

# Transitory paths to a more sustainable textile value chain

#### The STS resulted from a cooperation.

Gherzi and two chairs from Chemnitz University of Technology worked together.



Dr. Andre Matthes

Deputy head of the chair

Textile Technologies



Anton Schumann
Senior Consultant at
Gherzi van Delden GmbH



Prof. Marlen Arnold
Head of the chair Corporate
Environmental Management



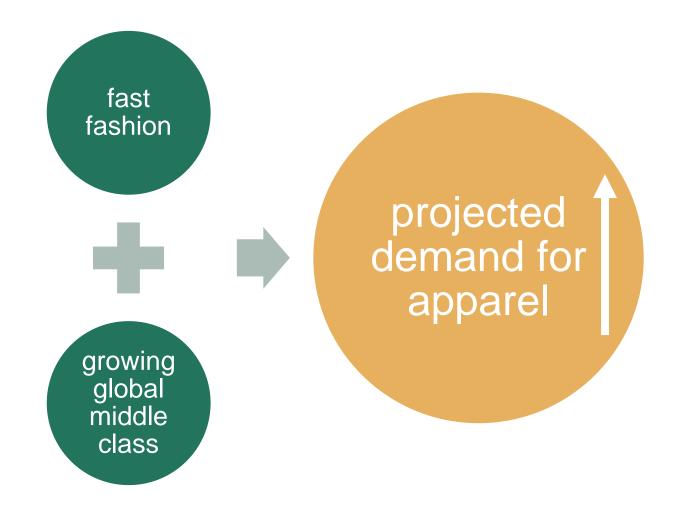
Prof. Holger Cebulla
Head of the chair Textile
Technologies

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# What we knew.

#### The global demand for textiles will grow.





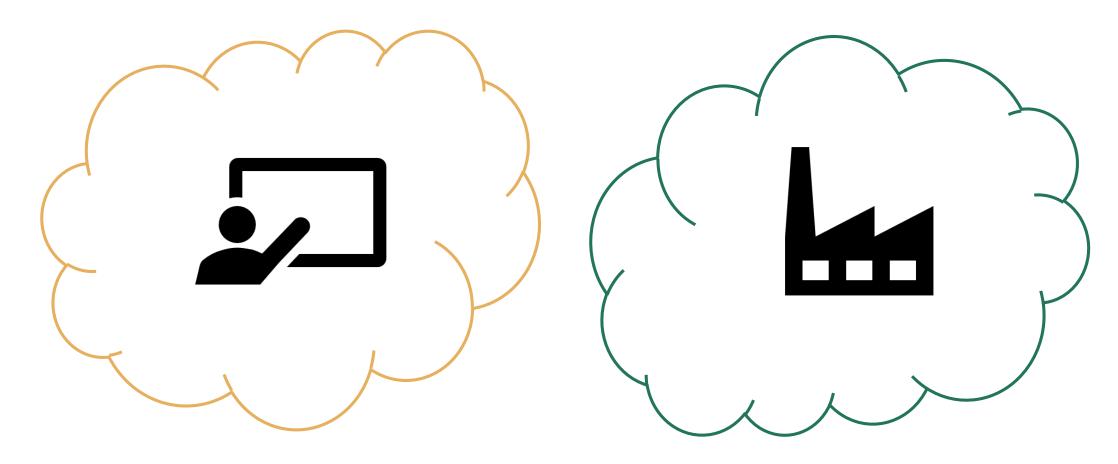
#### **Problem I**

The environmental and social impact of the textile industry often is disastrous.



