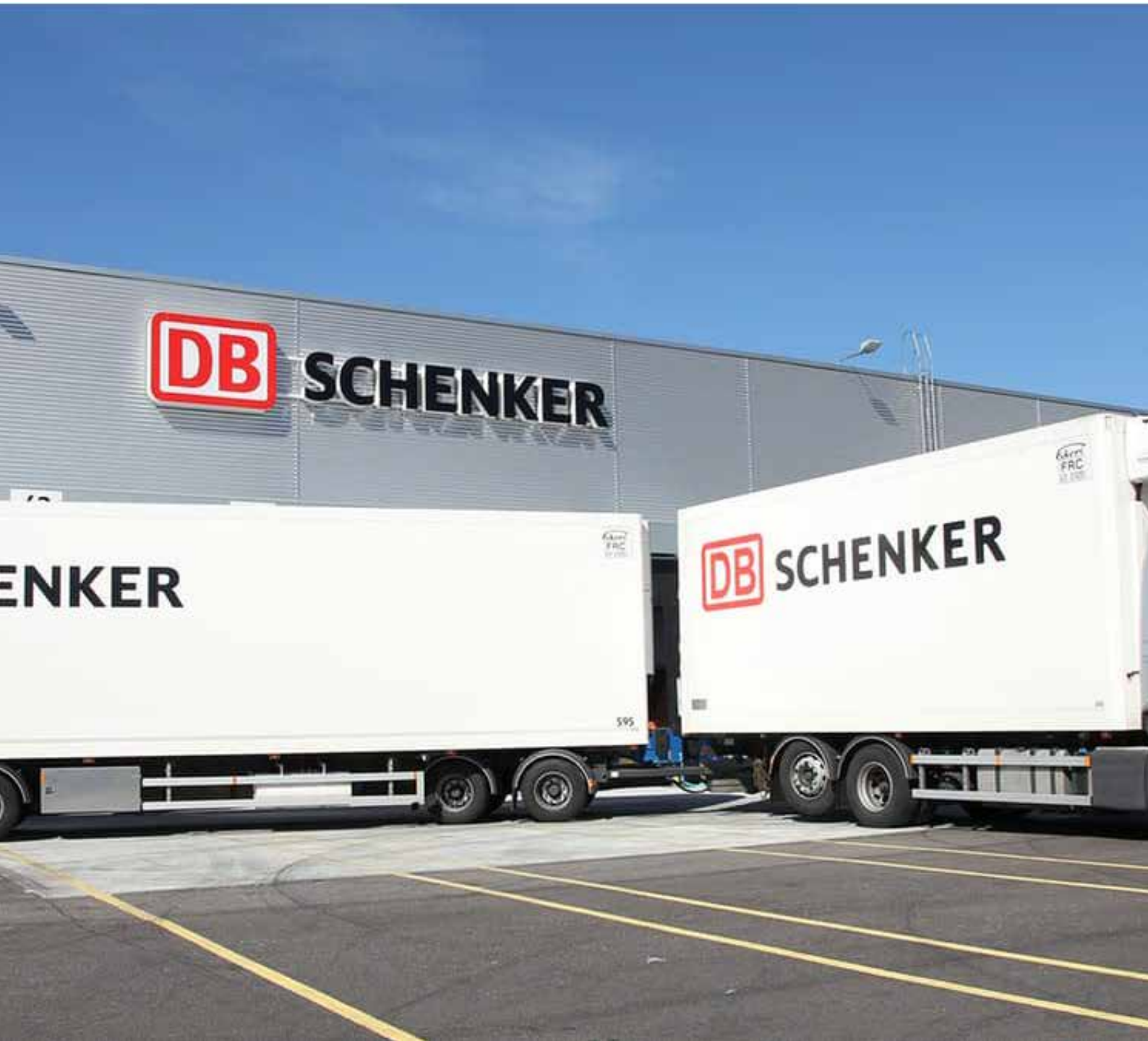
CaseStudy

How DB Schenker Achieved Sustainable Construction Goals with Construction Cameras



CASE STUDY: DB Schenker Logistics Facility: A Sustainable Construction Case Study

A computer-generated image of DB Schenker's proposed new facility at the Liffey Business Campus in Leixlip, Co Kildare

Introduction

DB Schenker, a leading logistics company, recently completed the construction of a 220,000-square-foot facility in Co. Kildare, Ireland. The facility, located at the Liffey Business Campus, was designed to meet the growing demand for logistics services in the region while also serving as a model for sustainable construction practices.

