



PARIS CLIMATE ACTION PLAN

**TOWARDS A CARBON NEUTRAL CITY,
100% RENEWABLE ENERGIES,
RESILIENT, FAIR AND INCLUSIVE**

**LET'S TAKE A FEW MINUTES TO LOOK AT
THIS PARIS OF THE FUTURE...**

We are in 2050, in a much greener Paris than the one we know today. Tree planting and urban agriculture programs have been in place for more than 30 years. They have been augmented by the strategy to fight heat waves. Now, at mid-century, summers are very hot and are similar to the heat waves of 2008 and 2016. Green and blue frames have been reinforced and include the Greater Paris metropolitan area. Parisians are never more than 7 minutes from an island of freshness and we have bathed in the Seine for almost 25 years.

The streets are quieter. In 2050, Paris is a 100% cycle-friendly city. Shared vehicles and even autonomous public transport are the rule and Paris is free of fossil fuels – we saw the end of diesel in 2024 and gasoline in 2030. So, we breathe better too! In 2030, Paris achieved the air quality objectives recommended by the World Health Organization with its innovative traffic policy, but also due to the Air Wood Fund created jointly with the Grand Paris metropolitan authority (la Métropole du

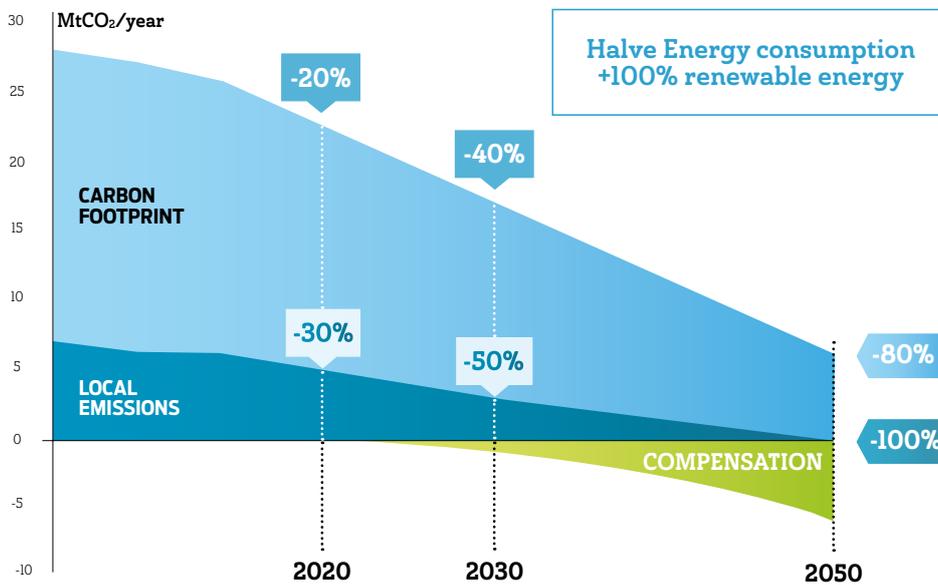
Grand Paris) to eradicate open fireplaces related pollution and especially by means of thermal renovation and high environmental performance building programs. Indeed, in this year 2050, the 1 million housing structures and a large number of business buildings in Paris have been renovated, due to the joint efforts of different players.

Menus in Parisian restaurants have changed: 50% of the menu ingredients are produced locally in the Ile-de-France region, a vegetarian alternative is always available. By adopting a “flexitarian” diet, Parisians have considerably reduced Paris’ carbon footprint and supported the development of sustainable agriculture in the Paris region.

Many projects have been implemented due to new financing methods. Since 2018, the Paris Green Fund has helped support investments in ecological transition companies. The greatest innovation has been the creation of the carbon offset fund. In 2020, Paris is the first city in the world to create this tool to finance local projects such as those under international solidarity.

PARIS' CARBON FOOTPRINT TREND

Paris's greenhouse gas emissions (22.7 million tonnes of CO₂ in 2018) break down into two major groups:



Carbon neutrality is one of the fundamental objectives of the Paris Agreement. It consists in achieving zero net emissions of greenhouse gases (GHGs). It is therefore a matter of achieving a balance by 2050 between the ecosystem's natural absorption capacity of GHGs and the irreducible emission caused by human activity.

