sopra **S** steria

Big urban data

for transport intelligence

Nowadays, with the rapid development of urban infrastructures, smart devices, and the increasing digitalization of transport systems, large amounts of data are collected across all transport authorities. These diverse data sets are defined as "big urban data" containing rich information which are all key to create new mobility services with positive impacts on society.
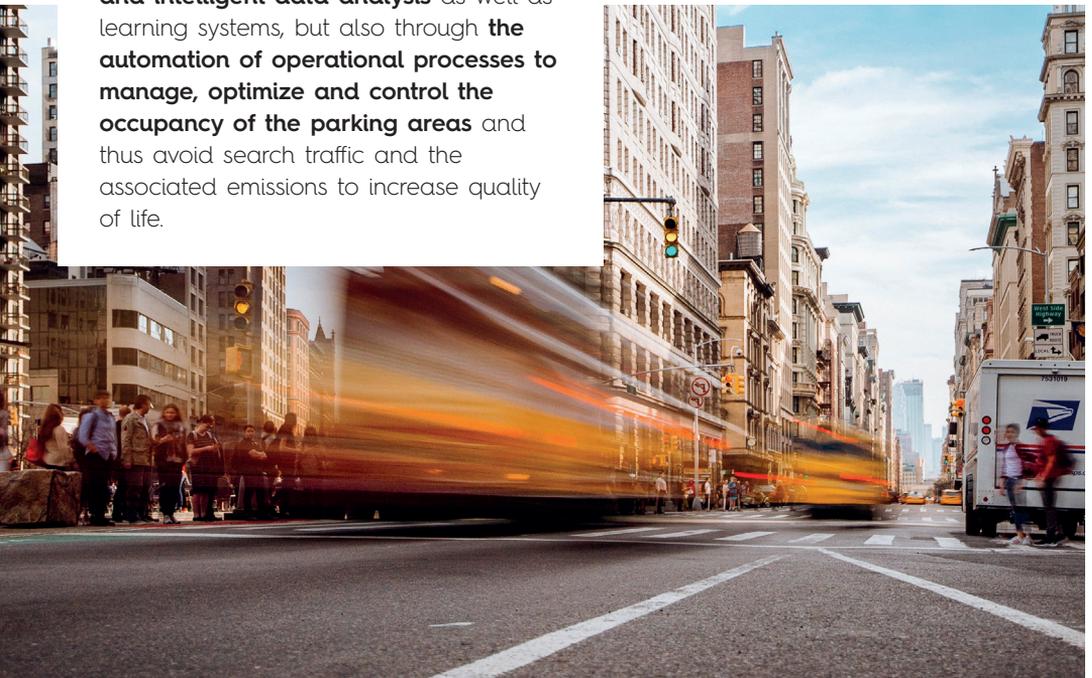
Optimizing mobilities

The growth and attractiveness of large urban centers have **increased the flow of movement and population density** in these areas. Cities are increasingly congested; **transportation is saturated** and getting around during rush hour can be a real obstacle course.
The aim is thus to use the data as an associate to **optimize transportation resources and infrastructures**.

Sopra Steria key solutions

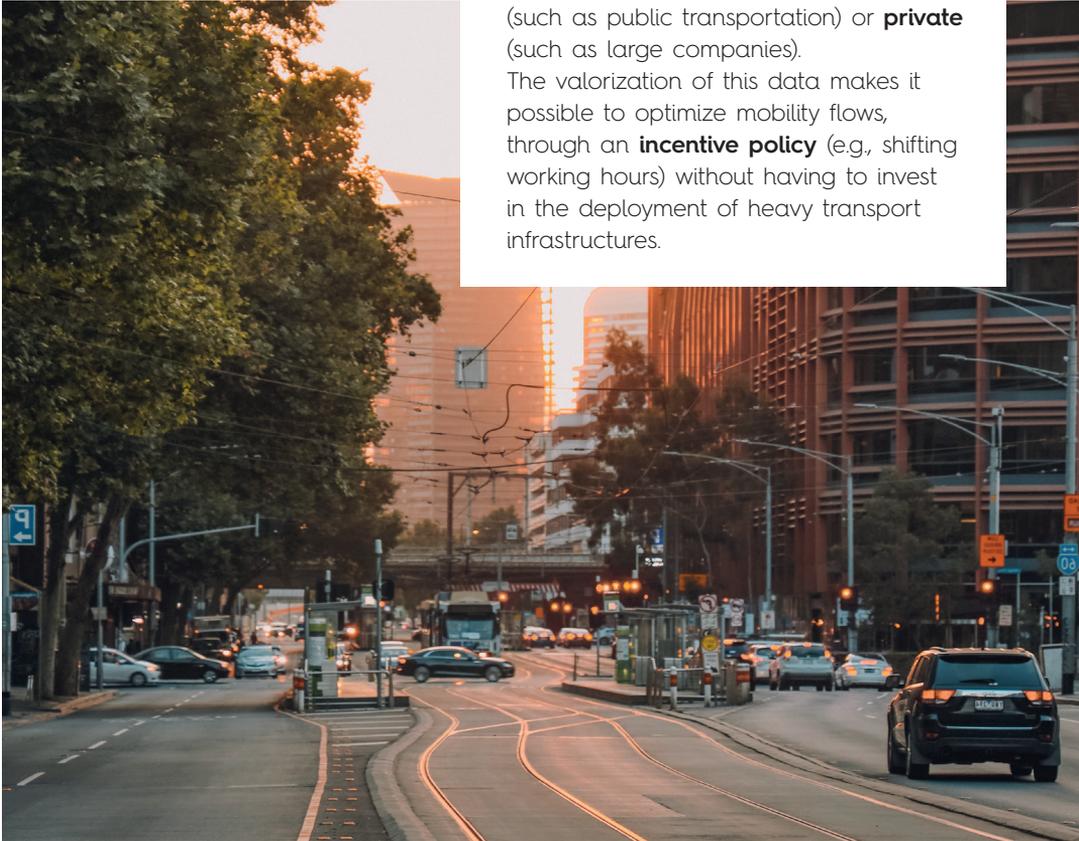### Case 1: IoT based Parking Space Management

