



architect

BDG Architecten Ingenieurs Zwolle

location

Wageningen (The Netherlands)

companies involved

ArcelorMittal (coil coater) - Jack Muller (Service Center)

website

www.jackmuller.nl

STOAS VILENTUM UNIVERSITY

Stoas Vilentum University is a small research-based institute in Wageningen, in the central Netherlands providing training for students wanting to teach agriculture, horticulture, food technology or animal husbandry.

BDG's design comprises a relatively short, but large-diameter cylinder which, like the cultural ethos of the university, is intentionally non-hierarchical. Each floor has the same circular footprint (maximising the ratio between floor area and wall surface) and boasts similar views: "reflecting the equality between teachers and students - one of the university's key values".

The three floors of the building are linked to each other by a central atrium in which "lazy stairs" connect the different floors. The spaces are divided into what BDG calls "nesting areas" - rational spaces with established functions such as laboratories, offices and classrooms - and "cave areas" - open spaces where different (spontaneous) activities can take place. Large wall-mounted prints help distinguish these different areas.

Given its strong environmental focus and the fact that it is an active member of the international Green Business School network, it is perhaps unsurprising that when the university decided to build a new building, it stipulated that the structure should be as sustainable as possible.

With this in mind, it selected BDG Architecten, based in the nearby town of Zwolle, to design and engineer the new building. And thanks to its sustainability credentials, steel was a natural choice for this landmark new addition to Stoas' Wageningen campus.





The building is clad in ArcelorMittal Europe – Flat Products’ Granite® HDX – part of the company’s Nature range of organic coated steels, all of which are free from heavy metals and chromates.

The cladding was perforated with circles which, once in place on the front of the building, reveal the yellow external wall behind it. Changes in the weather provide a dynamic interplay of light and shadow as the day progresses.

The Granite® HDX coils were fabricated into sheets by Jack Muller BV, a steel service centre specialising in prepainted steel. Jack Muller suggested the use of double-sided Granite® HDX paint system; BDG required a sample before giving final approval.

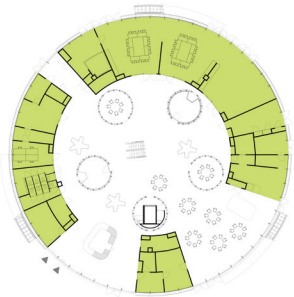
“ArcelorMittal performed a colour match and had the matched Granite® HDX sample on the architect’s desk within two weeks of our request,” says Glenn Muller, Jack Muller’s chief technical officer.

While they had the right material, colour and paint system, the BDG wanted reassurance that Granite® HDX could withstand corrosion after perforation. Its standard substrate is zinc coated to 275 g/m², said ArcelorMittal, enough to guarantee it against corrosion for 30 years.

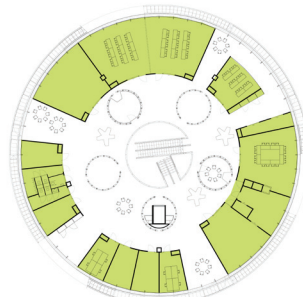
BDG was nevertheless concerned that the perforations in the cladding might compromise the integrity of the building’s substrate over time. ArcelorMittal’s R&D team calculated several different options before specifying a 350 g/m² (Z350) zinc substrate.

The cathodic protection of zinc will prevent the cut edges of the perforations from corroding for many decades, explains ArcelorMittal, and the 70 tonnes of steel used in the construction can be fully recycled at the end of the building’s life. Prepainting and forming the steel offsite also lowered the building’s environmental impact.

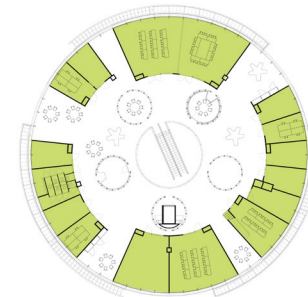
The new Stoas Vilentum University building was opened in September 2013. The building occupies a prominent place on the Wageningen campus. It is surrounded by smooth green slopes which intentionally echo its inherent green credentials.



Ground floor



First floor



Second floor