
Circulation Challenges: A Data-Driven Approach for the City of Halle

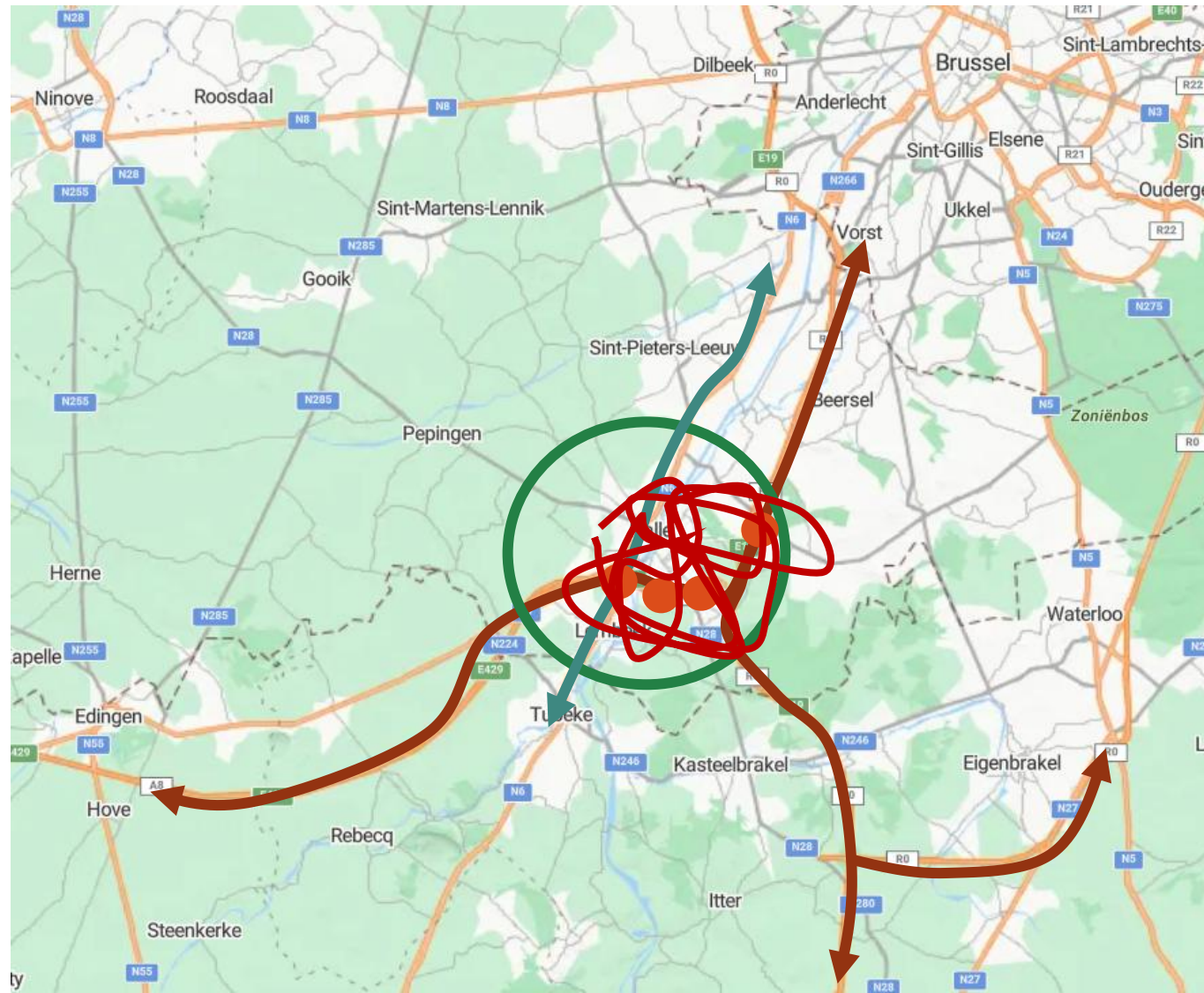
26/27 November 2025



HALLE?



HALLE



HALLE

- “Classic” problems:
 - Accessibility
 - Traffic safety
 - Sustainability
- Part of the solution : **circulation measures**



HOW WAS EVALUATION DONE?



