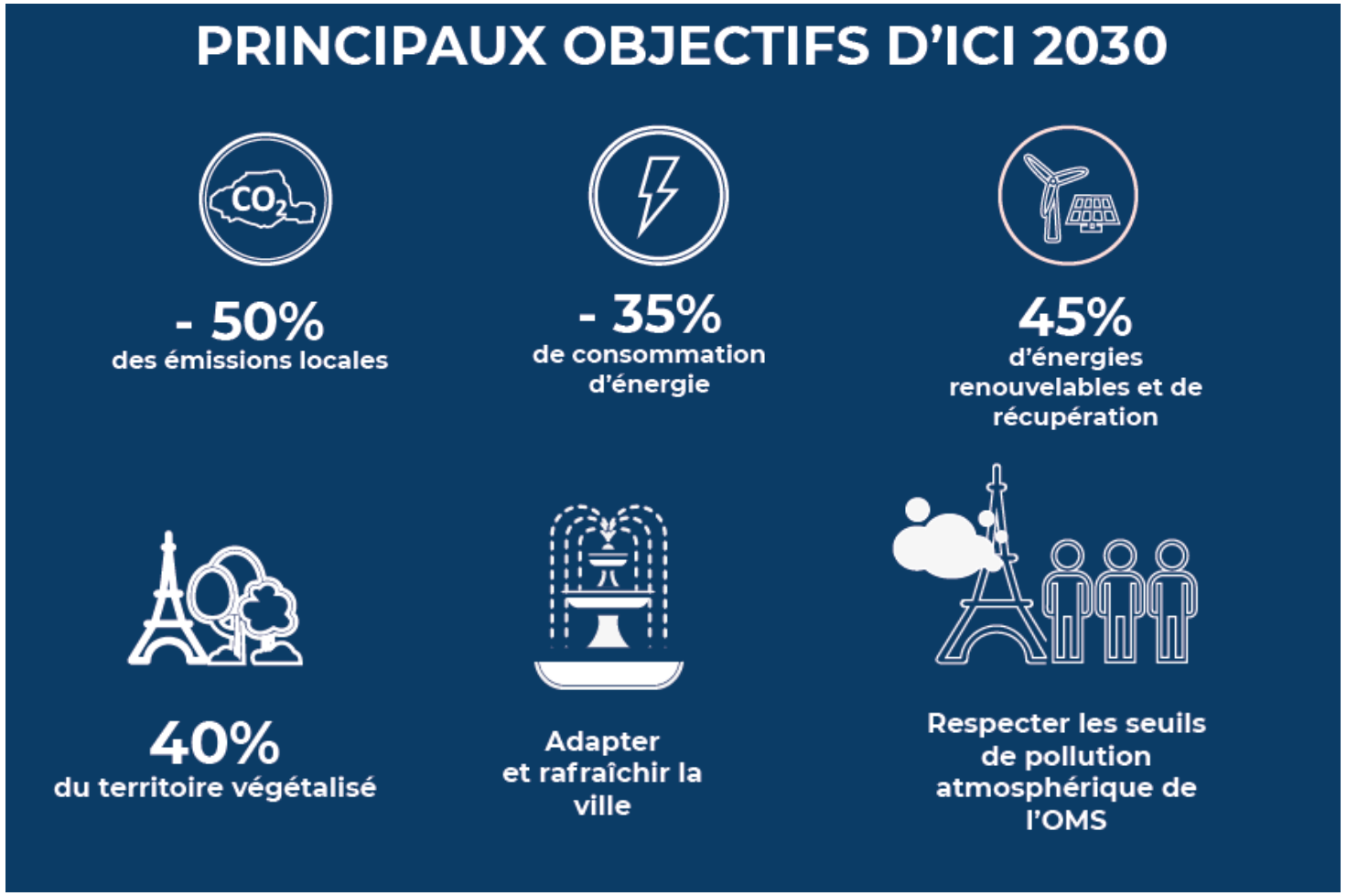
The role of hydrogen for the energy transition in the mobility sector in Paris

