



**LigniCore**

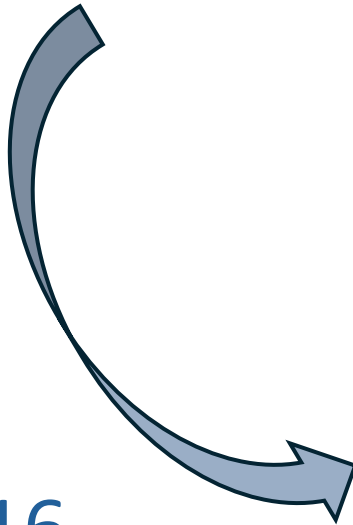
# A Journey from Research to Scale-Up

Pierre Munier – CTO @LigniCore

WISE Networking Day – Norrköping, 2025/01/28

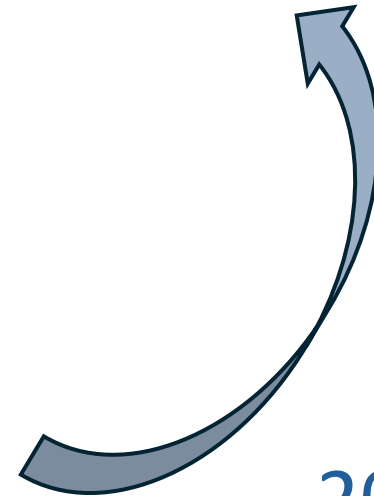


2015 / 2016



 **LigniCore**

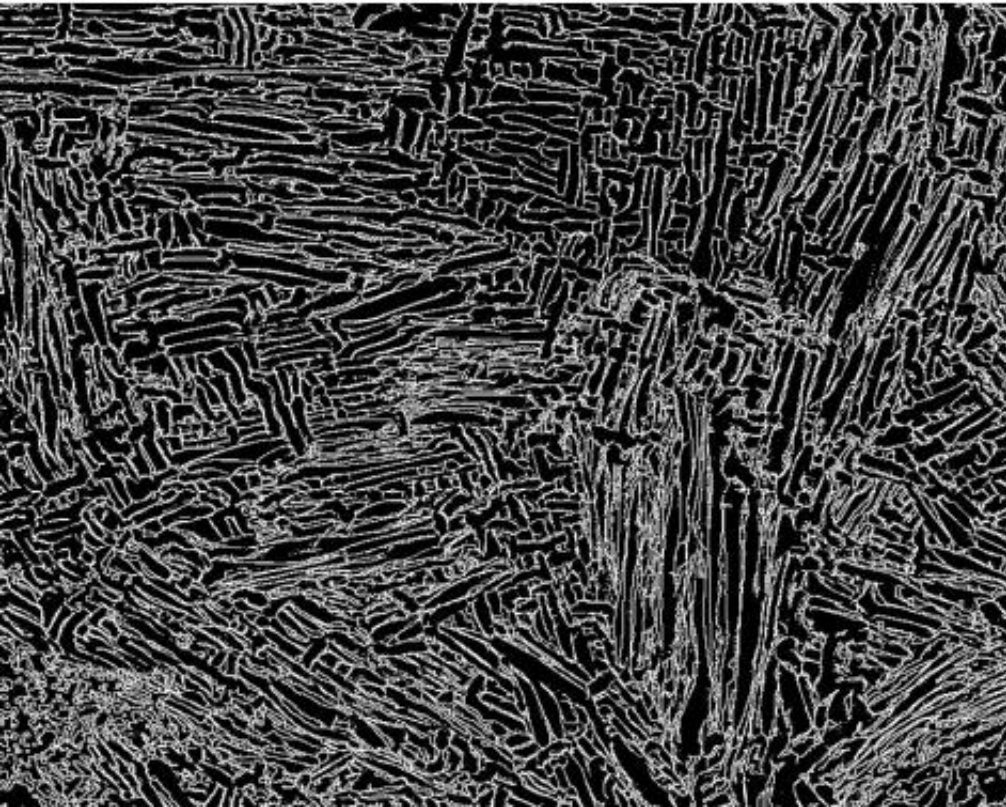
**RENFUEL**



2021 / 2022

# Assembly and alignment in cellulose nanomaterial-based composite dispersions and thermally insulating foams

Pierre Munier



INNOVATIVE TRAINING  
NETWORKS  
(ITN)

