Emissions associated with passenger transport

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FRANCE INVEST

I - Presentation of the source of emissions

Emissions linked to the transport of people correspond to greenhouse gas (GHG) emissions linked to employees travelling to and from work, customers and visitors coming to the company site and business travel.

30% of territorial GHG emissions n 2021, (Source HCC 2022 report)

→ **Number 1 source of emissions, namely 126 MT CO2e** (an average decrease of 1.5%/year since 2015, and a targeted rate of around 3%/year over the period 2022-2030)

53% of emissions from private car use (Source : HCC 2022 report)

→ **Vehicle occupancy rate for home-work journeys: : 1,1** (source ENTD 2008)

Commuting to work : 13,3km average and modal breakdown (as a share of passenger.km) (Source EMD 2019)

→

- ***79%*** private car
- ***17%*** public transport
- ***2%*** motorised two-wheelers
- ***0,8%*** cycling
- ***0,6%*** walking
- ***0,3%*** Other

48,8% of French people use the car to get to work

→ For distances of less than 1 km (Source Insee 2017)

56,3% french people use the car to get to work

→ For distances between 1 and 2km, **while this represents cycle journeys of less than 10min** (Source Insee 2017)

GHG emissions linked to passenger transport on 10km (kg CO2e)

- ***2,2*** voiture thermique
- ***1,9*** Moto
- ***1,5*** voiture hybride (full)
- ***1,1*** bus (thermique)
- ***1*** marche
- ***0,8*** scooter
- ***0,7*** voiture Hybride rechargeable (mode électrique)
- ***0,2*** bus électrique
- ***0,1*** vélo électrique
- ***0*** train (intercité)
- ***0*** Marche ou velo ou métro

Source : CO2 Impact calculator based on ADEME data

Reducing the use of private cars is a priority for the authorities. Regulations are in place to restrict their use :

- A ban on the sale of internal combustion vehicles by 2040 ;
- The obligation for certain companies to include low-emission vehicles when renewing their vehicle fleets, including company cars ;
- Establishment of Low Emission Zones (LEZs). These zones, already in place in 11 French cities, will cover 43 conurbations with more than 150,000 inhabitants by 2025, and will gradually ban the most polluting vehicles from the roads.

GHG emissions linked to passenger transport are a **cross-sectoral** issue for companies in **all sectors**, particularly those that require their employees to travel for business reasons.

II - Presentation of levers and best practices

Les leviers en bleu are easy to implement and offer significant gains in terms of GHG emissions, while the orange levers are more difficult to implement, but offer significant gains in GHG emissions, and the green levers are easy to implement, but offer lower GHG emission gains.

1. Reduce emissions linked to commuting

1.1 The Employer Mobility Plan
1.2 Encourage employees to use public transport and bicycles
1.3 Encourage employee ride-sharing
1.4 Encouraging teleworking
1.5 Integrate public transport accessibility into the choice of work sites

2. Reduce emissions from business travel

2.1 Review business travel policy
2.2 Provide employees with a fleet of low-emission vehicles

3. Reduce emissions linked to customer visits

3.1 Integrate accessibility by alternative means of transport into the choice of company sites
3.2 Encourage customers to use modes of transport other than the individual combustion engine car

1. Reduce emissions linked to commuting

1.1 THE EMPLOYER MOBILITY PLAN

- This approach is based on an assessment of the travel generated by the company's activity, and aims to put in place an action plan with resources to **optimise employee travel flows** and therefore encourage a reduction in the associated GHG emissions ;
- This is an initial fundamental step in setting up initiatives such as those listed below.

1.2 ENCOURAGE EMPLOYEES TO USE PUBLIC TRANSPORT AND BICYCLES

Offer a Sustainable Mobility Package

- Introduced by the Transport Policy Law in 2019, it **encourages** employers to pay for **alternative forms of transport** (bicycles and electrically-assisted bicycles, ride-sharing, shared vehicles and public transport) ;

- **Provide employees with a fleet of bicycles :** tax allowances are available ;
- Provide employees with a mobility voucher, the equivalent of a meal voucher; ;
- Set up a sustainable mobility challenge to encourage employees to travel by means other than the car ;
- Offer flexible working hours so that employees can avoid rush hour, making the use of public transport more pleasant.

