

Reference report **Railway station Liège-Guillemins**

**A shining example of a  
European transport hub  
in the Wallonia region**



Designing clean entrances

**EMCO**



## Liège-Guillemins: Liège's high-speed railway station

The most important railway station in the Belgian city of Liège and in the Wallonia region as a whole, Liège-Guillemins was erected in September 2009 on the basis of designs by Santiago Calatrava. It is a stopping point for Thalys and Intercity-Express trains, making the station a hub within the European high-speed network that runs between London, Paris, Brussels, Amsterdam and Cologne/Frankfurt: the distance between Cologne and Liège can now be covered in just under an hour. A good 500 trains per day are accommodated by this through station, whose monumental canopy transforms it into a real landmark.

### Guiding principles: Communication and transparency

The steel and glass roof – at once powerful and delicate – hangs above the platform like a colossal wave and flows into the oscillating roof that reaches up to 50 metres over the 33,000-square metre main hall. It is supported by 39 white steel arches, each spanning 157 metres. Although an impressive 11,000 tonnes of steel were used in the construction, this modern structure has a transparent, bright effect and requires no additional lighting during the day. With its openings on all sides, the new building embodies the principles of communication and transparency that Calatrava believes every railway station should represent.

### Fresh momentum for the city

This image of communication and transparency stands in sharp contrast to the structure that preceded it. The old railway station, a 1958 building that had fallen into disrepair, attempted to exert a sense of control over the growing numbers of railway services it saw – but the glass and steel work of art that replaces it exudes light and radiance and has given fresh momentum to Belgium's third-largest city. Other projects involving the station are being planned and the recently opened Médiacité shopping and media centre, designed by Ron Arad, has created another new highlight. The futuristic station complex has a pivotal role to play in all these developments.

### Daylight on every level

It is not just the building's outer envelope that conveys a vision of the future, however: throughout the station, it is possible to find the sort of round, rolling, organic shapes that are so associated with Calatrava's work. Even the catenary supports on the platforms were custom-designed for the project. Parts of the flooring on the forecourt and the five platforms have been created using large glass blocks, which supply the passage beneath with daylight. In much of the Liège project, one of the key characteristics of Calatrava's designs is a point of emphasis: the idea that it should be possible for daylight to flood every single part of a structure. This is why, at the Liège-Guillemins station, even the parking areas leading to the platforms are open.





From left: Vincent Bourlard, Santiago Calatrava, Prince Philippe of Belgium

“When a building project is planned with this kind of detailed, thorough approach, everything has to work in perfect harmony – right down to the entrance mats.”

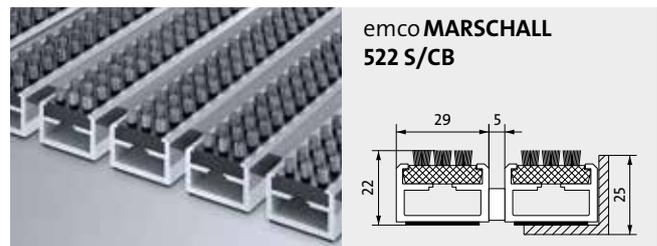
Vincent Bourlard,  
Chief Executive Officer, Euro Liège TGV

#### A cathedral to mobility

Several facets of the new railway station, including its size and lighting concept, have led to many quarters calling it a “cathedral to mobility”. Calatrava designed the station hall on a scale that would be large enough for a whole train to fit inside. Located at right angles to the direction in which the platforms run, the hall is intended to reconnect the neighbouring districts of Cointé, which is situated on a slope, and Guillemins, which stretches along to the Meuse at a low level. The railway line meant that these areas were previously separated for more than 100 years – making the building a project that is forging links with clarity and a view to the future.

#### Details ensure flawless functionality

To ensure the station would remain a bright, clean space into the future and could continue to serve its purpose as a transport hub unimpeded, every detail was planned with the utmost care – right down to the entrance mats, which were created in special, customised shapes. In this case, the cleaning effectiveness yielded by emcoMARSCHALL entrance mats was selected, and the mats have proven themselves every day since the station building’s opening.



**Building:** Railway station Liège-Guillemins

**System solution:** emco MARSCHALL

**Project development, general planning and management:** ECE

**Architect:** Santiago Calatrava

**Project size:** Station area 29.000 m<sup>2</sup>

**Year of execution:** 1996 – 2009



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emco Bau- und Klimatechnik  
GmbH & Co. KG  
Postfach 1860  
D-49803 Lingen (Ems)  
Germany  
Tel. +49 (0) 591 9140-0  
Fax +49 (0) 591 9140-852  
[bau@emco.de](mailto:bau@emco.de)  
[www.emco-bau.com](http://www.emco-bau.com)

emco UK Ltd  
5 Plough Road  
Wellington  
Telford  
TF1 1ET  
Tel. (+44) 01952 256446  
Fax (+44) 01952 262940  
[enquiries@emcouk.co.uk](mailto:enquiries@emcouk.co.uk)  
[www.emco-bau.com](http://www.emco-bau.com)

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