




Future is made of wood



Finnforest delivers competitive solutions developed according to customer needs. The solutions are based on high-quality and ecological Nordic wood as a raw material.

Finnforest forms one of the core businesses of the Metsäliitto Group.




Metsäliitto is an international forest industry group present in some 30 countries.

It combines responsible forest economy and innovative technology to produce high-quality products and solutions from renewable Nordic wood in a sustainable way.



Wood products have a small  
carbon footprint.

Therefore, the load on the climate caused by building and construction will decrease when other materials are replaced with wood.



Fully renewable.  
Recyclable.  
Certified origin.

Energy self-sufficient  
production.

Nature's own raw material – proven  
to be environmentally friendly

Wood products act as carbon  
stores. Using wood helps  
mitigate climate change.

Efficient use of raw material.  
Small environmental effects  
of transporting.



Our solutions for  
green building

# Systems and solutions

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Residential construction  
Finnjoist Passive House concept



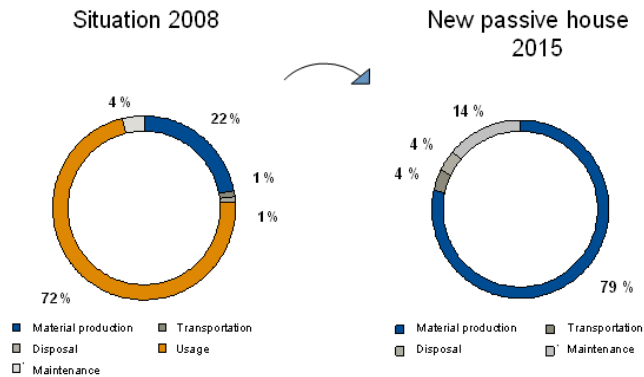
Residential and non-residential construction  
Kerto® multistory concept



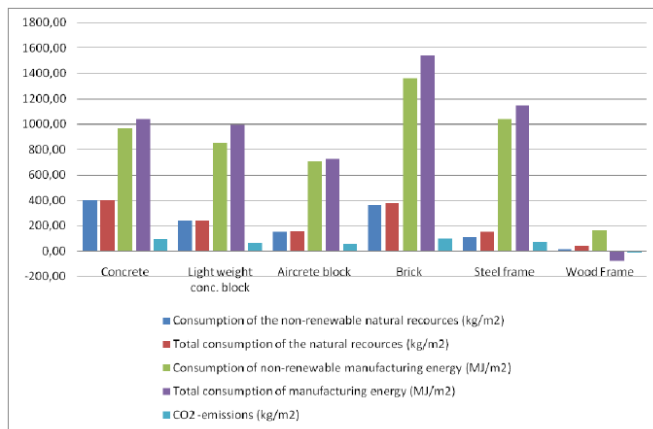
Non-residential construction  
Green Store concept



# Finnjoist Passive House concept



Energy consumption during a life cycle of a residential building

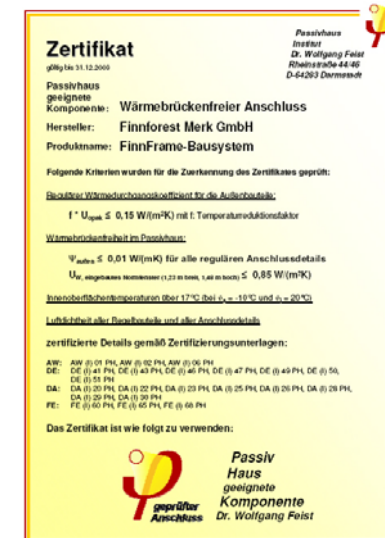


Environmental impact of various construction products



# Finnjoist Passive House concept

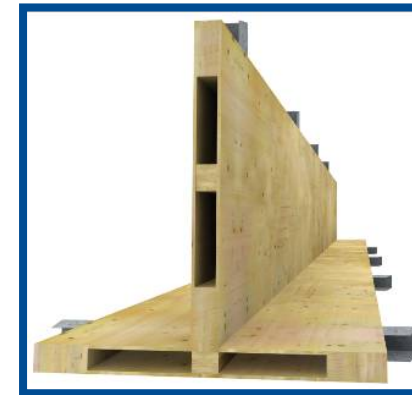
- First certificated Passive House concept with I-beam in Europe; German Passive House institute
- All joints and connections surveyed and approved to full fill new Eurocode demands
- Flexible architecture



