

WOODRISE 2017:

Research and Comfort at the 1ST World Congress on Midrise and Tall Wood Buildings

Organized by the Institut technologique FCBA (France), FPInnovations (Canada), the Building Research Institute (Japon), with the support of ADIVbois (France), the 1st world congress on midrise and tall wood buildings will be held in France, from September 12 to 15.

This unique gathering, eagerly expected in the wood, construction, planning and real estate industries, will allow all international stakeholders to share their skills and expertise around wood as an emblematic material for low-carbon territories.

Research will therefore be one of the key topics addressed throughout the congress, to reflect the studies on wood building comfort. Acoustic comfort, thermal comfort, health and well-being, etc.: various works are underway or being planned internationally. Associated to projects and expertise sharing, they are essential to the development of wood buildings. Some will be featured or initiated during the WOODRISE congress.

The issue of comfort is key in the construction industry, especially for wood buildings, where various aspects remain to be explored. For instance, various studies highlighted the positive impressions in terms of wood building comfort. Those impressions must now be scientifically qualified.

The topic was the subject of multiple research projects, with different variations from one country to another. One of the WOODRISE objectives is to value and advance this field of research, by presenting recent project results or allowing to initiate new ones. Focus on two initiatives mentioned at the congress.

Final Session of the Silent Timber Build European Project: Acoustic Comfort

Initiated in 2014, the Silent Timber Build project gathering some fifteen European laboratories was born from an observation: the acoustics of wood construction were scientifically and technically not well known and seen as an obstacle to the development of midrise and tall wood buildings.

The issue wasn't so much finding technical solutions, which already existed, but rather developing them in an optimal, techno-economic manner. The Silent Timber Build project was implemented to address this objective and answer the increasing demands of stakeholders in the field.

It articulates around three concepts:

- **Modelisation:** before implementing the project, acoustics was the only engineering field where there were no true calculation models. The objective consisted in developing new adapted models for midrise and tall wood buildings.

- To give means to the design offices to validate during conception phase the acoustics of the wooden constructions, measurements and calculation tools.
- Data base development: improve knowledge through many examples of projects.

Multiple results were obtained, in line with:

- Creating acoustic calculation models, technology transfers from automobile or aerospace models adapted to construction;
- Valuing rupture innovations for flooring, among others.

The results of the Silent Timber Build project will be presented at WOODRISE, on Thursday, September 14, in the Acoustic Performance workshop, with the 8 labs that participated in the project (Austrian, Belgian, Swedish, French, Swiss and Canadian).

Launch of a French/Japanese Research Project: Comfort, Well-Being and Health

Current research led in France about comfort, including thermal comfort, is often performed based on physical and psychological aspects.

Conversely, in Japan, the research focuses essentially on physiological aspects. Research projects, such as the one led by Professor Ikaga (Keio University), mainly focus on health issues. In fact, the elderly, living more often on their own or with their children than in retirement homes, with buildings lacking in isolation, often suffer from cold-related diseases.

The idea championed by Sylvain Boulet (engineer in FCBA's Thermal, Energetic and Comfort research group) consists in setting up a French/Japanese research project aligning those three items – physical, psychological and physiological – to make the impressions felt by wood building users objective.

Exchanges between FCBA for France, the Building Research Institute (BRI0, Nice Corporation and Japan's Keio University will be organized at WOODRISE to initiate this French/Japanese research program. Professor Ikaga will also present his works at the September 13 plenary session: **Influence of Public Policy on Wood Development and Use in Midrise and Tall Buildings.**

WOODRISE 2017,

For information or to register,
visit:

wood-rise-congress.org

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For more information...

[WOODRISE 2017 Program](#)



Preliminary
Program

	Tuesday September 12	Wednesday September 13	Thursday September 14	Friday September 15
8:30	Architecture Day, Place de la Bourse	Opening of WOODRISE conferences at Palais des congrès	Opening of WOODRISE conferences at Palais des congrès	Technical visits
9:00	Welcoming ceremony to the Architecture day	Opening of the trade show	Opening of the trade show	Guided tour of the Wood Road Tramway exhibitions and animations
	Introduction conference by famous international architects	Introduction conference	Introduction conference	Wood Forest Research Institute of Cestas -Pierroton
	Discussion between architects around models created by Schools of Architecture especially for Woodrise	Plenary session 1 Influence of public policy on wood development in mid-rise and hi-rise buildings	Plenary session 3 Economic development potential for hi-rise and mid-rise wood building construction stakeholders	The Scierie Lesbats and Thébault facility, south of the Landes
12:30	Lunch	Lunch in the Trade show	Lunch in the Trade show	Seismic test and visit of the Technological Institute FCBA's laboratories
	Discussion between architects around models created by Schools of Architecture especially for Woodrise	Awards Ceremony of Prix national de la Construction Bois	Session and Workshops (in parallel) Forest resources and wood products Acoustic performance Fire safety Seismic risk prevention sustainability indicators	
14:30		Plenary session 2 Science and Technology as innovation development and reliability factors for technical wood solutions		
16:00	ADIVbois projects awarded at the Hôtel de Région	Closure of the Trade show	Closure of the Trade show	
19:00	Opening Ceremony to WOODRISE, Hôtel de Région	Gala dinner at Château Giscours		

About the WOODRISE 2017 organizers

FCBA Technology Institute

Technology tool for the forest, wood, construction and furniture industries, FCBA's mission is to promote innovation and technical progress and participate in productivity and quality improvement in the industry, focusing on an integrated approach and synergies within the industry.

FPInnovations

One of the largest private scientific research centres in the world, FPInnovations has over 525 employees and research laboratories throughout Canada. It acts as a catalyst for the transformation of the forest industry, gathering the public and private sectors (public authorities, universities, etc.).

Building Research Institute

The BRI is a public research institute focusing on the development and improvement of various technologies related to housing, construction and urban planning. To do so, the BRI leads many R&D projects and develops international programs on seismic trials and engineering.

With the support of ADIVbois

Association pour le Développement des Immeubles à Vivre Bois, created in 2014, for the New Industrial France Plan in the Future Industry Plan, Sustainable City section.

