

# Stora Enso CLT Projects



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# 1 Single Family Houses

# Single Family House

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## Single Family House

The theme for this single family house is “Living in the garden”. The entrance and the carport is on the upper floor, the whole living area is located on the ground floor. Through huge glass surfaces in the living area, a direct connection to the garden is established. Stora Enso CLT was used as building material for this project. The surface of all ceilings is visible and varnished in white.

- **Type of Project:** Single Family House
- **Location:** Eichgraben, Austria
- **Architect:** BM. Ing. Stefan Huber
- **Timber Engineer & Contractor:**  
Ing. Pöchhacker GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 60 m<sup>3</sup>
- **Completion:** 2014

Images: Ing. Pöchhacker GmbH



# Single Family House

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## Single Family House

This beautiful detached house was built in Upper Austria in May 2010. A particular feature of the house, which was designed by the owner himself, is that many visible quality CLT elements were used to build it. This house was voted Austria's best house during the 2012 Upper Austria Timber Construction Awards.

- **Type of Project:** Single Family House
- **Location:** St. Thomas am Blasenstein, Austria
- **Architect:** House owner
- **Timber Engineer & Contractor:**  
Holzbau Krückl GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 110 m<sup>3</sup>
- **Completion:** 2012

Images: Stora Enso



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# Single Family House

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## Single Family House

CLT was consistently used as a construction material for the interior work, stairs and furnishings of this duplex house. The master carpenter created steps, washstands and shelves out of the cutting waste and built them into the building's structure. Thanks to the high insulation thickness and construction method, the building consumes less than 15 kW hours of electricity per square meter per year and therefore meets passive house standards.

- **Type of Project:** Single Family House
- **Location:** Sistrans, Austria
- **Architect:** maaars architecture ZT GmbH
- **Timber Engineer & Contractor:**  
DMH Handels GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 175 m<sup>3</sup>
- **Completion:** July 2013

Images: Stora Enso



## Paddock House & Springbank

A development in the sensitive conservation area of Camberwell Grove in south east London of a pair of 4 / 5 bedroom family homes - Paddock House and Springbank. The ground floor open plan living space of each home opens up around an external courtyard on three sides.

- **Type of Project:** Private Residential
- **Location:** London, UK
- **Client:** Private
- **Architect:** se5 Architects
- **Main Contractor:** Pawel General Building Ltd.
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 110 m<sup>3</sup>
- **Completion:** September 2013

Images: Niki Borowiecki



# Kendall Court, Alness

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## Kendall Court, Alness

Eight one bedroom apartments designed for limited mobility using an innovative modular build system that combines CLT with blown wood fibre insulation. The new homes exceed technical requirements for acoustics and achieve almost passivhaus standards for airtightness at 0.7m3/ m2.h@50Pa. MVHR and rooftop photovoltaics with a feed-in provides approximately 1.5 KW at any time which has resulted in an EPC projection for a 3 year energy cost of £723, or £20 per month.

- **Type of Project:** Private Residential
- **Location:** Alness, Scotland
- **Client:** The Highland Council
- **Architect:** HRI Architects
- **Timber Engineer & Contractor:**  
Carbon Dynamic Ltd
- **CLT Supplier:** Stora Enso
- **CLT volume:** 54 m<sup>3</sup>
- **Completion:** December 2015

Images: Carbon Dynamic



# Blakeney Cabin

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## Blakeney Cabin

A luxury 4 bedroom holiday eco-cabin at Blakeney on the north Norfolk coast.

The simple architecture and design results in a beautiful, elegant and well-crafted contemporary space. Internally, much of the Cross Laminated Timber has been left exposed. Externally, pre-cast Flint blocks have been used as a contemporary use of a traditional material that is local to the area. The combination of flint and CLT is an interesting mix of traditional and modern.

- **Type of Project:** Private Residential
- **Location:** Blakeney, North Norfolk, UK
- **Client:** Bliss Space
- **Architect:** Waugh Thistleton Architects
- **Main Contractor:** Michael Abbs
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **Completion:** July 2013

Images: Steve Lancefield



## 2 Multi Storey Buildings

## Bridport House

Set in the London Borough of Hackney, Bridport House, London's tallest building made of CLT, took just 12 weeks to build (starting from October 2010). The building comprises 41 apartments each with its own garden or balcony. CLT's light weight was an important consideration for the project, as a sewer runs beneath the building. Bridport House and with it, the use of CLT to build a multi-storey building in an urban environment, marked a milestone for Stora Enso.

- **Type of Project:** Multi Storey Building
- **Location:** London, United Kingdom
- **Architect:** Karakusevic Carson Architects
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 1.576 m<sup>3</sup>

### Images: Stora Enso



## Trafalgar Place

Trafalgar Place is the first phase of Lend Lease's overall Elephant and Castle regeneration and comprises seven apartment buildings, two of which are constructed from CLT, providing 235 high quality homes in total.

The surrounding landscape includes a woodland walk, cafe spill out seating and a quiet reflection garden. Existing trees have been maintained wherever possible.

- **Type of Project:** Multi Storey Building
- **Location:** Southwark, London, UK
- **Client:** Lend Lease
- **Architect:** DRMM
- **Main Contractor:** Lend Lease
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 820 m<sup>3</sup>
- **Completion:** 2015

Images: Stora Enso



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## Project Via Cenni

The Via Cenni project – Italy's tallest CLT multi-storey building complex – stands in Via Cenni in Milan. The complex comprises four buildings, each with nine stories, and 124 apartments of between 50 und 100 m<sup>3</sup>. All apartments are built to the highest standards and have been completed in October 2013. Large sections of the site have been planted with vegetation and trees.

