

## What is TUD?

# Transport and Urban Development

TUD aims at fostering international research networking activities between scientists and experts dealing with transport systems and infrastructures, urban land use and development, architecture and design, and civil engineering issues.

## In Detail

The TRANSPORT AND URBAN DEVELOPMENT (TUD) Domain fosters research coordination in the fields of transport and built environment, which play a strategic role in the modern society and economy.

■ The Domain deals with **assessment, planning and management of transport systems** covering issues like safety and security, energy consumption, environmental impacts, modal diversion and re-equilibrium, transport policies, traffic management, market issues, and sustainable mobility.

■ It also focuses on **improving transportation structures** by developing new design and technologies both for infrastructures (materials, intuitive driving signals, etc.) and vehicles (alternative fuels, Intelligent Transportation System, etc.), enhancing human-machine interfaces and upgrading driving behaviour.

■ In addition, the Domain covers all aspects of **urban development**. These include land use planning and management within or around urban areas, environmental management, urban-rural relationships, safety and security, reconstruction, rehabilitation and renovation, disaster management, logistics, and cultural heritage.

■ Finally, a large component of the Domain is related to **engineering, construction, and architecture** of urban structures. These cover design methods and technologies for construction, maintenance, operation, rehabilitation and protection of buildings. Emphasis is given to green structures and particularly to the energy efficiency of products, processes, and organisation.

The Domain involves scientists, practitioners, decision-makers and industry in basic and applied research activities based on integrated and interdisciplinary approaches. These lead to technical developments, standards and policy recommendations.



## Chair

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### Current COST Actions within the TUD Domain:

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- **TD0804** Soundscape of European Cities and Landscapes
- **TD1106** Urban Agriculture Europe (UAE)
- **TU0701** Improving the Quality of Suburban Building Stocks
- **TU0702** Real-time Monitoring, Surveillance and Control of Road Networks under Adverse Weather Conditions
- **TU0801** Semantic Enrichment of 3D City Models for Sustainable Urban Development
- **TU0802** Next Generation Cost Effective Phase Change Materials for Increased Energy Efficiency in Renewable Energy Systems in Buildings (NeCoE-PCM)
- **TU0803** Cities Regrowing Smaller – Fostering Knowledge on Regeneration Strategies in Shrinking Cities across Europe
- **TU0804** Survey Harmonisation with New Technologies Improvement (SHANTI)
- **TU0901** Integrating and Harmonizing Sound Insulation Aspects in Sustainable Urban Housing Constructions
- **TU0902** Integrated Assessment Technologies to Support the Sustainable Development of Urban Areas
- **TU0903** Methods and Tools for Supporting the Use, Calibration and Validation of Traffic Simulation Models
- **TU0904** IFER - Integrated Fire Engineering and Response
- **TU0905** STRUCTURAL GLASS – Novel Design Methods and Next Generation Products
- **TU1001** P3T3 – Public Private Partnerships in Transport: Trends and Theory
- **TU1002** Accessibility Instruments For Planning Practice In Europe
- **TU1003** MEGAPROJECT: The Effective Design and Delivery of Megaprojects in the European Union
- **TU1004** Modelling public transport passenger flows in the era of intelligent transport systems
- **TU1101** Towards safer bicycling through optimization of bicycle helmets and usage
- **TU1102** Towards Autonomic Road Transport Support Systems
- **TU1103** Operation and safety of tramways in interaction with public space
- **TU1104** Smart Low Carbon Regions
- **TU1105** NVH analysis techniques for design and optimization of hybrid and electric vehicles

### Success Stories

Within **COST Action 354** researchers have developed a system of single, combined and general performance indices for assessing road quality. They developed a procedure that can be applied in different ways depending on the type of measurements available and the analytical approach of the road authority.

Participants in **COST Action 342** put together a report on standard parking management measures and the procedures for describing and analysing parking policy measures. They also established a set of guidelines for best practice in parking management and policy to estimate and communicate the anticipated effects of intended policy measures and fulfil national formulated policy goals

### How to join a COST Action

Scientists interested in joining an ongoing COST Action should contact the Action Chair and the COST National Coordinator in their member country ([www.cost.eu/cnc](http://www.cost.eu/cnc)).

To propose a new Action, visit: [www.cost.eu/opencall](http://www.cost.eu/opencall). COST assesses new proposals two times a year.



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