Building digital societies in Asia: Making transportation smarter

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Who we are

MEMBERSHIP

800
mobile operators in over 220 countries

230 associate members

MOBILE REACH

6.6 billion
mobile connections

3.2 billion
individual subscribers

PRESENCE

Offices in
9 countries
serving every region

Staff based in
26 countries
representing
36 nationalities

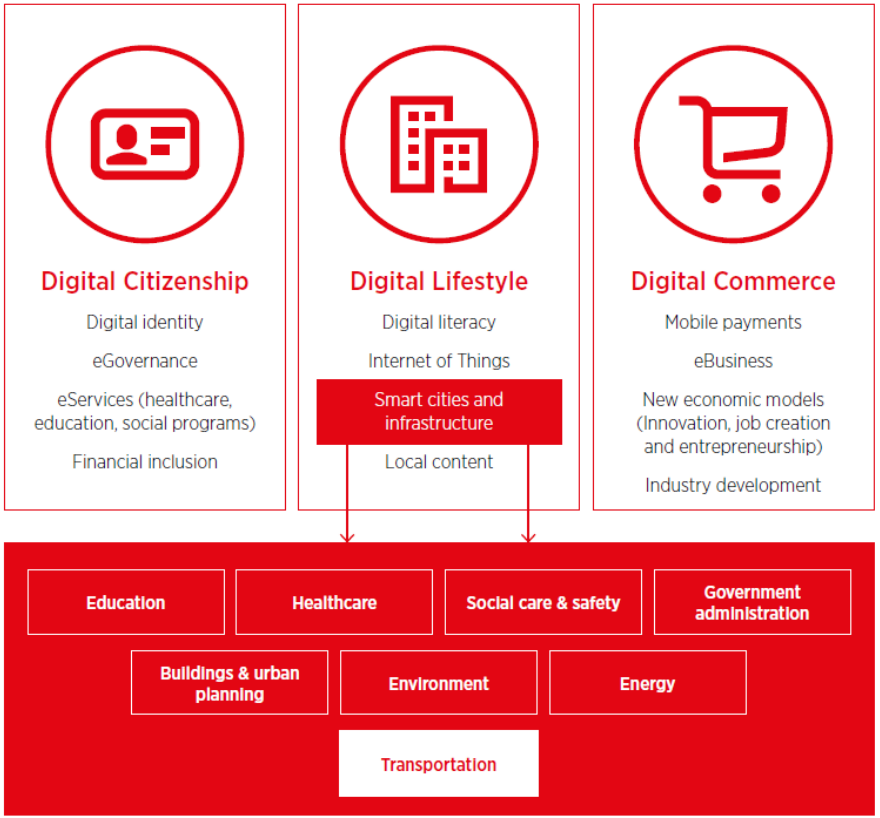
Digital societies and smart transportation

What is a digital society?

Interaction between governments, businesses and citizens via digital technologies

Social and economic benefits around efficiency and productivity gains

Improved wellbeing and living standards of citizens



Global transportation challenges

- The number of motor vehicles is expected to grow from 1.2 billion today to 2.5 billion by 2050

- Commuters spend an average of eight days stuck in traffic each year. This wastes at least $1 trillion of global GDP

- CO_2 emissions from transportation are expected to grow from 25% to 33% of the total by 2050

- Nearly 1.3 million people die in road accidents each year, equivalent to one person every 25 seconds

Intelligent Transportation Systems as a solution

- More efficient and cost-effective transportation solutions are emerging: **ITS is one of the most significant**

ITS refers to

a proven set of strategies for advancing transportation, safety, mobility and environmental sustainability

