NET ZERO CITIES

EU MISSION PLATFORM | CLIMATE NEUTRAL AND SMART CITIES

Climate City Contract

2030 Climate Neutrality Action Plan

City of Paris

PARIS

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Summary

The preparation of the Paris 2024-2030 Climate Action Plan has begun at a time of sharply accelerating manifestations of climate change around the globe. In Paris, the updated vulnerability and robustness diagnosis is clear: the major risks expected in 2050 tend to occur as early as 2030, and the possibility of a 50°C heat peak hitting the capital is no longer ruled out. The question of adaptation, seen from the angle of protection (protection of Parisians, protection of the territory, protection of vital resources such as water), has become a central issue in this new Climate Action Plan. The impacts of climate change are often worsened in cities, specifically for a dense, constrained, and heavily artificialized city like Paris. With 21 067 residents per km^2, Paris is the 7^{th} densest city in the world.

With this runaway climate change, the drastic and rapid reduction of greenhouse gas (GHG) emissions in Paris with a view to achieving carbon neutrality is a priority now more than ever. It is essential to accelerate the reduction of GHG emissions and to achieve as soon as possible the neutrality target, likely by 2030 with the support of the EU Climate-Neutral and Smart Cities Mission.

The fourth Paris Climate Action Plan is both a regulatory obligation under French law and a political document going beyond regulation (see box “definitions” below), notably by integrating the work done with the European Mission Cities team and experts to enhance the robustness of the emission trajectory of the Action Plan outlined in this document and the associated Investment Plan.

Definitions: The Climate Action Plan, as described throughout the documents of the Climate City Contract, corresponds to the legally binding document that the City of Paris developed in line with the French regulations which oblige all public inter-municipal cooperation establishments with populations of over 20,000 to address the whole range of air energy-climate issues on their territory. Called in French “PCAET - plans climat air-énergie-territorial”, it is translated by the City of Paris in English “Climate Action Plan”. (see Annex 7 for the overview of the Paris 2024-2030 Climate Action Plan).

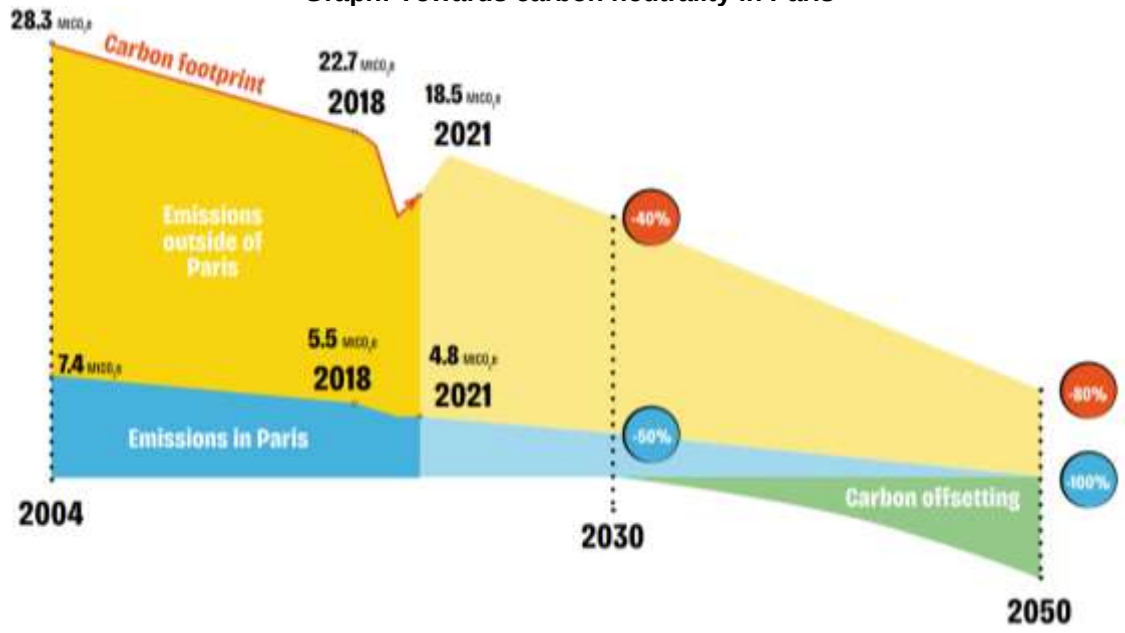
The 4^{th} edition of the Climate Action Plan was adopted by the City Council of the City of Paris in November 2024. Its revision process matched with the development of the Climate City Contract and therefore, the Climate Action Plan constitutes the basis for the CCC Action Plan outlined below. For reasons of clarity and to avoid confusion between documents, the Action Plan of the CCC will be referred to as “CCC Action Plan”.

The main objectives of the Parisian Climate Action Plan, as represented in the graph below, are set on the long and medium term, structuring all sectoral actions:

- **The intermediate targets for 2030** represent a key milestone: 50% reduction in local greenhouse gas emissions compared to 2004; 40% reduction in the territory's carbon footprint; 35% reduction in energy consumption; 45% renewable energy consumption, including 10% produced locally*. Carbon neutrality for Paris thus depends on reaching zero emissions locally as fast as possible.*

- **Targets in 2050**: Reduce the region's carbon footprint by 80% compared with 2004; make Paris a zero greenhouse gas-emitting area, reduce energy consumption by 50%, achieve 100% renewable energy consumption, including 20% produced locally. *Carbon neutrality for Paris thus depends on reducing its footprint emissions as much as possible, which is the current 80% target, and to develop local and regional compensation projects to offset the remaining consumption related emissions, which are currently expected to be an unavoidable 20% of 2004 baseline emissions (notably regarding air travel, which, under the current Parisian carbon neutrality pathway, is never expected to be fossil free and/or reaching 0 in flight numbers).*

Graph: Towards carbon neutrality in Paris



Source: Paris Climate Action Plan 2024-2030

Regarding adaptation, the City of Paris will define a trajectory for adapting to climate change by setting itself several objectives, including:

- 100% of Parisians within a 7-minute walk of a cool island, day or night, by 2030
- 40% greening of the territory by 2050
- 10m² of green space per inhabitant by 2040
- Reducing freshwater extraction by 15% by 2030 (compared to 2019)

To meet these challenges, the city intends to do things faster, more locally and more fairly:

Faster means, above all, stepping up our efforts. To achieve this, the City of Paris is mobilizing its entire administration, departments and staff, as well as all the players (residents, businesses, retailers, associations, etc.) in the Paris territory. With this 2024-2030 Climate Action Plan, Paris is driving a change of scale on municipal levers, questioning all activities that generate greenhouse gas emissions, and planning the exit from fossil fuels through energy sobriety and the deployment of renewable energies. Adapting Paris to the effects of climate change is also part of this acceleration imperative. The protection of residents, workers and all those who move around the city is at stake. For the first time, the Climate Action Plan defines an adaptation trajectory for Paris.

Going more local: actions to combat climate change must be implemented rapidly across the entire territory, in every district. For the first time, the Climate Action Plan is being rolled out locally, as part of a grassroots approach that is as close as possible to the day-to-day lives of Parisians. Each district has its own operational roadmap, based on its own priorities and in perfect harmony with actions undertaken in other areas, with the aim of making the district the benchmark for municipal action.

Make it fairer: Paris places social justice at the heart of its strategy to combat climate change. The climate crisis amplifies inequalities. Not all Parisians are affected by climate change in the same way: those who contribute the least are often those most impacted by its effects. For example, residents of Paris's working-class neighbourhoods are the most exposed to heat waves, air pollution and fuel poverty, summer and winter alike. With this Climate Action Plan, Paris is showing its determination to reduce poverty and enable everyone to live better in a low-carbon city adapted to climate change. These three priorities are at the heart of every action taken by the City of Paris to combat climate change.

The CCC Action Plan describes the strategy and the actions that Paris will put in place in order to achieve climate neutrality by reaching zero emissions locally and drastically reducing its footprint, all the while mobilizing all relevant stakeholders of the territory in this journey. The City of Paris will monitor and maximise its climate actions in order to ensure climate neutrality as early as possible.

Given its carbon footprint and its vulnerability to heat island effect, the City has developed sizable, structured, and ambitious climate action. Although many levers (notably fiscal and regulatory) are outside of municipal control, the City programmed key sectoral actions and subsidy programs (notably for private renovations and local renewable energy developments) alongside explicit positioning and advocacy programs targeting the main barriers (notably on State funding of local authorities, on taxation of e-commerce, on the patrimonial restrictions for buildings, and on international and national travel) to the quickest climate action.

1 Introduction

Components of the city's climate neutrality target

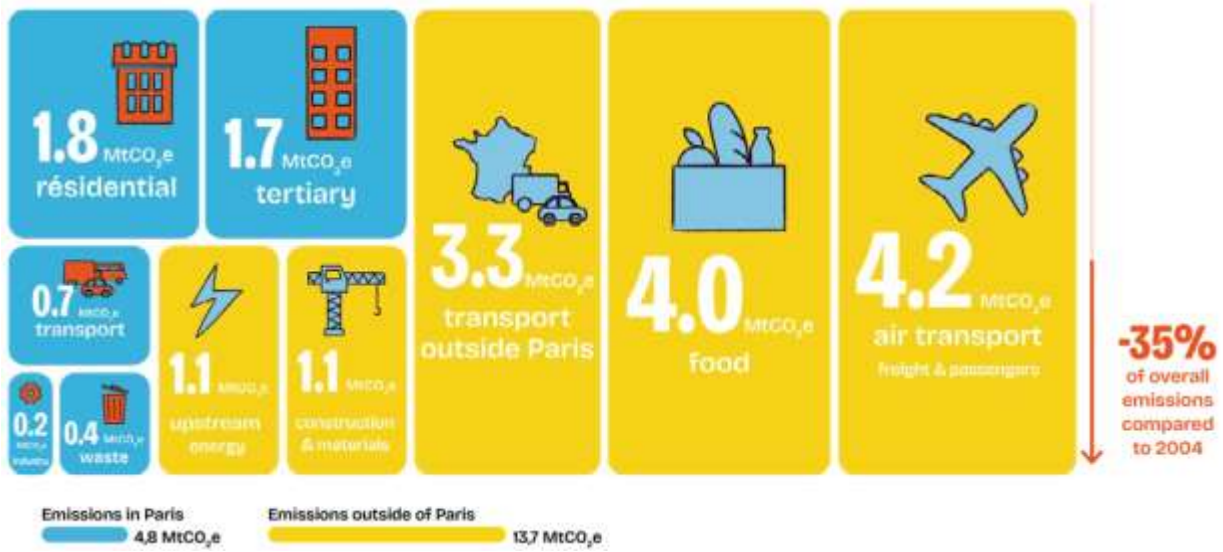
The official 2030 targets adopted by the council of Paris are a 40% reduction in carbon footprint and a 50% reduction in local greenhouse gas emissions compared to 2004. These targets were set on the basis of the diagnosis of current GHG emission & energy trends as well as a modelled carbon trajectory detailed below. Every single action of the Parisian Climate Action Plan is designed to set the conditions necessary for the achievement of these targets, considering the barriers the City faces and the technical and financial constraints to implement ecological transition.

Current GHG emissions

Paris' carbon footprint is estimated to be 18.5 million tons of CO2e (MtCO2e) in 2021, a reduction of 35% compared with 2004 – this significant decrease justifies Paris' decision to take the year 2004 as a baseline for its emission reduction trajectory, in order to value its past efforts. The City's first Climate Action Plan set the tone and the conditions for a continued and steadily increasing City wide climate policy, which resulted in the observed reduction of GHG emissions (and co-beneficially of air pollutants), notably by rethinking the role of cars and car-centric infrastructures within the City (of which, the requalification of the Seine roads as pedestrian axes is emblematic).

Paris's carbon footprint includes all greenhouse gas emissions generated by Paris, regardless of where they are emitted. Within the carbon footprint, a distinction is made between local emissions and induced emissions. Local emissions include all direct emissions generated by the area, i.e. energy consumption by residential, tertiary, agricultural and industrial buildings, transport of people and goods within the city limits, and the collection and processing of waste. They represent a volume of local emissions of 4.82 MtCO2e in 2021, a reduction of 36% from 2004. The share of local emissions (in blue in the graph below), at around 26% of the carbon footprint, is virtually constant compared with previous years. This means that ¾ of the emissions generated by Paris are emitted outside its territory.

Table: Paris Carbon Footprint in 2021



Source: Paris Climate Action Plan 2024-2030

According to the latest Parisian carbon accounting analysis, these GHG targets amount to the absolute emissions summarized in the table below (in M tCO_2e):

Table: Absolute targets of GHG reduction emissions in Paris

Paris local emissions in M tCO_2e	2004 Baseline	2014	2018	2021	-50% 2030 Target	-100% 2050 Target
Total	**7,42**	**5,96**	**5,28**	**4,82**	**3,74**	**0,10**

Paris Carbon footprint emissions in M tCO_2e (including local emissions)	2004	2014	2018	2021	-40% 2030 Target	-80% 2050 Target
Total	**28,35**	**25,57**	**22,63**	**18,54**	**17,01**	**5,67**

Source: Paris Climate Action Plan 2024-2030

Looking ahead to carbon neutrality

Projections for 2023 indicate a 31% decrease in the carbon footprint and a 42% decrease in local GHG emissions compared with 2004.

In terms of the carbon neutrality trajectory adopted by the 2018-2024 Paris Climate Action Plan, the trends are therefore favourable but remain fragile due to the heterogeneous results of the many players involved and the interdependence between them (collective, public, private, entrepreneurial or individual responsibilities). The next decade is crucial. The City will maximise its climate actions in order to ensure climate neutrality as early as possible, although many levers are outside of the Municipality control. This is precisely why the City of Paris integrates its climate strategy actions to foster change in impact beyond its regulatory control (via business networks like Paris Action Climat Biodiversité, via explicit raising-awareness programs or advocacy programs, for instance on increasing local climate funding, banning further fossil exploration or allowing more climate intelligent patrimonial laws).

To achieve carbon neutrality, **the City of Paris needs to reach zero emissions locally and to reduce its overall footprint by 80%** (compared with 2004), leaving 11,4 million tons of CO_2e to be fully compensated (and for which the City already developed an operator to foster local and regional voluntary offset projects, see below).

These targets stem from the carbon neutrality trajectory modelled by the City on the basis of its GHG accounting practices, considering the evolution of all sectoral GHG emissions, which includes energy consumption and sources, as well as mobility volumes and shares. This scenario informed some of the more structural sectoral targets of the Parisian Climate Action Plan (notably reaching an annual rate of 40 000 residential renovations by 2030, further pedestrianizing Paris and investing in cycling infrastructure to reach a 25% share of cycling within internal travel (compared to the 11% share observed in 2023), decreasing by 20% waste production compared to 2010 as well as reaching 60% valorization, reaching 75% renewables for the district heating by 2030 and 100% as quick as possible, and achieving 10% of locally produced renewable energy within consumption which implies a production increase of 500GWh compared to the 7% observed in 2022).

More precisely, local emissions are made up of the following sectors:

- **Buildings**: these are emissions generated by residential and commercial buildings in Paris. Most of these emissions are linked to the combustion of energy to heat these buildings. The official sectoral target is 1,40 Mt CO2e for the residential sector and 1,20 Mt CO2e for the tertiary sector by 2030, respectively representing -43 and -48% compared to 2004. These targets, as well as zero emissions, require the complete renovation of Paris, 75% of which was built before World War II.

- **Intramural transport**: this sector includes all road travel in Paris, on the ring road and on RATP and SNCF public transport (metro, bus, RER and tramway). These emissions are mainly due to the combustion of fuel by thermal vehicles. The official sectoral target is 0,68 Mt CO2e by 2030, representing -63% compared to the 2004 baseline. This target is completely dependent on further reducing the reliance on individual cars and increasing walkable space and the share of cycling. As a representation of that shift, the City notably aims to requalify half of public parking spaces, in order to broaden sidewalks, plant more vegetation, offer more bike infrastructures or install more low carbon mobility and logistics infrastructures.
- **Waste**: this sector covers emissions generated by the processing of the various types of waste collected in Paris. Most of these emissions are due to plastic waste. The official sectoral target is 0,35 Mt CO2e by 2030 representing -32% compared to 2004 and directly depending on a 20% reduction of waste volume compared to 2010 as well as a continued increase of re-use and repair shops and workshops. Whilst the City developed a network to ban single use plastics and exemplarily spearheaded the issue during the Olympics, it does not possess the regulatory tools outright to ban single use plastics from its territory (an issue we understood to be applicable to several Mission Cities, and which could therefore be a European subject of discussion). As part of its waste and circular economy policies, the City notably shall accompany private actors in the development of a local deposit, wash and return scheme for containers as well as warehouses to stock reusable furniture and building materials.
- **Industry**: this sector is the smallest contributor to Paris' local greenhouse gas emissions. Paris's industrial emissions correspond mainly to the city's energy production facilities, in particular the district heating and cooling networks. The official sectoral target is 0,11 Mt CO2e by 2030. This target relies on decarbonizing the district heating (75% by 2030) and strengthening the performance of the cooling network (which is already fully fossil free). These policies are fundamental to local decarbonization, as the projected energy trajectory of the building sector requires an increased reliance on these infrastructures.

The table below synthesizes these targets by sectors in absolute emissions:

Table: Paris sectoral target emissions reduction targets

Greenhouse gases

Paris local GHG emissions		2004 Baseline	2014	2018	2021	-50% 2030 Target	-100% 2050 Target
Buildings	Residential	2,50	2,10	1,94	1,76	1,40	0,00
	Tertiary	2,40	2,05	1,88	1,75	1,20	0,00
	Industry	0,20	0,10	0,16	0,18	0,11	0,00
	Subtotal	***5,10***	***4,24***	***3,98***	***3,68***	2,71	0,00
Transport		1,80	1,27	0,85	0,71	0,68	0,00
Waste		0,52	0,45	0,44	0,42	0,35	0,10
Total		**7,42**	**5,96**	**5,28**	**4,82**	3,74	0,10

Carbon footprint emissions (including the local GHG emissions)	2004	2014	2018	2021	-40% 2030 Target	-80% 2050 Target
Energy	6,15	5,15	4,86	4,5	3,69	1,23
Transport including air travel	15,48	13,74	11,99	8,54	9,29	3,1
Consumption including food	6,72	6,68	5,78	5,51	4,03	1,34
Total	**28,35**	**25,57**	**22,63**	**18,54**	17,01	5,67

Source: Paris Climate Action Plan 2024-2030

Achieving local emission reduction targets is a major challenge. The aim is to **reduce local emissions by more than 20% by 2030 compared with 2021, which is to say 50% compared to the Parisian baseline of 2004**. Aware of being in the crux of the most important decade for climate action, the City of Paris is stepping up and scaling up its efforts on the main municipal levers within its power for reducing greenhouse gas emissions: urban planning, building regulation and subsidies, and transport infrastructure and programs.

As outlined in the Parisian Expression of Interest for the Mission Cities program, the initial objectives of reaching climate neutrality by 2050 and reducing the carbon footprint by 40% by 2030 are maintained, though Paris uses the CCC and the associated impetus to accelerate its emissions reduction as much as possible.

Relationship between the CCC and other climate-related documents at the city

The two first sections of the CCC will be essentially based on the Paris Climate Action Plan, which has a 17-year history, is already politically endorsed, legally audited and administratively integrated. The City of Paris has also a long experience in identifying and engaging with stakeholders of the territory. Therefore, the CCC Commitment and Action Plan follow the same objectives as the Paris Climate Action Plan (validated by the Council of Paris and by French national authorities).
However, the CCC's framework has been used to enhance the Parisian Climate Action Plan on several aspects, notably via restructuring the document to present it in a more technical fashion as well as encouraging the administration to evaluate the carbon impacts and the financial costs and gains of each action. In these matters, the supports of the experts of EU mission « 100 climate neutral and smart cities by 2030 » was essential to further advance the climate work of the City.

As per the third piece, the CCC's Investment Plan allowed the City to precise its ambitions for each action and measure with the Financial Directorate the costs and benefits of those.

As outlined in the CCC's commitment, the Climate City Contract will be updated every 2 years, in correlation with the mid-term review of the Climate Action Plan. The ambition is to connect the Climate City Contract to the Climate Action Plan. According to the French law, a mid-term review is done after 3 years and a full update of the documents at least every six years, with new goals, ambitions and assignments.