EVALUATION OF CIRCULATION

We used TraVis (Traffic Visualisation)

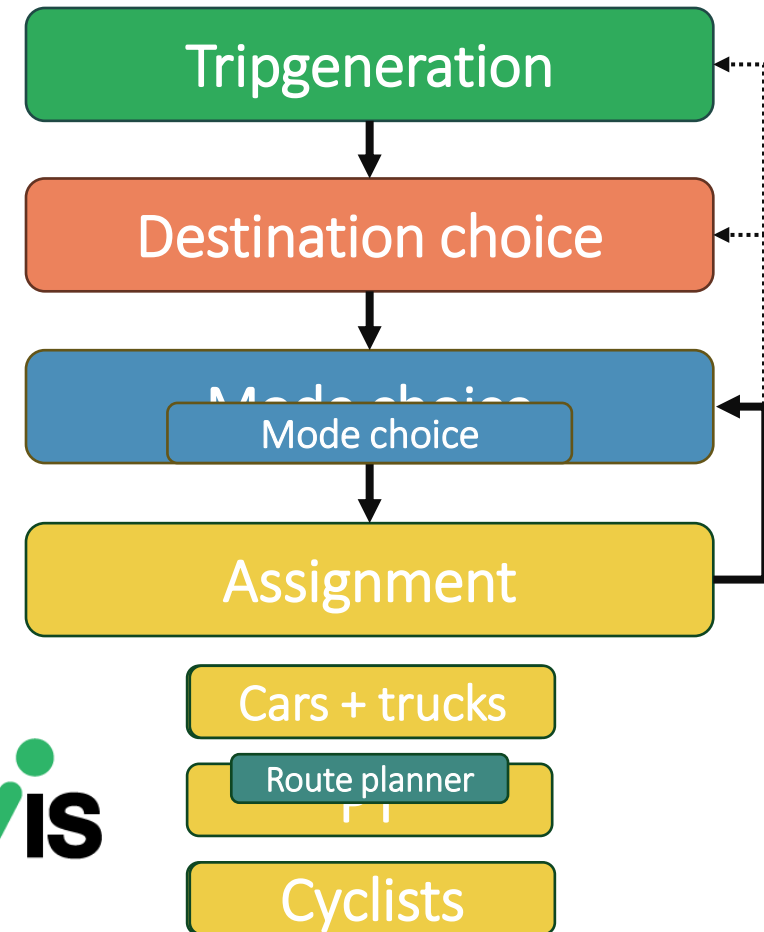
→ Spatial analysis platform that supports municipalities in data-drive mobility planning



EVALUATION OF CIRCULATION

- Is TraVis a traffic model?

➔ it's a tool, not a traffic model



TraVis



EVALUATION OF CIRCULATION

So, did we (re)invent the wheel?

Absolutely not!

We took some good elements from traffic modelling and combined it with public available data with focus on **quality, speed and low price**