# Kerto® multistory concept

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- Timber frame concept reinforced with Kerto Q® cross laminated stabilizers, Kerto Ripa® floor components
- Extremely fast erection due to custom made standard components, water proof roof completed in 3-4 work days
- Open architecture enables various applications and high level of customizing for end users
- High soundproofing and vibration quality properties; integration of Finnforest SoundBar® system feasible
- Integrated bathroom modules



# Green Store concept

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- Concept includes a glulam frame, long span roof panel system and wooden façade panels
- Roof panels are based on structurally glued Kerto Ripa® panels including thermal insulation and waterproof membrane
- Extremely fast roof covering, up to 1000m<sup>2</sup> of roof completed in one work day
- Enables to reduce CO<sub>2</sub> emissions vs. other construction material solutions and thus helps mitigate climate change



## Wooden SPU Passive Roof®

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- Finnforest Kerto®-based roof element suitable for the roof of a detached house, and other future passive house solutions
- Developed together with SPU Systems Oy
- The strong and thin Kerto together with the SPU insulation, guarantee excellent heat insulation and airtightness. The structure's U value is 0.07 W/m<sup>2</sup>K.
- Already used for several detached houses around Finland. Builders are satisfied and say that the solution is energy-efficient, quick to install, and has good overall economy.



## According to VTT's research



The carbon footprint for a steel-built roof structure is more than 60% bigger, and the carbon footprint for a reinforced concrete roof structure is almost 50% bigger than when using Kerto-Ripa™ box slab construction.

