

# Norsk Treteknisk Institutt (NTI)

**R&D centre for Norwegian wood industry**

**Private research association**

**Established 1949**

**Annual turnover approx.  
33 mill. NOK. 37 employees**

**150 member companies:  
sawmills, glulam- and roof truss  
manufacturers, woodworking  
industry, wood preservation  
industry and suppliers of  
machines and equipment**



# Activities

- **R&D projects**
- **Dissemination of knowledge**
- **Contract work**
- **Quality control schemes**
- **Documentation of properties and quality**
- **Accredited laboratories**
- **Standardisation**
- **International network**

# Leading edge competence

**Gluing**



**Drying**



**Grading**



# Laboratories - Mechanical testing

**Accredited since 1994**

**Testing of:**

- **Load bearing timber**
- **Glulam beams**
- **Solid wood**
- **Finger joints**
- **Engineered Wood Products**
- **Wood-based panels**
- **Mechanical connections**
- **Glued joints**
- **Wood composites**



# Laboratories - Chemical analysis

- **Accredited since 1994**
- **Analysis of:**
  - **Preservatives**
  - **Preservative treated wood**
  - **Formaldehyde**
- **Testing of durability and properties:**
  - **Wood protection**
  - **Fire retardants**
  - **Surface coatings**



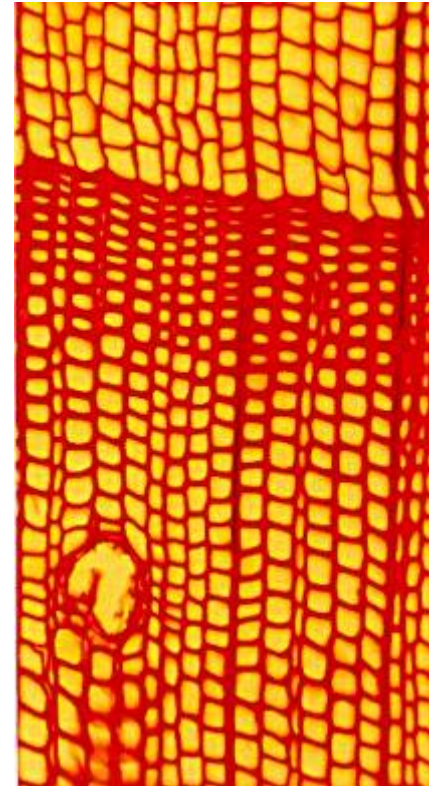
# Laboratories - Drying of wood

- **Kiln experiments**
- **Development of optimal drying process for various products og wood species**
- **Testing of control systems**
- **Climatic test chamber for accurate determination of equilibrium moisture content**



# Laboratories - Wood anatomy

- **Determination of wood species**
- **Anatomical investigations of wood**
- **Analysis of penetrability of surface coatings and adhesives**
- **Analysis of the surface structure of wood**



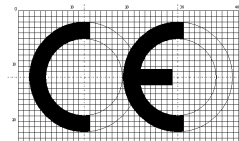
# Testing fields

- **Sørkedalen (near Oslo)**
- **Birkenes (European rot index)**
- **Cooperation with Nordic Wood Protection Council (NTR)**
- **Life expectancy of impregnated wood**
- **Life expectancy of surface treated wood**



# Quality documentation

- Accredited according to EN 45001 for mechanical testing and chemical analysis of wood materials
- Testing according to approved standards (EN, DIN, BS, etc.)
- Approved as RCO and TTO for JAS-certification
- TRADA certification for UK
- Testing/inspection for SKH (Holland)
- Testing/inspection for FMPA (Germany)
- Ü-mark for wood products to Germany
- Notified Body for CE-marking



# Quality control schemes

- **Norwegian stress grading inspection scheme**
- **Norwegian control scheme for preservative treated wood**
- **Norwegian glulam control: Glued endjointed materials for loadbearing constructions**



- **Norwegian glulam control**
- **Norwegian technical approval of building elements**



# Information and diffusion of knowledge

- **Specialized library within wood technology**

Comprises 14.000 books/reports and 130 professional journals

National and international databases

- **Publications**

Treteknisk Informasjon

Information on Internet

Reports

Books

Wood information - FOKUS *på tre*

- **Answering service**

Member companies / consumers / authorities



# Characteristics of NTI

**Close relations to industry and good knowledge of the trade**

**Comprehensive national and international networks**

**Experience in user managed projects**

**Results oriented R&D**

**High competence in wood technology**

**Good financial position**

# Vision

**NTI shall be the R&D base, the centre of competence and meeting place for Norwegian wood working industry.**

## Business concept

**NTI shall work for profitability of the member companies by using updated knowledge of timber and wood – its properties, machining and application.**

**The means are R&D by results, diffusion and knowledge, advisory service and quality documentation.**