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What next?

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IVT
ETH
Zurich

November 2024

Institut für Verkehrsplanung und Transportsysteme
Institute for Transport Planning and Systems

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Where are we?

Prior work developing MATSim @ ETH, TU Berlin

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Dr. Henrick Becker
Dr. Joschka Bischoff
Dr. David Charypar
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Theresa Thunig
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Dr. Rashid Waraich
Dr. Dominik Ziemke
Dr. Michael Zilske

and others at TU Berlin

Currently developing and using MATSim known to me

CSFM, ETH Zürich

VSP, TU Berlin

SBB, Bern

System-X, Paris

Replan, Berlin

Simunto, Zürich

Senozon, Zürich

Ming Lu, Guoangzhou

TU Dresden

TU München

Boku, Vienna

KU Leuven

Kyoto University

Hiroshima University

FCL, Singapore

NYU, New York

Loughborough University

MOIA, Hamburg

VW, Wolfsburg

KPMG, Melbourne

ARUP, London

FCL, Singapore

Lost and current Models (2025) as far as we know

What next organisationally?

Organisation

- MATSim association
  - Github
  - New versions
  - Reference collection
- User meetings
  - Annually attached to a larger conference
  - Regional ad-how (to become regular ?)
- Hub ?
  - Code development
  - Testing
  - Integration

What substantially?

Data issues

- Provision of open-source demand
  - Persons
  - Households
  - Social networks
  - Behaviour
  - Freight (matrices)
  - In-bound and through matrices
  - Counts across all modes
- Open-source supply networks
  - OSM
    - Walking
    - Cycling
  - GTFS
  - Vehicle fleets

Code issues

- Speed of convergence
- Memory usage

- Maintenance
- Testing

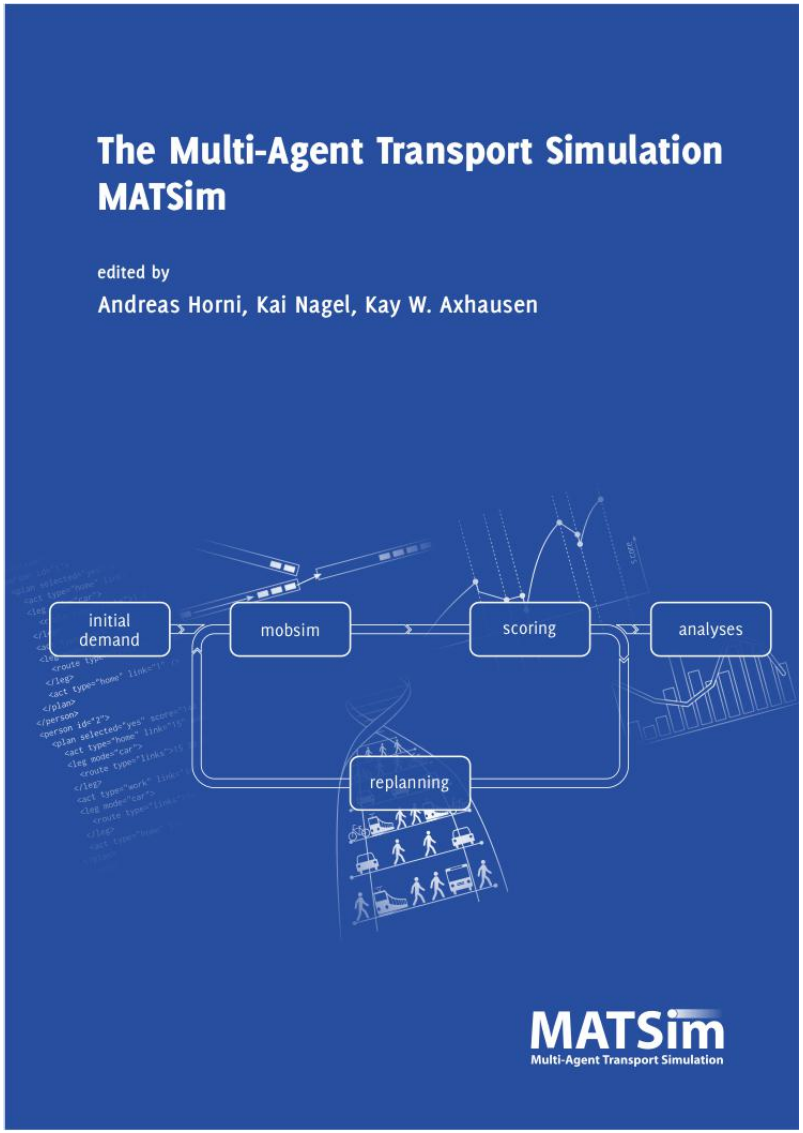
- New versions
- Integration of new elements

- Reimplementation
- New language ?

New capabilities

- ”Automated” scenario generation (equasim, etc.)
- Estimated scoring function
  - More work with OASIS
  - More locations
- Freight
- Social networks
  - Generation
  - Interactions
    - Car passengers

New „book“ ?


The Multi-Agent Transport Simulation
MATSim
edited by
Andreas Horni, Kai Nagel, Kay W. Axhausen
initial demand
mobsim
scoring
analyses
replanning
MATSim
Multi-Agent Transport Simulation

Questions?

www.matsim.org

www.ivt.ethz.ch