From the onset, the project was committed to achieving LEED Gold certification. It received recognition for its dedication to sustainability and eco-friendly construction practices. The facility was acknowledged for various key aspects, including heat island reduction, renewable energy production, reduction of indoor and outdoor water use, optimization of energy performance, implementation of enhanced indoor air quality strategies, design for active occupants, and promotion of social equity within the project team. These accomplishments demonstrate DB Schenker's commitment to sustainability and its successful efforts in creating a facility that not only fulfils

the needs of its clients but also has a positive impact on the environment and the local community. The completion of the LEED Design Review and recognition is a significant achievement for the project team and showcases their commitment to delivering a world-class facility that sets a new benchmark for sustainable construction.

The completion of the DB Schenker logistics facility is a testament to the company's commitment to sustainability and innovation. The facility sets a new standard for logistics operations and is poised to serve as a shining example of what is possible when companies prioritise sustainability in their construction projects. The project is a major accomplishment for the team responsible for bringing it to fruition and represents a significant investment in the future of Ireland and the planet.

The Challenge

The construction of the 220,000-square-foot facility was a complex project with many variables and stakeholders involved. DB Schenker was concerned about meeting its sustainability goals, as well as ensuring that the construction process was efficient and on schedule. To achieve these goals, DB Schenker needed a solution that would allow them to monitor the construction process in real time and document the progress towards its sustainability goals.

The Solution

DB Schenker chose to use construction cameras during the construction process. The cameras were placed at strategic locations on the construction site and connected to a cloud-based platform. This platform allowed DB Schenker to monitor the construction process in real-time, capturing images and videos of the progress being made.
Team Manager) on the importance of using BIM for this project.

Results

The use of construction cameras allowed DB Schenker to achieve its sustainability goals and complete the construction process on time. The real-time monitoring provided by the cameras enabled DB Schenker to quickly identify and resolve any issues that arose during the construction process, reducing the risk of project delays. The reporting feature also allowed DB Schenker to document its sustainability achievements, providing evidence of its commitment to eco-friendly construction practices.

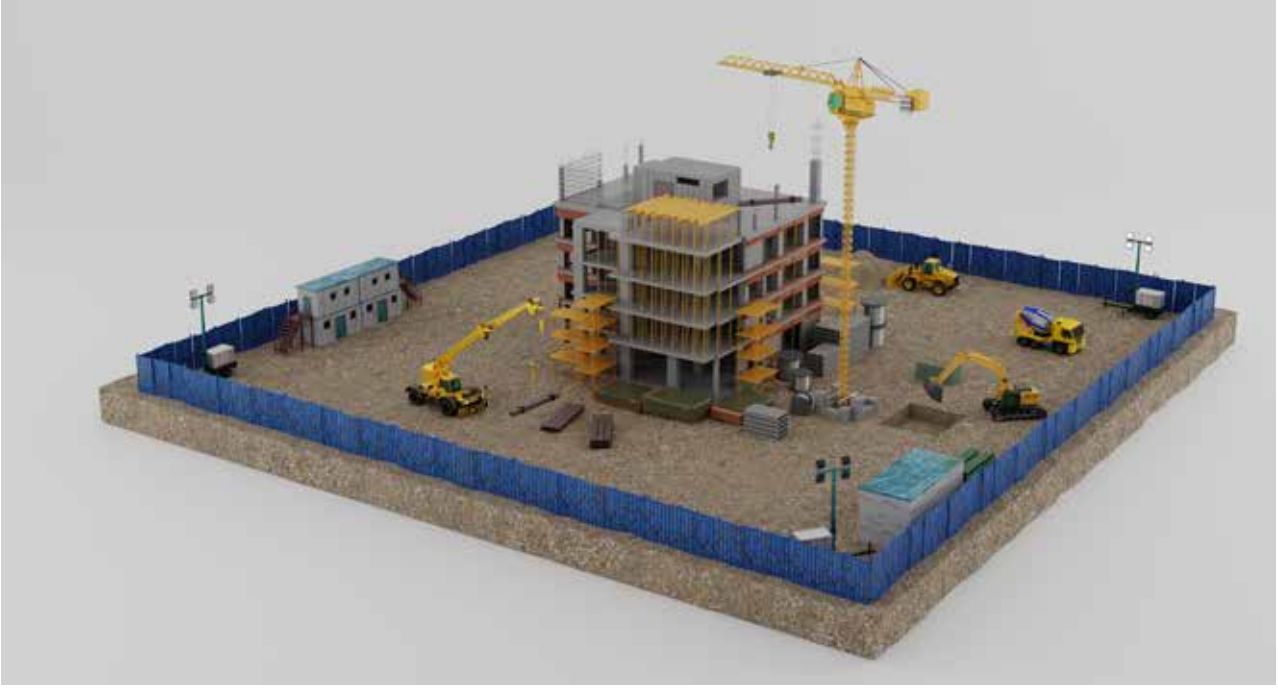
Gate Report: The daily reports provided by the cameras gave DB Schenker a comprehensive overview of all vehicles entering and exiting their construction site, including the duration of their stay.

