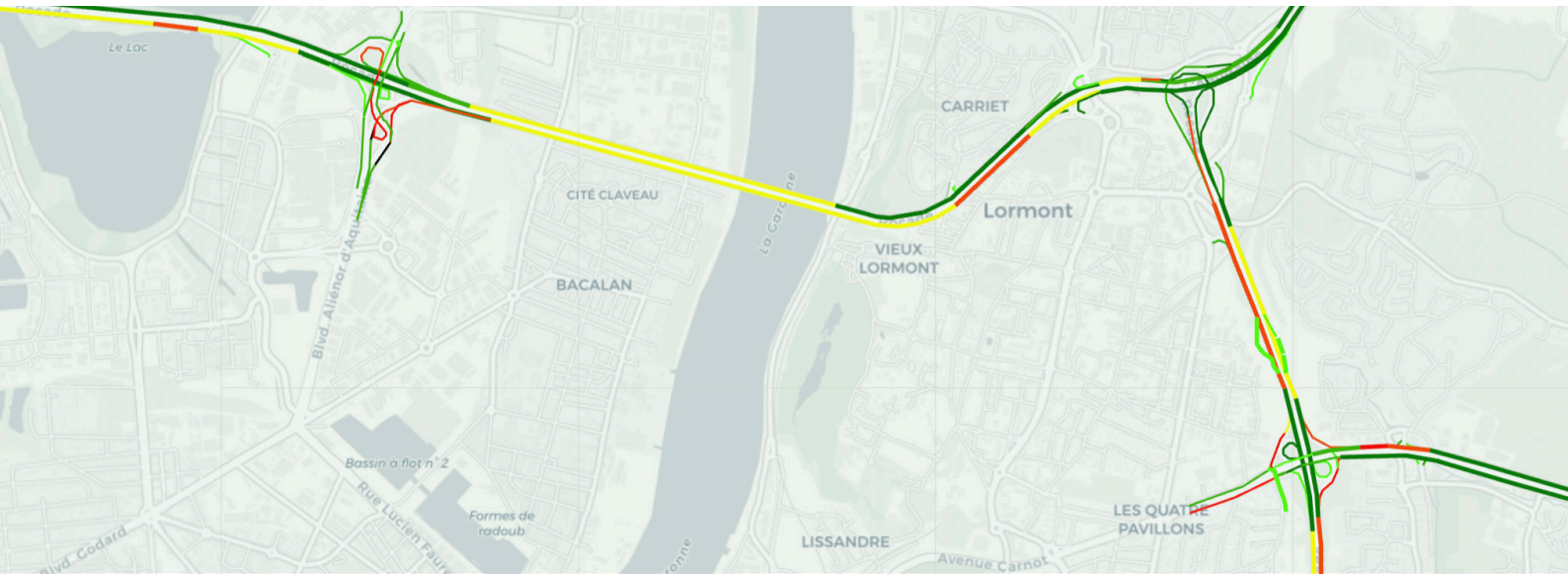


## DYNAMIC SIMULATOR - BORDEAUX RING ROAD



## CHALLENGE

### Streamline traffic on the city of Bordeaux ring road (France).

The city of Bordeaux ring road is one of the longest in France, but also one of the most congested with heavy traffic volumes depending on the season and the time of day.

The regional public authority (DREAL Nouvelle Aquitaine) operating the road network is planning new layouts for two critical interchanges of the ring road with the objective of smoothing traffic flows, reducing environmental impacts while supporting mobility policies of the municipalities in the area.

DREAL Nouvelle Aquitaine calls on Arcadis, one of the European leaders in engineering services, to design and deploy a simulation model to inform the decision-making process for these strategic investments.

Arcadis chooses **Neovya Hubsim** to implement a reliable, robust and efficient traffic model to deliver objective answers within the very tight deadlines set by its customer.

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*We were able to deploy a ready-to-use large-scale dynamic simulator in record time, unattainable with traditional simulation tools on the market! The very fast computation time allowed us to focus on model calibration and detailed analysis of traffic phenomena.*

*The collaboration functions are also a facilitator in exchanges with stakeholders and our client.*

*The SaaS model is freeing us from the constraints of managing updates, archiving and accessibility and availability of tools, to focus on our added value.*

*Neovya Hubsim is really transforming the way we approach data analysis and simulation!*

**Thai Phu Nguyen,**

Traffic modelling and data analytics lead



## ABOUT ARCADIS

From climate change to rapidly growing urbanization, our world is becoming increasingly complex. Whether by maximizing space in cities or by rehabilitating habitable wastelands, Arcadis delivers exceptional and sustainable results to its customers. Arcadis experts work together to build a harmonious environment, whether natural or built.



## SOLUTION

### Dynamic simulator on a network of more than 80 km.

- Integration and fusion of heterogeneous multi-source data: permanent and temporary counts, O/D surveys, travel times, over a historical depth of 2 months.
- Management of a dynamic 6 minutes and 27x27 O/D for LV and HG over a large time slot from 5 am to 7 pm.
- Geospatial visualization and in-depth analytics based on data science tools and machine learning engines.
- Design of the road network graph with the integrated OSM interface.
- Runs of simulations on a large-scale network and over extended time slots (6 hours periods).
- Archiving of all scenarios and results (50 scenarios studied).
- Extended collaboration on the same workspace with a group of 10 users and management of their respective rights on the simulation tool.



## BENEFITS

- Automation of the cleaning and processing of a multi-dimensional dataset coming from more than 150 data collection points on the field.
- Increase in productivity during the model calibration operations.
- Availability of the first simulation results in less than 2 months.
- Easy analyzes and comparisons thanks to global indicators and KPI dashboards.
- Integration of Neovya Hubsim in an input / output process with the existing static model available on the Bordeaux metropolis.
- Smoothing of cooperation and communications with all project stakeholders and with the client.