### Sustainable Fibres

Good for the People – Good for the Planet

Planet Textiles, 18th March 2010, Hong Kong

Geoff Collins



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#### Introduction to Lenzing

- Lenzing is a global company
  - HQ in Austria, Europe
  - ~6000 employees
  - \$1.5 billion turnover
- Main activities in cellulosic fibres
- Supply to textile and nonwoven industries



#### **Production Sites**

Lenzing / Austria



Purwakarta / Indonesia Nanjing / China





Mobile / USA



Grimsby / UK



Heiligenkreuz / Austria





#### **Production Volumes 2010**

Austria	LAG	Lenzing Viscose	255,000tons
		Lenzing Modal	
Austria	LFG	TENCEL	50,000tons
UK	LFGG	TENCEL	35,000tons
USA	LFI	TENCEL	25,000tons
Indonesia	SPV	Lenzing Viscose	220,000tons
China	LNF	Lenzing Viscose	75,000tons
			660,000tons



#### Good for the Planet...



#### Sustainable Fibres

- Sustainability is a global megatrend
- Covers almost all aspects of life
- Fibres are a critical component in textiles and nonwovens
- Consumers, brands and retailers show increasing interest in raw materials sourcing and production



#### Cellulose – The Natural Raw Material

Cellulose is generated by photosynthesis



- Most important natural building block
- Available in abundance
- Renewable
- Biodegradable





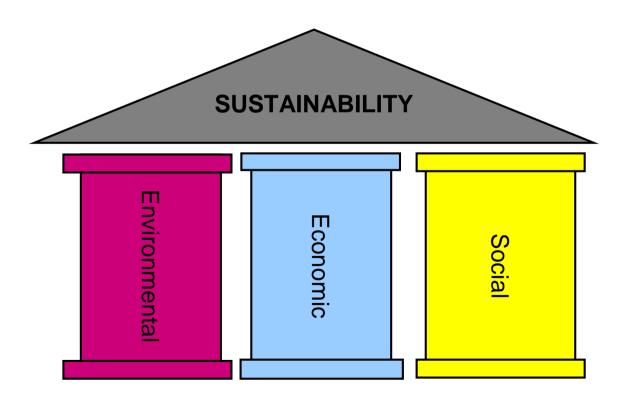






## What is Sustainability?

Improved quality of life without compromising future generations





# Lenzing AG, Austria

Largest integrated pulp and fibre production plant in the world



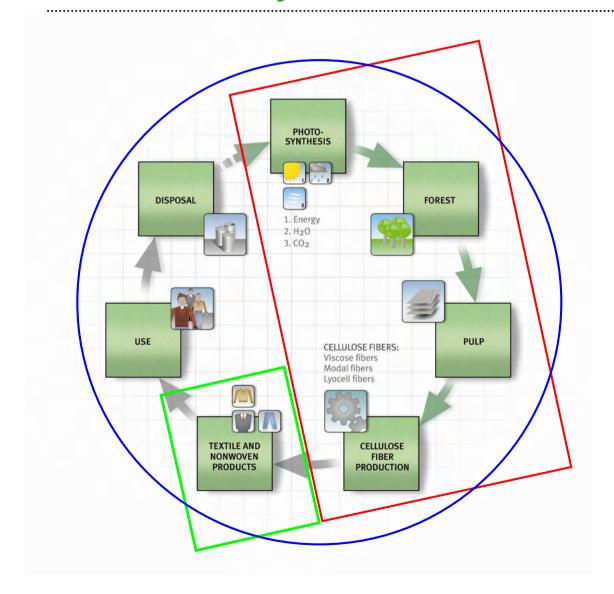


### How to measure sustainability?

- Accepted approach is Life Cycle Analysis (LCA) and Impact Assessment (LCIA)
- Internationally recognised methodologies like ISO 14040
- Allows comparison between fibres
- Lenzing fibres, cotton, polyester, polypropylene



## Natural Cycle of Cellulosic Fibres





Green Finishing

**Eco-Metrics** 

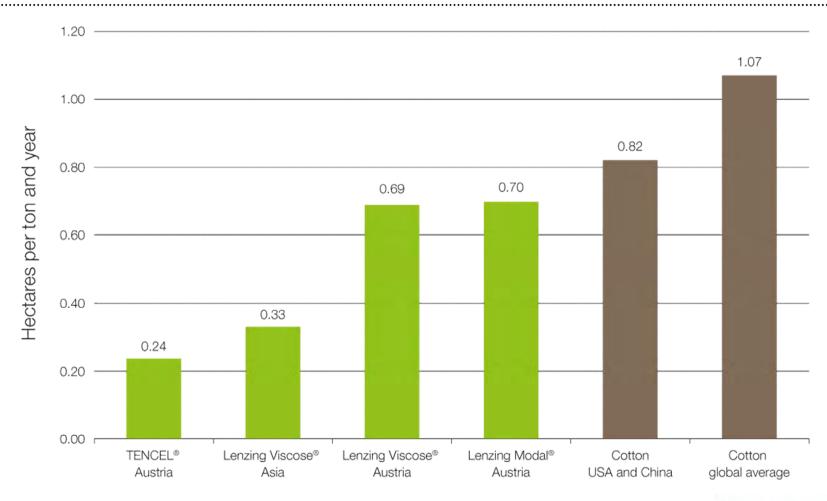


### LCA Study of fibres

- Comparison of fibre types
  - are there differences between natural, man-made and synthetic fibres?
- Conducted at Cornelius Institute, Utrecht University by Dr Martin Patel and Li Shen
- Data provided by Lenzing and from published sources
- Subject to peer review in USA, UK and Germany