MARIE SKŁODOWSKA-CURIE  
ACTIONS  
#MSCA



**TREESEARCH**

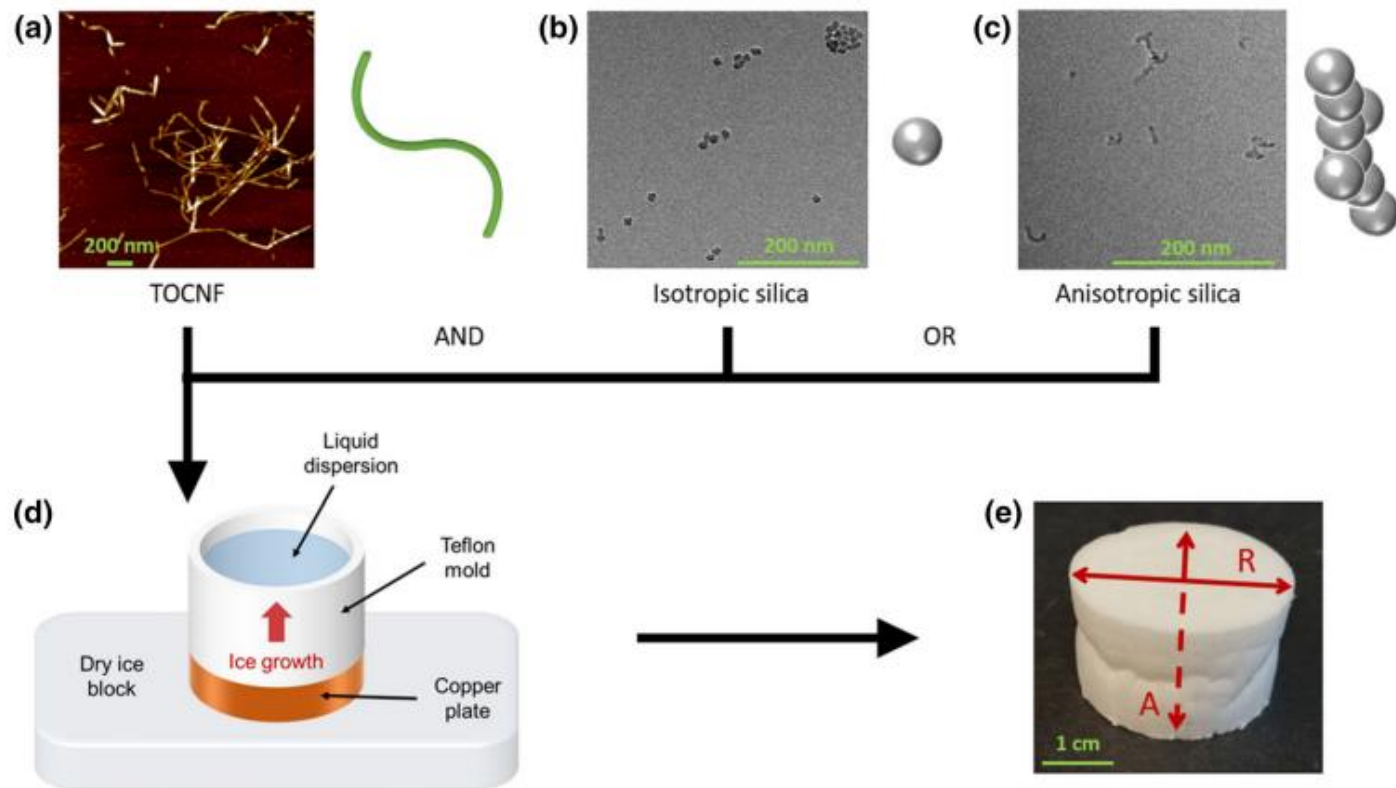
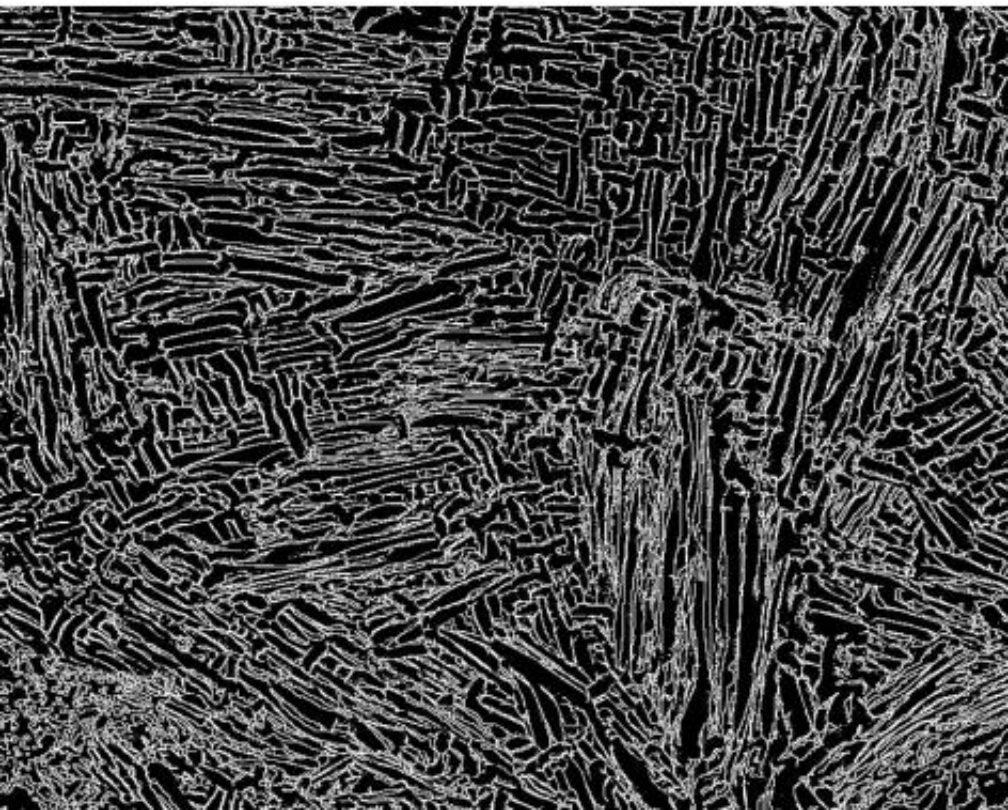
**WWSC**

