

# Directors' report

## Facts about Norsk Treteknisk Institutt

Norwegian Institute of Wood Technology (Treteknisk) is a private research association for the sawmills and the timber industry in Norway. Our 135 member companies represent sawmilling, woodworking, glulam, roof truss and timber frame industry, as well as related industry.

The institute has 35 employees. Our main tasks are research and development projects, quality control, quality documentation, laboratory tests and diffusion of knowledge from R&D work for the Norwegian timber industry.

## Vision statement

Treteknisk shall be the preferred R&D and knowledge partner for the Norwegian timber based industry and other companies in the wood value chain.

## Business idea

The Institute shall contribute to profitability of the member companies by using updated knowledge about wood, its properties, processing methods and usage. The means to succeed in this are R&D by objectives, distribution of knowledge, consulting and quality documentation.

## Financing

The total turnover for 2015 was 44.2 MNOK. The membership fee amounted to 9 % of the turnover. Foreign sales accounted for 21 % of all assignments and projects.

## Quality documentation and certification

### Testing laboratory and inspection body

Treteknisk plays an important role as testing laboratory, certification- and inspection body. The demand for these kind of services are increasing, because of both the authorities' requirements for documentation, and the market demand for documented product properties. The Institute has invested in competence, laboratory equipment, well working quality system and formal status in order to be an internationally recognized testing and inspection body for the timber industry.

Since 1994, the laboratories have been accredited for both mechanical and chemical testing after

EN ISO/IEC 17025, and from 2015 accredited after EN ISO/IEC 17065 as well. The Institute is appointed by the Ministry of Trade and Industry as notified body for attestation of conformity with the Construction Products Regulation (CPR). This applies to structural timber products and wood based panels. This means that the institute can perform testing, inspection and certification as basis for CE-marking of building products.

## Certification

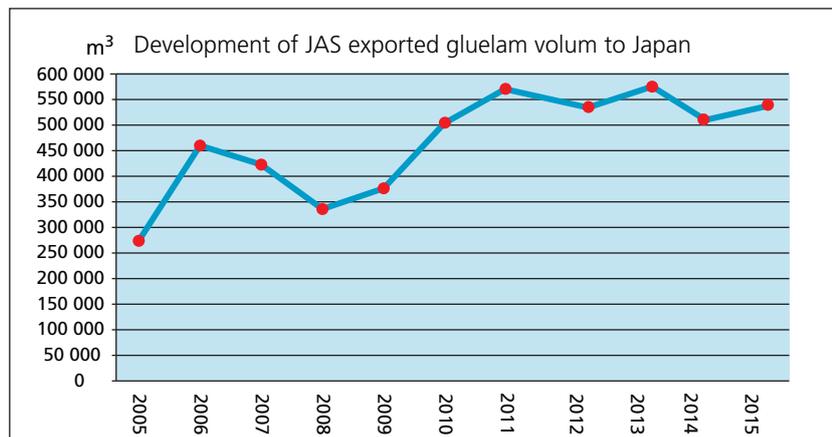
Treteknisk has for several years worked with product certification, for JAS (Japanese Agricultural Standardisation) and CE-marking. During the autumn Treteknisk was appointed as a notified body for PEFC certification.

## PEFC

PEFC documents that a product originate from certified wood, verified by a third body. Both EUTR (EU's timber regulation) and BREEAM-NOR requires such certifications.

## Japan – JAS-certification

The Institute has gained a leading position in Europe concerning JAS-certification of glulam. 20 glulam companies and 3 sawmills have now their JAS-certification through Treteknisk. The volume of glulam exported to Japan from companies certified through Treteknisk amounted to 540 000 m<sup>3</sup> in 2015. Treteknisk was in December accepted as Registered Certification Organisation (RCO) for JAS regarding CLT in addition to glulam and structural timber. Outside Japan Treteknisk is the only company in the



world to be appointed as a Certification Organisation for JAS regarding CLT.