EVALUATION OF CIRCULATION

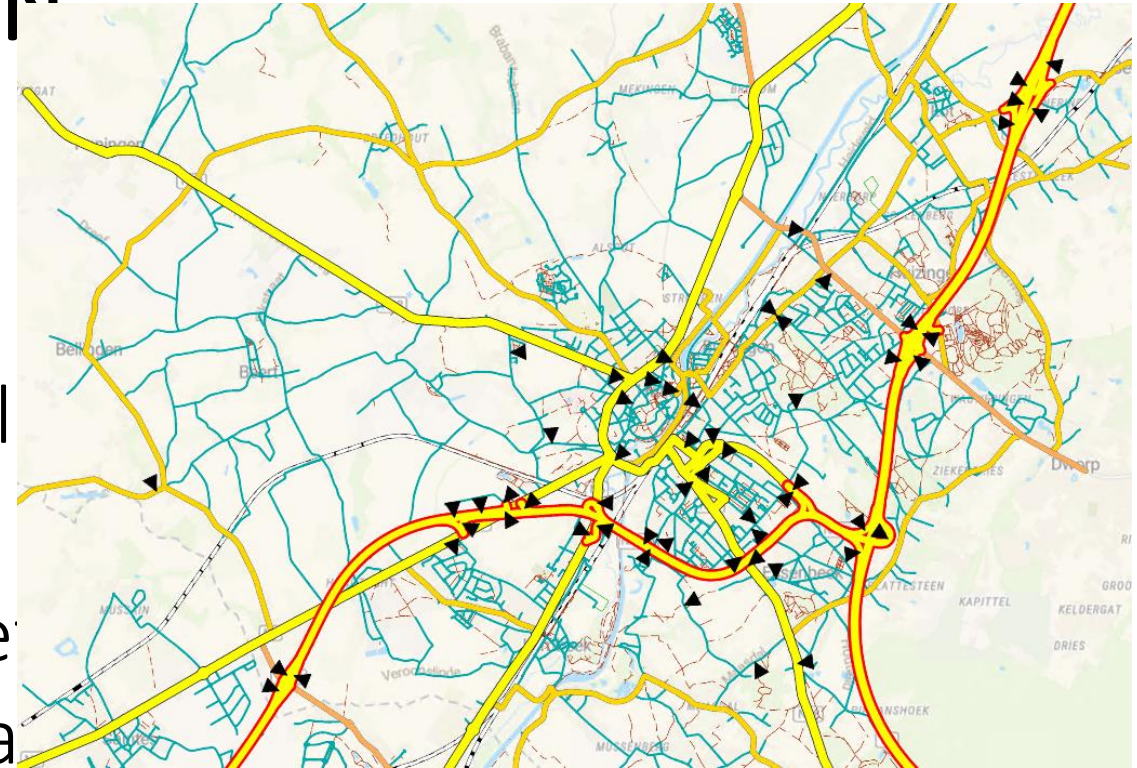
- Which data: Network
 - Open street map (every road and cyclepath included; public data)
 - Driven speeds on network : Google, Bing, own traveltime measurments, ... (public or semi-public data)
 - Limited set of junctions were coded

BUT: qualitycheck was very necessary!



EVALUATION OF CIRCULATION'

- Which data: matrices
 - Trip-information from regional data)
 - Traffic distributed based on de population figures (public data)
 - Calibration based on 70 countings (public data or from Halle)