URGENT ACTION: 3 TIMELINES

- 2020**
 - ACCELERATE TO MEET THE URGENCY OF THE ENERGY TRANSITION
 - 30% * decrease in local greenhouse gas emissions
 - 20% reduction in territory carbon footprint * (vs 2004)
- 2030**
 - AN AMBITIOUS 2020-2030 OPERATIONAL ACTION PLAN
 - 50% decrease * (vs 2004) in local greenhouse gas emissions and better air quality than WHO guideline stipulations
 - 40% reduction in territory carbon footprint * (vs 2004)
- 2050**
 - PARIS WILL BE A CARBON NEUTRAL CITY, RESILIENT, INCLUSIVE AND USING 100% RENEWABLE ENERGY
 - Zero emission in Paris
 - 80% reduction in territory carbon footprint * (vs 2004) and 100% residual emissions offset
 - Climate resilience and a socially fair transition within Paris

* compared to 2004

KEY FIGURES



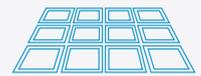
MORE THAN **1000** km OF CYCLE PATHS



23% OF THE CITY IS GREEN



85% OF SUSTAINABLE FOOD IN NURSERIES



76 500 m² SOLAR PANELS HAVE BEEN INSTALLED



CREATION OF **66 477** JOBS IN THE CIRCULAR ECONOMY SECTOR



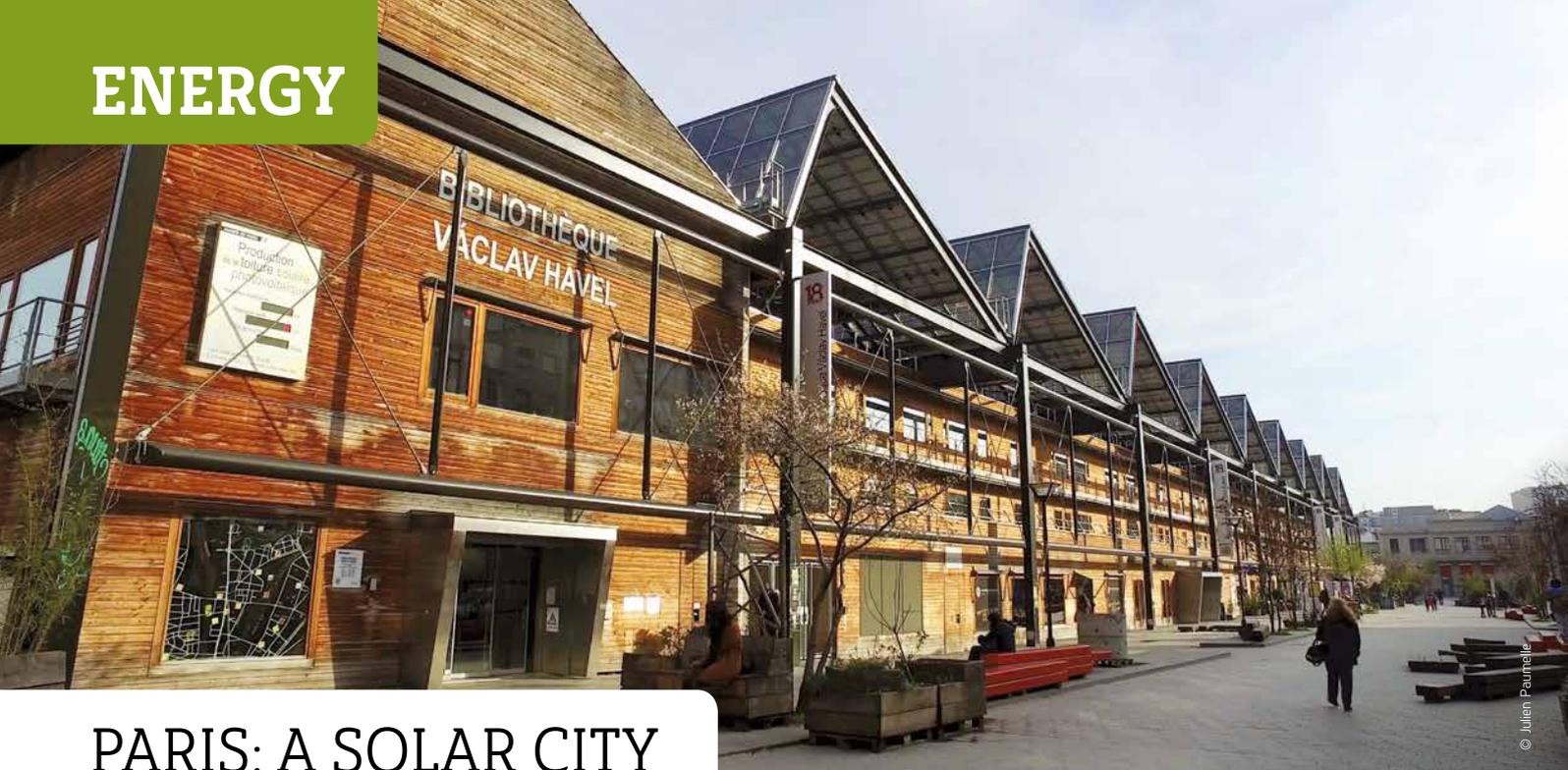
300 SCHOOLS & **65 624** DWELLINGS HAVE BEEN RENOVATED OR ARE IN THE PROCESS OF BEING RENOVATED



