

# World-class facility with global appeal

A next-generation test track, opening by late summer 2009, will meet the growing need for facilities where telematics developments can be put through their paces.



Despite its significant size, innovITS – Advance will be constructed within the existing envelope of the MIRA site.

**T**here is no shortage of vehicle test tracks. If you want to drive a car at speed around a circuit for hours on end, then you are spoilt for choice. If you want to drive two cars at each other at speed, to find out whether the automatic avoidance device works in a real life situation, then finding somewhere to do it is more difficult.

Phil Pettitt, the chief executive office of innovITS, the UK Centre for Excellence for Transport Telematics and Sustainable Mobility, says there is a growing need for facilities where new telematics developments can be put through their paces. 'The existing test tracks go back to the days when the priority was to demonstrate that cars could run reliably for long periods at speed. For telematics we need some-

thing more realistic in terms of road structure – A roads, B roads, urban roads with junctions and roundabouts,' he says. 'And it is not just the road structure, but all the technology and instrumentation that is required to monitor, measure and record results.'

This concept is now being translated into reality with a futuristic research and development centre, innovITS – Advance, scheduled to open its doors for business by late summer 2009. Phil Pettitt says that the new facility will enable customers from the telecommunications, automotive and electronics industries, as well as highways authorities and operators, to develop, test and validate future transport technologies in a safe, highly controlled environment.

This next-generation test track

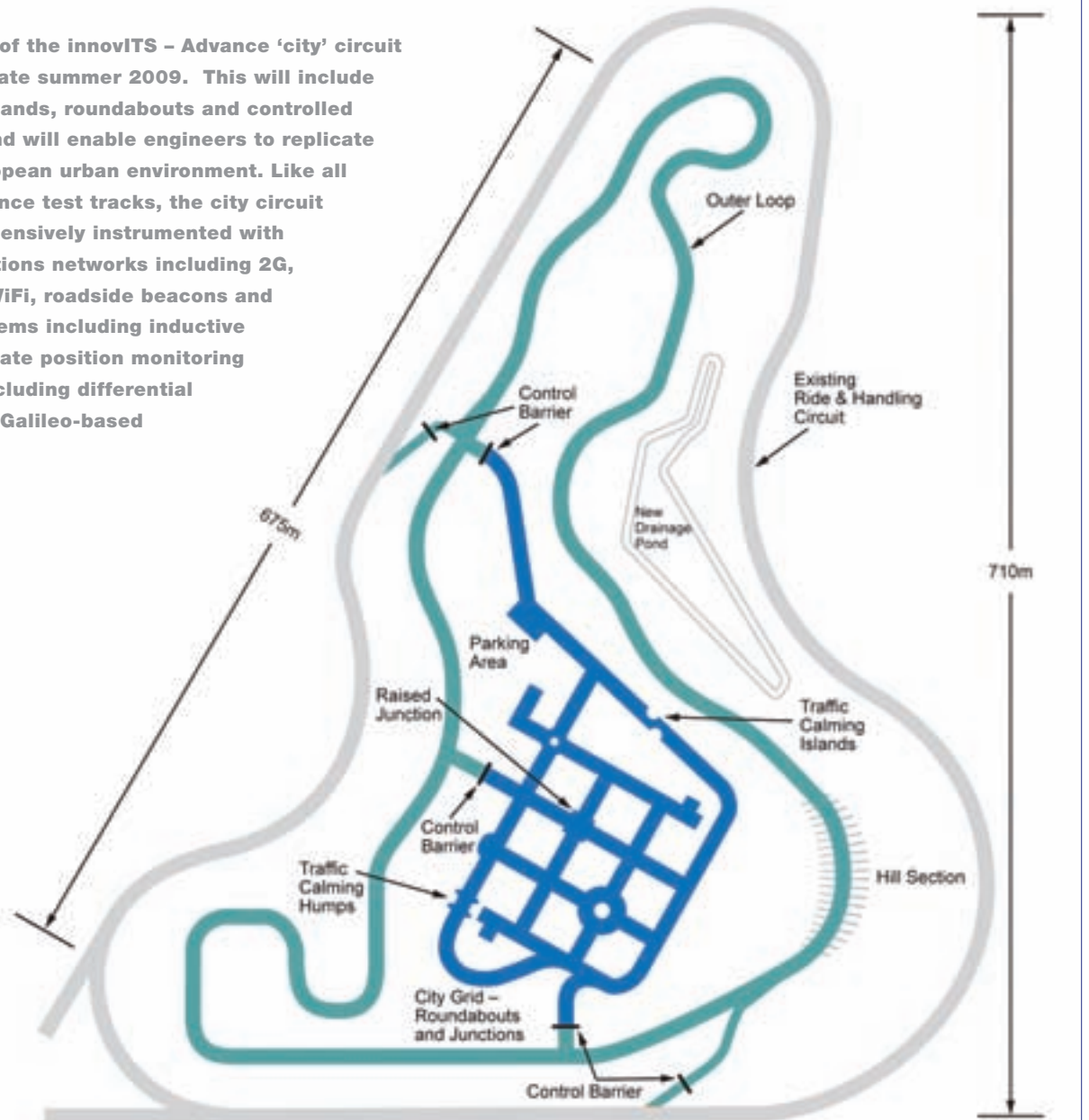
is the result of a collaboration between innovITS, MIRA, one of the world's leading automotive test and development organisations which will host the new centre at its headquarters in Warwickshire, England, and transport consultancy TRL. A detailed design and planning study is due to be completed by August this year with the first of five phases ready in 2009.