ZEFER Roundtable – 22/06/2023

Directorate for Ecological Transition and Climate (DTEC) – City of Paris

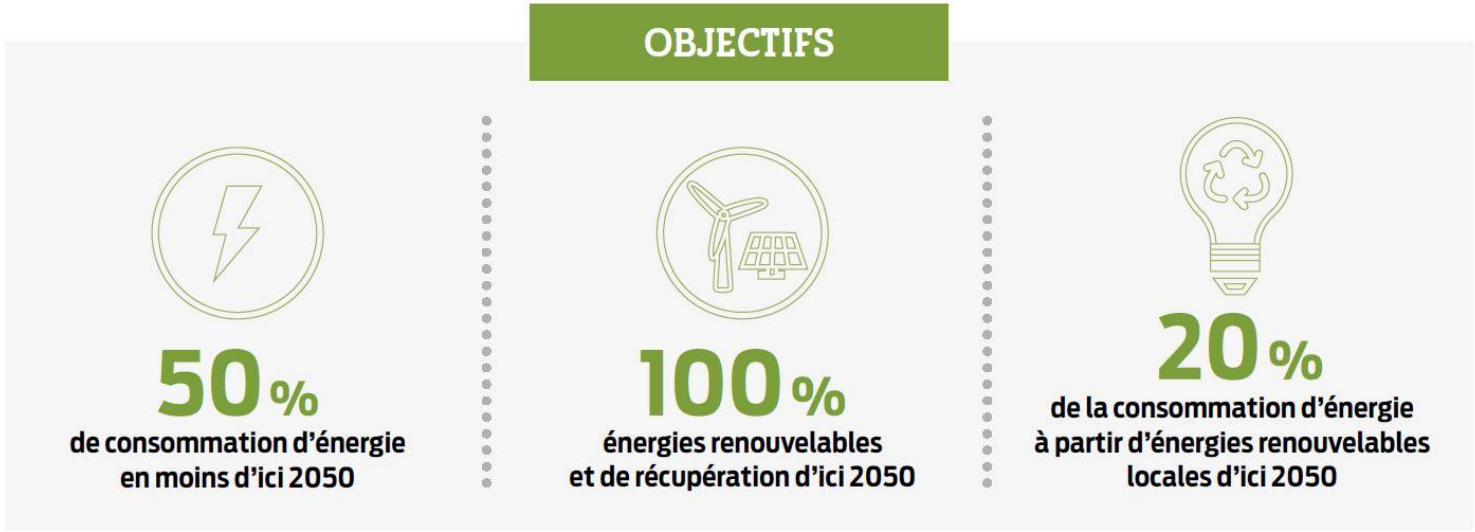
Summary

Paris, a city committed to the ecological transition



Objectives of the current Paris Climate-Air-Energy Plan

Energy Objectives



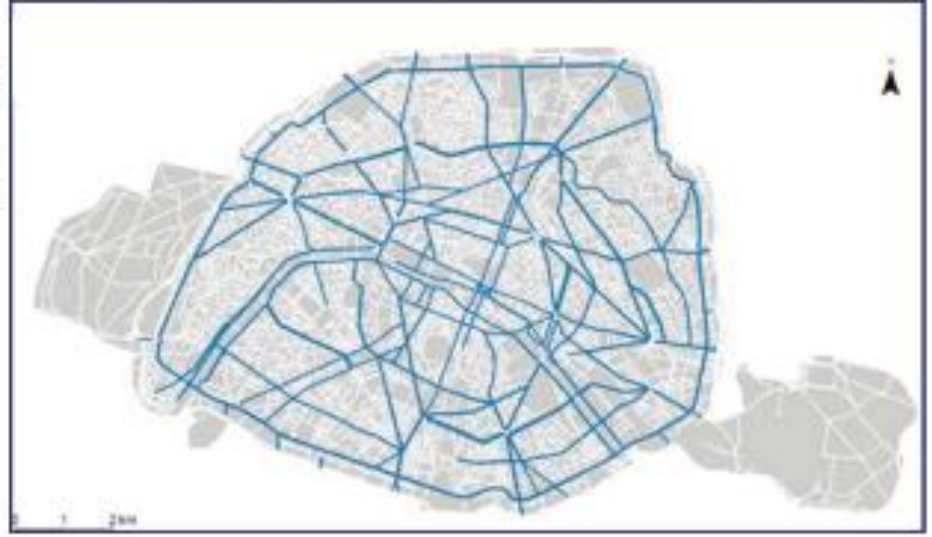
less energy consumption | *renewable and recovered energy* | *energy consumption from local renewable energy*

