



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 following examples illustrate actual research within this Domain. The scope of the Domain is not restricted to these activities.

- **Sustainable transport and urban planning policy:** addressing issues of both sustainable transport and urban development. The focus is on the environmental and socio-economic impact of transport, traffic safety, security and energy consumption, as well as modal diversion and modal re-equilibrium, intermodal solutions and interoperability among the different systems. The integrated spatial and land-use planning, environmental and transport planning and modelling will focus on recommendations for sustainable and interdisciplinary policy and planning concerning transport issues and urban development, solutions for a safer mobility of people and goods, securing living conditions, including psychological issues linked to these problems.
- **Design of transport systems and development of urban infrastructures:** addressing issues related to transport infrastructures (building, development, maintenance, rehabilitation), the development of new technologies both for infrastructures (materials, etc.) and the vehicles (alternative fuels, etc.) and encompassing issues related to constructing and managing networks and utilities, urban safety, security and disasters situations.
- **Urban architecture and civil constructions:** planning and design, covering urban design and architecture, urban constructions, reconstruction and rehabilitation of structures and buildings, including cultural heritage areas, green structures as well as issues of quality of life.
- **The management of the transport systems, infrastructures and urban structures** addressing transport policies related to transport demand management, traffic management, market issues, people education towards more sustainable behaviours. But also, policies on civil engineering and construction topics, such as rehabilitation, organisation and management of the construction sector, logistics and energy use.

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Current COST Actions within the TUD Domain:

- **358** Pedestrians' Quality Needs (PQN)
- **C24** Analysis and Design of Innovative Systems for Low-EXergy in the Built Environment: COSTeXergy
- **C25** Sustainability of Constructions: Integrated Approach to Life-time Structural Engineering
- **C26** Urban Habitat Constructions under Catastrophic Events
- **C27** Sustainable Development Policies for Minor Deprived Urban Communities
- **TD0804** Soundscape of European Cities and Landscapes
- **TU0601** Robustness of Structures
- **TU0602** Land Management for Urban Dynamics
- **TU0603** Buses with a High Level of Service
- **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

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.esf.org/cnc).

To propose a new Action, visit: www.cost.esf.org/opencall. COST assesses new proposals two times a year.



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