New Biomateriality Lab

Design for sustainable material innovations and better living environment

Photo Eeva Suorlahti

13.6.2017 Pirjo Kääriäinen

No matter how virtual our future will be,
we still live in a material world
-and we have to take care of it.
Photo Eeva Suorlahti

Wood based Super Materials:

Renewable.
Recyclable.
Functional.
Healthy.

Photo Eeva Suorlahti

New Biomateriality Lab

In Enter & Encounter exhibition

Photo Eeva Suorlahti

Together:
Design + Materials Research + Business

Technology leaps, business seeds and new biomaterial-focused ecosystem

Foam formed, moulded pulp. DWoC / Maker Tiina Härkäsalmi and VTT material researchers, photo Eeva Suorlahti

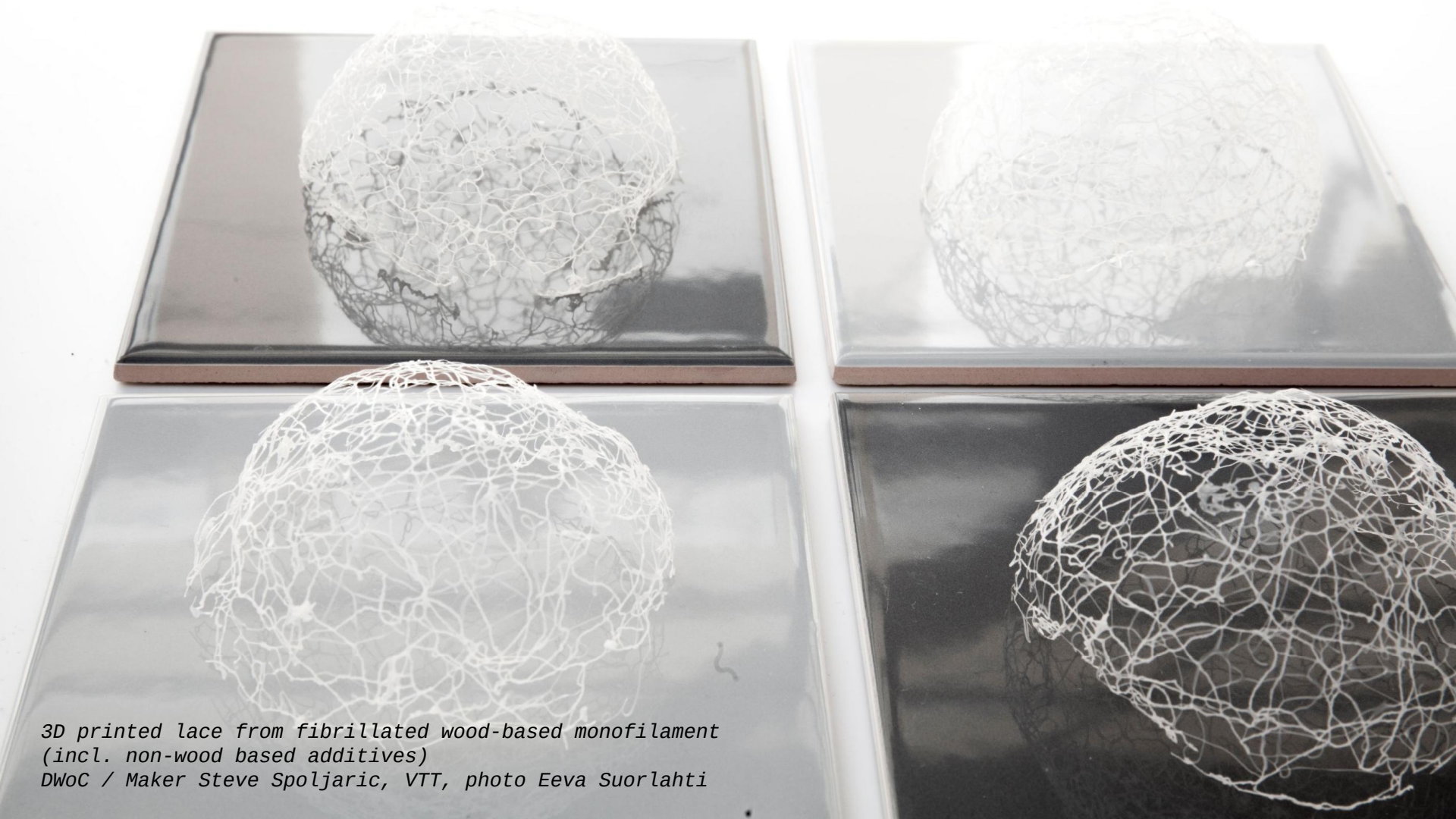
Designing functional and interactive biomaterials. New production methods.

Foamed Wood. Foam formed thick soft wood pulp
Maker VTT Material researchers, photo Eeva Suorlahti

Foam formed all-cellulose nonwovens with DES filaments produced without dissolving
DWoC / Maker VTT Material researchers, dyeing Tiina Härkäsalmi, photo Eeva Suorlahti

Acoustic tetrahedrons, formed pulp, produced with designed molds
DWoC / Maker Tiina Härkäsalmi and VTT material researchers, photo Eeva Suorlahti

3D printed cellulose objects
DWoC / Maker Ville Klar, Pyry Kärki, Anastasia Ivanova, VTT, photo Eeva Suorlahti



3D printed lace from fibrillated wood-based monofilament (incl. non-wood based additives)
DWoC / Maker Steve Spoljaric, VTT, photo Eeva Suorlahti

Casted Wood, Wood flour and nanocellulose
DWoC / Maker Heidi Turunen, photo Eeva Suorlahti

