



First workshop of
NEXT Timber
Novel Execution Tool for Timber structures
September 24: 10:00 – 17:00
Session in Forum Holzbau Nordic (FHN) 2014,
Trondheim

Experiences from design guidelines for timber structures in Norway

Sigurd Eide, Splitkon AS, Norway

www.splitkon.no



SPLITKON

EMPLOYEES: 15 PERSONS

LOCATED TO: ÅMOT
90 KM OUTSIDE OSLO

TURNOVER: 8 M EUROES

SALES OF GLULAM BEAMS
AND CLT ELEMENTS

PROJECTS:

- DESIGN
- TIMBER ENGINEERING
- PROCESSING PARTS
- ASSEMBLY

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DESIGN RULES
Eurocode 5

In addition, there are
available several
design guidelines with
useful and good
information
for timber engineering

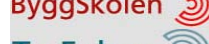
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Expertise in wood construction and wood industry in Norway

- SINTEF BYGGFORSK -Norwegian building research institute
- NMBU -Norwegian University of Life Sciences
- TRESENERET -The wood-centre, NTNU, Trondheim
- TREINDUSTRIEN -The timber industry's trade association
- BYGGSKOLEN -Education for the wood industry
- TREFOKUS -National information company
- TRETTEKNISK -Norwegian Institute of Wood Technology



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Norwegian building research institute

Offering a generous amount of books, technical details of various building materials.
Also details of design and construction of wooden structures.
Mainly 1-2 story buildings.



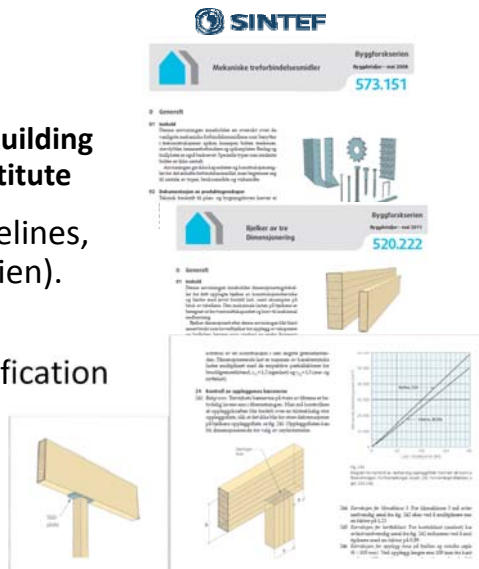
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Norwegian building research institute

-Serie of guidelines, (Byggforskserien).

-Product certification



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www.sintefcertification.no



Norwegian University of Life Sciences Technology - Structural Engineering and Architecture - master Department of Mathematical Sciences and Technology(IMT)

www.umb.no/imt



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TRESENERET (The Wood-senter)

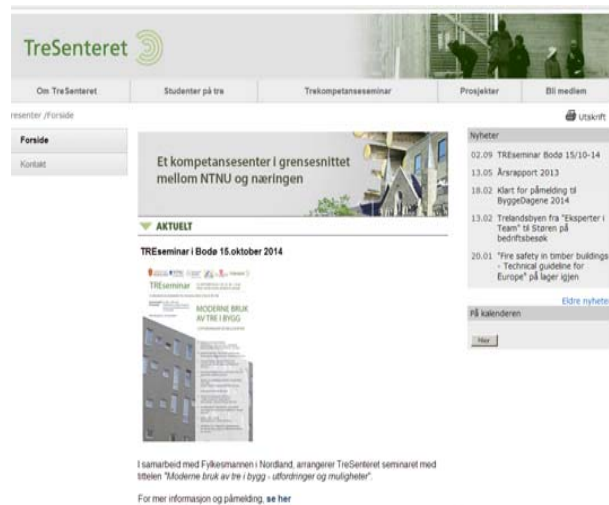
BACKGROUND

Major challenges for the forestry and wood industries led to the need for a stronger connection to the technological environment in Trondheim.

