System Dynamics Topics

Simulation models are well established in transport-related research and policy making, with system dynamics (SD) being increasingly utilised. Transport systems and policies are complex, involving multiple agents or stakeholders, and there are many different feedbacks involved with varying time lags between responses of users, developers, operators and policy makers. SD not only offers a different perspective to transport planning but also can demonstrate the importance of these feedbacks and lagged responses. Further to this, SD also offers specialised tools and approaches for hybridisation with other simulation techniques, which aid in the understanding of the whole underlying system, calibration of models, optimisation of policies and ease of use through flight simulators.

Now established at ETC, abstracts are invited that demonstrate the success of system dynamics in transport. We welcome both qualitative (Causal Loop Diagram) and quantitative (Stock Flow Model) approaches. Topics can cover any aspect of transportation, such as:

- Sustainable and equitable policy analysis;
- Development and uptake of new technologies and services;
- Demonstration of business models and performance management systems.

In addition, methodological papers, demonstrating innovative approaches and combination with other forms of modelling, impact assessment tools or new and emerging forms of data are encouraged.

We invite abstracts from any career stage and sector, often having a good mix of academic, consultancy and institutional papers, thus leading to focused discussions on the use of SD within transport policy and planning.

This Call for Papers is supported by the System Dynamics Society Special Interest Group in Transportation.

Important notice
If you submit an abstract, this will go through a selection process. Each year we receive more abstracts than can be accommodated in the programme. If your abstract is selected, please be aware that others have been rejected, that the ETC organisation has invested time in devising an attractive and coherent programme and that delegates have used this programme to decide to come to the conference.

Before submitting your abstract, please make sure there is time and funding to have at least one of the authors attending the conference to present the paper and that you have/will obtain the approval needed (from management or client) to present the work in public at the time of the conference. The conference organisers will require your commitment by the time of the abstract’s acceptance.