- VTT Technical Research Centre of Finland

# Finnforest references in Europe

Public buildings

Special constructions

Civil engineering

Sports facilities

Office buildings

Agricultural buildings

Residential buildings

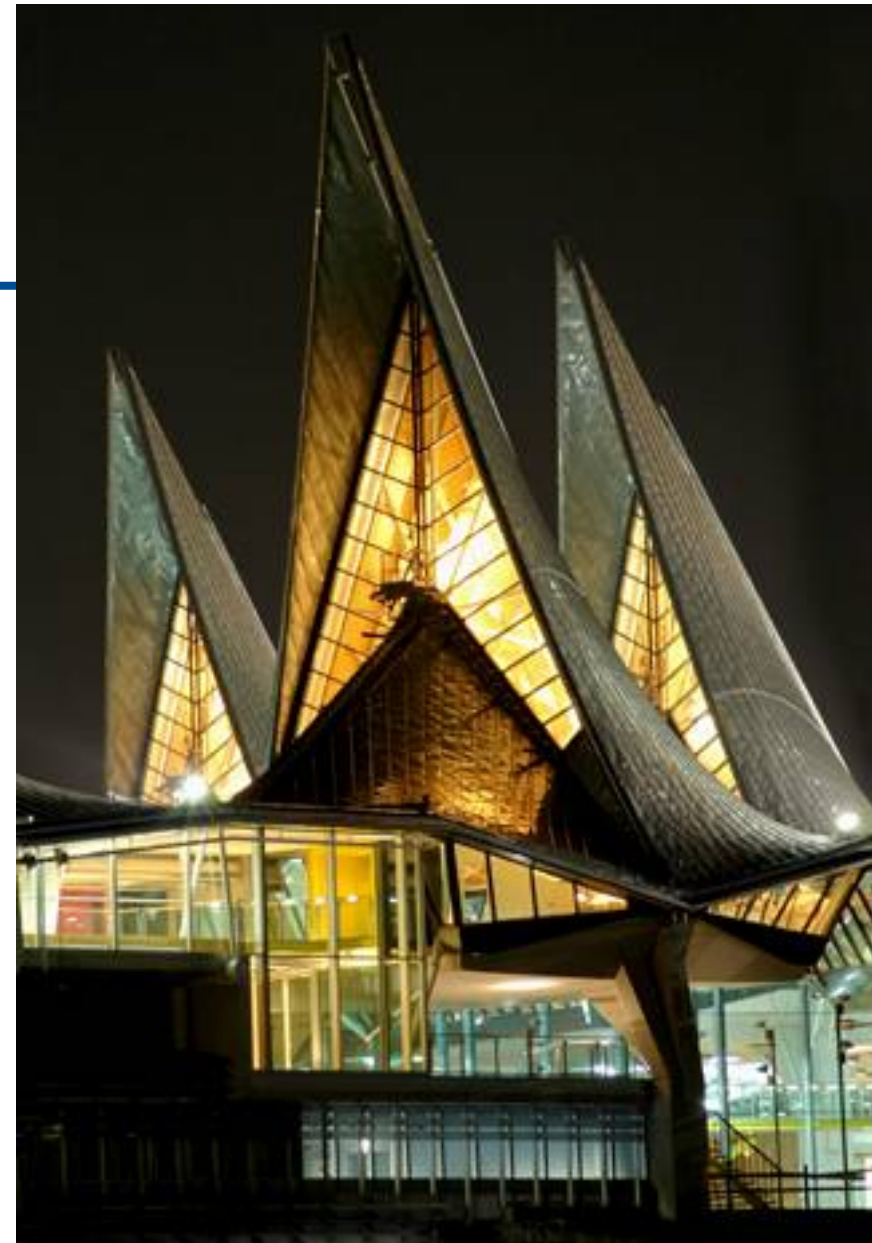
New projects

# Public buildings

# Law court Antwerp

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- Building year: 2004
- Architect: Richard Rogers Partnership
- Structural designer: Ove Arup & Partners International Ltd
- Constructor: Finnforest Merk for timber solution
- Customer: Justinvest Antwerpen, Interbuild – KBC – Artesia
- Finnforest materials: 1,800 m<sup>3</sup> Hyperbolic grid shell roof formed with crosswise combined timber lamellae and curved purlins





# Canoeing shop, Sipoo

- Building year: 2008
- Architect: Matti Rotko
- Structural designer: Roof elements:  
Insinööritoimisto Tanskanen
- Constructor: Astra-Tuote Oy
- Customer: Bear & Water Oy
- Finnforest materials: Glulam frame, Finnforest roof  
elements, Kerto in wall studs  
and stairs, King panel in  
exterior cladding



# Department store, Raisio

- Building year: 2008
- Architect: Parviainen Architects
- Structural designer: Roof: Insinööritoimisto Asko Keronen
- Constructor: Peab Seicon Oy
- Customer: Ikea
- Finnforest materials: 16,000 m<sup>2</sup> of Kerto-Ripa roof elements



# Haukkamäki school, Karkkila



- Building year: 2007
- Architect: Kari Järvinen and Merja Nieminen
- Structural designer: Insinööritoimisto Konstru Oy
- Constructor: Karkkilan Rakennus Oy
- Customer: City of Karkkila
- Finnforest materials: Glulam trusses and columns, Kerto framed roof elements



# Hösmäripuisto school, Espoo

- Building year: 2004-2005
- Architect: Yrjö Suonto
- Structural designer: Insinööritoimisto Konstru Oy
- Constructor: Rakennuskartio Oy
- Customer: City of Espoo
- Finnforest materials: Walking bridge made of Kerto, Kerto- boxed slabs in intermediate floors, glulam columns, frame of Kerto



# Leskenlehti daycare, Helsinki



- Building year: 2003
- Architect: Eric and Anders Adlercreutz
- Structural designer: Insinööritoimisto Matti Ollila Oy
- Constructor: Skanska Etelä-Suomi
- Customer: City of Helsinki
- Finnforest materials: Kerto frame columns and beams, boxed slabs



# Sibelius hall, Lahti



- Building year: 2000
- Architect: Hannu Tikka and Kimmo Lintula
- Structural designer: Turun Juva Oy
- Constructor: NCC Finland Oy
- Customer: NCC Finland Oy
- Finnforest materials: Acoustic wall elements of Kerto filled with sand, roof elements of Kerto, Kerto in windows

# University, Reims

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- Building year: 2005-2006
- Architect: University of Reims
- Structural designer: Dominique Calvi, Ingénierie Structures Bois, Les Angles/France & Finnforest Merk
- Constructor: CMB - Construction Millet Bois, & Finnforest Merk
- Customer: University of Reims
- Finnforest materials: Kerto, Leno



# Martin Nadaud Gymnasium



- Building year: 2004
- Architect: Francois Bouvard
- Structural designer: CMB- Construction Millet Bois
- Constructor: CMB
- Customer: Ville de Saint-Pierre-des-Corps
- Finnforest materials: Kerto, Glulam, Thermowood





# University, Karlsruhe



- Building year: 2005
- Architect: Architecture office J. Mayer-H, Berlin
- Customer: Bau und Vermögen Baden-Württemberg
- Finnforest materials used: LenoTec 200 m<sup>3</sup>, Kerto 250 m<sup>3</sup>, Glulam 220 m<sup>3</sup>

# Mariinsky Theatre, St. Petersburg



- Building year: 2006
- Architect: Fabre & Speller Architects, Paris, France
- Structural designer: Setec Batiment, NPO Georekonstrouktsia-fundamentproekt
- Constructor: Finnforest Merk
- Customer: Neviss Komplex
- Finnforest materials: Massive wooden elements in ceiling and walls consist of 220 mm of Kerto, coated with 12 mm Finnforest birch plywood.