Cities are facing major challenges due to the increasing volume of traffic in city centres and the constant reduction in parking spaces. Our solution supports the city through the **use of parking sensors and intelligent data analysis** as well as learning systems, but also through **the automation of operational processes to manage, optimize and control the occupancy of the parking areas** and thus avoid search traffic and the associated emissions to increase quality of life.

Case 2: Collaborative Management of Mobilities

Collaborative Management of Mobilities consists of a digital platform leveraging a **wide variety of data** from the **public** (such as public transportation) or **private** (such as large companies).
The valorization of this data makes it possible to optimize mobility flows, through an **incentive policy** (e.g., shifting working hours) without having to invest in the deployment of heavy transport infrastructures.
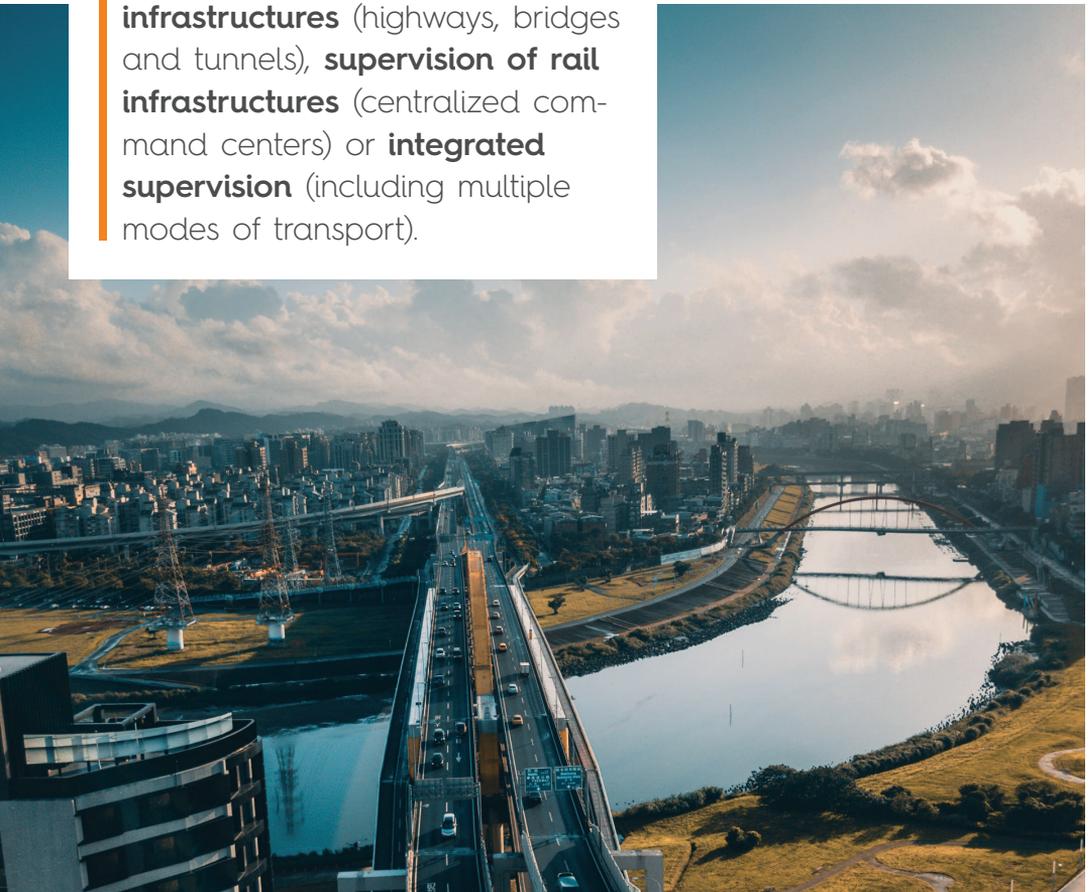
Case 3 : Crowd measurement in station