Finally, as also outlined in the CCC Commitment, the process to elaborate the Climate Action Plan has integrated civil society from the start in late 2022.
The end of the year 2022 has seen a major concertation taking place in Paris, in order to gather all of the territorial actor's expertise and needs to build the 4th Climate Action Plan. Citizens, NGOs, private actors, social housing landlords, city's operators and independent experts were invited to share their ideas in more than 140 events organized in various formats, from the informal "climate walks" to the more formal professional round-table discussion. Institutional communication, both in the public space and online, facilitated a strong momentum and more than 1200 contributions. The conclusion of this concertation phase fed the Climate Action Plan draft: the first demands are to "reintroduce nature in the city", to "accelerate thermic renovation of residential buildings" and to "reduce the space given to car to multiply bike usage and further protect cycle tracks". More broadly, the climate change emergency appears as one of the first drivers of propositions, and much emphasis has been placed on acting faster and in a more local fashion. Further details are provided in the annex, in the "livre blanc de la concertation pour la revision du plan climat de Paris" document.
This process has deeply structured and fed the construction of the Parisian Climate Action Plan. Further, during this process covering all of 2023, a "guarantors committee" - body of experts, researchers and NGOs representatives - has ensured that these propositions remain at the core of the Climate Action Plan and that it meets the highest scientific standards – the image below details the members of this committee. A synthesis of the Climate Action Plan including a presentation of the committee is annexed to this document.

Key data on Paris: demographic, socio-economic, administrative and political context

To understand the relevance of the Climate Action Plan in its proper context, it is necessary to describe in a few words what Paris is from an economical and socio-political point of view.

Demographic & socio-economic

The official estimated population of the City of Paris on January 1, 2023 was 2,102,650, down from 2,165,423 on January 1, 2022, according to the INSEE, the official French statistical agency. According to this same agency, the population has dropped by about five percent, over the past decade. The Mayor of Paris, Anne Hidalgo, declared that this illustrated the "de-densification" of the city, creating more green space and less crowding. Despite the drop, Paris remains the most densely-populated city in Europe, with 252 residents per hectare, not counting parks. This drop was attributed partly to a lower birth rate, the departure of middle-class residents and the possible loss of housing in the city due to short-term rentals for tourism.

The economy of the City of Paris is based largely on services and commerce; of the 390,480 enterprises in the city, 80.6 percent are engaged in commerce, transportation, and diverse services, 6.5 percent in construction, and just 3.8 percent in industry. The story is similar in the Paris Region (Île-de-France): 76.7 percent of enterprises are engaged in commerce and services, and 3.4 percent in industry.

Roughly 60% of jobs in the Paris Region are in the market services (12.0% in wholesale and retail trade, 9.7% in professional, scientific, and technical services, 6.5% in information and communication, 6.5% in transportation and warehousing, 5.9% in finance and insurance, 5.8% in administrative and support services, 4.6% in accommodation and food services, and 8.5% in various other market services), 27% in non-market services (10.4% in human health and social work activities, 9.6% in public administration and defense, and 6.9% in education), 8.2% in manufacturing and utilities (6.6% in manufacturing and 1.5% in utilities), 5.2% in construction, and 0.2% in agriculture.

Administrative & political

The mayor of Paris is elected indirectly by Paris voters; the voters of each of the city's 17 arrondissements elect members to the Conseil de Paris (Council of Paris), which subsequently elects the mayor. The council is composed of 163 members, with each arrondissement allocated a number of seats dependent upon its population, from 10 members for each of the least-populated arrondissements to 34 members for the most populated. The council is elected using closed list proportional representation in a two-round system. Party

lists winning an absolute majority in the first round – or at least a plurality in the second round – automatically win half the seats of an arrondissement. The remaining half of seats are distributed proportionally to all lists which win at least 5% of the vote using the highest averages method. This ensures that the winning party or coalition always wins a majority of the seats, even if they do not win an absolute majority of the vote.

Prior to the 2020 Paris municipal election, each of Paris's (formerly) 20 arrondissements had its own town hall and a directly elected council (conseil d'arrondissement), which, in turn, elects an arrondissement mayor. The council of each arrondissement is composed of members of the Conseil de Paris and also members who serve only on the council of the arrondissement. The number of deputy mayors in each arrondissement varies depending upon its population. The creation of Paris Centre, a unified administrative division with a single mayor covering the first four arrondissements, took effect with the said 2020 election; the other 16 arrondissements continue to have their own mayors.

Table I-1.1: Climate Neutrality Target by 2030

Sectors	Scope 1	Scope 2	Scope 3
Stationary energy	Included	Included	N.A
	No exclusions	No exclusions	N.A
Transport	Included	Included	All emissions of transportation means entering and exiting Paris are included (including those on the ring road)
	No exclusions	No exclusions	No exclusions
Waste/wastewater	N.A	N.A	Included
	N.A	N.A	No exclusions
IPPU	Included	Included	This concerns mostly energy production units on the territory (urban heat network, cold network) and leaks from their climatisation systems
	No exclusions	No exclusions	The emissions of consumed goods by Parisian citizens are excluded as of 2021
AFOLU	Excluded	N.A	N.A
	Paris is exclusively composed of artificialized land – no significant emissions here	N.A	N.A
Other			Alimentation: the emissions caused by the food consumption of the 2,2 million Parisians and the 1,1 million daily workers are reported in our carbon footprint, for 4 $MtCO_2e$ in 2021 Air traffic count for around 4, 2 $MtCO_2e$ emissions in 2021.
Geographical boundary	**Larger than city administrative boundary**		

2 Part A – Current State of Climate Action

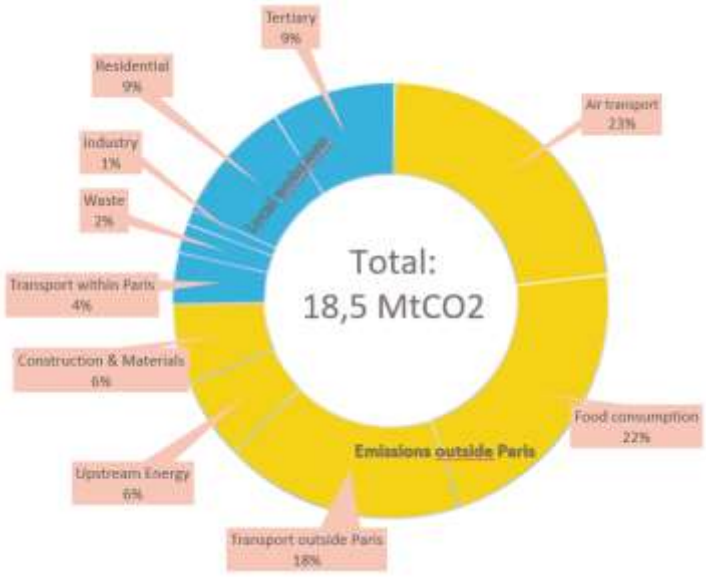
2.1 Module A-1 Greenhouse Gas Emissions Baseline Inventory

GhG Emissions Baseline inventory

Paris reports in carbon emission on a scope 1, 2 and 3 basis since 2004. We therefore use the Parisian carbon measurement methodology to report emissions in this document, unless stated otherwise.

In 2021, Paris' carbon footprint is 18.5 million tonnes of CO_2e ($MtCO_2e$) in 2021, a reduction of 35% compared with 2004.
Paris' carbon footprint includes all greenhouse gas emissions generated by the Paris area, regardless of where they are emitted – both 2030 and 2050 carbon neutrality targets encompass the same perimeter.
Within the carbon footprint, a distinction is made between local emissions, which include all direct emissions generated by the area, i.e. energy consumption by residential, tertiary, agricultural and industrial buildings, transport of people and goods within the city limits, and the collection and processing of waste. These so-called 'direct' emissions represent a volume of local emissions of 4.82 MtCO2e in 2021.
The share of local emissions (in dark blue in the graph below, corresponding to the mission cities / mission info kit GHG emission perimeter), at around 26% of the carbon footprint, is virtually constant compared with previous years. This means that ¾ of the emissions generated by Paris are outside its territory.

Graph: Paris' carbon footprint (2021)



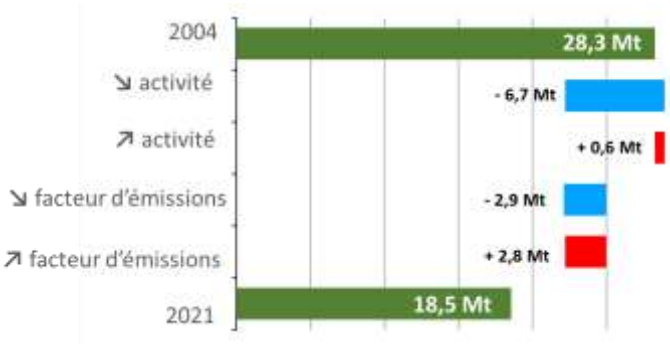
Source : Paris Climate Action Plan 2024-2030

The largest emitting sector of the carbon footprint is air transport (passengers and goods) with 23%. In 2018, before the COVID crisis, it accounted for 34%.
The second largest emitter is food, with 21%. The calculation takes into account both Parisians and people working in the city (and therefore consuming at least one meal on site).
The combined transport of people and freight (within and outside the city) accounts for 22% of the carbon footprint.
Energy consumption in residential, tertiary and industrial buildings (excluding upstream) accounts for 19% of the footprint.

Breakdown of gains and losses: activities and emissions factors 2004-2021

The reduction in carbon footprint emissions compared with 2004 is the result of both a reduction in the volumes consumed and a change in the associated emission factors.

Graph: Breakdown of gains and losses by activity and emissions factor 2004-2021



Source : Paris Climate Action Plan 2024-2030

The graph above shows that the gains and losses by emissions factor offset each other. Among the notable increases in emission factors are those for regional trains (TER) and road freight (bearing in mind that there was a change in methodology between 2004 and the more recent carbon balances). Among the decreases in emission factors are the manufacture of certain metals, waste treatment, rail freight, the Paris heating network, the national electricity mix with an increase in renewable energies, and car park tarmac. Developments in vehicle engines are mainly to be found in passenger travel.
The carbon intensity of the energy consumed by Parisians fell between 2004 and 2021, with a real shift from high-carbon energies (gas, fuel oil and thermal cars) to lower-carbon energies (urban networks, electricity and public transport). Increases in activity are reflected in the number of meals eaten by Parisian workers (those of the general population are falling), in construction (buildings and roads) and in greater use of public rail transport (Transilien, metro, RER, etc.). Reductions in activity can be seen in the reduction in km for road and air freight (due in particular to the impact of the COVID crisis, which is still with us) and in the movement of people by road (car, bus). Energy consumption also fell sharply, with a few exceptions: an increase in gas consumption in the industrial and tertiary sectors, and a rise in consumption by the cooling network in the tertiary sector.
The reduction in the quantity of waste per Parisian should be noted, as should the improvement in the use of sorting and energy recovery.

The methodology used to measure Paris' carbon footprint and therefore to set its climate targets differs from that of the mission info kit for cities; we however add here, for further information, Paris' carbon footprint in the GPC format, the same with which the CCC's investment plan was constructed. The reader is to note, however, that all emission reporting and all target setting is indeed conducted with Paris' methodology based on Bilan Carbone®, and not with GPC's methodology and format.

The complete CDP reporting, realised in GPC format, is annexed to this document for further information.

A-1.1: Greenhouse gases emissions (CCC investment plan format ; 2021)		
Total greenhouse emissions (GHG)		
Total emissions (scope 1 & scope 2; scope 3 only for waste disposed of outside city boundaries)	5 445	ktonco2 eq / year
Emissions from road transportation		
Total emissions from road transport	843	ktonco2 eq / year
Passenger cars + motorcycles	704	ktonco2 eq / year

Light duty trucks <3.5 tonne	8	ktonco2 eq / year
Heavy duty trucks >3.5 tonne	41	ktonco2 eq / year
Buses	90	ktonco2 eq / year
Other motorized transport	-	
Emissions from buildings & heating	3 471	ktonco2 eq / year
Heating & hot water	3 065	ktonco2 eq / year
Cooling	3	ktonco2 eq / year
Other building-related emissions	403	ktonco2 eq / year
Emissions from electricity		
Total emissions from electricity demand	732	ktonco2 eq / year
Buildings	710	ktonco2 eq / year
Other	22	ktonco2 eq / year
Emissions from waste (including waste disposed of outside of city boundaries)	397	ktonco2 eq / year
Incineration of waste	360	ktonco2 eq / year
Organic decay (waste)	4	ktonco2 eq / year
Landfill gas	30	ktonco2 eq / year
Other waste management	2	ktonco2 eq / year
	-	
Emissions from other sectors	1	ktonco2 eq / year
Industry (IPPU)	0,7	ktonco2 eq / year
Agriculture (AFOLU)	0,5	ktonco2 eq / year
Other sources	0	ktonco2 eq / year

A-1.1bis: Greenhouse gases emissions (GPC basic + format)			
Base year	2021		
Unit	Tons CO_2eq in 2021		
Total greenhouse emissions (GHG)	Scope 1	Scope 2	Scope 3
Stationary emissions	2 352 616		1 184 584
Transportation	866 602		296 272
Waste			
Industrial processes	741		
AFOLU	-11 000		
Other scope 3	2 352 616		1 184 584
All	**11 157 212**		

A-1.2: Emission factors applied

Following the national methodology (upstream & combustion), all values are expressed in kgCO2e/kWh or kWh PCI				
Primary energy/ energy source	Carbon Dioxide (CO_2)	Methane (CH_4)	Nitrous Oxide (N_2O)	Other gases
Gaz naturel	0.211	0.003	0.0007	0.01
Fioul domestique	0.0323	0.002	0.001	0
GNL	0.238	0.014	0.002	0
CPCU *(excluding the additional 10% onine loss)*	0.161	0	0	0
Réseau climespace *(excluding the additional 10% onine loss)*	0.007	0	0	0
Electricité *(excluding the additional X% online loss)*	0.055	0	0	0

As a reminder, three distinct climate inventories are contained or annexed in the CCC:

- The Paris carbon footprint, estimated with Paris' own methodology based on and conforming to the French standardized Bilan Carbone®, (the inventory in which Paris bases all its strategies and targets);
- The Mission cities inventory realised with the help of the mission city's expert;
- The CDP inventory which is also reported "for information".

For more detail on Paris's accounting practices: as a climate policy tool, it is central to the City's climate strategy and evaluation of its impacts. The main source of marginal variations are the potential evolutions of the national emission factors database (Base Empreinte), updated regularly to improve the reliability of French GHG inventories. The standardized "Bilan Carbone®" is used all throughout France and requiring accredited professionals. The City agents conducting the inventories are trained and accredited. Despite its name, the "Bilan Carbone®" focuses on all GHG Protocol greenhouse gases, expressed in CO_2 equivalent.

The City conducts internally the local emissions inventory, crossing the national emission factors with sourced data (raw and modelled). The publishing of its yearly inventory involves an external auditing (last of which occurred in 2019) to certify results. The inventory is also studied and audited by the CDP (Carbon Disclosure Project) which assesses its ambition and trajectory given Paris's carbon neutrality pathway, as well as peer performances. All data is kept and compiled and the City upkeeps a yearly internal note to follow any emission factor or proxy update, as well as their potential influence on their respective emission sectors

The City also reports its footprint (local emissions and induced emissions) following the GHG Protocol for Community-Scale GHG Emission Inventories (GPC), a recognized standard developed in 2014 by the World Resource Institute, ICLEI – Local Governments for Sustainability and the C40 Cities Climate Leadership Group. The City makes use of GPC's CIRIS tool.

2.2 Module A-2 Current Policies and Strategies Assessment

A-2.1: Description & assessment of policies

Current climate plans and regulations at the national and local level

The redaction of French regulatory climate action plans (PCAET) is overseen by the French Environmental Code, in particular articles L229-26 and R229-51 to R229-56, in order to make it a truly operational tool for implementing and coordinating the energy transition in the territory, with the aim of reducing greenhouse gas emissions in the area (mitigation) and preparing the area to adapt to climate change (adaptation).
The decree specifies their content:
- a diagnosis including:
    - an estimate of greenhouse gas emissions and atmospheric pollutants, together with an analysis of the potential for reducing them,
    - an estimate of net carbon dioxide sequestration and its development potential
    - an analysis of the territory's final energy consumption and the potential for reducing it
    - a presentation of energy distribution and transport networks and development options
    - a review of renewable energy production in the region and existing potential by sector
    - an analysis of the region's vulnerability to climate change.
- Establishment of a territorial strategy defining the local authority's priorities and objectives, as well as the socio-economic consequences.
- Drawing up and implementing an action programme for the local authority and local stakeholders. This action program defines the actions to be implemented by the local authorities concerned and all the socio-economic players, including communication, awareness-raising and promotion initiatives aimed at the various publics and players involved.
It identifies unifying projects, specifies the resources to be deployed, the target audiences, the desired partnerships and the expected results for the main actions envisaged.

Current climate action plans and regulations in Paris

Paris has been taking ambitious action on climate change for over 20 years. As early as 2004, the City of Paris made a clear diagnosis of its share of responsibility for climate change, by carrying out an initial assessment of the greenhouse gas emissions and energy consumption of its administration and the Paris region. In this respect, 2004 remains the reference year for the City's climate Action Plans, both for "local emissions", which take into account direct emissions from the Parisian territory, and for its "carbon footprint", which takes into account local emissions plus emissions linked to the lifestyles and consumption patterns of the territory's inhabitants and users, but which are emitted outside Paris (for example, emissions linked to the production of food or manufactured goods consumed in Paris).
Since 2007, when it adopted its first Climate Action Plan, before it was legally obliged to do so, Paris has had a clear roadmap for combating climate change. This framework document is both a strategic and operational planning tool, addressing the whole range of air-energy-climate issues in the area. It defines objectives and measures for reducing greenhouse gas emissions, adapting to climate change, achieving energy sobriety, improving air quality and developing renewable energies.
In 2012, the City of Paris strengthened the operational dimension of its Climate Action Plan, adopting objectives for each major sector (housing, transport, waste) and committing all its municipal policies to a global strategy to combat climate change. As the City is only directly responsible for 5% of the territory’s greenhouse gas emissions, the second Climate Action Plan sought to mobilize all those who live, work or pass through the area to take up the climate challenge. It was also at this time that Paris began to anticipate the effects of global warming on its territory. An initial diagnosis of the area's vulnerabilities and robustness revealed that Paris is a fairly robust city in the face of climatic hazards and dwindling resources, despite vulnerabilities relating to heatwaves, flooding, biodiversity erosion and water resources.
Paris' ambition for the climate took on a new dimension at COP21, hosted by France in 2015, culminating in the adoption of the Paris Agreement by the international community. The third Climate Action Plan (2018-2024), unanimously adopted by the Paris Council in March 2018 and supported by

95% of Parisians in a citizens' vote, thus transposed the objectives of the UN Accord to the Parisian scale, putting Paris on the path to carbon neutrality and 100% renewable energy consumption. At the same time, the issue of improving air quality was integrated into the Climate Action Plan.
Finally, the Parisian Climate Action Plan included all the dimensions of the ecological transition in its strategic objectives and action planning, not only by gathering all strategies into one document but also by pushing further the ambition of several targets and completing the measures where they were insufficient. All the following strategies therefore feed into the Climate Action Plan:

- Climate change adaptation strategy
- Resilience strategy
- Travel plan for Parisian administrations
- Bioclimatic land use plan

- Cycling plan
- Air quality improvement plan
- Environmental noise prevention plan
- Noise environment improvement plan
- Paris Health and Environment Plan
- Mobile telephony charter
- Charter for sustainable urban logistics
- Paris Pedestrian Strategy

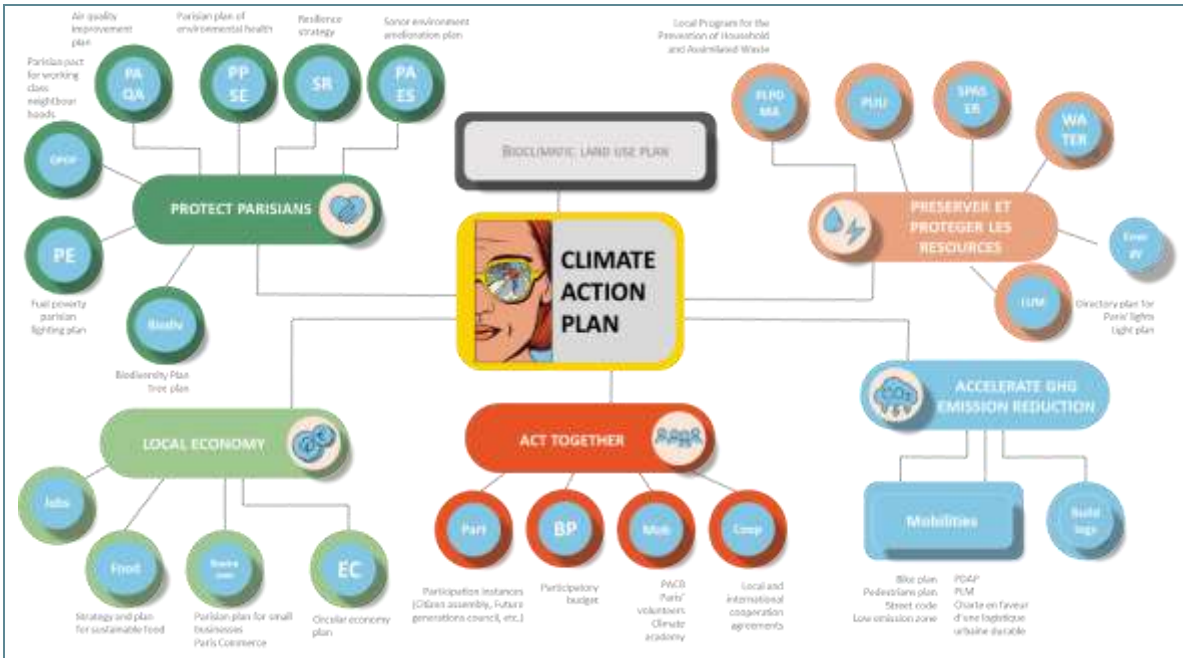
- Biodiversity plan
- Urban animal strategy
- Green and blue network plan (Nature trails)
- Tree Plan/ Charter of 10 commitments
- Action plan to improve water quality in the Seine (PAQES)
- Paris Rain Plan

- Parisian scheme for responsible public procurement
- Sustainable food strategy
- Sustainable food plan
- Plan to phase out the use of plastics in Parisian collective catering
- Action plan to phase out single-use plastics 2022-2024
- Local programme for the prevention of household and similar waste
- Contract of objectives with SYCTOM
- Compost plan
- Zero waste strategy
- Plan to combat food waste
- Circular economy plan
- Paris Manufacturing Plan

- First Parisian programme to combat fuel poverty
- Energy efficiency plan

- Responsible digital strategy

The following schema will allow the reader to better understand the links between the various Parisians environmental strategy plans.