- **Location:** Milan, Italy
- **Architect:** Rossiprodi Associati s.r.l.
- **Timber Engineer & Contractor:**  
MAK Building GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 6.000 m<sup>3</sup>

Images: Service Legno



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## Eskolantie

Stora Enso supplies the wooden modules to four multi-storey buildings with 5 to 7 floors. Eskolantie's block of rental apartments is the long-awaited start of an affordable urban wood construction in Helsinki – economic, safe and ecological projects taking also the local environment into consideration. Construction start was during autumn 2014 and has been completed in November 2015.

- **Type of Project:** Current Project
- **Location:** Helsinki, Finland
- **Architect:** Arkkitehtitoimisto Matti Iiramo Oy
- **Timber Engineer & Contractor:** SRV
- **CLT Supplier:** Stora Enso
- **CLT volume:** 2,500m<sup>3</sup>

### Images: Stora Enso



## University of East Anglia

A five and seven storey student accommodation block made of Stora Enso CLT for the University of East Anglia providing 232 bedrooms, studio apartments, kitchen-diner facilities and flexible open space. The project, which achieved BREEAM Excellent (Building Research Establishment Environmental Assessment Methodology) incorporates many CO2 saving measures. It also features a vertical green wall to offset loss of landscape. The buildings were completed very quickly and inexpensively thanks to the prefabricated CLT components.

- **Type of Project:** Multi Storey Building
- **Location:** Norwich, Norfolk, UK
- **Architect:** LSI Architects
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 1,680 m<sup>3</sup>
- **Completion:** 2015

### Images: Stora Enso



## Lintuviita

The six-storey Lintuviita residential building has been completed in winter 2013 and is currently the highest wooden building in Finland. This project is based on Stora Enso's wooden modular elements prefabricated in our Hartola unit. Modular construction means construction with prefabricated housing modules. This reduces construction time by up to 50 – 70 % compared to traditional construction. Modular construction is fast and efficient. The modules are built from start to finish indoors and are not exposed to variable weather conditions. The ready modules are then delivered to the construction site. The base floor, made of concrete, was constructed in three months. The other five floors were done just in 2,5 months, which shows that the technology based on wooden modules considerably shortens construction time.

- **Type of Project:** Multi Storey Building
- **Location:** Seinäjoki, Finland
- **Architect:** Arkkitehtuuritoimisto AT  
(Antti Nyysönen)
- **Timber Engineer & Contractor:** Lakea Oy
- **CLT Supplier:** Stora Enso
- **CLT volume:** 1,300 m<sup>3</sup>

Images: Stora Enso, Arkkitehtuuritoimisto AT



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### Barmbek

The first multi-storey CLT residential building in Hamburg by Stora Enso is completed. Instead of brickwork and reinforced concrete, CLT was being used for the project. Three four-storey buildings were constructed for family-friendly accommodation on a site at the old goods station. Eleven apartments have been built in total. In the case of the Barmbek apartments, it took two weeks per house to install the timber components. This was made possible by a high level of industrial prefabrication. Cross Laminated Timber meets the demands of modern architects with wide openings and wall protrusions.

- **Type of Project:** Multi Storey Building
- **Location:** Hamburg, Germany
- **Architect:** spine architects GmbH
- **Timber Engineer & Contractor:**  
Terhalle Zimmerei GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 540 m<sup>3</sup>
- **Completion:** 2014

Images: Stora Enso, 3design – Hamburg



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## Puukuokka

The Kuokkala district of Jyväskylä city in the middle part of Finland is the home of the highest wooden house built in Finland so far. The 8-storey building is constructed with modular CLT elements produced by Stora Enso's Wood Products Hartola unit. The project is conducted together with the construction company Lakea. The building includes 58 apartments that guarantee sustainable living by utilizing renewable building materials as well as energy sources. Also the name of the house, Puukuokka (wooden mattock) originates from the construction material, wood.

- **Type of Project:** Multi Storey Building
- **Location:** Jyväskylä, Finland
- **Architect:** Lassila Hirvilampi
- **Timber Engineer & Contractor:** Lakea Oy
- **CLT Supplier:** Stora Enso
- **CLT volume:** 1,700 m<sup>3</sup>
- **Completion:** 2015

### Images: Stora Enso



## Joensuun Elli

These six small-scale apartment blocks are entirely based on Stora Enso's CLT element technology. CLT boards were turned into elements, i.e. provided with insulation, exterior cladding, windows and doors, at Pälkäne unit. The site ranks among the biggest wooden apartment block projects in Finland coming close to passive house standards. The project was completed in summer 2013 and nominated for provincial construction of the year.

- **Type of Project:**
- **Location:** Noljakka, Joensuu, Finland
- **Architect:** Arcadia Oy
- **Timber Engineer & Contractor:** Joensuun Tiedepuisto Oy, Opiskelija-asunnot Oy  
Joensuun Elli
- **CLT Supplier:** Stora Enso
- **CLT volume:** 870 m<sup>3</sup>

### Images: Stora Enso



## Cobalt Place

Two town houses and two residential 5 and 6 storey blocks built on the west side of a tight urban plot in Battersea. The two blocks provide 102 1-3 bedroom apartments with projecting and recessed steel balconies overlooking a central communal garden which is shared with two new buildings for the neighbouring St John Bosco College.

- **Type of Project:** Residential
- **Location:** Battersea, London, UK
- **Client:** Lend Lease
- **Architect:** AHMM
- **Main Contractor:** Lend Lease
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 2 575 m<sup>3</sup>
- **Completion:** 2015

### Images: Stora Enso



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## Bermondsey Street

A 3 storey residential development on a prominent corner in the Bermondsey Street conservation area, adjacent to the White Cube Gallery. An existing building has been reworked and extended with a roof space and rear extension.