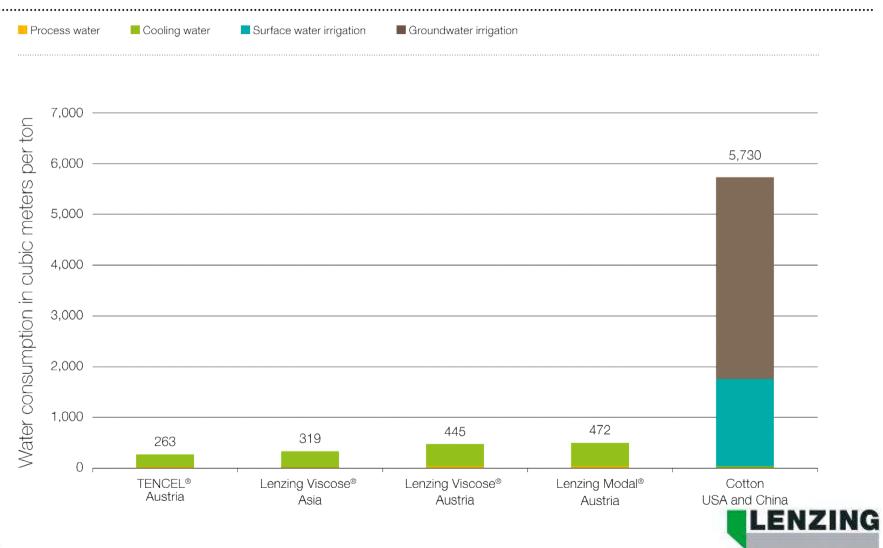


#### Land Use

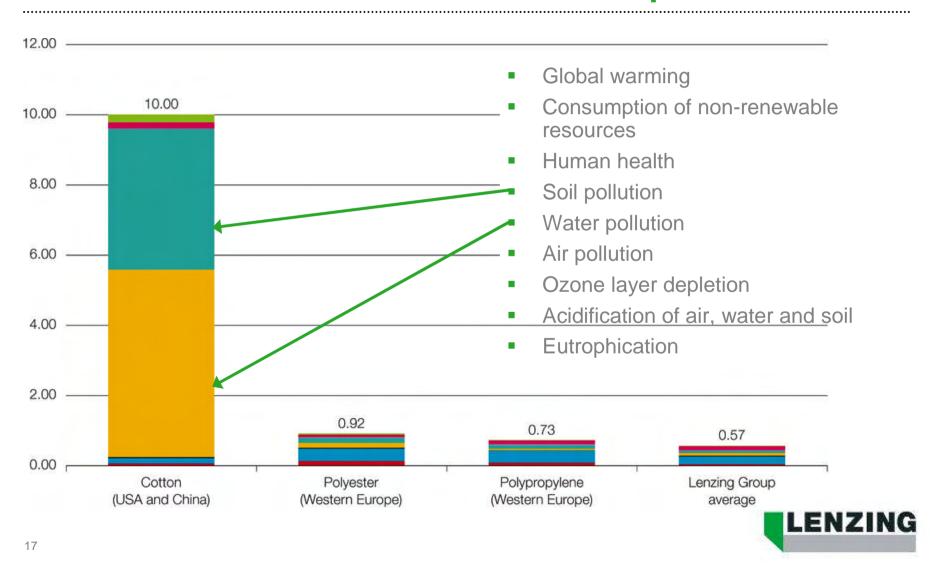




#### Water Use



#### Relative Environmental Impact



# Good for the people...







100% TENCEL® \$145.00



# **Armani Exchange**













TENCEL® linen, polyester \$79.00



TENCEL® linen, spandex \$89.00



# GUESS



80% TENCEL®
20% ramie
\$80.00



#### BANANA REPUBLIC

30% TENCEL® 70% rayon \$45.00





100% TENCEL® \$49.50

Ribbed Wrap 90% TENCEL® 10% silk \$39.50





Lenzing Modal® cotton, polyester \$98.00

Lenzing Modal® cotton, spandex \$88.00

#### ANTHROPOLOGIE



Lenzing Modal® cotton, spandex \$78.00



Lenzing Modal®
Cotton, spandex
\$88.00



Pima cotton, polyester \$78.00



# **EXPRESS**



Lenzing Modal®
Cotton, spandex
\$34.50



Lenzing Modal®,
Cotton
\$29.50



Lenzing Modal®,
Cotton
\$59.50



Victoria's Secret
TENCEL®



.....

94% Lenzing Modal®

6% spandex

Cami: \$29.50

Pants: \$39.50









# Juicy Couture Lenzing Modal®

cotton \$42.00





**Juicy Couture** 

Lenzing Modal®

cotton

Briefs: \$18.00





# EMPORIO ARMANI

#### **NORDSTROM**



PANTS: TENCEL®

linen, polyester

\$196.00



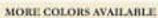
57% TENCEL® 43% cotton \$85.00

45% TENCEL® 55% cotton \$85.00

65% TENCEL® 35% cotton \$155.00

57% TENCEL® 43% cotton \$98.00













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BOSS
TENCEL®, cotton
\$62.00





BURBERRY

Lenzing Modal® silk

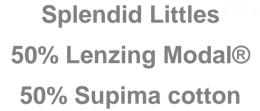
\$120.00



























# Nonwoven wipes and eco-bags









#### Conclusions

- Lenzing fibres are good for the planet
  - made from wood a renewable resource
  - low environmental impact production
- Products made from Lenzing fibres are good for the people
  - apparel, hometextiles, technical textiles, nonwovens
  - aesthetic, performance and environmental
- TENCEL®, Lenzing Modal® and Lenzing Viscose® are positive choices for sustainable products



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