1.3 ENCOURAGE EMPLOYEE RIDE-SHARING

- Organise employee ride-sharing: a number of **platforms** offer services to companies, and **local authorities** are investing in "fixed" ride-sharing routes ;
- **From January 2023, drivers who ride-share will be eligible for a** bonus of 100€.

1.4 ENCOURAGING TELEWORKING

- Negotiate a **teleworking policy** to limit commuting and reduce the associated greenhouse gas emissions ;

- Beware of the "rebound effect" : for example, teleworking can encourage employees to move further away from their place of work, thereby increasing GHG emissions from the remaining journeys.

1.5 INTEGRATE PUBLIC TRANSPORT ACCESSIBILITY INTO THE CHOICE OF WORK SITES

- Ensure that the site is accessible **by various modes of transport** and that the **infrastructure available is adequate :** electric vehicles (recharging points), public transport (with satisfactory reliability, frequency and range of times), bicycles (accessible by a cycle lane, secure parking, shared bike stands, etc.,) or shared mobility (ride-sharing or car sharing services) ;
- Discuss this issue with the **local authority** responsible for organising mobility (AOM)

2. Reduce emissions from business travel

2.1 REVIEW BUSINESS TRAVEL POLICY

- Include the carbon impact of travel as a criterion in our **business travel policy** (meetings, trade fairs, customer meetings, etc.,) and for internal company events (particularly seminars)

2.1.1 PREFER VIDEOCONFERENCING FOR MEETINGS

To attend a 1.5 hour meeting with a customer, two employees have the choice between driving 20km to the meeting and back, or videoconferencing: choosing videoconferencing emits 136 times less greenhouse gases !
Travelling: 2x20x0.153=6.12kg CO2e; Videoconferencing: 0.0005x90=0.045kg CO2e; I Care calculation based on ADEME and Greenspector data

1.5 hour meeting

> 136 times less GES

Driving 20km
to the meeting and back

2.1.2 PREFER LOW-CARBON MODES OF TRANSPORT FOR LONG-DISTANCE JOURNEYS

- Prefer **train travel** whenever possible over car or plane travel.

Route Nice - Paris


197 kg CO2e


102 kg CO2e

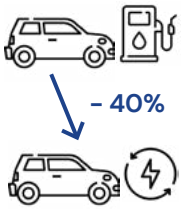

2 kg CO2e

For a passenger making the Nice-Paris journey, using a combustion engine car emits 203kg CO2e, taking a plane emits 158kg CO2e, while using the TGV emits 2.1kg CO2e.

2.2 PROVIDE EMPLOYEES WITH A FLEET OF LOW-EMISSION VEHICLES

- Reduces CO2 emissions and adapts to regulatory changes ;
- **Companies can get subsidies for their purchases**, at national and local levels ;
- This also involves the provision of **infrastructure** (see 1.5).

For an employee who travels 200km alone each week for work purposes (excluding commuting), and assuming 45 working weeks, switching from a mid-range petrol car to a mid-range electric car will cut emissions by 40%.
I Care calculation, ADEME carbon base data: reduction from 1,575 kg CO2e to 927 kg CO2e.



3. Reduce emissions linked to customer visits

3.1 INTEGRATE ACCESSIBILITY BY ALTERNATIVE MEANS OF TRANSPORT INTO THE CHOICE OF COMPANY SITES

- Make **accessibility** of the site by customers a criterion in the choice of site (see 1.5) ;
- Anticipate and organise the **decline in visitor** numbers at sites that are more difficult to access by alternative means of transport, or remedy the situation.

3.2 ENCOURAGE CUSTOMERS TO USE MODES OF TRANSPORT OTHER THAN THE INDIVIDUAL COMBUSTION ENGINE CAR

- Introduce **incentives and rewards** for customers who can prove they use a mode of transport other than the individual car: shopping vouchers, loyalty points, free parking, etc.

