XAMK SAVONLINNA

TESTING, DEVELOPMENT AND RESEARCH LABORATORY FOR WOOD AND HYBRID CONSTRUCTION:

LABORATORY SERVICES

- Research and development
- Product testing
- Chemical and material testing
- Prototyping and testing
- Technology and material demonstrations
- Workshops and seminars
- For more information: www.xamk.fi/puura-2023

ENGINEERING DEGREE IN WOOD CONSTRUCTION

- Engineer (bachelor) in structural engineering, industrial wood construction

Lecturer Petteri Härkönen

petteri.harkonen@xamk.fi
tel. +358 40 1851632

FIBERLABORATORY

- Developing future bioproduct process
- For more information: www.xamk.fi/en/rdi/fiberlaboratory/

Tapio Tirri, director

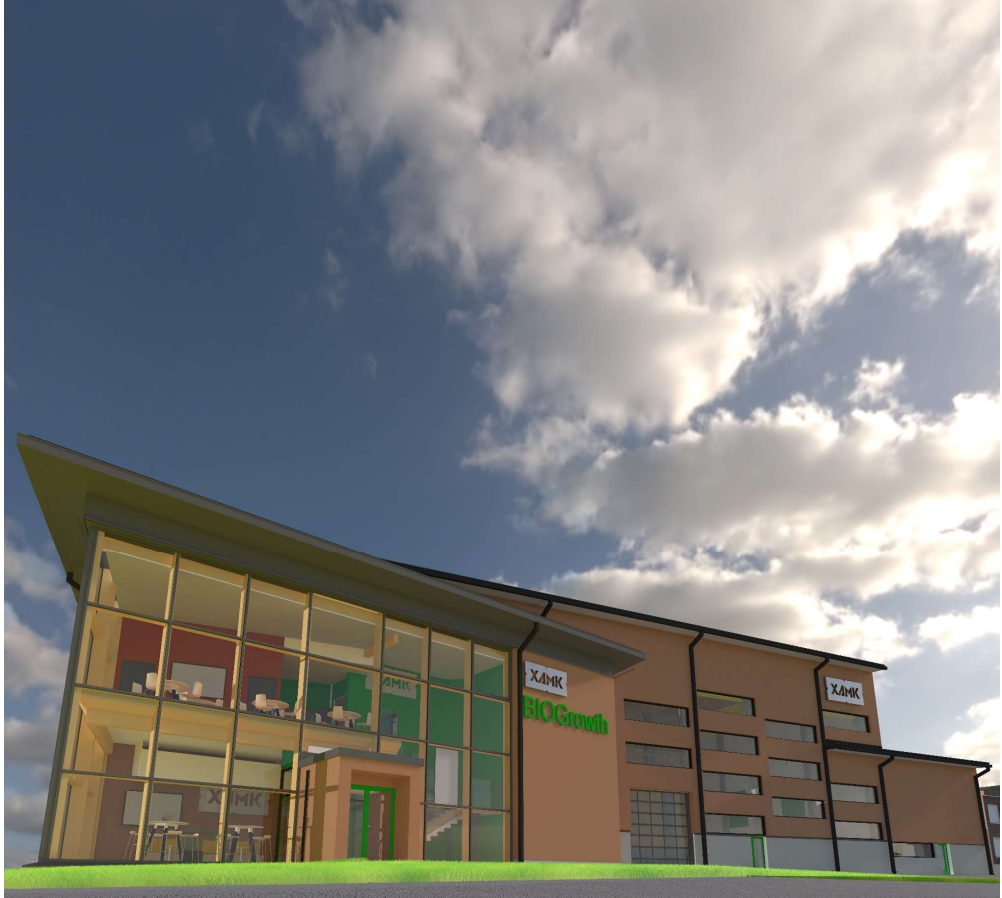
tapio.tirri@xamk.fi
tel. +35840 582 8468

WWW.XAMK.FI

European Union
European Regional Development Fund

Leverage from the EU 2014–2020

XAMK



Wood and hybrid construction laboratory

To be completed in autumn 2023 ….