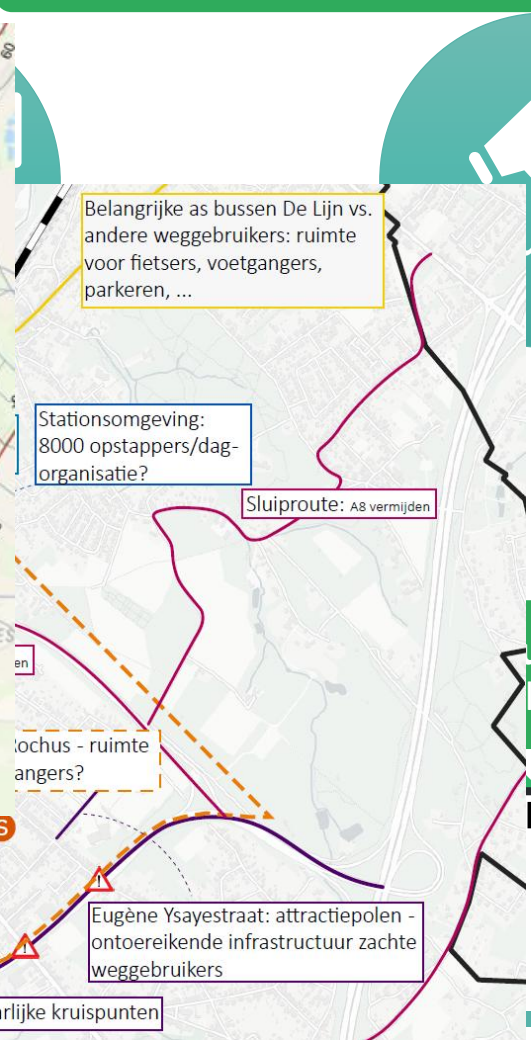
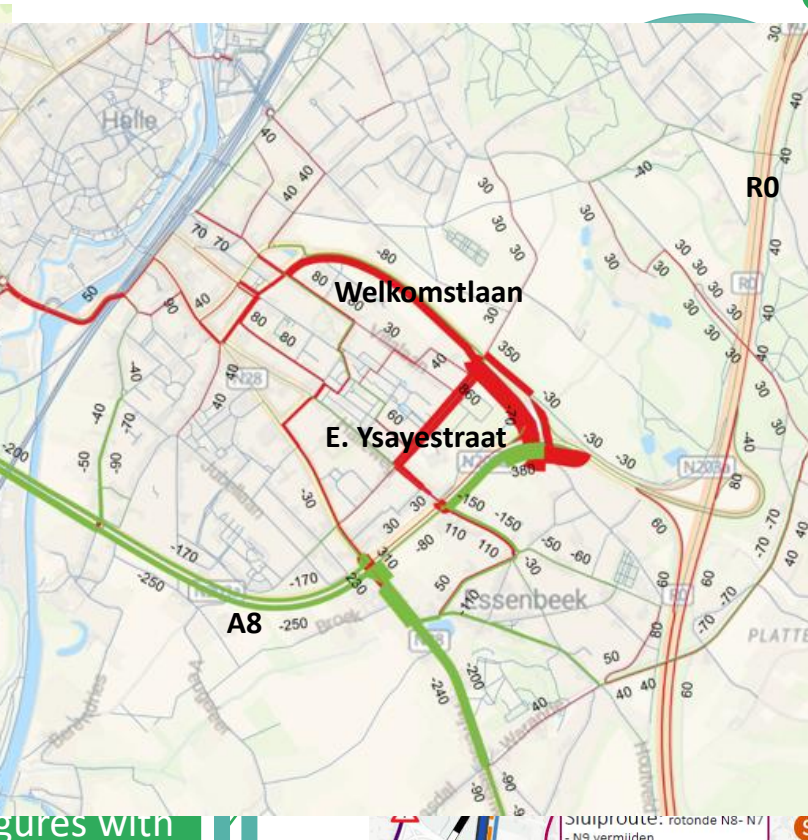
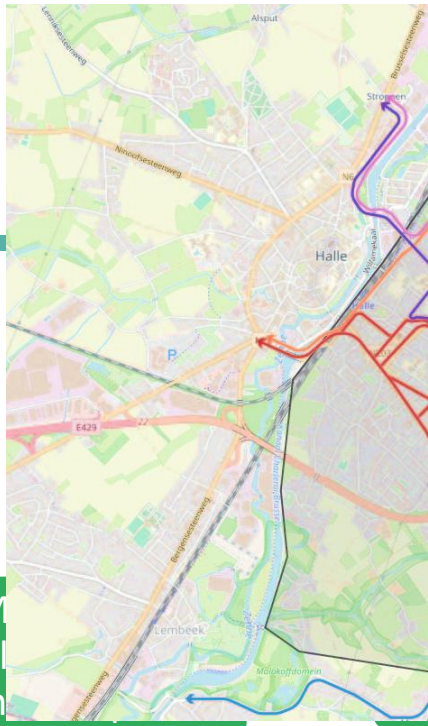
EVALUATION OF CIRCULATION

- Result: very fast and detailed tool :
 - Every street segment has it own zone → ideal for evalutation of circulation
 - Calculaltion takes a few seconds (15 seconds including calibration) → can be used live in meetings



HOW WAS TRAVIS APPLIED?



