The transport of people and goods is receiving a great innovation through the design, realization and use of advanced value added services, platforms and pervasive applications dealing with reduction of costs and emissions, multi-modal transport, energy efficiency and user centric approach.
A number of innovation factors in transport services, platforms and applications have a great impact in how the transport of people and goods deals with objectives like green and clean energy transportation, low emissions, multimodal integration of transport networks, improvement of utilization of resources, satisfaction of user needs.

Research at the University of Bologna covers a wide range of issues:
• Development of methodologies and tools for impact assessment and planning of transport service platforms, benchmarking and tuning in mixed simulation/operational, and man-in-the-middle environments
• Methodologies and standards for data collection, semantic data representation, analysis and querying in big data/open data, cloud services and multiple layered information services for transport
• Methodologies for traffic modeling, analysis, forecasting, demand/response analytics, and validation of service assumptions and service platforms for transport
• Transport optimization via data monitoring, analysis, traffic management, control, bottleneck reduction, flows equalization
• Fleet management, logistics support services and pervasive monitoring, security/safety/alert applications for transport
• Economic/environmental evaluation of transport policies, user enforcement, gamification, mobile applications, sharing economy applications in transport

HIGHLIGHTS

Modeling and Simulation of transport in realistic network models, transportation engineering, what-if analysis, optimization, pre-deployment analysis (e.g. electric vehicles’ support, transport infrastructures).

Transport monitoring, data collection, semantic data integration platforms, data science and analytics applied to transport data.

Smart transport services, innovative mobile applications and services for transportation of people and goods, user centric value added services and platforms for transport.