The White Cube Gallery is one of the world's leading galleries for contemporary art featuring artists such as Damien Hirst, Tracey Emin and Gilbert & George.

- **Type of Project:** Low Rise Residential
- **Location:** London Borough of Southwark, UK
- **Client:** Private
- **Architect:** Hampson Williams Architects
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 55 m<sup>3</sup>
- **Completion:** Spring 2014

Images: Pick Everard Architects



## 3 Public Buildings

## Graveney 6th Form College

A new 800m<sup>3</sup> block provides valuable extra teaching, study and communal space comprising eight classrooms and a double-height study space with balconies and a gallery. Delivered on a tight budget and schedule at £1.04m for an internal area of 698m<sup>2</sup>. The award winning design is shaped and characterised by the CLT superstructure which is exposed internally throughout. A highly innovative polycarbonate façade system completes the building.

- **Type of Project:** Public Building
- **Location:** London Borough of Tooting, UK
- **Client:** Graveney Trust
- **Architect:** Urban Projects Bureau
- **Main Contractor:** Ashe Construction
- **Timber Engineer & Contractor:** G-Frame /  
Furness Partnership
- **CLT Supplier:** Stora Enso
- **CLT volume:** 200 m<sup>3</sup>
- **Completion:** October 2014

Images: Wayne Probert



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## Roman Road Primary School

A major extension for Roman Road Primary School consisting of three new CLT blocks comprising a hall and entrance block, a new teaching block and a Reception and Library building. The design incorporates internal exposure of the CLT throughout.

Outdoor play space and landscaped courtyards planted to enhance biodiversity complete the new scheme.

- **Type of Project:** Public Building
- **Location:** London Borough of Newham, UK
- **Client:** London Borough of Newham
- **Architect:** Maccreanor Lavington
- **Main Contractor:** Neilcott Construction
- **Timber Engineer & Contractor:** G-Frame / Furness Partnership
- **CLT Supplier:** Stora Enso
- **CLT volume:** 567 m<sup>3</sup>
- **Completion:** 2014

Images: Neilcott Construction



## North Beckton Primary School

A new 2 storey CLT classroom block comprising 12 classrooms plus a special needs room. There are also two large communal areas and smaller group rooms. A roof terrace provides outdoor space for the first floor. The CLT ceilings in the classrooms are left exposed giving the building a welcoming feeling.

A polycarbonate canopy on a steel framework links the new block to the existing school.

- **Type of Project:** Public Building
- **Location:** London Borough of Newham, UK
- **Client:** London Borough of Newham
- **Architect:** Walters & Cohen /Pick Everard
- **Main Contractor:** Neilcott Construction
- **Timber Engineer & Contractor:** G-Frame /  
Furness Partnership
- **CLT Supplier:** Stora Enso
- **CLT volume:** 310 m<sup>3</sup>
- **Completion:** August 2014

### Images: Neilcott Construction



# Nursery School Dietersheim

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## Nursery School Dietersheim

In 2013 a nursery school in passive house standard has been built in the northern area of Munich. The 150 m<sup>3</sup> CLT were mostly in visible quality. The advantage of CLT is the short construction time due to the high level of prefabrication.

- **Type of Project:** Public Building
- **Location:** Eching, München, Germany
- **Architect:** Hirner und Riehl Architekten und Stadtplaner BDA
- **Timber Engineer & Contractor:**  
Grossmann-Bau
- **CLT Supplier:** Stora Enso

Images: Hirner und Riehl Architekten und Stadtplaner BDA



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## Curwen Primary School

A new two storey building linked to the existing school by a single storey glazed structure, provides eight new classrooms arranged over both floors with kitchen and dining space on the ground floor. Supporting facilities including accessible WC and office/meeting room will allow community use during and after school hours. The woodland area to the south east of the site provides a natural habitat teaching space and increases the biodiversity in the school grounds.

- **Type of Project:** Public Building
- **Location:** Plaistow, London, UK
- **Client:** London Borough of Newham
- **Architect:** Rivington Street Studio
- **Main Contractor:** Neilcott Construction
- **Timber Engineer & Contractor:**  
G-Frame / Furness Partnership
- **CLT Supplier:** Stora Enso
- **CLT volume:** 260 m<sup>3</sup>
- **Completion:** September 2015

Images: Neilcott Construction



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## John Ball Primary School

A series of extensions and internal remodelling for John Ball Primary School comprising 6 classrooms, new entrance and new administration, staff and senior management facilities. Located within London's Blackheath Conservation Area, the expansion from 2 form to 3 form entry meets the high demand for primary school places in the area.

- **Type of Project:** Public Building
- **Location:** Blackheath, London, UK
- **Client:** London Borough of Lewisham
- **Architect:** MEB Design Ltd
- **Main Contractor:** Neilcott Construction
- **Timber Engineer & Contractor:**  
G-Frame / Furness Partnership
- **CLT Supplier:** Stora Enso
- **CLT volume:** 22 m<sup>3</sup>
- **Completion:** September 2015

### Images: Stora Enso



## Ickburgh School

A three-storey specialist school for 150 pupils with profound and multiple learning difficulties aged between 2-19 years. Internally Ickburgh has been designed to embrace CLT's natural qualities which give the building a feeling of richness and warmth. A central atrium houses centralized services and a cafe. Internally much of the CLT has been left exposed to provide a nurturing feeling.