Mobility Objectives

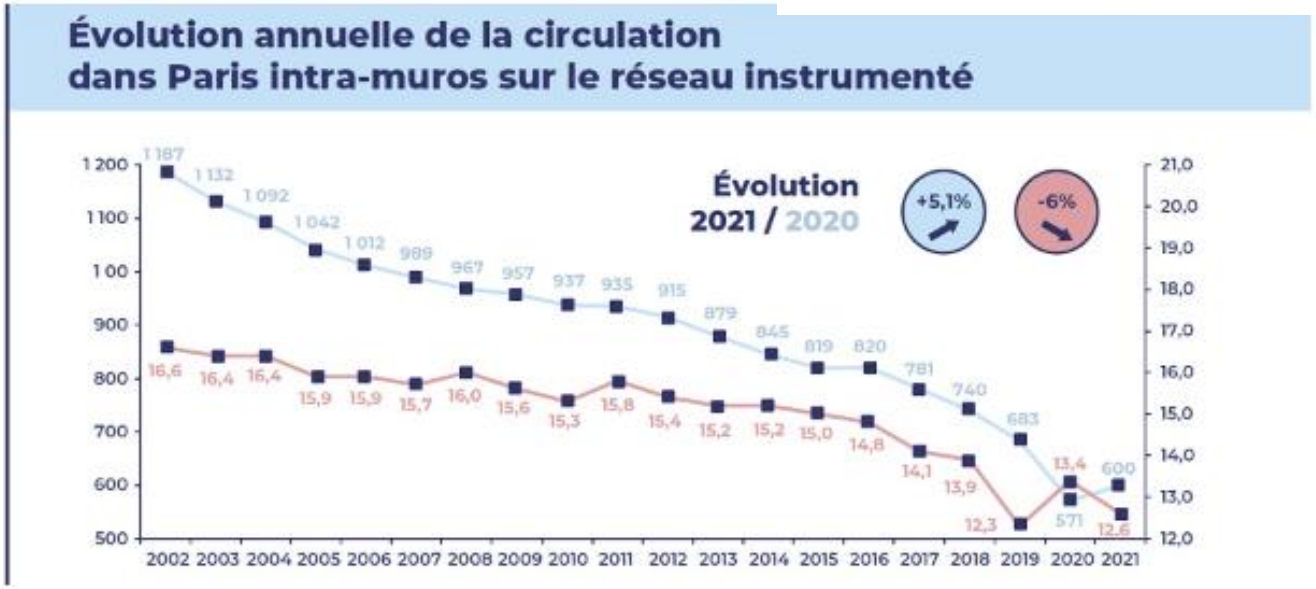
end of diesel mobility | *end of petrol mobility* | *plan for low-carbon urban logistics for Ile-de-France*

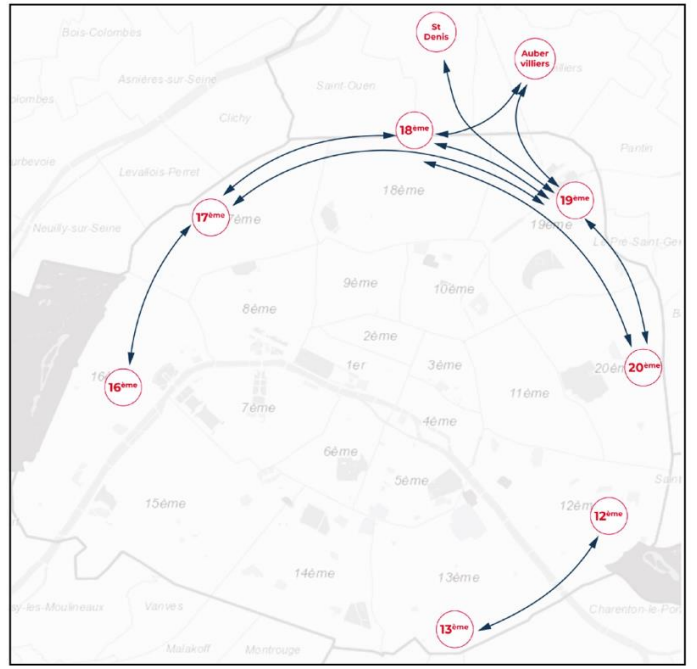
Mobility challenges/Energy for Paris

A changing mobility



Car traffic





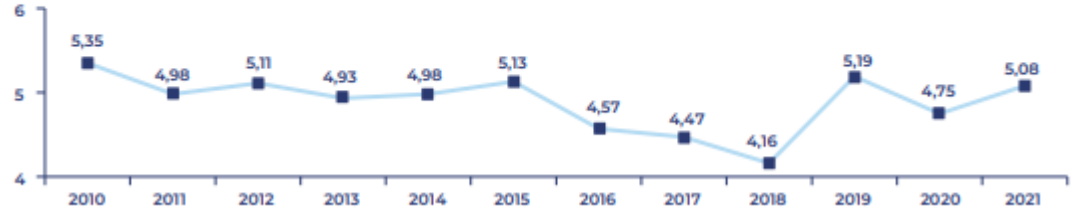
Flux les plus importants en lien avec Paris
Ville de Paris

