of thinking digital product creation by asking the right questions, setting new layers and KPIs and going beyond our classic (UX-)mindsets.





