

Input

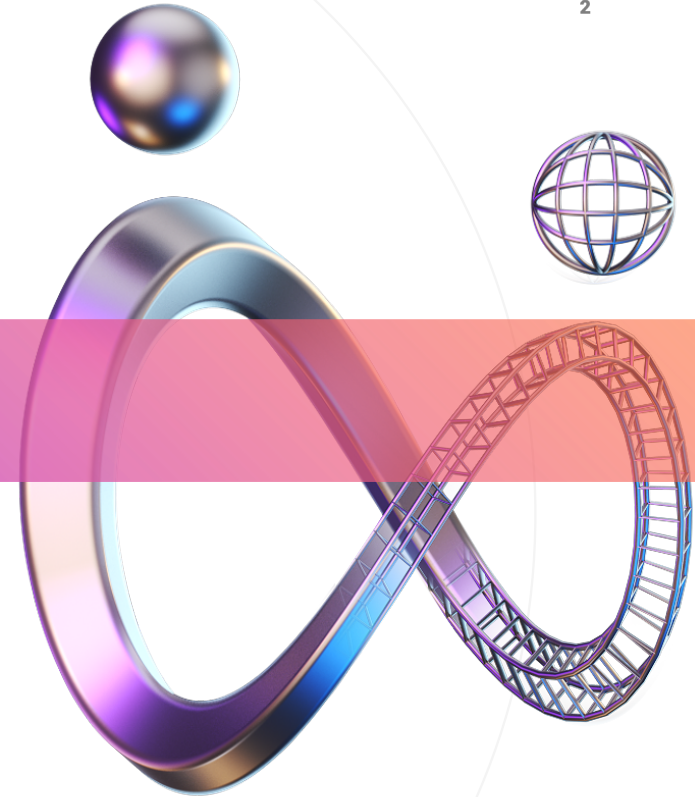
Künstliche Intelligenz und Körperscandaten für personalisiertes Design – OpenDress

Verena Ziegler





OpenDress



Künstliche Intelligenz und Körperscandaten für personalisiertes Design

Verena Ziegler (CEO OpenDress)

BeAwear

|

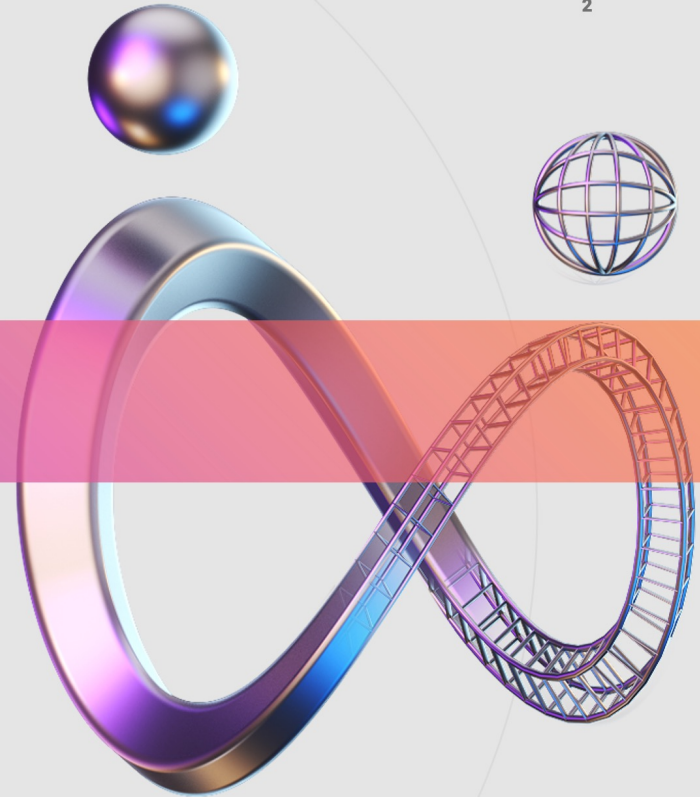
OpenDress

Künstliche Intelligenz und Körperscandaten für personalisiertes Design

Verena Ziegler (CEO OpenDress)



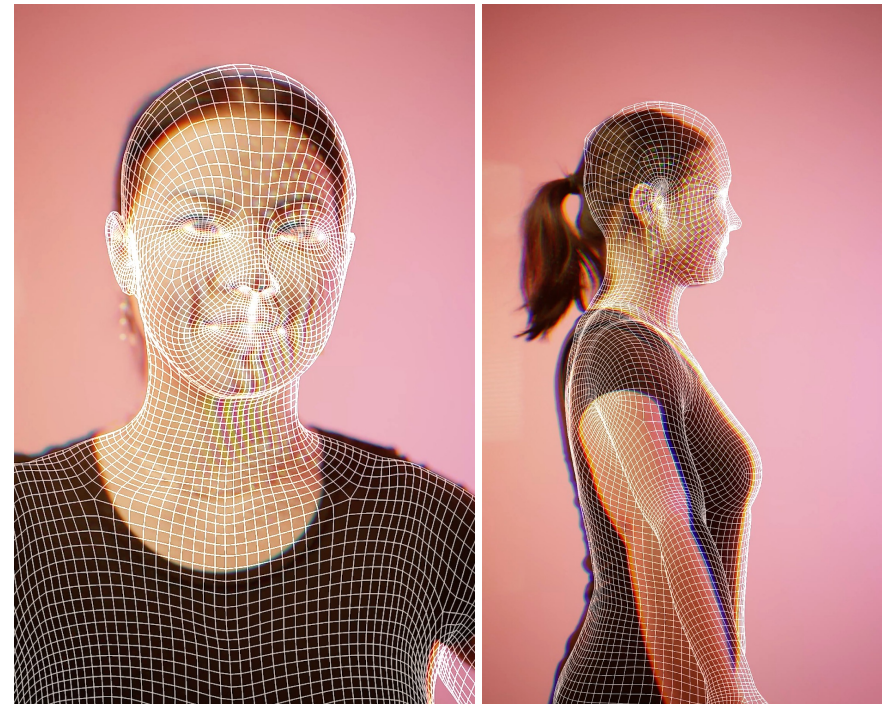
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AGENDA

1. Artificial Intelligence
2. 3D Body Scan Data
3. Point of Sale
4. Virtual Fitting Room
5. Customized Design
6. Sustainability through Body Scan Data



