



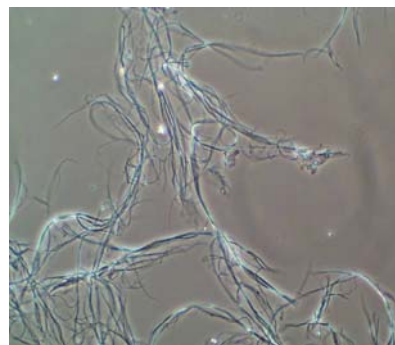
Mikael Lindström

2010-04-08
1

Clæsson Koivisto Rune



New Fibres for New Materials 2003-
Concepts for development of renewable materials



m-real



HARTMANN



BILLERUD

VINNOVA

KORSNÄS



STORAENSO



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“The Stone Age did not end for lack of stone, and the Oil Age will end long before the world runs out of oil.”



Sheikh Zaki Yamani,
Earlier oil-minister Saudi- Arabia

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A collage of three images. The top-left image shows a black silhouette of an oil pumpjack against a vibrant sunset sky with orange, red, and purple hues. The top-right image is a plain white rectangle. The bottom-right image shows a misty forest with tall, thin trees and sunlight rays filtering through the canopy. A white text box with black text is overlaid on the bottom-left and top-right images.

From oil-based economy to sugar economy

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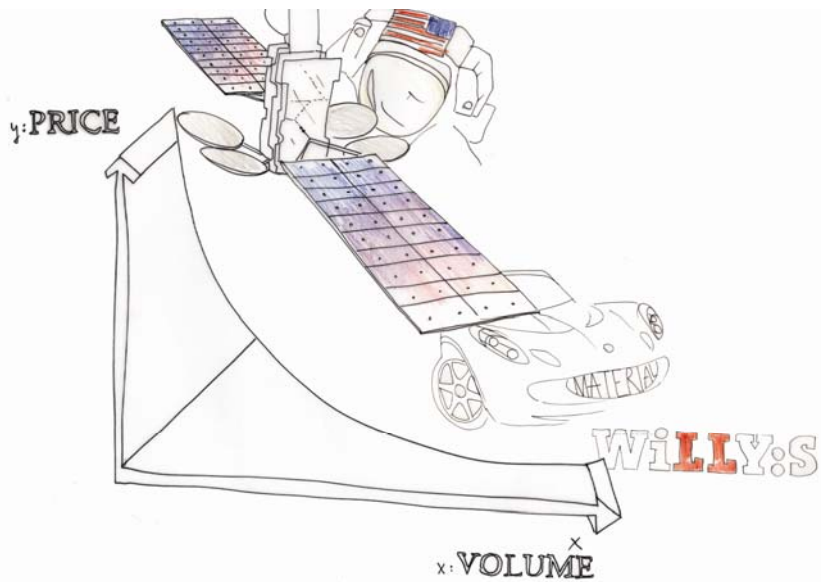
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New materials– A new design language!

If renewable materials are developed to become replacement materials, they have to be better and cheaper in order to take market shares...