The camera, which was able to detect different types of vehicles made it easy for DB Schenker to focus on what mattered most. With the click of a button, DB Schenker was able to access live views of any vehicle on their site from their cloud recordings.

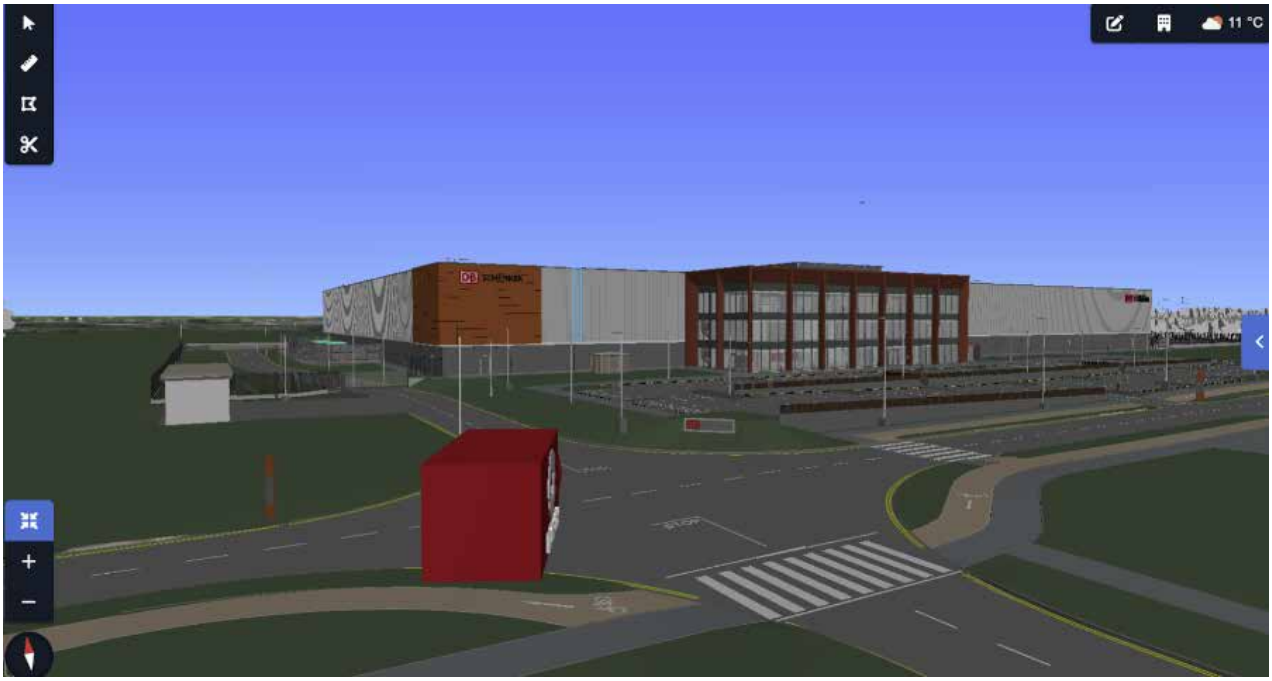
This data, along with the time-stamped log of all vehicles entering and exiting the site, allowed DB Schenker to independently validate invoices and avoid disputes over additional costs. The Gate Report also provided insights into material arrival and departure, allowing DB Schenker to better control project costs and use the data for future cost projections.

360 Internal View: By integrating with Matterport, DB Schenker was able to gain a 360 internal view of their facility, providing real-time monitoring of the construction progress and ensuring that all sustainability goals were being met. With the added benefit of the 360º View placement feature, viewers can seamlessly navigate between 360º Views and the rest of the 3D space, including outdoor shots, making them more prominent and integrated into the virtual tour. This enhanced feature creates a more interactive and comprehensive experience for viewers, providing a more complete picture of the facility's construction progress.

Drone View: Evercam uses drones to capture images and then reconstructs a 3D model of these images, creating a comprehensive overview of the entire construction project. With Evercam's drone view, the visualization and annotation of the project become more accessible, allowing for a better understanding of the progress and status of the construction project.



4D View: The construction cameras were integrated with a 4D simulation software that allowed DB Schenker to visualize the construction process in real time and ensure that the project was on schedule.