### Quality control schemes

Treteknisk is for the time being inspection body and/or testing laboratory for the following quality control schemes, certification and approval bodies:

- Norwegian Strength Grading Inspection Scheme.
- Norwegian Control Scheme for Preservative Treated Wood.
- Norwegian Glulam Control for end jointed materials for load bearing constructions.
- Fire Control Scheme for the Wood Working Industry.
- Control Scheme for Norwegian log houses.
- Technical Approval of Building Elements (SINTEF Byggforsk).
- Inspection of painted wood cladding.
- JAS (Japanese Agricultural Standards).
- CE-marking of glulam.
- CE-marking of structural timber.
- CE-marking of fingerjointed structural timber.
- CE-marking of particleboards.
- CE-marking of roof trusses.

### International R&D and cooperation

#### InnovaWood

InnovaWood is a European association of organisations working as R&D and education providers. The organisation represent the research and education society cooperating with industry, e.g. in connection with the technology platform.

#### COST

Treteknisk is participating in several COST-programs.

#### CEN

Treteknisk is involved in several CEN committees. The European standards from CEN



*Geodetisk jordobservatoriun, Ny-Ålesund.*

are of great importance for the competitiveness of the industry. This year Treteknisk has for example been highly involved in the revision of Eurocode 5.

#### ECOINFLOW

##### - Energy Control by Information Flow

The main objective is to reduce energy use in the European sawmill industry. Treteknisk is coordinating the project and Treindustrien and The Norwegian Drying Club are Norwegian partners. The project is funded by the EU program “Intelligent Energy Europe (IEE)”, and is additionally funded in Norway by Enova SF.

During the project it has been developed a handbook and software for implementation of Energy Management systems, especially adapted to the sawmill industry. The manual shows the methodology of energy management step by step, with practical worksheets that can be used to aid calculation of the cost-benefit of various energy saving- and energy efficiency measures. Treteknisk is today running projects at different Norwegian sawmills.

#### NEXT Timber

##### - Novel Execution Tools for Timber Structures

NEXT Timber will develop an open standard tool for planning and execution of timber buildings

that can be used internationally. The project is funded by Nordic Innovation.

**Wood2New**  
**- Competitive wood-based interior materials and systems for modern wood construction**

Wood2New is a European collaboration project funded under the WoodWisdom-Net ERA-NET+ scheme. The project aims to reinforce, stimulate and improve the competitiveness of wood-based interior products and systems. Wood2New researchers identify opportunities and limitations for the use of wood in interiors through assessment of the beneficial effects of the material on human well-being.

**WoodWisdom - Net CreoSub**

Creosote is one of the oldest industrially used and most effective wood preservatives, mainly used in heavy-duty applications outdoors. The European Commission has however restricted the use of creosote due to its toxic profile and its future approval for use is questionable. From the current perspective, a ban of creosote will hit the European wood industry and the users of

creosote-treated wood products hard. Alternative products are not market-ready yet. The objective of the project CreoSub is to develop processes for the protection of railway sleepers, timber bridges, and utility poles with new wood protection systems as potential substitutes for creosote. The new protection systems are investigated in laboratory and industrial scale; in 2016, pilot products will be established in real-use applications to establish profound long-term documentation.

CreoSub is funded under the 4th Call for joint European research projects within the WoodWisdom-Net Research Programme. The consortium coordinated by Treteknisk comprises partners from Norway, Germany, UK and Finland. The project duration is from 2014 to 2016.

**Nordic Built - Concept for renovation and upgrading of residential buildings**

Nordic Built is a project to develop industrial premanufactured tree concepts for renovation and upgrading of existing buildings in an energyefficient and sustainable way.

The project has participants from Norway, Sweden and Finland and is funded by Nordic Innovation.

*Tromsø Villmarksenter.*



**National R&D**

**HOME**  
**- holistic monitoring of indoor environment**

The project aims at reducing energy consumption using rapidly responding technologies and hygroscopic materials. The project is funded by the Norwegian Research Council.

**Ash products**

Soil improving products based on ash from biofuel plant and documentation of the property of wood ash is developed to establish regulations for ash products.

**Prospects**

Treteknisk do feel the increasing competition on the R&D side of the business, but is anyway optimistic regarding the project portfolio for 2016.