- **Location:** Hackney, London, United Kingdom
- **Architect:** Avanti Architects
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 1.488 m<sup>3</sup>

### Images: Stora Enso



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# Primary School Eggldham

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## Primary School Eggldham

The school comprises three u-shaped, two-storey gable roof buildings which are connected together. Virtually all the flat structural components are made from CLT, and the building, which was constructed in 2010, features a large amount of visible quality CLT elements.

- **Type of Project:** Public Building
- **Location:** Eggldham, Germany
- **Architect:** Kremsreiter Architekten
- **Timber Engineer & Contractor:**  
Grossmann Bau GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 600 m<sup>3</sup>

Images: Stora Enso



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# St Stephens Primary School

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## St Stephens Primary School

A new 2 storey classroom block for St Stephens Primary School comprising six new classrooms, office space, toilet facilities and ancillary rooms. The dining hall has also been extended and new creche facilities provided.

A roof terrace provides outdoor space for the first floor.

- **Type of Project:** Education
- **Location:** London Borough of Newham, UK
- **Client:** London Borough of Newham
- **Architect:** Rivington Street Studio & Pick Everard
- **Main Contractor:** Neilcott Construction
- **Timber Engineer & Contractor:** G-Frame / Furness Partnership
- **CLT Supplier:** Stora Enso
- **Completion:** August 2014

Images: Pick Everard Architects



# La Retraite School

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## La Retraite School

A new building to provide space for the Integrated Movement & Dance facility for this school in South London. A linear building on the east side of a large playing field with a series of class rooms offering views out to the green space.

- **Type of Project:** Education
- **Location:** Clapham, South London
- **Client:** La Retraite RC School for Girls
- **Architect:** Burns Guthrie and Partners
- **Main Contractor:** Neilcott Construction
- **Timber Engineer & Contractor:** Eurban Ltd.
- **Engineer:** Crofton Design
- **CLT Supplier:** Stora Enso
- **Completion:** July 2013

Images: Burns Guthrie Architects



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# Roman Road Primary School

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## Roman Road Primary School

A major extension for Roman Road Primary School consisting of three new CLT blocks comprising a hall and entrance block, a new teaching block and a Reception and Library building. The design incorporates internal exposure of the CLT throughout.

Outdoor play space and landscaped courtyards planted to enhance biodiversity complete the new scheme.

- **Type of Project:** Education
- **Location:** London Borough of Newham, UK
- **Client:** London Borough of Newham
- **Architect:** Maccreehan Lavington
- **Main Contractor:** Neillcott Construction
- **Timber Engineer & Contractor:**  
G-Frame / Furness Partnership
- **CLT Supplier:** Stora Enso
- **Completion:** July 2013

Images: G-Frame Ltd



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# West Drayton Primary School

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## West Drayton Primary School

Consultant A new two storey extension housing eight additional classrooms, staff & admin facilities and rooms for group activities. The new building is located on the old school playground and was constructed while the School was in use. External additions to the School include new play areas and a multi-use games area.

- **Type of Project:** Education
- **Location:** West Drayton, London, UK
- **Client:** London Borough of Hillingdon
- **Architect:** Baily Partnership Construction & Property Consultants
- **Main Contractor:** Lake House Construction
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 442 m<sup>3</sup>
- **Completion:** 2014

Images: Stora Enso



## The Bridge School

A new building for The Bridge School in Ipswich, to accommodate both primary and secondary school pupils with severe, profound and complex Special Educational Needs. The new building links the existing primary and secondary campuses which are currently located on two sites.

- **Type of Project:** Educational Special Needs
- **Location:** Ipswich, Suffolk, UK
- **Architect:** Concertus
- **Main Contractor:** ISG Plc
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 759 m<sup>3</sup>
- **Completion:** Due for completion August 2015

### Images: The Bridge School



## St Mark's Primary School

A new building extending the original Primary School into the former Swanage Middle School site. Accommodating a library, learning resource centre and classrooms for years 1-6. A connection to the landscape is maintained by classrooms opening directly to outdoor play areas. The local Purbeck stone from the original demolished buildings has been re-used as cladding on the new single storey CLT wing which stores 150 tonnes of CO<sub>2</sub>.

- **Type of Project:** Education
- **Location:** Swanage, Dorset, UK
- **Client:** Diocese of Salisbury
- **Architect:** LCE Architects
- **Main Contractor:** Hammond Building Contractors
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 191 m<sup>3</sup>
- **Completion:** February 2014

Images: LCE Architects



# North Beckton Primary School

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## North Beckton Primary School

A new 2 storey CLT classroom block comprising 12 classrooms plus a special needs room. There are also two large communal areas and smaller group rooms. A roof terrace provides outdoor space for the first floor. The CLT ceilings in the classrooms are left exposed giving the building a welcoming feeling.

A polycarbonate canopy on a steel framework links the new block to the existing school.

- **Type of Project:** Education
- **Location:** London Borough of Newham, UK
- **Client:** London Borough of Newham
- **Architect:** Walters & Cohen / Pick Everard
- **Main Contractor:** Neilcott Construction
- **Timber Engineer & Contractor:**  
G-Frame / Furness Partnership
- **CLT Supplier:** Stora Enso
- **Completion:** August 2014

Images: G-Frame Ltd.



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## Trainings Center JACER

In this particular project, an old horse stable has been converted into a modern training center for the timber industry. On the ground floor all the old stone walls have been preserved in their original state, which gives this building originality. However, the first floor was completely constructed with Stora Enso CLT in visual quality.

