18th International NECTAR Conference
Munich, Germany, 13 - 15 July 2026

Call for papers for the thematic track sessions of Cluster 8: ICT

ICT and AI for Urban Mobility: Exploring Transitions & Uncertainties

Urban mobility is changing through decarbonisation, platformisation, automation and ongoing uncertainty in travel behaviour, technology uptake and governance. Cluster 8 invites theoretical, methodological and empirical papers that use ICT, AI and data-driven methods to analyse, monitor or guide low-carbon, equitable and resilient transport systems. This includes conceptual frameworks, model development/testing and empirical studies using quantitative, qualitative or mixed methods. Relevant approaches: causal and interpretive studies of behaviour and adoption; activity and agent-based modelling; survey/diaries; digital trace analytics; natural experiments; scenario/uncertainty analyses; and reproducible open data/code workflows. Papers tackling ethics, privacy, governance, equity and external validity/generalisation are strongly encouraged.

The track uses four complementary lenses that cross (A) transport demand and transport supply with (B) ICT and AI. These are flexible, and many papers will cut across them (eg. ICT informing AI, demand insights shaping supply planning). The topics are for guidance, not exhaustive:

	ICT	AI
Transport Demand	**Digital traces, platforms, and participation** • Digital vs physical travel (remote/ hybrid work, e-learning, telehealth), their substitution/ complementarity in activity travel patterns, distributional effects • Behavioural evidence from app, mobile/CDR, Wi-Fi/ Bluetooth and smartcard data, participatory platforms for understanding accessibility, time use, and reliability • Data governance for demand research: informed consent, privacy-preserving analytics, and public-private data sharing for reproducible research	**Behavioural modelling, uncertainty-aware inference** • Interpretable or causal ML for mode/route choice, activity generation and adoption under regime shifts (post-pandemic, price shocks), with clear uncertainty reporting • LLMs/NLP to code diaries, interviews and open surveys; extract themes, behaviours and needs while managing bias, validity and reproducibility • Scenario building, synthetic populations and counterfactuals to assess equity, affordability, safety and well-being, including uptake of new mobility services (such as MaaS)
Transport Supply	**Planning, governance, and institutions** • Platform governance and interoperability (GTFS/GBFS/NeTEx) for integrated planning across operators, digital twinning, lessons from MaaS, shared mobility, AV pilots as empirical cases • Digital participation and civic tech in planning: LLM-assisted handling of public input, online deliberation, co-design portals and feedback loops for network and street/kerb changes • Institutional capacity and procurement: data-access clauses, transparency and accountability frameworks for ICT-based planning and evaluation.	**Policy design, evaluation, resilient provision** • Surrogate/learned models and LLM-supported documentation to mimic complex simulations and communicate trade-offs (emissions, inclusion, cost recovery, safety) • AI-based service planning and appraisal: accessibility- and equity-driven redesigns, strategic scheduling/ fleet sizing for fixed and flexible (incl. automated) services • Anticipatory planning for climate/disruption: AI-assisted stress testing of networks and mobility systems with distribution-sensitive metrics.

Deadline for abstract submission
The deadline for abstract submission is January 31, 2026. Abstracts (max. 500 words) should be submitted electronically, using the form available on the conference website and following the instructions found there: https://nectar26.eu/

A copy of the abstract should also be sent to the cluster co-chairs Eran Ben-Elia (benelia@bgu.ac.il), Luc Wismans (lwismans@goudappel.nl), Siiri Silm (siiri.silm@ut.ee), and Marina Toger (marina.toger@kultgeog.uu.se).

Criteria for acceptance
Criteria for acceptance are scope, scientific quality, NECTAR membership, and the possibility of fitting the presentation in a coherent conference session. The number of participants in this thematic session will be limited to 8.

Venue
NECTAR 2026 will be hosted by the Accessibility Planning Research Group at Chair of Urban Structures and Transport Planning, Technical University of Munich (TUM), at the Technical University of Munich, in collaboration with the NECTAR Board and its thematic clusters.

Participation and NECTAR membership
All practical details will be communicated through the conference website. In order to participate in the conference, a consecutive and current two-year NECTAR membership is necessary (2024-2026). Non-members can find details of how to join the association on the "Membership" page of NECTAR's website: www.nectar-eu.eu/membership

Important dates
Abstract submission: January 31, 2026
Notification of acceptance: April 1, 2026
Confirmation of attendance: April 30, 2026

We look forward to seeing you in Munich!

Eran Ben-Elia, Ben-Gurion University of the Negev
Luc Wismans, University of Twente
Siiri Silm, University of Tartu
Marina Toger, Uppsala University