Dynniq Consultancy Solutions

Promoting intelligent mobility

Dynniq is a leading supplier of intelligent transport systems both in the UK and Ireland, and internationally.

We are a dynamic, high-tech and innovative company focussed on understanding our clients' needs. We are committed to providing high quality, sustainable and cost-effective smart mobility and telecommunications solutions across a range of transport infrastructure. Dynniq Consultancy Solutions is part of our Innovation and Professional Services team that delivers our Services and Solutions portfolio.

dynniq

energising
mobility

At a glance

Locations
Providing widespread coverage, we have offices and service centres located throughout the UK and Ireland.

Services
Including consultancy, design, installation and commissioning, maintenance, integration and major project management.
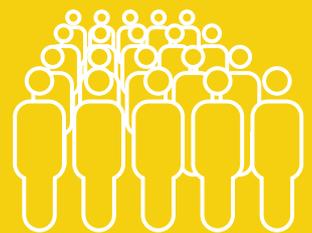
Our markets
Working in the following areas across the UK and Ireland; mobility, parking, telecommunications, public lighting, tunnels & bridges.

People
500 +

Revenue
£60 million reported revenues for the year ended 31 December 2015.

Solutions
Delivering technology-based products, systems and services, bringing intelligence to transport infrastructure.
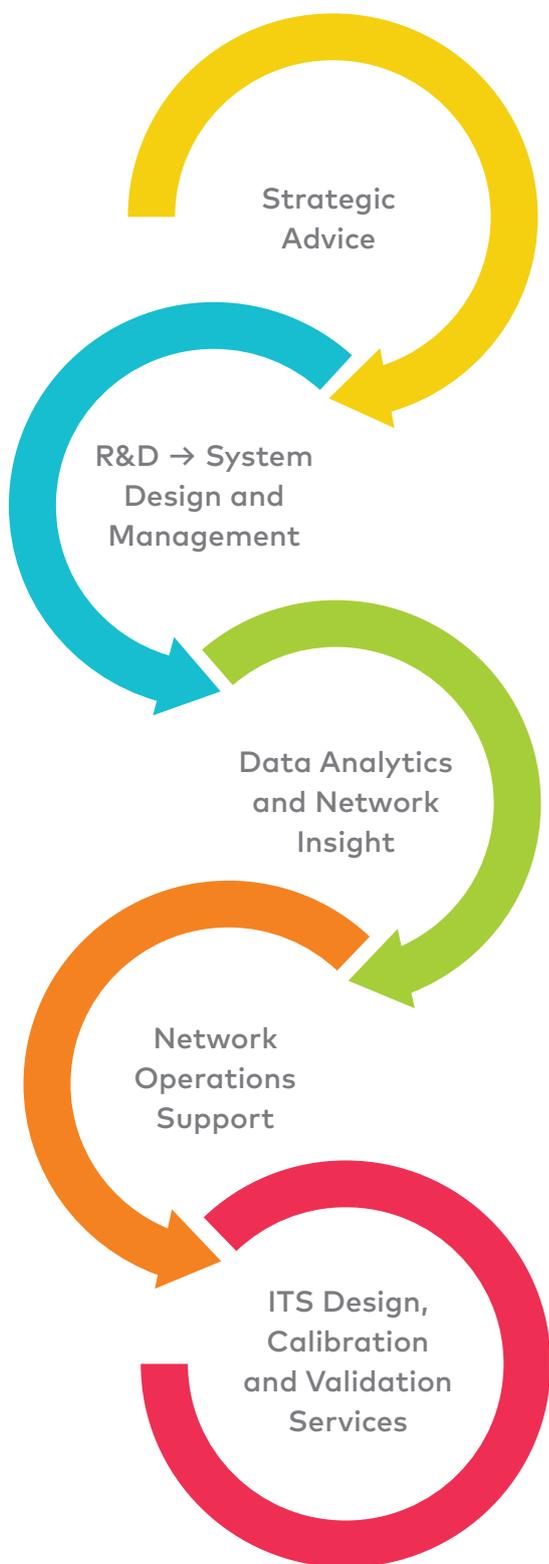
The primary aim of Dynniq Consultancy Solutions is to help our clients achieve their objectives through:

- The provision of informed 'Smart Mobility' and ITS advice, analysis and operational support; and

- The promotion of excellence and thought leadership in the application of innovative transport technology solutions which allow people and goods to travel safely, reliably and sustainably.

