Product Development in Between Working With Hands and Digital Simulation

The algorithm can shape the perfect product, because it has no individual point of view.

ROLE OF DESIGN

ENABLER

“It's going to take ingenuity to believe something can happen.”

Gabriela Hearst

CREATIVITY
IMAGINATION

Asking the right questions

Sketching out solutions

Driving ideation and true innovation

Inspiring the user and the industry

SKILLS
EXPERTISE

EMPATHY
EMOTION


photo: gonzalo keogan, shutterstock.com


photo: Jens Hertel, shutterstock.com

LACK OF RESILIENCE


Trying to repair instead of replacement

ANOTHER TOMORROW

A New Epoch, New Perspectives

CONSUME AND YOU'LL BE YOURSELF!

APPAREL´S IMPACT ON CLIMATE

6.7%

The *Environmental Impact of the Global Apparel and Footwear Industries* study used a life cycle approach investigating 7 different stages in the life of garments. The following results illustrate the greenhouse gas (GHG) emissions for each life cycle stage. **The apparel industry alone represents 6.7% of global GHG emissions**, equivalent to about 3.3 billion metric tons of CO_2-eq. **More than 50% of emissions come from three stages: Dyeing & Finishing, Yarn Preparation, and Fiber Production**. With global manufacturing concentrated in Asia, GHG emissions in these stages are driven by apparel production's reliance on hard coal and natural gas to generate electricity and heat.

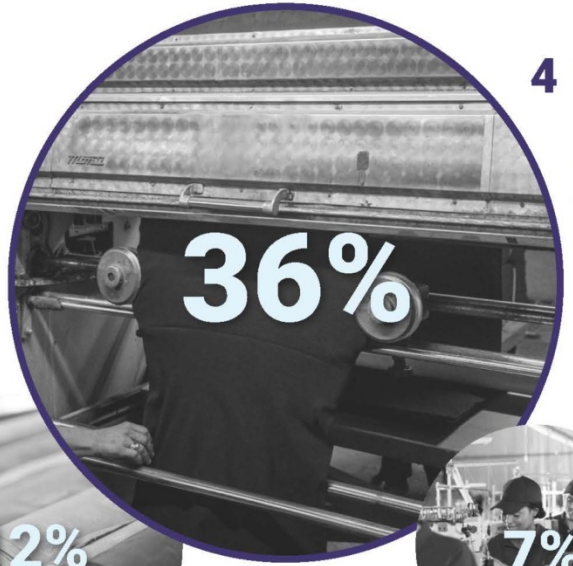
7 LIFE CYCLE STAGES OF APPAREL

1 FIBER PRODUCTION
Raw material extraction and processing of synthetic, cellulosic, cotton, and natural fibers

2 YARN PREPARATION
Spinning of yarn from filament and stable fibers

3 FABRIC PREPARATION
Knitting and weaving of yarn into fabric

4 DYEING & FINISHING
Bleaching and dyeing of fabric as well as fabric finishing
The most energy intensive stage, dyeing has a high energy demand due to wet processes which require large amounts of heated water.



5 ASSEMBLY
Cutting and sewing fabric into apparel products

6 DISTRIBUTION
Transportation from assembly location to retail stores
A low impact stage today but could increase if companies switch to aircraft transport.

7 END OF LIFE
Collection and management of apparel products at the end of their useful life (incineration and landfilling)

! NOTE:
Percentages represent the climate change impact (measured in CO_2-eq) of each life cycle stage relative to the total apparel impact

! NOTE:
EXCLUSION OF USE PHASE
This typically high impact stage was not included as the study focused on the apparel value chain and manufacturing processes

Source: Quantis / Measuring Fashion 2018

CONTINUOUS OVERPRODUCTION

About one quarter of the industry´s resources are wasted as leftovers of textile & garment production every year.

Source: FASHION REVOLUTION
FASHION TRANSPARENCY INDEX 2020

More than 1,000,000 tons of clothing are discarded per year - in Germany.

Source: DIE ZEIT, April 20, 2017


Bounce back or turnaround?
We need new narratives and clear visions.
Design helps to navigate the future.

What and how should we create?
Clothing is a basic human need - with the outlook for evermore extreme living conditions we have to ask ourselves:
What clothing performance will be needed?
What kind of equipment?

As creatives we have to imagine new viable scenarios and fresh narratives. Where will our creative journey go to?