- **Type of Project:** Public Building
- **Location:** Ústí nad Labem – Předlice, Czechia
- **Architect:** 3+1 architekti
- **Main Contractor:** TAROS NOVA
- **CLT Supplier:** Stora Enso
- **CLT volume:** 50 m<sup>3</sup>

Images: 3+1 architekti



# Springfield Library Extension

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## Springfield Library Extension

A New Library and community space providing a state of the art facility for the local Community.

- **Type of Project:** Public Building
- **Location:** Chelmsford, Essex, United Kingdom
- **Architect:** LCE Architects
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 96 m<sup>3</sup>

Images: LCE Architects



# Mossbourne Victoria Park

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## Mossbourne Victoria Park Academy

A new school building providing an extra 500 places at one of the UK's most sought after state schools in Hackney's Victoria Park Village.

The new 4 storey building will provide teaching space, a new sports hall and assembly facilities. It sits adjacent to the original historic Grade II-listed school building which started life in 1865 as a Huguenot hospital.

- **Type of Project:** Education
- **Location:** London Borough of Hackney, UK
- **Client:** London Borough of Hackney
- **Architect:** Jestico & Whiles Architects
- **Main Contractor:** Willmott Dixon
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 1,200 m<sup>3</sup>
- **Completion:** December 2014

Images: Stora Enso



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## Arcadia Nursery

A multi-award winning scheme created to provide early-years education for the children of University staff, students and the general public. The new building caters for up to 110 children from tiny infants of 6 weeks to five years of age. The building at Edinburgh University's King's Buildings Campus brings together two existing University nursery facilities into one purpose-built facility with an extensive outdoor play area.

- **Type of Project:** Nursery Education
- **Location:** Edinburgh, Scotland
- **Client:** The University of Edinburgh
- **Architect:** Malcolm Fraser Architects
- **Main Contractor:** Mansell Construction Services
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 290 m<sup>3</sup>
- **Completion:** 2014

Images: Malcolm Fraser Architects / Angus Bremner



# Library at the Dock

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## Library at the Dock

The first public CLT building, which is called Library at the Dock, has been erected in Melbourne, Australia. Victoria Harbour's new library is an outstanding architectural feature which meets all sustainability requirements and achieved the much sought-after Six Star Green Star rating under the Green Building Council of Australia. Building work has been completed in May 2014. The library has opened its doors to the public and forms part of a larger infrastructure project.

- **Type of Project:** Public Building
- **Location:** Melbourne, Australia
- **Architect:** Clare Design and Hayball
- **Timber Engineer & Contractor:**  
Lend Lease
- **CLT Supplier:** Stora Enso
- **CLT volume:** 574 m<sup>3</sup>

Images: Stora Enso



## National Museum of Science & Industry

An innovative archive facility for the NMSI's Big Object Store which is constructed within an existing aircraft hangar and located on a former WWII airfield.

The unit is built on a steel primary structure using a combination of pre-fabricated hemp panels and CLT Timber floor cassettes. The combination of materials means that the facility is able to achieve the desired airtightness and a stable internal temperature, essential for the storage of valuable items.

- **Type of Project:** Museum Archive
- **Location:** Wroughton, Wiltshire, UK
- **Client:** National Museum of Science & Industry
- **Architect:** Emission Zero
- **Main Contractor:** Lime Technology
- **CLT Supplier:** Stora Enso
- **CLT volume:** 130 m<sup>3</sup>
- **Completion:** September 2012

Images: Jennie Hills/Science Museum, London Science & Society



## Cranleigh Health Centre

A new 1300m<sup>2</sup> health centre in the village of Cranleigh has replaced an existing 1960's era facility. The cross-laminated timber structural frame allowed for rapid erection and much of the interior CLT surface have been left exposed. This project has been really well received in the UK, recently winning 'Best Public Building Award' and being Highly Commended in the 'Community Award' and the 'Sustainable Design Award' at the Waverley Design Awards.

- **Type of Project:** Education
- **Location:** Cranleigh, Surrey, United Kingdom
- **Architect:** SR Architects
- **Main Contractor:** Neilcott Construction
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 400 m<sup>3</sup>

Images: Morgan Sindall & SR Architects



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## 4 Industrial & Commercial Buildings

## Fenster Dreier

The Fenster Dreier GmbH headquarters in Carinthia is clearly recognizable by its inclined surfaces. The shape follows the lines of a cut diamond. In the selection of the materials, the structural engineers have chosen CLT massive wood panels for the realization of this building. The high degree of prefabrication and the short construction time enabled the opening of the headquarters after only five months.

- **Type of Project:** Industrial & Commercial Building
- **Location:** Völkermarkt, Austria
- **Architect:** Reinhard Dreier
- **Timber Engineer & Contractor:** ZMP GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 320 m<sup>3</sup>

Images: ZMP GmbH



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# Maschinenring office building

STORA ENSO BUILDING SOLUTIONS

02/2016

## Maschinenring office building

The CLT solid-wood construction is the key to an ecological building concept. This newly constructed office building from Maschinenring Salzburg offers 50 employees a modern workplace. CLT ensures a pleasant indoor climate. This office building was completed in April 2013.

- **Type of Project:** Industrial & Commercial Building
- **Location:** St. Johann im Pongau, Austria
- **Architect:** LP architektur ZT GmbH
- **Timber Engineer & Contractor:** DMH Handels GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 475 m<sup>3</sup>

Images: Stora Enso



# Stora Enso CLT mill

STORA ENSO BUILDING SOLUTIONS

02/2016

## Stora Enso CLT mill

Apart from the floor plate, Stora Enso's 12,000 square meter CLT production facility is made exclusively from CLT solid timber. Stora Enso's second CLT factory commenced operations in 2012. During the same year, the CLT factory in Ybbs on the Danube was commended in the "Commercial Building" category of the Lower Austrian Timber Construction Awards.