Source : Paris Climate Action Plan 2024-2030

However, Paris city's actions alone are insufficient to bring the territory towards carbon neutrality by 2030, and the City formulates a plea both at the national and European level to adapt the legal framework and enhance the financing flows contributing to carbon neutrality.

Most notably, the city advocates for more ambitious regulations in order to reduce the traffic caused by the most polluting thermic vehicles (low emission zones, air traffic reduction) and the financing of a clean vehicle purchase (« aides à la conversion des véhicules ») and train, notably night train, lines. It also advocates to augment the financing flows associated by the thermic renovation's obligations (« decret tertiaire », « MaPrimeRénov »…) and the financing of low emission boilers (« aide à la conversion des chaudières »).

<u>Current climate plans and regulation in France and in Europe</u>

List of the main framework documents influencing the City of Paris carbon strategy (non-exhaustive list from a legislative and regulatory sources):

At the European level:

- The green deal is the roadmap towards carbon neutrality for Europe in 2050. Accompanied by the "Fit for fifty-five" climate package: 55% reduction in greenhouse gas emissions by 2030 compared to 1990 levels (compared with -40% previously), it notably includes:
  - Introducing a carbon tax at borders,
  - An action plan for the circular economy
  - The development of a European climate law
- The European agreement on the end of thermic motorization enacts the ban on the sale of diesel-powered vehicles, petrol or hybrid vehicles in 2035.

At the national level:

- The law "énergie climat" of the 8th of November 2019 aims to respond to the ecological and climate emergency. It enshrines this urgency in the Energy Code, as well as the objective of achieving carbon neutrality by 2050, by dividing greenhouse gas emissions by at least six by that date. The main objectives include:
  - a 40% reduction in fossil fuel consumption - compared with 2012 levels - by 2030
  - (compared with 30% previously);

    - To end coal-fired electricity generation by 2022
    - To renovate 'heating flats', i.e. class F and G homes, by 2029
    - The establishment of the High Council for the Climate
- The national low carbon strategy sets the national goal of carbon neutrality by 2050 as well as sectoral carbon neutrality targets and associated carbon budgets. It is revised every 5 years.
- The pluri-annual energy programming (PPE) expresses the guidelines and priorities for action for the management of all forms of energy in mainland France, in order to achieve the objectives of the energy policy defined in the Energy Code (art. L 100-1, L 100-2 and L 100-4). The PPE must be compatible with the objectives for reducing greenhouse gas emissions set by carbon budgets, particularly for the energy sector, as well as with the National Low-Carbon strategy (SNBC). It covers 2 successive 5-year periods. PPE1: 2016-2023, PPE2: 2019-2028 was approved on 21/04/2020. PPE 3 will cover the period 2024-2033.
- The Mobility Orientation Act (LOM) of the 24th of December 2019 radically reforms the general framework of mobility policies, integrating environmental issues. Drawn up following the national conference on mobility, it has four objectives: to move away from car dependency, accelerate the growth of new forms of mobility, make a success of the ecological transition, and invest in public transport. The measures include:
    - To reach carbon-neutral land transport by 2050
    - To triple the modal share of cycling by 2024
    - To introduce a sustainable mobility package (increased by the Climate and Resilience Act)
    - Aim to increase the number of public charging points fivefold by 2022
    - To introduce possible low-emission zones (ZFE)
    - Refocus rail investment on everyday journeys.
- The law "climat et resilience" of the 22nd of august 2021 translates part of the 146 proposals of the Citizens' Climate Convention to reduce greenhouse gas emissions by 40% by 2030, in a spirit of social justice. It enshrines the obligation to respect the European commitment to reduce emissions by 55% by 2030 compared with 1990 levels. The measures include:
    - Environmental label, development of bulk sales with the obligation by 2030 for large retailers to devote 20% of their floor space to bulk sales
    - Additions to the LOM law, with the creation of low-emission zones (ZFE) in agglomerations of more than 150,000 inhabitants by the end of 2024, a ban on domestic flights when there is an alternative train journey of less than 2.5 hours, an end to the sale of the most polluting new cars (emitting more than 95gCO2/km) by 2030 and the most polluting new HGVs buses and coaches in 2040.
    - Speeding up the renovation of heating flats.
    - Enshrining the principle of Zero Net Artificialisation in the territories by 2050.
- The law of renewable energy acceleration of the 10th of March 2023 aims to speed up procedures, free up the necessary land (e.g. car parks, derelict land, motorway verges, etc.), speed up offshore wind power and improve the financing of renewable energy projects.

Climate targets and emission gaps

As outlined in the introduction, the climate objectives of Paris are manifold.

Those in 2050: Reduce Paris' carbon footprint by 80% compared with 2004; make Paris a zero greenhouse gas-emitting City, reduce energy consumption in the territory by 50%, achieve 100% renewable energy consumption, including 20% produced locally;

The intermediate targets for 2030, which represent a key milestone: 50% reduction in local greenhouse gas emissions compared to 2004; 40% reduction in the territory's carbon footprint; 35% reduction in energy consumption; 45% renewable energy consumption, including 10% produced locally.

To manage its carbon trajectory, the City of Paris has chosen to take into account all the greenhouse gases generated by the territory, its inhabitants and users, whatever their source of emissions. Paris' greenhouse gas emissions are therefore made up of :

- **Local emissions**, which include all direct emissions from Paris, within the territory. In 2021, they represented 4.7 million tonnes of CO_2e, 36% less than in 2004.
- **The carbon footprint**, which includes local emissions plus emissions generated outside the area, such as those caused by the aircraft used by Parisians for travel, food and the energy used to produce the products consumed in Paris. In 2021, Paris's carbon footprint amounted to 18.4 million tonnes of CO2e, decreasing by 35% from 2004.

Paris is one of the few cities in the world to consider the carbon footprint of its territory, accounting for emissions from air traffic and the food consumed by its residents.
To achieve carbon neutrality, **the City of Paris has set itself the target of reducing its local emissions to zero** by 2050**, and by 50% by 2030** (compared with 2004) to reach 3.7 million tonnes of CO_2e. Its overall carbon footprint has to be reduced by 80%, the intermediary target being 40% by 2030 – the remaining 20% of GHG emissions left compared to the 2004 baseline are to be offset (see below)

Main local emission targets.
As outlined above, local emissions are made up of the buildings, transport, waste and industry sectors. Below are the main climate targets the City sets out for each of these sectors:

- **Buildings**: these are emissions generated by residential and commercial buildings in Paris. Paris is unique in that its tertiary sector is equivalent to its residential sector, emitting 1.8 and 1.7 million tonnes of CO_2e in 2021, i.e. around 30% less than in 2004. Most of these emissions are linked to the combustion of energy to heat these buildings.
    - For **residential buildings,** the target is to reach 1.4 $MtCO_2e$ by 2030, equivalent to a 43% reduction compared to 2004.
    - For **tertiary buildings,** the target is to reach 1.2 $MtCO_2e$ by 2030, equivalent to a 48% reduction compared to 2004.

      In order to meet these GHG targets, the City set out the following objectives:
      - Strengthening its private renovation subsidy scheme (“Eco-rénovons Paris+”) in order to ensure a pace of renovation reaching 40 000 homes a year by 2030, which represents almost 3% of all homes each year (the estimated required pace to fully renovate Paris as quick as possible within the current market’s capacity to follow). A specific program is developed to accompany the conversion of the remaining fuel-oil boilers (estimated to be 3 to 4% of the overall local energy demand). In order to further incite Parisians, the City will also exonerate renovating homeowners of 3 years of property tax.
      - Maintaining a rate of 5 000 social homes renovated a year to ensure the reduction of energy demand with performance gains of 60% and the change of heating systems. Comparably to “Eco-rénovons Paris+”, thermal renovations are conducted with an alertness for adaptation solutions (blinds, vegetation, passive cooling, etc…), given the opportunity and the close-knit synergy between thermal comfort and performance. This objective is linked to a broader policy goal of furthering the share of public housing in order to reach 40% of public housing by 2035, thus serving as a sustained lever for renovation and rehabilitation.
      - Following the local application of the “tertiary decree”, the national regulation imposing tertiary buildings to reduce their energy consumption of 40% by 2030 and 60% by 2050, and therefore, being completely exemplary with City assets and completely renovating municipal buildings, all the while developing and applying a sobriety strategy which should account for 15% of energy consumption decrease. This objective prioritizes adaptation concerns and focuses the targets on renovating 30 schools and 10 kindergartens annually as well as ensuring that all senior homes are renovated by 2027.
- **Intramural transport**: this sector includes all road travel in Paris, on the ring road and on RATP and SNCF public transport (metro, bus, RER and tramway). In 2021, this sector

emitted 0.7 $MtCO_2e$, 61.7% less than in 2004. These emissions are mainly due to the combustion of fuel by thermal vehicles. The target for 2030 is 0.68 $MtCO_2e$, 63% less than in 2004.

In order to meet these GHG targets, the City set out to further reduce inner city road traffic with the aim of cutting by half its energy consumption as soon as possible This implies:

- furthering of pedestrianization policies, setting the aim of increasing walkable surface by 100ha from 2024 to 2030; notably by converting half of all public parking by 2030 into sidewalks or vegetation, closing roads to create walkable hearts for the 20 districts of Paris, creating a limited traffic area within the City center (enforced since November 2023) and developing more cool islands and adaptation techniques (+170 000 trees from 2020 to 2026, +40 shade installations annually from 2024 to 2030, generalizing oasis plazas that create a denser grid of cool islands with water fountains, shade and vegetation) to ensure that Paris remains as walkable as possible during hotter periods.
- furthering bike infrastructures, lanes and parking solutions, and sensitization to reach 25% of inner transport by bike by 2050 (11% in 2023), the current bike plan (2020-2026) set out to create 180 km of lanes and to generalize bidirectional roads for cycling (bike corridors within one-way roads) representing 450 km of added linear lanes. The next bike plan shall be elaborated for 2027 in order to take into account the ambitious goal of reaching 25% of inner transport share, further tackling levers of upscaling the bikability of Paris (widening infrastructures, strengthening the existing network of repair shops and solutions, further tackling safety of infrastructures, amongst other solutions already identified within the current plan)
- increase the reliability and the decarbonization of collective transport, notably by ensuring the accessibility of all bus stops by 2030, financially supporting the complete decarbonization of the bus fleet, financially supporting the accessibility renovations of metro infrastructures (undertaken by the Region controlled operator “Ile de France Mobilités”, in charge of metro, train and bus exploitation), supporting the extension of the network and the frequency of trains, as well as pleading for a decrease in fares, taking position against current policies. The City shall continue to run “Traverses”, lighter neighbourhood electric shuttles primarily aimed to facilitate small distance travel for populations with mobility issues (disabilities, age, etc…).
- further supporting clean logistics, by providing 50 more intermediate low carbon warehouse solutions, creating 1000 more delivery areas and 2000 more cargo bike delivery areas and continuing the support provided for the bike delivery workforce, notably the “maison des coursiers”, providing rest areas and social council for workers.
- last but not least, the City shall continue to accompany the electrification of vehicles, by further developing the public charging station networks, converting the remaining gas station into charging stations, by offering charging solutions for boats, by imposing new developments to install clean mobility and electric solutions, all of which shall be mapped by a local evolution of the mobility plan. Also, the City shall continue the complete decarbonization of its own municipal fleet aiming to be fossil free by 2030, reducing its size, converting completely to electric for smaller vehicles and relying on biogas for bigger trucks (notably garbage trucks) until electric solutions are suitable to phase away from biogas.

- **Waste**: this sector covers emissions generated by the processing of the various types of waste collected in Paris. Every day, almost 3,000 tonnes are collected from the streets of Paris. In 2021, this sector represented 0.4 $MtCO_2e$, down 21.9% on 2004. Most of these emissions are due to plastic waste. By 2030, the target is to reach 0.35 million tonnes of CO_2e, i.e. 32% less waste-related emissions than in 2004.

  In order to meet these GHG targets, the City set out the following objectives:

  - decrease produced waste by 20% from 2010 to 2030, notably by supporting local circular economy actors and increasing their visibility, through a local label and an online portal. Textile and electronics upcycling shall be increased by supporting the opening of repair shops and accompanying existing upcycling actors in their capacity development. The City shall also develop supporting infrastructures for these actors, including warehouse solutions for furniture and construction material and by opening

for “ressourceries” (local community recycling and repair shops, taking in donation of objects as well as providing for tools and trainings in upcycling) to reach 30 Parisian ressourceries by 2030.
- furthering, within its own scale, the City’s plastic reduction strategy, notably developing a network of private actors engaged in the ban of single use plastics. The City shall work on the local development of deposit systems for commerce and restaurants with the objective to reduce by half the quantity of packaging waste, which would represent a decrease of 5 500 tons by 2030.

- **Industry**: this sector is the smallest contributor to Paris' greenhouse gas emissions. In 2021, it represented 0.18 million tonnes of CO_2e, 12.4% less than in 2004. Paris's industrial emissions correspond mainly to the city's energy production facilities, in particular the district heating and cooling networks. By 2030, the objective is to reach 0.11 $MtCO_2e$, i.e. 43% less than in 2004.

  In order to meet these GHG targets, the City set out the following objectives:
  - ensure the accelerated decarbonization of the district heat network (which is City owned, but privately operated), in order to reach at least 75% of renewables within its consumption by 2030, ensuring a reliable source of renewable heat within the City.

Evaluation of GHG impacts action by action

The following evaluations are based on the tools provided by Net Zero Cities to the City of Paris. As explained above, the City elaborated its plan on its own environmental diagnostic and GHG-energy scenario. Groupings of actions are therefore linked to overall GHG conditioning targets (energy consumptions, energy sources, mobility volumes and shares, waste production and composition…). Most actions therefore cannot be quantified as far as their individual GHG impacts. The following results are therefore mentioned for information and comparability, but do not represent the overall impact of the full application of the 2024-2030 Parisian Climate Action Plan.

In terms of emission gaps, several actions included in the Climate Action Plan were evaluated in order to measure if the 2030 objectives, both on local emissions and carbon footprint, are to be realised under the application of current policies. Taken altogether, 9 evaluated measures allowed for a 1,21 $MtCO_2e$ reduction from 2021 to 2030. The bridging of the gap will rely on the remaining 400 Climate Action Plan measures that were not evaluated in this exercise, chief among those being sensitization measures leading to change in diets and airplane travels frequency, advocacy measures favouring the development of green mobility and construction, or the invaluable yet structuring measures such as the land use plan enforcement that will strongly impact the carbon emissions of urban planning projects.

The financial cost of the implementation of these measures, both at the city administrative and territorial level, is currently under evaluation in the city of Paris’ departments, and will be reported in the associated CCC investment plan.

Table: Carbon impact of Climate Plan Actions by 2030

Sector	Action name	Emission reduction (2021-2030) in $MtCO_2e$
Buildings	75% Renewable energy in the urban heating network	0.35
Transport	50% traffic reduction	0.24
Buildings	Respect of the « décret tiertiaire » legislation	0.18
Buildings	Private and public housing renovation plan	0.16
Buildings	Financing of the fuel-oil boilers transition	0.12
Transport	Partial conversion of the bus fleet to green motorization	0.06
Buildings	+500GWh of renewable energy	0.04
Waste	-15% of waste	0.04
Food	Reach 60% of vegetarian menus in public restauration	0.02
	Total	1.21 $MtCO_2e$

Source: Paris Climate Action Plan 2024-2030

In order to evaluate if the carbon trajectory will be respected, we produce below the BAU emissions and projected emissions of the territory. This exercise is realised with two methodologies. First, the model

realised with the help of the mission cities experts, with therefore slightly different assumptions and results than the city's model; second, with the city's own model and methodology.

Mission cities methodology

GHG Emissions by Source Sector - Baseline Year					
Base year	2019				
Unit	tCO_2 equivalent/year				
	Scope 1	**Scope 2**	**Scope 3**	**Total**	**% of Total**
Transport	783748			783748	14%
Buildings & Heating	3401778			3401778	62%
Electricity		732613		732613	13%
Waste*			523123	523123	10%
Other (incl. IPPU & AFOLU)	3420			3420	0%
Total	4188946	732613	523123	5444681	100%

GHG Emissions by Source Sector - Business as Usual (BAU) 2030					
Base year	BAU 2030				
Unit	tCO_2 equivalent/year				
	Scope 1	**Scope 2**	**Scope 3**	**Total**	**% of Total**
Transport	521830			521830	11%
Buildings & Heating	3172016			3172016	70%
Electricity		688032		688032	15%
Waste*			171329	171329	4%
Other (incl. IPPU & AFOLU)	3420			3420	0%
Total	3697266	688032	171329	4556628	100%

** Includes Scope 1 Waste emissions (produced and processed in the city) and Scope 3 (produced by the city but processed outside the city border) - solid waste only; wastewater falls under "Other" sector*

Emissions Gap (kt CO2e)

	Baseline Emissions (BAU 2030)	Emissions Reduction Resulting from CNAP		Remaining Emissions		Residual Emissions Offsetting[1]		Emissions Gap (amount necessary to achieve net-zero)	
	(Absolute value)	(Absolute value)	(% of BAU 2030)	(Absolute value)	(% of BAU 2030)	(Absolute value)	(% of BAU 2030)	(Absolute value)	(% of BAU 2030)
Transport	522	290	55%	232	45%	104	20%	128	25%
Buildings & Heating	3172	1034	33%	2 138	67%	634	20%	1504	47%
Electricity	688	297	43%	391	57%	138	20%	254	37%
Waste	171	71	42%	100	58%	34	20%	66	38%
Other (incl. IPPU & AFOLU)[2]	3	0	13%	3	87%	1	20%	2	67%
Total	4557	1691	37%	2 865	63%	911	20%	1954	43%

[1] Residual emissions consist of those emissions which can't be reduced through climate action and are being offset to attain carbon neutrality. Residual emissions offsetting may amount to a maximum of 20 % as stated by the Mission Info Kit. Within the case of Paris, the ambition is to offset the residual 20% of outside emissions (mainly air travel), that remain after decreasing the footprint by 80% and local emissions by 100% by 2050.

As explained in further details below, Paris has developed a sequestration strategy and incentivizes stakeholders of the territory to offset their emissions. Some companies and indiviudals already offset their emissions throught the voluntary carbon market. The objective of Paris is to reach climate neutrality with the emphasis being put on the commitment to reach zero emissions locally as quick as possible and to reduce the overall carbon footprint by 80% by 2050, compared to 2004. This timeline is set considering the technical constraints and barriers that Paris faces and will try to overcome with the support of the EU Mission Cities.

Establishing a carbon budget

In addition to mapping emissions in its annual greenhouse gas balance sheet, the City of Paris has decided to equip itself with a tool to steer its climate policy in order to objectify the efforts expected in each sector and align municipal action with the decarbonization trajectory.

This is why the City of Paris is introducing a Parisian carbon budget from 2024, defining the maximum quantity of greenhouse gases that can be emitted each year by the territory in order to remain on the decarbonization trajectory. Established for 6-year periods, the carbon budget will enable each term of mandate to set concrete targets for the sectors that contribute to local greenhouse gas emissions: residential, tertiary, industry, transport and waste.

