ASECAP | *Celebrating* YEARS 50 *of Successful* TOLL ROAD PROJECTS

2nd ASECAP SUSTAINABILITY FORUM

HOSTED BY
A|S|F|i|N|A|G

ASECAP

Celebrating 50 YEARS of Successful TOLL ROAD PROJECTS

HOSTED BY
A|S|F|i|N|A|G

Anticipating the transition towards alternative fuels

The French toll road network

ASFA

🛣 **9 221 km** of toll motorway network and toll facilities

91,5 billion kilometres travelled per year

21 concessionaires

11 969 employees

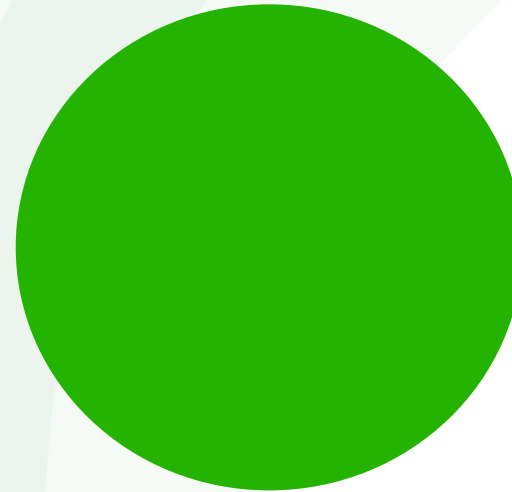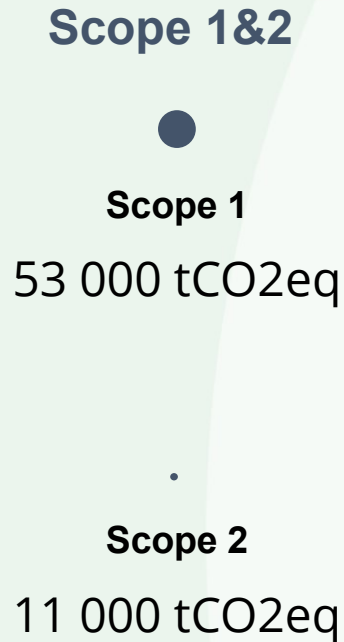🚗 **294** service areas equipped with fast electrical charging stations in December 2022 (80%)

🚙 **131** parking areas for carpooling

🦔 **1817** wildlife crossing structures

HOSTED BY A|S|F|i|N|A|G

CO$_2$ emissions, French toll roads

Scope 1&2

Scope 1

53 000 tCO2eq

Scope 2

11 000 tCO2eq

French motorway emissions for 2022 ; categories according to Greenhouse Gas Protocol (GHG)

Scope 3

Traffic
- 🚗 **:** 16.2 million tCO2
- 🚚 **:** 12.3 million tCO2

29 million
tCO2eq
~7% of France's emissions

Operations
(service areas, electricity…)

377 000
tCO2eq

Maintenance and investment in the network

175 000
tCO2eq

CO$_2$ emissions, French toll roads
Assessing accurately traffic emissions – scope 3

The evaluation requires an integrated model, using:

- LV/HV traffic, average load factor for heavy goods vehicles

- Vehicle fleet characterization - energy, age, weight…

- Other factors affecting vehicle kinematics:
    - Local speed limits (90 km/h -> 130 km/h)
    - Yearly traffic conditions: breakdown between fluid, dense, saturated and Stop&Go hkm
    - Presence of speed cameras, toll gates
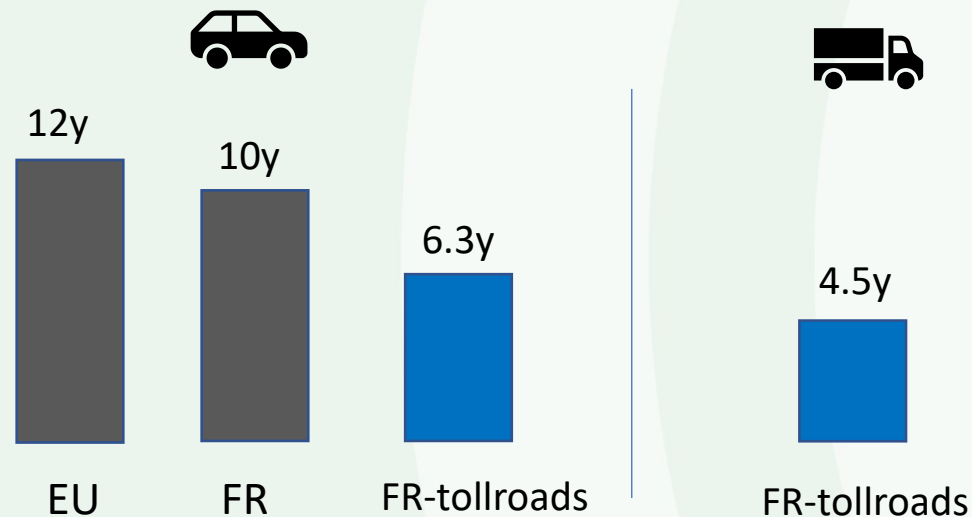   - Road gradients (longitudinal slopes) on the network

