



Case Study

University of Sunderland in London: Smart from the start

Designing a data-driven campus before day one with Planon



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Overview: Turning a relocation into a leap forward

When the University of Sunderland in London found itself outgrowing its campus, it didn't see it as a problem, but as a rare opportunity. It seized the chance to design intelligent operations before moving into a bigger space, demonstrating a proactive and forward-thinking approach towards smart campus transformation.

As it expanded into Harbour Exchange Square, located in the heart of Canary Wharf, the university again chose Planon's Campus Management Solution as its central platform. Alongside, it partnered with key technology partners such as Terabee and IAdesa to build a smart campus where staff and students work with confidence, not guesswork. Together, the real-time occupancy sensors, visual room displays, and integrated booking systems now deliver visibility and control that transform daily campus life and optimize real estate usage.


The Challenge: The visibility gap in campus operations

Since establishing its London presence in 2012, the University of Sunderland in London has seen a significant surge in demand. By 2024, its existing space couldn't contain the 6000+ students. There was also rising enrollment pressure. The challenge was similar to that of all thriving institutions: how to support more students when physical space reaches its limits.

Upon closer examination of its real estate constraints, the university discovered a deeper operational challenge. Its existing space planning and management approach relied entirely on people's experience and intuition, lacking any data-backed foundation. Staff often used familiar spaces and trusted their judgment about availability. When room availability wasn't immediately visible, scheduling conflicts meant people had to hunt for alternatives or interrupt colleagues already settled in spaces.

The university followed an annual space planning ritual where they conducted manual surveys. However, it only epitomized the overall guesswork approach. Despite experimenting with different survey timings every year, the ideal timing was always missed. It was nearly impossible to accurately estimate when students and staff were most active. As a result, the guesswork around survey timing resulted in expensive data that offered limited insights or value for day-to-day operations.

The relocation to a bigger space at the Harbour Exchange Square was viewed as more than just a space expansion; it was a rare opportunity to build intelligence from the ground up rather than retrofitting solutions afterwards.



"Our operations were growing, but our building obviously wasn't. And as the lease was coming to an end, it was decided that we were going to look for new premises."

- Sarah Morgan, Business Systems & Information Officer, University of Sunderland

The Solution: Planon as the digital command center

"We weren't fixing a problem. For once, we had a bit of advance notice and could build something with vision from the ground up," notes Morgan.

With its new facility under construction and the painful lessons of data-free operations fresh in mind, the university recognized the need for a solution that could deliver the intelligence its growing operation demanded. It wanted real-time visibility into how spaces were being used, not annual snapshots. It needed systems that would give staff and students confidence and ease in their daily decisions, instead of guesswork and confusion.

As a solution, the team at the University of Sunderland in London chose Planon's Integrated Workplace Management Solution (IWMS) and positioned it as its digital command center from day one. Tailor-made for higher education campuses, this platform would serve as the brain connecting all campus operations.

The strategic framework of this new campus revolved around four mission-critical systems: reactive maintenance for immediate response, planned maintenance for systematic upkeep, asset management for life cycle optimization, and occupancy tracking with room booking for intelligent space utilization. Planon would unite all four systems within a single platform, transforming the uncertainty and disconnected workflows into a seamless, confident experience for staff and students.

Sarah Morgan, leading this transformation from the Sunderland headquarters, always kept the user experience at the center of every decision. Despite the lack of a dedicated data or estates team in London, she orchestrated smooth coordination across locations, departments, and technical teams, ensuring that the needs and experiences of staff and students were always a top priority.



Implementation: A three-pronged smart campus build

"One of the biggest struggles with this project was we were trying to do something as they were building the building," Morgan recalls.

01 Real-time occupancy intelligence

The team deployed Terabee infrared sensors across all teaching rooms to capture and feed continuous occupancy data directly into Planon. These compact, precision instruments powered by PoE were installed on ceilings. The sensors count people as they enter and exit spaces, producing accurate, real-time usage data every minute of every day.

"You walk from the dark to the light, back out to the dark, and it counts you in. Same for going out," explains Morgan.

The core benefit of the system is clear: by tracking the actual number of people using each space, the university can directly tie occupancy to teaching activity and funding models. The chosen system also provides insights into library utilization, for example, identifying which shelves are accessed most frequently.

As with any new technology deployment in a complex estate, the team did work through the usual initial considerations of ceiling height, room layout, and coexisting systems to ensure proper execution. Moving partitions, mobile furniture, and multiple entry points all required careful planning to ensure accuracy of the data recorded. The installation team also made adjustments so the infrared sensors could run seamlessly alongside existing accessibility features. In particular, they were calibrated to work in harmony with infrared hearing loops — a common requirement in higher education buildings.

Post-tuning to these specificities around the university's environment, the upgraded system now successfully eliminates the need for costly annual occupancy surveys. Instead, staff now have 365-day visibility of space usage, can generate reliable reports instantly, and make evidence-based decisions about space allocation and investment.

02 Colour-coded visual availability displays

"Visually, we wanted something that would tell us what was going on behind the door," says Morgan.

IAdea panels, powered by PoE, were installed outside teaching and meeting room doors to eliminate the confusion and space-hunting that hindered staff and students daily. These transformed every corridor into an intelligent navigation system with color changes signifying availability status from a distance.

The teaching spaces house non-touch panels connected to Planon. These receive data twice a day from the timetable system (CMIS), enabling the panels to display the latest room bookings and information from CMIS.

As all panels connect directly to Planon's central database, they now show real-time room availability that people can trust at a glance. Since every booking feeds directly into the unified system, all availability displays are synchronized across the campus.