DIGITIZATION

THE DIGITAL WORKFLOW

fast & thrifty

New tools, same thinking?

saves money & time

high flexibility

go-to-market timespan can be reduced

just by one click, an endless variety of ideas & designs

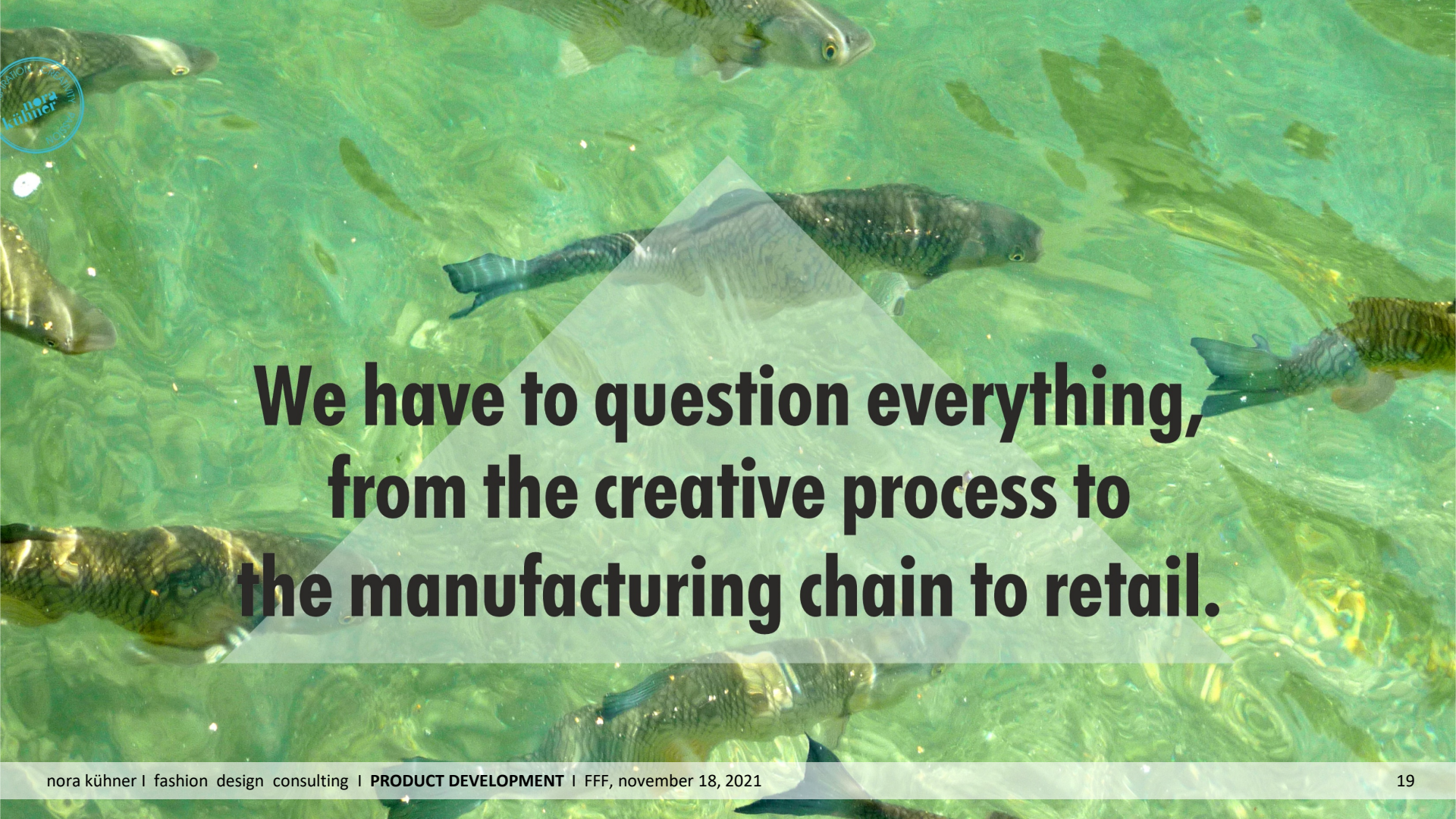
presenting easily and at low cost innumerable variations of patterns & fabrics

faster reaction to changing customer trends

an endless number of concepts can quickly be realized and at low costs

From early industrialization to digitalization: Optimization and standardization to maximize the return on investment.