The fashion industry has a data problem

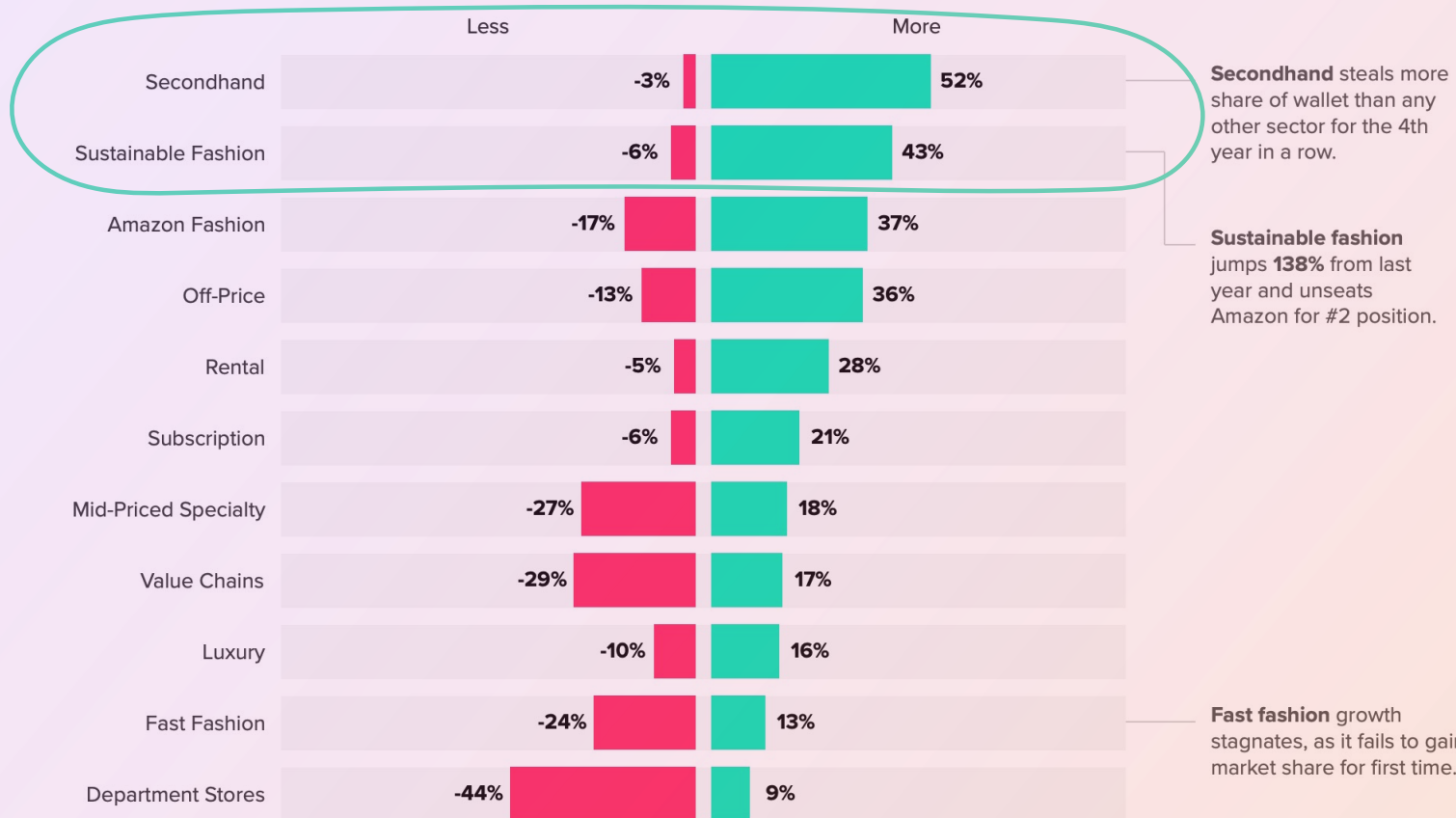


H&M, a Fashion Giant, Has a Problem: \$4.3 Billion in Unsold Clothes



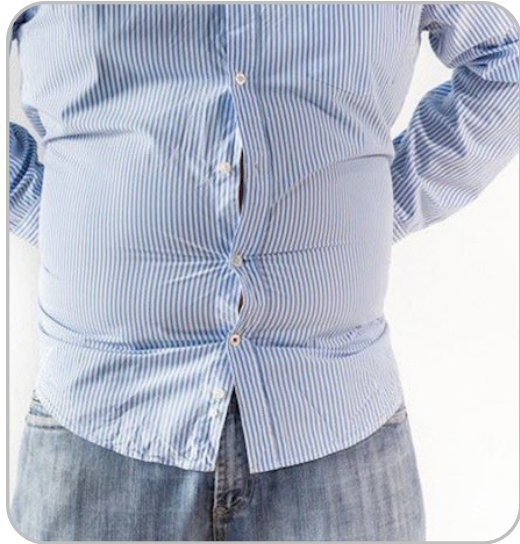
The fashion retailer H&M reported poor earnings on Tuesday, and is sitting on a huge pile of unsold clothes. Horacio Villalobos/Corbis, via Getty Images

Shoppers Plan to Shift More Spend to Secondhand Than Any Other Channel in Next 5 Years



Responses represent buying intentions of consumers over the next 5 years

PROBLEM OF MASS PRODUCTION SINCE 1863



01. CUSTOMER

S - XL standard sizes fits
30% of the population only
(Institute Hohenstein, 2020)



02. RETAILER/ MANUFACTURER

> 50% return quotes in
the online market
(Statista, 2019)

