Quadrivium building for the KULeuven

Celestijnlaan 200, Heverlee (BE)

Complete stability mission

Owner
Université Catholique de Leuven (KULeuven)

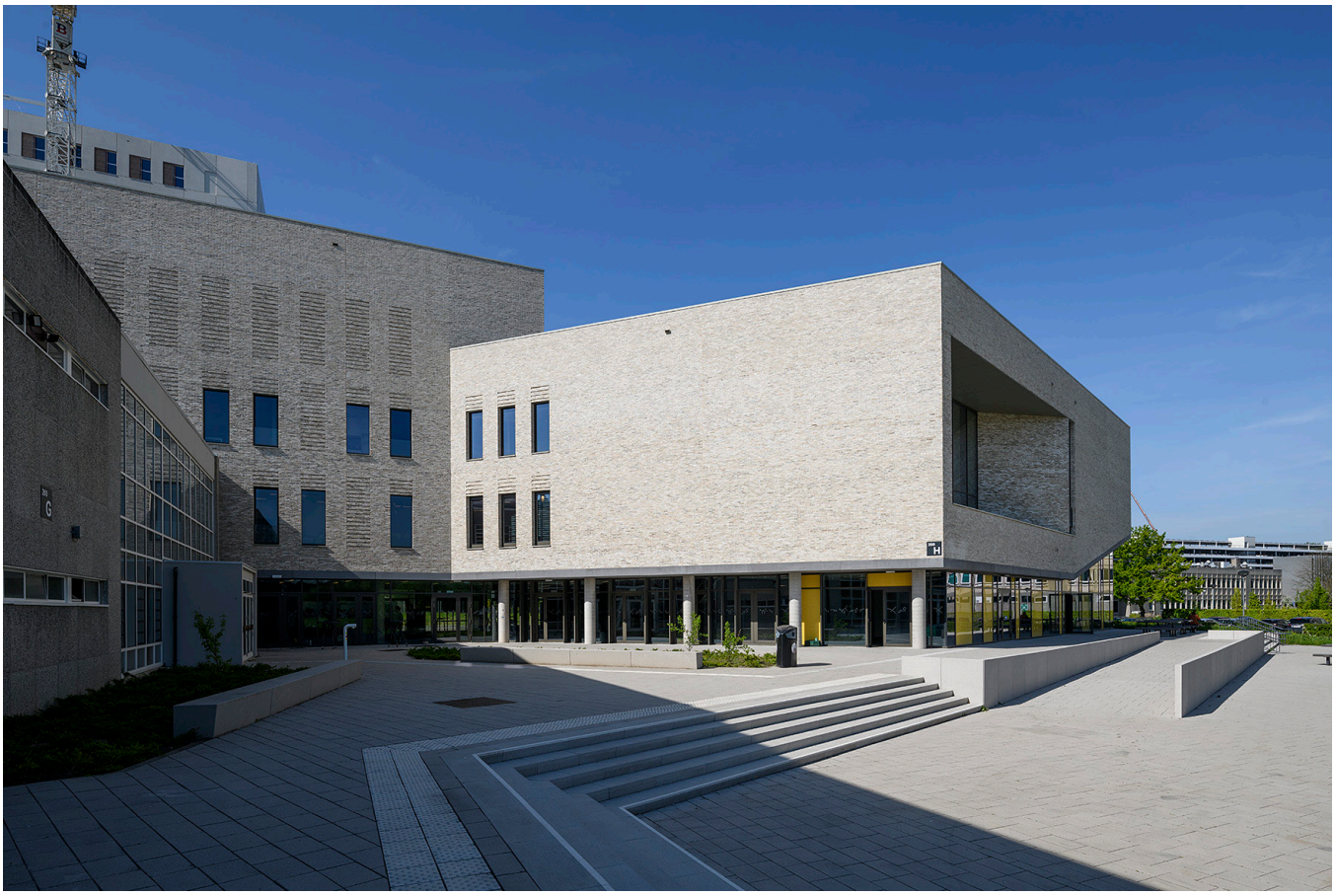
Architect
POLO architects

Cost of the works
€ 10,6 M excl. vat of which € 2,2 M for the structure

Studies
2016 - 2020

Execution
2017 - 2020

ST CM



The Quadrivium building is a new building (7,933 m²) on the Arenberg site for the Science and Technology group of the catholic university of Louvain. It comprises classrooms, laboratories, an amphitheatre, a restaurant, and technical facilities.

From a structural point of view, the building is divided into four areas: the main block with classrooms and labs, an auditorium area, a foyer area, and a connecting area with the existing building.

The floors of the main block are made up of 11 m and 7.5 m span slabs, supported on the structure of the facades and, in the central area, on a series of 1.80 m spaced columns. These columns are 1 m wide, allowing a series of service ducts to be created if needed. The slabs are laid on these columns using metal plates, so as not to have any projections and to create easy passages for the techniques.

The facades are structural sandwich panels in which the concrete structure, insulation, cladding, and frames are prefabricated in one piece at the factory.

The roof of the amphitheatre is made up of glued laminated timber beams spanning 28 m, which support a steel box structure. The bleachers are made of prefabricated concrete

slabs, supported by concrete beams with a stepped profile at the top. Ces poutres reprennent également les voiles périphériques et s'appuient sur des colonnes.

These beams also support the perimeter walls and are supported on columns.

The connecting footbridge is a metal lattice structure.

Due to the nature of the soil, the building is founded on piles.