A MATSim 2015 scenario for Basel, Switzerland

Henrik Becker, Davi Guggisberg Bicudo, Kay W. Axhausen

Abstract The city of Basel has become a test field innovative mobility solutions in the past years. Using paid on-street parking, a free-floating car-sharing scheme (the first one in Switzerland), Uber and a potential railway line underneath the city centre, the transport network is supposed to become more efficient and, hence ready for the future. Yet, for most novel policy measures and mobility services, their respective use and impact is still unclear. To study them, disaggregated transport models such as agent-based microsimulation framework MATSim are required. While several methodologies to create MATSim scenarios already exist, only few are documented in detail. Also, Basel presents a special case, because it is located at an international border, with its agglomeration stretching into three countries (Germany, France and Switzerland). Hence, the model for the Basel region had to be generated based on a fused data set. This paper presents the data sources and methods used to set up the MATSim scenario for Basel for the year 2015. It is meant to be both a documentation for users of the scenario and a guideline for the creation of other MATSim scenarios in the context of scarce or heterogeneous data sources.