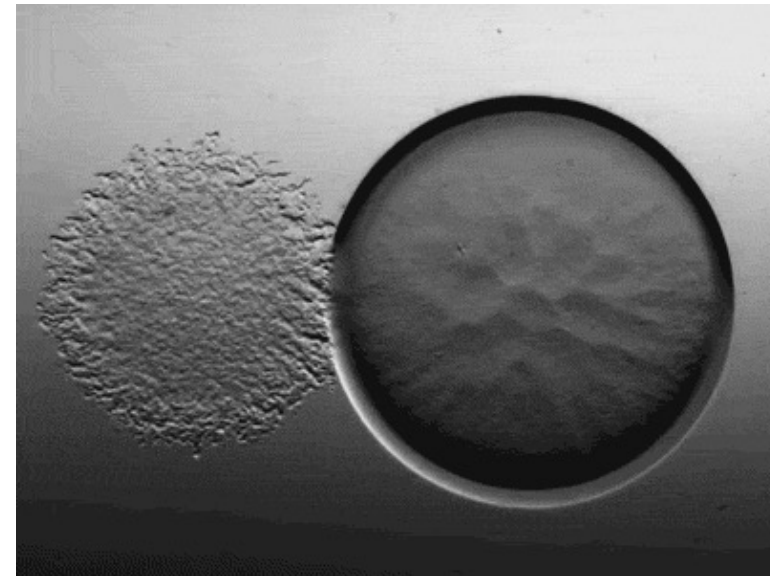
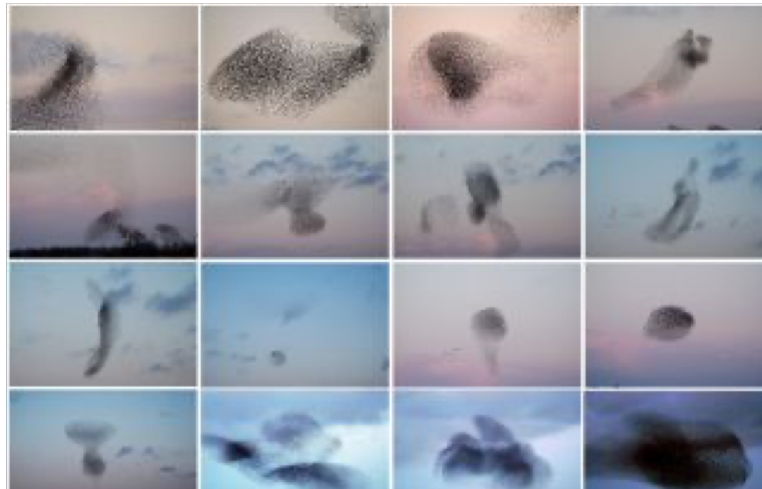
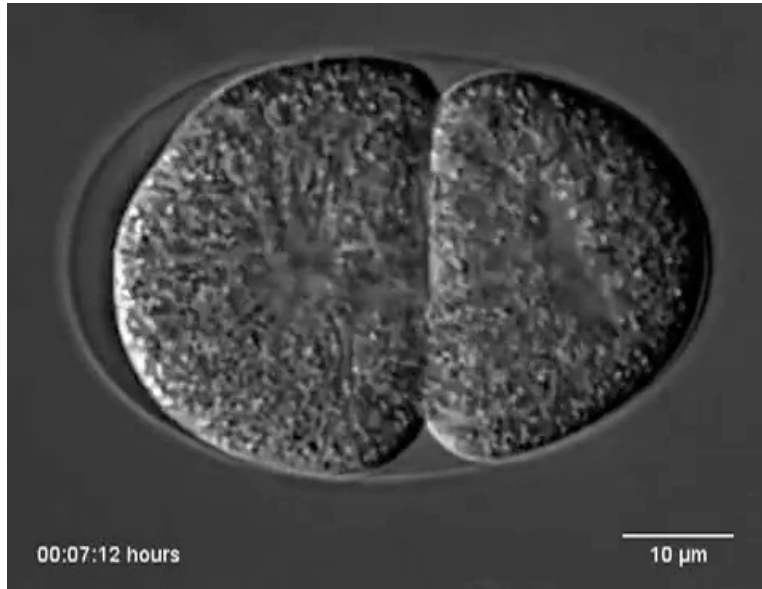


03. WORLD

one of the biggest polluter
world wide
(Greenpeace, 2017)

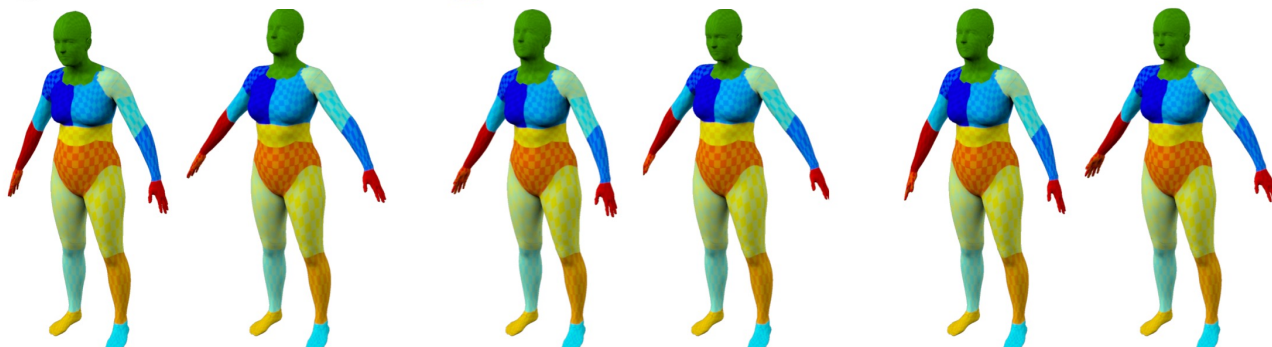
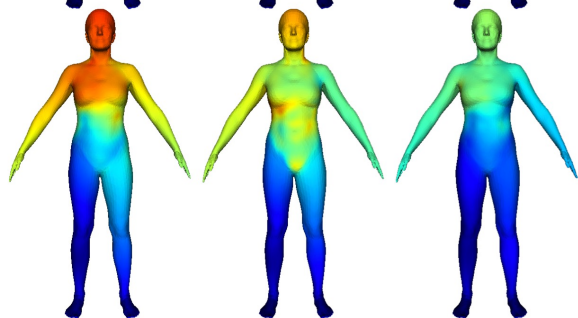
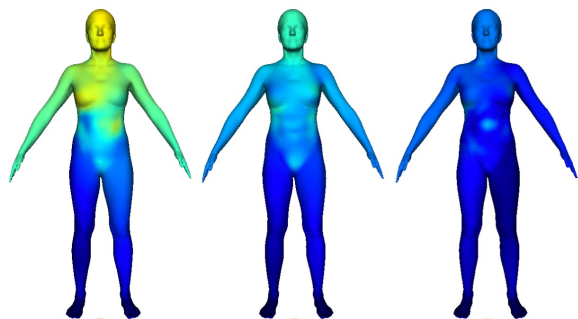
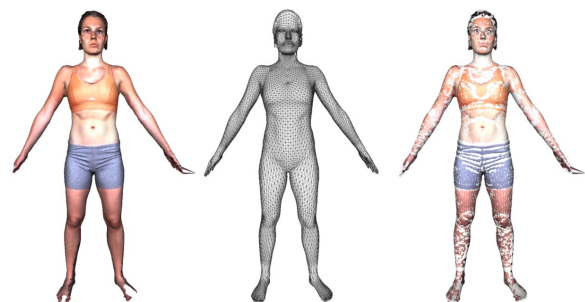
Our task is: Producing, Selling and Buying to fit

