



Experience the commitment®

The background of the slide features a grayscale photograph of a city skyline with various skyscrapers and a complex multi-level highway interchange in the foreground. Overlaid on the top half of the image is a red network diagram consisting of numerous circular nodes of varying sizes connected by thin red lines, suggesting a digital or data network.

# Delivering Smarter Mobility



## A view of the future

It has been widely documented that by 2030 two-thirds of the world's population will live in cities and by 2050 this will rise to 70 percent. As cities increasingly become the engines of economic growth, the efficient transport of people and goods will grow in importance. City officials and decision-makers face the challenge of developing and maintaining effective urban transport systems. Many have already begun to invest in new solutions, and CGI is at the forefront of many of these projects.

A shift has begun. While the passenger car still dominates our personal journeys, many young drivers are no longer pursuing car ownership. Instead they're opting for car clubs and pay-per-use models for their travel. A typical car is stationary for more than 90 percent of its life. No business would maintain an asset with a utilisation rate of just 10 percent, so why do people?

New technologies are also changing the way we travel. Highly autonomous vehicles are just on the horizon, perhaps as close as 2020. One possible scenario of the future is that an individual would still own a vehicle, but would make the vehicle available to others when not in use and the vehicle would drive itself to the next user.

Another scenario relates to home deliveries, which are on the rise and will only increase. Think of how this practice could be optimised if we used autonomous vans, which automatically drive and re-route. Labor costs would be significantly decreased by eliminating the need for drivers.

CGI is helping organizations involved in transport prepare for the future through smart mobility and other advanced technologies. With more than three decades of experience in the transport industry, we work with major airports, airlines, railways, car manufactures, government transport ministries and authorities, and others to help them keep pace with societal and technology trends and position themselves for success today and into the future.

Read further to learn how CGI is working with transport clients across the globe to drive their growth and profitability.





## Driving innovation in transport

### Empowering sustainable mobility in five European countries ■

CGI is the first company to implement an interoperable, nationwide electric vehicle charging scheme in Europe using our CiMS software. CiMS is the first charge point management system in the world based on open standards using M2M technology. It acts as the bridge between utilities companies, charge point infrastructure providers and electric vehicle drivers. It is also the first system in the world focused on open protocols for remote system management. In 2010, the solution won the highest award in the category of Environment, Energy and Agriculture in IDG's Computerworld honors program.

### Modern payment system and associated back office delivered to Transport for London ■

CGI designed and built the major components of Transport for London's (TfL) London Cycle Hire Scheme. Our simple payment system and associated back office uses a modern software development approach with an emphasis on operational security and reliability. The solution enables the public to easily access and pay for bicycles.

We were selected to work on the London Cycle Hire Scheme because of our ability to draw on international expertise in the design of world class sustainable transport solutions, including energy use management, sustainable travel, multi-modal journey planning and emissions management.

### Eco-friendly, economic driving for Sweden ■

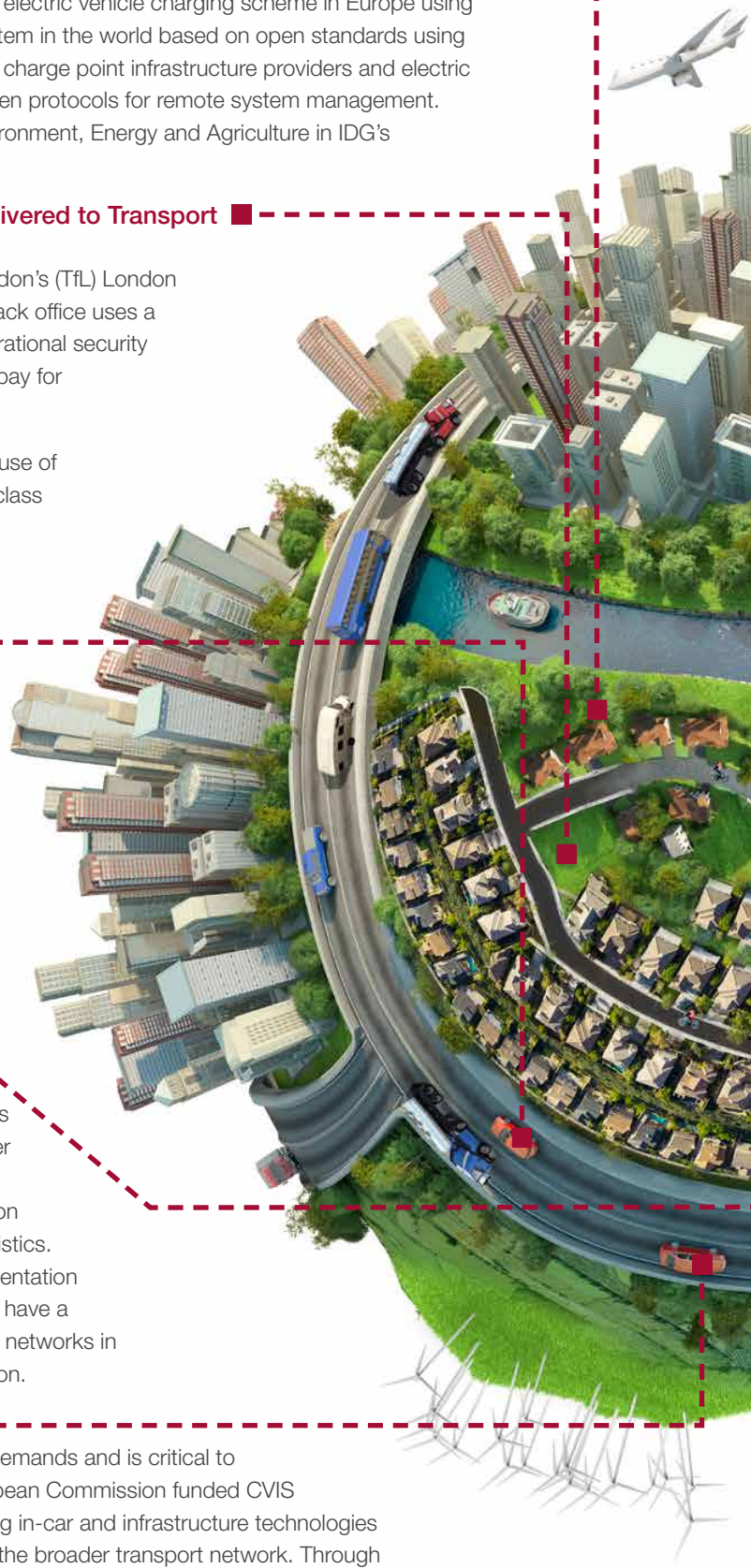
STR has about 630 member companies operating 700 of Sweden's 800 driving schools. These companies employ more than 2,000 driving instructors who train car, bus, truck and two-wheeler drivers. CGI's solution, EMO, a small box placed under the dashboard and connected to an app designed for iPhone and Android phones, makes STR's eco-driving training unique. Instructors gather information about braking, acceleration, speed and idling. The partnership means that a large majority of all Sweden's new motorists have the opportunity to learn how to drive in a more eco-friendly manner and save money by reducing fuel consumption.

