DATE
2024

Berges de Seine closing

Impacts on CO_2 emissions

A study by
origins.earth

Public policy study

Objective?

On the 1st of September 2016 a major decision by the city of Paris came into force: the closure to cars of a 3,3 km stretch of road along the right bank of the Seine river.
The project has been highly attacked by several institutions and citizens and a study led 1 year after the implementation has shown negative effects.

We aimed to answer to this question on a long-term period :

- Quantify the impact of this decision on CO_2 emissions.
- Evaluate its contribution to the overall trend and the global objective of GHG emission reduction
- Verify the potential negatives externalities of the project (in terms of deferred traffic and emissions)

Results

What did we get ?

+3/+12%

Increase of CO_2 emission from road transportation

On the short term (i.e 2017) we observed a slight increase of CO_2 emission for the whole Paris, with huge disparities between main roads.

-20%

Decrease of CO_2 emission

On the long term (i.e 2023), we confirm the trend of a significant decrease on the emission of road transportation at Paris scale, with important modification of fluxes of vehicules in the Capital.

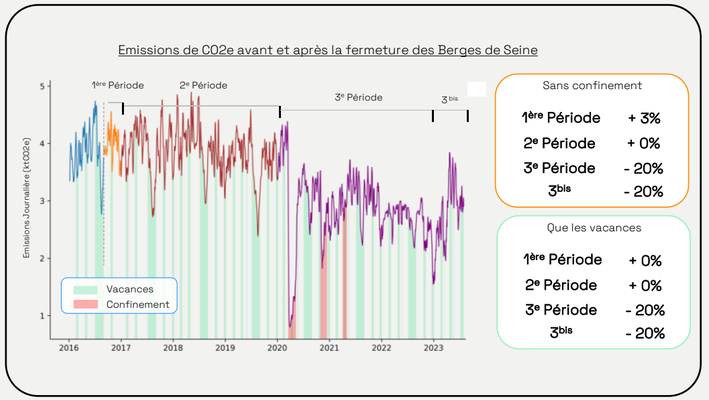
0

Deferred emissions (outside Paris)

On the long term (i.e 2023), we verified that the project had no significant impact on emissions on major roads where the traffic could have been deferred (highway, ring road...).

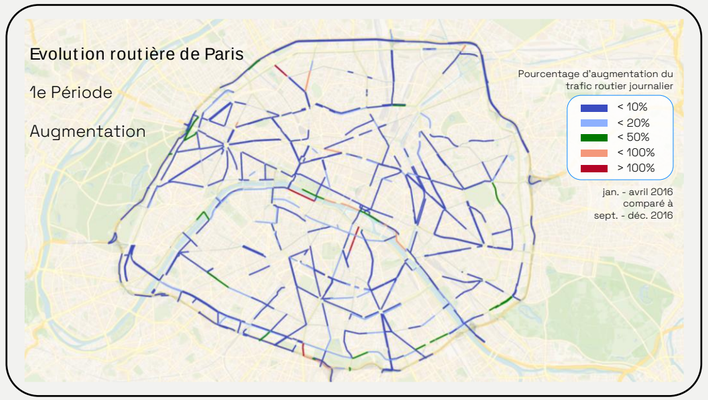
Methodology

How did we get it ?



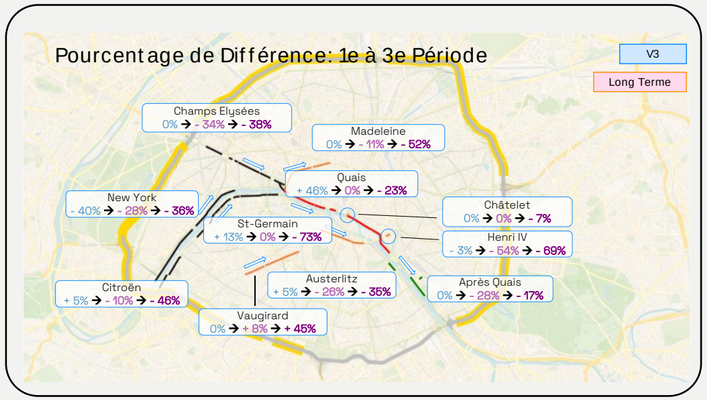
A continuous measurement since 2016

Thanks to the network installed since 2016 over Paris and the use of the technology chain over 8 years, we have followed the emissions at global and local scale.



Big data and statistic analyses

Incorporating data from moreover 3000 traffic sensors, we were able to manage millions of recordings, transcribing evolution of traffic on major axes and discriminating them by sources or reports paths.



