

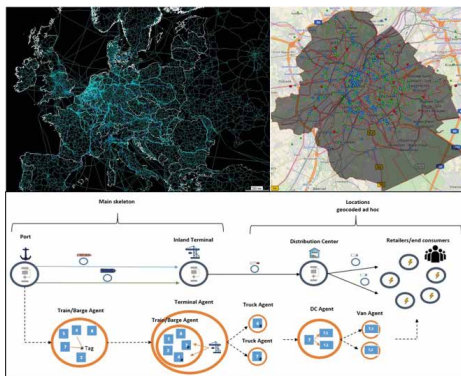


TRANSPORT MODELS

MOBI developed several transport models over the years to assess policy and company measures in the transport sector. Currently, these are the most advanced models:

SYMBIT

SYMBIT is a synchromodal computational model. It simulates modal choice alternatives, the combination of freight deliveries and their impact in terms of cost, delivery time and emissions. The simulations are conducted from an individual (company) perspective as well as system (European or city) perspective. SYMBIT considers all modes of transport and is useful for logistics service providers, shippers, governmental organizations, ports and terminals.

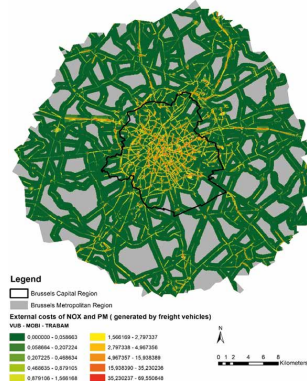


Characteristics

- Real-time synchromodal simulations
- Decentralized agent behaviour and routing strategies
- Ability to simulate and evaluate movements of physical assets based on firing rules and triggering events
- Inclusion of stochastic and dynamic interactions

The SYMBIT model has a wide array of applications:

- Bundling of fragmented flows, modal shift and/or increasing fill rates
- Evaluation of effects of sensor technologies (IoT) and transparency levels
- Disruption management, supply chain resilience and many more



TRABAM

TRABAM is an agent-based freight transport model for the Belgian territory which simulates transport operations on a one-day basis of real-world transport companies. TRABAM enables analyses of modal choice, transport costs, external cost calculations and the introduction of new transport vehicles, loading units and technologies. The model incorporates dynamic congestion.

Characteristics

- Simulates transport operations of companies
- Incorporates the used loading unit into the decision process, modal choice included
- Vehicle-, road-, time-, speed-, loading rate dependent external cost calculations
- Dynamic congestion is included

TRABAM can be used for:

- Evaluates the feasibility and measure external costs of new distribution configurations, new loading units and/or vehicles, new technologies, policy measures
- Bundles fragmented flows, modal shift and/or increasing fill rates
- Applications on the company and economic sector level as well as for the local, regional and federal government

Contact
MOBI

Pleinlaan 2 – 1050 Brussels – Belgium
Prof. dr. Cathy Macharis
T +32 (0)2 614 83 03

cathy.macharis@vub.be

mobi.vub.ac.be



MOBILITY, LOGISTICS &
AUTOMOTIVE TECHNOLOGY
RESEARCH CENTRE