StoraEnso

Partner of Stora Enso

iXcampus
Saint-Germain-en-Laye, France

Bouygues Bâtiment Ile-de-France – Construction Privée is spearheading the ambitious extension of the iXcampus university and technology campus in Saint-Germain-en-Laye. This major project aims to double the site's capacity by 2025, fostering a dynamic ecosystem where academia and the socio-economic sector converge.

The extension of the site involves the construction of three new buildings and the raising of two others, in the heart of the grounds of the Château Saint-Léger, a historic site dating from 1882 and will include approximately 10, 000 square metres (m²) of wooden floors.

Architectural synergy

iXcampus is designed to be a hub of open innovation, featuring classrooms, laboratories, and offices that facilitate the development of impactful technological solutions. The extension includes three new buildings and the elevation of two existing structures within the historic Château Saint-Léger grounds.

Building D: Located at the entrance to the campus is 3,300 m² and welcomes start-ups and companies with its double-height lots that can meet the needs of industrial activities, with areas ranging from 100 to 800 m². It's light architecture and large bay windows offer its residents a real immersion in the park. The ground floor can accommodate heavy industrial installations requiring high ceilings.

Building E: With its 8500 m² spread over 4 levels, and a length of 100 meters, is the beating heart of the campus, where the different communities of the campus mingle: employees, students and entrepreneurs. With office and laboratory floors ranging from 35 to 500 m², Building E is designed in a modular way to adapt to the different needs of companies and support them in their growth. It incorporates a 2,400 m² incubator, a 750 m² digital FabLab, 1,400 m² for higher education, and 3,870 m² of common areas, including 1,000 m² for catering.

Building F: 2,400 m² dedicated to higher education research. **Building A4** Houses offices and workshops focused on industry and processes in 3,400 m². **Buildings A and B:** Provide an extra 3,700 m² for the business incubator, connecting these two buildings. Built on the roofs of the historic buildings on campus, this light and simple wooden elevation is a continuation of the existing buildings, punctuated by numerous openings in the façade. These workspaces ranging from 600 to 1000 m² overlook the campus and enjoy an exceptional view of the park and the forest of Saint-Germain-en-Laye.

Specifications

Stora Enso's innovative solutions play a crucial role in this project, particularly through the provision of 1,198 m² of cross-laminated timber (CLT). Their prefabricated Sylva™ CLT Floors and Roofs in Building F are designed to minimize load and lower the carbon footprint.

Sylva™ CLT Rib Roofs are used in the elevation of Buildings A and B to:

- Minimize load and increase ceiling height
- Rapid installation saving time and budget by simplifying connections as the elements arrive ready to manoeuvre into position as a solid composite
- Noise and vibration reduction to minimize disruption for occupants
- Safety and moisture protection
- Preservation of existing MEP and HVAC Systems, integrating with the existing infrastructure

Durable and rapid construction

Mass timber construction is at least 30% faster than steel and concrete systems. (Source). However, this project is also leveraging Stora Enso's Services to preapply protective coating at their mill before shipment and preinstalling lifting devices. As a result, when the CLT elements arrive on-site, they are ready for immediate installation. This will facilitate the year-round construction and increase safety.

Carbon Footprint

iXCampus is the first live implementation of the ARCHISOBRE concept by Bouygues Construction, which aims to drastically reduce the carbon footprint of buildings through high carbon storing structural materials, bio-sourced insulation, and optimized HVAC systems. The Sylva kit generated 63 tonnes of greenhouse gases (CO_2e) to manufacture and 40 tonnes of CO_2e to transport. Compared to the 913 tonnes of carbon dioxide that the trees removed while growing and will store in the building, this amount is a small fraction. Choosing Sylva CLT elements instead of non-renewables avoided 1369 tonnes of greenhouse gases. Stora Enso Carbon Calculator based on third party verified EPDs.

Meeting high standards

The project aims for exceptionally high environmental standards, including the Passive House target and BBCA. Passive House design optimises insulation, ventilation, and airtight construction to drastically reduce energy consumption (typically 80% less than non-Passive Houses).

Expert endorsement

Pierre-Alexandre, a key figure in the project, highlights the efficiency of Stora Enso's Sylva™ CLT Rib elements: "We chose Stora Enso rib panels for the elevation because they allowed installation in one go, saving significant time and crane use. The long span needs were also effectively addressed."

General

Delivery year

2025

Building type

Mixed used buildings

Area (m²)

40,000

Storeys

4

Units

4



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Products

Products and Services

Insecticide , Preinserted lifting devices , LVL Cover Boards, Rib Panels, Sylva™ CLT Rib Floors, Sylva CLT Rib Floors

Product quality

VI and NVI

Product volume (m³)

1,198

Team

Partner of Stora Enso

Bouygues Bâtiment France

Developer

iXcampus

Architect

Baumschlager Eberle
Studio SAME architectes

MEP Designer

AIA ingénierie

Main contractor

BOUYGUES CONSTRUCTION ILE DE France

Specialist Timber Subcontractor

BOUYGUES CONSTRUCTION ILE DE France

Timber Engineer

BA BOIS