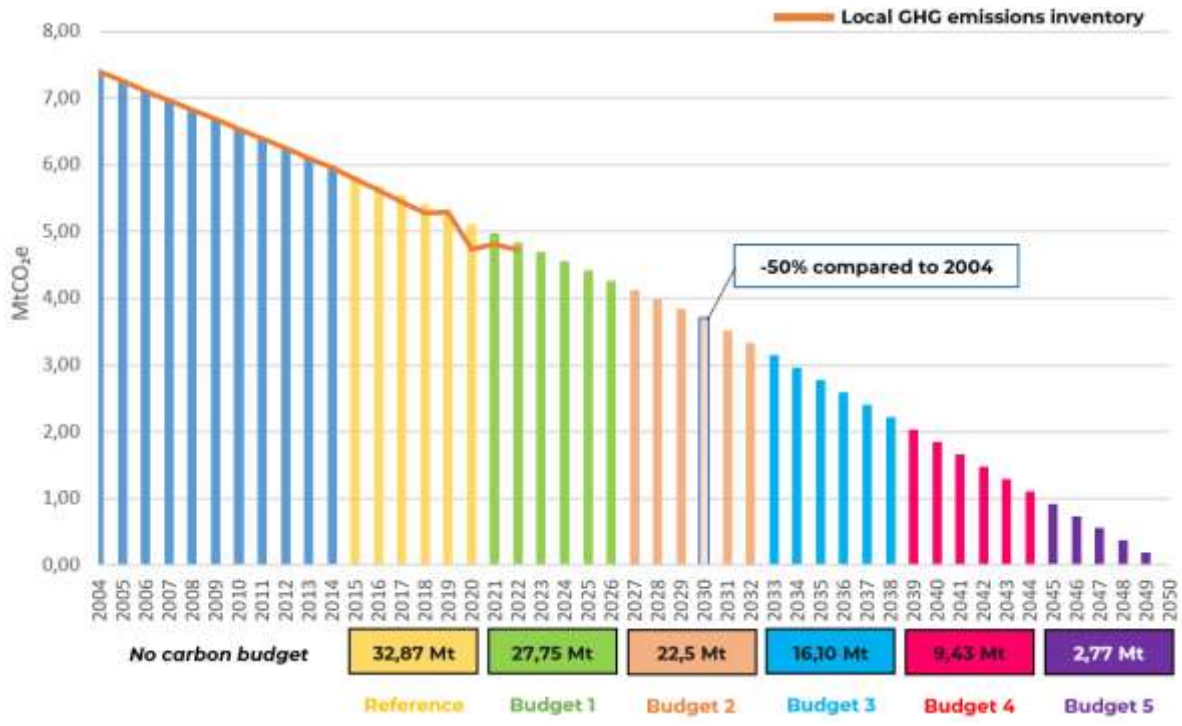
While the City has always considered the territory's entire carbon footprint in its thinking and public policies, it is on this local perimeter that it has the most direct and effective levers for action.

Each year, the Bilan Carbone® assessment will enable us to measure the proportion of the budget consumed, the efforts required to stay within the pre-established envelope, and to sound the alarm in the event of overruns.

This carbon budget is drawn up on a territorial scale, to mobilize all players, but also on a Parisian administration scale, to optimize the management of Parisian public policies.

The current budget for the period 2021-2026 stands at 27.75 Mt CO2e, a 16% reduction on the previous reference budget 2015-2020. Between 2024 and 2026, the estimated amount not to be exceeded is 13.23 Mt CO2e, or 48% of the budget for the current period.

Graph: Paris' carbon budgets for carbon neutrality



Source : Paris Climate Action Plan 2024-2030

Offsetting and sequestration actions

To achieve carbon neutrality, the City of Paris needs to reach zero emissions locally, which means acelerating efforts to reduce local emissions, increasing carbon sequestration and offsetting residual emissions that will remain despite reduction efforts.

Due to its urban nature, Paris can only aim for a slight increase in the territory's carbon sequestration but levers to increase carbon sequestration in Paris are part of the Climate Action Plan by 2030. This includes massive planting of street-lining trees and increasing permeability of the City. As such, the City of Paris organized a referendum focusing on the pedestrianization of 500 streets in March 2025 to get citizens's support and approval to acceleratethe greening of Paris. Work is underway to better consider and estimate carbon sequestration potential of urban greening projects.

Regarding offsetting, action has already taken place to develop local and regional compensation projects to offset residual emissions by 2030, with the creation of an offsetting operator in 2023, aimed at accelerating offsetting strategies at the local level. In addition, citizens and private and other institutional stakeholders already offset their emissions. It is however difficult to get the data regarding the amount of compensated emissions related to Paris' local emissions for those companies operating at the national level or internationally. Efforts will be made to take stock on the offsetting progress for a better follow-up of the carbon neutrality Parisian objective.

Sequestration actions

Paris covers an area of 105 km², including 87 km² of built-up area and 2 woodlands covering 18 km². Mainly urban, its carbon sequestration capacity - i.e. a positive net flow from the atmosphere to soils and forests (including wood products) resulting in an increase in stocks - is therefore very limited. Territorial estimates of this flow from the atmosphere to soils and forests are based on available information on changes in land use (e.g. soil artificialisation, reforestation), forest dynamics and environmental management methods that modify existing carbon stocks. Using ADEME's ALDO tool, it is estimated at 5,292 tCO2e/year, of which 93% comes from wood, i.e. 4,930 tCO2/year. This figure should be seen in the context of the territory's greenhouse gas emissions. It represents 0.1% of local greenhouse gas emissions and 0.023% of the carbon footprint (based on Carbon Footprint© 2018).

Despite the City's considerable greening efforts, Paris can only aim for a slight increase in the territory's carbon sequestration, due to its urban nature. Thus, in terms of land use evolution, over the 2012-2018 period, the policy of desilting and planting has enabled an average annual carbon flow of 361 tCO2 / year according to the ALDO model.

The ALDO tool can also be used to estimate carbon stocks at the municipal level. Considering the 2018 occupancy distribution, all the different soils in Paris represent a stock of 2.52 million tCO2. Although woodlands represent almost 9 times less surface area than artificial soils, they offer a stock almost half that of artificial soils. The main topic for the City is to develop and maximise the territory's capacity of carbon sequestration. Several actions in the Climate Action Plan contribute to improving carbon sequestration in the City of Paris, described in the Table below:

Table: Paris Carbon sequestration actions

Levers for increasing carbon sequestration in Paris	**Corresponding Climate Plan actions**
Increasing permeability and greening the city	Open 300 ha of additional green space / target 10 m² of green space per inhabitant
	... including 30ha open to the public by 2026
	Return 100ha to pedestrians by 2030: streets will be greened, sidewalks widened and transformed into promenades.
	Prioritize the planting of areas where there is a shortfall, to achieve a minimum planting rate of 20% over half the territory.
	Create 10 urban parks as part of development projects in conjunction with metropolitan areas
	Open a large park in northern Paris
	Expand debitumization operations to achieve 40% of un-waterproofed territory
	Develop compensation or over-compensation for tree felling
	Plant 170,000 trees, giving priority to the open ground
	Create urban forests, including 3 by 2026
	Increase the number of linear hedges to 500 linear meters of hedges & shrubs per arrondissement
	Green up the hearts of blocks and building courtyards in social landlords' properties and open them up to the public
	Encourage local citizen greening initiatives
Preserving Paris' woods and trees	Create a "trees and climate laboratory", to experiment with the trees best suited to Paris's future climate.
	Sanctuarize 100,000 street-lining trees and 250 remarkable trees

Source : Paris Climate Action Plan 2024-2030

The City of Paris also takes account of carbon sequestration in its own practices with:

- Continuity of the management plan by the Green Spaces and Environment Directorate based on their soil analysis to maintain an ideal level of organic matter. Soil has a limited capacity to store carbon. Inputs are made according to planting needs and soil type.
- The choice of species planted. The City of Paris has developed Cerema's Sésame tool with the species present on its territory, so that carbon storage capacity (which differs according to species) is also a criterion in the choice of trees for future plantations.
- A foresight tool has also been designed to measure the sequestration potential of urban development projects upstream, so that carbon criteria can be considered in the decision-making process when implementing urban projects or managing the city's land.
- an increased knowledge and follow-up on trees' carbon storage capacity to better assess the impact of greening actions on carbon neutrality:

  To go further than the ALDO model, a tool was developed with the expertise of a major player of the forest-wood sector, the Société Forestière de la Caisse des Dépôts, in order to better assess the sequestration capacity of the street-lining trees. Based on open-data referencing each planted tree in the City's public space (street-lining trees, green spaces and municipal public facilities. It does not include groves, forest areas, trees on private property, etc.), the tool uses the information on the species, size and age of the tree to calculate its sequestration potential.

Offsetting actions

The strategy pursued by the City of Paris is geared towards a massive reduction in greenhouse gas emissions in all sectors, involving all stakeholders in the area around this objective. In addition, the City of Paris' objective of carbon neutrality is based on the goal of offsetting the residual carbon footprint. The City is committed to encourage and incentivize its stakeholders to compensate their emissions. To this end, the City of Paris has launched in 2023 the *Coopérative Carbone Paris et Métropole du Grand Paris*, alongside a number of public and private partners. The aim of this *cooperative carbone* is to accelerate offsetting actions by 2030 by supporting and financing regional offsetting projects. It acts as an intermediary between project developers, particularly in the field of carbon sequestration, and local businesses wishing to contribute to carbon neutrality and offset their emissions. Agroforestry projects in the Paris Basin, financed by the Coopérative Carbone and guaranteed by the national "low-carbon" label, are a unique opportunity to develop a local compensation market and to absorb a significant quantity of carbon by 2030. Paris, being President of the Coopérative Carbone, will facilitate effective follow-up on the volumes of carbon sequestration operated via this structure.

However, the voluntary carbon market in France is not dynamic enough to fully address offsetting residual emissions. There are technical considerations to resolve, taking for instance the identification and reporting of the Paris based carbon footprints of companies that have offset their emissions at the national or international level. For example, the delivery happening and operated by the national Post Office in Paris is officially offset by the company (La Poste) who aims to be carbon-neutral by 2040. However, there is no data on what is compensated yet by companies or at the individual level, and what amount of Paris related emissions this offsetting is attributable to. Signatories of the Paris Climate and Biodiversity Pact are asked to provide more data regarding their offsetting strategy and focus will be made to collect such data in order to better follow the compensation objective of residual emssions by 2030.

Finally, the major issue regarding carbon offsetting for a local authority is the lack of regulation at a national and European level. As a City, Paris does not have direct authority to regulate carbon offsetting of its territory, therefore the City promotes action at the national and European levels to address this issue. A clear legal framework for offsetting is crucial to create better market conditions and obligations aside from the EU-ETS system which is not relevant for most of companies located in Paris (few industry). As an example, Paris encourages the French government to reinforce carbon offsetting obligations for airline companies, which, as discussed above, represents a consequential share of remaining emissions within its carbon neutrality pathway.

Meanwhile, the City of Paris will carry on encouraging and incentivizing its stakeholders to compensate their emissions and pledging for a transparent and rigorous compensation process to avoid greenwashing of an essential climate policy tool.

2.3 Module A-3 Systemic Barriers and Opportunities to 2030 Climate Neutrality

Stakeholder's mapping (in terms of GHG emissions)

Aside from the City's competences and jurisdiction, which are exercised via its public departments and its public and parapublic "satellites" such as APC, APUR or Eau de Paris, the city of Paris develops its climate policies in coordination with external actors.

Concerning private, academic and civil society actors, a detailed stakeholders mapping is produced in the investment plan of the CCC. It describes in detail each network of stakeholders (citizens, public institutions, private companies, housing actors, academia, financial institutions, etc) and each individual stakeholder within each network; all are associated to a level of influence, the nature of the interest binding them to the city of Paris and the level and type of engagement they both share.

This mapping allowed the city of Paris to identify which stakeholder is actively transitioning following the Climate Action Plan trajectories or actively contributing to the trajectory, and which is following the legal requirements and need further advocacy and cooperation to move onward. Further, it helped to identify sources of financing and projects to finance, in order to better plan the implementation of the measures on a territorial basis.

In addition, as outlined in the CCC Commitment, Paris Action Climat scheme (created in 2012 to mobilize economic players around climate issues) allows the city Climate Action Plan to be hardwired to local actors' transition plans. In ten years, it has been joined by 73 companies that have signed the partnership charter, and over 500 participants have worked in thematic communities. Over this period, the commitments and mobilization of the network's members have contributed to the reduction of one million tons of CO2e in Paris. Since 2022 and the move to an action-based approach, the scope of the scheme has been broadened to take greater account of biodiversity issues in Paris. The change of name to "Paris Action Climat Biodiversité" bears witness to this.

With Paris Action Climat Biodiversité (PACB), signatory Parisian companies commit to developing actions in line with the objectives of the Climate Plan (such as developing rooftop renewable energy production capacity, implementing programs to phase out single-use plastics, carrying out energy-efficiency renovation work on their premises or greening their facades, etc.). The City of Paris has developed a catalogue of inspiring initiatives that can be deployed throughout Paris, available to signatories.

Finally, all private actors (regardless of membership to PACB's scheme) who participate in the making of the Climate Action Plan at the territory level are integrated in the construction of the measures; details are provided in the annexed action sheets as to (i) which actors participate to the measure and (ii) which actors are concerned / are the target of the measure.

Concerning local public actors, Paris maintains a close, interdependent relationship with its surrounding areas. Most of the resources consumed in Paris (food, drinking water, energy) are produced outside the area and imported. As a major economic, financial and cultural center, Paris attracts workers from all over the Ile-de-France region and beyond, as well as tourists from all over the world. Combating climate change therefore requires coordination and mutual assistance between regions.

In recent years, a number of major projects have demonstrated the commitment of the City of Paris and local players to climate protection, including the creation of SEM Axe Seine Energies Renouvelables, AgriParis Seine, and Coopérative Carbone Paris & Métropole du Grand Paris. In concertation with these actors, the Climate Action Plan enshrines the need for each satellite, operator or entity controlled by the city to develop a transition plan to meet the Parisian plan's objectives.

Historically, cooperation between territories has also focused on large-scale urban services, such as drinking water supply, waste treatment and sanitation. These services rely on infrastructures and networks that go far beyond municipal boundaries. They also represent nodal points in the region's ecological transition, as in the case of the **urban heating network,** which relies on facilities located outside Paris and supplies heat to numerous neighbouring municipalities. **The latter will be involved in the governance of the future Single Purpose Mixed Economy Company, through a territorial committee. The transformation of the Paris ring road into an urban boulevard, and the management of the Bois de Boulogne and Bois de Vincennes** are also among the transitional challenges for which cooperation between local authorities is essential.

To formalize and steer these cooperative ventures, **the City of Paris implements partnerships using flexible tools, formalized in agreements, to ensure ongoing dialogue between territories concerned by the same project or an issue of common interest**. All in all, these agreements with the communes, intercommunalités and départements of the Paris region cover more than 420 operational actions, more than half of which contribute to the challenges of the Climate Action Plan: development of public spaces, transport (development of bicycle routes, urban logistics), waste reduction, circular economy, etc.

Within this framework, the City of Paris **will deepen the climate action in all the cooperations it maintains with the territories, and multiply the synergies with the actors involved in the great transformations to come**.

Paris is particularly committed to ambitious cooperative ventures:

- **Continuing our partnership with local authorities in Seine-Saint-Denis to transform the Saint-Denis and Ourcq canals** will accelerate our development policies, with the aim of making the riverbanks greener and decarbonizing their logistics functions.
- **In terms of adaptation, improving water quality** is one of the challenges for which cooperation will be stepped up with the gradual implementation of white-water bathing areas in the Seine and Marne rivers, with the aim of benefiting the entire metropolitan area.
- **Paris will be stepping up its efforts to interconnect green and blue networks,** for example with a project it will be piloting with the Établissement public territorial Est Ensemble, "le Grand Chemin", to create a planted promenade linking the 19e and 20e district of Paris with the communes of the EPT.
- **Transformation of the areas bordering the ring road,** particularly the crossings, such as Porte de Bagnolet and Porte de la Chapelle, with the challenge of reconciling and interfacing local developments with the aim of transforming the ring road.
- **Paris' commitment to involve all inhabitants of the Greater Paris Metropolis,** and in particular young people, in the transformation of the city to combat global warming and adapt to change: opening up the Climate Academy through partnerships with local authorities and the "quartier jeune" (QJ) youth center, which already focuses on the Ile-de-France region.
- **Technical cooperation with the Metropole and the Region** on cooling networks, the creation of inter-communal biodiversity corridors and the monitoring of land artificialisation projects.

More generally, a discussion with the executive and legislative national holders of powers (the government and the parliament) is of chief importance to adapt current national policies and regulations to enable climate neutrality. Public advocacy at the national, European and international level is repeated and detailed in every section of the city's Climate Action Plan.

Finally, a discussion with the city's major land and property owners (social landlords, SNCF, State, the AP-HP, etc.) is crucial as well, notably in the context of the Bioclimatic Land Use Plan enactment in 2024.

Barriers and opportunities mapping (in terms of GHG emissions)

We describe here the various barriers to current climate neutrality and the levers available to be used for each emission source categories – mostly concerning buildings and transport.

First, barriers pertaining to any project taking place in the public space face several constraints in the Parisian context:

- The density of infrastructures present in any given street (four type of underground energy networks, two types of water networks),
- The need to adapt a limited space to multiple users with different needs (walkers, people with reduced mobility, bicycles, electric scooters, motorbikes and cars, light duty vehicles and sometimes trailer truck, firefighter's trucks, etc),
- The diversity of local regulatory constraints, or hard law requirements: that of the local urban plan, the local stalls and terraces regulation, the local publicity regulation, the local waste collection regulation, the local guide of road signalisation, the local roadway regulation, the local rainfall zoning regulation, etc. Further national regulations also impact the public space utilization.
- The multiplicity of local plan, or soft law requirements: climate plan, biodiversity plan, tree plan, public lightning plan, walker's and bike plan…

All this, within an institutional layer cake of competencies over the public space intertwining citizens, local townhalls, the city's town hall, the Parisian prefecture, the Parisian metropolis, the region Ile-de France and the French state.

In terms of energy consumption in buildings, the potential for reducing total energy consumption was estimated as early as the first Paris climate plan; the carbon neutrality trajectory created in 2018 by the City of Paris incorporates current and future public policies aimed at reducing the energy needs of the various sectors (renovation of buildings and sustainable construction, significant reduction in carbon-intensive individual mobility, rationalisation of the capital's energy supply, development of public transport). At the same time, it takes into account the emergence of new needs (cooling, specific electricity).

Under these conditions, some energy sources are disappearing (liquid fuels, coal), while others are declining (gas, heat). Electricity, on the other hand, is holding steady, associated with the development of specific electricity and electromobility. As a result, the territory's total energy consumption will fall (-35% by 2030, -50% by 2050) under the following conditions:

A 50% drop in the energy consumption of residential and tertiary buildings, to 18.8Twh in 2050; this is due to the renovation of 1 million homes and 50 million m2 of tertiary surface area; in the residential sector, consumption falls from 110kWh/m2/year in 2016 to 40kWh/m2/year in 2050.

A 50% reduction in energy consumption in the transport sector, to 3.24 TWh in 2050 (including 2.4 TWh for road transport); this is due to the reduction in road traffic (mobility and freight), the move away from diesel and the development of soft mobility and public transport.

Several barriers will have to be addressed in order to follow this reduction trajectory for buildings:

- Concerning residential housing, the complexity of share properties renovation (be it administrative, organisational or technical) and the lack of public financing allowing zero out-of-pocket expenses for property owners count as the first limit. It is enhanced by the lack of qualified professionnals to face the demand and the patrimonial regulations complexifying further these works in the Parisian context;
- Concerning tertiary buildings, similar limits apply: public funding is even scarcer for these renovations projects, and Parisian projects are even more complex when multiple ownership exists. Finally, the regulatory constraint is weak, in the sense that non compliance has a near-zero cost – the fee is 7,500€ per building not following the "décret tertiaire" trajectory. Further, means of control are scarce: most tertiary bulding had no way of measuring energy consumption as early as 2010 (the most common baseline), and still lack those today ;
- More globally, Paris only produces 10% of the energy it consumes, thereby making difficult the decarbonation of the energy vectors ;
- The barriers concerning the transport cluster will be addressed below.

In terms of renewable energy production, there is still considerable potential for the production of renewable and recovered energy (ENR2) in Paris by 2030; According to the study of the potential for developing renewable energy sources[2] in the Paris region in 2020, almost 2,600 GWh of renewable energy sources[2] could be produced in Paris (a gain of around 480 GWh), thanks in particular to the development of geothermal energy (+160 GWh of exploitable deposits over this period), hydrothermal energy (+160 GWh), solar energy (+330 GWh) and heat recovery (+50 GWh). These gains will be offset by a loss of production from waste-to-energy plants of around 220 GWh.

The barriers concerning this development mostly concern lack of national or European public funding, lack of available terrain to develop these projects, the absence of legal constraint and the complexity of these projects in the Parisian setting (due to patrimonial, technical and political reasons).

In terms of energy networks development and transition to green energy, all four heat, cold, gas and electricity network hold decarbonisation potential.

