A NEW TEXTILE ECONOMY

-How new digital design tools are changing business models and stemming the tide of textile waste

Enabling the transition to a circular economy -Circular Economy Conference 2019

Gisle Mariani Mardal Norwegian Fashion Hub



The State of

Fashion 2019 THE YEAR OF THE AWAKENING

Getting

Caution Ahead

Downward movements in key economic indicators and other potentially destabilising forces will conspire to create a more cautious mood. With the possibility of a global economic slowdown by 2020, companies will turn more prudent and start to look more aggressively into opportunities to boost productivity compared to previous years.

02. Indian Ascent

India becomes a focal point for the fashion industry class consumer base grows and manufacturing sector strengthens. Fashion players efforts in this highly fragmented and challenging market where an educated and tech-savvy demographic rub shoulders with the poor and upwardly

Trade 2.0

End of Ownership

Woke

All companies will a spiral spars of the pass of the p

the one hand, the one hand, the one hand, the one hand, the oracle of the case of the case

and uncertainty and, on the other hand, by no consumers and consumers and proportunitie from this market is gain access to the consumers and c

Now or Never

Radical

Transparency



within 24 hours,

Self-Disrupt

which will have a significant impact on their operating Digital Landgrab

acquisitions, investments or internal R&D. those players who diversify their ecosystem will strengthen their lead over those who remain pure players relying

enabled a new breed of start-ups to achieve agile made-to-order production. Mass players will begin to experiment next, responding more rapidly to trends and consumer demands, achieving just-in time production and reducing overstock and making short, small-batch production cycles the new norm.

On Demand

Automation and

data analytics have

70%





trade policy will pose economic growth









Top ranked trend that the fashion industry In top 5 by 80% of



solely on retail margins.

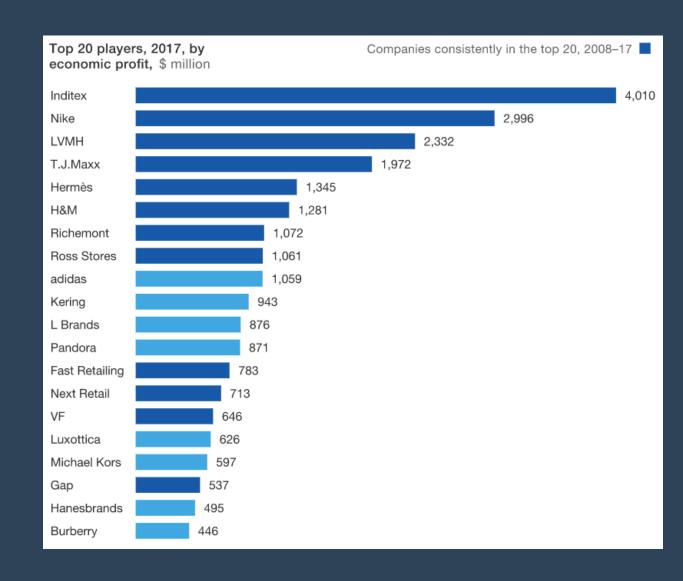
Revenue CAGR of fashion retailers from



will double between

SCOPE OF THE INDUSTRY

- Total turnover \$1,3 trillion in 2017
- Market value \$385,7 billion
- 4 percent market share
- Top 20 companies stand for 97 percent of the total profit
- The global production volume has doubled the last 15 years
- Predicted to grow 50 percent towards 2030