- **Type of Project:** Industrial & Commercial Building
- **Location:** Ybbs on the Danube, Austria
- **Architect:** BM Hermann Joham GmbH
- **Timber Engineer & Contractor:**  
Ing. Pöchlhammer GmbH,  
Glöckel Holzbau GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 3,305m³
- **Completion:** 2012

### Images: Stora Enso



# LignoAlp office building

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## LignoAlp office building

Even from the outside, the company LignoAlp's office building has a fascinating and impressive appearance, evocative of an over-sized wooden cube. The staircase, elevator shaft and entrance area were made with CLT, demonstrating the flexible functionality of this building material. The fascinating interior design invites visitors on a journey of discovery into the world of timber as a natural building material.

- **Type of Project:** Industrial & Commercial Building
- **Location:** Brixen, Italy
- **Architect:** Sandy Attia and Matteo Scagnol
- **Timber Engineer & Contractor:**  
Damiani Holz & Co S.p.A.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 90 m

Images: Stora Enso



## G3 Shopping Resort

The G3 shopping resort was opened in 2012 in Gerasdorf bei Wien, Austria. At the time of its construction, it was Europe's largest wooden building site with 6,000 m<sup>3</sup> of cross-laminated timber. The contoured roof construction made of CLT is a structural engineering masterpiece. Sustainability was already an important element during the building phase, and the entire Gerasdorf G3 Shopping resort now promotes the concept.

- **Type of Project:** Industrial & Commercial Building
- **Location:** Gerasdorf, Vienna
- **Architect:** ATP Achammer-Tritthart & Partner GmbH
- **Timber Engineer & Contractor:** Leyrer & Graf Bau GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 3,000 m<sup>3</sup>

### Images: Stora Enso



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## Bliss Blakeney

A large contemporary family home in Blakeney, an Area of Outstanding Natural Beauty (AONB) on the Norfolk coast which provides habitat for several rare species. The project has been completed in two phases beginning in 2013 with Blakeney Cabin - a guest lodge available for holiday rental. Phase 2 comprises three additional wings built around a central courtyard garden which house the client's private residence and workspace.

- **Type of Project:** Private Residential
- **Location:** Blakeney, North Norfolk, UK
- **Client:** Daniel & Lisa Broch
- **Architect:** Waugh Thistleton Architects
- **Main Contractor:** Bliss Space Ltd.
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 243 m<sup>3</sup>
- **Completion:** Summer 2015

Images: Bliss Space Ltd.

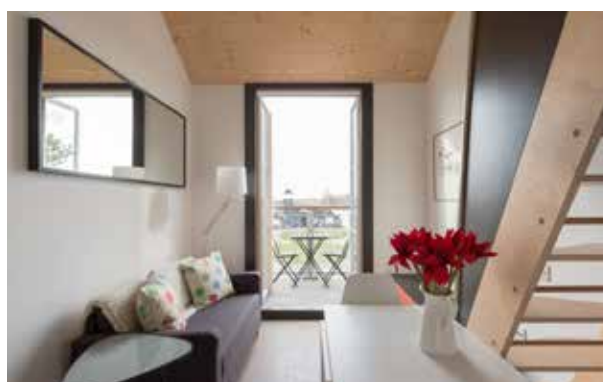


## Barnhall

CLT breathes new life into Peter Pan's village Stora Enso Wood Products has supplied CLT for a significant new building in the fairy tale village of Thorpeness on England's Suffolk coast. Located just a few yards from the beach in an area of outstanding natural beauty, the new Barnhall offers visitors the opportunity to eat, shop and even take their holidays at the very centre of this world renowned village. Replacing the original Estate Office, or 'town hall', which was badly decaying and over the years had been considerably altered, Barnhall is designed as a 'cluster' of five separate buildings arranged over two storeys.

- **Type of Project:** Industrial & Commercial Building
- **Location:** Thorpeness, United Kingdom
- **Architect:** Tom Brent
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 201 m<sup>3</sup>

Images: Judy Goldhill and French+Tye



## Architecture Archive at Shatwell Farm

Redevelopment of an agricultural building on a working farm to provide an architectural archive and office. Two new CLT structures have been built within the original stone and brick walls of the barn. Both rooms have underfloor heating powered by an air source heat pump and a wood burning stove for very cold days. The CLT construction is not insulated, externally clad or internally lined and provides a stable internal environment for the archive.

RIBA National Award winner 2014

- **Type of Project:** Archive
- **Location:** Somerset, UK
- **Client:** Private
- **Architect:** Hugh Strange Architects
- **Main Contractor:** Paul Rawson
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 155 m<sup>3</sup>
- **Completion:** February 2014

Images: David Grandorge



## Piano Yard

Redevelopment of redundant workshops on a very tight inner London site comprising two houses, seven flats and three new office spaces around a central courtyard garden. The homes have large windows open to the pitched roof inside, making the interiors feel bright and spacious. Balconies and roof terraces are worked in at all levels with the timber structure preventing problems with heat loss. Specially developed design features include decorative laser cut metal balustrades around the courtyard along and a palette of colours for the painted timber and painted brickwork.

- **Type of Project:** Industrial & Commercial Building
- **Location:** London Borough of Camden, United Kingdom
- **Architect:** Chassay Studios
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 460 m<sup>3</sup>

Images: Kilian O'Sullivan



## Asylum Road

A pair of 4 bedroom houses in Peckham built on the site of a former laundry which has inspired a number of the details of the design.