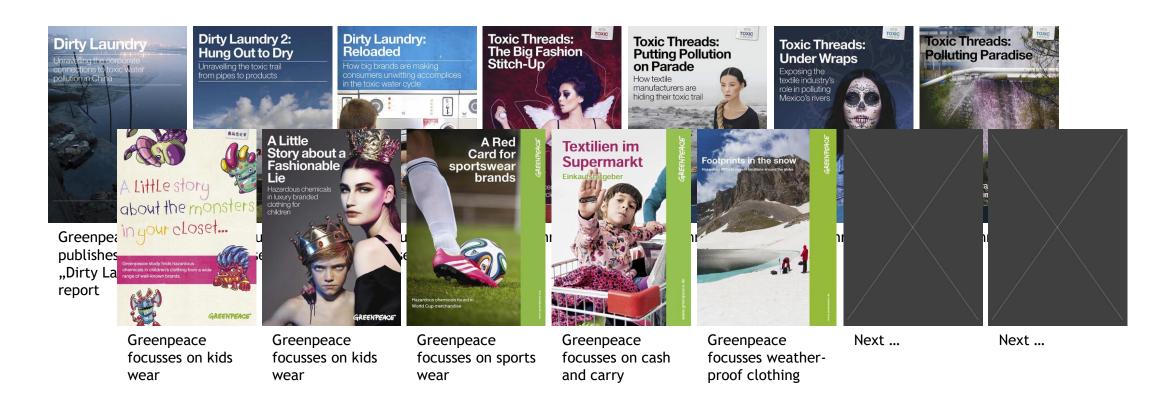
#### **Problem II**

There is too little exchange between research institutes and the textile production industry.



#### **Problem III**

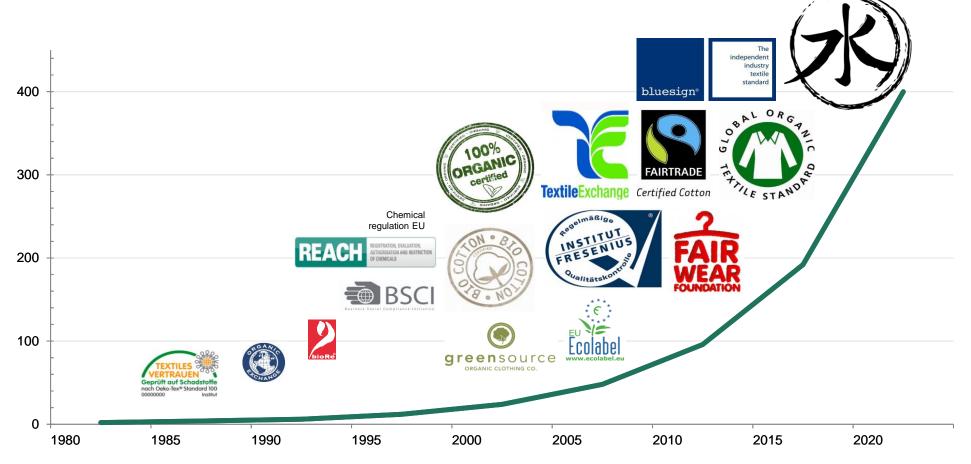
NGO's and consumers make a claim for more sustainable textiles and transparency.





#### **Problem III**

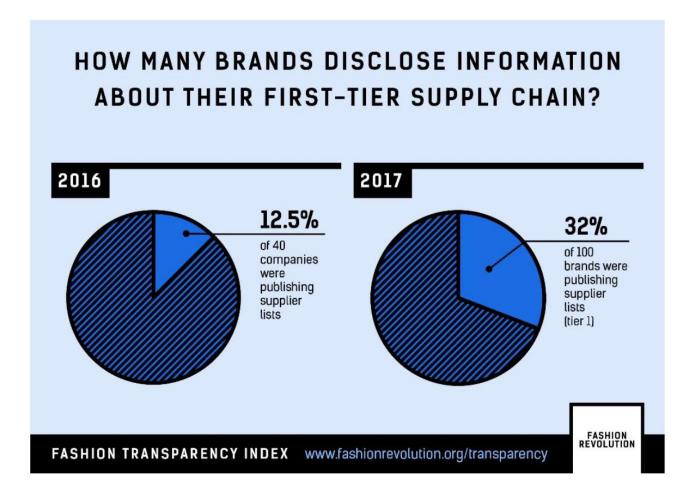
NGO's and consumers make a claim for more sustainable textiles and transparency.