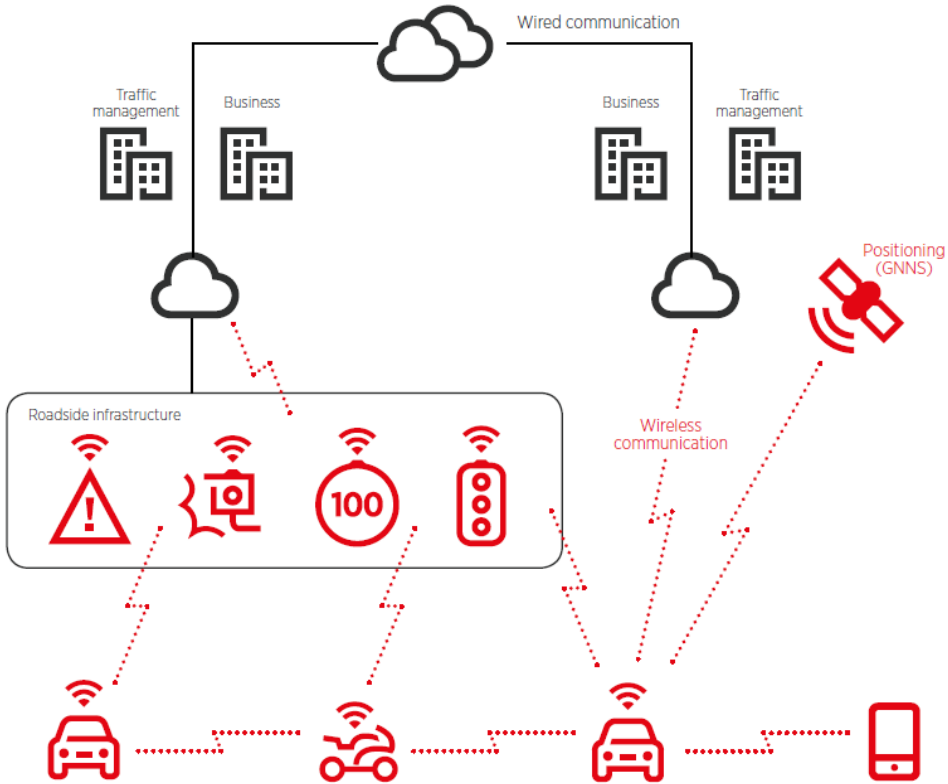
by integrating communication and information technology applications

into the management and operation of transportation systems across all modes of transport

- The main stakeholders involved in the implementation of ITS are:
  - Connectivity providers
  - Automotive and electronics industries
  - Governments
  - Transport authorities
  - Research and academia
  - Commuters