ARTIFICIAL INTELLIGENCE





1. ARTIFICIAL INTELLIGENCE



H T
W
G
Hochschule Konstanz
Technik, Wirtschaft und Gestaltung



ETH zürich



2. 3D BODY SCAN



2. 3D BODY SCAN



**1. Measurement by hand
(with measuring harness)**

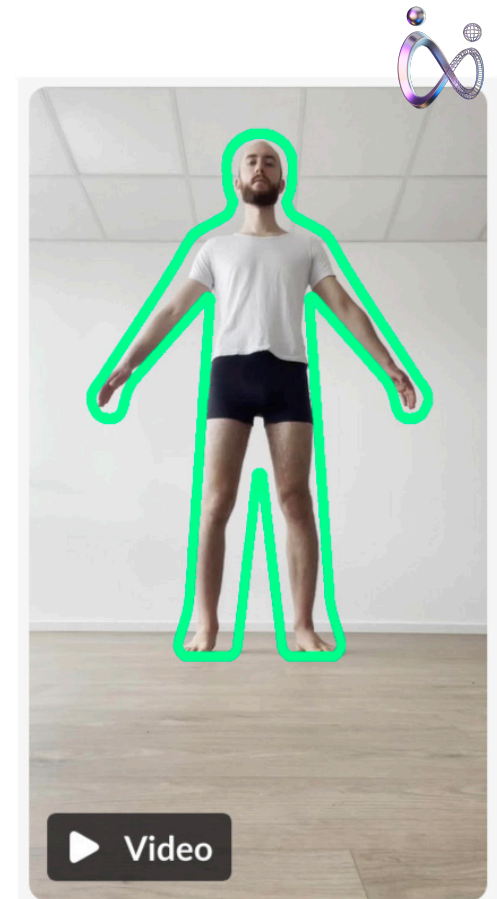
SCANNING STUDY WITH OVER 200 PARTICIPANTS



**2. Lidar sensor scan
function from mobile devices**







**3. Scans from Structure
Sensor via tablet**

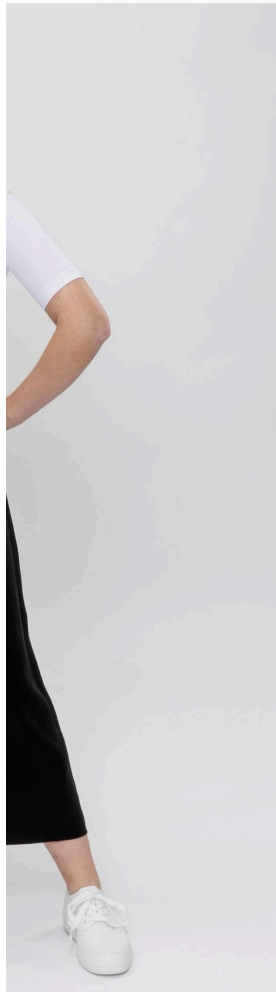


**4. BEAWEAR
Developed Pipeline**

2. 3D BODY SCAN

Kostenloser Versand und Rücksendung*



DE EN    




LOVJOI
Pants TAVIRA Black

129,00 EUR
inkl. ges. MwSt. und Versand

Eigenschaften

 Nachhaltig  Vegan



 Fair

Größe: XS

XS S M L XL

Model Helena | 175 cm | S
Welche Größe passt mir?

Körperscannen starten

1  **In den Warenkorb** 





SIZE RECOMMENDATION

MARKET ENTRY

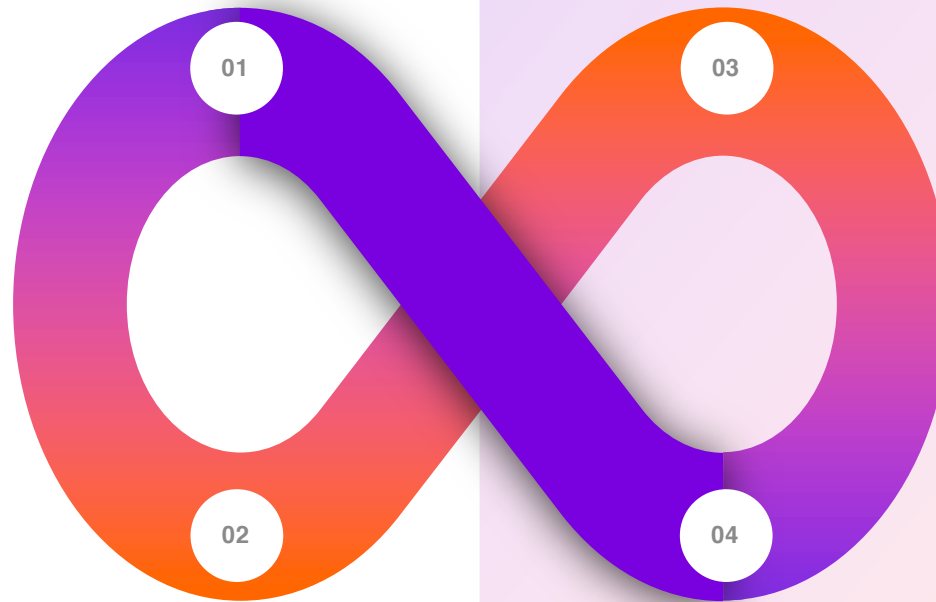
current fashion economy
based on S-XL standard size system



SECOND HAND

Second Hand eCommerce market
solution to guarantee fit without the
right of return

3. POINT OF SALE



MADE 2 MEASURE

INNOVATION AND PROBLEM SOLVING

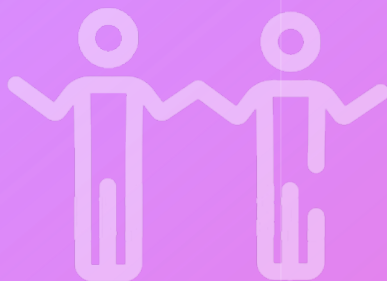
4D Algorithmic Sewing Patterns for
fashion customisation



MICRO FACTORIES

On-demand production of M2M
fashion in a decentralized production
network within Europe