#### **Problem III**

NGO's and consumers make a claim for more sustainable textiles and transparency.





## Conclusion I

Future business models must also focus on environmental and social aspects besides economical considerations.

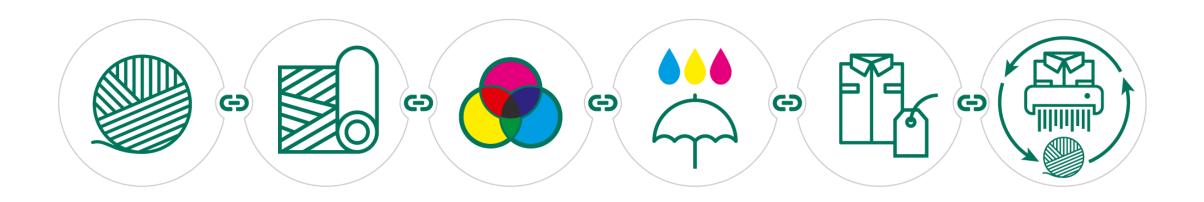
Sustainable education for all players in global textile supply chain is needed.

## What we did.

Sustainable Textile School 2017 and 2018 in Chemnitz, Germany



#### Objective of Sustainable Textile School



Global textile engineering platform

Sustainability aspects from fiber to garment



#### Impressions of Sustainable Textile School





#### Impressions of Sustainable Textile School

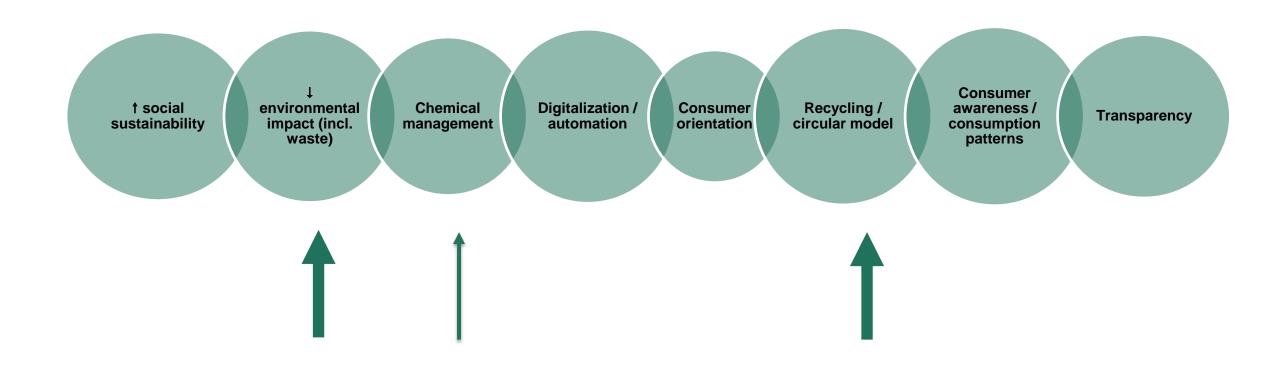
Special event for the international students



## What we learned.

#### The textile industry of the future

... as predicted by our experts and participants



#### Chemical treatment is one of the main issues.

Sustainability issues have a game-changing impact on the industry.





# Several speaker introduced ideas tackling the waste problem.

The textile chain doesn't end with the consumer's purchase.

- Recycling of PET waste (e.g. water bottles and marine litter):
   Karla Magruder from Textile Exchange and
   Markus Reichwein from oerlikon
- Recycling of textile waste:
   Hélène Smits from Recover and
   Traci Kinden from Circle Economy
- Cradle to cradle by Prof. Michael Braungart



## Recycling leads to environmental benefits.

Recycling 1 kg of textiles can save ...







Source: Bureau of International Recycling



# When it comes to upcycling innovative processes are needed.

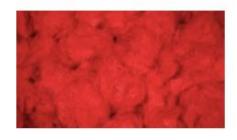
# recover Fiber Upcycling.