# Serpentine Gallery Hyde Park, London



- Building year: 2005
- Architect: Alvaro Siza, Eduardo de Moura, Cecil Balmond
- Structural designer: Arup
- Constructor: Finnforest Merk
- Customer: Serpentine Gallery
- Finnforest materials: Kerto

# Sheffield Winter Garden



- Building year: 2002
- Architect: Pringle, Richards, Sharratt Architects
- Structural designer: Buro Happold Ltd., Bath
- Constructor: Interserve Project Services Ltd
- Customer: City of Sheffield
- Finnforest materials: Curved glulam beams

# Tesco store, Wick, Scotland



- Building year: 2006
- Architect: Ian Burke Associates
- Structural designer: Finnforest and Consulting Engineer Evolve, Goodson Associates
- Constructor: Barr Construction
- Customer: Tesco
- Finnforest materials: Glulam, Kerto

# Special constructions

# Wood coaster, New Jersey



- Building year: 2005
- Constructor: Intamin Transportation Ltd.
- Finnforest materials: Kerto

**Civil engineering**



# Charles de Gaulle airport, Paris



- Building year: 2008
- Architect: Dominique Parent and Olivier Mas (ADP)
- Customer: Aéroport de Paris (ADP)
- Finnforest materials: Engineering, manufacturing and installation of veneered Finnforest birch plywood arches

# Sports facilities

# Joensuu Arena

- Building year: 2004
- Architect: PRO-ARK Oy, Marjatta Hara-Pietilä
- Structural designer: Finnmap Consulting Oy
- Constructor: YIT Rakennus Oy
- Customer: City of Joensuu
- Finnforest materials: Upper and lower chord of the arch-shaped trusses of glulam. Diagonals and verticals of the truss, middle boat of the roof and entrance canopy of Kerto.



# Princess Park Stadium, Dartford



- Building year: 2005-2006
- Architect: Alexander Sedgley
- Structural designer: Alan Conisbee & Associates
- Constructor: Jackson Construction
- Customer: Dartford Borough Council
- Finnforest materials: Glulam



# Office buildings

# FMO Tapiola, Espoo



- Building year: 2005
- Architect: Helin & Co Architects
- Structural designer: Insinööritoimisto Suunnittelukortes
- Constructor: Peab Seicon
- Customer: Insurance company Tapiola
- Finnforest materials: Frame of Kerto columns and beams, boxed slabs in intermediate floors. Split glulam in facade.



# Logistics centre of Tokmanni, Mäntsälä



- Building year: 2008
- Architect: Arkkitehtitoimisto VG-Group Oy
- Customer: Tokmanni Oy
- Finnforest materials: King panel

# Meeting rooms at Danone, Velizy



- Building year: 2006
- Architect: Architecture Studio
- Structural designer: Wooden structures: Sylva Conseil
- Constructor: CMB
- Customer: Danone
- Finnforest materials: Kerto



# Finnforest France, Honfleur



- Building year: 2006
- Architect: Agence d'architecture Espace Gaia
- Structural designer: Wooden structures: Rambert S.A.
- Constructor: Cruard
- Customer: Gastebois international
- Finnforest materials: Kerto, Glulam, Thermowood

# Agricultural buildings

# Barn Mattila, Pälkäne



- Building year: 2007
- Architect: Satakunnan M-Rakennussuunnittelu Oy
- Structural designer of Finnforest building parts: Insinööritoimisto Tanskanen Oy
- Constructor: Maatalouskesko
- Customer: Sami Mattila
- Finnforest materials: Kerto framed roof elements, glulam frame

# Residential buildings

# Friisilä residential area, Espoo



- Building year: 2002-2004
- Architect: Pauliina Vihinen & Juha Kronlöf
- Structural designer: Jukka Ala-Ojala
- Constructor: Skanska Oyj
- Customer: Skanska Oyj
- Finnforest materials: Kerto framed wall elements, glass facades and windows.