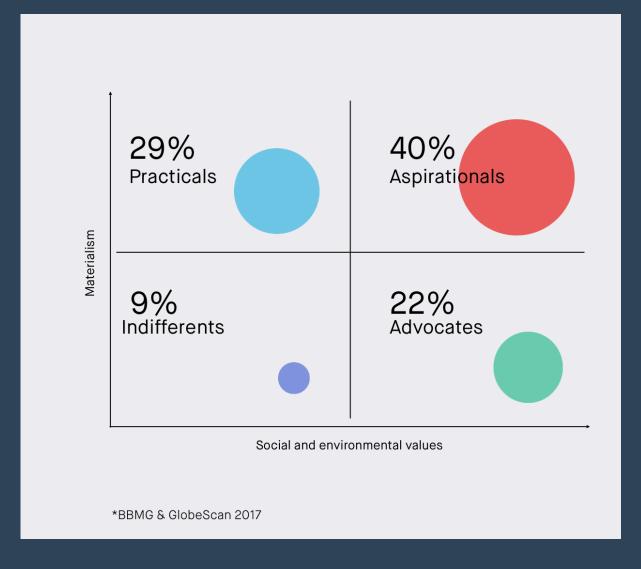
THE GLOBAL MONSTER

- The industry produced 100 billion items for 7 billion people in 2015***
- The current linear practise account for \$500 billion in lost revenue*
- Wearing an item 2 times more can reduce emissions by 44 percent*
- Consumers waste \$460 billion yearly*
- 77 percent of the fast fashion segment are women under 21**
- 71 percent are not aware of the relationship between their consumption and sustainability**



A SHIFT IN PURCHASING POWER

- Consumers worldwide have expanded the scope of their purchasing decisions to incorporate principled values and views
- Billions of people are using consumption as a means to express their deeply-held beliefs
- Blending design and consumer research is the key point of departure for a sustainable process



POWER TO THE CONSUMER

- Fashion is seeing the start of a shift where products are "pulled" into the market based on actual demand rather than "pushed" based on best-guesses and forecasts
- Social media enables trends established by consumers, as opposed to retailers and editors
- In an era of fast-changing preferences, responding to shifting demand, and tailor production accordingly, makes sense
- The "pull" dynamic, procurement, production and distribution are based on customer demand
- The "supermarket" model, inventory is only replenished once consumed



ENABELING A TRANSITION

- 78 percent of sourcing managers believe sustainability will be a key purchasing factor for mass-market apparel consumers by 2025
- 82 percent believe that simple garments will be fully automated
- Mass-market apparel brands must change to a demand-focused model
- Companies are optimizing and digitizing their processes and rethinking inbound logistics
- To optimize the apparel production model, effectively means nearshoring, to enable automating new delivery models, and shifts toward sustainable, circular value chains



A RESPONSIVE DESIGN PROCESSES

- Design and production are cumbersome processes, requiring nearly a year to plan and move products to market
- Automation and data analytics will enable agile made-to-order production cycles
- Brands will respond rapidly to trends and consumer demand
- A rise in just-in-time production, reduced levels of overstock and the rising importance of smallbatch production cycles
- Technology, analytics and nearshoring are part of the solution, enabling companies to respond quickly to source and develop products, squeeze production timelines and streamline distribution

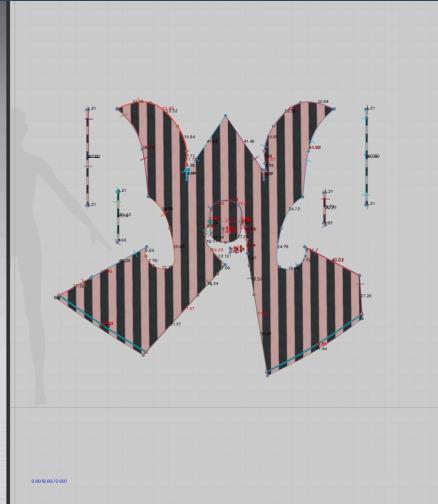


3D LOOK

NEW DESIGN TOOLS

- Avatar based technology
- Merging of design and gaming technology
- Design applied to individual measurements
- Updating technical patterns while adjusting the shape on the avatar for industrial manufacturing