Spatial and long term analysis

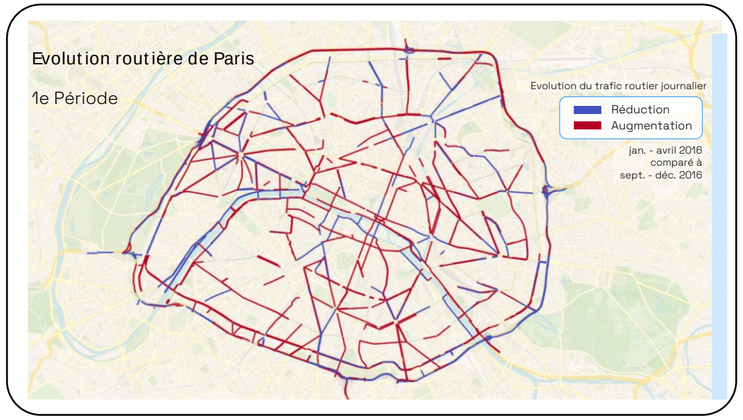
By treating spatially the data, we confirmed trends on short term and long term, axe by axe and their translating into CO_2 emissions.

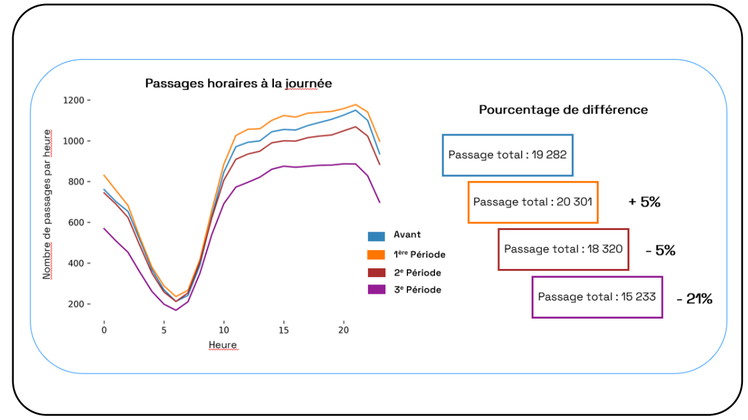
Methodology

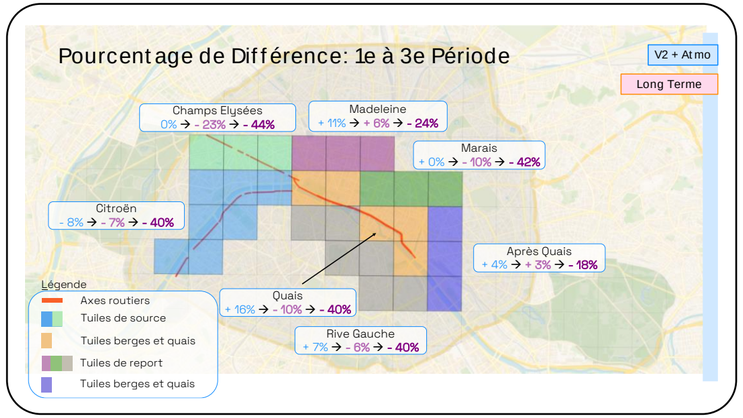
A little zoom

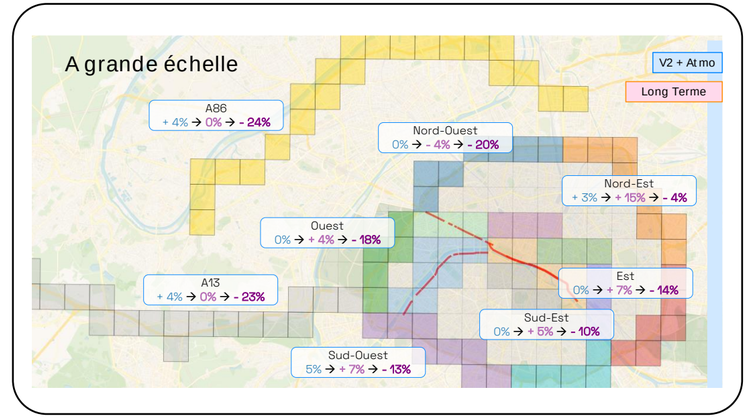
Manage scales

The capacity to switch from global data to local data has been really useful in this study in order to confirm trends provided by different sources and unexpected behaviors.









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