Information/connection platform to the NTNU University due to timber engineering

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www.tresenter.no

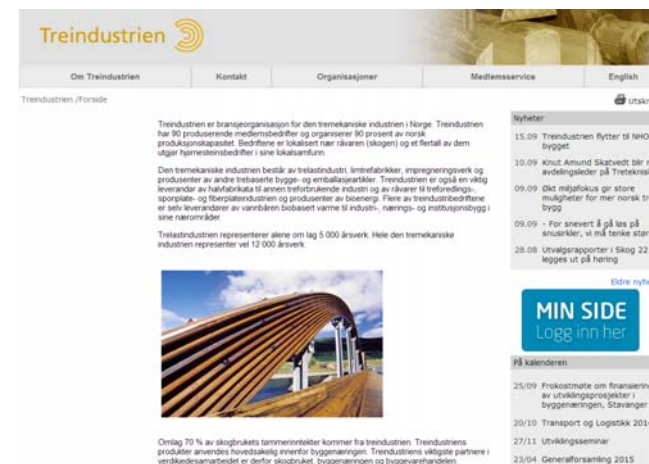


TREINDUSTRIEN (The timber industry)

The timber industry's trade association for wood industry in Norway.

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www.treindustrien.no



BYGGSKOLEN (“Building school” The timber industry’s school)

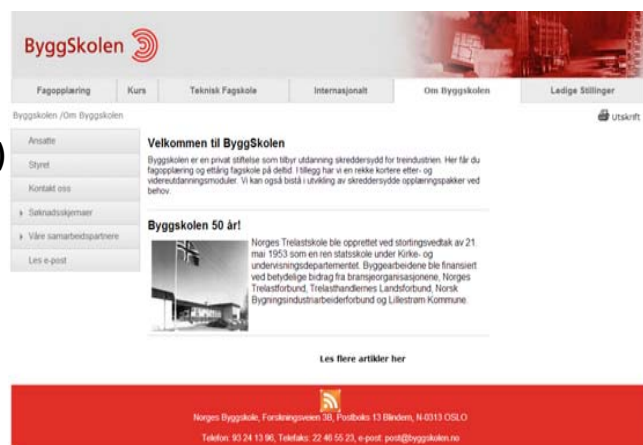
Private foundation

Provides education for the wood industry.

Offers vocational training and one-year college part-time.

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www.byggskolen.no



TREFOKUS National information company

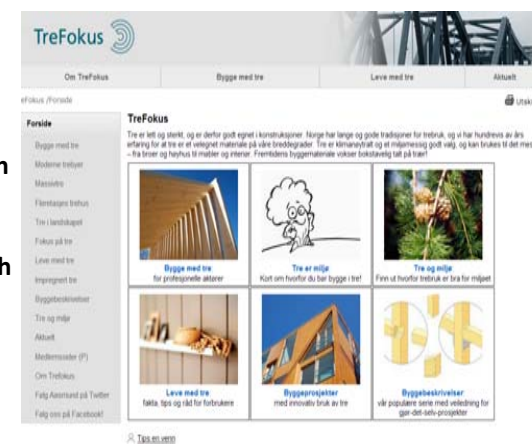
Owned by the forestry and timber industry in Norway

Trefokus are networked and cooperating with the country's leading centers of expertise in forestry, sawmill and timber structures

Working to increase the use of wood

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www.trefokus.no www.facebook.com/Trefokus



Tilbake til TreFokus

Byggebeskrivelse

INNE

Innvendig panel

Listverk

Å legge tregulv

UTE

Brygger

Carport

Gjerder

Impregner

Lekestue

Lysthus

Porter

Sette opp lettvegg

Skateboardramper

Tak over uterom

Tilleggsisolering

Trapper

Tregulv ute

Utebod

Veranda

PUSSE OPP

Bytte vindu

Montere/skifte dør

Tilbake

Om TreFokus

Bygge med tre

Leve med tre

Ansatt

Byggesystemer for massivtre

Byggesystemer med massivtrelementer

Byggesystemer med massivtrelementer

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Information

Details

Drawings (PDF / PDF)



TRETEKNISK (NTI)

Norwegian Institute of wood technology.

-Research and development within the properties, processing, production processes and the use of wood.

-Quality control

-Testing

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Om oss

Forskning

Rådgivning

Kontrollordninger

Sertifisering

Testing

Kurs

Kunnskapsbank

Publikasjon

Tjenester

Ansatte

Forside

English pages

Prosjekt TREFIBER

Last ned FOKUS på tre

JAS Japanese Agricultural Standards

JAS Japanese adhesive list

Glulam

Invitasjon til workshop: Fremtidens komposittmaterialer

Ledig stilling: Bygningsingeniør

Prosjektering av urban trearkitektur

Nyheter

September 11, 2014 | Bygghendelse

September 10, 2014 | Skogdag langt til skogs

September 10, 2014 | Edsvoll Utenomskule



TRETEKNISK (NTI)