Mobility challenges/Energy for Paris

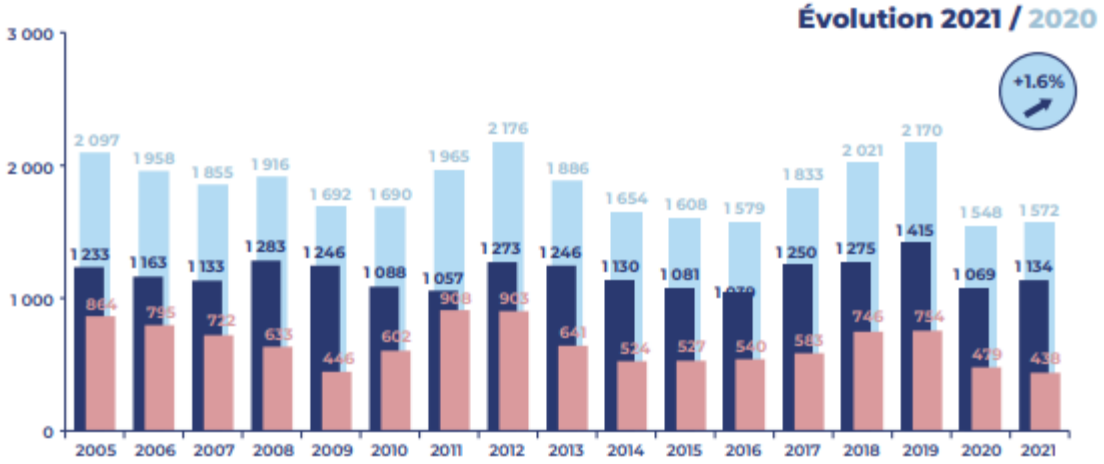
A changing mobility

Flux de trafic fret en Île-de-France

Trafic global en millions de train. km

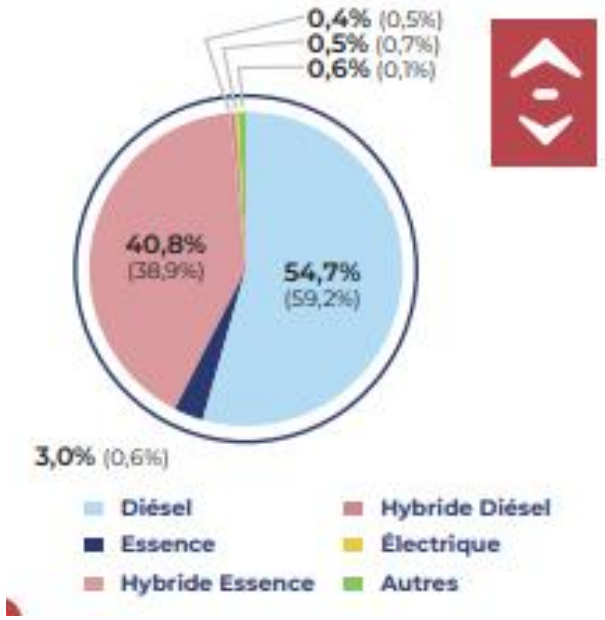


Ports sur la Seine - Trafic (en milliers de tonnes)



