SWARCO and APT Skidata provide the technology solution for Wembley car parks

SWARCO Traffic, the traffic technology solution specialist, and APT Skidata, the UK's leading parking solutions business, have worked together in close partnership with Quintain, the development and asset management team behind Wembley Park, to support the upgrade of the stadium and surrounding area's car park systems.

APT Skidata is a longstanding supplier of Wembley Park and has installed the systems for three new car parks as well as upgrading those currently in operation to provide an effective service for the major events held at Wembley, with up to 90,000 fans on matchday and a 12,500 capacity at the SSE Arena.

The solutions provided by APT Skidata include Automatic Number Plate Recognition (ANPR) to allow simple exit and entry, and both ticketed and ticketless solution.

To allow cars and coaches to easily locate parking spaces, while also maximising space available to allow an easy flow out of the car park, APT Skidata turned to SWARCO Traffic for its Variable Message Signs (VMS) and tidal flow bay monitoring systems.

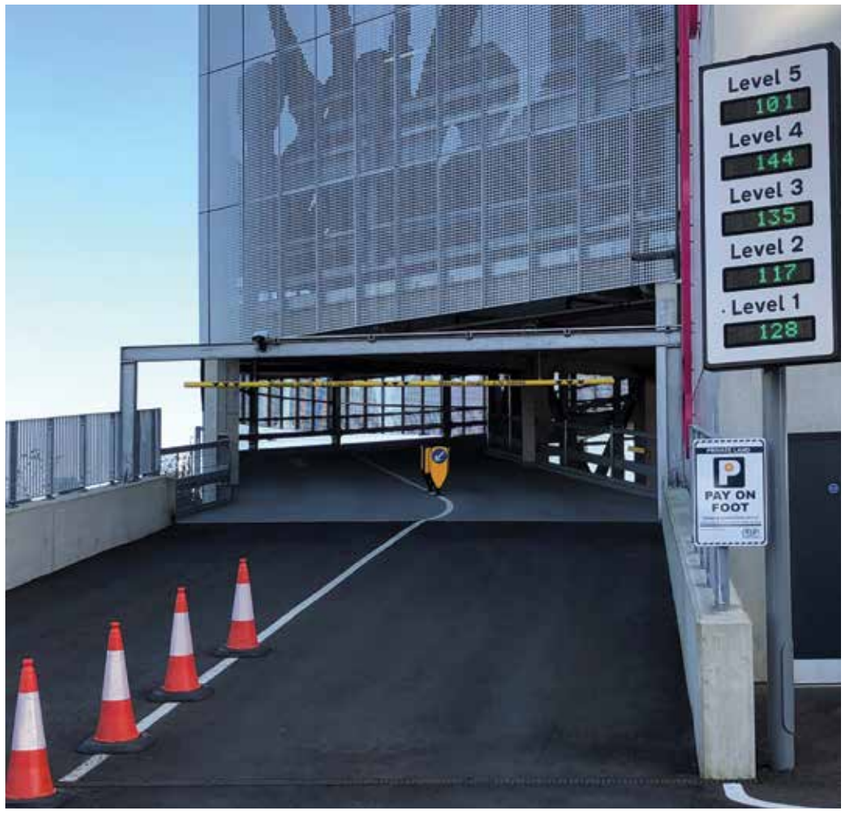
The VMS alternate between red crosses and green arrows to control lanes of traffic and parked vehicles and to organise exiting vehicles and enhance the flow of traffic. These can be controlled remotely via a tablet or smartphone, allowing on and off-site control.

Graham Lake-Grange, Head of Transport & Commercial Parking at Quintain, says the company needed a technology partner whose solutions could support and enhance the wider Wembley system: "With existing processes already in place, we needed a bespoke solution designed around the unique layout and requirements of Wembley parking. With up to 3,000 vehicles exiting at once, it's crucial that our systems are backed by reliable technologies, as well as a reliable partner."

Chris Keatley, Project Manager for SWARCO Traffic, credits the success of the partnership to SWARCO's full system solution: "Our work with Quintain and Wembley Park is a demonstration of our holistic service offering. From design to implementation to management, we have the experience and expertise to manage projects of any scale, from start to finish."

Steve Murphy, Managing Director of APT Skidata, says the project shows the strength of SWARCO UK: "From traffic management to parking solutions, connected driving to road marking systems, SWARCO UK is fully equipped to meet our customers' needs. At Wembley Park, we were able to utilise the expertise of SWARCO Traffic as we helped implement three new car parks, and in our current project of upgrading the whole facility."