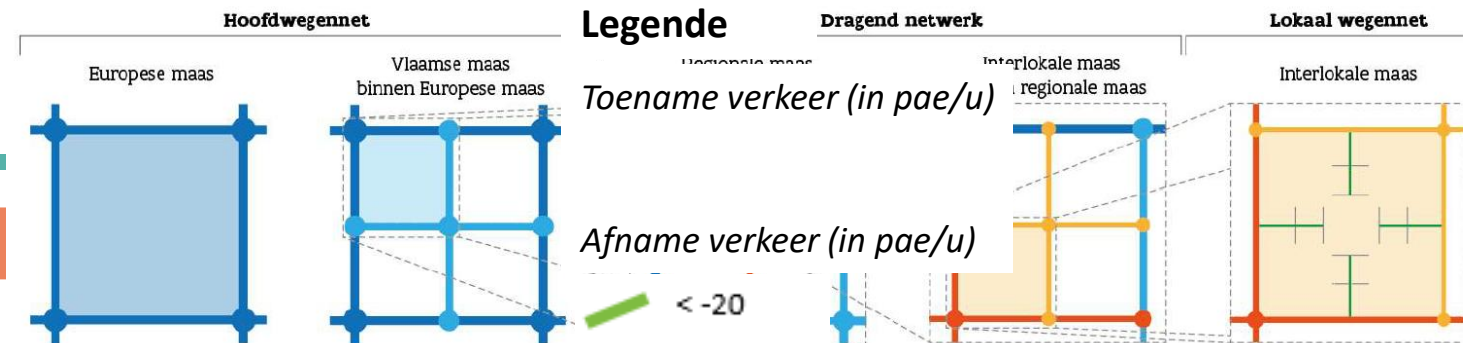


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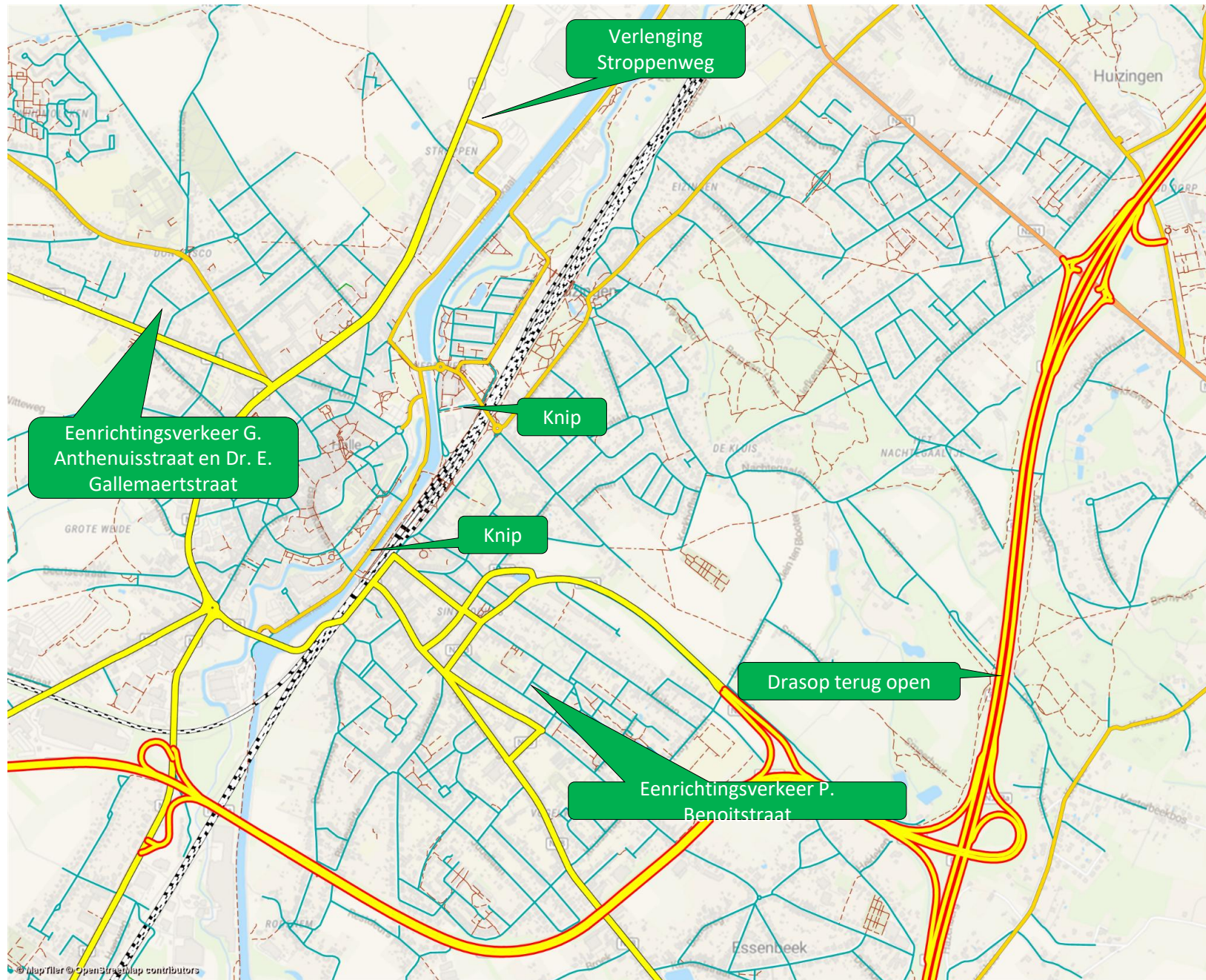
raVis