### Intelligent cargo: Truly collaborative, sustainable supply chains for Europe ■

CGI is proud of its involvement in the EURIDICE and iCargo projects in Europe to help create an intelligent cargo ecosystem that will offer the most advanced information services for freight transportation in Europe. EURIDICE stands for European Interdisciplinary Research on Intelligent Cargo for Efficient, Safe and Environmentally-Friendly logistics. Its successor is the iCargo project, which is focused on the implementation of intelligent cargo concepts and technologies. Intelligent cargo will have a significant impact on freight transportation, streamlining distribution networks in urban areas, which will help to reduce traffic congestion and pollution.

### Cooperative vehicles for Europe ■

Dynamic traffic management enables real-time response to traffic demands and is critical to effective management of traffic networks. CGI worked on the European Commission funded CVIS initiative and the Dutch government's SPITS programme, developing in-car and infrastructure technologies that will transform how vehicles communicate with each other and the broader transport network. Through intelligent, cooperative vehicles that can communicate with each other and an infrastructure that provides enhanced services and information, transport networks will be able to achieve maximum utilisation and efficiency.



### ■ Central management of public sector environments

Intergraal Beheer Publieke Ruimte (IBOR) is an integral maintenance solution for public sector environments. It is an innovative way to achieve energy and cost savings in areas like street lighting. Delivered through the cloud, IBOR supports the remote management of public spaces from a central location using the Microsoft Surface Windows Phone. For example, in the event of an accident, emergency personnel can use traffic lights to guide them to the right location or conduct real-time re-routing if an unexpected street obstruction is encountered. The solution ensures low total cost of ownership, flexibility, scalability and security and provides our clients with the benefits of CGI Azure-based cloud services on a pay-per-use basis.

### ■ New generation airport operations management for Portugal

Aeroporos de Portugal (ANA) is the Portuguese airport authority and is responsible for managing 10 of the 13 Portuguese airports. As ANA assumed operations for an increasing number of airports, it needed to replace its diverse local airport management applications with a single common solution. CGI formed a partnership with ANA to develop GO, a system for managing airport operations. Built by operators for operators, GO offers extensive and optimised support for airport operations management.

### ■ MOBiNET simplifies transport in Europe

CGI's MOBiNET service platform aims to simplify the European-wide deployment of connected transport services by creating an "Internet of Mobility" where transport user requests are matched to provider services. It promotes openness, harmonisation, interoperability and quality. MOBiNET is a collaborative project in the seventh Framework Programme of RTD of the European Union, co-funded with a grant of almost €11M and comprising a consortium of 34 partners, including CGI. We were selected to be a part of the consortium based on our experience and expertise in transport and mobility.

### ■ Smart travel app for Manchester

CGI helped Transport for Greater Manchester develop a public transport smartphone app, allowing passengers to receive real-time travel information as they plan and make journeys within the city. The virtual travel planning assistant provides up-to-date information across multiple modes of transport, including the city's bus, train and tram networks. Rather than providing journey data from the operator's point of view, the service caters to passengers, providing easy access to the information they want and need.

### ■ Fleet consultancy service design for Scania

CGI helped Scania, a major Swedish commercial vehicle manufacturer, develop and introduce a promising new service that enables truck drivers to drive more fuel efficiently. Building on insights about drivers, the solution promotes and facilitates fuel efficient driving, using gamification to make the process engaging and fun for drivers. The new service provided by Scania helps fleet owners improve their business and, at the same time, protect the environment.





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With over 68,000 professionals in 40 countries, CGI fosters local accountability for client success while bringing global delivery capabilities to clients' front doors. Founded in 1976, CGI applies a disciplined delivery approach that has achieved an industry-leading track record of on-time, on-budget projects. Our high-quality business consulting, systems integration and outsourcing services help clients leverage current investments while adopting new technology and business strategies that achieve top and bottom line results.

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