



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

TRANSPORT INFRASTRUCTURES

Research in this field aims to build smarter, greener and integrated infrastructures able to respond to the post-crisis scenarios.

Transportation infrastructures are one of the key elements of mobility, facing urgent and important expectations towards the goals proposed on a global and European scale. The growth of new mobility scenarios requires infrastructures are able to keep the pace of innovation from the vehicle and user perspectives.

Thus, modern infrastructures should aim to smarter and more sustainable solutions that allows an integrated green mobility.



Research at the University of Bologna covers a wide range of issues:

- Advanced Intelligent Transportation Systems that should be part of the construction and maintenance processes
- Transversal commitment of research groups towards more integrated design approaches at a European level
- Pervasive mode-integration and modal shift towards reduced carbon footprint transport enhancing the quality of life
- New low impact technologies for the production and construction phases
- Context-sensitive design solutions for the entire service life of the infrastructure
- Focus on the reduction of infrastructure pressure towards the loss of biodiversity and fragmentation
- Attention to the challenging forms of pollution such as noise and GHG
- Wider perspectives for the selection and qualification of consistent-performance construction materials
- Intense activities on the use of recycled materials against non-renewable resources: faster and more reliable testing procedures
- The Circular Economy approach with concerns on the local scale economies

HIGHLIGHTS

[Sustainable, Accessible, Safe, Resilient and Smart Urban Pavements](#) is one of the key on-going researches at the H2020 level in the University of Bologna. The MSCA-ITN-ETN project SAFERUP fosters the role of urban traffic surfaces and spaces as means for the creation of more liveable cities.

The [BICY research project](#) on the bicycles infrastructures aims to achieve a modal shift towards cycling and walking to improve the quality of life and reduce pollution. Improving bicycle mobility starts from adequate bike infrastructures and design comprehensive mobility plans that focus on cycling.