$\rightarrow$ Need for precise and up-to-date data **concerning fleet characterization**

$\rightarrow$ An ASFA study in the summer 2022: over 100 000 vehicles analysed at 23 points on the French network

HOSTED BY AISIFIiINIAIG

2022 fleet study
High rate of fleet renewal on the motorway network

Average age of vehicles:

- Vehicles are recent nevertheless an "ageing process" is underway since COVID (decline in sales)

→ Vehicles used for occasional trips are older than those used on working days.

→ The average age of the car fleet varies substantially from one site to another and from one day to the next.

2022 fleet study
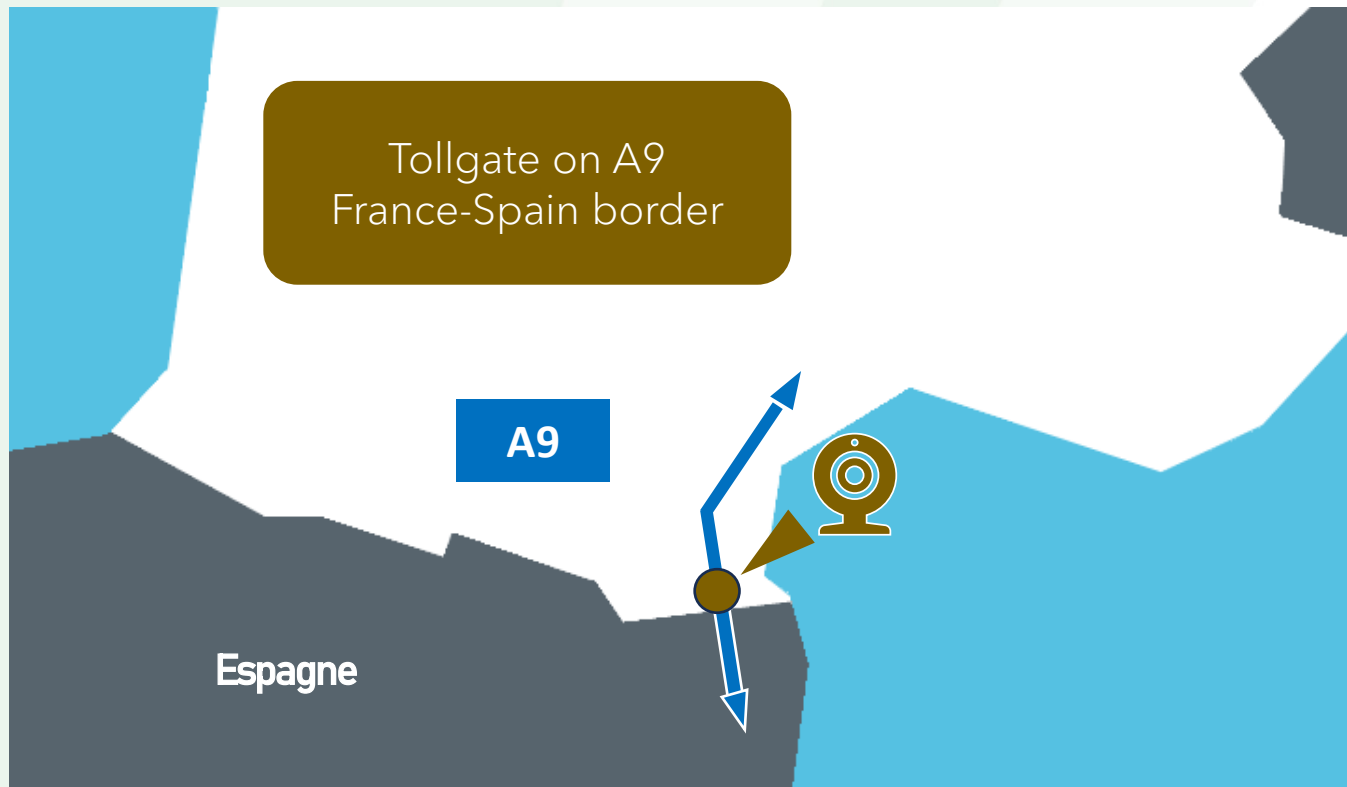## Geographical disparities – Paris Low Emission Zone