The crowd measurement application helps the centralized control centers to **optimize their activities through the visualization in real time** and in a single view of the positioning of the trains and the crowd waiting on the platforms. Combining this information provides the teams with advanced knowledge of the visitor rate in stations and provides useful assistance for appropriate decision-making.

Operational Excellence of Mobilities

Mobility Service Providers are committed to the ever-increasing quality of their services to **reach the increased requirements of Transport Authorities** and to differentiate themselves from the competition.

"Operational Excellence of Mobilities" defines all operating support systems for all means of travel: **Supervision of road infrastructures** (highways, bridges and tunnels), **supervision of rail infrastructures** (centralized command centers) or **integrated supervision** (including multiple modes of transport).
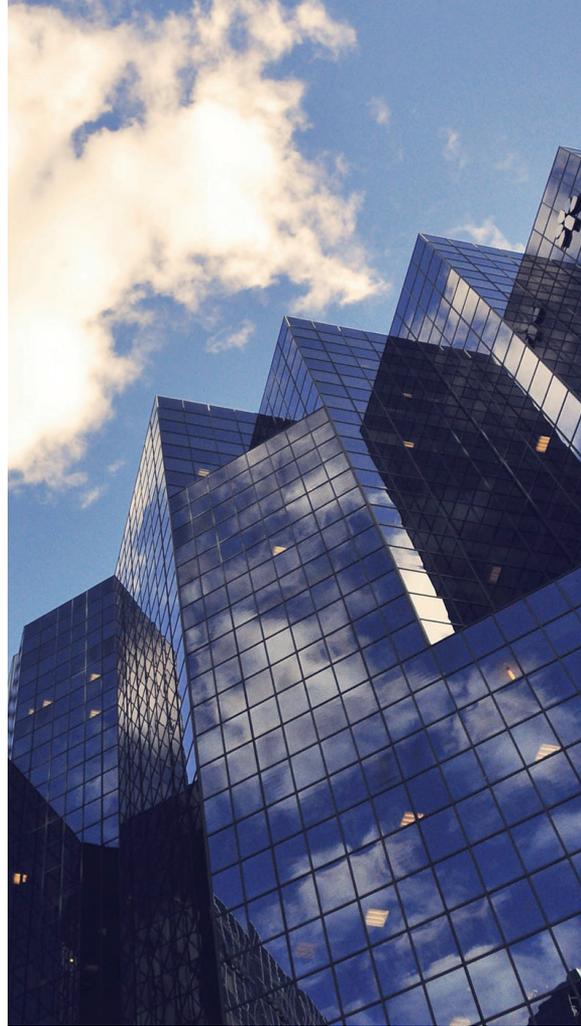
Sopra Steria key solutions

Case 1: Help decision Making for Freight operators

To reach a state-of-the-art level in terms of performance monitoring, Freight operators must rely on a **robust, accurate and relevant tools, including management accounting.** It will ease the preparation, analysis and presentation of information to **help management in planning, controlling, and therefore improving its decision-making process leading ultimately to competitive advantage.** To ensure consistent and relevant information, the purpose of the project is to provide a set of common rules, guidelines and language throughout the Group

Case 2: Common Operational View Incident Management System

Common **O**perational **V**iew **I**ncident **M**anagement **S**ystem for is a bespoke, singular, unified interface application improving operational analysis by **integrating** a diverse and rich set of **data sources**, such as **traffic lights** and **social media** alongside traditional traffic management data. The system is being created for **Transport for London** in alignment with the Mayor's Transport Strategy and the city's ambition to move away from the use of cars to **focus on alternative sustainable modes of transport**, in turn delivering healthy streets.