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Replacing plastics with coloured fibrillated nanocellulose from pine and birch
DWoC / Maker Tiina Härkäsalmi, photo Eeva Suorlahti

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Layered light-weight construction, nanocellulose and pulp
DWoC / Maker Tiina Härkäsalmi, photo Eeva Suorlahti

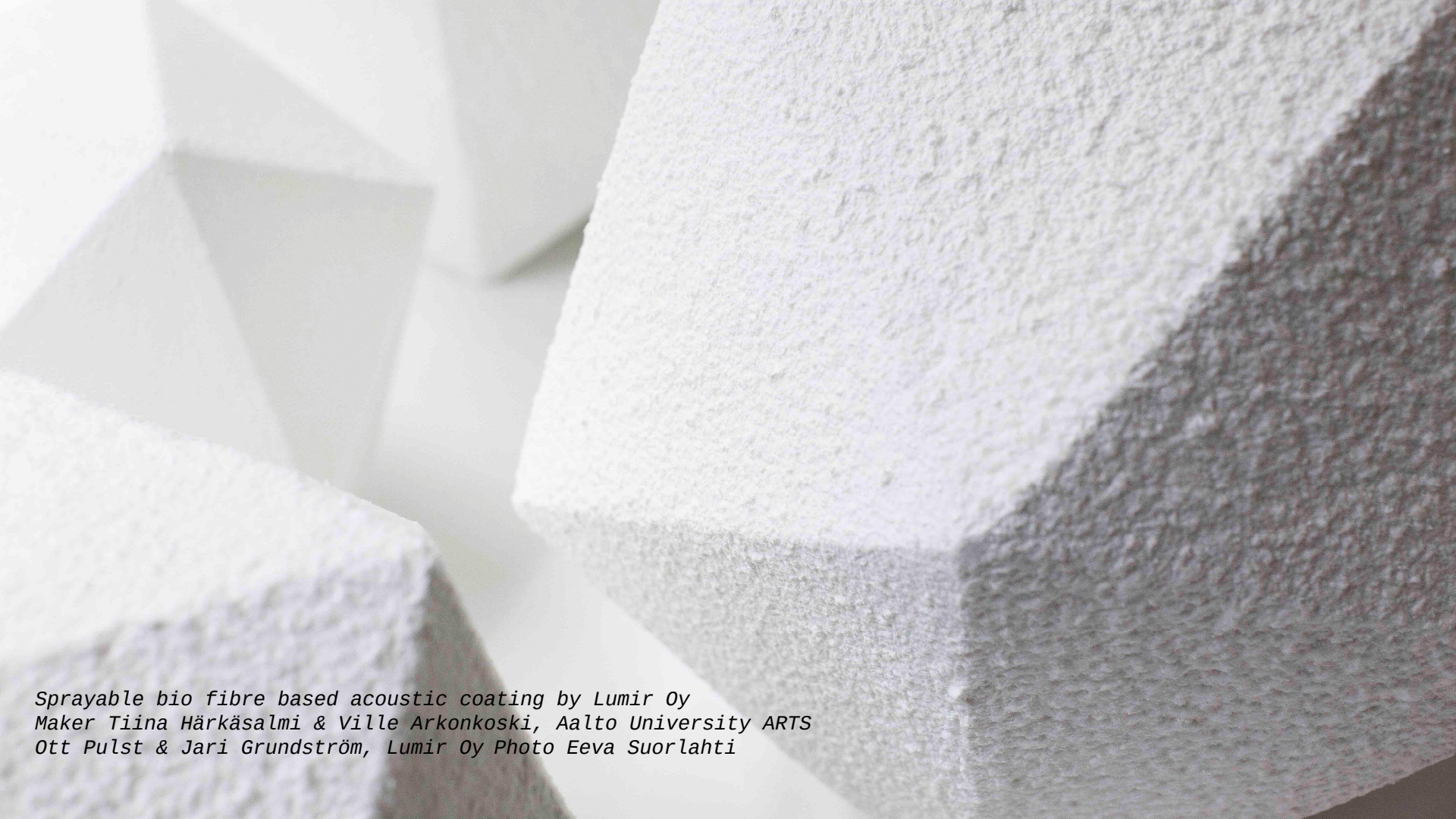
Printed nanocellulose films (inkjet, screen printing)
DWoC / Maker Heidi Turunen, Pauliina Varis, VTT, photo Eeva Suorlahti

Wood panel coated with coloured nanocellulose
DWoC / Maker Heidi Turunen and VTT, photo Eeva Suorlahti

Biocomposites polylactic acid PLA and Finnish hemp
NoMa / Maker Material researchers VTT and Panu Isokangas Oy
Photo Eeva Suorlahti

Biopapers for food packaging, pulp with industy sidestream materials
Hiilinielu Design Studio / Makers LAMK and TAMK, photo Eeva Suorlahti

Woven Wood. Spinnova yarn with tencel-cotton.
Aalto CHEMARTS / Maker Justus Kantokoski
Photo Eeva Suorlahti



Sprayable bio fibre based acoustic coating by Lumir Oy
Maker Tiina Härkäsalmi & Ville Arkonkoski, Aalto University ARTS
Ott Pulst & Jari Grundström, Lumir Oy Photo Eeva Suorlahti

Aalto University CHEMARTS

To inspire students and researchers to explore biomaterials together.

Eatable dish, pettu flour and bacterial cellulose
CHEMARTS / Maker Maija Järviniemi & Outi Mustonen, photo Eeva Suorlahti

Thank You!

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CelluloseFromFinland.fi
chemarts.aalto.fi

Casted Wood DWoC / Maker Heidi Turunen, photo Eeva Suorlahti