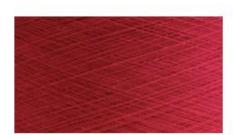


# ColorBlend® Process.









2 resource-efficient processes combined to create accurate and unique colors with no dye or water applied to recover upcycled cotton fibers.











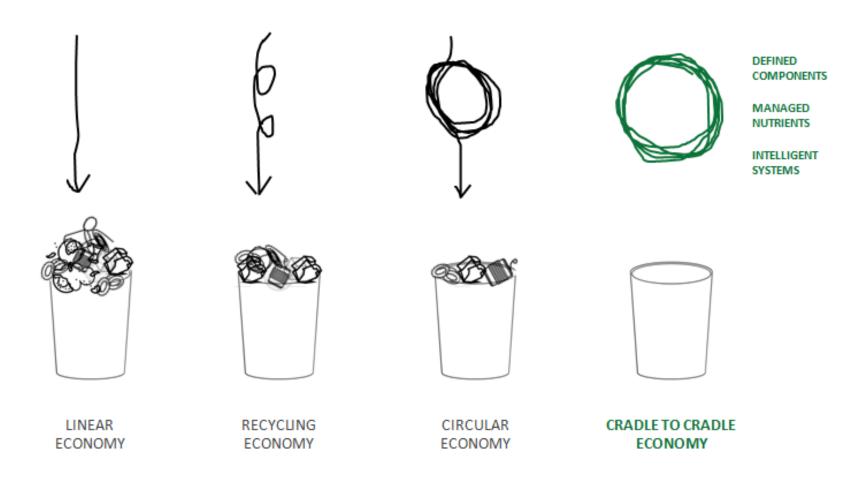








## Cradle to Cradle eliminates the concept of waste.





## **Conclusion II**

Sustainability is the new quality.



# What we will do.

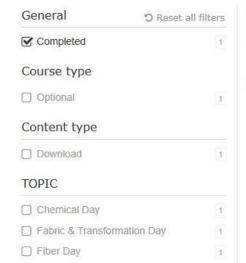
**TEXTILE UNIVERSITY 4.0** 

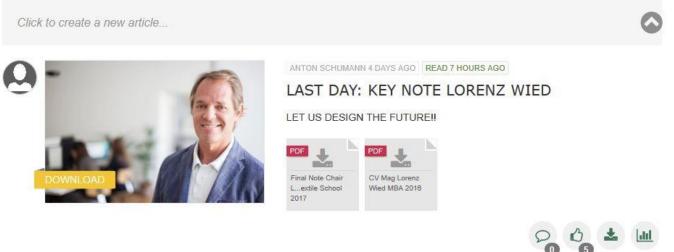
#### In Zurich will be the next Sustainable Textile School.













#### Join us to be the architects of the textile future.





































#### Join us to be the architects of the textile future.









































# THERE IS NO PLAN<sub>ET</sub> B



# Thank you!

## **Questions & Answers**

Holger Cebulla

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#### Cradle to cradle design follows three principles.

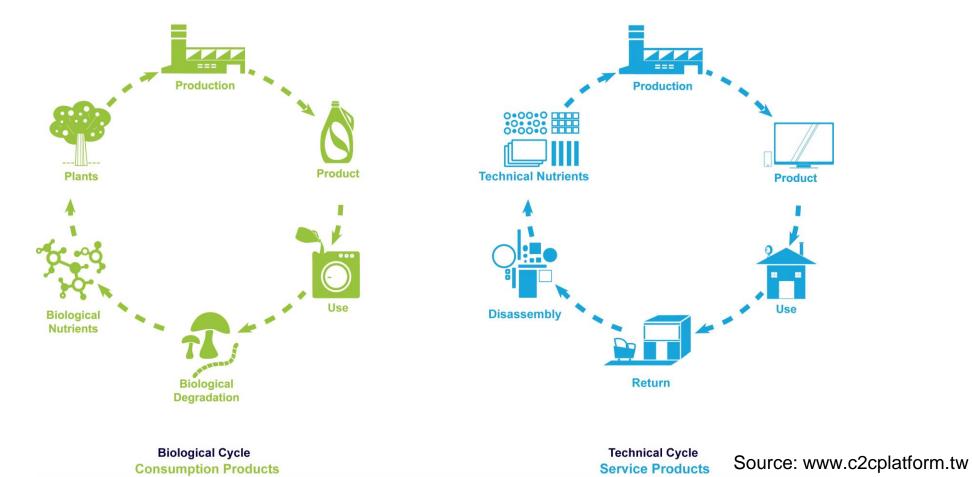
The principles derived from nature.

