

Wallenberg Wood Science Center

Linda Fogelström

2024-09-05

WIRA SuPRA

Sweden

Ca 70 % of the land is forest

**The volume of wood has
doubled in 100 years**

**Pulp and paper industry is
very important for the
economy (10-12 % of GDP)**

It all started around 2005...



2009



WWSC
WALLENBERG WOOD
SCIENCE CENTER

Mission and Vision of WWSC

New materials from trees with knowledge and competence

Mission

The mission is to create knowledge- and competence prerequisites for an innovative industrial value creation of forest raw material.

Vision

WWSC is an internationally leading center for research within new materials from trees for large scale industrial use.

Funding

2009 – 2028

*Knut and Alice
Wallenberg
Foundation*

~ 1 billion SEK

2019 – 2028



100 million from Swedish industry

2019 – 2028

~ 220 million from KTH, Chalmers, and LiU

WWSC since 2009

- ❑ WWSC Academy
- ❑ Many graduates (99 PhDs and 4 Lic)
- ❑ WWSC Workshop
- ❑ Center community
- ❑ 100+ scientific publications/yr
- ❑ Career positions
- ❑ World-wide reputation



WWSC Alumni: unique competence for industry and academia

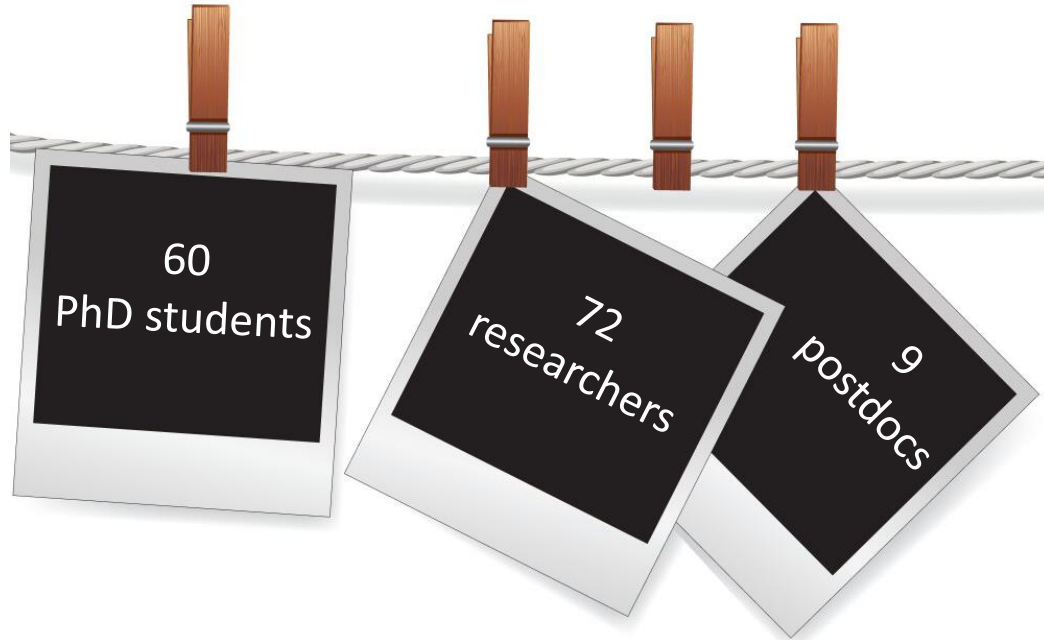
60
PhDs

50/50
men/women

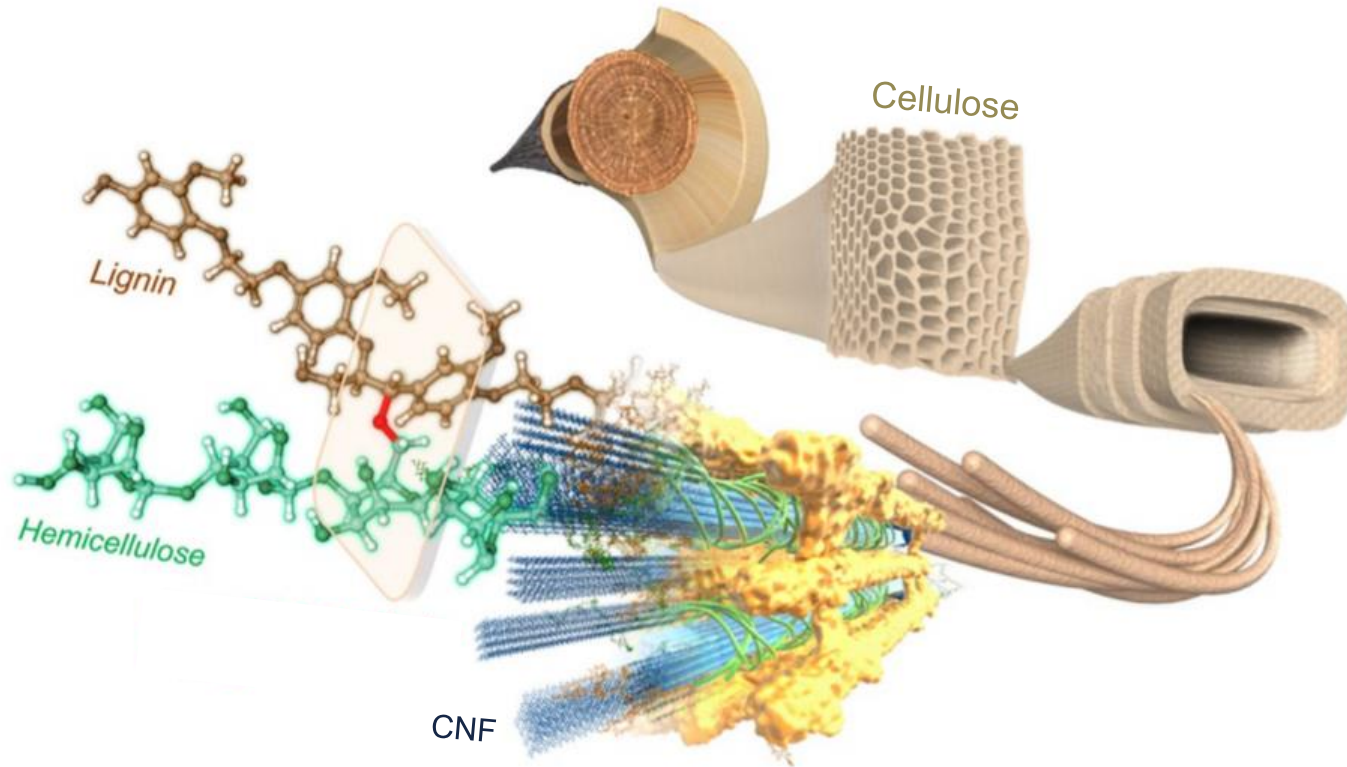
40 % postdocs
15 % academic career
10 % research institutes
50 % industry
30 % large companies
20 % small or start-up companies

