Technology innovation in the mobility sector is moving at a rapid pace. Many emerging technologies are having or could have a significant impact on citizens’ preferred mode of transport over the next twenty years. This technological-driven paradigm-shift provides an opportunity for significant change in traveller behaviour without necessarily requiring major infrastructure investment or legislative intervention. Indeed, this could provide a substantial difference in future transport network demands, emissions and in contributing to healthy lifestyles.

Harnessing the potential of technological development can make the most efficient use of existing transport infrastructure and services, as well as facilitating the introduction of new and improved ones. For example, passenger information systems could increase the occupancy of buses, which improves the business case for investing in improvements to the service, thereby encouraging further modal shift.

The pace of change is such that it could be a challenge for road and transport authorities to understand the potential impacts and timescales associated with a wide range of technologies. Once a new technology has appeared, it can also be difficult to assess the impact it has had. As a result there is a knowledge gap for authorities in needing to understand how to support, respond or invest in the right technologies to deliver their preferred outcomes.

Relevant emerging technologies can be thematically defined within one of five areas:
(i) Automation of vehicles;
(ii) Information;
(iii) Journey efficiency;
(iv) Mobility as a Service (incl. payment); and
(v) Safety.

The STTRIDE will review the needs of users (i.e. travellers) and understand the role of emerging technology in meeting those needs. The study will draw together disparate existing foresight research for fresh macroeconomic and impact analysis, to provide a high level toolkit of investment options for authorities with a clear set of enablers, probable impacts and priorities which need to be considered. The project will also develop a European evaluation framework for consistent evidence collation of new technologies and pilot the viability of this approach before publishing guidance.

The specific objectives of the research are:
1: Identify the road authority requirements for an emerging technology toolkit that takes into account requirements for impact assessment, evaluation, cost benefit analysis etc.
2: Provide information on the emerging technology toolkit available to road authorities for medium and long term investment decisions through to 2035.
3: Understand the likely political, economic, social, technological, legal and environmental barriers to the uptake of prospective new technologies.
4: Establish a common European monitoring and evaluation approach to the modal usage impact of new technologies.