A14

PARIS

Tollgate on A14
Close to the Paris Low
Emission Zone
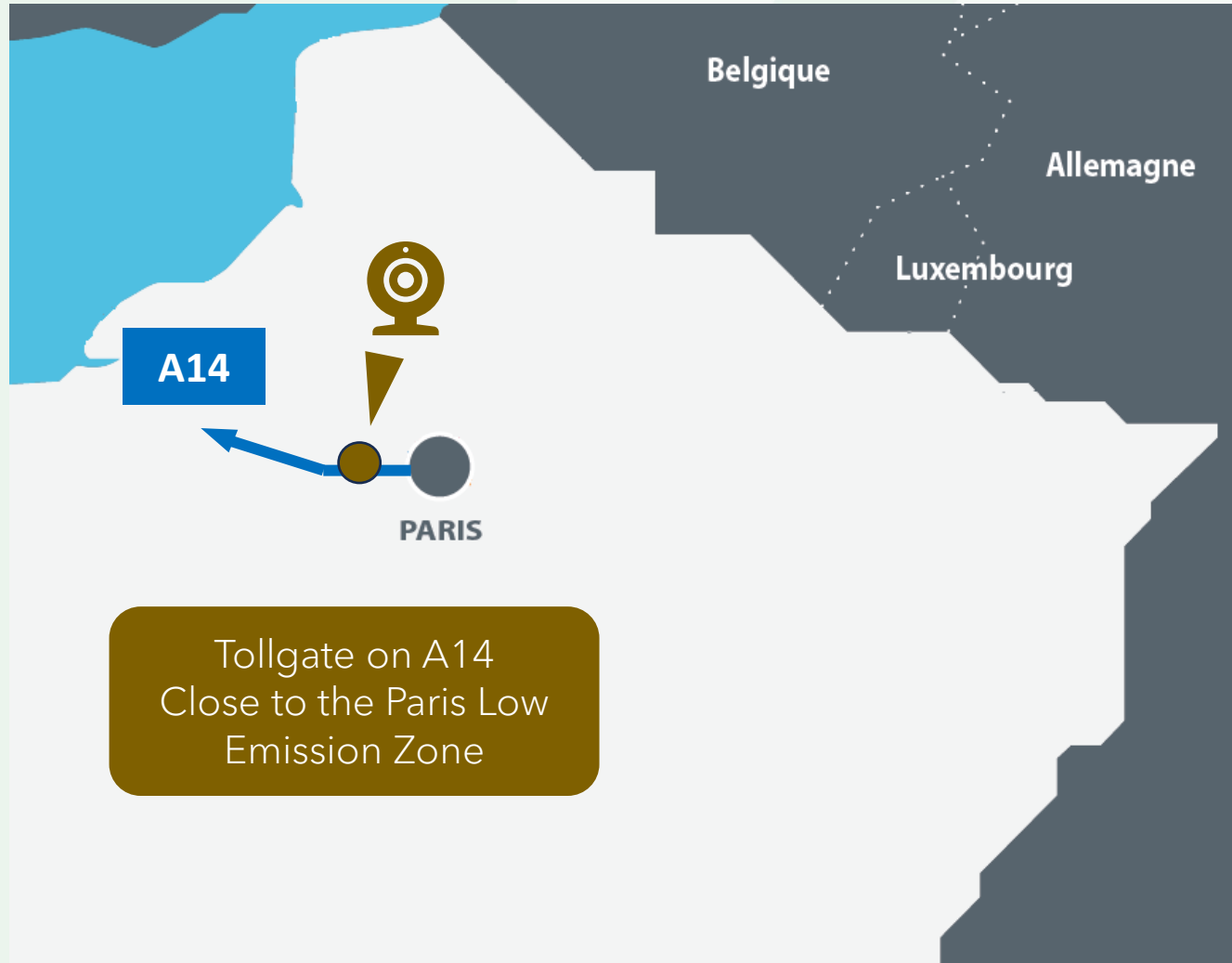
- Average age, LV, working days: 4.5 y
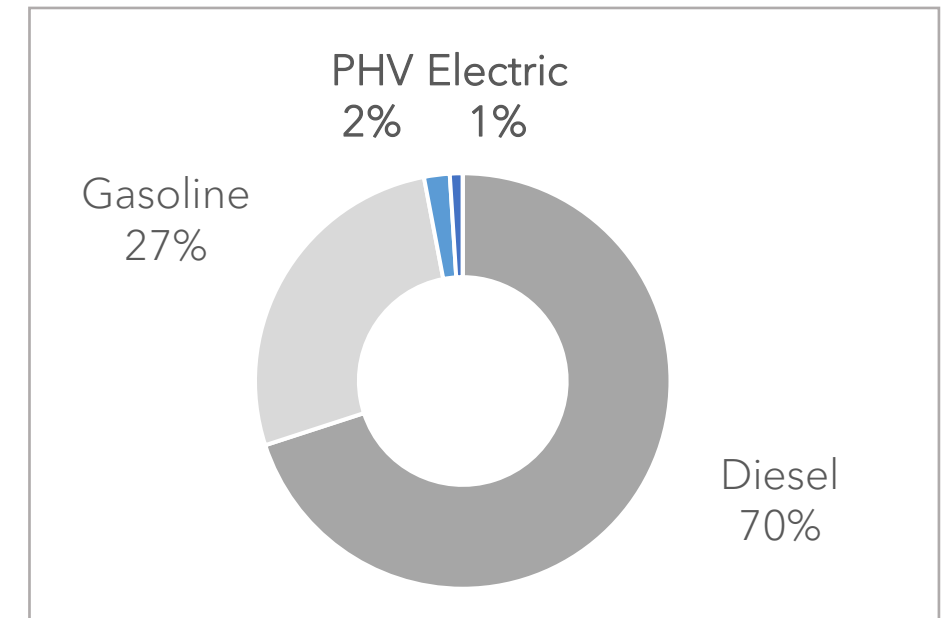
- Average age, LV, week-end: 7.6 y