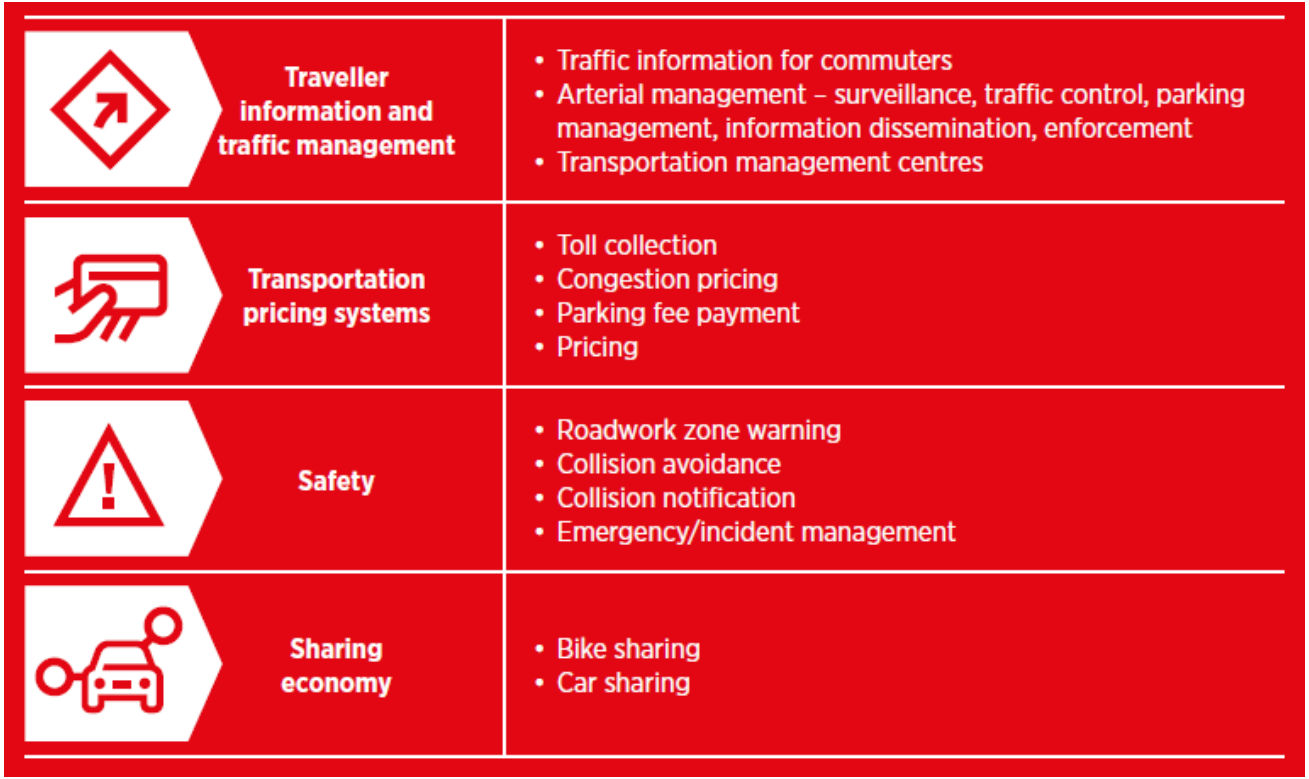
The role of mobile networks in ITS

- The role of connectivity is two way – collecting data from vehicles and/or infrastructure (e.g. CCTV cameras and traffic signals) and delivering actionable information back to vehicles and/or infrastructure
- Mobile networks are well suited to cover a wide area with greater efficiency than many other technologies, particularly in emerging markets with underdeveloped fixed network infrastructure and considering the high costs and latency associated with the use of satellite-based applications



Source: IBM, GSMA Intelligence

Applications of intelligent transportation systems



Source: GSMA Intelligence

Examples:

- Bus tracking system in Hyderabad
- Intelligent parking system in Italy
- Advanced traffic signal controllers and adaptive decision support system in New York City

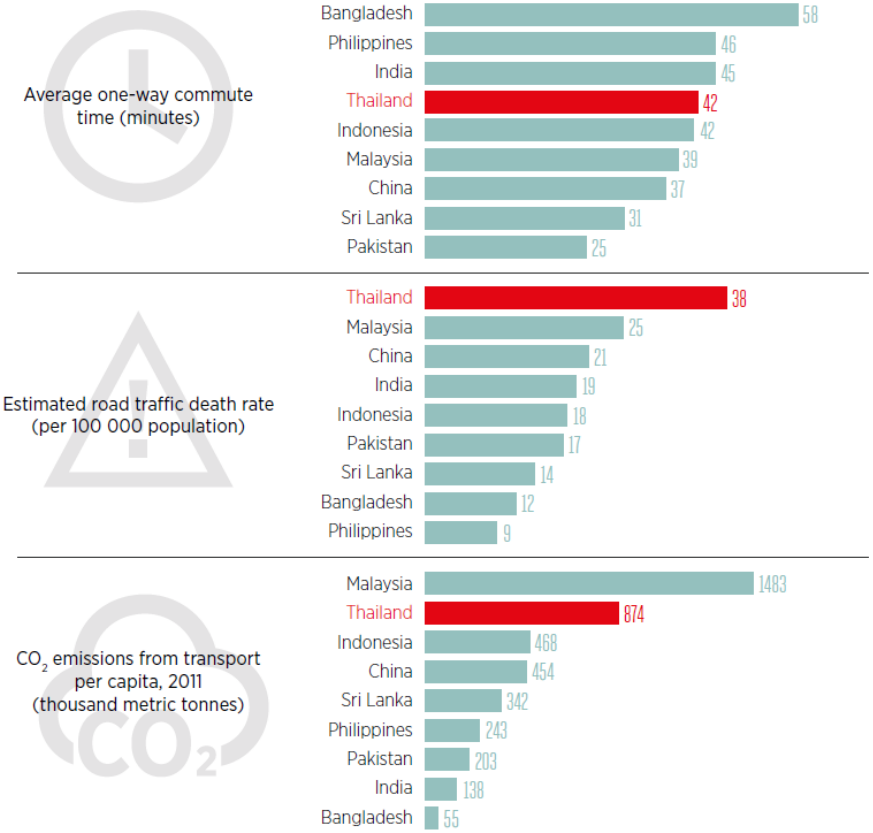
- Public transport contactless ticketing card in Dubai
- Road pricing in Oregon
- Aviva insurance in the UK

- Advanced traffic management systems in Germany and the Netherlands
- eCall in Europe, ERAGLONASS in Russia and SIMRAV in Brazil

- Uber, Lyft and BlaBlaCar
- Bicycle sharing in Copenhagen, Amsterdam, Strasbourg, Barcelona and Berlin