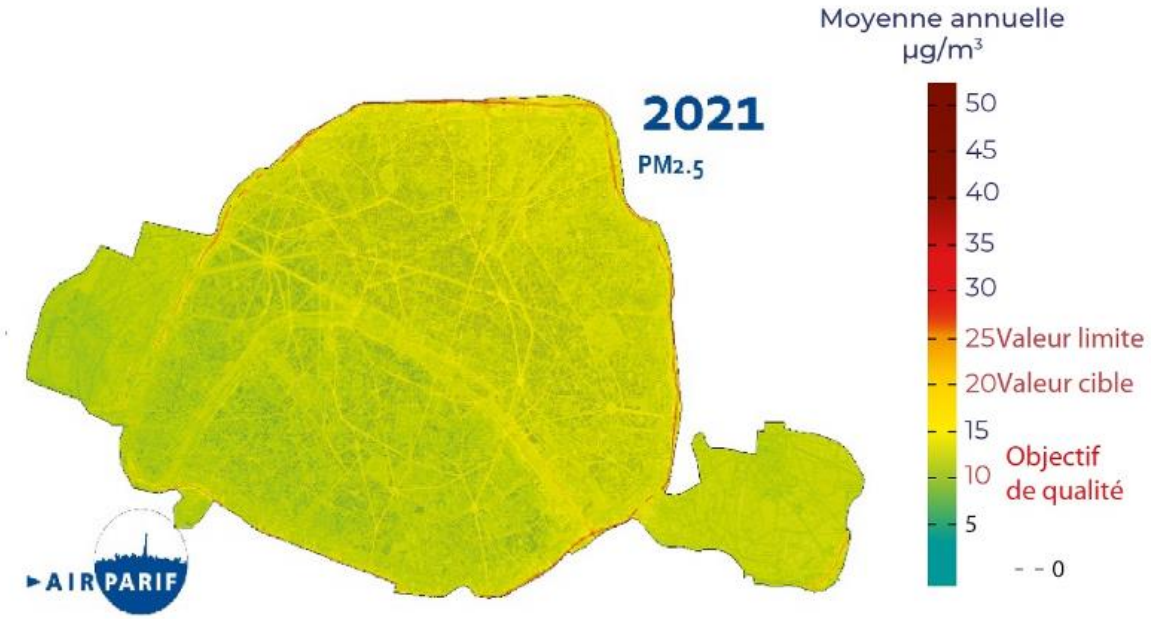
CARACTÉRISTIQUES DES TAXIS PARISIENS

Source : Préfecture de Police (en 2021)



Répartition des types de motorisation en 2021

Environmental stakes



Pollution atmosphérique PM10
Airparif

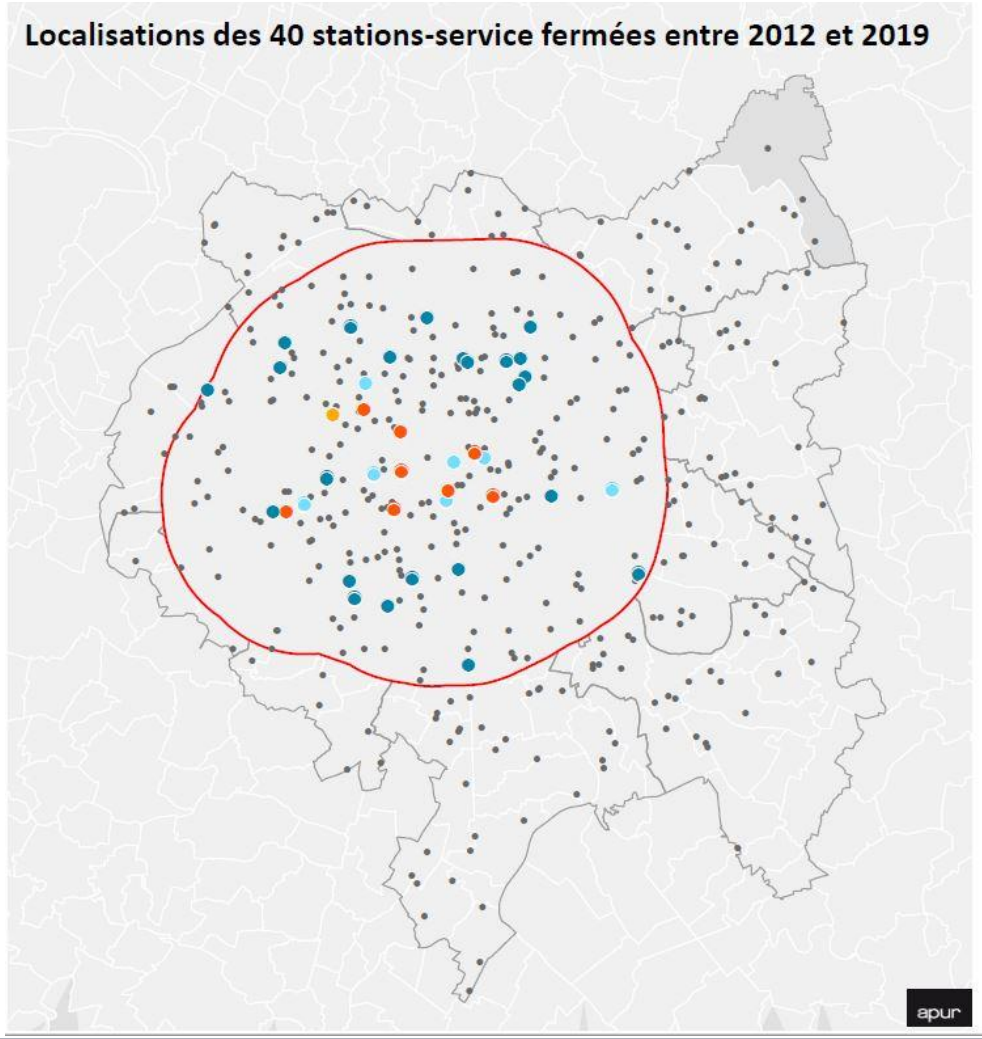
Entre 2011 et 2021, les niveaux de particules fines PM10 ont baissé de plus de 30 % sur les sites parisiens de fond et de près de 40 % sur les sites trafic.