d the city of Halle



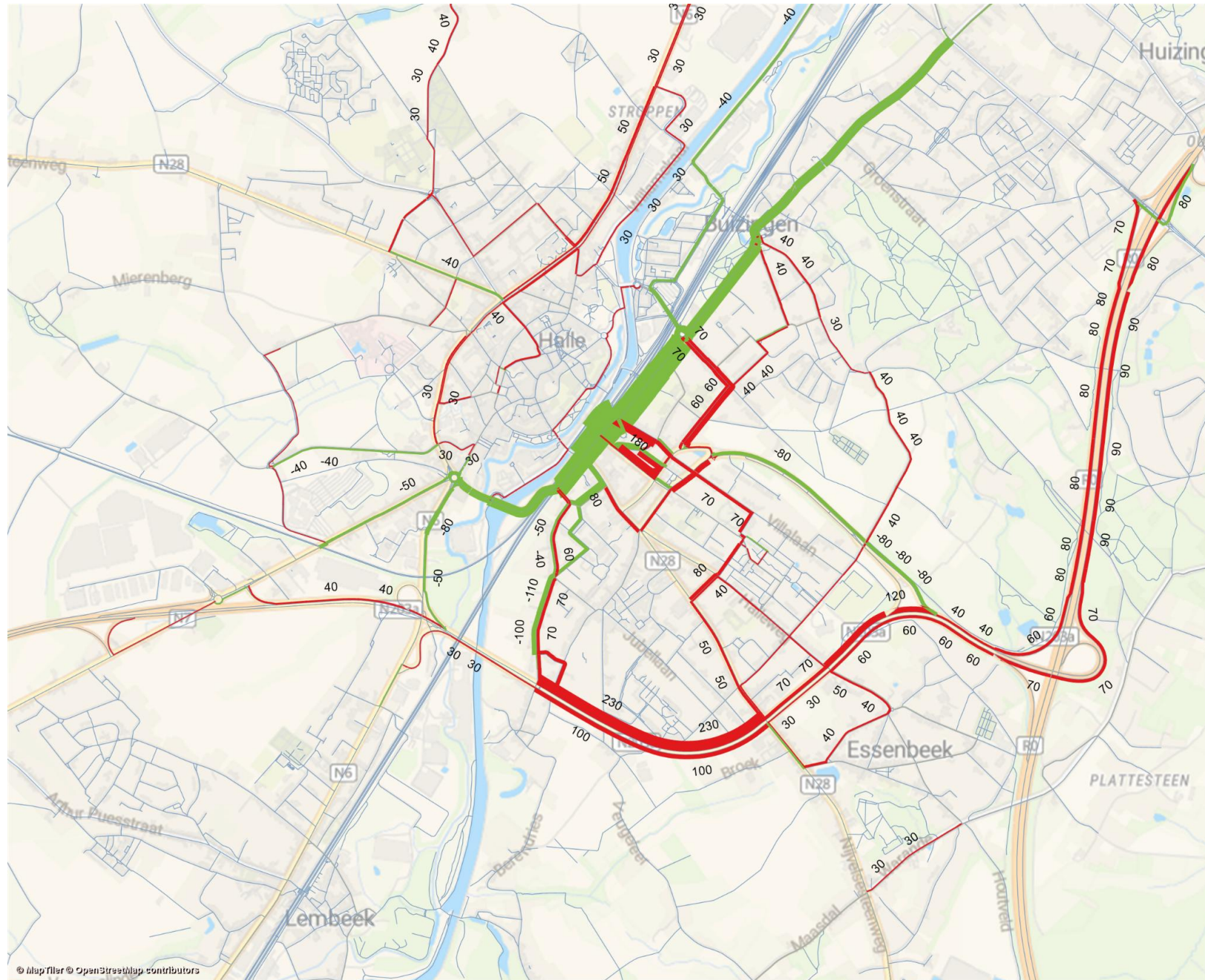
Example



Inputnetwerk

- Hoofdwegen
- Regionale wegen
- Interlokale wegen
- Lokale wegen
- Lokale wegen (woonstraten)
- Fiets-/voetweg
- Spoorweg