- 1. Waste is food.
- 2. Use renewable energy.
- 3. Celebrate diversity.



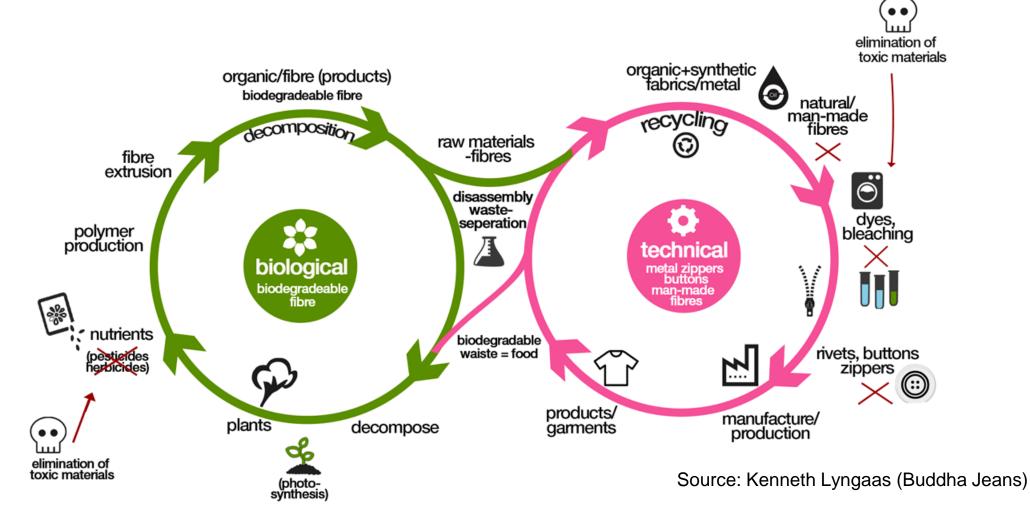
#### Nutrients circulate in closed-loop cycles.

Waste = food





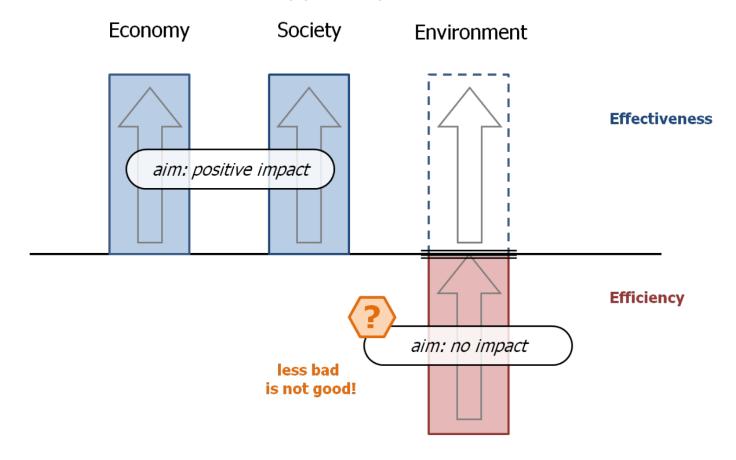
#### The idea can also be applied to the textile industry.





# Products shouldn't have no impact, but a positive impact.

The Tripple Bottom Line becomes a Tripple Top Line



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