The services that can be offered through Dynniq Consultancy Solutions include:

Strategic Advice

Connecting people, places and goods through informed strategic guidance

R&D → System Design and Management

Promoting innovative, reliable and sustainable technologies

Data Analytics and Network Insight

Achieving better, cheaper and more actionable insight through intelligent use of data

Network Operations Support

Getting the most out of existing traffic management systems

ITS Design, Calibration and Validation Services

Enabling safe and effective infrastructure and traffic flow management

Our Business

Transport has a major impact on the spatial and economic development of cities and regions. Conurbations occupy less than 5% of the world's land mass; however, they account for approximately 70% of both global energy consumption and greenhouse gas emissions (source: ArcInsight Partners).

Global Trends

The following emerging global trends in urbanisation and demographic change have been observed (source: iMobility Forum):

- By 2030 60% of the world's population will live in cities, leading to an increased demand for travel on transport networks constrained by capacity

- The 65+ generation will nearly double by 2050

- Road transport contributes about one-fifth of the EU's total CO_2 emissions

- 69% of road accidents occur in cities, with most accidents occurring due to driver mistakes

- Increasing demand for 'soft' transport modes, more car usage than car ownership and increasing home delivery of consumer goods.

Advances in transport technology offer the opportunity to transform the transport sector by seamlessly connecting people, places and goods.

By considering the needs of the individual transport user it is possible to provide a personalised travel experience. This will, in turn, facilitate improved mobility, connectivity, safety and sustainability in a global context.

What We Do

Dynniq brings intelligence to transport infrastructure through the provision of smart mobility solutions. With over 35 years of knowledge and experience within the transport industry, we recognise the demands on modern transport networks and strive to provide solutions which improve mobility for society as a whole.

1. Strategic Advisory Services

Connecting people, places and goods through informed strategic guidance

Transport authorities, local government and service providers are facing a continuing challenge to reduce costs whilst meeting stretching targets on performance and safety, health and environmental impacts.

Cities and communities are striving to become 'smart' on shrinking budgets. The need for efficient and effective, 'right-first-time' smart mobility solutions has therefore never been greater. By drawing upon a wealth of experience, Dynniq is able to provide advice on current best practice and future scenarios to ensure that strategic initiatives deliver against their goals.

Our advisory services team therefore develop solutions to enhance the capacity, efficiency, resilience and safety of transport networks in order to improve the customer experience. In particular, by better understanding customer needs through trend analysis and forecasting; reducing environmental impacts through air quality improvement strategies; and reducing the need to travel and transport goods through advances in digital communications.

