



## A comprehensive and efficient facade maintenance system for the Saint Denis Pleyel Station in Paris

Saint Denis Pleyel Station is a major railway hub located in the northern suburbs of Paris, near Saint-Denis. It serves as a key interchange for the Grand Paris Express, connecting metro lines 14, 15, 16, and 17, significantly enhancing connectivity across the Greater Paris area. Designed by Kengo Kuma & Associates and constructed by BESIX France, the station spans 26,000 square meters and features a distinctive facade.

### Tractel's Solution for Client Needs

The facade includes a glazed exterior with vertical wooden slats that provide sun protection and enhance natural light. RFR was responsible for designing and constructing this innovative facade system, which also encompassed a glass roof, slabs, caps, and a maintenance strategy. BESIX required an efficient and discreet solution for maintaining the building's facade. Tractel™ provided a system that covered all facade areas without compromising safety. This solution featured a 70-meter inclined monorail with a cradle for exterior cleaning, a telescopic bridge for the glass roof, and an overhead crane with a cradle for interior window cleaning.

### Overcoming Challenges and Ensuring Efficiency

The complex design and 35-meter height of the Saint-Denis Pleyel facade presented significant maintenance challenges, requiring extensive reach and maneuverability. Tractel addressed these issues by installing a custom facade system, including two traveling platforms with a 25-meter outreach for comprehensive coverage. Advanced 3D design tools and digitalization techniques were employed for precise modeling and planning, ensuring that the system met the architectural and operational needs of the station.

### Installation Success and Project Impact

A meticulously planned installation, using precision engineering and close collaboration with stakeholders, minimised disruption to Gare Pleyel's operations. Tractel successfully integrated the BMU systems despite the building's complex design, showcasing their ability to deliver innovative solutions for challenging maintenance needs. This ensures comprehensive facade maintenance, contributing to the station's long-term success and sustainability.

## Facts & Figures

<b>Commencement</b>	2020
<b>Completion</b>	June 2024
<b>Building Height</b>	35m
<b>No. of Units</b>	3
<b>Type</b>	1 monorail and 2 traveling platforms
<b>Outreach</b>	70m for monorail, 25m for both platforms
<b>Building Type</b>	Metro station