922 COOL AREAS



26 375 CLIMATE VOLUNTEERS



PARIS: A SOLAR CITY WITH 100% RENEWABLE ENERGIES



Paris will exit the era of fossil energies, which will be replaced by renewable energies.

Reducing our fossil energy consumption and moving to a 100% renewable energy system will drastically reduce greenhouse gas emissions while enhancing the use of closer regional resources. Paris will abandon the fossil fuels era; these will be replaced by renewable energies, especially by exploiting large deposits in Parisian territory.

However, Paris, dense urban territory, cannot achieve energy independence. Renewable resources (biomass, wind, sun) are distributed throughout France. A 100% renewable energy system must therefore be decentralised and synonymous with new cooperations between cities, urban areas, regions and their stakeholders, in order to optimise the use of these resources, and reinforce the rationale of solidarity.

By developing this new 100% renewable energy model on its territory, the City of Paris defends the right to clean energy for all Parisians, with the object of ensuring universal access to efficient and sustainable energy services.

Key actions:

- **20% of Parisian roofs equipped with solar panels in 2050**
- **Citizen involvement in energy issues** (individual and collective self-consumption, production cooperatives)
- **New forms of territorial partnerships to reach 100% renewable energy**
- **Intelligent energy networks and 100% renewable energy**

TARGETS



50%
less energy consumption
by 2050



100%
renewable and recovered
energies by 2050



20%
energy consumption
from local renewable energies
by 2050



PARIS, A CITY WITH SHARED, ACTIVE AND CLEAN TRANSPORT



The reduction of vehicles in the city will create an opportunity for Parisians to reclaim freed public spaces.

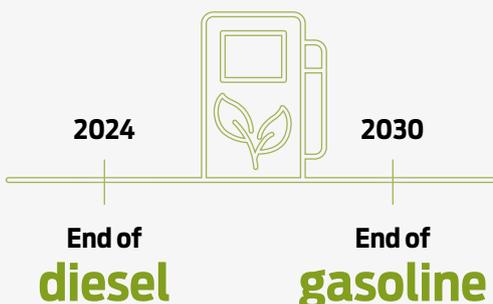
As a result of the dynamism and attractiveness of Paris, the transport sector accounts for 17% of energy consumption in the city and 24% of its greenhouse gas (GHG) emissions. It is also the primary source of air pollution. With changing lifestyles, transport of people and goods must be analysed on a metropolitan scale. The completion of the Grand Paris Express and the future ring road will cause a profound transformation of Ile-de-France region traffic; the era of private vehicles will give place to that of shared, clean and active modes of transport. The reduction of vehicles in the city will create an opportunity for Parisians to reclaim freed public spaces. Moreover, it will be necessary to reorganise management of the flow of goods that feed the capital every day, especially in denser central city areas, so as not to lengthen

