Digital twin & mobility impact analysis in Lubbeek

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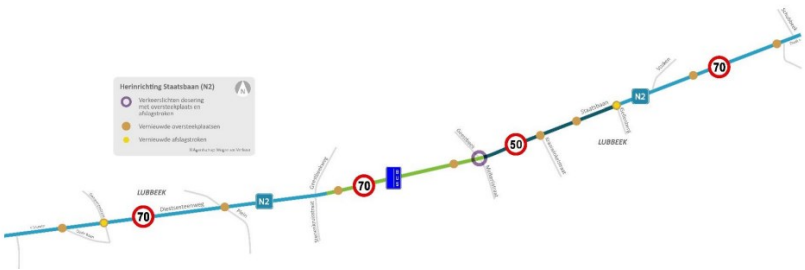
Challenges within the mobility domain

- Heavy traffic
- Cut-through traffic
- Speeding (Trajectory speed controls)
- Safe bicycle routes
- …



Policy goals Lubbeek 2019 – 2025:
"Invest in technology to accelerate policy goals"

Solution

1. Digital copy of reality
2. ‘Living’ entities (input realtime data)
3. Simulation (AI / models)

Develop and deploy a **digital twin** for **optimizing the mobility** in **Lubbeek**

Impact of changes to road infrastructure

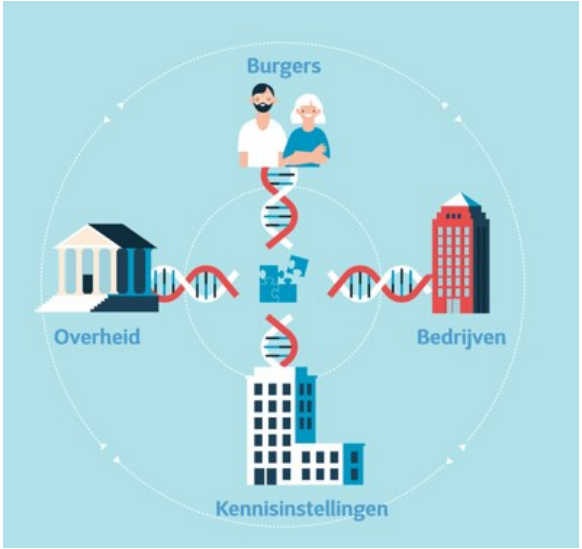
Safety for bicyclists

Project goals

- Find a solution for cut through traffic
- Simulate the effects of roadchanges on the N2
- Simulate the effects of roadchanges close to the different schools
- Map the main bicyclists network and the bicycle traffic safety of this network

Quadruple helix: bringing everyone together

Council for mobility and traffic safety



Bringing multiple technologies together to create the digital twin

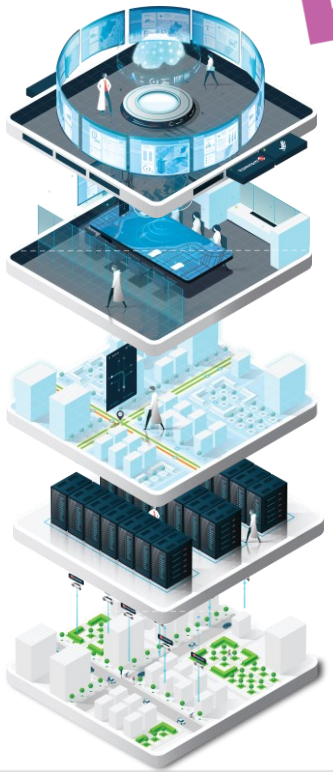
Simulate
Predicting future scenarios

Analyze
Allowing for meaningful Insights

Visualize
Easy to understand by anyone

Centralize
Bringing it all together

Gather
Collecting data



Gather

Collecting data

Telraam

- Counting modalsplit:
  - Car traffic
  - Heavy traffic
  - Bicyclists
  - Pedestrians

