

The 1st World Congress on Midrise and Tall Wood Buildings

at the Heart of Sustainable Cities and the Ecological Transition

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PRESS KIT

wood-rise-congress.org





FPInnovations



Press contact: Le Bonheur est dans la Com' Ingrid Launay-Cotrebil 01 60 36 22 12 launay@bcomrp.com Just like trees build their own structure and grow toward the light, wood offers multi-storey buildings the opportunity to grow taller and taller.

A well-known construction material for centuries, first used for individual houses or other smaller projects, it has been used increasingly, in recent years, for midrise and tall buildings.

More and more stakeholders, promoters, architects, builders or engineers select wood for buildings from 6 to 20 stories. The trend, which manifests itself throughout the world, demonstrates, above the architectural prowess, how wood can adapt in a sustainable and efficient way to various projects featuring its mechanical, acoustic and fire resistance characteristics.

Those new generations of buildings provide multiple technical and economic solutions to the challenges faced by the construction, promotion, real estate and planning industries, in a low-carbon environment.

In light of such potential, three wood construction international stakeholders (FCBA for France, FPInnovations for Canada and the Building Research Institute for Japan, with the support of ADIVbois) are organizing the first world congress on midrise and tall wood buildings, at the heart of Sustainable Cities and the Ecological Transition: WOODRISE.

An innovation showcase, an exchange forum to optimize the development on midrise and tall wood buildings and related industries, WOODRISE will bring together all stakeholders who see who as an essential material to build the cities of tomorrow.

When wood rises in reaction to new environmental, architectural and social challenges: WOODRISE, a front-line event for construction, promotion, real estate and planning experts, September 12-15, in Bordeaux.



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Midrise and Tall Wood Buildings, Essential to the Development of Sustainable Cities

Rethinking the City Vertically

While in 1900, 1 in 10 individuals lived in cities, nowadays, over half of the world population live in urban areas. Increasing numbers: according to the United Nations, more than 6 in 10 individuals will live in cities by 2030¹.

While the trend is similar in France, average-sized cities see the biggest population increase, with 2,100 to 18,500 inhabitants in 2014, compared to 1,300 to 11,500 in 1962².

Faced with such demographics, urban densification is preferred to urban sprawl. Objective: associated energy performance, controlled environmental impact and optimal everyday comfort.

In this context, the cities must be rethought vertically.

Wood Assets and Specificities in a Green Growth Logic

A material used for centuries in construction, wood is attractive for many characteristics in terms of quality and environmental performance.

Its carbon sequestration capabilities are considerable:

→ Using 1 m³ of wood eliminates 0.9 tons of CO₂ from the atmosphere.

It is an optimal operational response in a context of low-carbon territories which shapes today's construction and planning strategies.

The Wood Industry in France, 4^e A Forest Nation within the European Union ¹

- 440,000 direct or indirect jobs¹;
- 1,984 companies ²;
- 3.7 billion Euros (before tax) in sales revenue ².

¹ Forêt & Bois – Une filière d'avenir pour la France – 2014 – France Bois Forêt, France Bois Industries Entreprises, France Bois Régions.

² Enquête nationale Construction Bois – 2014

An Industry Creating Ecological Values and non relocatable jobs.

Wood is also the construction material which requires the smallest amount of non-renewable fossil fuel:

→ 4 times less than concrete, 60 times less than steel and 130 times less than aluminum.

² INSEE – Insee Focus – No 74 – Janvier /2017



¹ Institut National des Etudes Démographiques – INED – Populations & Sociétés, n°435 – Juin 2007

Other characteristics give wood significant assets for construction, such as:

- Its supple and light texture allows to build on any terrains, facilitates its transportation and implementation;
- > Its thermal and acoustic insulation performance;
- Its fire resistance, which is especially good thanks to its low thermal expansion;
- > The reduction in work disturbances in terms of noise, dust, etc.

Lastly, wood perfectly corresponds to the models and requirements of circular economy:

- Its use in construction creates value at all stages of the life cycle;
- Accessible locally in France and in many other countries, it is compatible with a "short-route" logic, which creates local jobs;;
- > It helps develop a carbon and energy-savvy society.

Midrise and Tall Wood Building, an Emerging International Trend, in Line with the Requirements of Sustainable Cities

In Europe, the United States, Australia or even Asia, discussions are beginning, the development of midrise and tall wood buildings is starting: real estate projects are initiated in many countries, combining the wood's environmental assets to those of multi-storey buildings in an urban densification context.