4. VIRTUAL FITTING ROOM



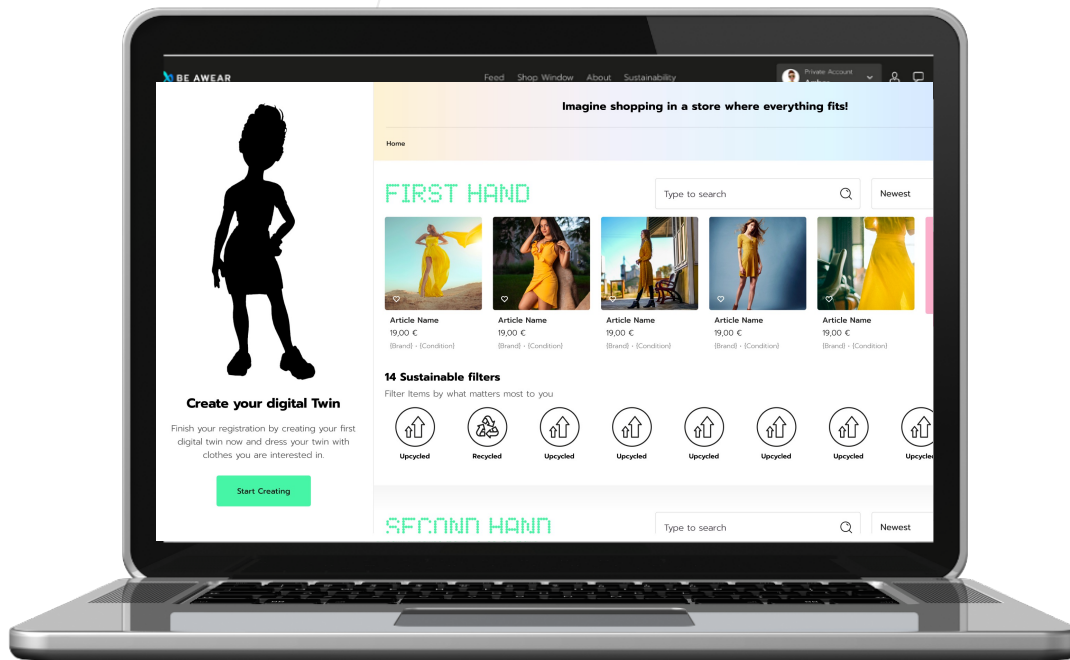
Believed to be the next driver of disruption, the global **digital twin** market is projected to reach US \$ 13.9 billion by 2022, exhibiting a CAGR of more than 36% during 2017-2022.

- Apparel Resources



OUR SOLUTIONS

Our Marketplace

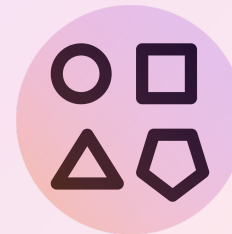


First Hand Marketplace: Customers use their Digital Twin to go shopping in connected online shops in our marketplace. Customers can discover and follow new shops of connected retailers. Our algorithms match customers only with items that will fit their individual body type so they can shop with confidence.

Second Hand Marketplace: Customers can create their own shop window to resell their gently used items in one click. Our platform will match their body scan with other users the same size to make reselling easy and fun.

Digital Twins Marketplace: Customers can follow twin profiles that match their body type to get inspired with new outfit combinations they can purchase and fit them perfectly.

BENEFITS:



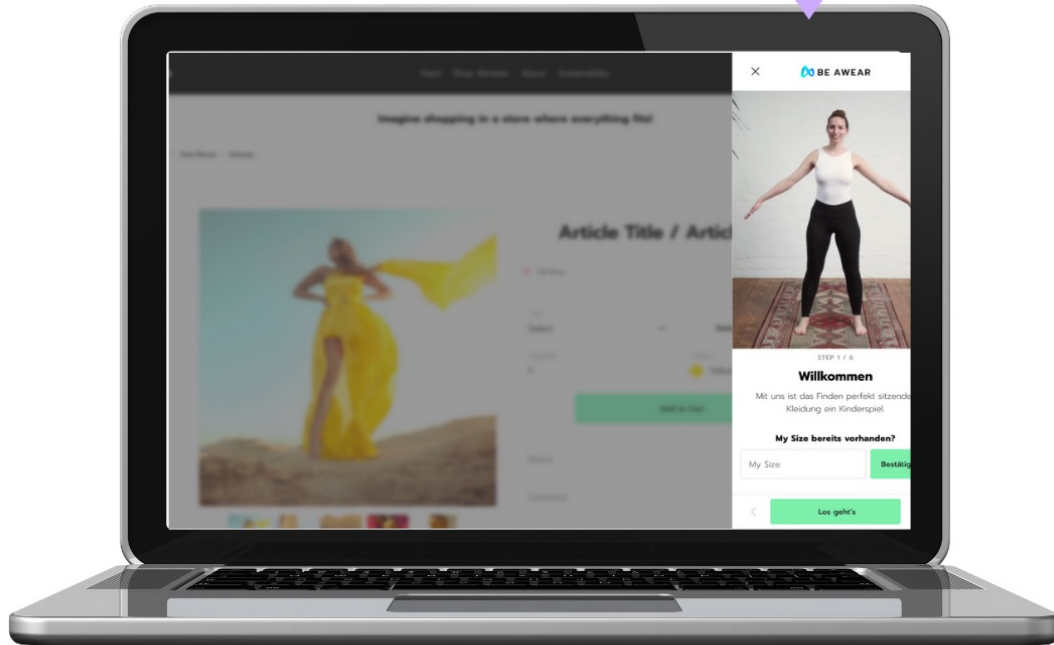
**Body
Diversity**



**Shopping
Activism**

OUR SOLUTIONS

Plug-and-Play API Solution



4. VIRTUAL FITTING ROOM



Get the perfect fit anytime, anywhere

Our easy plug-and-play API solution enables shoppers to capture their body measurements via a 3D scan from any device. Using this data, we're able to accurately recommend confection size as well as cross-sell based on the individual customer's body morphotype. Customers can use their digital twin (3D scan) to shop on participating retailers' online shops to get matched only with clothes that fit them. Available via desktop, iOS, and Android.

BENEFITS:



Reduce Returns



Reduce Bracketing



Increase Conversions

Our Marketplace

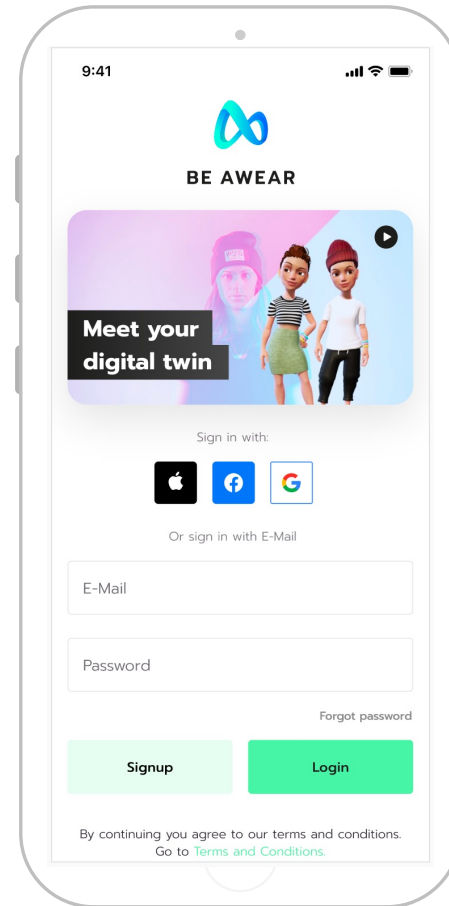
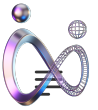
Customers can filter items from our marketplace by dressing their digital twin. They can also filter by sustainability feature so consuming consciously is easy.