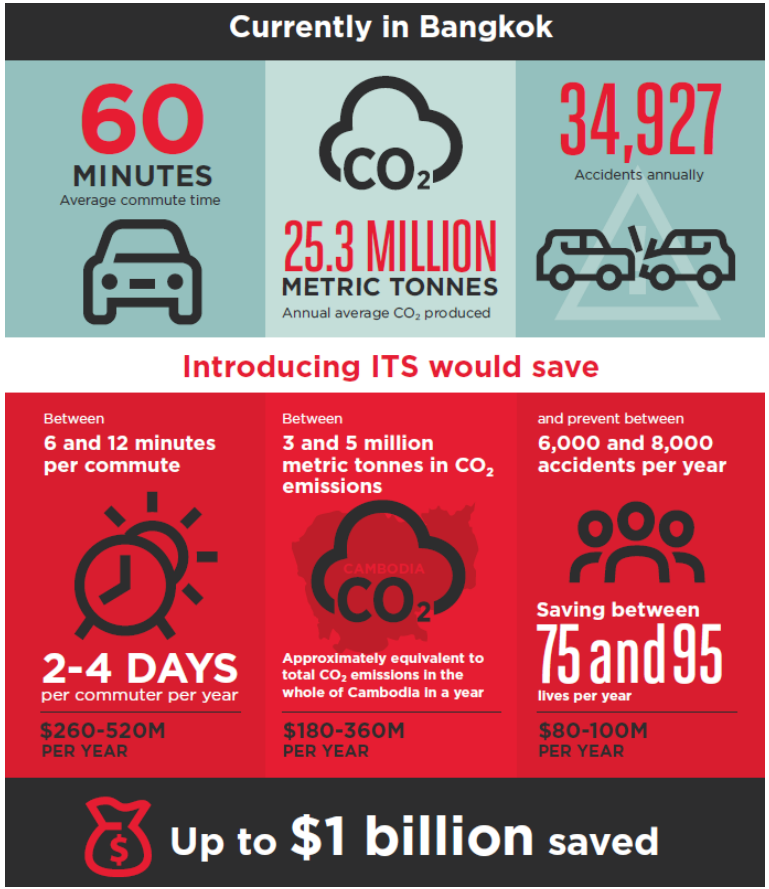
Transportation challenges in Thailand

- In Thailand the average one-way commute time is approximately 40 minutes per journey
- Thailand suffers from an average of 38 road deaths per 100,000 inhabitants per year
- Thailand ranks among the top 10 Asian countries in terms of highest levels of CO_2 emissions per capita due to transportation



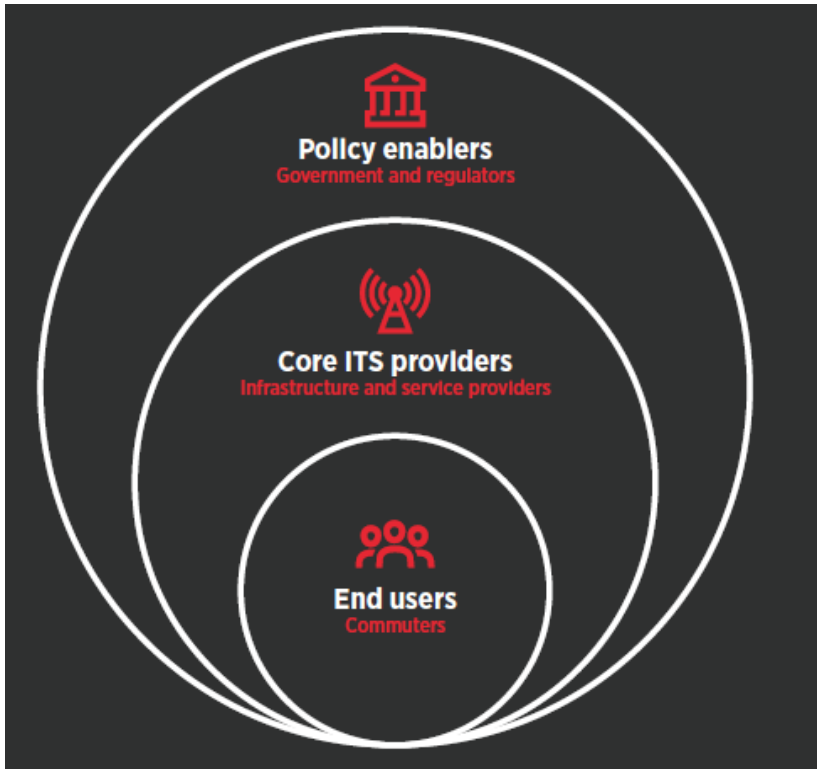
Source: GSMA Intelligence, Numbeo, World Health Organisation, Thailand Pollution Control Department, Ministry of Natural Resources and Environment

Bangkok – a case for implementing ITS



Source: GSMA Intelligence

Factors enabling ITS



Policy enablers

- Clear policy vision – focus on sustainability, scalability and interoperability
- Decrease cost burden of deploying ITS solutions by funding/co-funding the implementation and promoting public-private partnerships
- Allocation of spectrum in globally standardized bands for ITS solutions
- Implement flexible regulations that can adapt to the changing environment

Infrastructure and service providers

- Promote consistency with international standards

End users - commuters

- Improved digital literacy
- Protection of user data

Thank you

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