- Energy mix:

PHV
6%

Electric
4%

Diesel
55%

Gasoline
35%

HOSTED BY A|S|F|i|N|A|G
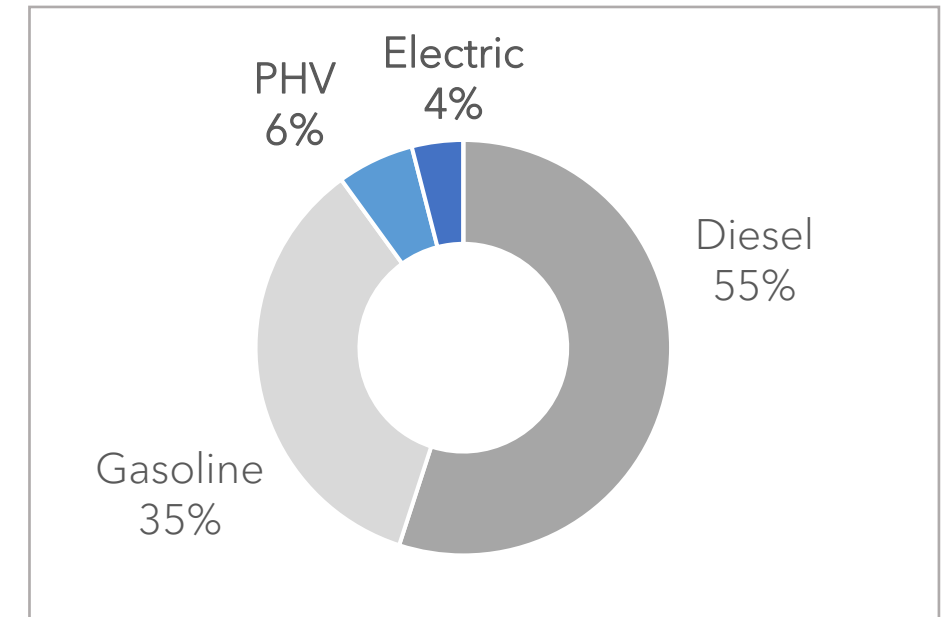
2022 fleet study
Geographical disparities – cross-border trafic