Le bruit routier *Road traffic noise*

Bruit routier
Bruitparif

Transport energy in Paris

Evolution since 2012: continuous trend towards service station closures



40 closures within the perimeter between 2012 and 2019

23 closures in Paris

→ continuation of the trend observed between 1955 and 2012 in vulnerable situations, with the closure of 8 underbuilding stations, 6 pavement pumps and 1 station located in an underground car park

→ Closure of 8 conventional stations in project areas

17 closures between the ring road and 5km beyond it

→ Among which 16 classic stations and 1 pavement pump

- classique (24)
- parking souterrain (1)
- pompe trottoir (7)
- sous immeuble (8)
- Stations services ouvertes en 2019
- Périmètre d'étude 2012 : Paris + 5km à partir du boulevard périphérique

Sources : Apur, Zagaz, DRIEE, Préfecture de Police de Paris

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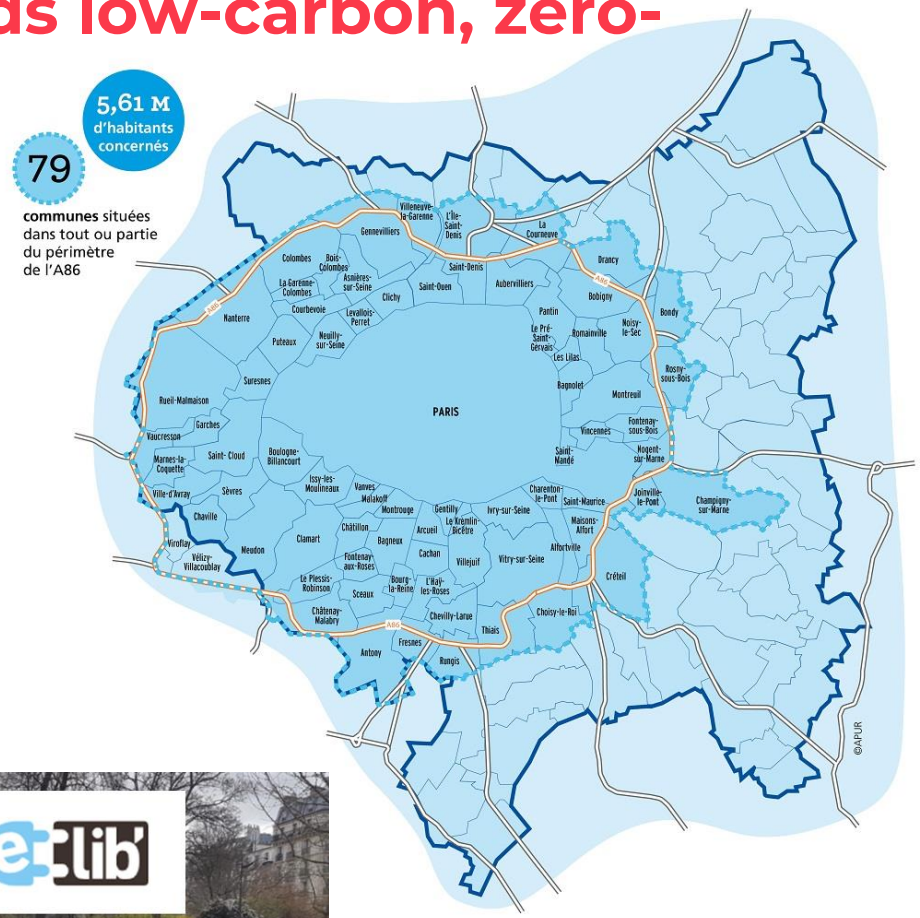
Actions by the City of Paris to move towards low-carbon, zero-emission motorised mobility

- Introduction of the Low Emission Zone
- Easier parking for low-emission vehicles
- Financial assistance for the conversion of business fleets
- Belib and NGV concessions, car park concessions, support for local hydrogen initiatives
- Incentive purchasing policy by the City for its own needs
- An ambitious mobility plan, with conversion of the professional fleet underway
- Paris involved in "Hydrogen Territorial Ecosystems" projects
- Partner in the H2SHIP project on hydrogen fluvial mobility