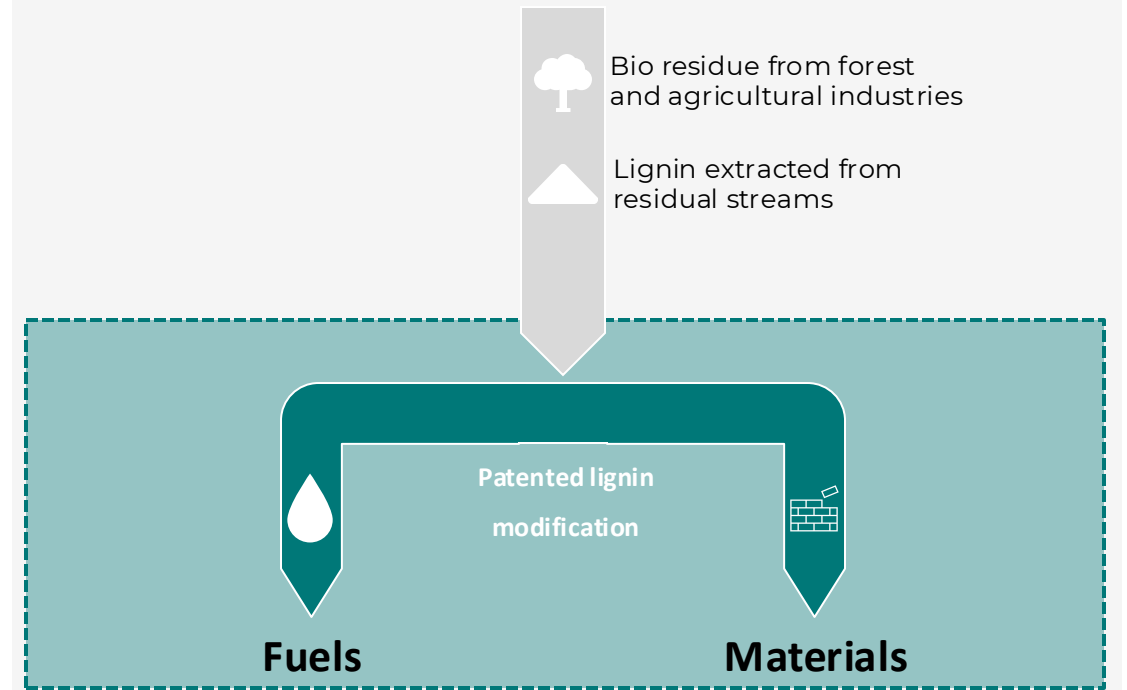
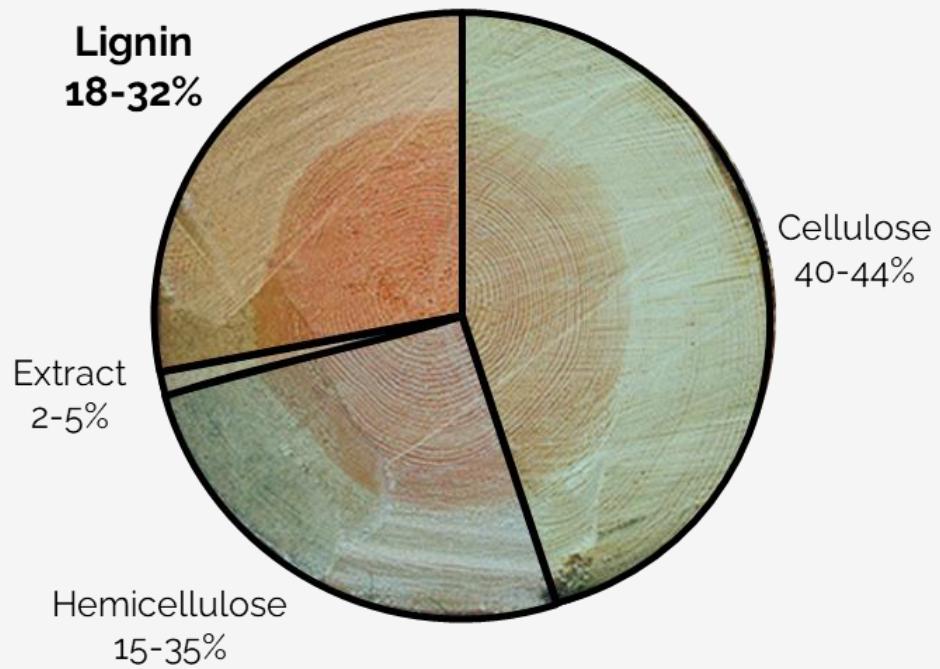
WALLENBERG WOOD  
SCIENCE CENTER