Both heating and cooling networks have the potential to recover energy:

The heating network has development levers with the recovery of waste heat, which is particularly common in urban environments;

- The objectives for 2030 and 2050 for the heating network break down as follows:
    - Accelerate the greening of the network to reach 75% of ENR[2] in 2030 and 100% in 2050.
    - Increasing the density of connections.
    - Develop hot water loops that make the most of local energy resources.
    - Completely phase out the use of coal by 2024.
    - Convert gas/oil power stations to ENR[2] (biogas/biofuel) by 2030.
    - Create new renewable heat production units (waste, biomass, heat recovery).
- To achieve these objectives, the Paris heating network has a number of levers at its disposal. The very significant potential for densification ‘at the foot of the existing network’, in the order of 30% of surface areas, its local governance and its capacity to become green rapidly, and the size and importance of the Parisian network are all assets that will enable us to meet the challenge of carbon neutrality. What's more, the district heating network is the only network capable of capturing and pooling the many sources of waste heat scattered across Paris.

The cooling network has less potential for cold recovery, and can make use of the non-potable water network.

- The main objectives for 2030 and 2050 for the cooling network are:
    - Expanding the network by doubling the number of new subscribers each year (+50 new subscribers per year), and extending the area served (+5 km of network each year);
    - Supplying 100% renewable energy and improving the recovery of waste heat.
- Developing the cooling network means maximising its use both by increasing the density of connections to the existing network and by extending it, while diversifying uses and users (residents, hospitals).
- The potential for connecting offices, shops and hotels larger than 1,000 m² is estimated at 1,350 plots and 19 museums. This would require around 50 km of additional network and the construction of 18 15 MW power stations.

Concerning the electricity network, According to the Enedis, the company managing the french electricity network, overall electricity consumption varies by +8% in the reference scenario and by -7% in the sober scenario by 2050 in Paris.

With regard to residential buildings, the massive connection of buildings to heating and cooling networks is accompanied by a sharp increase in the number of households equipped with electric heating, but a fall in their consumption due to their renovation and a fall in other uses due to technical progress. The overall reduction is forecast to be between -10% and -30% between 2019 and 2050.

In the tertiary sector, consumption is projected to rise by between +17% and -2.5% between 2019 and 2050, depending on the energy-saving behaviour adopted; this will modulate the use of air conditioning and digital devices (data centres, computers, audiovisual equipment, etc.).

Industry will see its electricity consumption rise by 2 to 4%, due to the development of new energy production plants in the region, modulated by gains in energy efficiency.

Mobility will see its consumption explode, from a few GWh in 2019 to almost 690GWh in 2050 - due to the growth of all categories of electric vehicles.

Finally, the gas network with accompany the city's energy transition by increasing its share of green gas transported.

The barriers concerning this development mostly concern lack of European and national public funding, the low willingness to connect to those networks from the private sector, the absence of legal constraint and the complexity of these projects in the Parisian setting (due to patrimonial, technical and political reasons). The high financial cost of the expansion of these networks, notably the heat and cold, are also obvious limits to bear in mind.

At last, in terms of transportation, the 50% reduction in the energy consumption of transport, to 3.24 TWh in 2050 (including 2.4 TWh for road transport) and linked CO2eq emission reduction will essentially by due to three factors.

First, the reduction in road traffic (mobility and freight) via the reduction of public space dedicated to cars – for instance, by 2030, the City of Paris will be transforming 50% of parking spaces, i.e. 60,000 spaces, to give priority to pedestrians, active and shared modes of transport, and to green public space. Thanks to these action and the Parisian renaturation policies, more than 100 hectares will be given back to pedestrians by 2030, in order to bring peace to the city. Further, the reduction in road traffic has been deepened by lowering the speed limit to 30kmh and will be further by the inauguration of the first large-scale traffic-calmed zone, also known as a Limited-traffic zone (ZTL) in central Paris. Traffic will be restricted to pedestrians, bicycles, public transport and certain categories of users (local residents, shopkeepers, craftsmen, people with reduced mobility, etc.). Further, as of 2024, tourist coaches will no longer be able to circulate in the center of Paris. Finally, the transformation of the city's ring road into a urban boulevard (speed limitation, lane dedicated to shared mobility, renaturation…) will contribute to the decarbonation of the transport sector in Paris.

Second, the move away from diesel will occur both in the public fleet perimeter via direct financing and in the private fleet.

Concerning the public fleet, by 2030, the city is committed to phasing out the use of internal combustion engines for its vehicle fleet, with an initial target of 50% of the fleet using low-carbon or low-emission vehicles by 2026. In addition, it will gradually reduce the number of vehicles in its fleet, notably by developing shared-use solutions and promoting active mobility. For technical vehicles for which there are no electric alternatives, the City will turn to the use of bioGNV, derived from the methanization of food waste, or biofuels. The systematic replacement of gasoline-powered sidewalk cleaning machines (light vehicles) by electric machines, with a 100% electric fleet, will be achieved by 2026. As the market matures, the gradual switchover to collection with electric tippers will be undertaken, and will go hand in hand with the necessary electrification of garages and adaptation of their power supplies.

Concerning the private fleet, several measures are put in place. In 2022, the City of Paris has set up a new scheme to help people move towards more environmentally-friendly mobility, stepping up financial aid by targeting more modest groups, including:

- Individuals: purchase of bicycles, electric bikes, cargo bikes, subsidies for the Mobilib' car and van-sharing service, free public transport for schoolchildren and senior citizens, etc.
- Collective housing: create secure bicycle shelters
- Professionals: acquisition of electric or cargo bikes, cars or light commercial vehicles, electric or hydrogen-powered trucks, acquisition of a pollution control system or alternative energy engine for boats.

The City of Paris is studying the feasibility of a "one-stop shop" bringing together the other ecomobility subsidies granted by the State, the Region, the Metropolis and the City of Paris.

The City is also calling for conversion bonuses to be stepped up, subject to income or sales conditions, and targeted solely at Crit'air 0 vehicles, in line with the gradual phase-out of internal combustion vehicles.

To encourage a reduction in the number of SUVs and 4x4s circulating in the capital (15% of the vehicle fleet in 2023), which increased by 60% between 2019 and 2023, the City could introduce differentiated pricing for non-residential parking for 4x4s and SUVs from 2024. A citizens' vote to this effect will be organized in February 2024. Heavier and less aerodynamic, SUVs consume on average 15% more fuel and generate 20% more greenhouse gas emissions than a standard vehicle. Even electrically powered, SUVs generate more pollution: being heavier, particle emissions due to braking are higher. Their size also makes them more dangerous for pedestrians: in the event of a collision, accidents involving an SUV are twice as fatal for pedestrians as those involving a standard car.

Finally, the city will step up checks and fine drivers whose engines are running when stationary - a stationary engine emits only 15% less than when driving, which a significant effect on the quality of the air breathed by nearby pedestrians.

Third, the development of soft mobility and public transport will be allowed by inaugurating further cycling infrastructure - Paris has more than 1,000 km of cycling facilities, including 300 km of cycle paths. By 2030, the aim is to provide a complete network of cycle paths throughout the capital. To achieve this, the city plans to create and secure 180 km of additional cycle paths by 2026. It will also systematize the introduction of two-way cycle lanes, bringing the total number of new cycle facilities to 390 kilometers. Financing further the public transportation company (Ile-de-france moblilités) will allow the city to negociate the transition of its bus fleet to green energy.

In terms of transportation, most barriers will concern the private actors and citizen’s resistance to change in daily commuting behaviour (notably in terms of shared mobility and public transporation use), lack of investment, public funding or legal constraint in terms of green mobility transition at the regional, national and European level.

3 Part B – Pathways towards Climate Neutrality by 2030

3.1 Module B-1 Climate Neutrality Scenarios and Impact Pathways

Since 2018, Paris has used a climate model to anticipate the Parisian carbon emission trajectory. This model includes scope 1 and 2 emissions according to the national compulsory methods prescribed by

the law (code de l'environnement) as for the administrative boundary, and territorial and scope 3 emissions according to the Bilan Carbone® methodology applied by the Parisian climate department. As all local political targets have been based on this model since 2018, and as the Parisian CCC climate model developed with NZC's experts yields similar results in terms of emission and trajectory (on the local emissions perimeter), we use the historical Parisian model to both report emission and plan actions in this document.

We therefore list below the various main emission clusters associated with the historical Parisian model, as well as their associated actions planed by 2030.

Energy cluster

To make Paris a 100% renewable city and contribute to carbon neutrality, the City of Paris has set the following targets for 2050 (compared with 2004):

- Reduce the region's energy consumption by 50%,
- 100% renewable energies in local consumption,
- 20% of energy produced close to home.

To achieve this goal, it has set the following intermediate targets for the period up to 2030:

- 35% reduction in local energy consumption
- 45% renewable energies in consumption
    - of which 10% locally produced

Reduce energy consumption

The city reduce its energy consumption via a municipal energy saving plan, a transition to LED lighting, a mobilization of its non-municipal players and a digital responsibility strategy.

Through a municipal Energy Saving Plan, the City is aiming to achieve a 10% reduction in its administrative energy consumption by 2024, based on three key measures applied to municipal services:

- lowering temperatures in city buildings from 19°C to 18°C (with the exception of facilities for vulnerable groups) and lowering temperatures by 1°C in swimming pools;
- postponing by one month the winter heating season
- turning off ornamental lighting earlier.

Further, renovation work on public lighting has reduced energy consumption by 38% (58 GWh) in 2020, compared with 2004. The City of Paris has renewed its street lighting maintenance contract for 2021, with the aim of reducing energy consumption by a further 30% per year over the next 10 years. 70,000 LEDs will replace energy-guzzling lights.

To reduce the 96% of consumption outside the municipal buidling stock, Paris is mobilizing all local players, including citizens, businesses and small commercial outlets.

The city is firmly committed to an active policy of energy conservation, and as of July 2022 will be issuing bylaws banning the heating of terraces in winter, and prohibiting the opening of doors to businesses that are heated in winter or air-conditioned in summer. Compliance with these rules is monitored by the municipal police, who have been sensitized to the issue.

To keep everyone involved, the city will be running annual communication campaigns to promote energy-saving actions before winter and summer.

More specifically for Parisian condominiums, which account for 45% of consumption, the Paris Climate Agency has already developed a number of tools (DECLICS challenge, ecogestures workshops, simplified energy balance, sustainable building management guide). Starting in 2024, these tools will enable us to create a comprehensive support program for low-energy condominiums, complementing our support for renovation projects.

In terms of numerical impact of climate, this societal challenge and contribute to reducing the environmental footprint of digital technology, the City of Paris will adopt a transversal responsible digital strategy at territorial level and an associated action plan by the end of 2024.

100% renewable energy in local consumption & 20% of energy produced close to home

The city augments its renewable energy production via a phase out from fuel oil by 2030, fossil fuels in municipal buildings by 2040 and fossil fuels over the territory by 2050; via the development of 500GWh of renewable energy production by 2030; by the mobilization of private players and citizens.

Concerning the phase out, public investment for public facilities and private condominium, the connexion to the heat and cold networks for public and private buildings and communication will be the mains measures. Further, the urban heat network will continue its greening trajectory to become 100% renewable by 2050. Starting in 2024, coal will no longer be used in the heating network, while the proportion of renewable energy will gradually increase to reach 75% by 2030. The construction of 4 to 8 biomass or solid recovered fuel production sites by 2050 is under discussion. Its densification is also under way. Finally, polling the public or small customers' purchases of renewable energies will facilitate their consumption.

Concerning the production of renewable energy, 100GWh of extra production will be mobilized over the territory by public, parapublic and private actors for 5 technologies: solar panel, solar heating, geothermal recuperation, waste heat recuperation and cold recuperation. All will involve a mix of public investment on its facilities and via its public service delegations, the mobilization of the city's partners both via communication and via regulation (such as the bioclimatic land use plan) and the development of independent initiatives.

Finally, the mobilization of private corporate players and citizens will be enabled by technical of financial support to citizen energy communities, financial support to citizens via the Agence Parisienne du Climat, the organization of annual events such as a Parisian renewable energy day and the Paris Climate and Biodiversity Action network. The SEM Axe Seine Energies Renouvelables will also facilitate the launch of renewable energy projects.

Mobility cluster
Developed in details in part 2.3

Buildings
Developed in details in part 2.3

Waste cluster
The Climate Climate Action Plan's objective is to reduce GHG emissions linked to waste processing by 32% by 2030. For several years now, per capita waste production has been on a downward trend: from 483 kg of waste produced per inhabitant in 2010, to 450 per inhabitant in 2022, with a 9% reduction in so-called residual household waste between 2019 and 2022. Paris is committed to continuing these efforts. Nearly 3,000 tonnes of waste are collected every day, and over 70% of the contents of our garbage cans could be diverted from incineration and landfill through actions to reduce, reuse and recover waste. Our ambition is to make sorting a reflex and throwing away the exception.

In order to further reduce its volume of waste, the City of Paris is working on:

- Raising awareness among residents, to quantitatively reduce the flow of materials consumed and limit their environmental impact (eco-design, end of disposable products, particularly plastics, changes in behavior, etc.).
- Reuse and repair waste to give it a second life at fair prices
- Reuse, particularly through deposit systems
- Recycling waste once it has been produced
- A plea to the French government to reduce packaging at source, increase product shelf life and make it compulsory to implement long-term solutions to combat disposable packaging, particularly in supermarkets, takeaways and deliveries.

More precisely, the Parisian waste strategy walks on four legs:

i) Reducing the volume notably entails setting up zero-waste territories as experiments to encourage Parisians and shopkeepers to get involved in the issue, and to step up awareness-raising campaigns to achieve a concrete reduction in waste. It will also promote "outreach" initiatives by organizing regular meetings in public spaces with waste officers, such as the regular "cafés propreté" organized in schools, zero-waste workshops and awareness-raising events in condominiums.
ii) Diverting food waste essentially means allocating the proper collection equipment to all : all food markets will be equipped with food waste collection points, and 500 Trilib' stations deployed throughout Paris will be equipped with a module dedicated to food waste, offering every Parisian a sorting solution less than 3 minutes' walk from home.
iii) Improving waste sorting performance is enabled by developing a zero landfill waste policy, the installation of additional sorting garbage cans, and lastly a national plea to prioritise reduction over recycling.
iv) Eliminating single-use plastics is mostly achieved by investment and technical support in the municipal perimeter, the creation of a zero-plastic certification and the addition of zero-plastic clauses in contracts linking the city with economics or cultural partners.

As a large majority of the territorial waste is produced by citizens and private actors, the city will naturally engage all local actors to contribute to these objectives – be it by awareness raising, financing, regularoty levers or partnerships.

Green infrastructures & renaturation cluster

In terms of climate impact, the most structuring clusters of actions the plan bears are bioclimatic urban planning. This strategy counts three axes: build less and greener, facilitate thermic renovations and optimise the use of roofs and basements.

1. Build less and greener

In terms of construction, the new climate situation facing Paris calls for us to rethink our relationship with the city by designing low-carbon, energy-efficient buildings and neighborhoods.

To better meet the housing needs of Parisians, but also to limit the need for new construction, the bioclimatic Land Use Plan also imposes new measures to encourage the production of housing rather than offices, giving priority to existing buildings. This also involves the fight against housing vacancy. Indeed, the new bioclimatic land use plan requires environmentally-friendly construction: materials with a low carbon footprint (wood, cut stone, hemp, raw earth) will be favored, and ambitious energy performance requirements for improved comfort in winter and summer are imposed. It goes beyond mandatory regulatory thresholds. For instance, the City of Paris is reinforcing its performance requirements for new buildings in anticipation of the forthcoming environmental regulations (RE2020). The bioclimatic Land Use Plan imposes a maximum construction component climate change impact indicator (Icc) of less than or equal to 580 kg CO2e/m² for collective housing buildings, and 710 kg CO2e/m² for office buildings. The bioclimatic Land Use Plan also offers innovative incentive mechanisms to encourage high environmental performance projects.

Further, a clean worksite charter applicable to all building sites from 2024 will be implemented to reduce the environmental footprint of worksites – it will be developed jointly with local economic actors.

2. Facilitate thermic renovations

In a city as rich in heritage as Paris, the methods and materials used in renovation work can clash with protection imperatives, leading to rejections, delays and additional costs. Furthermore, historic monuments and heritage buildings are likely to be affected by the effects of climate change, such as heat waves, droughts and floods.

Paris wishes to support building projects towards an aesthetic capable of combining heritage, adaptation and innovation. In line with the objectives of the Climate Action Plan, the City of Paris has initiated work on its built identity through the Manifesto for a New Parisian Urban Design.

Further, the city of Paris will insist on urban planning procedures for low-tech and rapid solutions for adapting Parisian buildings (insulation, installation of solar protection, roof conversions, etc.), which generally require transforming the external appearance of buildings, and for which these procedures must be simplified and accelerated in particular.

3. Optimise the use of roofs and basements

Rooftops are essential levers for adaptation and ecological transition: the City of Paris wants to amplify their transformation. To encourage the transformation of existing roofs, municipal transformation schemes will be strengthened, such as solarization, greening and cooling programs. To promote and discuss alternative uses of rooftops, the city will support an annual festival along the lines of Rotterdam's Rooftop Festival.

The bioclimatic Land Use Plan also prioritizes greening and agriculture in new buildings. The new scheme requires certain building surfaces to be planted, notably roofs, terraces and slab areas, in order to limit the heat island effect in areas that are sometimes insufficiently or not at all planted. The combination of vegetation and solar panels is also possible.

Further, the City of Paris will conduct a study on the potential for transforming underground spaces. This study will measure the surface areas that can be freed up, the need to transform these spaces, and will propose planning scenarios for the city, district and even neighborhoods, taking into account respect for the peace and quiet of local residents in relation to these new uses.

Synthesis: scenario, targets, co-benefits and objectives

The table below synthesizes the main sectoral targets that have been set by the 2024-2030 Parisian Climate Action Plan. The potential co-benefits are based on the European taxonomy, but are not quantified. The list of the 396 actions of the Climate Action Plan can be found in annex in French.

Main quantified mitigation targets by GHG sector			Temporality				Taxonomy dimension of co-benefit				
Sector addressed	**Subsector**	**Target**	**Last value**	**2026**	**2030**	**Long term**	**Adaptation**	**Biodiversity**	**Water**	**Pollutants**	**Circular economy**
Buildings	**Total**	**Buildings GHGs emissions**	**3,51 Mt (2021)**		**2,60 Mt**	**0 Mt**	**Not applicable**				
		Building energy consumption	**28,7 TWh (2021)**		**23,3**	**18,7**					
	Residential	Residential GHG emissions	**1,76 Mt (2021)**		**1,40 Mt** -43% /2004	**0 Mt**					
		Home renovations (annual)	unknown		**40 000**	**40 000+**	**x**			**x**	
		Social housing renovations (annual)	**4500 (2021)**		**5 000**	**5 000+**	**x**			**X**	
		Share of social housing	**23% (2021)**			**40%**	**X**				
		Residential fuel-oil energy demand	**2-3% (2019)**		**0 %**	**0%**	**x**			**X**	
	Tertiary	Tertiary GHG emissions	**1,75 Mt (2021)**		**1,20 Mt** -48% /2004	**0 Mt**	**Not applicable**				
		Tertiary energy consumption (decree)	**2010 baseline**		**-40%**	**-60%**	**X**				
		City buildings renovated	unknown			**100%**	**x**			**x**	**X**
		Kindergarten renovations (annual)	N.A.	**10**	**10**	**10**	**X**				
		School renovations (annual)	N.A.	**30**	**30**	**30**	**x**				
		Municipal energy sobriety strategy	**2022 baseline**		**-15%**		**x**				
Transport & mobility	**Total**	**Transport GHG Emissions**	**0,71 Mt (2021)**		**0,68 Mt** -63% /2004	**0 Mt**	**Not applicable**				
	Pedestrian	Added pedestrian surface	**0 (2024)**		**+100 ha**		**x**			**X**	**X**
		Public parking	**120 000**		**60 000** -50% / 2023		**x**	**x**		**x**	
		School streets closed & vegetalized	**180 (2023)**		**300**		**x**	**x**		**x**	
	Cycling	Share of inner travel by bicycle	**11% (2023)**		**25%**		**x**			**X**	
		Bicycle parking added	**0 (2020)**	**130000**			**X**			**x**	
		Bicycle lanes created	**0 (2020)**	**180 km**			**X**			**X**	
		Bicycle corridors added	**0 (2020)**	**450km**			**x**			**X**	
	Vehicles	Decarbonation of city fleet	47%	**50%**	**100%**		**x**			**X**	
		Conversion of gas stations	**4/15 (2024)**		**15/15**					**x**	

		Decarbonation of buses	unknown	**100%**						x	
	Logistics	Low carbon logistics site created	**0 (2023)**		**50**					**X**	
		Delivery spots created	**0 (2023)**		**1 000**					**X**	
		Cargo bike delivery spots created	**0 (2023)**		**2 000**					x	

Sector addressed	Subsector	Target	Last value	2026	2030	Long term	Adaptation	Biodiversity	Water	Pollutants	Circular economy
Waste	**Total**	**Waste GHG Emissions**	**0,42 Mt (2021)**		**0,35 Mt** -32% /2004	**0 Mt**	**Not applicable**				
	Circular economy & waste production	Local quantity of waste produced	**2010 baseline**		**20%**		**X**			x	**X**
		Share valorized wase (recycling + heat)					**X**				x
		Quantity of upcycled waste	**5 000 t (2023)**		**10 000t**		**X**			x	**X**
		Number of ressource centers	**20 (2020)**		**30**		**X**			x	x
		Packaging waste (commerce)	**11 000 t (2023)**		**5 500t**					x	x
		Surface dedicated to solidarity & social commerce within public housing units	**193 000 m² (2023)**		**579 000 m²**						x
Energy & industry	**Total**	**Industry GHG Emissions**	**0,18 Mt (2021)**		**0,11 Mt** -43% /2004	**0 Mt**	**Not applicable**				
	Renewables	Share of renewables in consumption	**19% (2023)**		**45%**	**100%**	**x**				
		Share of local renewables	**7% (2023)**		**10%**	**20%**	**X**				
		Added local renewable production	**0 (2023)**		**500 GWh**		**X**				
		Added municipal solar production	**0 (2023)**		**5 Gwh**		**X**				
		Added municipal heat recuperation	**0 (2023)**		**30 Gwh**		**X**				
		Added municipal geothermal production	**0 (2023)**		**8,4 GWh**		**X**				
	Energy networks	Share of renewables in district heating	**54 (2022)**		**75%**		**X**				
		Length of district cooling	**89 km (2023)**		**116 km**		**X**				

3.2 Module B-2 Climate Neutrality Portfolio Design

The complete set of 390+ actions is reproduced in the annex; they are organised thematically as follows. The subparts containing the most overarching limate mitigations measures are followed by a comment between brackets. All identified partners for the measures are listed in the Plan itself, and with greater details in the annex. The provided table of indicators above is an extract of the complete table used by the City services to coordinate and follow the implementation of its Climate Action Plan. In order to better follow and structure information to the needs of the administration and elected officials, notably associating each action with an emission sector, specific subject, City contacts, indicators, external stakeholders, concerned taxonomy dimension of co-benefits, typology of levers, of targets, etc… all of which permitting to sort and isolate dimensions of a dense and complex plan.

