

# Wolfgang Scherr





# Summary

- 30 years of international experience in transport planning for road, rail, bus, air.
- Successful as consultant, project manager, team leader and coach/trainer.
- Areas of expertise: passenger demand forecasting; development of transport simulation models; longand mid-range planning of networks and service schedules; innovation and technology transfer.

# ▼ Experience

## 02/2021 - present

## Owner and Principal Consultant • MOVENTES • Bern, Switzerland • www.moventes.net

• Provide consulting services in the fields of traffic simulation and transportation planning, helping governments and the transport industry to apply innovative technology for future transport services.

#### 04/2017 - 01/2022

## Product Owner Agent-Based Simulation • SBB • Bern, Switzerland • www.sbb.ch

- As project manager, led development and calibration of SBB's agent-based travel simulation model of Switzerland (8.5 million); established know-how in multimodal planning, built a functional team.
- Led the customization of software components to SBB's requirements: 1) PTV Visum's ABM module, 2) the open-source software MATSim; both being used for the first time in real-world transport planning
- As product owner, managed development priorities and application of the model which today supports management decisions across the corporation, steered research collaboration and technology transfer.

#### 09/2013 - 03/2017

#### Senior Transportation Planner • SBB • Bern, Switzerland • www.sbb.ch

As an expert for ridership forecasting, contributed to rail planning projects and to the improvement of
existing simulation models, with an emphasis on international demand, emerging competition, and
disruptive effects in the long-term future.

#### 08/2011 - 07/2013

## Practice Leader Traffic Simulation • citec • Genève, Switzerland • www.citec.ch

• As practice leader of travel forecasting and traffic simulation, trained and guided junior staff, conducted business development, advanced tools and methodology, and managed consulting projects.

#### 01/2010 - 06/2011

## Senior Transportation Engineer • DVRPC • Philadelphia, PA, USA • www.dvrpc.org

• Developed a new regional travel forecasting model for the Philadelphia region (5.5 million) and guided its migration to the PTV Visum software; consulting in pedestrian and bus rapid transit (BRT) projects.

#### 02/2001 - 11/2009

Principal Consultant / Vice President • PTV America Inc. • Wilmington, DE, USA • www.ptvgroup.com

- Started the PTV office on the East Coast; built, trained and directed a team of seven; acquired and managed numerous consulting projects in the areas of travel demand forecasting, public transport planning, and microscopic traffic simulation.
- Successfully launched the transport planning software PTV Visum on the North American market. Developed the consulting practice in travel forecasting and in public transportation planning.

#### 05/2000 - 01/2001

#### Technical Officer Network Planning • Lufthansa • Frankfurt, Germany • www.lufthansa.com

• Planning and forecasting of national and international air passenger flows.

#### 12/1993 - 03/2000

Senior Consultant • PTV • Karlsruhe, Germany • www.ptvgroup.com

 As project manager, developed turn-key macroscopic transport models; delivered travel demand forecasts; conducted mobility data analysis and choice modeling; trained software users of PTV Visum.

# ▼ Education

10/1987 – 09/1993 Diplom-Wirtschaftsingenieur (M.Sc. Industrial Engineering) • KIT • Karlsruhe, Germany

09/1976 – 05/1985 Abitur • Albertus-Magnus-Gymnasium • Regensburg, Germany

# Languages

German (native language) • English (fluent, C2) • French (fluent, C1) • Italian (advanced, B2)

# Voluntary professional contribution

- AET (Association for European Transport) member of the program commission (transport models) for the European Transport Conference, since 2021.
- SVI (Swiss Transportation Engineers) member of the research commission, 2013-2018 monitoring and advisory of research projects, ongoing.
- EAABM (European Association for Activity-Based Models) member of the application committee

• Guest lectures in academic education • ETH, Zürich • HEIG, Yverdon • University of Delaware