Among iconic projects, many will be built in France, including the two wood tours set to be built soon in Bordeaux: Hyperion and Silva.

Selected in Euroatlantique's 2015 call for proposals for a 17-storey, 50-m wood housing buildling, those two projects fully correspond to the city and sustainable territory requirements:



HYPERION Tower - © Jean-Paul Viguier et associés

The HYPERION Tower (Eiffage) will be built at the heart of Bordeaux, close

to the future TGV station. This is a strategic site

for this project, providing great relevance to its immediate surroundings, and facilitating mobility and pedestrian movements between the tramway and Place d'Armagnac.

It will include 82 apartments, designed like houses

assembled around a vertical street. The program it is part of will be completed by social housing, office space and recreational space, forming a global area of $17,000 \text{ m}^2$.



The SILVA Tower (Kaufman & Broad), with 80% of wood, seduced by its great architectural sobriety, its transparency, its evolution capability and technicality. The 50-m SILVA Tower will house apartments

on 18 storeys.

This project is in line with a local approach with the support of French industrial stakeholders, such as Techniwood for its cross timber frame panels and Sacba, for its crosslaminated panels.



SILVA Tower – © Art&Build Studio Bellecour QuickIt



Other projects are also being built in other countries, similar to the **ORIGINE Tower** in Canada.

This 40.9-m high tower was designed by architect Yvan Blouin (Québec). It will be built by the NEB consortium, composed of EBC, Nordic Structures bois and Synchro immobilier.

It will house 94 apartments.

In places where small wood buildings are now well established, innovation now lies within those kinds of buildings: in addition to their technical and environmental assets, they also stand out by the urban comfort and well-being that they are often associated with.

They represent the buildings of tomorrow: multifunctional, reversible, scalable, effective and environmentally friendly, answering the new needs of their users.

This is where the Japanese projects come into play. They include the **Smart Wellness Experience Pavilion**. It is a research project on the relationship between healthy housing and healthy living, with a central focus on the relationships between wood and the well-being of individuals living in their houses. This research project is supported and conducted by Keio University, the City of Yokohama and Nice Corporation.

Many factors can influence health, both mental and physical. In the Smart Wellness Experience Pavilion, the following factors are being researched: heating, ventilation, quality of sleep, feeling of security and comfort, low energy consumption and ecological awareness. The visitors can experiment the effect of wood decoration on sleep or discover the impact of a well-insulated house on their energy consumption.



Graph Synergie

This is also the foundation for the Immeubles à Vivre Bois project, sponsored by the departments of Economy, Agriculture, Environment and Housing, onomie, de l'Agriculture, de l'Environnement et du Logement, and supported by the ADIVbois association.

Launched in 2014, the project has gathered many stakeholders: in total, 24 sites in 12 of 13 French metropolitan areas will feature an Immeuble à Vivre Bois project. A competitive phase was launched in early 2017 to select the teams who will design and build the Immeubles à Vivre Bois on the sites identified.

WOODRISE, 1st World Congress on Midrise and Tall Wood Buildings

Why WOODRISE?

To value, support and contribute to the international of midrise and tall wood construction, the Institut technologique FCBA (France), FPInnovations (Canada) and the Building Research Institute (Japan) have decided to organize the 1st world congress on this topic.

WOODRISE was created around four objectives:

- Confirm the demand internationalization for midrise and tall wood buildings, in lowcarbon context for sustainable cities;
- Show international scientific and technological excellence in midrise and tall wood buildings;
- Detect the development opportunities and the implementation conditions associated with new markets for the wood industry;
- > Value the national skills and resources for a circular economy.

Why WOODRISE in Nouvelle-Aquitaine ?

Rallied around sustainable construction, the Nouvelle-Aquitaine region is the ideal ecosystem to host the 1st world congress on midrise and tall wood buildings:



- It is home to Europe's 1st cultivated forest area;
- It integrates R&D and skills clusters for the development of the wood industry; the university and scientific clusters include ENSAP, FCBA and the INRA; the competitiveness cluster includes Xylofutur, serving the forest, wood and paper industries.
- At the heart of the region is located Bordeaux, a city rich with innovative projects on wood (with Bordeaux Atlantique, that committed to building 25,000 m² of wood buildings/year over 15 years).