Operational KPIs :

▟ Breakdown of vehicle fleet by engine type (petrol, diesel, hybrid, electric) and age (%)	
• Annual fuel consumption (€)	.....
▟ Modal breakdown of employees' home-work journeys (to be collected via an annual survey), in % :	
• Percentage of employees ride-sharing	.....
• Percentage of employees using soft mobility (walking and cycling)	.....
• Percentage of employees using public transport	.....
• Share of teleworking	.....
▟ Number of kilometres travelled on business trips per mode of transport	
• Distinguish between business trips and other reasons	.....
▟ Total/average amount of sustainable mobility packages offered to employees (in €)	
.....	

III - Case study

Groupe MyMobility

The MyMobility group has been a benchmark player for 25 years in the provision of support for people with disabilities or in difficult situations, and provides daily transport for more than 10,000 people, including 8,500 children, throughout France.

25	3500	7	3500	14
ans d'expertise au service de la Mobilité	collaborateurs formés à l'accompagnement et à la conduite	tours de la planète parcourus chaque jour	véhicules (Âge moyen du parc = 6 mois)	agences de proximité pour une présence dans plus de 70 départements

MyMobility was a pioneer among its peers in committing to the decarbonisation of its vehicle fleet by joining ADEME's Objectif CO2 programme for the transport sector from 2018 and the Science-Based Target initiative (SBTi) in 2022. In concrete terms, the Group is implementing the following actions to reduce its greenhouse gas emissions, monitored via two key indicators: gCO2 per passenger.kilometre and gCO2 per kilometre travelled.

- **Replacing diesel vehicles** with hybrid, electric, ethanol or NGV vehicles to limit this type of vehicle to a maximum of 20% of the fleet by 2025 and 0 by 2035, in particular by regularly renewing the fleet (every 12 months) and reinjecting vehicles into the used vehicle market ;

- **Training drivers in eco-driving** to reduce fuel consumption ;

- **Continuous improvement in the rate of grouping of passengers** in order to limit the number of kilometres travelled, while maintaining the expected quality of service, which requires resources to be invested in data tools to optimise journeys.

These initiatives have already enabled the Group to **reduce its absolute emissions by 17% between 2018 and 2021.**

IV - Openness to other environmental issues

Reducing the GHG emissions associated with passenger transport can have co-benefits on other environmental issues, in particular :

- **Biodiversity :** Transport (in particular the private car) and the infrastructure needed to support it are responsible for a significant proportion of **the artificialisation of land and the fragmentation** of natural areas in France. (Guide Biodiversité France Invest)
- **Air pollution :** private cars are responsible for a large proportion of air pollution, particularly in urban areas (ozone, nitrogen oxides, fine particles), which is a major **public health problem** in France.

V - Further information

Here are a few resources for a more in-depth look at transport emissions :

- Impact CO2, calculate the carbon impact of a distance travelled, an itinerary or teleworking using different modes of transport
- MY COMPANY IN A TIME OF SUSTAINABLE MOBILITY - How can I make the transition?
- Best practices from companies identified by the Declic Mobilité association

VI - Appendice

Regulatory method version 5	Item	GHG Protocol	Category
Category		Scope	
1. Direct GHG emissions	Other direct emissions	Scope 1 (direct)	Other direct emissions
	1.2 Direct emissions from mobile combustion sources		Direct emissions from mobile combustion sources
2. Indirect emissions associated with energy	2.1 Indirect emissions from electricity consumption	Scope 2 (indirect) Generation of energy consumed	Indirect emissions linked to electricity consumption
	2.2 Indirect emissions from energy consumption other than electricity		Indirect emissions linked to the consumption of steam, heat or refrigeration
3. Indirect emissions associated with transport	*Upstream and downstream goods*	Scope 3 (indirect)	Upstream and downstream transport and distribution
	3.3 Commuting		7. Employee commuting
	3.4 Visitor and customer travel		
	3.5 Business travel		6. Business trips
4. Indirect emissions associated with products purchased	Purchases and fixed assets, waste management, etc.		Products and services purchased, fixed assets, waste, processing of products sold, use of products sold, etc.
5. Indirect emissions associated with products sold	Use and end of life of products sold, etc.		
6. Other indirect emissions	Other indirect emissions		

Emissions item concerned by the sheet

Emissions item not concerned by sheet

Emissions item does not exist

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