We combine the best of online shopping and gaming to make it fun and easy to explore new styles. Each time a customer changes their digital twin's outfit, they're filtering results from connected shops in our online marketplace. Also a virtual try-on is possible.

Whether a customer is aiming to shop organic, support local sellers, or purchase items secondhand, our sustainability-focused search features make it easy for conscious consumers to filter through thousands of items based on what matters most to them. By participating in our platform, customers are doing their part to reduce returns, keep clothes out of landfills, and celebrate body diversity all while discovering their personal style.

Welcome to an entirely new and visual method of online shopping!

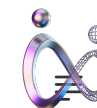
4. VIRTUAL FITTING ROOM



GRÜNER KNÖPF

FAIR WEAR

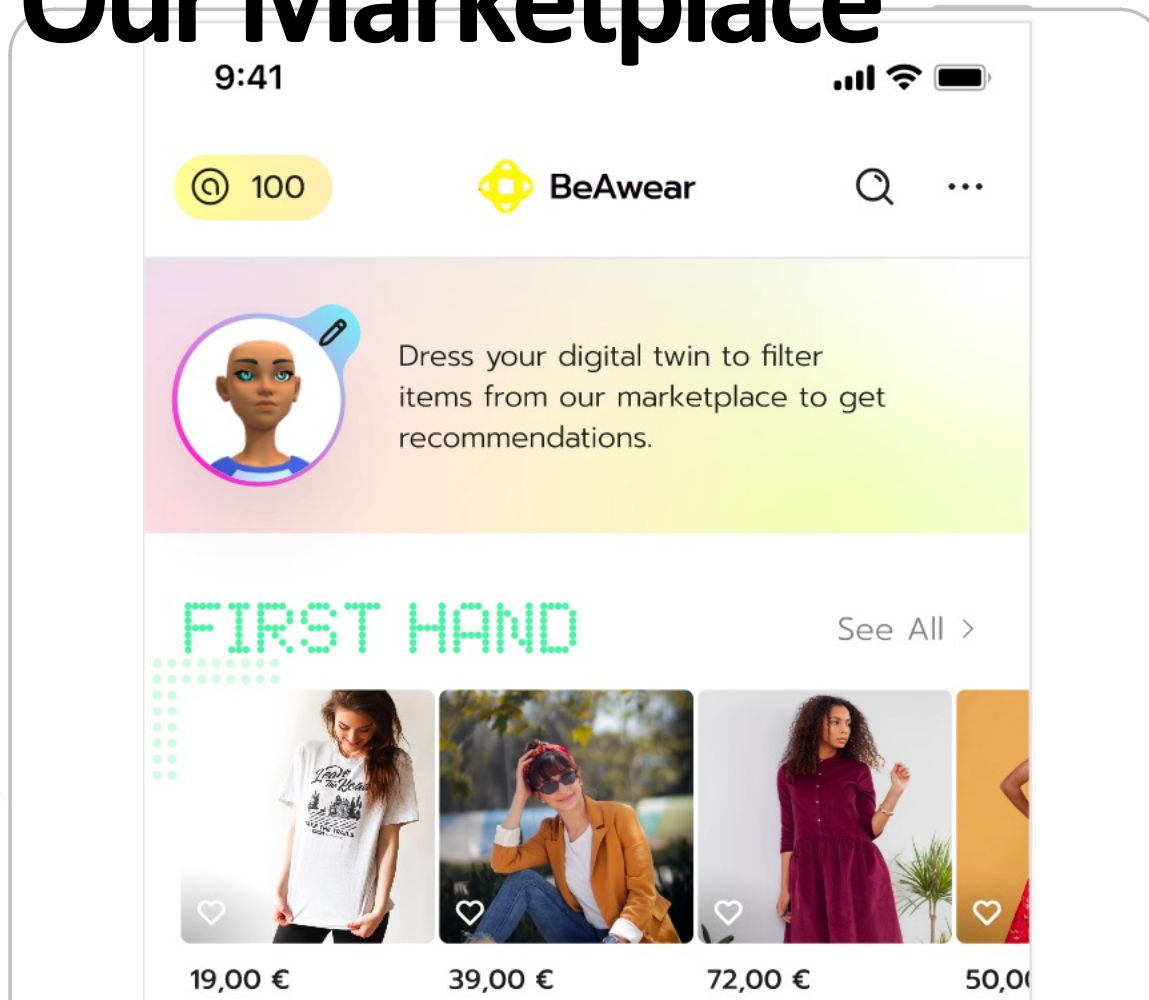




Our Marketplace

Scan, Filter, Shop, Resell.

Imagine browsing in an online shop where everything fits



Customers use their Digital Twin to go shopping in connected online shops in our marketplace

Customers can discover and follow new shops on our marketplace of connected retailers. Our algorithms display and match customers only with items that will fit so they can shop with confidence.