Much of the CLT has been left exposed internally. Designed by Ken Taylor, a pioneer of CLT in the UK, the houses have been designed to achieve Code for Sustainable Homes Level 4.

- **Type of Project:** Private Residential
- **Location:** London Borough of Southwark, UK
- **Client:** Private
- **Architect:** Quay2c
- **Main Contractor:** One Off Basements
- **Timber Engineer & Contractor:** Eurban Ltd.
- **CLT Supplier:** Stora Enso
- **CLT volume:** 110 m<sup>3</sup>
- **Completion:** August 2014

Images: Pick Everard Architects



## 5 Special Buildings

## Campus building OMICRON electronics GmbH

The new campus of OMICRON electronics is a perfect detailed, prefabricated wooden building. All used materials are environmentally tested. There are specially furnished rooms, which connect the floors and they provide complementary informal meeting, relaxation and inspiration zones. A gallery contains a CNC modeled biomorphic large sculpture of Cross Laminated Timber from Stora Enso, which invites for sitting, walking and spiral climbing to the next floor.

- **Type of Project:** Special Building
- **Location:** Klaus, Austria
- **Architect:** Peter Nußbaumer Dipl. Arch. –  
Partner; Dietrich | Untertrifaller Architekten  
ZT GmbH
- **Timber Engineer & Contractor:**  
Gerhard Berchtold Zimmerei GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 235 m<sup>3</sup>

Images: Studio 22 Marcel Hagen



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## MT-Hotel

In the heart of Styria, close to Zeltweg, lies the MT-Design Hotel. This new hotel offers its visitors an exceptional architecture and convinces by a perfect travel connection due to the close highway. The architect used the innovative Stora Enso CLT which accommodates travelers in a pleasant way. The hotel is ideally located for business travelers or for guests who plan to have a longer vacation in a stylish surrounding.

- **Type of Project:** Special Building
- **Location:** Zeltweg, Austria
- **Architect:** Fritz Mayer und Tieber Busreisen
- **Timber Engineer & Contractor:** ZMP GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 450 m<sup>3</sup>

Images: Fritz Mayer



# Gradonna Mountain Resort

STORA ENSO BUILDING SOLUTIONS

02/2016

## Gradonna Mountain Resort

The Kals am Großglockner Hotel, which is set 1,350 meters above sea level, opened its doors in December 2012. Guests are immediately captivated by the architecture's straight and clearly defined lines. Inside the building, indigenous spruce CLT creates a warm and welcoming atmosphere, while the outside is clad in wood shingle. The entire project is geared towards sustainability, which is also demonstrated by the associated wood chip heating system.

- **Type of Project:** Special Building
- **Location:** Kals am Großglockner, Austria
- **Architect:** DI Erich Strolz
- **Timber Engineer & Contractor:**  
Zimmerhofer Holzbau GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 1,300m<sup>3</sup>

Images: Zimmerhofer Holzbau GmbH



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## Nordic World Ski Championships 2015

From 18th February to 1st March, the 50th Nordic World Ski Championships will be held in Falun, Sweden. This year, the organisational planning of the winter sports highlight will take place in a building built by Stora Enso. The environmentally friendly, two-storey building is a striking example of the versatile uses of Stora Enso products. The building was constructed using high-quality CLT building material (Cross Laminated Timber). Other Stora Enso products were used, e.g. components for windows and doors as well as ThermoWood for the exterior cladding and Effex for the flooring.

- **Type of Project:** Special Building
- **Location:** Falun, Sweden
- **Architect:** Sweco arkitekter (Arena architecture);  
Ettelva arkitekter (Building architecture);  
Mondo arkitekter (Detailing)
- **Timber Engineer & Contractor:**  
VM i Falun 2015 and Projektledarbyrån
- **CLT Supplier:** Stora Enso
- **CLT volume:** 235 m<sup>3</sup>

### Images: Stora Enso



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## Hotel Alpin Juwel

The four-star superior Hotel Alpin Juwel was opened on 12 December 2012 in Saalbach Hinterglamm, Austria. Stylish and sustainable living characterises this hotel for which CLT is the ideal construction material. In particular, the advantages of using CLT, such as short construction periods and no drying times, make this building material ideal for hotel projects, the majority of which must be built during the low season.

- **Type of Project:** Special Building
- **Location:** Saalbach Hinterglamm, Austria
- **Architect:** Moritz & Haselsberger
- **Timber Engineer & Contractor:**  
Zimmerhofer Holzbau GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 730 m<sup>3</sup>

Images: Zimmerhofer Holzbau GmbH



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# Snail Shell Tower

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## Snail Shell Tower

The new landmark of Lower Austria's Stetten Fossil World is the 17 meter high, snail-shaped lookout tower, which can be seen for miles around. It was constructed in 2009 from CLT and demonstrates CLT's manifold construction possibilities.

- **Type of Project:** Special Building
- **Location:** Stetten, Austria
- **Timber Engineer & Contractor:**  
Leyrer & Graf Bau GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 17 m<sup>3</sup>

Images: Stora Enso



## 6 Current Projects

## Student houses

“Moholt 50/50” is the name of Norway’s latest building project realized with Stora Enso CLT. This is a student hall of residence complex in Trondheim which features five timber buildings with nine storeys each. This project is being built with a total of 6,500 m<sup>3</sup> of CLT, delivered in 75 lorry loads and 50 goods wagons by the Stora Enso factory in Ybbs (Austria) to Trondheim (Norway). It will take a total construction time of just nine months to complete the halls of residence, a library building and a nursery school. In addition to the technical advantages such as the short construction period and the high functionality, the timber construction also has a demonstrably positive effect on the living quality in that building, which should be completed in the first half 2015.

