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| **sector:** | education |
| **project:** | School for teacher training Vives, Kortrijk, BE |
| **total cost price** | +/- € 5.600.000,00 |
| **total area** | 5.091 m² |
| **Study start date:** | September 2017 |
| **completion date** | In execution |
| **nature of work** | Construction: study and following up MEP |
| **cost techniques** | +/- € 1.788.438,55 excl. VAT |
| **client** | Vives Hogeschool – Campussen Kortrijk-Roeselare-Torhout, Doorniksesteenweg 145, 8500 Kortrijk, BE |
| **architect** | AVDK / architecten Vande Kerckhove bvba, Kortrijksestraat 88, 8501 Heule, BE |

## description

In Kortrijk, Vives is constructing a new campus for the 'Bachelor in Education: Primary Education' program. The L-shaped building consists of a cellar, a ground floor and two upper levels. A broad circulation area on the inside of the building connects the demonstration hall, the auditorium, management/director offices, the lecturer rooms and the research rooms on the ground floor. On the two upper floors there are classes on both sides of the corridor.
The building envelope is fairly well insulated and the level of air tightness is high to limit loss of heating requirements. All façades have mobile external sun protection, which is used for both glare and excessive solar radiation.

In the basement are all the utility connections and vital technical installations. Two parallel-connected, condensation boilers, which together account for 370 kW, cover the space heating demand, while a gas flow heater of 45 kW feeds the two showers. Two air groups with a thermal wheel carry fresh air to all rooms, with the exception of the auditorium. That auditorium is ventilated, heated and cooled with ambient air through a separate air group equipped with a rotary heat exchanger.

The 250kVA  high-voltage cabin is dimensioned so that a large number of extra sockets required for digitization education may be outfitted in the building for the students. On the roof the PV installation of approximately 10 kWp, will reduce the dependency for electricity on the grid. A rainwater recuperation system with a self-priming pump and a propulsion pump reduces the need for city water.

The majority of the rooms are heated with radiators.  However, in some rooms for example, heating coils switch on the ventilation air to guarantee a comfortable indoor temperature during an event. In the auditorium the heating requirement is limited, therefore CAV / VAV valves are used to supply the necessary ventilation flow.

The need for mechanical cooled is averted on one hand due to the building's design (solar protection against heat loads) and on the other by a relatively high draft ventilation flow, namely 40 m³ / h / press. In classrooms, 1 electrical outlet is provided per 2 pupils above the normal requirements. Furthermore, extra electrical outlets are installed where bicycles are parked in order to recharge electrical bicycles. Further preparing the facility for the digital age.  The lighting in the classrooms, offices and meeting rooms is managed with a light management system, which enables control of the daylighting system, in turn significantly reducing electricity consumption for indoor lighting.

All these new technological interventions, will give Vives the chance to realize this building with a limited budget and still limit the operating costs and the environmental impact.

## sustainable

K Level: 25
E Level: 49
Certification: -

## general data

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solar energy


PV panels


comfort


reuse rainwater


passive cooling


water management


heat recovery


louvres


glazing


insulation