DynaTTB

Dynamic Response of Tall Timber Buildings under Service Load
Aim of the project

• Quantify the structural damping in as-built TTBs.
• Identify and quantify the effects of connections and non-structural elements on the stiffness, damping and wind-induced dynamic response of TTBs.
• Develop a bottom-up numerical FE-model for estimating the dynamic response of multi-storey timber buildings.
• Validate the predicted response with in-situ measurements on TTBs.
• Disseminate findings via a TTB Design Guideline for design practitioners.
Partners
Project structure

WP 1 – Project management

WP 2 – Laboratory experiments

WP 4 – Modelling

WP 3 – In-situ measurements

WP 5 – Dissemination

Components
Connections
Sub-assemblies
Complete buildings
Buildings
(Planned)

- Treet, 14 stories, glulam + volume elements
- Norsenga bridge, glulam
- Yoker, 7 storeys, CLT
- Hyperion, 18 storeys, hybrid + CLT
- Treed-IT, 12 storeys
  (credit: Mariehus)
- Eken, 6 storeys, Glulam
  (credit: InnoRenew CoE)
- Mjøstårnet, 18 storeys, Glulam
  (credit: Moelven)
- Karantanika, 4 storeys, CLT
  (credit: Smith & Wallwork)
- Image: Julie Lewis - Thompson
- Image: Smith & Wallwork
- Image: Eiffage
- Image: Arbonis
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*Project Dyna-TTB is supported under the umbrella of ERA-NET Cofund ForestValue by Vinnova – Sweden’s Innovation Agency, Agence Nationale de la recherche, Ministry of Education, Science and Sport, The Research Council of Norway and Forestry Commission. ForestValue has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement N° 773324.*