Photo: A view of the wood and hybrid construction laboratory in Savonlinna, Finland

XAMK

TESTING, DEVELOPMENT AND RESEARCH LABORATORY FOR WOOD AND HYBRID CONSTRUCTION:

LABORATORY SERVICES

- Appropriate research and development activities
- Product testing
- Chemical and material testing
- Prototyping and testing
- Technology and material demonstrations
- Workshops and seminars

For more information: www.xamk.fi/puura-2023

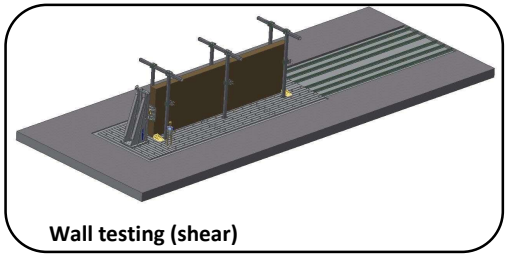
LABORATORY EQUIPMENT

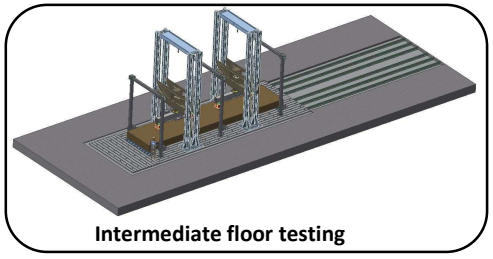
- Large scale test frame (Load Frame)
- Material testing machine max. 100 kN (bending, tension, compression)
- Concrete compactor 3000 kN (automax pro compact 50- c56f02
- 2 sets of integrated weather testing rooms (-40c - + 80c / rh 20% - 95% / uv)
  - 2.4m x 2.4m object placed between the rooms
- Woodworking and construction equipment

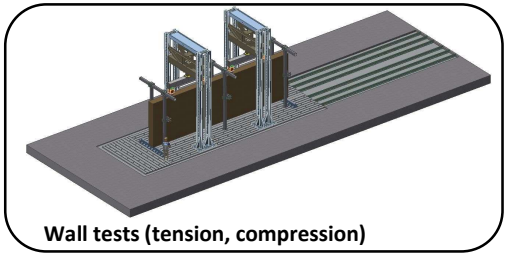
Weather testing rooms

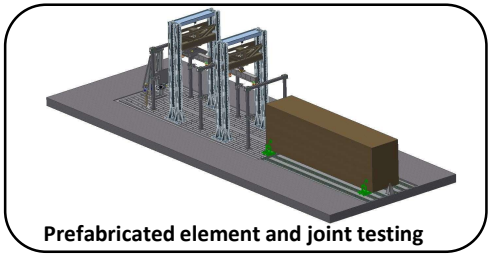
Large scale test frame (Load Frame)

- Test piece dimensions: width 2.5m, height 3.5m, length 12m, capable of testing full wall elements, beams, joints and truss structures
- Tests with static or dynamic loads of 2 x max 500 kN from above up to 2 Hz (compression or tension) and 1 x max 500 kN from the side. Static loads are tensile, compressive and shear loads. Dynamic loads can be used to simulate, for example, vibrations in structures.
- Sensor and measurement system: 8 channels for vibration sensors, 16 channels for temperature and 16 channels for strain sensors and software for analysis and monitoring of results.
- The equipment allows an almost unlimited number of different types of testing of wood and hybrid structures on an industrial scale and close to real building assemblies.


Wall testing (shear)


Intermediate floor testing


Wall tests (tension, compression)


Prefabricated element and joint testing

For more information:

Project Manager Juha-Pekka Luukkainen juha-pekka.luukkainen@xamk.fi **+358 50 560 4836**

Research Engineer Miika Juuti miika.juuti@xamk.fi **+358 50 479 6954**

Research Engineer Aarno Hatsala aarno.hatsala@xamk.fi **+358 50 464 0896**