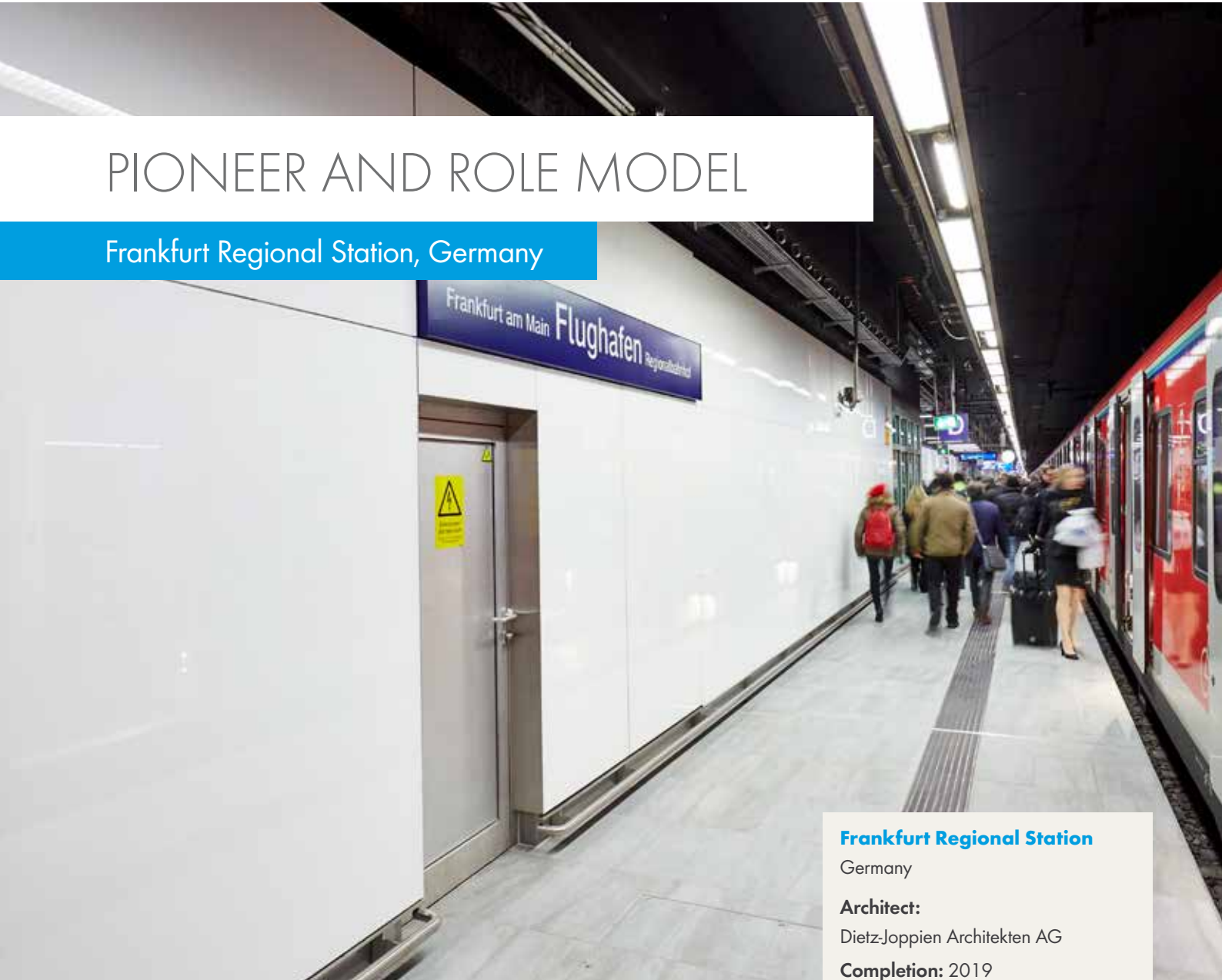


PIONEER AND ROLE MODEL

Frankfurt Regional Station, Germany



Frankfurt Regional Station

Germany

Architect:

Dietz-Joppien Architekten AG

Completion: 2019

Products:

AQUAPANEL® Cement Board Outdoor

Type of building:

Railway station

Application area:

600 m² exterior cladding

In a redesign of Frankfurt Airport regional railway station's wall cladding, Deutsche Bahn has opted - for the first time ever in Germany - to use AQUAPANEL® Cement Board Outdoor and glass panels in prefabricated steel frames. The fast, robust and strong solution could become a model for other railway stations.

FRANKFURT REGIONAL STATION

Scuffs, coffee stains, cigarette burns... the walls along the platforms in Germany's railway and suburban railway stations endure a lot. They have to be extremely durable, stable, resistant to moisture and weathering, and easy to clean. Their coverings and claddings need to be able to be replaced in the shortest time possible – in the event of damage, for example – in order to avoid or reduce downtimes in transport operations. And last but not least, the claddings must be so adaptable that they last on a wide variety of surfaces and can be adapted to all grids and conditions.

The outdated wall cladding at Frankfurt Airport's regional railway station has now been replaced with a combination of AQUAPANEL® Cement Board Outdoor with a cladding made of glass, thought to be a much better long-term solution for the station.

The support system made of special profiles, precisely calculated by the structural engineer, makes it possible for the AQUAPANEL® Cement Board Outdoor mounted on it to be easily inserted and removed. This is necessary since the concrete walls behind them need to be inspected every five years – occasionally even at shorter intervals. Accordingly, claddings should not be trowelled onto the carcass and instead require a facing construction. The non-combustible AQUAPANEL® Cement Board Outdoor screwed to the substructure stabilise the system. The cement boards are made of a core of Portland cement and aggregates and reinforced on both sides with a glass fibre mesh. The AQUAPANEL® Cement Board proved to be ideal here because even without additional planking they are highly impact resistant. Due to the inorganic material, the cement board is 100% water-resistant and mould- and mildew-resistant, meaning it withstands even extreme weather. As a substrate, the panels can also be covered with other building materials such as tiles, brick slips, paint or cladding.

"Furthermore, the solution – and the cooperation with the individual parties involved – proved to be so good that we finished almost a week earlier than planned, despite the intense time pressure," said architect Alexander Heinelt from Dietz-Joppien Architekten AG, who was thrilled to be entrusted with supervising the planning and construction. Following its successful introduction at the Frankfurt Airport regional station, the system that has now been tested will be utilised in other stations. Irrespective of the selected covering, the construction with the AQUAPANEL® cement boards can be used as a universal substrate or universal guiding detail.

