



Promoting safe and extended use of wood products in health buildings through development of anti-microbial surfaces, hygiene concepts, and guidelines – WOOD for HEALTH project

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Background

Wood has been experiencing a recent renaissance as construction material mainly due to its environmental assets. However, wood has the reputation of being prone to contamination and difficult to clean, which has limited its use in hospitals, healthcare units and other facilities with high demands towards surface hygiene. This is unfortunate as studies have shown that wood greatly aids the indoor environment quality (IEQ) and can be utilized to reduce energy use for heating and/or ventilation. This poster introduces the new project WOOD for HEALTH aiming to solve this challenge.

WOOD for HEALTH is a project within the ERA-Net ForestValue program.

- It commenced on February 1, 2022; and will continue 36 months for each partner that started their work in slightly different times.
- It has seven partners from Finland, Germany, Latvia, Norway, and Sweden.
- It brings together expertise in wood chemistry & technology, polymer chemistry, microbiology, measurement technology and coating development.



Figure 1. WOOD for HEALTH was one of three projects selected for funding in topic of wood construction in ERA-Net ForestValue call 2021

Consortium

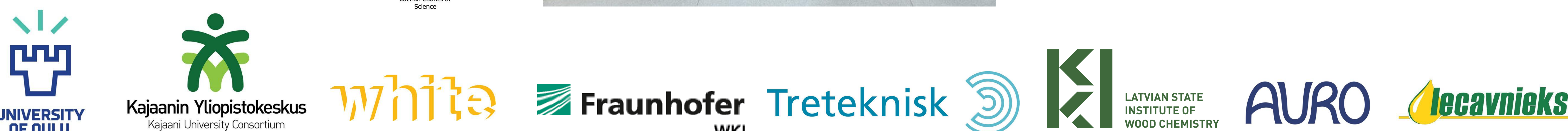
1. University of Oulu, Finland
2. White Arkitekter, Sweden
3. Fraunhofer Institute for Wood Research, Germany
4. NTI, Norwegian Institute of Wood Technology
5. Latvian State Institute for Wood Chemistry
6. Auro Pflanzenchemie AG, Germany
7. Iecavnieks&Co, Latvia