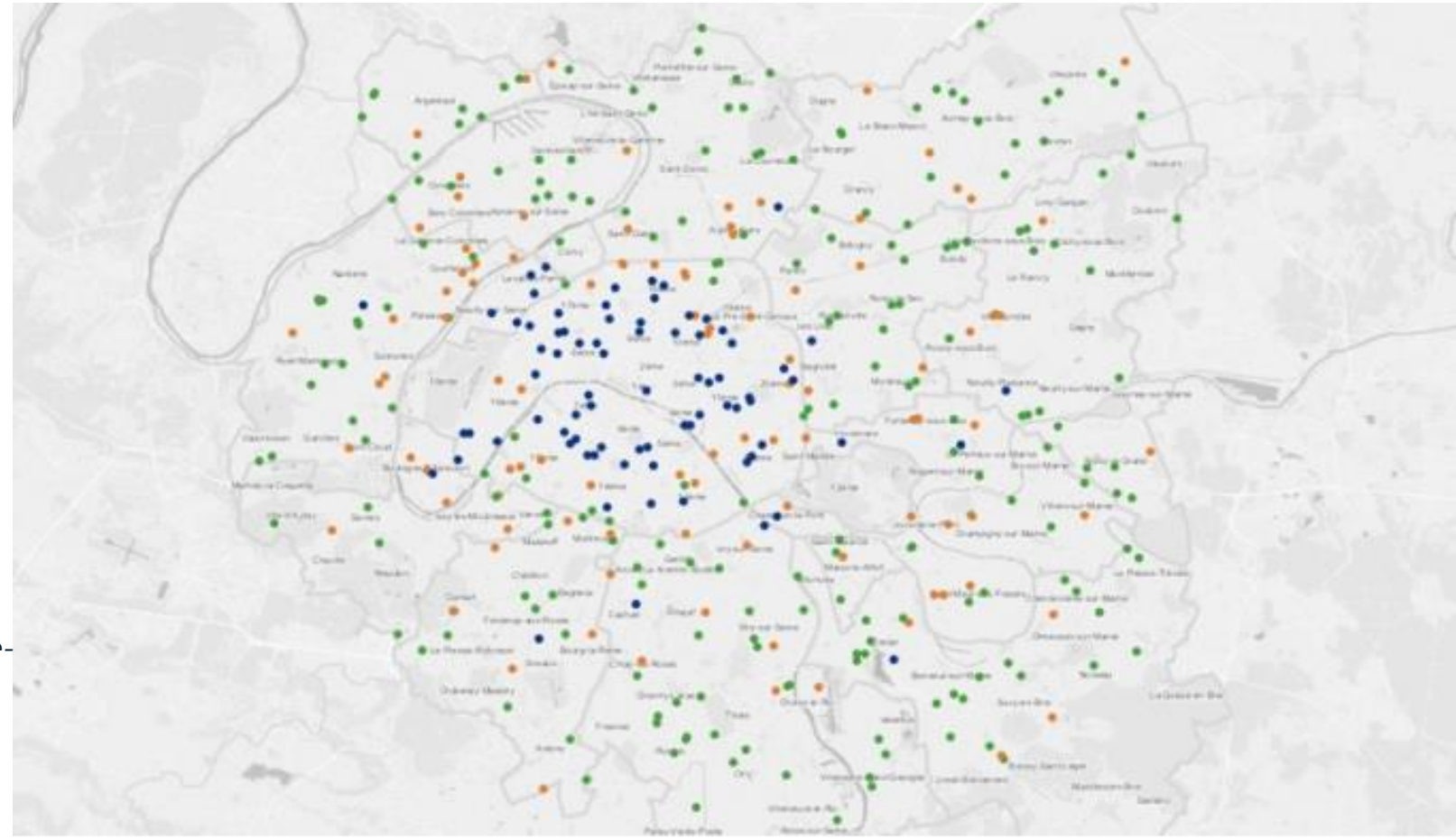
Actions by the City of Paris to move towards low-carbon, zero-emission motorised mobility

Prospective studies launched:

- **Study (APUR) on the potential for converting service stations in Paris/Metropole**

  - 222 stations that can be converted to CNG/Hydrogen
  - 102 stations that can be converted
  - 78 non-convertible stations