- **Type of Project:** Current Project
- **Location:** Trondheim, Norway
- **Architect:** Tormad Raen | AT Plan und Arkitektur AS
- **Timber Engineer & Contractor:** Woodcon
- **CLT Supplier:** Stora Enso
- **CLT volume:** 6,500 m<sup>3</sup>
- **Completion:** 2017

### Images: Veidekke

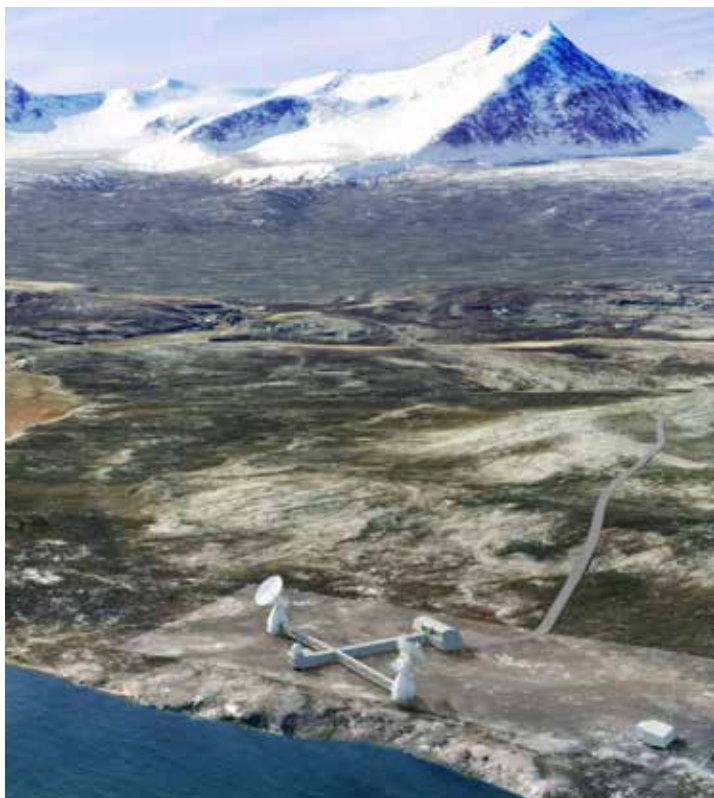


## Geology base

In December 2014 was the kick-off for the northernmost timber project in the world: a geological research base in Svalbard. This base consists of four buildings which are connected by corridors above ground. Apart from the concrete foundation, only Stora Enso CLT in industrial visual quality is used for this project. Due to the northern location, it is 24 hours dark on the construction site. A safe and fast construction is possible due to the prefabricated massive wood CLT elements, which resulted in lower construction cost. These advantages were crucial for the decision to build with Stora Enso CLT.

- **Type of Project:** Current Project
- **Location:** Svalbard/Spitzbergen, Norway
- **Architect:** LPO arkitekter as Vei 601 2A | 9170 Longyearbyen v/Arvid R. Ruud
- **Timber Engineer & Contractor:** Woodcon
- **CLT Supplier:** Stora Enso
- **CLT volume:** 300 m<sup>3</sup>
- **Completion:** 2016

Images: Veidekke Arctic AS



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## Graz Project

Twelve CLT buildings in a wood-clay construction and with visible CLT ceilings are emerging directly in the heart of Graz. Together with the wood, the clay rendering provides a healthy and pleasant indoor climate. The three-, four-, and five-storey buildings will use a total of 4,400 m<sup>3</sup> of CLT, of which 2,000 m<sup>3</sup> will be in industrial visible quality. A total of 143 apartments will be built, many of which will have gardens or balconies. The project has been awarded “klima:aktiv GOLD” certification and includes an alternative energy concept whereby energy can be exchanged with a connected supermarket. The project also includes an electric mobility concept.

- **Type of Project:** Current Project
- **Location:** Graz, Austria
- **Architect:** Nussmüller Architekten ZT GmbH
- **Timber Engineer & Contractor:**  
Kulmer Bau GmbH
- **CLT Supplier:** Stora Enso
- **CLT volume:** 4,400 m<sup>3</sup>
- **Completion:** 2015

Images: Nussmüller Architekten ZT GmbH



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## Wood City

Wood City, a unique wooden urban quarter, is to be developed in Helsinki. This will be the largest wooden quarter of its type in Finland and will include apartments, offices and a hotel. Construction of this urban quarter is due to begin in 2014, and it should be possible to move into the first buildings by the end of 2015. The project is due for completion in 2025 by which time Jätkäsaari area will have 17,000 inhabitants.

- **Type of Project:** Current Project
- **Location:** Helsinki, Finland
- **Architect:** Anttinen Oiva Architects
- **Timber Engineer & Contractor:** SRV
- **CLT Supplier:** Stora Enso
- **CLT volume:** 8,500m<sup>3</sup>

Images: Anttinen Oiva Architects



## Nonnewiesen

The project consists of two types of residential buildings: one multifamily house and a series of eleven townhouses. All components are made of CLT-Cross Laminated Timber, the exterior walls including insulation were prefabricated in the Prefalux factory. The interior walls (partly in visible quality) as well as ceilings / roofs were delivered directly to the construction site. Completion 2015.

- **Type of Project:** Current Project
- **Location:** Esch-sur-Alzette, Luxembourg
- **Architect:** michel petit architecte
- **Timber Engineer & Contractor:** Prefalux
- **CLT Supplier:** Stora Enso
- **CLT volume:** 1,300 m<sup>3</sup>
- **Completion:** 2015

Images: Stora Enso



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