-Hand-books

-Project reports

-Information brochures

-Journal of Wood Technology Information

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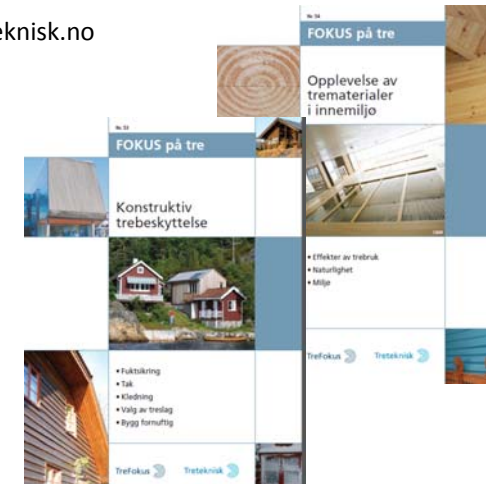


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Experiences from design guidelines for timber structures

Timber engineer says:



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-Guidelines are good and helpfull tools for design, calculation and correct assembly for buildings and structures in wood.

-Guidelines simplify the design process and gives answer to questions.

-Guidelines help the timber engineer to design and build more effective technical and economic structures in wood.



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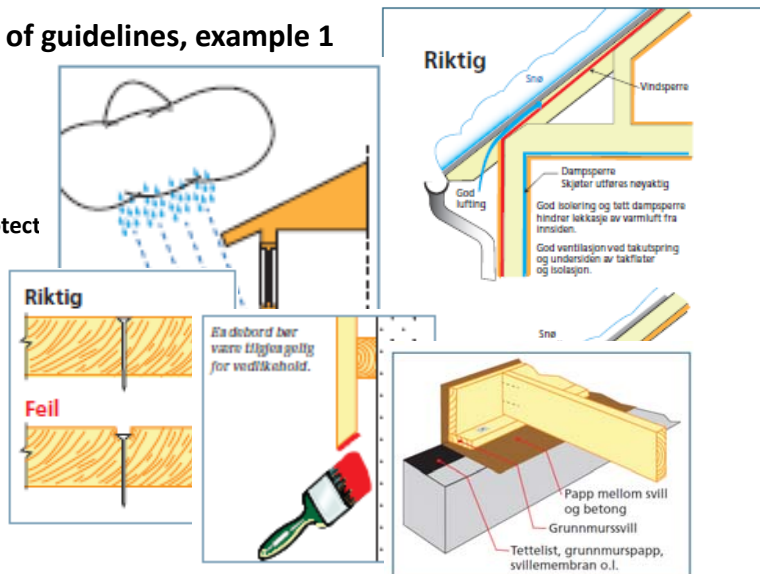


Use of guidelines, example 1

NTI, Information brochure.
Focus on Wood
constructive wood protect



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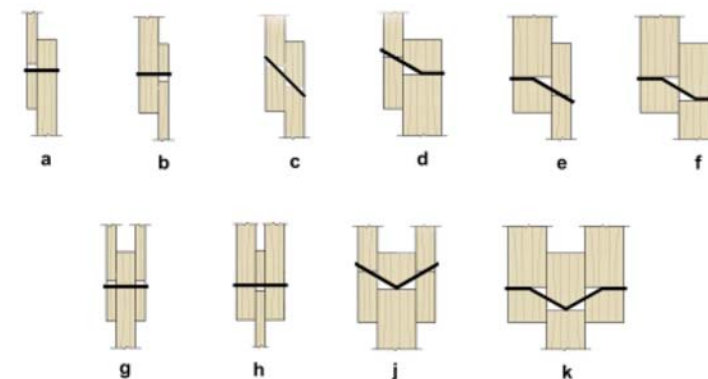


Use of guidelines, example 2

NTI, Handbook
Mechanical fasteners



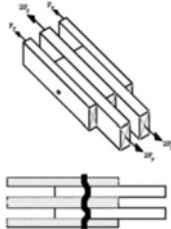
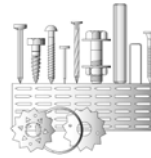
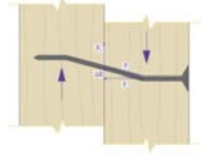
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Based om Eurokode 5

- Examples
- Calculations of capacity R_k of several connectors are performed and presented in tables
- Simplify the design and calculation work



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Thank you!