Case 3: National Traffic Information Service

The National Traffic Information Service (NTIS) contract provides **continuous real-time traffic information** about England's Strategic Road Network (SRN). Sopra Steria runs the service for Highways England while transforming the service to a **cloud-based system** incorporating the UK's largest Digital Twin of 4300 miles of the SRN. The **new modern system will reduce operating costs of the service by 30% per annum.**

Multimodal and eco-responsible journeys

Today's urban mobility is expected to be **connected, integrated, multimodal, and real-time.**
However, the multiplicity of transport networks and travel modes creates a complex environment in rapidly changing territories. The challenge is now to **make the entire transportation offering accessible** through a single integrated application that **simplifies the traveler's journey** and **promotes low-carbon transportation.**

Bringing positive impact on society

Sopra Steria key solutions

Case 1: Open MaaS

Open MaaS opens up new perspectives. **Open MaaS integrates in a single app a unified ticketing system and enables a satisfactory multimodal journey for the customer.** It also means **open standards**, of course, **data sharing**, and **open APIs**. Open knowledge, open science, and open innovation are also accelerators that allow to innovate faster by involving a variety of stakeholders in a true business ecosystem where Platform enterprises are thriving.

Case 2: Eco Mode Application

If journey planners usually integrate preference criteria, such as speed or least walking, the environmental aspect is often forgotten.
Eco Mode, a project founded by the French **"Certificats d'économie d'énergie",** computes **multi-modal journeys with the indication of the carbon footprint for each of them.**

Case 3: Smart infrastructure at the service of sustainability

Federal states, the federal government and municipalities are facing **major challenges** in maintaining their infrastructure. Due to global warming and growing traffic change, the development of infrastructure conditions sustainability. There is an **urgent need for data and transparency for building a sustainable infrastructure management.** Considering the need of data IOT and AI can bring a massive change for building a smart infrastructure. This is the basis for a single, **smart infrastructure.** The next step is the smart infrastructure management of the complete infrastructure. Our approach considers data from IOT-equipped infrastructure and data from classic infrastructure IT solutions to build a **holistic solution for the entire infrastructure.**

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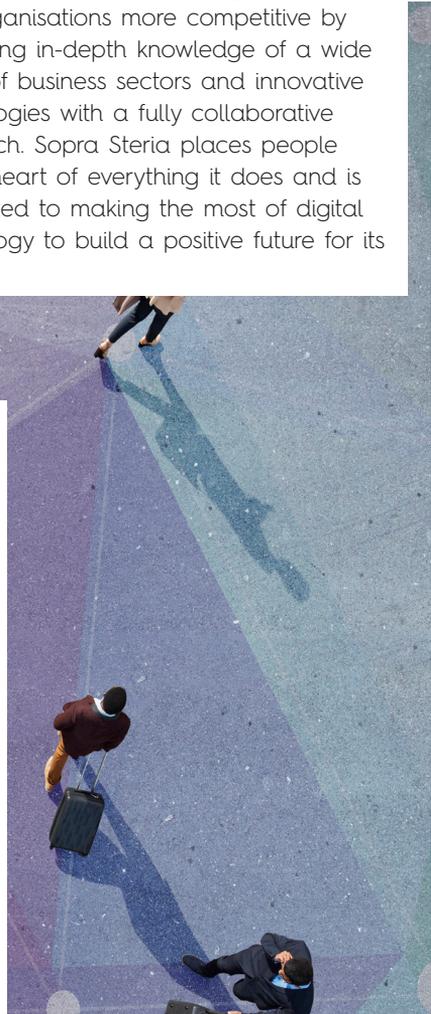
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About Sopra Steria

Sopra Steria, a European leader in consulting, digital services and software development, helps its clients drive their digital transformation to obtain tangible and sustainable benefits. It provides end-to-end solutions to make large companies and organisations more competitive by combining in-depth knowledge of a wide range of business sectors and innovative technologies with a fully collaborative approach. Sopra Steria places people at the heart of everything it does and is committed to making the most of digital technology to build a positive future for its clients.

Our mission

There is no telling what technology can do. Its opportunities are infinite. While innovation is fascinating, it also raises questions as to what is behind the race for new ideas and change. The answers are not always obvious or simple. At Sopra Steria, our mission is to guide our customers, partners and employees towards bold choices by leveraging digital technology to build a positive future for all. We believe in technology, but also in our ability to use our collective intelligence to help the world move forward. Together we are building a decisively promising future by delivering tangible results: lasting solutions that have a positive impact and fully integrate interactions between the digital world and society. We are just at the start of what we can achieve together.
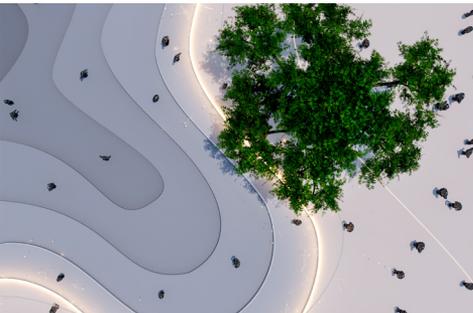
Sopra Steria in few figures

TOP 5 European players in IT servoces industry

4,3B€ Of revenue in 2020

46,000 Employees

Operating in nearly 30 countries

For more information, flash the QR code:

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