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> CARPOOLING RESERVED LANES ON MOTORWAY A7, FRANCE

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Cerema
CLIMAT & TERRITOIRES DE DEMAIN
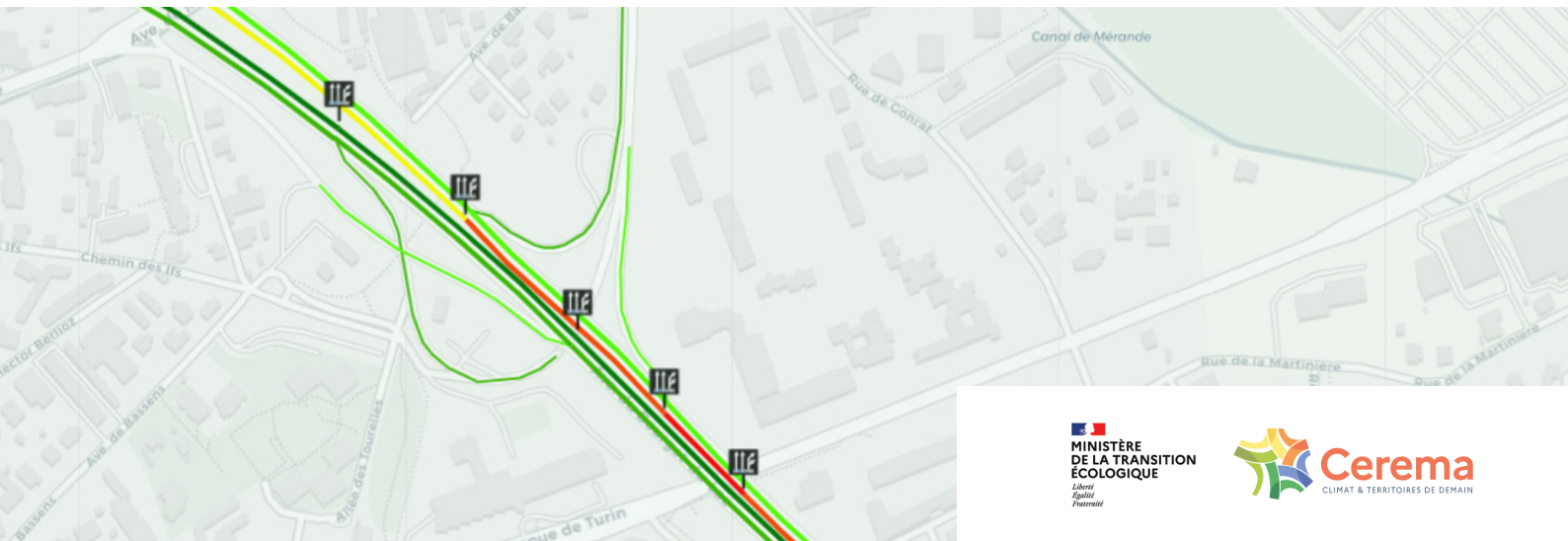
> CHALLENGE

Boosting the development of alternative transportation modes.

In 2020, the Lyon metropolitan area opened reserved lanes for carpooling (so called VR2+ lanes) on the M6 motorway (north of the metropolitan area) and on the M7 motorway (south). In the continuity of the M6-M7 corridor, the Central East Road Directorate is studying the opportunity of new reserved lanes on the A7 motorway in the south of Lyon.

Objective: to set up new VR2+ lanes to smooth traffic flows, reduce pollution and reduce traffic congestion on the A7.

The **Neovya Hubsim** SaaS platform is used to model the carpooling reserved lane and to assess its impact on the global traffic conditions in the area.

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Using Neovya Hubsim is an effective way to facilitate decision making. It is a powerful and educational tool that enable smooth technical information exchanges with decision-makers around a dynamic simulation model.

Julien Fyot
Project Manager,
Central East Road Directorate

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With Neovya Hubsim, we are able to carry out an exploratory work on a large number of parameters likely to impact traffic conditions with the activation of reserved lanes. Neovya Hubsim provides key indicators to simplify the analysis of simulations and to quickly compare all possible scenarios.

Aurélien Clairais
Project Engineer dynamic simulation,
Cerema

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Success Story

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> 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

Dynamic simulations to assess the impact of carpooling reserved lanes on the A47 motorway

- Implementation of a large-scale dynamic simulation model in the Neovya Hubsim platform.
- Modeling of a road network of more than 40 km.
- Integration of a large dataset coming from a survey over a vast territory around motorway A47 to feed and calibrate the model.
- Implementation of an algorithm for dynamic management of reserved lanes and speed control.
- Joint test of operating measures combining a car-pooling lane and dynamic speed rcontrol.
- Comparisons and KPI dashboards available for a set of more than 30 scenarios.

> BENEFITS

- A solution that meets Cerema quality standards and procedures for dynamic simulation studies regardingy carpooling reserved lanes.
- A simulation platform fully operational in only a few weeks.
- A model calibration that reach all requirements of the Client and validated by all stakeholders.
- All simulation results available instantly.
- An extended collaboration on the same workspace with a group of 5 users and the management of their respective rights on the tool.