

A new look at last mile planning

Insights and ideas from the LASTMILE.info project

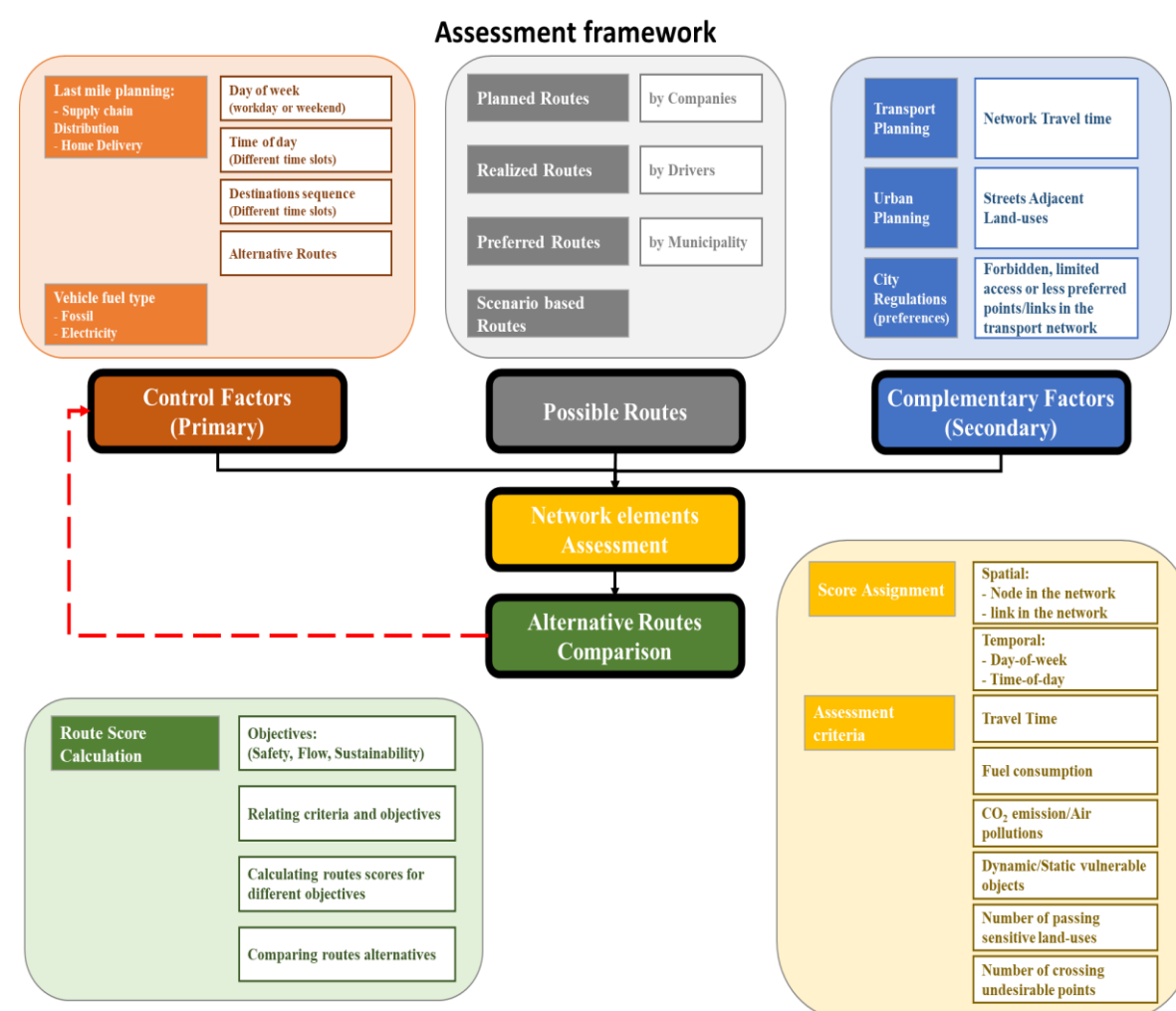


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Relevant and validated data for the last mile

Supplying urban areas is becoming increasingly complex. Local authorities' measures to improve livability in cities, as well as the entire city context, make it difficult to efficiently plan and execute a last-mile for LSPs. Within the LASTMILE.info project, technology fortunately allows us to better plan and navigate for the increasing complexity in the last-mile and make real-time adjustments where necessary.

Making local and contextual information (digital) accessible and (real-time) available in the form of reliable data for the final planning and execution of a last-mile seems to have mainly positive effects for both the city and the logistics sector. This contribution provides insights into the various opportunities that arise when taking more objectives into account for the LSPs as well as the city planners.