What's the potential of these strategies for finding solutions for the pressing issues of the 21st century?

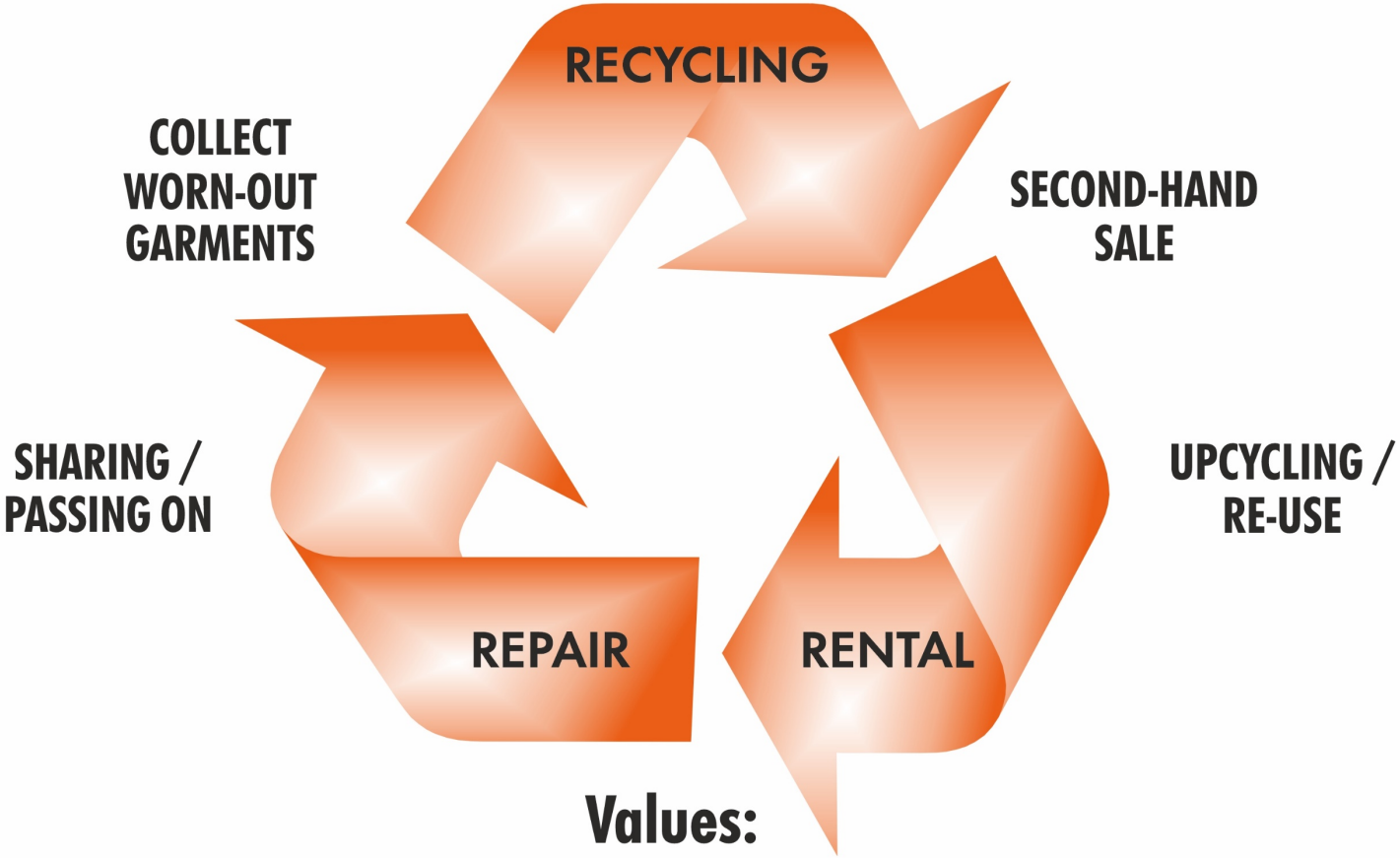

We have to question everything,
from the creative process to
the manufacturing chain to retail.

ISPO Academy Masterclass
OutDoor by ISPO 2019

All wishes fulfilled?