# Huvitus Housing, Helsinki



- Building year: 2007
- Architect: Kirsi Korhonen ja Mika Penttinen Oy
- Structural designer: Insinööritoimisto Ylimäki & Tinkanen Oy
- Constructor: Skanska Talonrakennus Oy
- Customer: Helsingin asuntotuotantotoimisto
- Finnforest materials: Kerto-Ripa elements in intermediate floor, Kerto in stairs and windows.



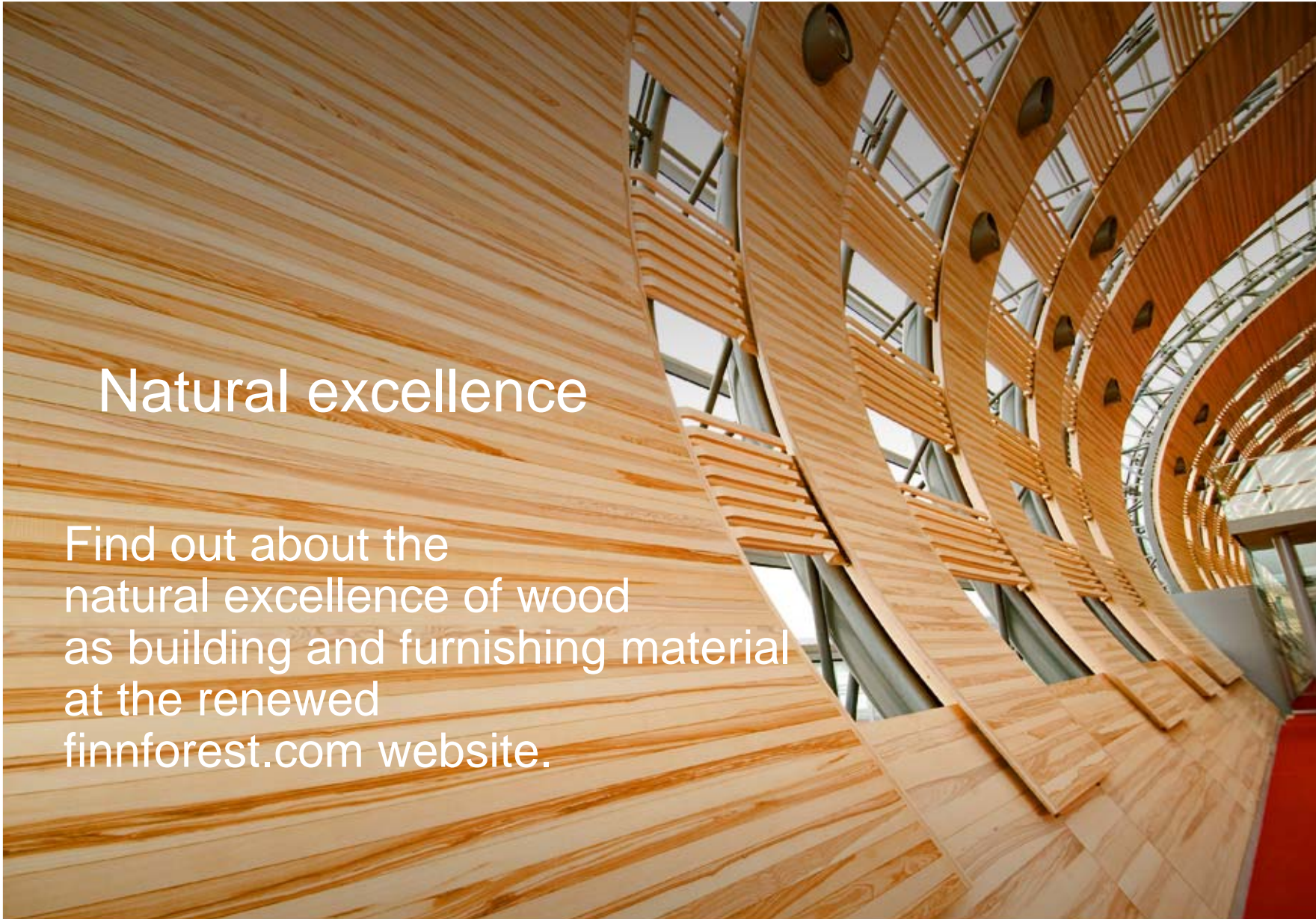
# New projects

# Metropol Parasol, Seville, Spain

- Currently constructed
- Architect Jürgen Mayer H.







# Natural excellence

Find out about the natural excellence of wood as building and furnishing material at the renewed [finnforest.com](http://finnforest.com) website.