65 % in Sweden
60 % forest-related

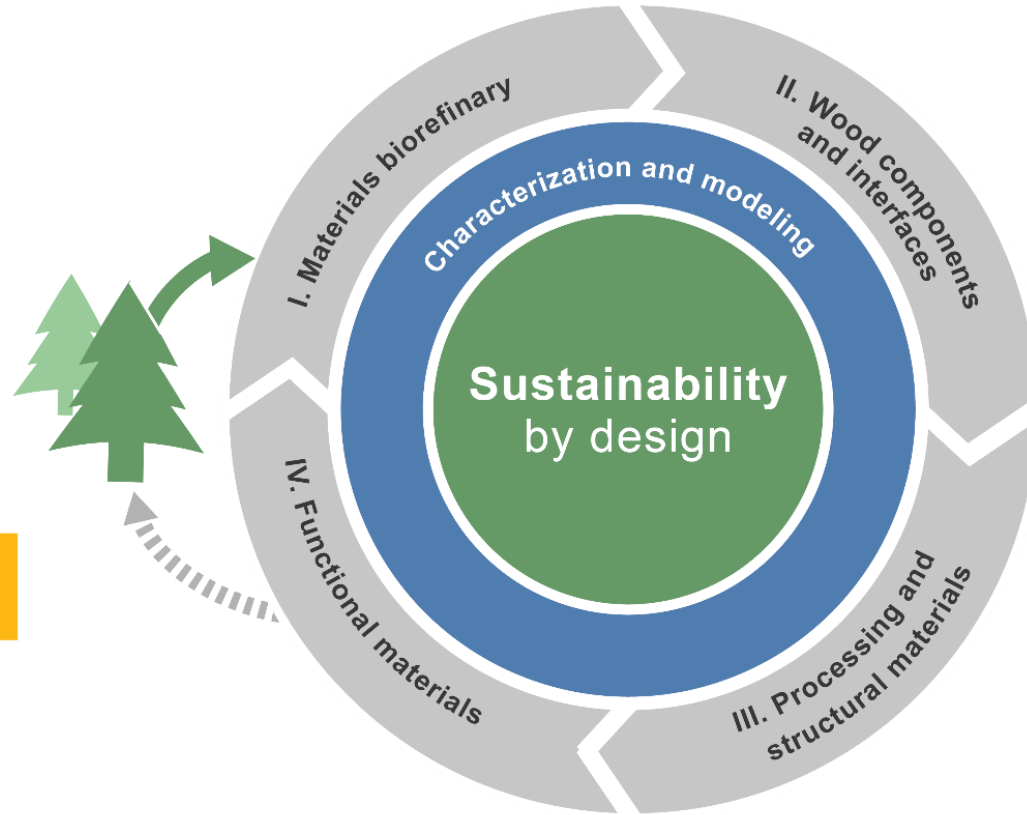
Snapshots of WWSC



Wood is an amazing material



WWSC





Eva Malmström



Daniel Söderberg



Linda Fogelström



Lars Wågberg



Lars Berglund



Lisbeth Olsson



Merima Hasani



Christian Müller



Mats Fahlman



Isak Engquist



Marina Kaspiarovich



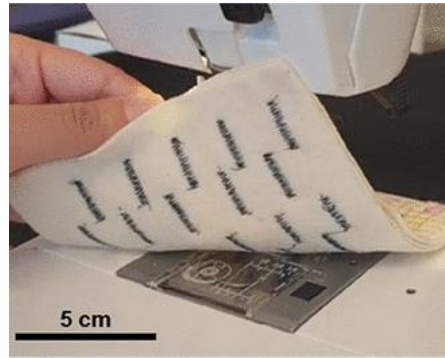
WWSC Academy

Åland 2022

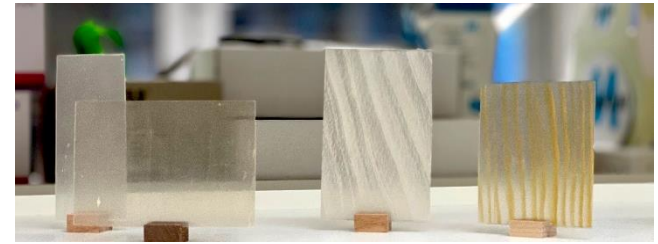


WWSC research

Solid water

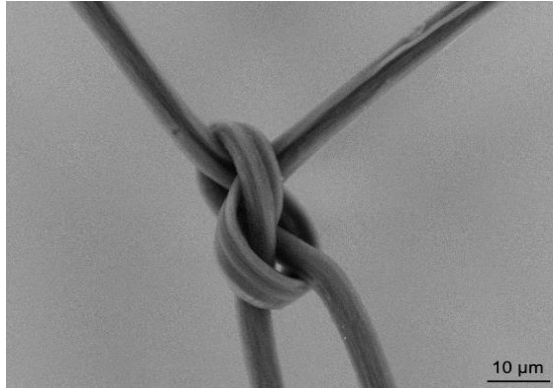


Conducting thread for energy-harvesting fabrics

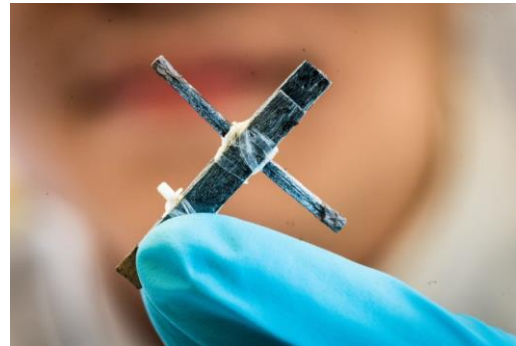


Transparent wood

World's strongest biobased material



World's first wood-based transistor



Cellulose foams – to replace styrofoam



Biobased and formaldehyde-free wood adhesives