The Conseil régional de Nouvelle-Aquitaine rapidly and fully committed to supporting the initiative and hosting the WOODRISE 2017 congress.



The WOODRISE congress is aimed at all construction, real estate and planning stakeholders:

- Project owners, promoters, public planning institutions, architects... and companies likely to answer their needs by using the materials, engineering and technologies required to design and build midrise and tall wood buildings;
- Pubic authority representatives, acting to support wood industry jobs in those types of projects;
- Research offices, economists, product or building certification specialists and R&D experts, whose role is a determining factor in identifying, defining and determining the best solutions for the social, technical and economic challenges associated to multistorey wood buildings.

WOODRISE aims at gathering all those stakeholders, to advance, progress and collectively contribute to the development of midrise and tall wood buildings in the world, and to structuring the industry.

An Event of International Proportions

A world 1st, WOODRISE is organized by three international wood construction stakeholders:

- The French Institut technologique FCBA, whose mission consists in promoting innovation and technical progress, and participating in the increase of productivity and quality in the industry, by adopting an integrated approach and implementing synergies in the industry.
- FPInnovations, a Canadian scientific research centre (among the world's largest private centres), acting as a transformation catalyst for the forest industry by gathering members from the public and private sectors (public authorities, universities, etc.).
- The Building Research Institute, a public Japanese research institute focusing on developing and improving various technologies associated with housing, construction and urban planning, through R&D projects and international trial programs and seismic engineering.

In partnership with

ADIVbois, the Association pour le Développement des Immeubles à Vivre Bois, a project launched in 2014 as part of the government's plan "Industrie du Futur", focusing on the development of midrise and tall wood buildings, and the construction of 24 buildings in the short term.

All share the same conviction: midrise and tall wood buildings are at the heart of sustainable cities and the ecological transition.











WOODRISE has a true international dimension, thanks to the presence of public authority representatives, communities, the European Union and various international stakeholders specialized in the art of construction. Foreign ambassadors also agreed to relay the congress in their respective countries, share its objectives, participate to the organization of delegations, etc.

Lastly, beyond the first edition, one of the organizers' ambitions consists in repeating the WOODRISE experience in other countries, maybe in Canada in 2019.

More than a place for business, a front-line gathering for midrise and tall wood building

From September 12 to 15, Bordeaux will therefore host the 1st world congress focusing entirely on information, sharing and progress about midrise and tall wood buildings.

The Architecture Day, presented at CCI Bordeaux, will be the kick-off for WOODRISE 2017. With keynote speakers and French/Japanese student teams, this day will be the occasion to discover projects and scale models for tall wood buildings.

After this first event, a comprehensive program will be featured ³:

- > Plenary sessions and workshops to discuss key transverse themes, such as:
 - Influence of Public Policy on wood development and use in mid-rise and tall buildings;
 - Science and technology as innovation development and reliability factors for technical wood solutions;
 - Economic development potential for midrise and tall wood building stakeholders.

And exchange on more technical subjects such as:

- Forest resources and wood products;
- Seismic risk prevention;
- Acoustic performance;
- > Fire safety.
- A 3,000m² trade show area featuring national and international exhibitors dedicated to wood as an essential material for sustainable cities.
- A business convention gathering congress participants, exhibitors, speakers and other VIPs, integrated in the exhibition area, to allow companies to meet their future partners.



³ Tentative program underway

Technical visits.

► Etc.

Many **highlights** are also planned throughout the congress:

- Announcement of the national ADIVbois awards;
- Prix nationaux de la construction bois awards;
- Signatures and major agreements for the deployment of international midrise and tall
 - wood building projects;
- ► Etc.

Finally, in order to raise awareness and involve the users in Métropole de Bordeaux, an innovative event will be organized for the congress: **the Wood Tram**, where line C trains will feature the congress's colours, wood construction

and sustainable city concepts, with exhibitions and animation all along the line.

WOODRISE DETAILS

- > When? September 12-15, 2017
- > Where? At the Palais des Congrès de Bordeaux, Bordeaux Lac zone
- Who? All public and private stakeholders from the wood, construction, real estate, planning industries, etc.
- > Registration and information? wood-rise-congress.org
- Press contact?

Le Bonheur est dans la Com' Ingrid Launay-Cotrebil 01 60 36 22 12 – launay@bcomrp.com

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