WCTR-2026 Manifesto

Predicting the unpredictable: uncertainty as a state of the art in transport research

Transport research has historically been built around a single assumed future: demand would grow, institutions would function, and technology would improve. That assumption is no longer defensible. Climate stress, geopolitical fragmentation, technological disruption, and shifting social values do not move on predictable schedules. A field designed for certainty is ill-prepared for the world it will actually face.

Key triggers considered

Climate · Geopolitical Context · Infrastructure · Market Structure & Economy · Technology Adoption · Social Context

Three scenarios considered

The Fragmented World: Mitigation efforts fail or remain insufficient, allowing existing stressors to intensify and interact in destabilizing ways. Reinforcing loops of decline lead to resource crises, mass migration, and societal collapse.

The Drifting World: The most likely trajectory, reflecting the continuation of current trends without major systemic disruptions or transformative breakthroughs. The system evolves along its existing path, characterized by gradual adaptation rather than structural change.

The Cooperative World: The defining shift lies in the ability of global systems to translate innovation into coordinated action. Net-zero emissions are achieved, and the transport system becomes fully integrated, decarbonized, and synchromodal. Mobility as a right.

Principles to follow

A. Design Research for Uncertainty, not for a Single Future. Uncertainty-literate research means being explicit about assumptions, testing findings across divergent conditions, and building models that reveal their own limits.

B. Prepare for Collapse, Build for Cooperation. Knowing that uncertainty exists is not enough if research investment remains concentrated on the middle trajectory. The knowledge needs to be built in advance.

C. Equity is not a Best-Case Luxury. Distributional outcomes do not improve automatically when the scenario improves. Equity requires deliberate research attention in every future, built into research design from the start.

Research directions

RD1. Building infrastructure for unpredictable futures. *How do we build and govern adaptable and sustainable infrastructure systems that remain functional and equitable?*

RD2. Transforming logistics and supply networks beyond efficiency. *How can supply networks be designed and governed to be resilient, cooperative, adaptive, and capable of creating shared value?*

RD3. Measuring and protecting mobility as a right. *Who loses mobility first when systems come under stress*, and *what research, policy, and institutional designs can ensure that access to movement remains a right rather than a privilege?*

RD4. Governing transport systems and shaping behavior. *What governance structures allow competing logistics actors to share capacity and data without losing commercial viability; on what behavioral conditions enable large-scale modal shift?*

RD5. Governing AI and digital infrastructure for public benefit. *How do we govern AI and digital infrastructure in transport so that technological capability translates into collective benefit?*

THE FUTURE OF TRANSPORT CANNOT BE PREDICTED. BUT IT CAN BE SHAPED, by the questions researchers choose to ask, by the communities they include, by the governance they help build, and by the research priorities they set today.

WCTR 1976 - Five decades lie behind us. WCTR 2076 - The next fifty lie ahead. **Transport research stands at a fork in the road. What we do and how we act is up to us.**

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