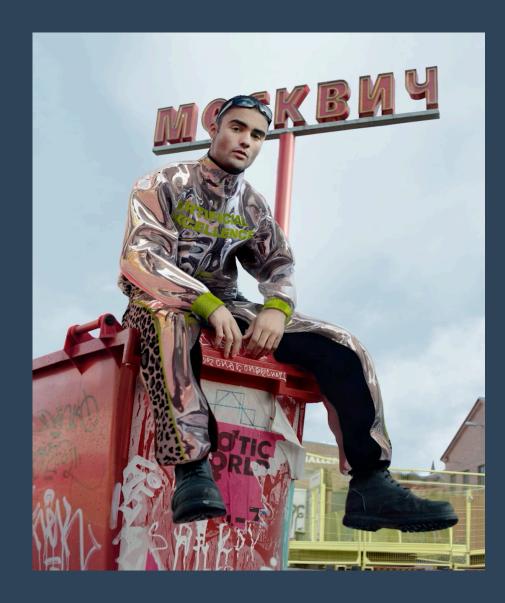
DIGITAL PROTOTYPES

- Virtual prototypes makes the pre production phase purly digital
- Enables communication of products to consumers before being manufactured
- Can be adjusted to fit personal taste, sieze and quality in advance
- Designs without appeal will not go into production



DIGITAL CLOTHING

- A new market for fashion
- Code over physical product
- Skinns, -already a big niche in the gaming industry
- Now adapted for wear in social media channels



DIGITAL FITTING ROOM

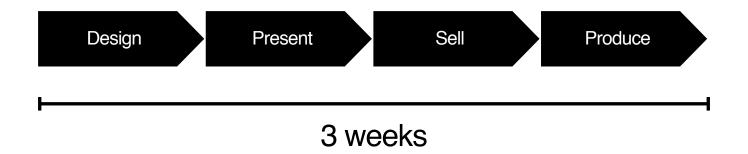
- The Spotify of Fashion
- On demand showrooms
- Avatar based, personal measurements
- Connecting consumer and provider of on demand manufacturing processes



Traditional process



Digitized process



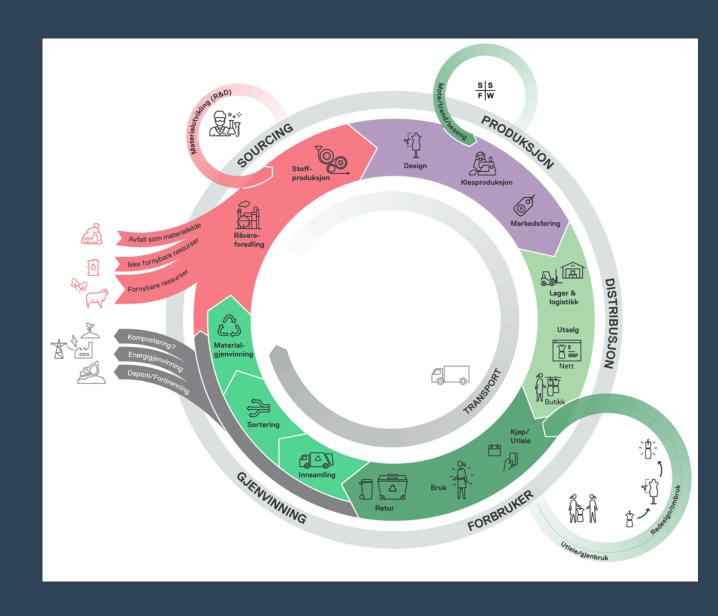
TRADITIONAL PRICEMODELL

ON DEMAND PRICEMODEL



A CIRCULAR VALUE CHAIN

- Nearshoring and automation have environmental and social benefits, in addition to the commercial benefits
- By bringing production closer to home and investing in advanced manufacturing, companies will become more sustainable and less wasteful by reducing overproduction and decreasing the ecological footprint from reduction of transport
- Taken together, nearshoring and automation will enable a circular value chain



THANK YOU!

Gisle Mariani Mardal Norwegian Fashion Hub