LASTMILE.info project products

1. Time-distance matrix for freight transport
2. Last-mile route-book with actual information (pre-trip, e.g. road construction, events, ...)
3. Last-mile guidance (on-trip) integrated in navigation
4. Last-mile website with local restrictions and information



Lastmile.info



Research approach

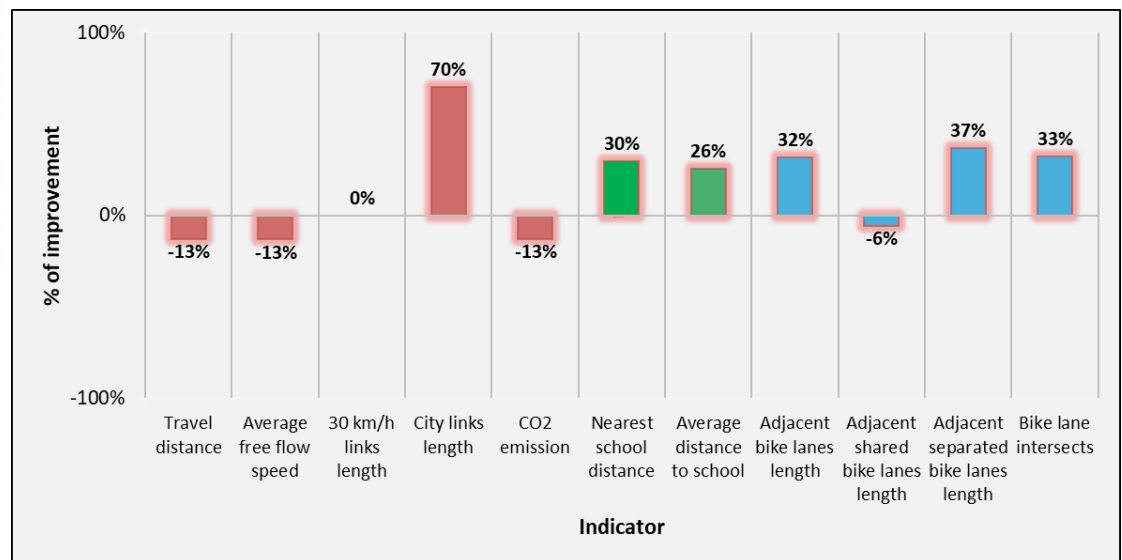
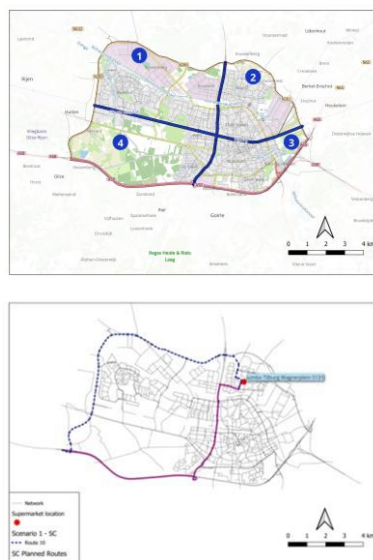
A direct link is made between private logistics route data (based on a big Dutch supermarket, both store deliveries as e-grocery home deliveries) and public traffic and environmental data (from the city of Tilburg) to include location-specific regulations and other relevant city information for freight traffic in the last mile routes.

In order to include all relevant local data, and not only the local regulations, we examined what different stakeholders' objectives (so more than just cost and/or time) for planning last-mile routes, such as, e.g. the number of vulnerable objects (e.g. schools) along which a route passes from other urban data sources, number of residents living nearby, number of roads with cyclists crossed, construction works and road blocks, etc.

In such a way the urban environment (digitalized and made available) can be included in last mile planning and local authorities can observe (and start planning) on the actual impact of realized urban freight transport.

Illustrative scenarios to evaluate the impacts of different routes on multiple indicators:

- Scenario 1: vehicles cannot travel from one region into another unless going back to the city ring roads *results shown at the right =>*
- Scenario 2: shorter route instead of faster route
- Scenario 3: decoupling last-mile route via a city-hub (+ ZE delivery in city)



Conclusions and implications

- Increased urban livability leads to higher transport costs.
- The LastMile.info project brings stakeholders together on a platform where relatively static policy and city information is linked to the more dynamic world of navigation and logistics data.
- This allows authorities to see the effect of local measures on transport operations and vice versa, and to evaluate different objectives for various urban freight transport flow policies.

Discussion points

- What is the added value for all stakeholders of LASTMILE products (e.g. the planner and navigator)?
- What urban data is most relevant to include for LSPs?
- How can local authorities plan urban freight transport in their cities better, if they can steer the trips based on data (e.g. preferred routes for UFT) that is used for last mile planning by LSPs?