PROTECTING PARISIANS
I. Cooling Paris
II. Combating environmental inequalities
III. Improving the health of Parisians
IV. Anticipating and managing crises
ACCELERATING THE REDUCTION OF GREENHOUSE GAS EMISSIONS
I. Steering Paris' decarbonization trajectory (steering measures)
II. Massive renovation of buildings (buildings measures)
III. Mobilizing bioclimatic urban planning (urban planning measures)
IV. Pursuing the decarbonization of travel (transport measures)
PRESERVING AND PROTECTING RESOURCES AS COMMON GOODS
I. Moving away from fossil fuels to a 100% renewable energy territory (energy measures)
II. Managing water more sustainably
III. Making Paris a more material-efficient city (waste measures)
PROMOTING AND SUPPORTING THE DEVELOPMENT OF A LOCAL, RESILIENT, LOW-CARBON ECONOMY
I. Promoting local, sustainable trade and craftsmanship
II. Promoting tourism that is compatible with climate change (transport – air travel measures)
III. Supporting a low-carbon, sustainable and resilient food supply (food measures)
IV. Accelerating the transformation of work and employment
V. Financing and investing for the climate
ACTING TOGETHER FOR THE CLIMATE
I. Adopting shared governance
II. Mobilizing Parisians
III. Developing solidarity and cooperation in favor of the climate
IV. Territorializing climate action with district town halls

Further, the city of Paris and the mission cities have different manners of categorising the measures: a correspondence table is reproduced below

Lever as per the mission info kit	Lever as per the City of Paris
Technology	Investment, support & incentives, research & development
Governance and policy	Planning, regulations, advocacy
Finance and business models	Investment, support & incentives
Culture, participation, and social innovation	Support, coordination & partnership, awareness-raising & traning,
Capacity and capability building	Support, provision of services

The MIK technology lever corresponds, for the city of Paris, to investment measures (financing for instance the opening of new parks, building renovations…), support & incentives measures (partly financing programs such as zero out of pocket expense for thermic renovation, financially incentivize a behaviour, a company or an economic sector to transition) and research and development measures (mostly experimenting new public policies on a sub-territorial scale or on the short term).

The governance and policy lever correspond to planning (voting new strategic plans such as the PCAET), regulation (using the legal tools of the municipality such as the construction permit or the local publicity regulation) or advocacy, that is working with other legal entities when the legal competencies of the city and insufficient (as this is the case for the Low Emission Zones for instance). The Finance and business models lever corresponds to the Parisien investment and support & incentives levers.

The culture, participation and social innovation lever correspond to the Parisian support lever (give a low financial incentive, provide technical expertise, or conduct studies…), coordination & partnership lever (work in sterring or technical commitees, structure a territorial strategy by convincing local actors…), and awarenees-raising & training lever (conduct communication campaigns, provide training, develop volunteers communities and actions such as with the “Volontaires de Paris”).

Finally, the capacity and capability building lever corresponds to the parisien levers of support and of provision of services – when the city widen the allowed use of its fund, public patrimony, such as with the examples of the “providing fresh rooms for young parents and their newborns in times of heatwaves”.

3.3 Module B-3 Indicators for Monitoring, Evaluation and Learning

The indicators followed by City services to enable monitoring and reporting of the Climate Action Plan can be distinguished by three categories :

The main indicators are the GHG emissions and energy consumption overall and by sector. They are the overarching targets (-100% local emissions and -80% carbon footprint) and they represent the mitigation impact of the implementation of the Climate Action Plan (compared to a projected business as usual trend). As far as local emissions, the 2024-2030 Climate Action Plan set a Carbon Budget which will further ensure the monitoring and course correction of the Parisian carbon neutrality emission pathway. (see GHG sections for more information)

City services shall monitor the implementation of the Climate Action Plan itself, action by action, as sampled in the table above (end 3.1) Each action, when quantifiable, is associated to an indicator and a relevant target. The table in 3.1 represents the biggest impact actions of the overall list of actions followed by the City (see Annex for more information), some of which impacting more the administration or targeting important but very specific and less overarching topics (conversion of the sidewalk cleaning vehicles, for instance). Actions that cannot be quantified shall be followed project by projet, and details of impact shall be provided when possible. The City of Paris publishes yearly a Climate Report and is bound by law to evaluate the implementation of its Climate Action Plan half way (2027).

Last but not least, the City is developing its Climate Budget to better track costs and spendings associated with the implementation of its Climate Action Plan. Through its work with the C40, the City of Paris set to implement a governance system to estimate the cost of the decarbonation and adaptation of its territory, and to follow and compare it to the City’s own budgeting and spending, as well as the monitoring of the implementation and impacts of the Plan itself. This methodology is currently under development but should add by late 2025 a complementary monitoring to objectify potential investment gaps and levers.

4 Part C – Enabling Climate Neutrality by 2030

4.1 Module C-1 Governance Innovation Interventions

Aware that the ecological transition requires the mobilization of all local stakeholders, the City of Paris has involved its administration, economic players, associations and citizens in the Climate Action Plan process since 2007.

The drafting of this fourth Paris Climate Action Plan benefited from strong citizen input: over 140 local events were organized throughout the three months of preliminary consultation, and 1,223 contributions on all aspects of the ecological transition were collected on the "decider.paris.fr" citizen participation platform. The involvement of numerous economic players, associations and institutions helped enrich these contributions, resulting in an expression of Parisian civil society.

During the implementation phase, the Climate Action Plan will continue this dialogue and make available the data needed to transparently report on progress, in order to ensure a right of follow-up for the players in the Paris region.

Monitoring and steering the transition with local stakeholders

The City of Paris is convinced that the involvement of local players is essential to building a collective and effective response to climate change. It guarantees better representation of citizens' interests and mobilizes a diversity of resources and expertise. The City of Paris will rely on citizen governance mechanisms and will share its progress transparently.

The City of Paris will draw on GREC's expertise to monitor and assess the impact of the actions it is implementing as part of the Climate Action Plan.

Democratic governance and citizens

The Citizens' Assembly, a watchdog for the Climate Action Plan

The City of Paris has a number of tools enabling Parisians to get involved in municipal choices and participate in the decisions that concern them.

One of these tools is the Citizens' Assembly, created in 2021. A participative and deliberative body, it brings together every year 100 Parisians chosen by lot. The Assembly evaluates public policies, has access to training resources, and interviews elected officials, civil servants and outside experts. It can issue resolutions and proposals on subjects it considers to be priorities, and submit them to the Paris Council.

The Citizens' Assembly was involved in drawing up the Climate Climate Action Plan, through a written contribution. Future promotions of the Citizens' Assembly will be able to pursue this commitment, by taking up any subject relating to the Climate Climate Action Plan, and by questioning all aspects of its implementation. The Citizens' Assembly will also be able to contribute to the Paris Council's democratic debate on climate issues, as it did on the renovation of private housing, by proposing a resolution on the involvement of condominium managers in accelerating the thermal renovation of Parisian buildings. The right of follow-up given to the Assembly will enable its members to observe and evaluate the implementation of everything that has been voted.

The Future Generations Council, guarantor of the Climate Climate Action Plan's forward-looking vision

During the implementation phase of the Climate Climate Action Plan, the City will continue the dialogue initiated with other Parisian citizen bodies, such as the Council for Future Generations (CGF), whose action-oriented forward-looking missions are set to be strengthened. This consultative, independent and equal-opportunity body, whose aim is to represent Parisian civil society and to reflect in a forward-looking way on themes that concern Paris, will be involved in monitoring the Climate Climate Action

Plan. It will meet regularly to monitor the implementation of the Climate Climate Action Plan, as well as certain projects arising from it. Additional missions may be entrusted to members, through referrals on specific subjects.

Annual meetings to monitor the implementation of the Climate Climate Action Plan through the prism of social justice

Finally, the associative world was heavily involved in the consultation process prior to the revision of the Climate Climate Action Plan, highlighting the benefits of dialogue between environmental associations and those working for solidarity and social justice. These exchanges highlighted the importance of approaching the challenges of ecological transition from a social angle, to ensure that the ecological transition truly benefits people in precarious situations. Concerns such as summer fuel poverty and food democracy emerged in this context and have found their place, in the form of measures, in the Climate Climate Action Plan. To pursue these exchanges, which are essential to the full integration of the social perspective in the implementation of the Climate Climate Action Plan's measures, the City of Paris will organize, in conjunction with the Climate Academy, thematic meetings with associations committed to the ecological transition, solidarity and/or involved in working-class neighborhoods. These annual meetings will provide an opportunity to address various topics and measures of the Climate Climate Action Plan from the perspective of social justice. They will be particularly useful for questioning these measures, identifying any bottlenecks and levers for action to speed up their implementation. The City will also be relying on the Parisian Council of Associations Conseil Parisien des Associations, a participatory body bringing together 100 structures representing the vitality of associations, with the aim of co-constructing public policies for associations throughout Paris.

Sharing the progress of the Climate Climate Action Plan transparently

Climate BlueReport: a tool for tracking the ecological transition over time

As in all areas of public action, transparency in the implementation of the Climate Climate Action Plan is an essential democratic requirement.

Since 2007, the City has been reporting on its climate action via an annual report monitoring the actions of the Climate Climate Action Plan, including both operational and financial indicators. This report, the "bleu climat", will continue to provide annual reporting on the implementation of the Climate Climate Action Plan, detailing achievements and providing an update on budget execution in conjunction with tools for monitoring climate-related investments (notably the climate budget). Particular attention will be paid to monitoring measures in working-class neighborhoods.

Climate Climate Action Plan Barometer: "real-time" monitoring of actions

In order to make the Climate Climate Action Plan part of a "real-time" monitoring approach, and to participate in the City of Paris' drive to open up and make data available, a new online interface will be developed to complement the Climate ReportBlue. This "Climate Climate Action Plan barometer" will democratize and make accessible data and indicators on the main components of the Climate Climate Action Plan (mitigation, adaptation, energy and air quality).

This online dashboard will be enhanced with visual and cartographic representations, to provide an easy-to-read overview of progress in implementing the plan. Modelled on the Mobility Observatory, it will be open to all, and with the publication of regular bulletins, will enable us to report transparently on the progress of implementation.

Localizing climate action with the district townhalls

As part of the reinforced territorialization of Parisian policies since 2020, which aims to make the district the reference level for municipal action, the 17 district were closely involved in drawing up the Climate Action Plan. By definition, acting for the climate means linking global challenges with local action. With

a view to adapting the plan to local characteristics and specific issues, each district has drawn up an action plan for the period 2024-2030, based on its priority areas of intervention.

More than 300 measures have been defined in response to local issues and based on the many contributions made by local residents and players at over 140 events organized during the consultation process at the end of 2022.

More than half (54%) of these actions involve works or development. Of the remainder, 19% are devoted to studies or optimization of existing facilities, 18% to awareness-raising/communication initiatives, and 9% to partnerships or pooling.

While each area prioritizes specific themes and plans a particular action, measures shared by a majority of boroughs stand out. More than half have set themselves the goal of renovating private and public buildings, with priority given to work on schools. The boroughs also agree on the need to decarbonize heating systems (district heating connection, support for the replacement of oil-fired boilers) and to equip roofs (schools, nurseries, offices) with photovoltaic panels. The need for a massive greening of the area is shared by almost all district, through the expansion of parks and gardens, the planting of trees, the creation of new Oasis courtyards and the deployment of the new CoprOasis scheme. With the aim of combating the effects of the urban heat island, the boroughs are looking to develop cool islands by various means, such as installing shaded areas, planting vegetation, opening up private gardens or installing misters. Almost all districts are undertaking to encourage cycling, by creating cycle paths and committing to the development of shared mobility (pedestrianization). With regard to catering, increasing the proportion of sustainable and local food is a priority for several district. Lastly, three quarters of them want to step up their actions to limit and sort waste in the area, by massively deploying collection points, particularly for bio-waste, and by developing zero-waste territories.

For the first time, the Paris Climate Action Plan is accompanied by a booklet presenting the 17 Climate initiatives of the district.

4.2 Module C-2 Social Innovation Interventions

Achieving carbon neutrality and adapting Paris to climate change will only be possible if everyone who lives, works and travels in the area is involved. In order to provide them with the best possible support, the City of Paris will continue to strengthen and improve its training and mobilization programs in favor of the climate.

These actions have both the greates potential carbon impact, as much of the city’s carbon footprint depends on the citizen’s behaviors in terms of air traval and food consumption, and also the least readily evaluable impact as one cannot directly link any social awareness or communication program to a behaviourial change. For the first reason, they however remain of prime importance.

Understanding for better action

The more Parisians are aware of environmental issues, the more they will be able to identify the room for manoeuvre available to them and be motivated to take concrete action to reduce their environmental footprint. Taking ownership of climate issues also strengthens the ability of Parisian citizens to mobilize and participate in collective initiatives. The City of Paris wants to give them all the tools they need to grasp the challenges of this changing world and transform it.

The participatory agenda supported by the City of Paris will also be an opportunity to place at the heart of the democratic debate the major issues to be decided, some of which concern the daily lives of Parisians, in order to accelerate Paris' carbon neutrality trajectory, by mobilizing various tools, depending on the themes addressed and the issues at stake: organization of consultations, setting up citizen conferences, continuing voting exercises (like the one on self-service scooters organized in April 2023 and the upcoming one on SUVs in February 2024), etc. These democratic events will be accompanied by the production of accessible information on the major issues at stake in the debate, and the creation of forums for discussion, dialogue and the exchange of ideas.

The Climate Academy, an emblematic place for learning, commitment and action

In response to the expectations expressed by young people during the climate marches, in September 2021 the City of Paris opened the Climate AcademyAcadémie du Climat, a venue dedicated to accelerating the ecological transition located in the heart of Paris, on the premises of the former 4th district town hall. Through the many partnerships forged since its opening, the Académyie has become a place for meetings, sharing and creation, open to the City.

The Académie du Climat Climate Academy is also a space for experimentation and demonstration of solutions and means of action, echoing the policy pursued by the City of Paris over the last ten years to build a supportive, carbon-neutral city by 2050. This role as a demonstrator of mitigation and adaptation solutions for a heritage building will be reinforced in the years to come, in order to achieve the objectives set by the Climate Climate Action Plan (creation of an oasis courtyardsquare, greening of the 3rd floor roofs and facades, green shade, ecological insulation, installation of renewable energy systems for the building's energy autonomy, rainwater recovery, etc.).

With the aim of strengthening training and support for citizens, the Climate Academy Académie du Climat is committed to stepping up its awareness-raising activities, particularly in schools, colleges and universities, while increasing its offer of awareness-raising activities for associations, economic players, elected representatives and the general publicpublic. Priority will be given to "priority education network" establishments, as well as those in urban policy districts, to ensure that everyone has access to these initiatives.

It will continue to amplify mobilization on environmental issues through the organization of events and meetings open to all, and the incubation of associative and professional projects in favor of climate and biodiversity (participative research, etc.). In the coming months, we will be further deploying our tools to support the phase-out of single-use plastic (SUD) by the time of the Olympic and Paralympic Games, zero waste territories, the revision of the bioclimatic Land use Plan, and the involvement of young people in the implementation of the Climate Climate Action Plan's objectives.

For education in tune with the ecological transition

Outdoor classes

Taking advantage of the outdoors to learn allows you to reconnect with your environment and approach learning in a different way. Although outdoor learning is still a relatively undeveloped practice in France, it has been practiced for several years in other countries (Switzerland, Scotland, Germany, Denmark, Sweden...), and more and more experiments are being developed in Paris in various places that are conducive to this learning format: schoolyards, parks, woods and even urban spaces on the outskirts of schools... They concern both school and extracurricular time. The long-lasting, regular link with nature that is created in these learning spaces helps to raise children's awareness of ecological issues and develop attitudes conducive to preserving the environment.

The outdoor classroom offers children an important opportunity to take advantage of the benefits of the outdoors and nature for their learning.

To support the development of this practice in Paris, the City, in conjunction with the Climate Academy Académie du Climat, will open an "outdoor school" training center. This facility will enable children to discover outdoor learning in the Square des Deux-Nèthes (18th), during and outside school hours. A team will be dedicated to hosting immersion classes on the site, and supporting educational staff to develop the practice of the outdoor classroom in all Parisian schools.

A catalog of "climate actions" in schools

Children are on the front line of climate action on a daily basis. To support their school and extracurricular activities, a catalog of "climate actions" will be deployed in all the City's schools. The catalog, available in each district town hall, will offer teachers, eco-delegates and leisure centers several climate actions to carry out with children, such as:

- The Climate Academy's educational pathways are complemented by a range of ecological transition training courses;
- Pedagogical materials for turnkey workshops to put fun activities into practice in the classroom;
- Listing of fun awareness-raising workshops;
- A list of players, partners and associations that can intervene during school hours.

The catalog will include a "hors les murs" (out of doors) section, to develop a wide-ranging educational action outside schools, with educational visits to different sites around Paris. It will present a common base that can be expanded with activities and events proposed by each mayor's office, initially for schools in their district, and subsequently for their constituents.

Training to prepare for hot weather

The City of Paris will organize workshops or training courses for parents and children, and for Department of School Affairs (DASCO) staff, open to the educational community, on how to effectively reduce heat-related risks.

5 Outlook and next steps

The Climate City Contract (CCC), as part of an iterative process of continuous improvement, will be reviewed to take into account results of on-going work that were not yet finalized to be part of this first edition. As such, second edition of the CCC will gain insights from on-going studies and reporting processes to:

- Improve and adjust the economic model with more localized data, gained from the on-going study conducted by the OFCE;
- Enrich the model with more data gained from the Climate Budget to estimate in details the climate actions costs of the City and its partners;
- Specify climate actions of the City of Paris' stakeholders, specifically from the signatories of the Paris Action Climate Biodiversity (PACB) charter and their first reporting by the end of the year 2024;
- Develop and encourage more commitments from stakeholders with the coordination of PACB and other partnerships;
- Monitor the implementation of the Action Plan with a broaden collaboration with other directorates and partners to follow-up and ensure completion of indicators;
- Develop and further assess and detail calculation of the GHG emissions of our inventory.

Some of these actions, in particular regarding the commitments from stakeholders, would potentially contribute to an increase in local emissions reduction by 2030. The City of Paris will also consider the reviewer's comments and gain expertise from the shared experience of the other Cities being awarded the Mission Label.

NET ZERO CITIES

EU MISSION PLATFORM | CLIMATE NEUTRAL AND SMART CITIES

Climate City Contract

Climate Neutrality Commitments

of the City of Paris

April 2025

PARIS

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1 Introduction

Major cities are at the forefront to accelerate the social and ecological transition and fight global warming, implementing very concrete local agendas, but often lacking financial means in the face of the immensity of the challenge to be met. The 2030 deadline is crucial according to scientists, and we must achieve drastic reductions in our greenhouse gas (GHG) emissions within the decade. In Paris, we have been actively pursuing climate initiatives for several years, achieving a remarkable 35% reduction in GHG emissions between 2004 and 2021, while transforming the City to adapt it to the effects of global warming. Joining the EU Mission “climate-neutral and smart cities” will help us to carry on and support our efforts to achieve climate-neutrality as soon as possible.