Budget

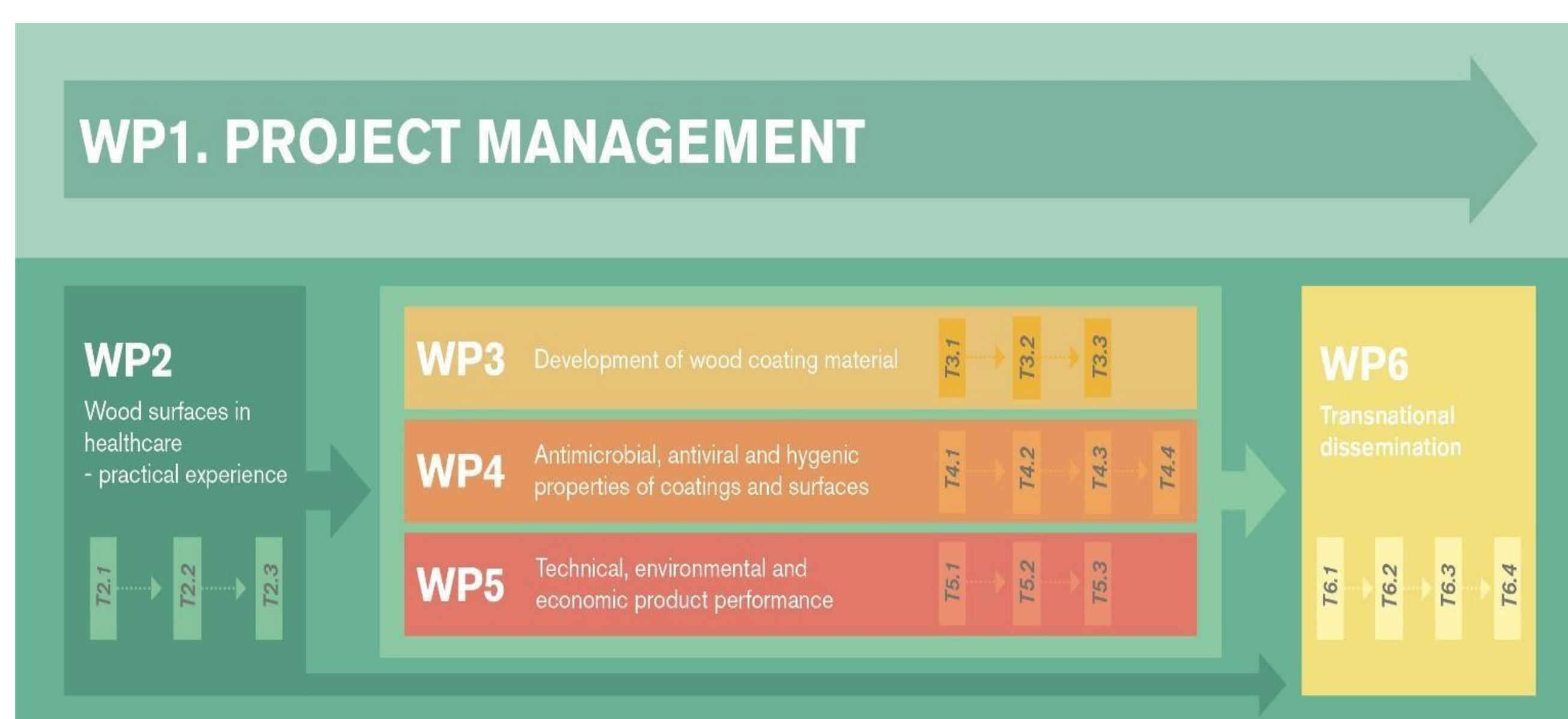
1 318 076 €

Funding bodies

Ministry of Environment, Finland
Vinnova, Sweden's Innovation Agency
Federal Ministry of Education and Research, Germany
Latvian Council of Science
The Research Council of Norway



Experimental



Wood for Health

WOOD for HEALTH will promote safe and increased use of wood products through the development of **antimicrobial surfaces, hygiene concepts** and by providing the first **extensive guideline** for use of wood in healthcare buildings. This will be in response to demands from both the construction industry, investors and owners of healthcare buildings.