03 Campus-specific governance

"We didn't want London staff accidentally booking Sunderland rooms and vice versa," explains Morgan.

Within Planon's central system, campus-specific permissions and data views were configured to eliminate any confusion. With the same platform managing both London and Sunderland simultaneously, the permission architecture was configured in a manner that prevented cross-campus confusion through role-based access controls. This approach ensures individuals can only view and manage spaces relevant to their specific campus.

Results: Five transformational breakthroughs

The smart campus approach has delivered measurable improvements across every aspect of operations and inspired confidence where uncertainty once ruled daily operations.

01 Continuous intelligence replaces annual uncertainty

The transformation from expensive, inaccurate yearly surveys costing about £10–12K per year to real-time sensor data has fundamentally changed how the university understands and manages its spaces.

"We've now got a 365-look at what's going on," confirms Morgan.

This shift matters because space planning decisions affect every aspect of campus life. Previously, staff making room assignments, scheduling decisions, or capacity planning worked with data that was months old and potentially inaccurate. Now, with real-time occupancy flowing into Planon continuously, they can see actual usage patterns, identify peak demand periods, and optimize space allocation based on how people use the campus. This clarity enables proactive management instead of reactive problem-solving, helping staff make decisions that better serve the 6,000+ students who depend on these spaces for their education.

"Staff and students can now easily see when rooms are available, when bookings exist in rooms and have multiple ways of creating bookings. Following teaching sessions, staff can see what the occupancy level was and this is hugely beneficial to space planning and ensuring that teaching is taking place in suitably sized spaces. In a building where space is at a premium, this is critical to operations."

- Sarah Morgan, Business Systems & Information Officer, University of Sunderland

02 Triple-system attendance monitoring ensures accurate tracking and compliance

The university has achieved perfect alignment across 2 critical data streams: timetables and sensory occupancy, with swipe card access the next area to explore as part of the ongoing integration. With all this data feeding into Planon, there's comprehensive attendance intelligence that maps who is actually present versus who is scheduled to be there versus who has swiped in. This integration delivers particular value for international student visa compliance requirements.

With 6,000+ students, the university must demonstrate accurate attendance monitoring to regulatory authorities. The triple-system approach provides robust evidence of actual attendance patterns, ensuring the university can confidently meet its compliance obligations while supporting student success.

03 A transformed culture based on friction-free user experience

The installation of room panels has revolutionized how people navigate across the campus. Visual availability cues outside every space eliminate the frustration of hunting for rooms and make it as simple as scanning a hallway.

"Instead of looking through the vision panel of every room, they can now look down the hallway and see: red, red, red, green — I'm going to that room," describes Morgan.

04 Campus-level authorization maintains focus

Localized access controls are delivering site autonomy without system complexity. Planon's intelligent permissions ensure people see only relevant spaces, preventing confusion and giving users confidence they're working with the right information for their location.

05 Scalable blueprint established

This was a proof of concept for a wider rollout at the Sunderland campus. London has demonstrated that the smart campus model works at scale, providing a proven blueprint for expanding this approach across other sites.

Future plans: Scaling the smart campus vision

Sunderland's London campus transformation has sparked a fundamental shift in campus operations and established the blueprint for university-wide expansion. The next phase will deepen support across the wider estate with several strategic initiatives planned for implementation:

Library intelligence expansion: Sensor networks will be extended to monitor usage patterns in open-access zones. This will provide students with real-time information about productive study spaces available instantly.

Event space capacity monitoring: Real-time occupancy pilots are underway to transform extensive event management. Screens showing safe, real-time headcount are envisaged to help organizers and attendees understand space and safety parameters. With a clear view whenever any spaces have more people than the desired headcount, they will be better equipped to act proactively and take immediate steps towards safety.

"We want to see a television screen saying there are 90 people in this room. If it goes red at 215, someone can go and act on it to ensure safety," explains Morgan.

FM contractor integration: An API link is being developed between the FM contractor's CAFM system and Planon. This integration will enable maintenance requests created in Planon to flow directly to external contractors, with completion updates feeding back into the university's central system. Once this happens, keeping staff informed about maintenance progress will be much easier.

Unified data visualization: Dashboards are being built that consolidate Planon, CMIS, and swipe attendance data into a comprehensive intelligence platform with Planon as the primary data source. This data visualization will give leadership quick and unprecedented insights into campus operations.

Building management system connection: A potential integration of Planon with Schneider Electric's building management systems is being investigated. If feasible, this will enable comprehensive environmental and operational control.



About the University of Sunderland in London

With 6,000+ students, the university recognized the need for a solution that could deliver the intelligence this significant operation required. The inclusion of Planon's Integrated Workplace Management System (IWMS) created a digital command center from day one. Tailormade for higher education campuses, this platform will serve as the brain connecting all campus operations going forward, giving both staff and students confidence and ease in their daily decisions.

Student Population: 6,000+ students

Location: Harbour Exchange Square, Canary Wharf

Facility Type: Multi-floor modern campus

System Coverage: Complete room booking and maintenance management

Technology Partnership: Planon IWMS with integrated sensor networks

Operational Model: Smart campus with real-time occupancy tracking

The University of Sunderland in London represents the future of intelligent educational space management, serving as both an operational facility and an innovation testbed for university-wide digital transformation.

About Planon

Planon is the leading global provider of Smart Sustainable Building Management software that connects buildings, people and processes. By eliminating data silos and aligning solutions into one shared information platform, Planon provides all building stakeholders with actionable and meaningful insights. Independent market research and consulting firms have consistently rated Planon as a global leader in the market. Planon has implemented its comprehensive solutions for more than 3,250 clients, supported by offices and partners around the world.

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