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Design Viktor Brattström



TECHNOLOGY — PUSH
MARKET — PULL

R&D

SCIENTISTS WORK WITH THE INDUSTRY
PRODUCING THE MATERIAL



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&D

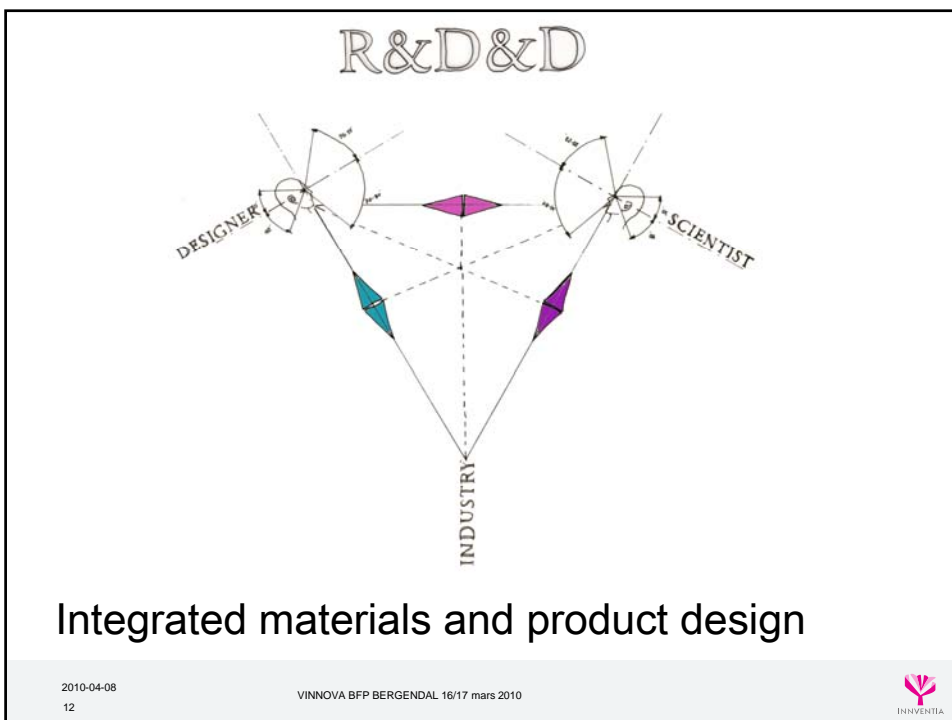
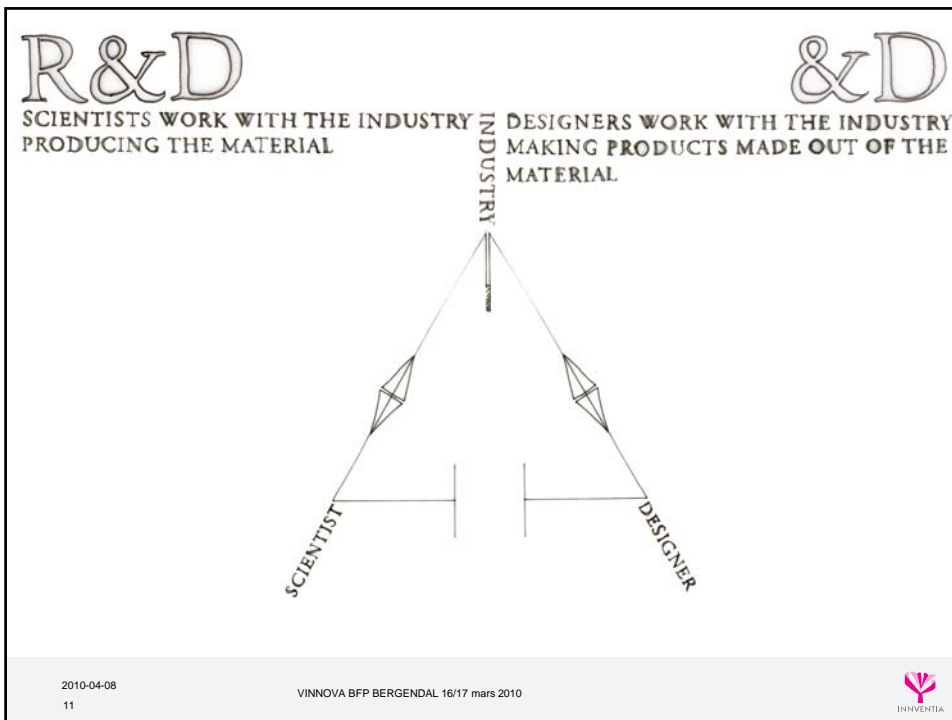
DESIGNERS WORK WITH THE INDUSTRY
MAKING PRODUCTS MADE OUT OF THE
MATERIAL



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R&D&D

HIERARCHIC DESIGN

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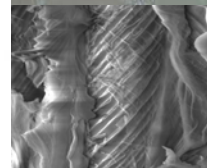
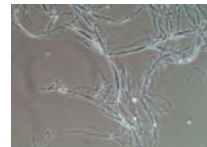


GROUND LEVEL

COMPONENT DESIGN

MATERIAL DESIGN

PRODUCT DESIGN



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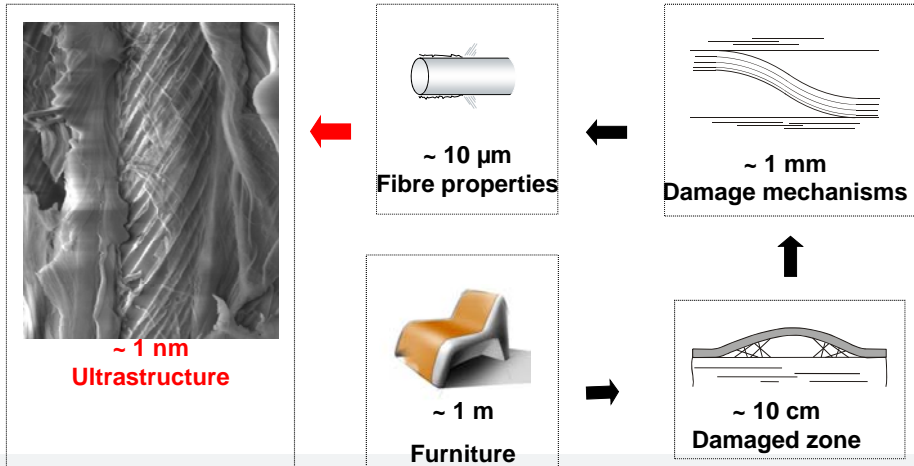