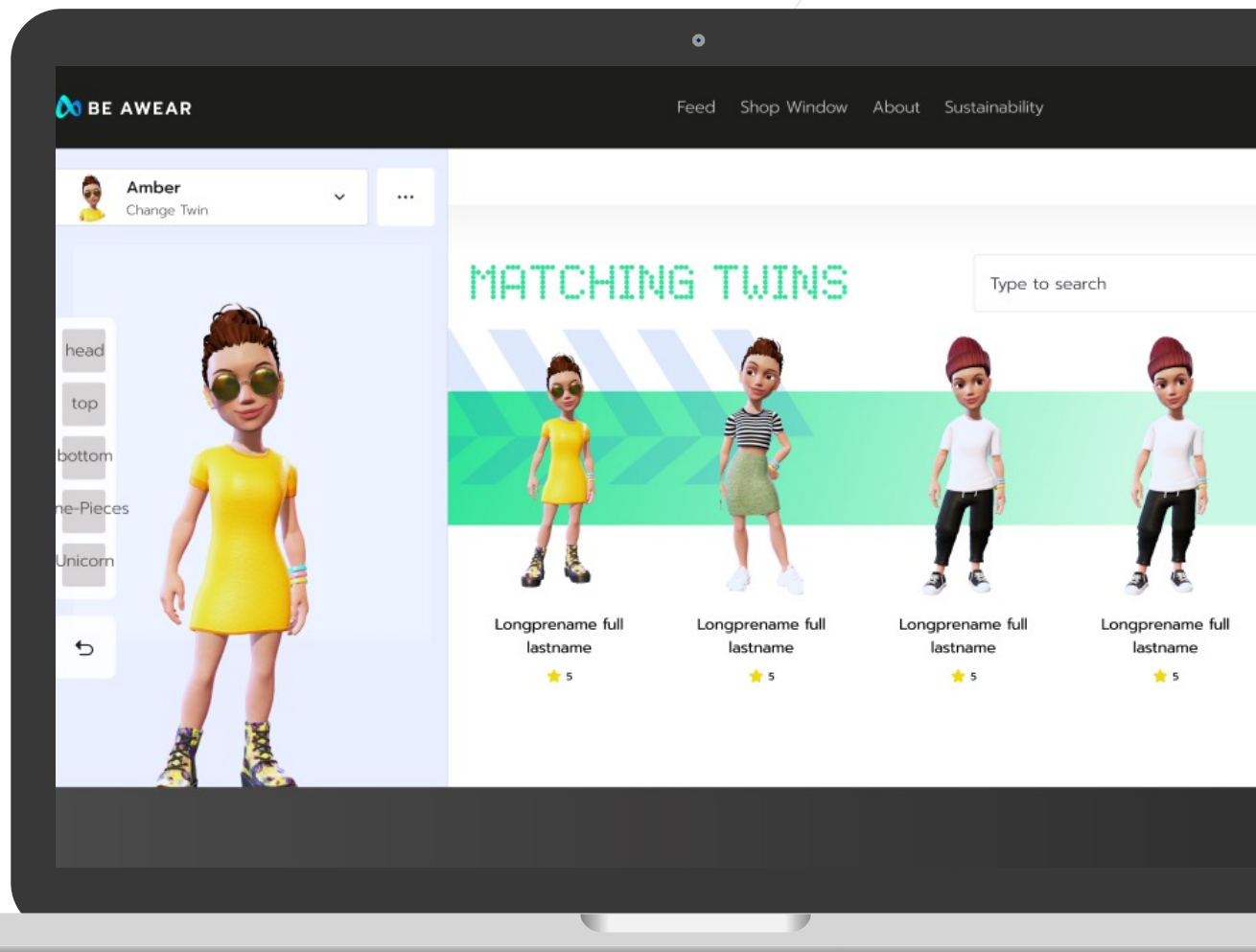


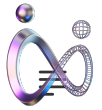
Our Marketplace

Find your fashion twin

Customers can use their digital twin to find people around the world (of similar height, size, shape, and tones)

Customers can use their digital twin to find fashion twins who will share outfits they love—showing how they fit, and how to style them, so they can start enjoying body-relevant fashion inspiration. Follow profiles, explore trend-setting style combinations and connect with users your same style and size. In addition, customers can upload a picture directly in the article pictures gallery, wearing the purchased item.

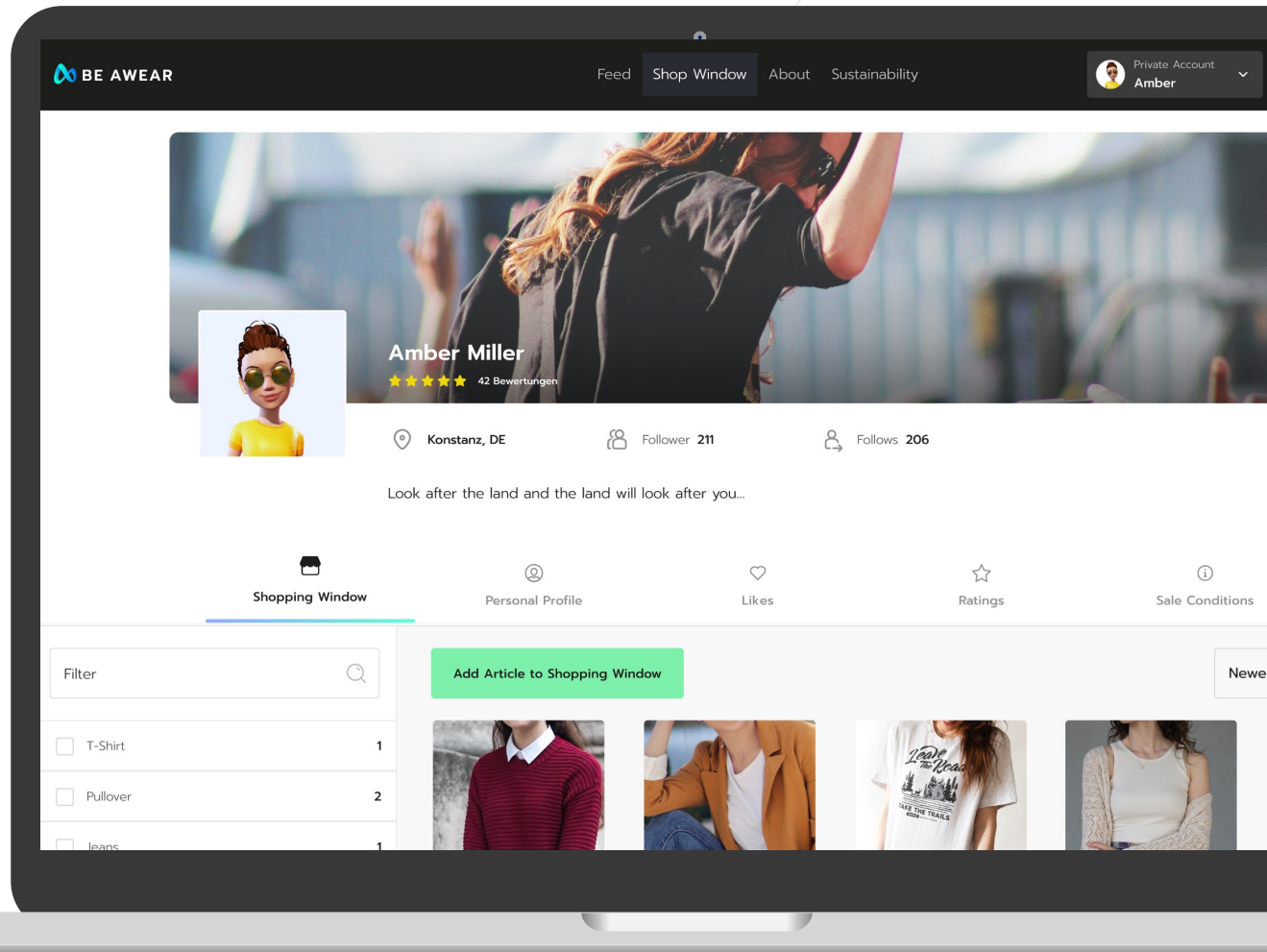




Our Marketplace

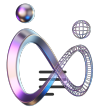
Customers can open their own shop window to sell gently used, second-hand items

We empower the secondhand economy by enabling users to open an online shop window to list and sell their gently used items. Our algorithms match shoppers with other users the same size so buying and selling secondhand items is easy. Customers can make money off their closets while keeping clothes out of landfill. If customers purchased items from our first-hand marketplace, the garment's data and sizing information is automatically uploaded .