By adopting its first Climate Action Plan in 2007, revised in 2012, 2018 and 2024, the City of Paris has been a pioneer in the fight against global warming. 16 years of action and hundreds of measures focused around key themes will enable the attainment of carbon neutrality: thermal renovation of buildings; renewable energy supply; shared, active and clean transport; circular economy; sustainable food; development of innovative financing tools and co-shared governance like participatory budgeting. The new Climate Action Plan, adopted in 2024, develops an operational action plan for 2030 with 3 objectives to go FASTER, MORE LOCAL and FAIRER, to shape a sustainable future and achieve carbon neutrality:

- Faster, by adopting disruptive measures to change the scale of municipal levers for reducing greenhouse gas emissions and to plan the exit from fossil fuels through energy sobriety and the deployment of renewable energies. A very strong priority is given to adapting the Parisian territory to climate change.
- More local, by setting for the first time local priorities for the implementation of the Plan's measures and strong participation of districts’ authorities in defining them.
- Fairer, by fighting against social and environmental inequalities. Paris will use all its determination to protect those who need it most.

Joining the EU Mission for climate-neutral and smart cities, hereafter referred to as the Cities Mission, is part of the process for revising the Paris Climate Action Plan. The Cities Mission presents a major opportunity to accelerate and deepen our policies by experimenting with new models of urban development in connection with, and in synergy with, other experiments being implemented at the same time in Europe. We believe that sharing practices and objectives is crucial for the transformation of our urban spaces and the lifestyles of our inhabitants, and the City of Paris intends to participate in this process. Moreover, being part of this Cities Mission will facilitate access to experts, enhance dialogue with institutions like the European Investment Bank, and provide opportunities for in-depth collaboration with other mission cities. Such expertise, financing and funding possibilities, and shared problem-solving would thus facilitate the acceleration of actions undertaken by the City and other actors. Paris also benefitted from grants offered through the Mission Platform to develop 2 projects; one related to citizens’ participation and the other to capacity-building and employment to facilitate the ecological transition. These opportunities contribute to the implementation of the Cities Mission and its objective of achieving 100 climate-neutral and smart cities by 2030.

From the very first years of its climate policy, Paris has been committed to measuring its territory's greenhouse gas emissions as comprehensively as possible, through its carbon footprint. Indeed, the base year for Paris’ carbon trajectory dates back to the first valuation exercise in 2004. Through its action, the City of Paris can act on 20% of the greenhouse gas emissions emitted on the territory, the remaining 80% require multi-actor involvement. The City of Paris, aware that significant progress could not be made without the mobilization of all the actors in its territory, has already involved its administrations, economic actors and associations as well as citizens in the Climate Action Plan process. A charter called “Paris Climate & Biodiversity Action” has been mobilizing all these stakeholders since 2012 to enroll and empower them in the climate journey of the City. It engages signatories and partners to take ambitious measures to achieve the Climate Action Plan objectives. The Cities Mission is now an opportunity to complete the list and bring on board other key players such as the French government and European institutions, without whom it wouldn’t be possible to embrace the entirety of Paris's carbon footprint.

The City of Paris commitment is made with real intent to achieve climate neutrality but also with caution regarding the challenges, profound changes and large investments that need to be made. Paris will maximize its climate actions in order to ensure climate neutrality as early as possible,

grappling with critical challenges such as levers of change outside of the Municipality control and the dense and highly artificialized infrastructure of the City. The Climate City Contract (CCC) describes the strategy and the actions that Paris will put in place in order to achieve climate neutrality, setting out in concrete terms the ways the City of Paris, together with its partners, will become a carbon neutral, fairer, more inclusive and more resilient city.

2 A mutual enrichment of the Climate City Contract and the Parisian Climate Action Plan

To complete the CCC, Paris' challenge is to coordinate many years of action and national-level regulatory obligations such as the development of a Climate Action Plan with this new European initiative. Instead of reinventing the path, Paris has built and optimized the development of its Climate City Contract on the basis of its 16-year historical action, accounting for documents and initiatives that already exist and that are politically endorsed. Therefore, the CCC and the Climate Action Plan are fully integrated and aligned in order to build a solid foundation for coherent climate action strategies.

Being part of the EU Cities mission is an asset to reinforce the Parisian Climate Action Plan model, notably facilitating an integrated and collective approach to climate commitment and implementation with local stakeholders, in particular regarding financial stakes. Referring to the Paris Climate Action Plan, the CCC describes actions by calculating their related carbon impacts and underlines, when possible, actions that will have to be carried by other key stakeholders such as economic actors, citizens, etc. Furthermore, the CCC has enriched the Climate Action Plan with the objective of developing an Investment Plan. Paris benefitted from the support of experts from the EU Cities Mission to assess the costs corresponding to the trajectory towards carbon neutrality and be able to coordinate more effectively the action plan. Therefore, the CCC helped to advance a stronger understanding of the mission investments and policy and regulatory barriers, so that Paris, as a front-runner of climate action by cities, can carry on raising the voice of cities to accelerate collective climate action in terms of policy and finance. It will support Paris in its advocacy process initiated with European authorities, multilateral-development banks and climate funders for the establishment of direct financing for cities.

3 Goal: make Paris a resilient, inclusive, carbon-neutral and 100% renewable energy city

The third Paris Climate Action Plan, adopted in 2018, was the first document to set the course for the city to become carbon neutral, 100% renewable, fair, inclusive, and resilient by 2050. This proactive and ambitious Climate Action Plan was awarded in 2021 by the UN Global Climate Action Awards, under the Climate Leaders focus area. The award, run by United Nations Climate Change since 2011, recognizes the world's most innovative, scalable, and replicable examples of action to tackle climate change.

The Paris Climate Action Plan takes into account both the direct and indirect emissions within the city's jurisdiction and the consumption-based emissions associated with goods and services consumed in Paris. Therefore, Paris has defined a long-term strategy to become climate neutral on its entire carbon footprint including aviation, food, etc.

Our interest via the CCC is to challenge the GHG-emitting sectors over which the City of Paris has the most leverage, i.e. local sectors emissions (inner mobility, buildings, heating...) within the

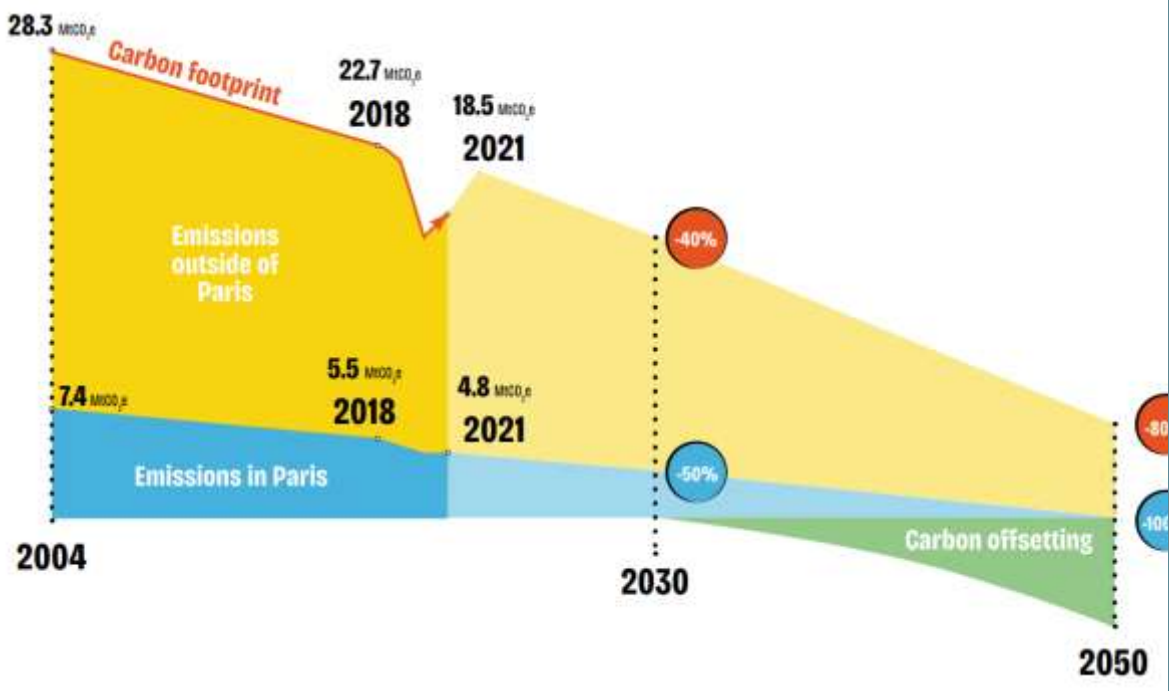
European framework and address the financial, legal, behavioral and operational barriers for Paris to become climate neutral as soon as possible, likely by 2030.

Paris' carbon footprint is estimated to be 18.5 million tons of CO2e (MtCO2e) in 2021, a reduction of 35% compared with 2004 – this significant decrease justifies Paris' decision to take the year 2004 as a baseline for its emission reduction trajectory, in order to value its past efforts. In line with the goals of the Paris Agreement, the City of Paris aims at reducing its carbon footprint by 50% in 2030 and by 80% in 2050 and 100% of residual emissions offset compared to 2004. Action has already taken place to develop local and regional compensation projects to offset residual emissions by 2030, with the creation of an offsetting operator in 2023 to incentivize actors to offset their emissions, presented below and in the CCC Action Plan. In addition, citizens and private and institutional stakeholders already offset their emissions. Efforts will be undertaken to gather data to better estimate the volume of greenhouse gas emissions relating to Paris' local emissions that are offset and to take stock of the progress underway in offsetting emissions in order to achieve carbon neutrality as soon as possible. At the same time, there will be further analysis on the sequestration potential of the City's greening projects that have ambitious objectives to make Paris greener with more trees and pedestrian streets.

By the horizon of 2050, the City of Paris undertakes to:
• Reduce local emissions by 100%, achieving the goal of zero emissions in Paris
• Promote an 80% reduction in the carbon footprint of Paris compared to 2004 levels and involve all local stakeholders in offsetting for residual emissions in order to achieve the zero net carbon target for the Paris area.
To achieve zero emission at the local level, Paris's energy consumption will need to be halved and 100% of the energy consumed will need to be from renewable origin by 2050.

The strategy pursued by the City of Paris is geared towards a massive reduction in greenhouse gas emissions in all sectors, involving all stakeholders in the area around this objective. In addition, the City of Paris' objective of carbon neutrality is based on the goal of offsetting the residual carbon footprint through projects located mainly outside the territory. Regarding Paris' physical limits to address the entirety of the remaining of its carbon footprint (when reduced by 80%, the official carbon neutrality target includes zero local emissions), the City is also committed to encourage and incentivize its stakeholders to compensate their emissions.

Graph: Towards carbon neutrality in Paris



Source : Paris Climate Action Plan 2024-2030

From now on, our challenge is to accelerate ecological transition policies. We must succeed in ten years what we have done in fifteen years. This means evaluating the results achieved so far and the opportunities to give them new impetus and not miss the 2030 milestone that would deviate the trajectory.

Achieving climate neutrality can lead to numerous co-benefits and indirect impacts across various sectors:

1. Public Health Improvements: Reducing greenhouse gas emissions often leads to decreased air pollution, which can result in fewer respiratory and cardiovascular diseases, ultimately improving public health and reducing healthcare costs.

2. Economic Growth and Job Creation: Transitioning to renewable energy and sustainable practices can stimulate job creation in new industries, such as renewable energy, energy efficiency, and sustainable agriculture. This transition can also foster innovation and competitiveness.

3. Energy Security: Climate neutrality involves increasing energy efficiency and investing in local renewable energy sources, which can reduce dependence on imported fossil fuels and enhance energy security.

4. Biodiversity Conservation: Efforts to achieve climate neutrality often include habitat restoration and sustainable land management practices, which can help protect ecosystems and promote biodiversity.

5. Resilience to Climate Impacts: Implementing sustainable practices can enhance resilience to climate change impacts and adaptation to climate change by promoting better land use, infrastructure, and community planning.

6. Social Equity and Inclusion: The transition to a low-carbon economy can enhance equitable access to clean energy solutions, promoting social equity.

7. Enhanced Quality of Life: Improved urban planning and green spaces associated with climate neutrality initiatives can enhance overall quality of life.

8. Innovation in Technology: The push for climate neutrality encourages research and development in clean technologies, leading to advancements that can benefit multiple sectors beyond just energy.

9. Cooperation: A collective effort towards climate neutrality fosters collaboration among rural and urban territories, encouraging them to work together on shared challenges.

4 Key priorities and strategic interventions

The 2024-2030 Climate Action Plan is broken down into five major strategic orientations, with the protection of Parisians, particularly the most vulnerable, as an absolute priority. This request for protection from Parisians emerged very strongly from the consultation which took place after a scorching summer of 2022 in Paris which left a lasting impression. This observation of the acceleration of climate change is largely corroborated by our studies which predict increasingly hot summers with heat peaks at 50°C representing the No. 1 challenge for the Parisian territory.

These 5 major orientations are described more in details within the CCC Action Plan.

1. **Protecting Parisians from the effects of Climate change**

Protecting Parisians means firstly implementing disruptive measures to transform Paris and protect the city from extreme heat. Natural solutions are our first lever: trees and nature are natural air conditioners that will allow us to make Paris an “oasis city” and combat the urban heat island effect.

Protecting the most vulnerable groups means protecting the inhabitants of working-class neighbourhoods, who are on the front line of climate change (poorly insulated housing, less access to care, overexposed to atmospheric and noise pollution) even though they are the ones contributing the least. Supporting people on the street thanks to a “hot weather” plan, combating energy and food insecurity: the Climate Action Plan is largely becoming a plan to combat socio-environmental inequalities. It integrates new climate risks for City officials and particularly exposed local workers.

2. Accelerate the reduction of greenhouse gas emissions to contribute to carbon neutrality

Achieving the objectives of the Paris Agreement in reducing greenhouse gas emissions is essential to avoid climate change. Our trajectory to carbon neutrality involves reducing the territory’s carbon footprint by 40% in 2030. Paris will adopt a carbon budget to quantify the total quantity of greenhouse gas emissions that the territory will be able to emit each year and initiate a dynamic to follow this budget with all stakeholders in the Paris area.

First lever for reducing emissions, the energy renovation of Parisian buildings is the project of the century. This commitment is reaffirmed by the strengthening of support systems for private co-owners and the creation of systems for small businesses. Paris will remain exemplary by launching a major renovation plan for its municipal heritage, it will deploy a new method for the overall renovation of its schools and nurseries and will continue to renovate 5,000 social housing units per year to ensure summer and winter thermal comfort for residents.

Paris promotes climate and biodiversity efforts and a united, mixed and green city model within the local urban plan, which defines the main development guidelines and regulates all construction in the city. It constitutes a “city project” which outlines the future of an urban area for approximately ten to fifteen years. With its new local bioclimatic urban plan that will come into force in 2025, Paris has equipped itself with a powerful tool to build less, regenerate more, and reduce the carbon footprint of construction. The use of concrete will be greatly reduced, in order to gradually phase it out, and biosourced materials will be encouraged. Paris will develop a new heritage doctrine in conjunction with state services to accelerate building adaptation projects. The mobilization of Parisian roofs and basements for the benefit of the ecological transition will be facilitated.

To continue reducing emissions from the transport sector, Paris intends to go faster and further in reducing the use of cars, the only guarantee of true decarbonization of Parisian transport in accordance with compliance with health standards on air quality. The rebalancing of public space will be accelerated: 80 pedestrian neighbourhoods, freed from car traffic, will be created, and the ring road will be transformed into an urban boulevard. Paris will make the Olympic route a route dedicated to public transport and carpooling now that the Olympic Games have ended. For motorized vehicles which remain essential to the life of the city (cars for people with disabilities, buses, emergency vehicles, transport of heavy loads, skips for waste collection, etc.), Paris will develop solutions for the massification of clean mobility. The City's vehicle fleet will be entirely phased out of thermal power in 2030.

3. Preserve resources as common goods

The City of Paris must meet the challenges of the climate and energy crisis by reducing the pressure it exerts on natural resources, true common goods, thanks to triple sobriety: in energy, water, and materials.

Energy sobriety will be decisive in definitively escaping fossil fuels. Efforts to reduce consumption by 35% compared to 2004 will cover all areas, the municipal energy efficiency plan will be strengthened, public lighting will consume less energy, and the City will mobilize all levers, including regulatory ones, to encourage local stakeholders to follow the same trajectory. At the same time, the City will begin phasing out fossil fuels from all its municipal equipment, and will put an end to the use of fuel oil on

its territory. Local production of renewable energies will be facilitated and encouraged, municipal buildings will be mobilized to install 6,000 micro-installations producing renewable energies by 2050.

Climate change will cause increasing pressure on water resources. Paris acknowledges the end of the abundance of this vital resource, and thus commits to reducing its water withdrawals by 15%, prioritizes certain uses and develops a new “water mix” to adapt the resources used for each use. Actions to prevent and preserve the quality of water present in the natural environment will be carried out.

For the first time, the Climate Action Plan commits Paris to an approach of sobriety of materials, to reduce the consumption of natural resources and the waste produced. The City of Paris will estimate the overall consumption of materials on its territory, and reduce it by making a change of scale in terms of the circular economy and the reduction of waste, and in particular single-use plastics.

4. Defend a local, resilient and low-carbon economy

Paris supports the ecological bifurcation of the economy by mobilizing municipal levers to promote, support and invest in local and sustainable commerce and crafts and in favor of the circular economy. The consumption of Parisians contributes significantly to the region's carbon footprint. The City will promote a sober model and will significantly reduce the place of advertising in public spaces.

The transformation of tourism, initiated as part of the Sustainable Tourism Conference, is the symbol of the bifurcation of the economy towards a more virtuous and more resilient model. To fight against over-tourism, Paris will plead to reduce the volume of air transport at the airports serving the territory, will promote alternatives and support the sectors towards their ecological bifurcation.

Paris has already and will strengthen partnerships with numerous higher education establishments linked to the City to accelerate the transformation of employment towards the key areas of ecological transition: energy efficiency of buildings, renewable energies, urban agriculture and sustainable food.

As food represents around 20% of GHG emissions in the Parisian territory, Paris promotes sustainable, more plant-based and local food in its municipal restaurants. It also promotes local supply, food processing and urban agriculture.

With the acceleration of climate change, unprecedented volumes of investments will have to be mobilized by public authorities and local stakeholders. An investment trajectory will be developed to ensure their good level and the pace of their commitment. Economic players and private financing will be mobilized, as will public procurement, which represents a considerable lever for the ecological transition.

5. Acting together for the Climate

Since the adoption of the first Climate Action Plan in 2007, citizen participation has been in the DNA of the City's climate action. This revision of the Climate Action Plan makes it possible to entrust the keys to decision-making even more to Parisians. The Citizens' Assembly, the Council of Future Generations and residents of working-class neighborhoods will be fully involved in the implementation, monitoring and evaluation of the plan.

For the first time, all district town halls have set their priorities to implement the Climate Action Plan on a local scale, as close as possible to where Parisians live. The acceleration of the ecological transition of the Parisian territory will rely on the full mobilization of district town halls and decentralized municipal services.

As described in Part 5 of the document, Paris is also engaged along with economic actors and researchers.

To fight climate change, Paris cooperates in numerous networks with French, European and worldwide cities. It intends to continue to bring the ambitious voice of cities into international negotiations. Paris acts in solidarity with cities in the South to bring a local point of view to resolving global issues and ensuring that cities obtain the necessary funding for the adaptation and mitigation challenges to be met.

The law is a major tool for implementing climate justice. The City will continue legal action to raise the voice and interests of Parisians against those most responsible for climate change.

Another strategic tool to achieve climate neutrality will be to offset residual emissions. To accelerate and facilitate offsetting, Paris created an offset operator to encourage and incentivize enterprises and citizens to offset their emissions locally. Created in 2023 with 35 partners, the “Coopérative Carbone” is the first collaborative enterprise (Société coopérative d’intérêt collectif) created by the City, gathering many stakeholders towards a common goal to achieve carbon neutrality. The Coopérative Carbone acts as an intermediary between potential financiers and project developers to finance local projects that reduce or sequester carbon emissions.

These 5 strategic orientations, here grouped by policy objectives, in order to better communicate publicly about the City Climate objectives, can alternatively be grouped by sectors of intervention – as in the CCC Action Plan:

- In pure terms of climate change mitigation, the measures concerning energy, be it consumption, reduction or greening, can be found in part 2 and 3 ; where transport (reduction or greening) is touched in part 1, 2 and 4. Waste is treated in part 3. The climate impact of food is addressed in part 4.
- Climate change adaptation is globally treated in part 1.
- All remaining environmental topics, be it water or matter sobriety, air or soil pollution reduction are treated in part 1 and 3,
- Finally, part 4 proposes to mobilize all actors of the territory to achieve these objectives and measures, in order to green the Parisian economy as a whole; part 5 outlines the governance methods used to achieve these objectives.

