

# Addressing the challenges of traffic growth

A report from the Economist Intelligence Unit commissioned by Abertis, the world's leading toll road operator, has found that new road technologies are transforming transport – and hold the key to a cleaner, safer and smarter mobility future.

## 1 Challenges of traffic growth

More people on the move is resulting in productivity losses, road accidents, air pollution and an adverse impact on public health.

**\$1.4tn**  
Annual cost of traffic jams: WEF

**22%**  
Of OECD emissions from vehicles

**1.25m**  
Annual deaths on the road: WEF

## 2 The solution: Road Tech

New vehicle technologies and the smart infrastructure that supports them can help overcome these challenges.

**90%**  
Potential reduction in fatalities from autonomous vehicles: McKinsey

**4-7mins**  
Faster response time to accidents thanks to Waze data

## 4 Innovation on the road surface

The road surface itself is the focus of considerable innovation, like inductive charging for electric vehicles and solar roads.

### 5G Networks

Trialling vehicle-to-vehicle 5G networks with Vodafone

### Connectivity

AT&T developing vehicle-to-everything network service, connecting cars with infrastructure and pedestrians as well as other vehicles

## 5 Big data and smart mobility

Big data and the sharing economy are facilitating "mobility as a service" (Maas), which could further reduce emissions while increasing road efficiency.

*Results of OECD trial in Lisbon to replace personal vehicles with autonomous cars and buses*

**97%** + **33%**  
Reduction in required parking space + Reduction in emissions

## 3 Redefining road infrastructure

Roads are being redefined to include digital components like wireless network technologies and AI.

**15%**  
Reduction in fuel consumption in signal co-ordination trials

**25**  
Partners working on the FABRIC project, testing on-road electric vehicle charging across France, Sweden and Italy

**200**  
Universal EV fast-charging terminals across France through the Corri-Door project

## 6 The next 5-10 years

Governments have a pivotal role to play in enabling greater adoption of these technologies – and the next 5-10 years will be crucial in determining the future of the world's roads.

**PPPs**  
Will play an increasingly important role in creating a smarter mobility future: Boston Consulting Group

**\$11.4tn**  
Road infrastructure funding gap between now and 2030: McKinsey

*At Abertis we believe Road Tech can help tackle the challenges of global traffic growth. This report develops the most comprehensive overview of the technologies and innovations coming through – and what's needed to accelerate their adoption.*

*Francisco Reynés, Vice Chairman and Chief Executive Officer, Abertis*