2. Research & Development / System Design and Management

Promoting innovative, reliable and sustainable technologies

Dynniq is continually advancing ITS technology through research and development. In addition to our ongoing internal development programmes, we work with clients and partner organisations across industry and academia to unlock innovative new technologies and solutions.
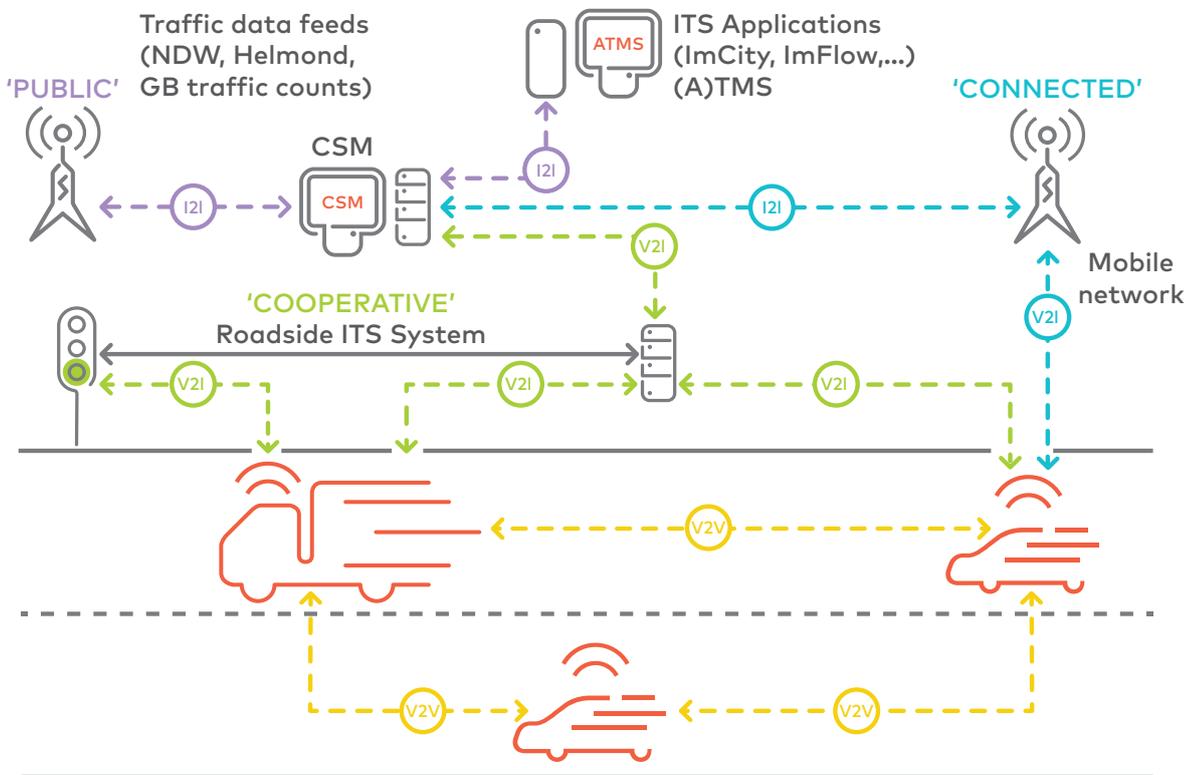
Our approaches include technology 'foresighting' and 'roadmapping'; business model design; product and capability development; innovation, trials and prototyping management; stakeholder consultation; and general technical advice. As well as directly supporting individual clients, we are experienced in delivering innovation within the context of both Innovate UK and European Commission commissions.

Through our current portfolio we are working with some leading universities and Research and Technology Organisations (RTOs), Small and Medium Sized Enterprises (SMEs) and forward thinking local authorities. Our key research areas currently include connected, cooperative and autonomous vehicles and user-centric approaches to urban traffic management. (See diagram below.)

3. Data Analytics and Network Insight

Achieving better, cheaper and more actionable insight through intelligent use of data

Vehicles, infrastructure and other connected devices are generating increasing amounts of data. With the right techniques this can be distilled into valuable intelligence to inform better decision-making.

Scan this QR code to access a PDF copy of our Cooperative and Connected brochure.

Dynniq offers a range of data analytics services:

- Transport data analytical studies;

- Development of data dashboards, simplifying complex data into easy to comprehend visual graphics;

- Real-time emissions monitoring using the Dynniq Virtual Emissions Monitor tool, which can be connected to ITS systems to enable real-time mitigation strategies to be implemented; and

- Visualisation and analysis using the Dynniq ImViewer tool, integrating disparate Smart Motorway datasets to check scheme calibration, identify bottlenecks and find equipment faults.

As a licensed user of Google's mapping and traffic data and other specialist data sources (eg Highways England's (HE) DATEX2 service) we are also able to undertake rapid low-cost analysis of route options, journey times and congestion across the UK road network.