5 Principles and process

The City of Paris has a comprehensive and collaborative approach to achieving its climate goals, internally and in collaboration with stakeholders of the territory. Through several initiatives and structures, the City of Paris aims to integrate climate-related considerations into all policies and actions, ensuring a holistic and inclusive approach to the ecological transition and climate resilience.

To build a strong mandate and achieve Climate objectives, Paris follows these processes and principles that are inspired by the NetZeroCities Climate Transition Map and experience:

- **Coordinate the mobilization of the stakeholders of the City and Set up a Transition Team gathering experts**

The City of Paris established in 2022 a Directorate dedicated to Ecological Transition and Climate, responsible for defining climate change policies and coordinating the implementation of the Paris Climate Action Plan. This Directorate monitors actions across administrative departments, conducts greenhouse gas emissions assessments, and develops a climate assessment of the city's financial expenses. It also promotes shared governance of the Climate Action Plan by involving stakeholders of the territory. In particular, within this Directorate, a new department called ‘climate democracy” is in charge of mobilizing and reporting to stakeholders, from the local level with the mobilization of citizens and local districts city halls, to the international level, ensuring the Climate disclosure Project reporting and representation of the City in several international networks. Then, they ensure that goals of the Climate Action Plan are shared though the various directorates and services of the City who works with the diverse range of stakeholders.

The Transition Team that has been set up to coordinate the involvement of Paris within the EU Cities Mission, gathers experts of carbon finance (green finance department), mobilization of stakeholders (climate democracy department), and carbon inventory (carbon neutrality department). It also involved experts from the Financial Directorate to complete the Investment Plan.

- **Integrate citizens and the district level, with a dedicated attention to young people**

Steering committees and strategic committees, comprising municipal departments, elected officials, and partner organizations such as the Paris Climate Agency, play a vital role in overseeing the design

and implementation of Climate Action Plan actions. These committees ensure coordination and collaboration among key stakeholders. The Citizen's Assembly, a deliberative body that provides an annual opportunity to take part in the construction of public policies, contributed to the Climate Action Plan consultation process with proposals to simplify the process for residents in the context of home energy renovation grants. It brings together 100 Parisians aged 16 and over, chosen randomly from the electoral rolls, for a one-year term of office, renewable for six months. Minors aged between 16 and 17, as well as residents from outside the European Union, were selected at random from among holders of the Citizen Card. Parity between men and women, distribution by age group and geographical area, as well as the diversity of professional backgrounds and levels of qualifications were all considered.

To develop the new Climate Action Plan adopted in 2024, the City of Paris engaged in extensive consultation with the Parisian community, including residents, associations, companies, researchers, and administrations. This fourth Climate Action Plan gives Parisians even more opportunities to get involved:

- Each promotion of the Parisian Citizens' Assembly will be able to contribute to the democratic debate on the challenges of climate change and ecological transition in Paris by taking up a topic related to the Climate Action Plan. They can propose resolutions to be debated and adopted by the City Council in order to accelerate climate action.

- The Council for Future Generations, an independent, joint consultative body whose aim is to represent Parisian civil society and provide forward-looking thinking on issues that concern Paris and its inhabitants, will be involved in monitoring the Climate Action Plan.

- With a view to ensuring equality between territories, improving living conditions for residents of working-class neighborhoods and aligning with a fair socio-ecological transition, a close link will be created between the partners of the Climate Action Plan and those of the Paris Action Plan for working-class neighborhoods.

- The “Bleu Climat” will continue to provide annual reporting on activities, detailing achievements, reviewing budget execution and progress on the previous year's actions, and presenting actions to be undertaken in subsequent years. Particular attention will be paid to monitoring measures in working-class neighborhoods. It will be linked to an online interface: the "Climate Action Plan Barometer". The aim is to democratize and make accessible a set of data on the key components of the Climate Action Plan: mitigation, adaptation, energy and air quality.

As a symbol of citizen engagement, created in 2021, the City of Paris transformed the City Hall of the previous 4th District into a “Climate Academy” that serves as a hub for informing, raising awareness, training, and mobilizing young people on socio-environmental issues. It supports those who wish to take action and conduct concrete projects while providing spaces for meetings and exchanges.

• Involve public and private sectors, with a science-based and financial approach

Since 2012, the City has mobilized economic and institutional representatives through the Paris Climate & Biodiversity Action Charter. The platform "Paris Climate Biodiversity Action" engages signatories and partners to take ambitious measures in various sectors. It is further detailed in the “signatories” section below.

The City of Paris sponsors and collaborates with the Regional Group of Expertise on Climate Change and Ecological Transition in Île-de-France (GREC Île-de-France), which brings together scientists to provide academic expertise on environmental changes for decision-makers.

In 2024, for the fourth year running, the City has carried out a budget climate assessment based on the previous year's administrative accounts. This enables the city's operating and capital expenditure to be classified according to their impact - favourable, unfavourable, neutral or indefinite - on the mitigation of greenhouse gas (GHG) emissions. Over the years, the methodology has been progressively extended and strengthened, in order to provide the most accurate and reliable analysis possible. All the departments of the City are involved in this assessment, led by the Ecological Transition and Climate Department, which allows them to reinforce their capacities to act on climate within their activities.

• **Partner with local and international governance levels**

At the local scale, the City of Paris participates in the development of the Greater Paris Metropolitan Authority. This entity is a major partner since its creation in January 2016 and since the state endorsed it with prerogatives in sectors such as environment, water management and economic development. Thus, the CCC will rely on the Metropole, which coordinates the Metropolitan Climate Action Plans that the other 130 municipalities in the area need to follow. Working with the Metropolitan authority, as well as other rural territories surrounding Paris at the regional scale, is a precondition for efficient climate adaptation measures, specifically in systemic sectors such as transports, food and energy systems – for which Paris relies on its neighbours. It is also an opportunity to share good practices and solutions in the short-term, at the metropolitan scale.

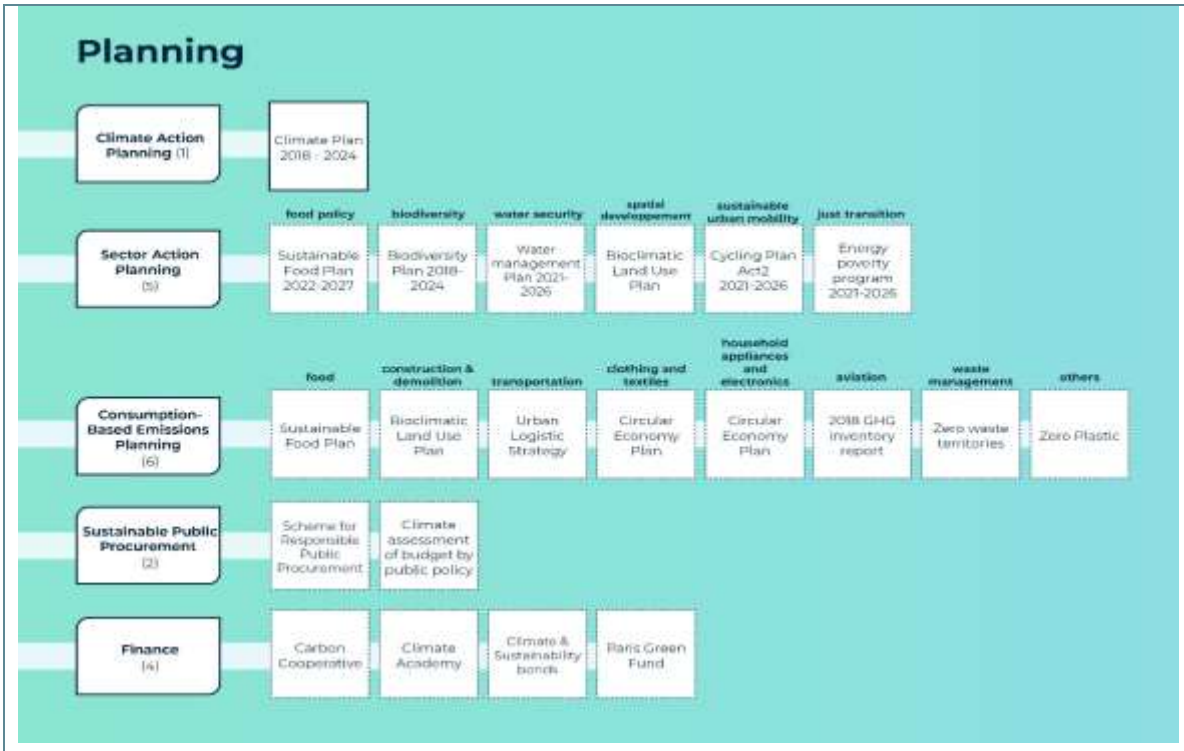
The commitment of the City of Paris to address climate change's issues is also led on the international stage since 2008, with the signature of the first Covenant of Mayor, confirmed in 2015 and 2016, when Paris joined the Covenant 2 with Mayors Adapt and supported the creation of Global Covenant. Mayor Anne Hidalgo was appointed newest Global Ambassador for the Global Covenant of Mayors in 2023, and is C40 Vice Chair for Europe. As a member of several European and international cities networks, Paris leads or shares discussions on adaptation issues and carbon neutrality.

• **Co-design a Portfolio**

Since 2007, the City of Paris is taking significant steps to combat climate change by reducing its carbon footprint and preparing for adaptation. Its strategy comprises two approaches: "mitigation," involving actions to cut greenhouse gas emissions and atmospheric pollutants, and "adaptation," encompassing measures to enhance resilience to climate hazards and protect residents.

The current administration implements policies in favour of biodiversity and nature-based solutions, a better air quality by reducing road traffic, a more circular economy, a new democratic approach through participative budgets or local consultations, etc. Committed to the protection of the environment, Paris is looking for innovative and effective solutions by leading projects to achieve a sustainable urban development.

Paris Climate Action Plan is designed as a « master plan » coordinating the different sectorial plans, such as, biodiversity plan, sustainable food plan, bioclimatic land use plan, water management plan, cycling plan, zero waste plan, circular economy plan, zero plastic strategy, urban logistic strategy, etc. The figure bellows illustrates the different plans currently driven by the administration, involving different committees and stakeholders.



• **Learn & Reflect**

The first complete assessment of the territory was carried out with the reference year 2004. Since then, the City of Paris has been monitoring the carbon impact of its action. The greenhouse gas emissions of the Parisian Administration are monitored annually and published as part of a document called Bleu Climat. In accordance with the Climate Action Plan, the territorial GHG balance is assessed every 5 years.

The transition team is part of the Department responsible for reporting, monitoring actions, conducting greenhouse gas emissions assessments, and developing a climate assessment of the city's financial expenses. Therefore, the Climate City Contract will rely on these indicators and evaluation processes to be monitored and reviewed when necessary.

The Climate City Contract will be updated every 2 years, in correlation with the mid-term review of the Climate Action Plan. The ambition is to connect the Climate City Contract to the Climate Action Plan. According to the French law, a mid-term review is done after 3 years and a full update of the documents at least every six years, with new goals, ambitions and assignments. The next iteration of the CCC will therefore consider the progress made by the City and its stakeholders and be the opportunity to raise ambitions towards climate neutrality.

• **Support leadership of cities**

As a municipality that is heavily involved in international cooperation, Paris intends to actively participate in city diplomacy and strengthen the role of non-state actors in implementing the Paris Agreement. Above all, it will support the creation of long-term city policies for 2030 and 2050. City networks (C40, Eurocities, GCom, ICLEI, Energy-Cities, etc.) are powerful tools for putting cities' climate policies into action. They are also building organizations of critical size to carry out advocacy actions in the service of a very active city diplomacy. Paris is committed alongside other cities around the world to international climate action through numerous initiatives and workshops.

6 Signatories

The City Council of Paris endorsed and approved the Mayor of Paris's signature of the Climate City Contract in December 2023. By delegation of authority, the director of Environmental Transition and Climate of Paris has signed the CCC.

In order to achieve climate objectives, all stakeholders in the Parisian area must be mobilized: the City, institutions, businesses and citizens. In Paris, businesses have a major role to play in the ecological transition due to their strong environmental impact, since they emit a third of the territory's GHG emissions. This is why the City launched in 2012 the Paris Climate Action Charter to mobilize businesses and institutions in this ecological transition. The Charter then evolved in 2022 into the Paris Action Pact Climate Biodiversity (PACB), notably broadening commitments to the preservation of biodiversity.

This program includes a Commitment Pact and a catalog of actions in several areas such as Carbon, Energy, Transport, Zero waste, etc. By signing the pact, the partner undertakes to act alongside the City of Paris through the implementation of new concrete Parisian projects, to share these good practices with the network and agree to report these actions. As a catalyst for action on climate change with the aim of deploying concrete measures on a shared basis, it is based on 8 general values and principles that signatories recognize. They:

1. recognise the reality of climate change and the erosion of biodiversity;
2. recognise the need for joint action by public authorities and economic players to ensure the success of the social model supported by the Paris Agreement;
3. recognise the need to make their economic model compatible with the development of a low-carbon economy and the strengthening of the nature network in Paris;
4. contribute through their actions to the development of a fair and inclusive low-carbon society;
5. are aware of the impact of their activities on Paris and act in favor of more sustainable local development;
6. by their actions and influence, do not harm the ecological interests of the Paris region, failing which they will be excluded from this scheme;
7. comply with current local regulations and ensure that they are applied by their stakeholders;
8. show the way today to a desirable and possible future.

The Commitment Pact of PACB fully integrates the climate objectives of the City that are described through the CCC Commitment. As such, it sets out 12 generic commitments common to all signatories, divided into 5 themes for the success of this ecological pact: acting locally, acting for the climate, acting for biodiversity, sharing best practice and reporting on our actions. As described below, "acting for the climate" requires the signatories to reduce their GHG emissions to help Paris achieve carbon neutrality.

Act locally	**Taking action for the climate**
- implement new, local initiatives that meet the challenges at hand - implement projects that are robust, replicable and sustainable from a material and financial point of view, based on the catalogue of actions proposed by the City of Paris - finance projects that contribute to the sustainable development of Paris, in particular by using local products and creating permanent local jobs.	- Reduce greenhouse gas emissions to help Paris achieve carbon neutrality - support the needs and capacities for adapting to climate change in the company's value chain and locally, in a way that is consistent with the priorities set by the policy supported by the City of Paris.
Promoting biodiversity	**Share best practice**

- create living environments by contributing to the greening of the city and the implementation of nature-based solutions on private property or in public spaces; - help to enhance the natural environment in Paris, by making an active commitment to better understanding and protecting local biodiversity.	- contribute their expertise and share their experience with the other members in order to develop practical guides and a common analytical framework that will encourage the development of projects and showcase the investment made by Parisian players in favour of the climate and biodiversity - contribute to innovation in favour of the ecological transition by developing replicable actions and standards that can be shared with other signatories - promote the commitments of this pact among their managers, shareholders and stakeholders
✓ **Report on our actions** - adopt and deploy a project monitoring and evaluation system that can be shared with the City of Paris and aggregated at regional level with the other initiatives developed by the signatories - report annually to the City of Paris on the progress made in accordance with the principles defined by the pact	

In 2024, around 50 entities from diverse areas, public and private, have joined PACB, as described in the Table below. Attached in annex are the signed pacts (in French – please note that not all the signatories have returned the signed document, although they endorsed it).

Name of the institution	Sector/Area	Legal form	Name of the responsible person		Position of the responsible person
Agence Française de développement	Finance	Public institution	Bertrand	Walckenaer	Directeur général adjoint
Altarea	Real Estate	Enterprise	Eléonore	Devaud	Directrice RSE
Ares	Social	Association	Fabien	de Castilla	Co-Directeur Général
Arter	Event	Enterprise	Mathieu	de Bonnières	Chef de projet RSE
Bertrand Hospitality	Food	Enterprise	Carine	Legoux	directrice RSE et communication interne
Caisse des dépots et consignation	Finance	Public institution	Richard	Curnier	Directeur régional IdF
Carbone 14	Design	Enterprise	Julien	Gorrias	Directeur
Carreau du Temple	Culture	Public enterprise	Sandrina	Martins	Directrice
Casino	Food	Enterprise	Matthieu	Riché	Directeur RSE du groupe
Castorama	Trade	Enterprise	Sandrine	Lefebvre Rorive	chef de groupe RSE immobilière

Circulab	Circular Economy	Association	Justine	Laurent	Directrice
CPCU	District heating	Public enterprise	Géraldine	Brissiaud	Directrice Générale
Dadoun	Trade	Enterprise	Sophie	Le Corre	Référente RSE
Eau de Paris	District water	Public enterprise	Florence	Soupizet	Cheffe du Pôle Climat et Energies
EDF	Energy	Public enterprise	Marie-Hélène	Milot-Durin	Directrice Action Régionale Ile de France
Elogie-Siemp	Social housing	Public enterprise	Valérie	de Brem	Directrice Générale
Elsa Pochat	Design	Enterprise	Elsa	Pochat	Dirigeante
Enedis	Energy	Public enterprise	Amaury	Bastrenta	Chef du département Transition Ecologique
Fraicheur de Paris	District cold	Public enterprise	Audrey	Guern	Directrice Générale
Franprix	Food	Enterprise	François	Alarcon	directeur de la Stratégie, de l'Innovation et de la RSE
Génération responsable	Trade	Association	Jocelyne	Leropatti	Responsable
GRDF	Energy	Enterprise	Frédéric	Moulin	Directeur Territoriale Paris
Greenflex	Consultant firm	Enterprise	Marie-Sylvie	Bertail	directrice générale
Guerlain	Trade	Enterprise	Clément	Renaudet	Head of Climate & Biodiversity
Holiday Inn	Hotel	Enterprise	Sebastien	Guyard	Directeur Commercial & en charge du Développement Durable
Icade	Property investor and developer	Enterprise	Joséphine	Brune	RESP. TRANSITIONS ENVIRONNEMENT
Institut Pasteur	Research	Foundation	Hélène	Da Conceiaçao	responsable du service Développement Durable
Kering	Trade	Enterprise	Geraldine	Vallejo	Sustainability Programme Director
La Poste	French post office	Public enterprise	Matthieu	Morange	Délégué développement régional

					Transitions environnementales, démographiques, sociétales
La Table du Recho	Food	Enterprise	Vanessa	Krycève	Fondatrice et directrice générale
Les Bouffesquaires	Food	Enterprise	Thomas	Dehier	Chargée de développement
Marcel Cab	Transport	Enterprise	Hervé	Fauvin	Directeur
Monoprix	Trade	Enterprise	Isabelle	Boudard	directrice RSE
Musée d'Orsay	Culture	Public enterprise	Donzeaud	Virginie	administratrice générale adjointe de l'établissement
Natixis	Finance	Enterprise	Agnes	Guiral	deputy
P&MA - Paris & Métropole aménagement	City planner	Public enterprise	Sylvie	Borst	Directrice générale
Pandobac	Circular Economy	Association	Roch	Feuillade	Cofondateur – CTO
Pari Végétal	Nature based solutions	Association	Lam-Son	Huynh	Directeur Général
Paris Habitat	Social Housing	Public enterprise	Isabelle	Quet Hamon	Direction Générale Adjointe Maîtrise d'Ouvrage et Développement Directrice des services Expertises et Appuis
PariSeine	City planners	Public enterprise	Ariane	Bouleau	Directrice Générale,
Perial	Property investor	Enterprise	Éric	Cosserat	PDG
Potel et Chabot	Food	Enterprise	Pauline	Jacquemard	Directrice RSE
RATP	Public transport	Public enterprise	Sophie	Mazoué	Directrice RSE du groupe RATP
RIVP	Social housing	Public enterprise	Christine	Laconde	Directrice générale
RUE RANGOLI	Circular Economy	Enterprise	Patricia	Lavocat	Présidente
Salesforce	Digital	Enterprise	Aline	Heulland	Senior Solution Engineer, Marketing Cloud
Semapa	City planner	Public enterprise	Sandrine	Morey	Directrice Générale

Services Funéraires de Paris	Funeral services	Public enterprise	Cendrine	Chapel	Directrice Générale
SNCF	Train transport	Public enterprise	Pierre	Sandevoir	Directeur délégué Stratégie et Performance, SNCF – Direction de l'Engagement Social, Territorial et Environnemental
Sogaris	Logistics	Public enterprise	Juliette	Berthon	Directrice RSE & Innovation
Utopies	Consultant firm	Enterprise	Elisabeth	Laville	Fondatrice
Villette emploi service	Social & Employment	Association	Noelie	Lienard	Coordinatrice de projets
Viparis	Events sector	Enterprise	Audrey	Montecatine	Directrice des Ressources Humaines et de la RSE