

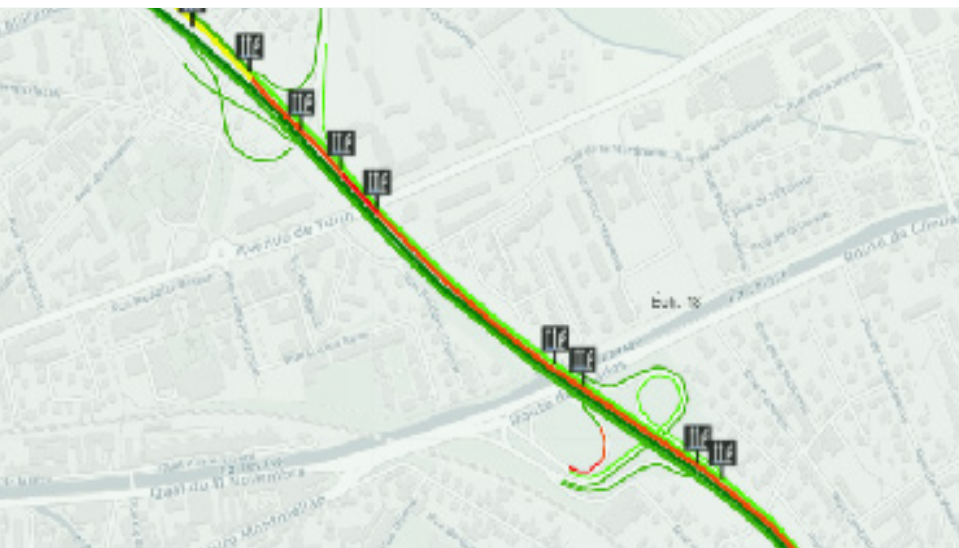


**MINISTÈRE
DE LA TRANSITION
ÉCOLOGIQUE**

*Liberté
Égalité
Fraternité*



LANES DYNAMIC ASSIGNMENT ON THE NATIONAL ROAD RN201, FRANCE



CHALLENGE

Adapt the road infrastructure to seasonal traffic variations.

The national road RN201 is facing very different traffic patterns between winter periods and average working days. During winter migrations, motorists in transit towards ski resorts do not use the entrances and exits that lead to the city center. On working days, traffic jams are observed at the exits and overflow onto the current section because of heavy internal traffic in the city.

The Central East Road Directorate is studying the opportunity of dynamic allocation of lanes on the RN201. Objective: to smooth traffic flows and reduce environmental impacts by maximizing the capacity of the existing road infrastructure.

The CE Road Directorate turned to the expertise of the Cerema, the French leading public institute for mobility engineering to support it in this project. A dynamic simulation solution is required to assess the impact of such a traffic management measure and to support the decision-making process.

The CE Road Directorate and the Cerema rely on **Neovya Hubsim** to assess the benefits of this measure.



The cooperation with the Cerema and Neovya is providing great efficiency in the design and operation of the simulation solution. With Neovya Hubsim, we benefit from a very innovative simulation software to inform our decision makers on a complex use case.

Gilbert Nicolle

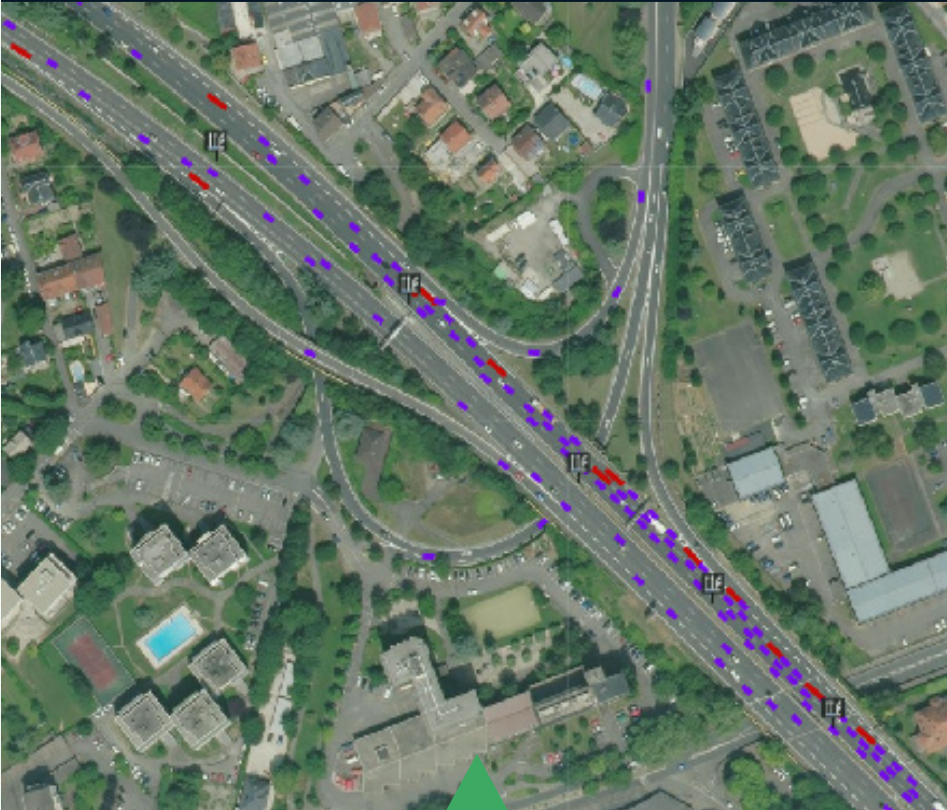
Head of the Traffic Management Department,
Central East Road Directorate



Neovya Hubsim is very easy to use and intuitive. Its speed of computing and the variety of analytics indicators give us key elements to better understand how the infrastructure operates today and in the long term. It makes the collaboration between stakeholders easier for the decision making.

Hervé Palin

Director of buildings, infrastructures and urban roads, Chambéry Metropolis



ABOUT ROAD DIRECTORATE

The Road Directorate Central East is one of the eleven Roads Directorates on the French network. It operates a road network of nearly 1,200 km in the Auvergne-Rhône-Alpes and Bourgogne regions.

The mission of the Road Directorate Central East is to develop, manage and operate the national road network in the region.



SOLUTION

A dynamic simulation model in the Chambéry urban area.

- Integration of multi-source data (permanent and temporary counts) on 84 workstations.
- Integration of multi-source data (permanent and temporary counting equipments) coming from 84 data collection points .
- Integration of data coming from an ANPR survey (23 x 21 O/D matrix, LV & HGV, 15 min sampling, from 6 am to 8 pm).
- Modeling of the road network to cover a 16 km corridor, in both directions of traffic, integrating the entry and exit ramps as well as a motorway interchange with A43 motorway.
- Implementation of an automatic method to forecast dynamic travel demand from multi-source data.
- Development of future traffic scenarios based on O/D matrices calculated by the local transport planning model.
- Automation of the design of scenarios and of the modeling of the dynamic lane assignment measure.
- Simulations over two extended peak periods from 6 a.m. to 11 a.m. and 4 p.m. to 9 p.m. for a complete set of 30 scenarios.



BENEFITS

- Integration, visualization and data analytics on multi-source traffic datasets.
- Smoothing of between all involved parties concerned (Chambéry city authority, AREA motorway concessionaire, local road directorates, urban planning agency).
- Analysis of a large number of scenarios enabled by quick simulations and easy access to results and key indicators.
- Quick decision making using key metrics to easily understand complex traffic flow phenomena.