# Selected publications

- M. Kampp, Sedelmeier, J., W. Scherr, J. Schlaich et al. (2023): How much high-speed rail is needed to meet the EU Green Deal targets? Paper, European Transport Conference, Milano, Italy.
- Scherr, W. (2023): Planning of Effective Rail Service International Cases. Presentation, PTV Rail Summit, Frankfurt.
- Scherr, W., Joshi, C., Manser, P., Frischknecht, N., Métrailler, D. (2020): Towards agent-based travel demand simulation across all mobility choices – the role of balancing preferences and constraints. European Journal of Transport and Infrastructure Research (EJTIR), 20(4), p. 152-172, doi.org/10.18757/ejtir.2020.20.4.4463.
- Scherr, W., Bützberger, P., Manser, P. (2020): SIMBA MOBi: Microscopic Mobility Simulation for Corporate Planning. Transportation Research Procedia 49, p. 30-43, doi.org/10.1016/j.trpro.2020.09.004.
- Scherr, W., Bischoff, J., Bützberger, P. (2020): Application of agent-based simulation to support real-world business cases in public transport and intermodal service planning. Presentation, European Transport Conference, Milano, Italy.
- Scherr, W., Joshi, C., Manser, P., Frischknecht, N., Métrailler, D. (2019): An Activity-based Travel Demand Model of Switzerland Based on Choices and Constraints. Paper, hEART Conference, Budapest, Hungary.
- Scherr, W. (2018): An Innovative Transport Model Architecture Aiming at Forecasting a Passenger Railway's Future. Presentation, TRB Innovations in Travel Modeling Conference, Atlanta, GA.
- Scherr, W., Manser, P. (2018): Using MATSim as a Railway Corporation. Presentation, MATSim User Meeting, Atlanta, GA.
- Scherr, W., Bützberger, P. (2016): Calibration of the Swiss Rail Model Using Longitudinal Demand Observation. Paper, Swiss Transport Research Conference, Ascona, Switzerland.
- Scherr, W., Saubion, B. (2012): MM06 Modèle Multimodal des Alpes Maritimes. Presentation, Club d'utilisateurs PTV Vision, Strasbourg, France.
- Puchalsky, C., Joshi, D., Scherr, W. (2012): Development of a Regional Forecasting Model Based on Google Transit Feed. Paper, TRB Annual Meeting, Washington, DC.
- Fisher, I., Scherr, W. (2009): Regional Application of 24-Hour Dynamic Transit Assignment. Paper, TRB Planning Applications Conference, Houston, TX.
- Boyce, D., O'Neill, C., Scherr, W. (2008): Solving the Sequential Travel Forecasting Procedure with Feedback. Transportation Research Record: Journal of TRB, No. 2077, National Academies, Washington, D.C, p. 129-135.
- Rousseau, G., Scherr, W., Xiong, C., Yuan, F. (2007): Linking Atlanta's Regional Transportation Planning Model with Microscopic Traffic Simulation. Paper, North-American Regional Science Conference, Savannah, GA.
- Fisher, I., Scherr, W. (2007): Optimizing Transit Operations in Vancouver, B.C.: TransLink's Rapid Transit Model. Paper, TRB Planning Applications Conference, Daytona Beach, FL.
- Barbier-St.-Hilaire, F., Friedrich, M., Hofsäß, I., Scherr, W. (2000): Advanced Modelling of Road Toll Schemes a Bicriterion Approach for Equilibrium Assignment. Traffic Engineering + Control, 4/2000, London, U.K, p. 154-159.
- Scherr, W., Dupoux, F., Morel, P. (1999): Prévision multimodale des déplacements par un modèle d'activités. Application au PDU de l'agglomération grenobloise. TEC (Transport – Environment – Circulation), Nr. 156, Paris, France p. 2-11.
- Fellendorf, M., Haupt, T., Heidl, U., Scherr, W. (1997): PTV Vision: Activity-Based Demand Forecasting in Daily Practice. In: Ettema, Timmermans (Ed.): Activity-Based Approaches to Travel Analysis, Oxford, p. 55-72.