Tollgate on A9
France-Spain border

A9

Espagne

- Average age, LV, working days: 7.2 y

- Average age, LV, week-end: 7.6 y

- Energy mix:

PHV Electric
2%   1%

Gasoline
27%

Diesel
70%

2022 fleet study
Alternative fuels progression

ASECAP

Celebrating 50 YEARS OF Successful TOLL ROAD PROJECTS

ASFA
average

PHV 3%
Electric 1,7%
Diesel 62%
Gasoline 33%

ASFA
vehicles gone into service in 2022

Electric 7%
Biofuel/gas 3%
PHV 11%
Diesel 34%
HV
Gasoline 44%
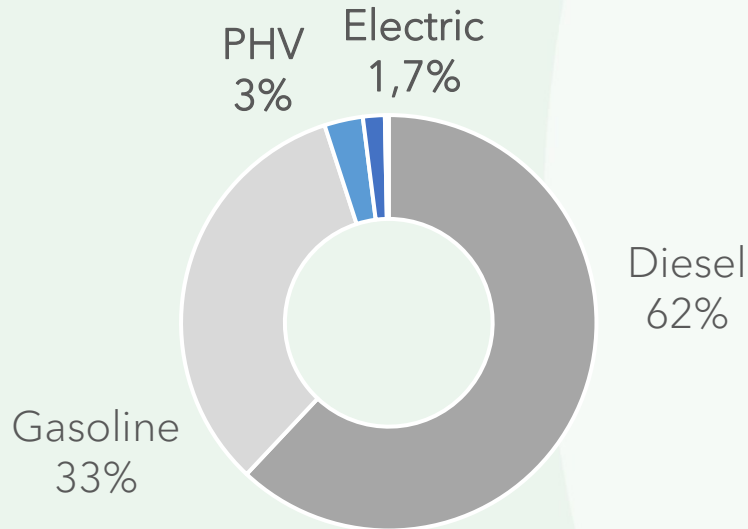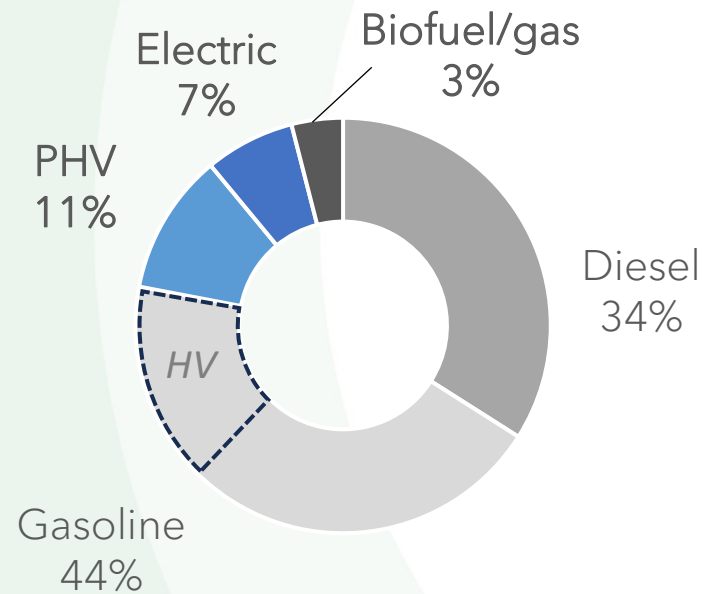
A14 / Paris LEZ
vehicles gone into service in 2022