Example of research spin-offs with WWSC researchers involved

 Proligreen

 CELLUX TREME

 GLYCOLINK

 Cellfion
Bio-based membranes for electrochemical applications

 FINECELL

 CELLUTECH

 RENEWCELL

 RESELO

 CELLUFY

 Cell2Bio

 ecohelix

 LIGNA ENERGY

 WWSC
WALLENBERG WOOD
SCIENCE CENTER

 KTH
VETENSKAP
OCH KONST

 CHALMERS

 li.u LINKÖPINGS
UNIVERSITET

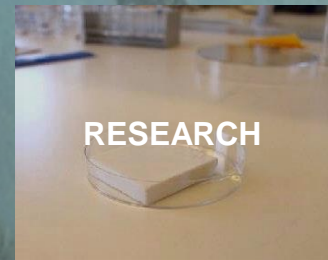


TREESEARCH

THE NATIONAL PLATFORM FOR NEW
MATERIALS AND SPECIALITY CHEMICALS
FROM FOREST RAW MATERIAL



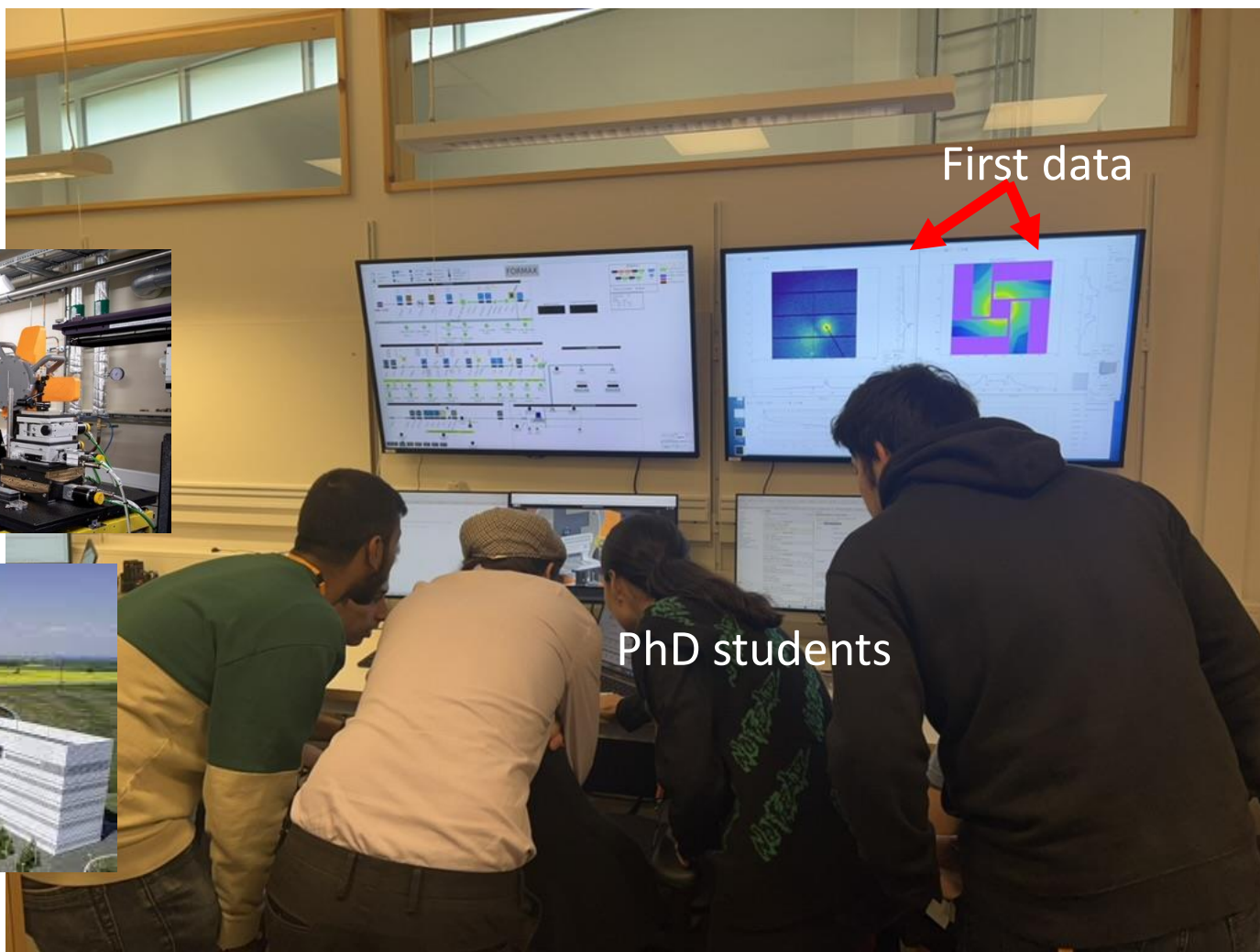
WWSC is a core in the
research
and education in TreeSearch



MAX IV

ForMAX

*Knut och Alice
Wallenbergs
Stiftelse*



First data

PhD students

WWSC

WALLENBERG WOOD
SCIENCE CENTER

Sustainable materials
from trees

WWSC International Conference 2025



CHALMERS

li.u LINKÖPINGS
UNIVERSITET

TREESEARCH

*Trut och Alice
Wallenbergs
Stiftelse*

Stockholm June 15-18, 2025
<https://conference2025.wwsc.se/>



TEKNISKA

The background features a collage of natural elements including green moss, brown wood, and grey rocks. Overlaid on this is a large, semi-transparent dark green shape with the word 'SKOLEN' written in large, bold, orange letters. The letters are partially obscured by the natural elements.

WWSC at the National Museum
of Science and Technology

WWSC at the KTH library

From Trees to Technology

– Exploring Forest-Based Materials

ON DISPLAY
19 Sep – 9 Dec

VERNISSAGE
19 Sep 16–17

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Director of operations

WWSC is a joint research center at KTH, Chalmers and Linköping University