4. Network Operations Support

Getting the most out of existing traffic management systems

In addition to providing a suite of hardware and software solutions for traffic management, Dynniq can provide operational support services to enable customers to maximise the performance of their networks. Cloud-based traffic management solutions

mean that functions can be performed or assisted remotely by Dynniq's team. We can also take ownership of some or all aspects of clients' traffic management functions; what is becoming known as 'traffic management as a service'.

We provide consultancy advice and technical support on ImCity, a UTMC-compliant common database system that provides a strategic, real-time, graphical Geographical Information System (GIS) view of all of the roads within a defined urban area, together with the ITS equipment associated with those roads. It enables clients to deploy and analyse traffic management strategies and manage technology assets to optimise traffic flow and reduce congestion.

5. ITS Design, Calibration and Validation Services

Enabling safe and effective infrastructure & traffic flow management

Our Consultancy Solutions team undertakes structured reviews of existing ITS infrastructure, systems and data for clients in order to gather a comprehensive understanding of the capacity, capability, integration and future-proofing of their systems.

Scan this QR code to access a PDF copy of our Virtual Emissions Monitor brochure.

Scan this QR code to access a PDF copy of our ImCity brochure.

Traffic Signal Technology

Well designed, configured and validated traffic signals keep traffic flowing, increase safety levels and provide a non-intrusive but positive experience for all users, whether drivers, pedestrians, cyclists or other users. As you might expect of a leading supplier of traffic signal systems, we provide a wide range of traffic signal design services, including initial scheme identification, feasibility studies, traffic modelling, detailed design and specification. Our experience spans the complete range of signal installations, from pedestrian crossings, urban intersections to large motorway junctions. Our team has specialist experience in various traffic control systems, including the latest developments in SCOOT, MOVA, linked MOVA and hybrid control.

Traffic Management Systems

Dynniq has a long established reputation for the development, deployment and support of traffic management systems with Highways England. We provide a range of systems and services for the monitoring and control of the country's strategic road network (e.g. HATMS, HADECS, MIDAS and Ramp Metering). These systems are used in the operation of the strategic network to maximise traffic capacity and minimise accidents and delays.

They provide network operators with the information needed to comprehend the status of the traffic on the network and the methodology to strategically select traffic management plans that direct and coordinate traffic flow.

Site Data Services

Dynniq also provides an all-encompassing solution for Site Data Services. Site data is the vital configuration data which allows operators to set motorway signs and signals and also enables the operation of Smart Motorways. Our Site Data design team are externally accredited to update site data to facilitate changes to roadside devices on motorways and trunk roads for Highways England's Regional Control Centres (RCCs). Dynniq also provide a testing facility which enables clients to extensively evaluate the site data prior to installation. This site data allows RCC operators to set speeds on signal devices and driver information on message sign devices to control traffic as a result of incidents on the road network.

Tunnel Control Systems

Dynniq provides design services for Tunnel Control Systems. The ability to respond to incidents and accidents is at the heart of successful tunnel operations. In the past the operator relied on CCTV images which were not an efficient method of incident detection. Today detection is automated, with technological advances in radar, thermal and visible spectrum image processing, in association with data analytics providing efficient methods of identifying and managing incidents.

We are experienced in delivering this cutting edge technology in the most challenging tunnel environments within the UK, Finland, Netherlands and Russia (eg Mersey Tunnel) which has demonstrated our comprehensive understanding of European and UK safety standards.

Quality Assurance

Dynniq is fully committed to quality management across its business and is accredited to:

- BS-EN-ISO 9001:2008 (Quality Management);

- OHSAS 18001:2007 (Health & Safety);

- ISO 14001:2004 (Environment Management); and

- ISO 27001:2013 (Information Security).

We follow PRINCE2 accredited processes for project planning, execution, monitoring and control. All deliverables are peer reviewed before submission to clients as part of our project quality procedures. After each commission it is our policy to seek formal customer feedback from clients on our performance, in order that we can demonstrate continuous improvement in our project commissions.

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