Electric 12%
Biofuel/gas 2%
PHV 19%
Diesel 26%
HV
Gasoline 41%

HOSTED BY A|S|F|i|N|A|G
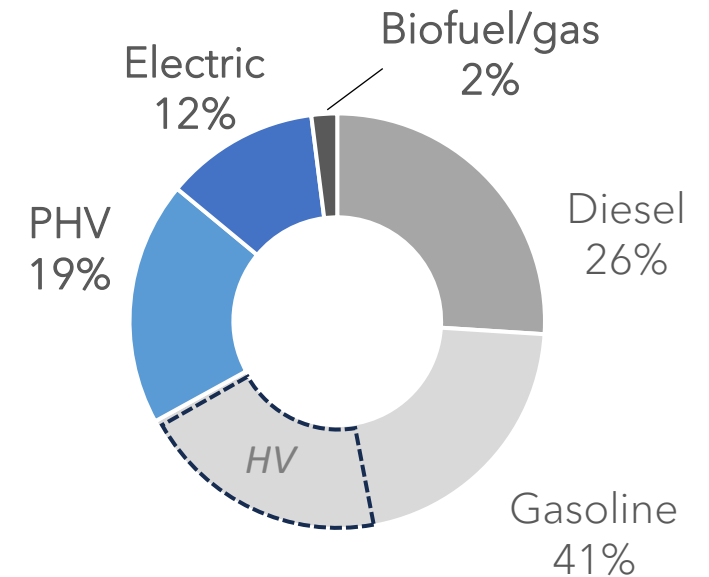
2022 fleet study
Alternative fuels - LV