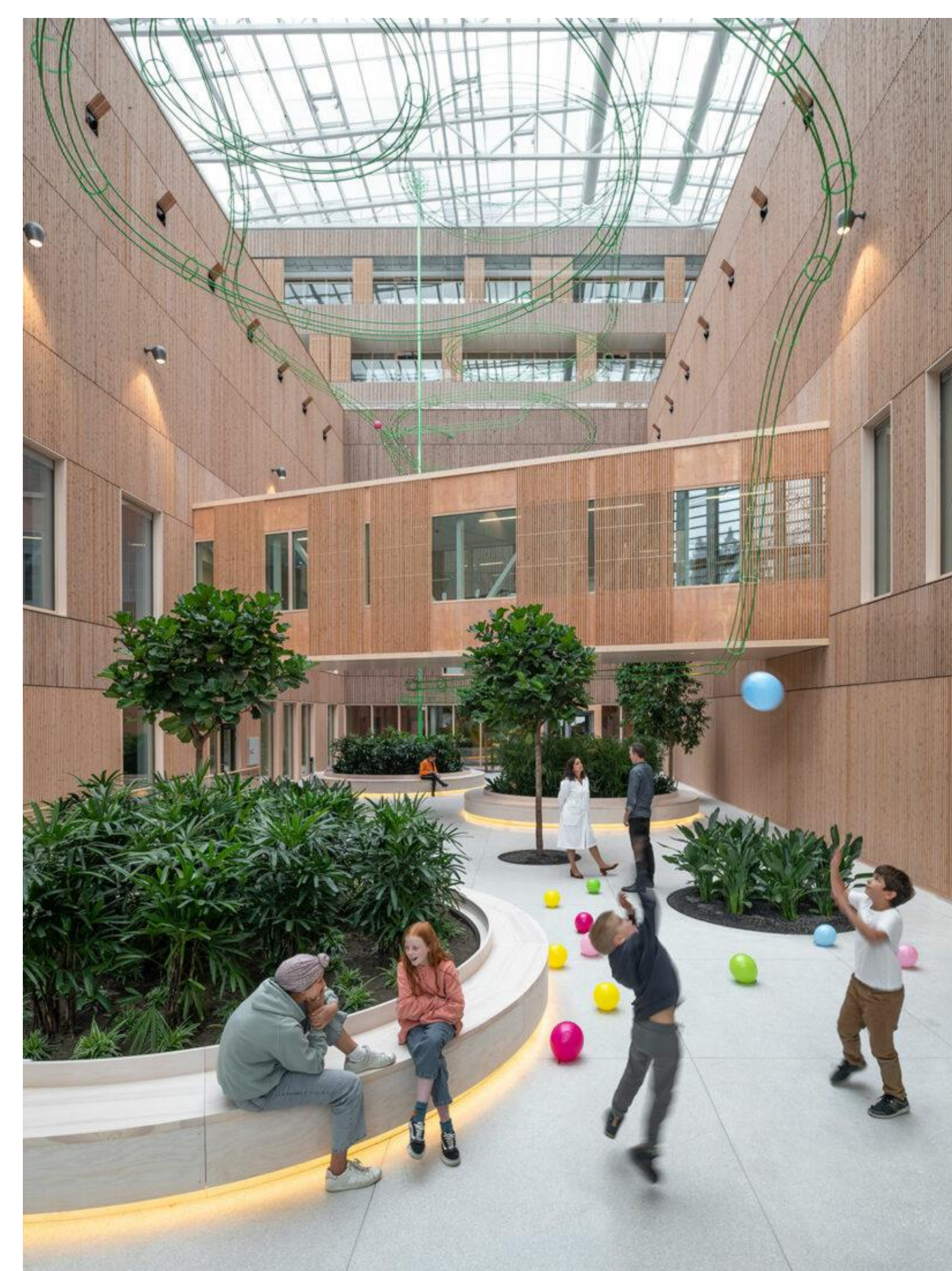
The aim of WOOD for HEALTH is to meet requirements set for health care buildings with wood products whose uncoated and coated surfaces are holistically characterized for their technical, environmental, and economic performance.

The characterization includes all properties of importance in health facilities with respect to hygiene, mechanical and chemical resistance, photo-stability, flammability and water vapor damp diffusability.

Three coating approaches are employed at different TRL levels to balance risk and close-to-market aspects: the development of **non-film-forming** and **film-forming coating systems** by formulation as well as **new binders** by synthesis of non-leaching functional groups to the polymer. Natural polymers with antimicrobial effect will replace conventional toxic biocides.

A wide range of **dissemination activities** will communicate the project results to stakeholders and the scientific community throughout Europe.

Queen Silvia Children's Hospital in Gothenburg



WOOD for HEALTH will use a fictional re-design of Queen Silvia Children's Hospital in Gothenburg as a point of departure for the experimental development. The hospital was designed by White Arkitekter and has an unusual quantity of exposed wood in the interior.

- How has wood been used and what can be learnt from experience?
- What are the opportunities to use more wood in healthcare buildings?
- What new knowledge is needed to use more exposed wood?
- What requirements need to be met by new products to facilitate the use of more wood in a fictional re-design of Queen Silvia Children's Hospital?

Project web page
<https://www.woodforhealth.eu/>

Project LinkedIn page
<https://www.linkedin.com/company/wood-for-health-project/>

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