Phil believes that this is a very exciting development. 'There is clearly a pressing need for a facility that allows companies to carry out tests which cannot be done on the open road. That doesn't mean that on-the-road trials will no longer be necessary – they will always be the essential final step before a safety-critical device is rolled out to the public. But we hope this facility will enable com-

panies to move from the laboratory to that position a lot faster.'

At the moment, he says, a company which is developing a sophisticated collision avoidance system needs to be able to test the system in real-world conditions. 'At present, the only option available is the open road. This means that developments must be at a stage where they are safe to trial before developers can go ahead. innovITS – Advance is a controlled environment where developments can be trialled before they reach that stage, and where failure is not a problem or a reputational issue. In the long term, it will speed up development because problems can be identified earlier. It may also make possible some work which previously may not have been done at all because of all the difficulties asso-

**Possible layout of the innovITS - Advance 'city' circuit due to open in late summer 2009. This will include roads, traffic islands, roundabouts and controlled intersections and will enable engineers to replicate almost any European urban environment. Like all innovITS - Advance test tracks, the city circuit will be comprehensively instrumented with telecommunications networks including 2G, 3G, GPRS and WiFi, roadside beacons and monitoring systems including inductive loops and accurate position monitoring technologies including differential GOS and future Galileo-based systems.**



ciated with obtaining robust test results at an early stage.'

The first phase of the development is the city circuit which will be based on a footprint of approximately 120,000m<sup>2</sup>. This extensive network will enable engineers to replicate almost any European urban environment.

The circuit will be comprehensively instrumented with telecommunications networks including 2G, 3G, GPRS, WiFi, roadside beacons and monitoring systems such as inductive loops and accurate positioning monitoring technologies including differential GPS and in the future, Galileo-based systems. All these telecom-

munications and electronic monitoring systems will be capable of being controlled precisely and individually by the centre's customers in order to test new telematics-based innovations in any potential environment.

Phil Pettitt says that the plan is to complete the facility over a number of years. 'We couldn't do it all at once - it was too complex, and we had to get funding in place. The city circuit will be followed by a centre where companies can come and demonstrate developments to their customers.

'And we will be enabling a motorway-running facility using the big test track but allowing bi-

directional traffic.'

Phil is very keen to talk to potential customers while the plans are still being finalised. 'Initially, our target was the automotive sector but we believe that mainstream telecoms companies and also infrastructure suppliers will see the benefits of being able to obtain live running test results. For instance, we want to know what happens for the safety and robustness of these systems if communications degrade. In this environment we can degrade the comms and see what happens. And because this is a controlled environment, it offers repeatability, something that you cannot get

in road trials.'

One thing is very clear - although this is a UK facility and the investment is being provided by the UK government, innovITS - Advance will be looking to attract customers from all over the world, as well as inward investment. 'The UK government sees an opportunity to invest in building a world-class facility which will not only attract revenue from overseas but will help build skills and create jobs locally. We are keen to convince colleagues in Europe that it will be an international centre connecting vehicles, highways and telecommunications.'