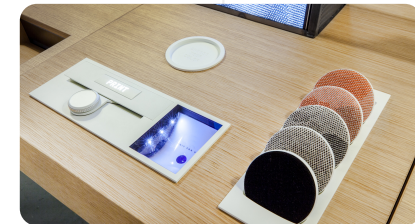
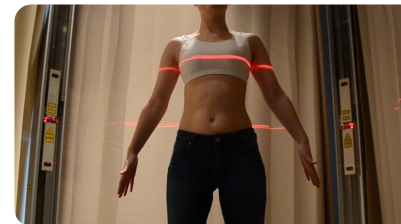
5. CUSTOMIZED DESIGN

Research & Development



As a second market introduction, BeAwear will offer, also based on the digital twin (3D scan), a made to measure API plug-and-play solution for retailers. This patented AI solution will support retailers to digitalize their supply chain and automatize on-demand production in Europe in decentralized micro-factories.

BeAwear is part of the ZIM network "Masskleidung 4.0", where we develop with 10 associated companies a micro-factory network starting in Germany, later planned to expand EU wide. BeAwear is providing the main technology to create 4D sewing patterns based on physical movement simulation from a 3D body scan.



See recent paper on our 4D sewing pattern technology:

https://www.researchgate.net/publication/349195500_3D_Custom_Fit_Garment_Design_with_Body_Movement

5. CUSTOMIZED DESIGN MICRO FACTORIES

DITF

DEUTSCHE INSTITUTE FÜR
TEXTIL+FASERFORSCHUNG



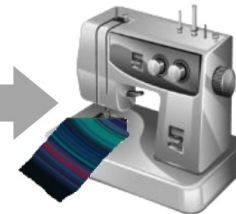
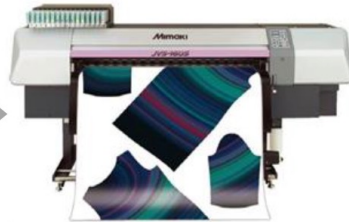
CAD/Design

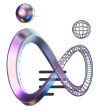
Digitaldruck

Zuschnitt

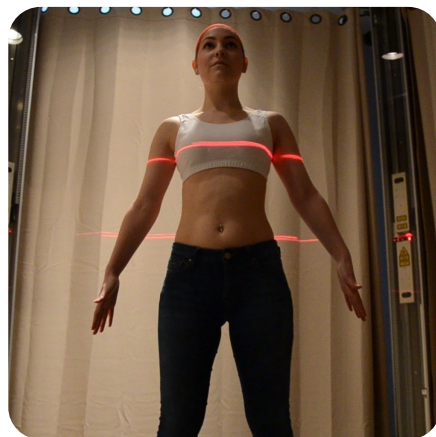
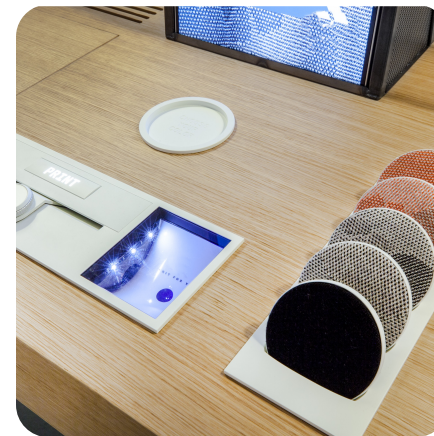
Konfektion

Produkt





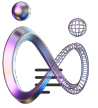
5. CUSTOMIZED DESIGN STORE IN STORE Concept – MICRO FACTORIES



6. SUSTAINABILITY THROUGH BODY SCAN DATA

BeAwear

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BeAwear Helps Retailers

REDUCE RETURNS & BRACKETING

Cut the cost of multiple returns by enabling customers to get the right size every time



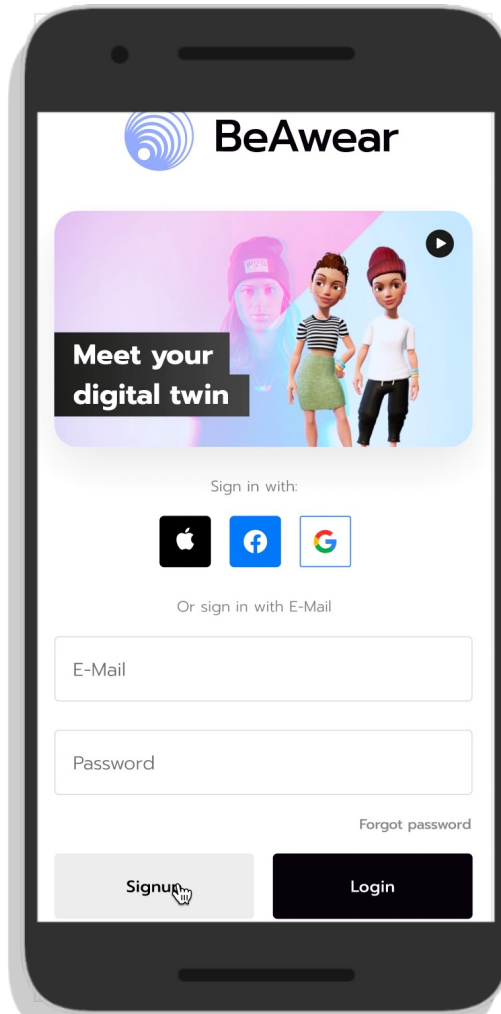
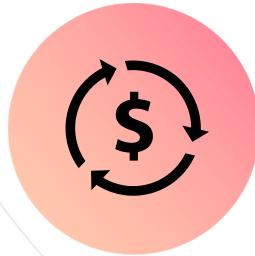
INCREASE SALES

Customers shop with increased confidence, are more informed, and have more fun in the process



USE DATA BETTER

Leverage insights to reduce waste and increase profit



CONNECT ONLINE AND OFFLINE

Bring the best of the fitting room to your online shop for a contactless shopping experience unlike any other



CROSS SELL

BeAwear's intelligent cross-selling tool allows shops to recommend other items that will fit a user's size and style preferences



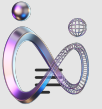
IMPROVE USER EXPERIENCE

Provide data-driven customer service to drive customer loyalty

BeA wear.

— CONTACT

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Contact

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