Example: Scenario 1A - knip Vandenpeereboomstraat + knip Broekborre



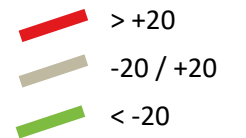
Vershilplot gemotoriseerd verkeer

Belasting (PAE)

Referentie:
Referentiesituatie

17u - 18u

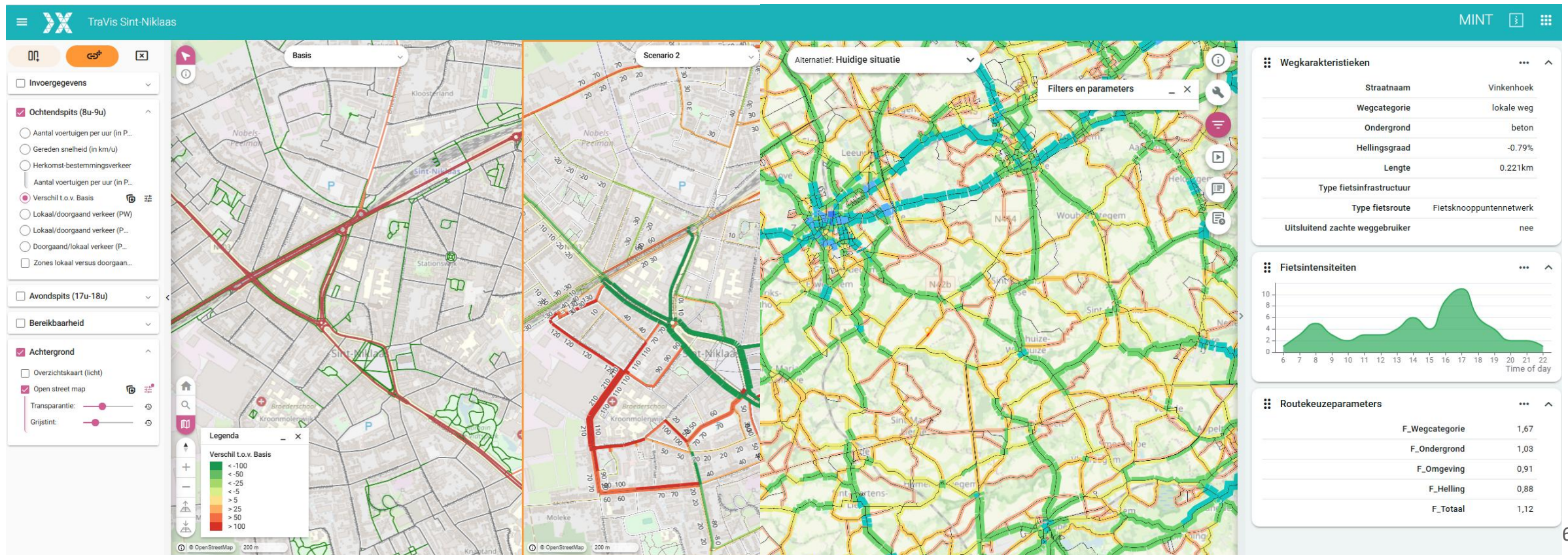
Eenheid: PAE/u



HOW WAS TRAVIS APLIED

- Communication tool:

- Extra attention to unlocking input and results to the customer via webinterface
- Results could be shared in detail via links with external parties or in working

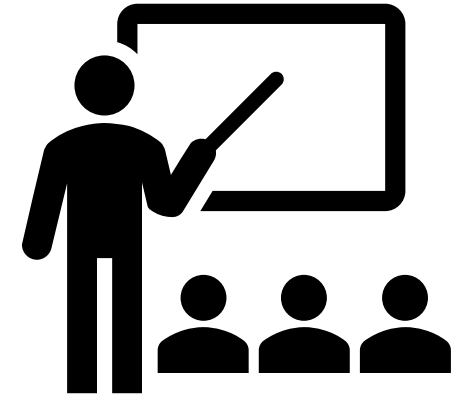


LESSONS LEARNED



LESSONS LEARNED

- Extremely detailed tool (even the smallest streets) is very usefull
- Extremely fast tool is very usefull ➔ improved involvment of city administration
- Quality control on tool made with public data is necessary
- Even for small scenario's it was usefull to use the tool
- Using TraVis as a communication tool was very usefull (more support within administration, politician, population)





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MOBILITEIT IN ZICHT