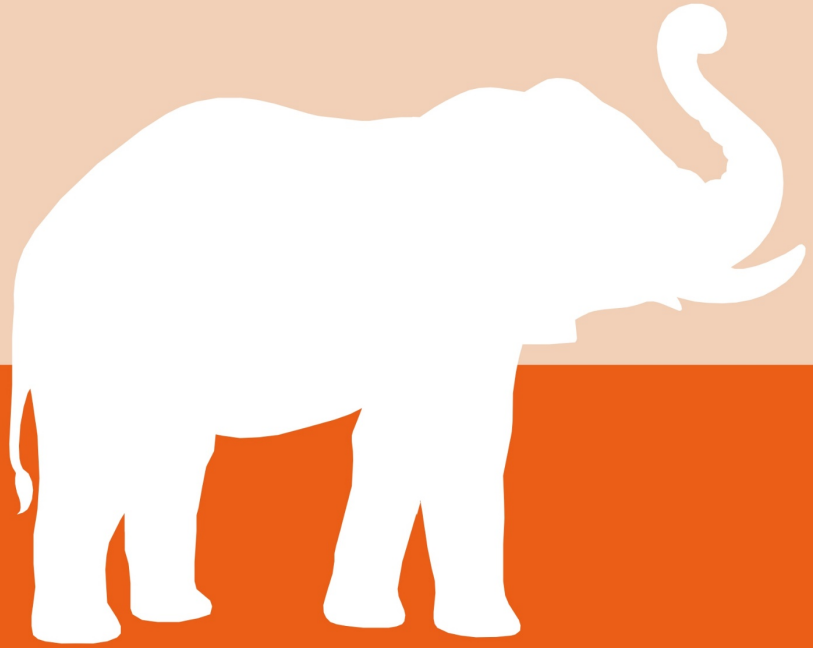
A Lifestyle is changing ...

Small scale business



Values:

longevity, versatility, appropriate functionality



RECALIBRATING VALUES

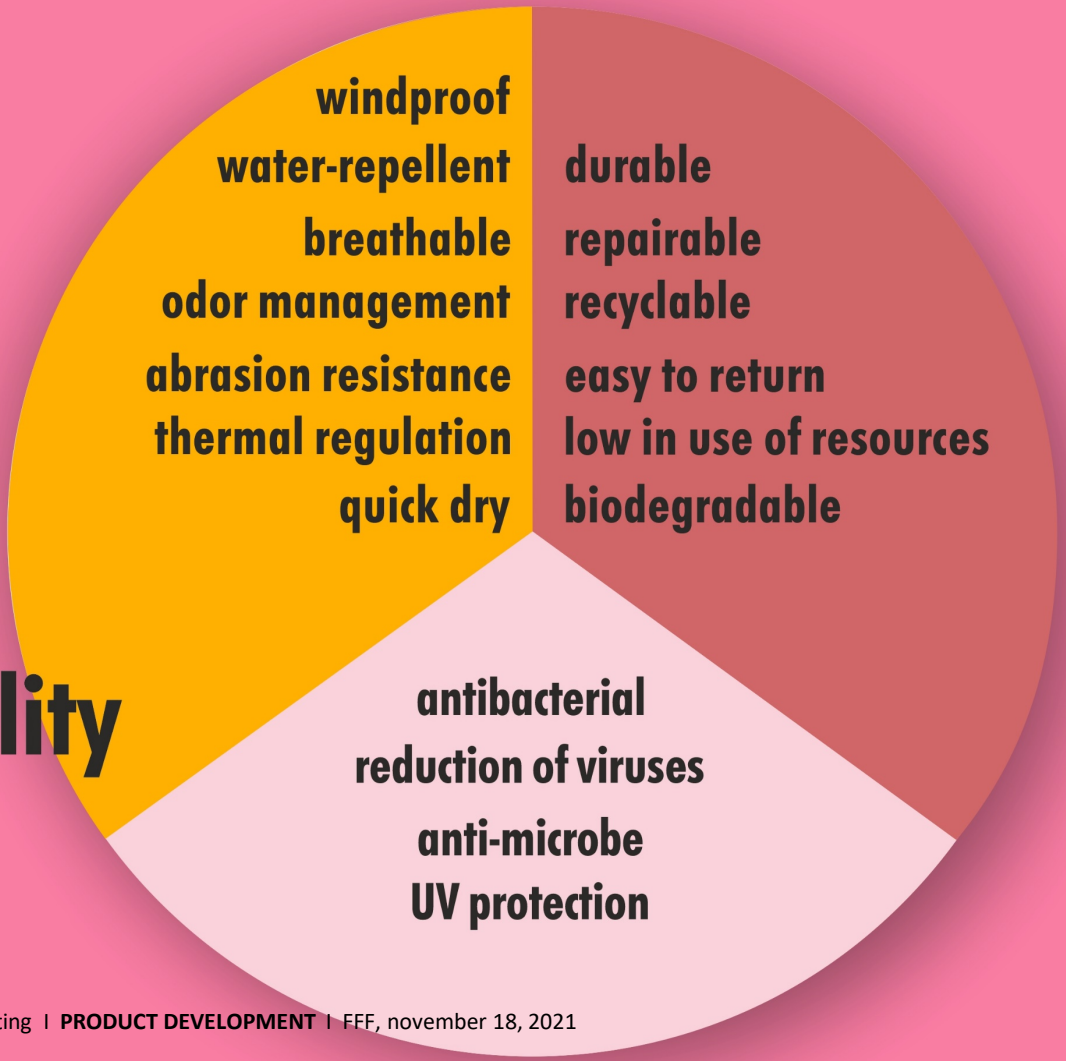
* *

LESS

* *

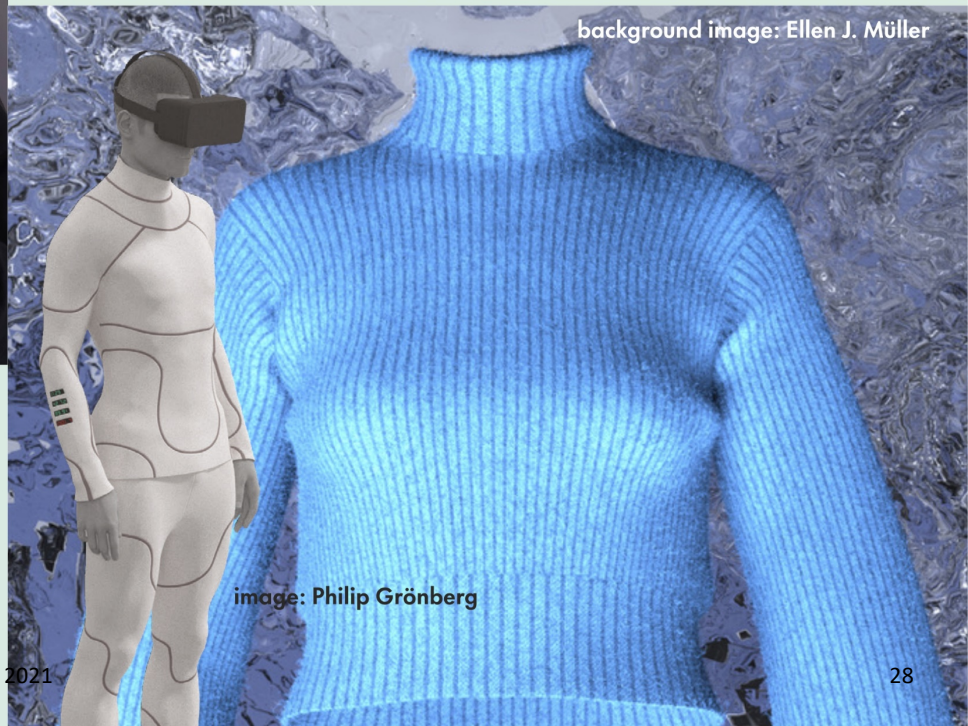
re-use recycle repair reduce refuse

Functionality Roundup




„I love design and I love the Earth.
We shouldn´t have to sacrifice one
for the sake of the other.“
Sam Selbie, student,
University of Oregon (USA)
Participant of
the MASTERCLASS 2016
illustration: Julia Quentin

HANDS-ON



SIMULATION


It's
great
out
there


wherever!

MADE FOR MOVEMENT

Clothing is more than just a look - it touches our body, it stimulates our senses, it makes us feel comfortable ...

„By being rational, we become sterile.“

Roger Tallon (1929 - 2011)

leading French industrial designer


INSPIRATION CREATIVITY PASSION
nora kühner
THANK YOU