Materials design

Better understanding → Why fibre modification

FEM

Laminate theory

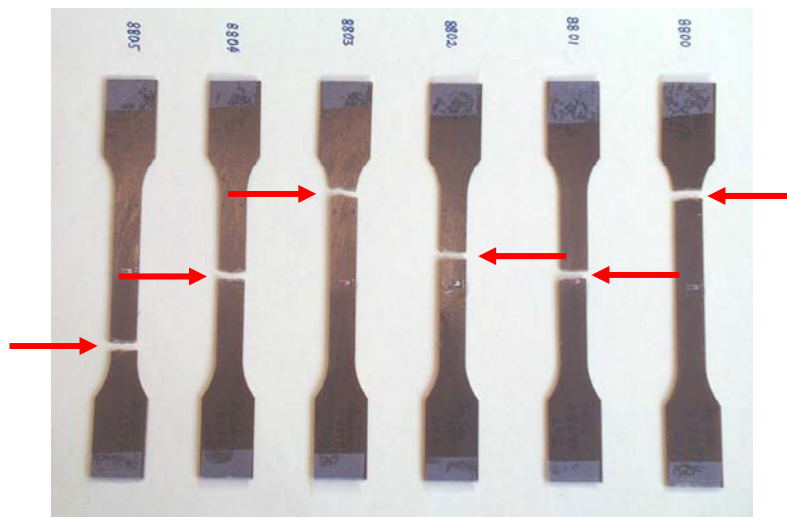


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Failed specimens



Failure at different locations
at microstructural 'defects'

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DEMONSTRATOR

A KOFES IS SOMETHING THAT IS NOTHING - LEAST OF ALL ITSLEF



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MATERIAL IDENTITY

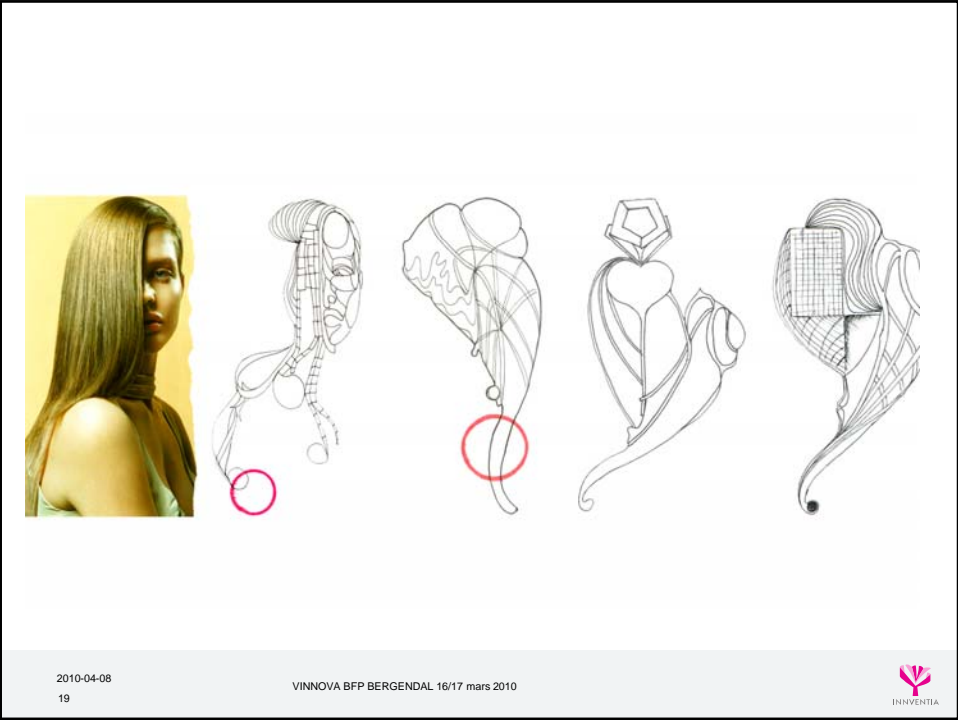
CELLULOSE REINFORCED PLA

A KOFES IS SOMETHING THAT IS NOTHING - LEAST OF ALL ITSLEF

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«OUT OF THE WOODS»



18-23 APRIL
10 AM - 10 PM
SUPERSTUDIO 13
VIA FORCELLO 13
ZONA TORTONA

DOWNLOAD
PRESS
RELEASE!

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The guest chefs in my kitchen 08/09: ckr



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Materials identities

Percieved propeties:
Naturalness
Quality
Acustics



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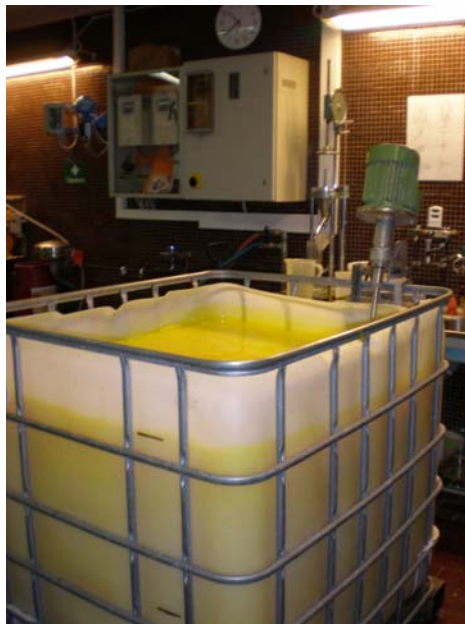
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Results **1 - 10** of about **3,050** for **durapulp**. (**0.15** seconds)

20100316

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PPI Awards:
RESEARCH ACHIEVEMENT OF THE YEAR –
SÖDRA CELL - JOAKIM NYGREN

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