cyclomedia

- 360° images
- Object recognition:
  - Street furniture
  - Traffic signs
  - …

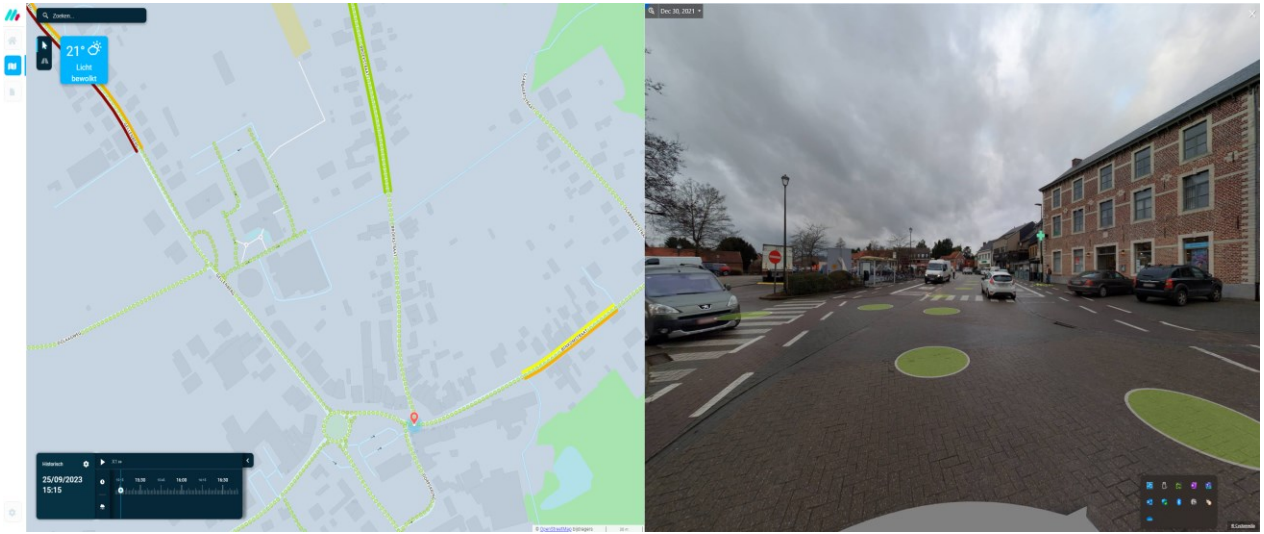
Visualize

Easy to understand by anyone

Centralize

Bringing it all together

mobilize



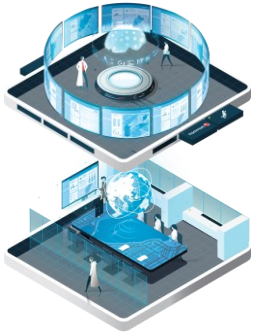
- Bringing the data together
- Visualising the data
- Building scenarios
- Simulation output

Simulate

Predicting future scenarios

Analyze

Allowing for meaningful Insights



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- Analysis of data
- Scenario building
- Model simulations
- Advice on cut-through traffic

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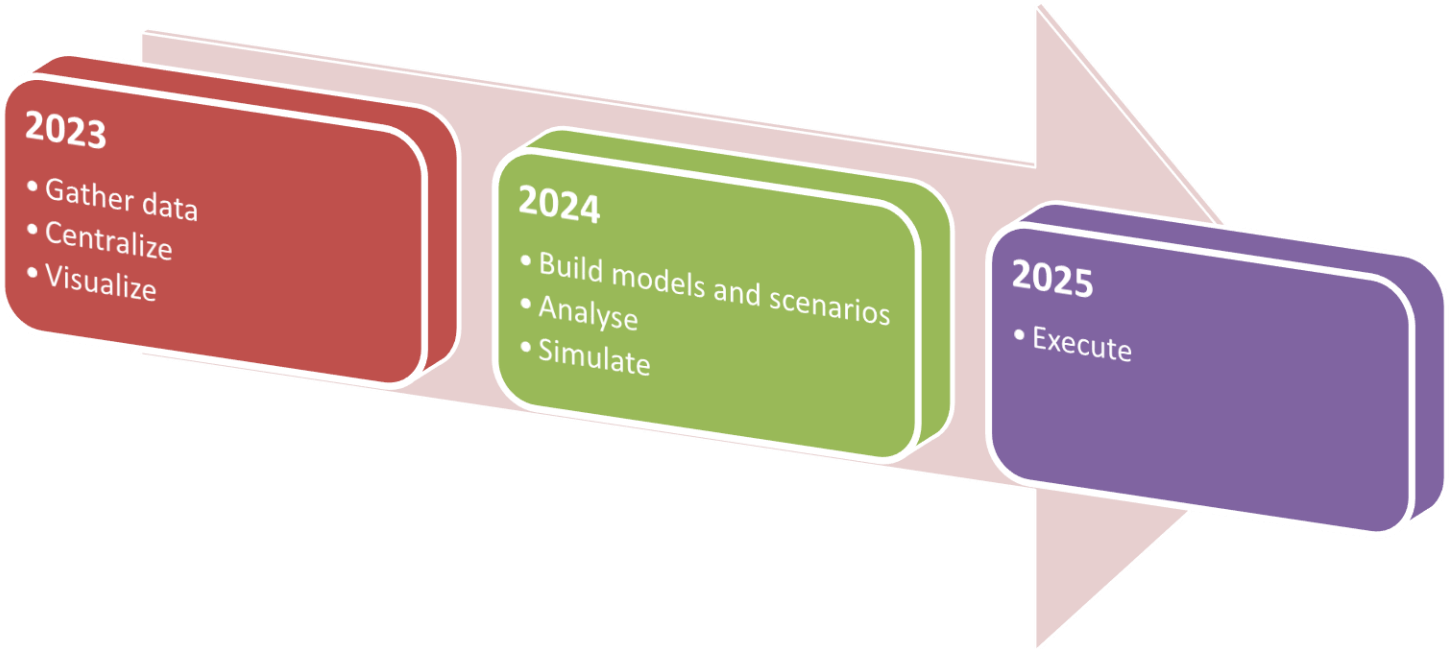
- Analysis of data
- Building prediction model for bicyclists
- Advice on bicycle traffic safety

Project plan



Questions!?

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