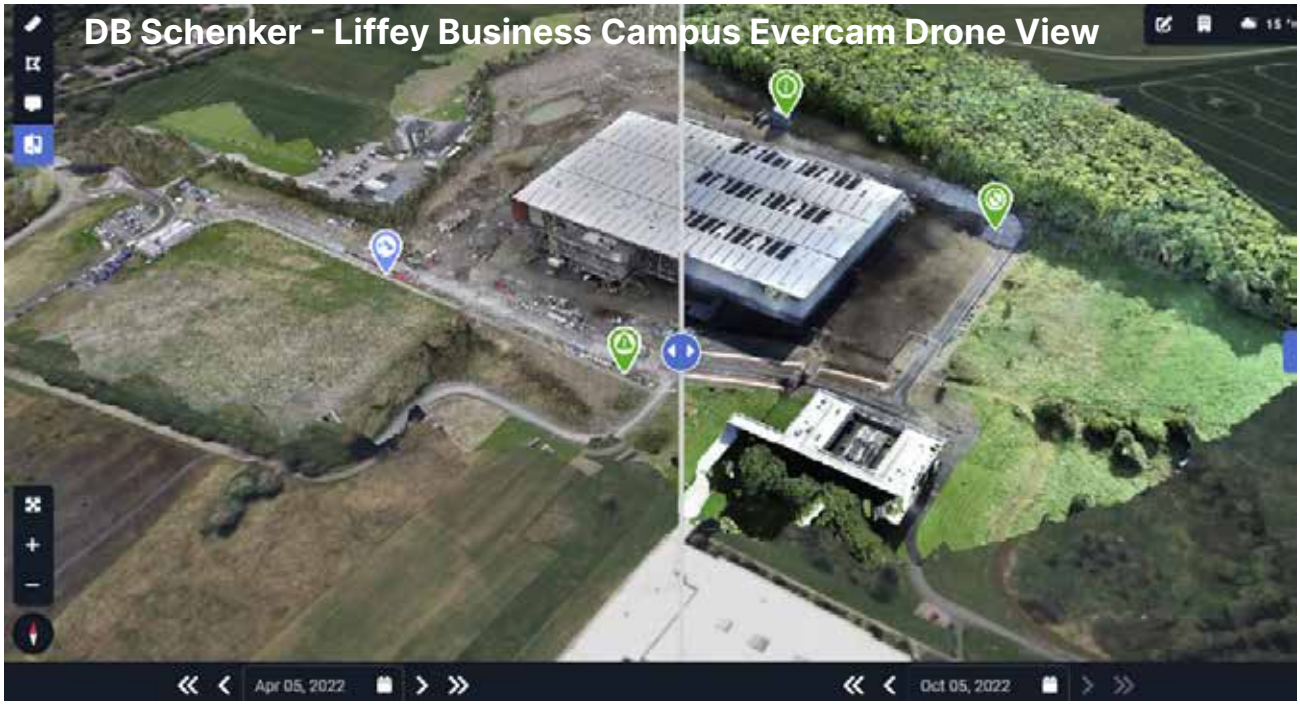


4D BIM Compare: DB Schenker used Evercam's 4D Compare tool in their Building Information Modeling (BIM) software to compare the actual construction process with the planned construction timeline. This tool allows for a side-by-side comparison between the BIM model and live camera views, visually representing any discrepancies between the two. With this feature, DB Schenker was able to closely monitor the construction progress and make necessary adjustments to ensure that the project stayed on track.

The use of construction cameras allowed DB Schenker to achieve its sustainability goals and complete the construction process on time. The real-time monitoring provided by the cameras enabled DB Schenker to quickly identify and resolve any issues that arose during the construction process, reducing the risk of project delays. The reporting feature also allowed DB Schenker to document its sustainability achievements, including the following:

Reduction in Carbon Emissions: The integration of AI in construction cameras revolutionizes the way carbon footprint is monitored on construction sites. By accurately tracking the entry and exit of vehicles, these cameras ensure that contractors remain in compliance with regulations and requirements.
The Gate Report offers contractors unparalleled control over vehicle activity, enabling them to reduce emissions, fuel consumption, and road congestion, as well as minimize noise pollution. With the ability to access live views from anywhere, contractors can monitor project progress in real-time, making it easier to achieve their sustainability goals. This helped the company to minimize its carbon footprint and contribute to a greener environment.

Energy-Efficient Technologies: The deployment of solar-powered cameras on construction sites provides a sustainable solution to the challenge of monitoring carbon footprint. These cameras rely solely on the energy from the sun, eliminating the need for cable connections or generator usage.
With no dependence on external power sources, solar-powered cameras can be easily installed in remote or hard-to-reach locations, providing a cost-effective and reliable way to monitor construction projects. It is also easier for contractors to access real-time views of the construction site and monitor progress even in the event of power disruptions.
By reducing the reliance on fossil fuels and promoting the use of clean energy, the use of solar-powered cameras represents a step towards a greener, more sustainable future for the construction industry.



Conclusion

The construction of the DB Schenker logistics facility was a complex project that required a solution to help achieve sustainability goals and ensure that the construction process was efficient and on schedule. The use of construction cameras provided real-time monitoring and documentation of the construction process, enabling DB Schenker to meet its sustainability goals and complete the project on time. This case study demonstrates the benefits of using construction cameras in sustainable construction projects and highlights DB Schenker's commitment to eco-friendly practices.