  www.apur.org/dataviz/stations-service-metropole-grand-paris

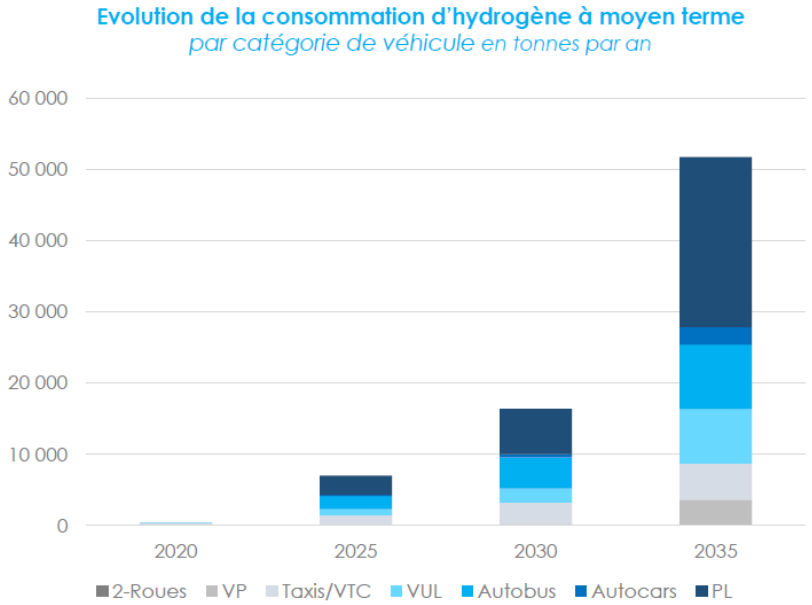


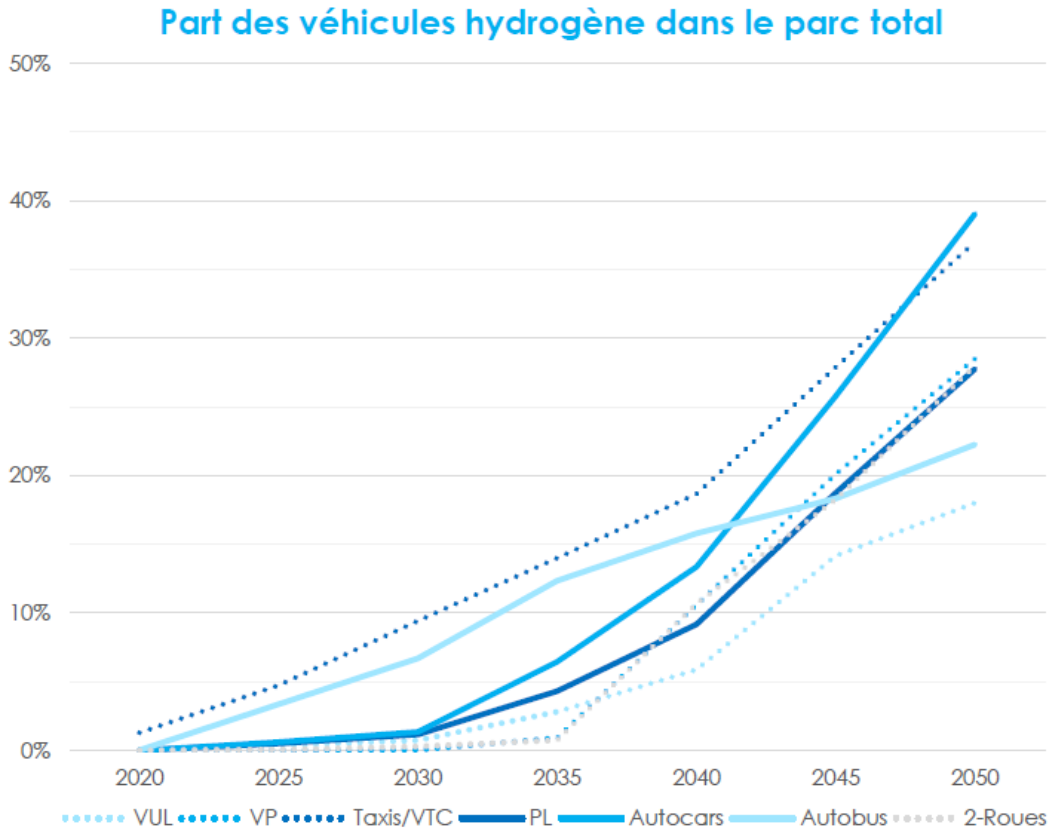
Actions by the City of Paris to move towards low-carbon, zero-emission motorised mobility

Prospective studies launched:

- **Study on the potential development of green hydrogen**

with ADEME, the SIPPEREC and la Région Ile de France





SCÉNARIO « HYDROGÈNE 2050 »
L'hydrogène peut représenter près de 25% du parc en 2050

Conclusions : What role can hydrogen mobility play in Paris?

- Towards greater exchanges between public and private players, with greater transparency in mobility/energy/land data and better coordination of economic policies and strategies

- Towards better coordination of land use to give each energy source its rightful place, with a multi-year vision: launch of a roadmap/master plan for new forms of mobility?

- The City of Paris supports all consistent initiatives in which low-carbon hydrogen offers and will offer a solution to accelerate the region's energy transition, whether for road or river mobility.

PARIS

Thanks for your attention