SWARCO Traffic and APT Skidata are both part of SWARCO UK, and their work with Wembley Park is being rolled out in phases.



How 5G is aiding economic recovery

Rhys Enfield, Director of Infrastructure Acceleration

The unprecedented steps that have been taken during the Covid-19 pandemic have had a profound effect on the national economy, with businesses forced to place staff on furlough, make redundancies, and in some cases, close their doors for good.

Others have been more fortunate, reorienting their businesses to ensure that they are able to ride-out the waves of the pandemic. Naturally, the current application of new technologies is at the forefront of their thinking.

According to some studies, it is estimated that adoption of digital engagement by both consumers and businesses has leapt forward by five years over the course of just a few months and predict that these trends are here to stay.

It is clear that the post-pandemic economic recovery will be dependent on ensuring that the UK's regions have access to the digital infrastructure on which to build future requirements.

This is where our teams at West Midlands 5G (WM5G) can support. Since 2018, WM5G – formed by the West Midlands Combined Authority (WMCA) as part of the government's 5G testbed and trials project – has been exploring how to expedite the rollout and uptake of 5G technology across the region.

Our dedicated Infrastructure Acceleration (IA) team has been making significant strides in this area, connecting mobile network operators (MNOs) with councils and local authorities.

As part of WM5G, we have access to specialist knowledge and information to guide and advise councils, demonstrating the value that 5G can have on their residents and communities. The approach has been exceedingly successful, with many councils rolling out 5G 6 – 12 months ahead of schedule and helping to create the most connected region in the UK.

WM5G has been running a series of use cases to demonstrate the benefits of 5G to businesses across the region and helping prepare them for post-Covid recovery.

Manufacturing is a key component of the national economy and one of the sectors with the greatest opportunity for 5G to generate improved efficiencies and enhanced productivity.

Many manufacturers have already been looking at the ways in which they can pivot their business models towards Industry 4.0. We have been working with an SME to explore the ways in which 5G will help them to emerge from this pandemic period with greater resilience.

Based in Aston, Birmingham, AE Aerospace is a supplier of precision engineered parts for the aeronautics industry. They have installed a private 5G network and are undertaking a series of use case tests to better understand how it can aid them in increasing their productivity and ultimately supporting their economic recovery

By connecting machines through a dedicated Internet of Things (IoT), the system can adjust production schedules in real time to account for any unexpected delays or issues.

We have also seen positive results in the field of healthcare, with trials undertaken including a fully 5G-connected ambulance, where paramedics were able to undertake an ultrasound, guided by a doctor in a hospital. With the use of haptic technology, the doctor was able to 'feel' what the paramedic did and could advise them in real time thanks to the high speeds and low latency of the 5G connection.

Additionally, GPs have been able to conduct remote examinations of patients in care homes. Supported by on-site care staff, the GP is able to meet with the patient and receive data such as their heart rate and lung function. This minimised the need to expose vulnerable care home residents to additional interactions with external visitors, reducing their chances of exposure to Covid-19.

Our partners at the 5PRING application accelerators have recently put out a call for technology innovators to create 5G-connected solutions to challenges in the areas of health and social care, public services, social and events, and public safety.

Successful applicants will have access to a private 5G network at the University of Wolverhampton Science Park and a tailored acceleration programme. They will also receive coaching, mentoring and expertise provided by experts from the seven West Midlands' local authorities', three LEPs and the 5PRING consortium members Telefonica UK (O2), Deloitte, Wayra and Digital Catapult.

The advent of 5G represents a significant step forward in innovation, speed and reliability and will become a new standard in data transfer and communication. But new technologies require new skills to modify, maintain and adapt them to fit the needs and future demands of end-users.

The UK is the fifth most digitally-advanced nation in Europe and is home to more start-up businesses valued at $1 billion or more (known as 'unicorns') than any other country. It is also expected that by 2022, emerging technologies will have generated more than 133 million new jobs.

For more information on the Infrastructure Acceleration team and their work, visit: **https://www.wm5g.org.uk/projects/infrastructure-accelerator/**

For further information on WM5G's health care use cases: **https://www.wm5g.org.uk/use-case-library/5g-in-healthcare/**

For further information on WM5G's manufacturing use cases: **www.wm5g.org.uk/manufacturing**

For further information on the 5PRING Smart Cities challenge: **https://www.wm5g.org.uk/news/5pring-and-west-midlands-local-authorities-challenge-innovators-to-lead-the-5g-smart-cities-revolution/**