




# The Future of Mobility





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With the Future of Mobility being one of four priorities set out in the UK Industrial Strategy, the challenge is set for transport and technology organisations to work together to put the UK at the forefront of the industries of the future. Answering this challenge will allow the UK Government, our nation and our capabilities to develop world leading methods for moving people, goods and services.

The reasons to support this goal are clear – we all know that transport is critical for the economy. It creates opportunities for growth, generates jobs, facilitates trade and realises economies of scale. Social and technological changes in the last twenty years have greatly altered how and why we use the transport system; shifts over the next twenty years will likely be even more significant.

Changes such as the growing, ageing population will meet technological advances in electric power, digitisation and automation. These technologies will bring opportunities, offering fresh innovation to existing needs, as well as radical new approaches.

But we need to work together to truly make these possibilities a reality. Cisco, via its Country Digital Acceleration (CDA) programme, partners with national leadership, industry and academia over the long-term. The programme includes several co-innovation projects that are focused on designing, building and commercialising new technologies to support the future of mobility.

Successful transport solutions depend on thinking of mobility as one connected ecosystem, rather than a range of independent modes. By enabling our system to become greater than the sum of its parts, we will be enabling health, well-being, social inclusion, jobs and trade.

With a network designed to meet these needs, all manner of devices and transport modes will be able to communicate with their environment and each other, efficiently moving people, goods and services from one place to another.

Are you ready to join us on the journey?

## Overview

The UK Industrial Strategy prioritises the future of mobility for innovation in engineering, technology and business models. This focus establishes a clear demand for new technologies and approaches, improving citizen experience, driving efficiencies and helping people move around more freely.

Infrastructure and connectivity are critical to making the future of mobility a reality. We imagine a world where all devices and vehicles communicate with their environment and each other, more efficiently moving people, goods and services.

We're working on many co-innovation projects: designing, building and commercialising connectivity infrastructure to support mobility. Decades of experience in networking technology gives us the vision and capabilities we need to tackle this challenge, across air, sea, road and rail.

## Road

Through these projects, Cisco has become an expert on the security and efficiency benefits of future mobility initiatives. We're exploring how tech can reduce congestion and collisions, decrease fuel consumption and facilitate smoother traffic. We're laying the foundations for connected, autonomous vehicles to become a viable, mainstream option in our future, and helping electric vehicles fulfil their true potential.

### *A look inside: Smart Mobility Living Lab*

SMLL is the UK's most advanced urban testbed for connected and autonomous vehicles. It's a complex, real-world testing environment on public and private roads in London, underpinned by Cisco technology. The perfect place to test, understand and overcome the challenges of bringing autonomous vehicles, and mobility services to market.

### *A look inside: E-Flex*

E-Flex uses electric vehicles in real-world fleets to create a commercial model for vehicle-to-grid (V2G) technology, reducing demand on energy networks by feeding their unused electricity back into the grid.

## Rail

When asking citizens to consider their carbon footprint and use public transport systems, we must ensure that

rail operators provide the level of service people expect in today's digital world. Cisco's expertise in end-to-end architectural approaches delivers secure, high-speed mobile services from train to station, via the track.

### *A look inside: Project SWIFT*

Project SWIFT has proven trackside fibre technology that can deliver superfast Wi-Fi to passengers and staff, improving passenger experience, safety and maintenance.

The UK's railways have always been a connectivity challenge. Project SWIFT demonstrated the cost effective benefits of dedicated trackside connectivity with Network Rail.

## Air

Security, budget cuts and regulations are forcing airports and airlines to make efficiencies, reduce costs and investigate new revenue streams. Today's airline industry relies on technology more than ever to improve safety, security and service while also growing market share. Cisco is helping airlines and airports remain competitive.

### *A look inside: Schiphol Airport*

One of the biggest airports in Europe, Schiphol makes full use of digital technology and connectivity, from the control tower to the parking garages. Working with Cisco, Schiphol has centralised and modernised its connectivity infrastructure, keeping passengers and data moving smoothly and securely.

## Sea

Shipping is the lifeblood of global trade. For an island nation like the UK, the efficiencies of automation and digitisation provide a crucial boost to productivity. As port authorities face increased regulations and mandates, Cisco can help simplify operations, reduce costs and improve operational efficiency on land and water.

### *A look inside: Port of Rotterdam*

Cisco has built a data platform that digitises harbour assets, supporting the Port's goal of hosting autonomous ships by 2030. The central data and analytics hub, built in collaboration with our partners, has enabled IoT services driving greater efficiencies and increased revenues, for the Port's clients.