# Assembly and alignment in cellulose nanomaterial-based composite dispersions and thermally insulating foams

Pierre Munier





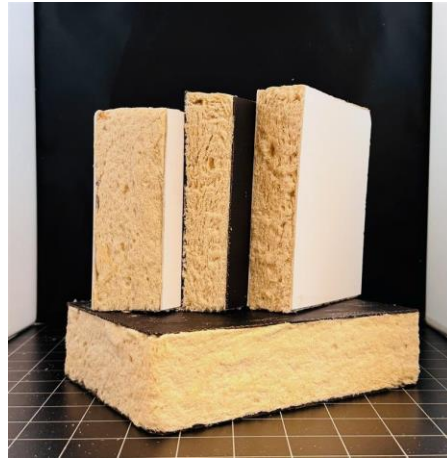
**RENFUEL**

 **LigniCore**

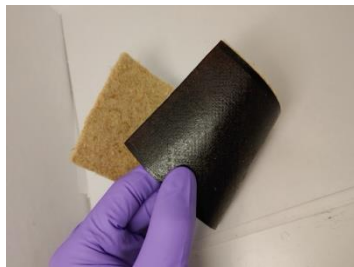




Traffic signs



Insulation panels



Flexible supports



Plastic blends



Coatings  
Emulsions



Asphalt binders





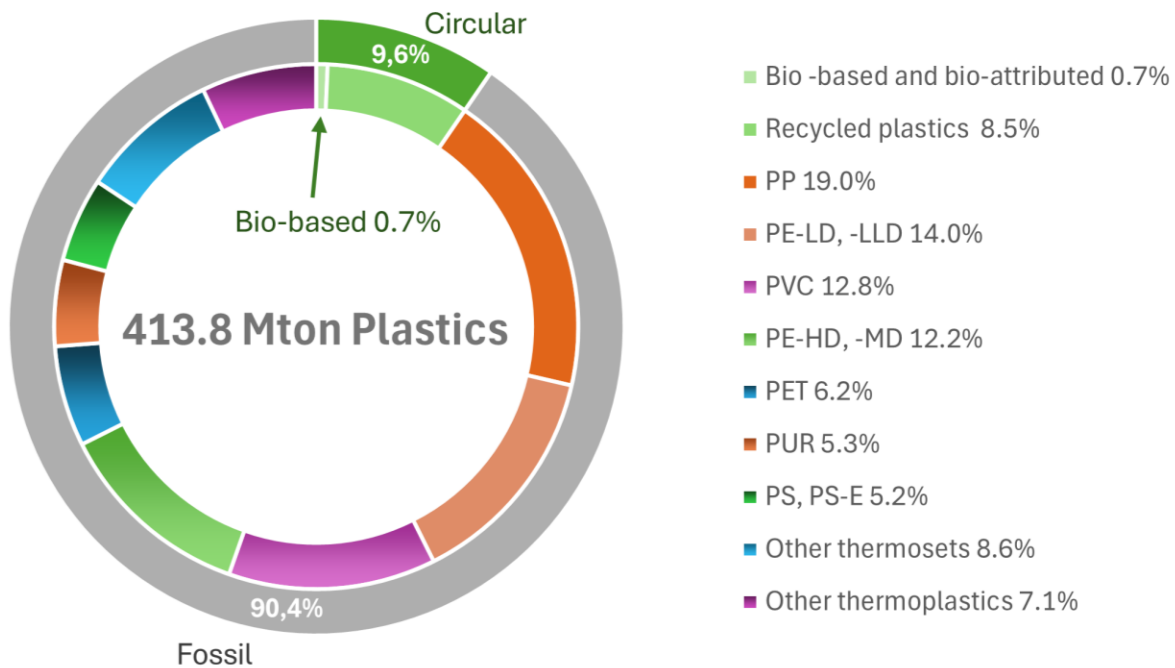
# LigniSet®

Fully bio-based  
road signs



# LigniCore

### Global Plastic Production By Type, 2023



Source: Plastics Europe, 2024

- ◆ Lignin is widely available and underutilized.
- ◆ Lignin-based materials can be carbon negative and inexpensive.
- ◆ Simple mixing and hot pressing process.
- ◆ > 50% lignin, aiming for fully bio-based recipe.
- ◆ High strength, can replace fossil-based plastics and possibly aluminium.
- ◆ No smell!







Less and less dressed like this



More and more like that

- ◆ January 2022: Junior R&D Scientist
- ◆ May 2023: CTO RenFuel Materials
- ◆ May 2024: CTO LigniCore

Project management

Writing applications

Partnerships

Work environment

R&D Supervision

Admin / Finances

Website creation

Budget

Investor presentation



- ◆ A real interface between academia and industry
- ◆ A dynamic and multidisciplinary environment with opportunities for movement
- ◆ A place for problem solvers and creatives
- ◆ A life-size and comprehensive experience



# Thank you

Any questions?



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