Share of different energies in the LV fleet according to the year the vehicles went into service.
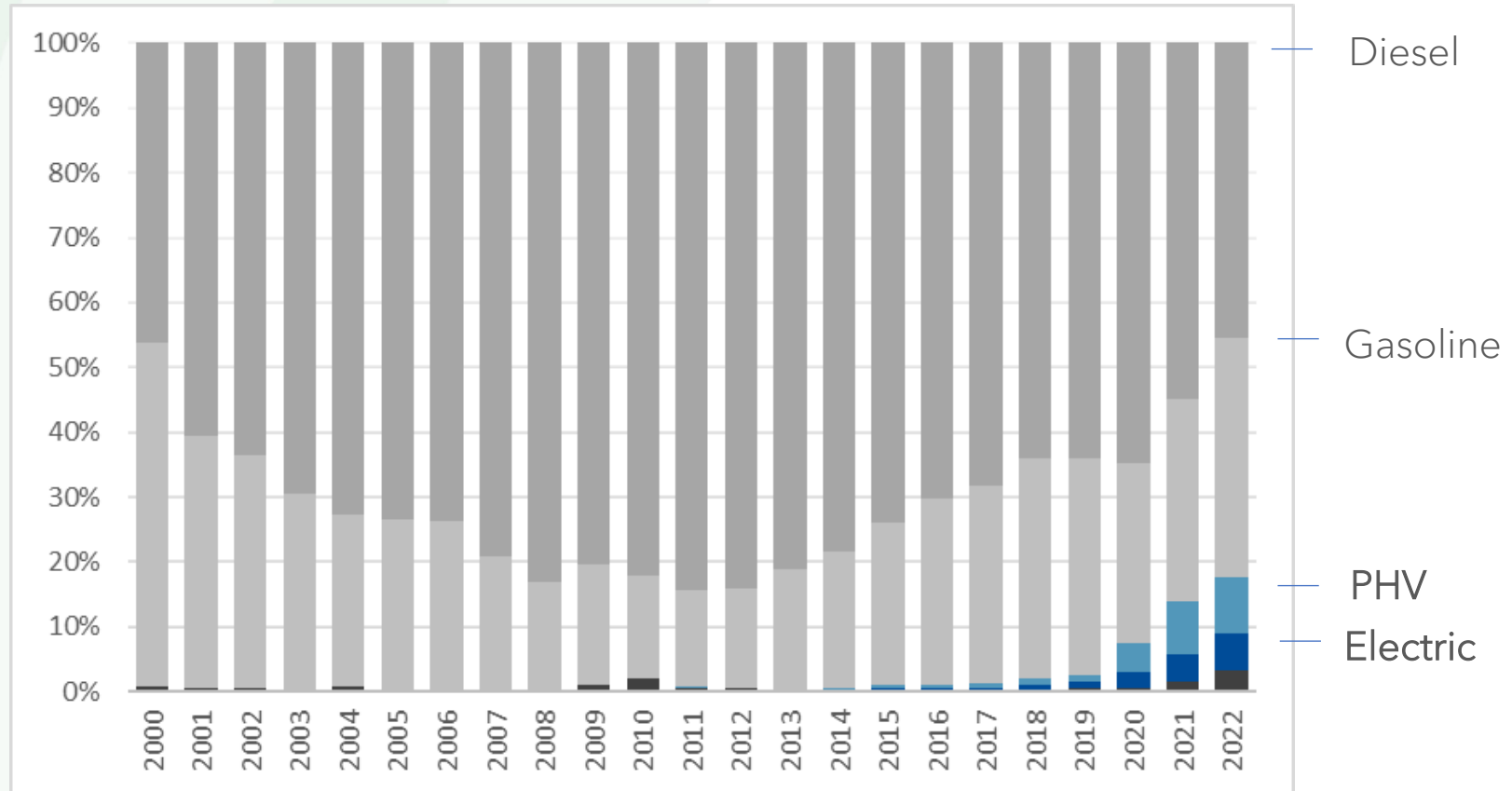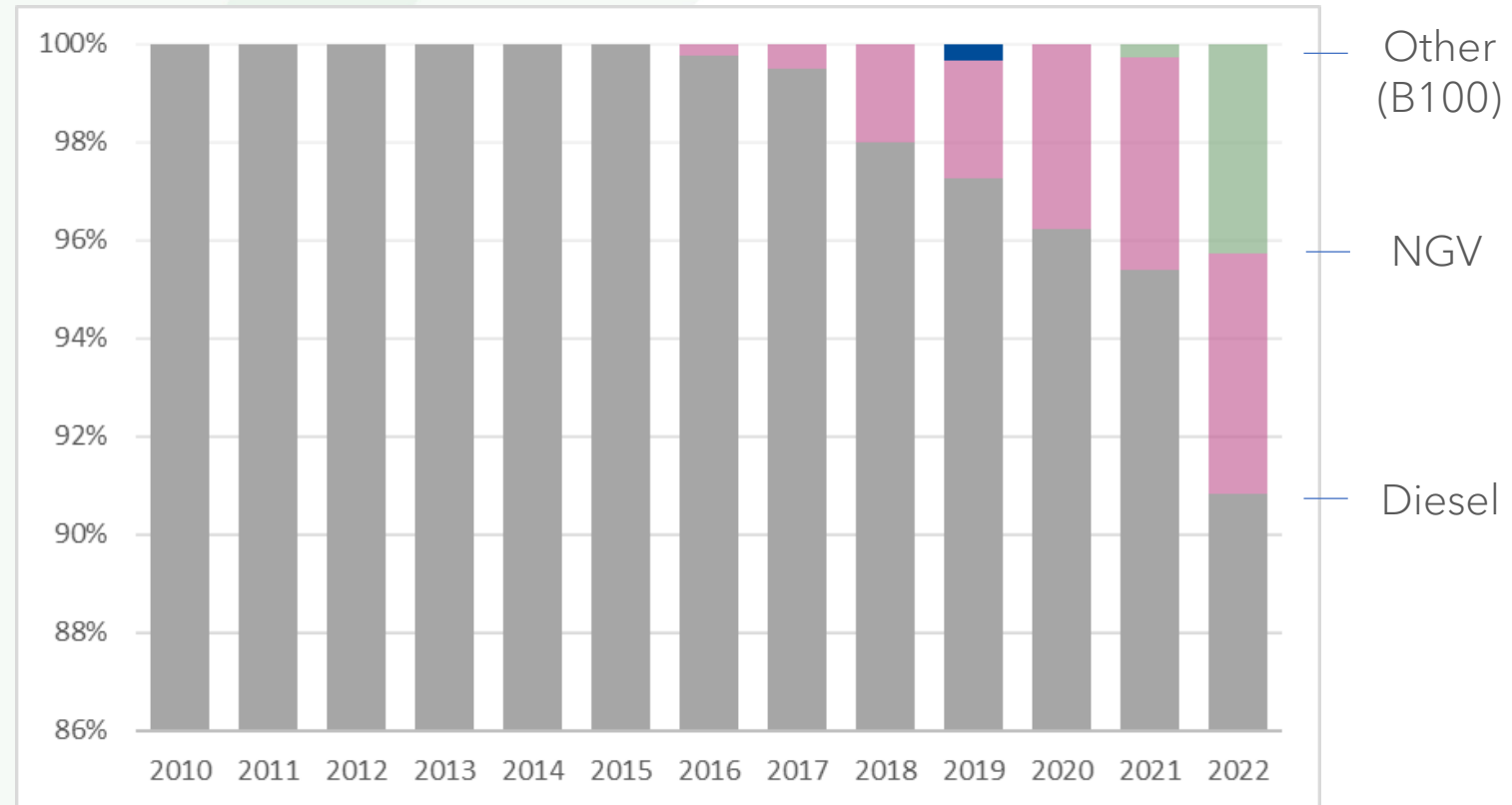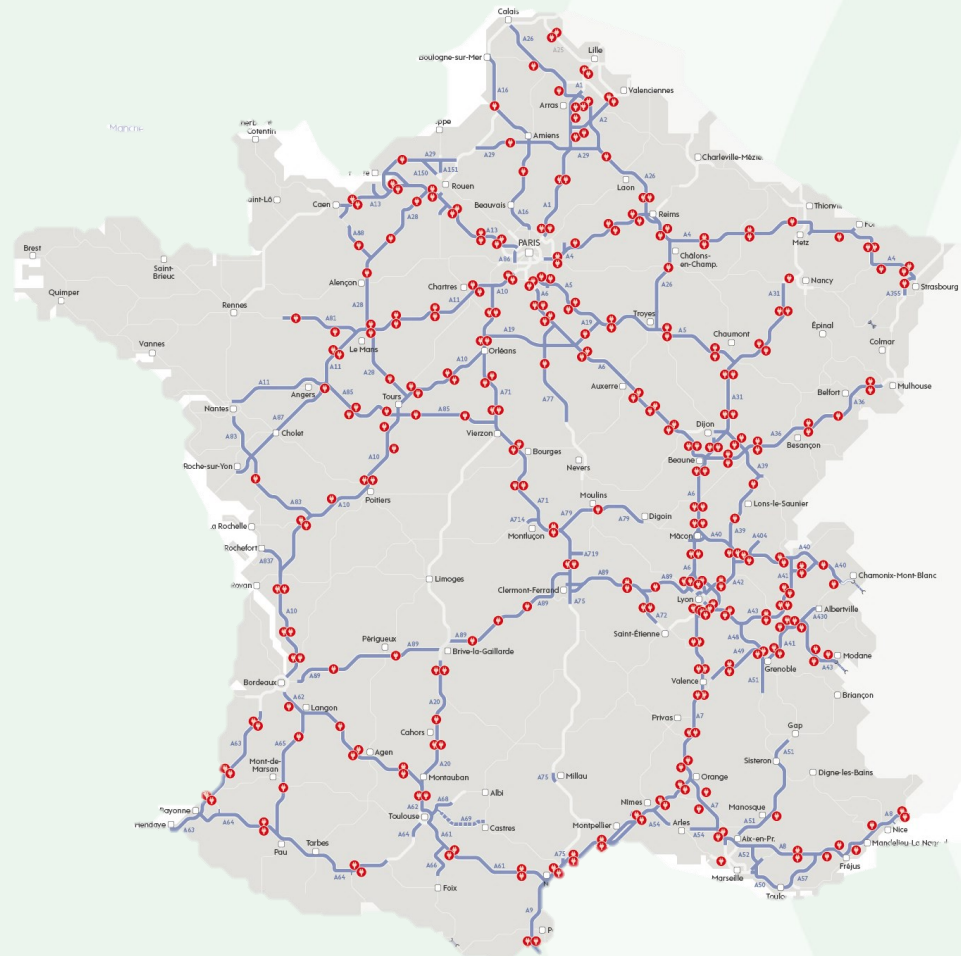
2022 fleet study
Alternative fuels - HV

Share of different energies in the HV fleet according to the year the vehicles went into service.

Supporting the transition towards alternative fuels

- **294 service areas on the network equipped with fast charging stations** for light vehicles in December 2022 (80%)

- 1553 charging points, 78% of them delivering power over 150 kW

- **One service area available every 60 km in average**

Comprehensive plan to cover all service areas this year

Thank you for your attention

Noémie Frontère
noemie.frontere@autoroutes.fr

HOSTED BY ASFiNAG