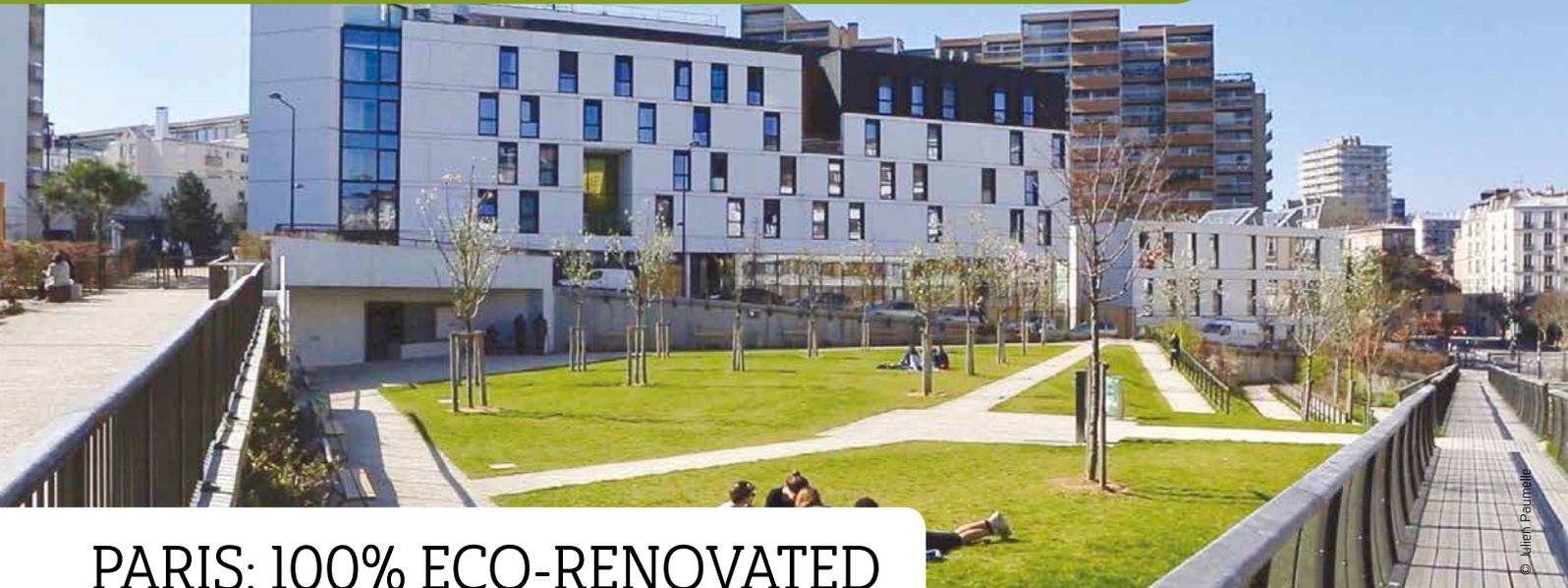
distances in the last link in the logistics chain. Paris requires restructuring of urban city logistics as well as diversification of modes of transport used for goods.

Key actions:

- **More than 1 000 km of cycling lanes in 2020**
- **“Paris Respire” (Paris Breathes) deployed during every Sundays and holidays by 2024**
- **100% carbon-free public transport by 2025**
- **Extension of the Low Emission Zone in the Greater Paris metropolitan area**
- **A network of logistic spaces in the heart of the city by 2030**

TARGETS





PARIS: 100% ECO-RENOVATED AND EQUIPPED TO BE CARBON NEUTRAL



Energy renovation is the priority project.

80% of Paris buildings were built before the first thermal regulation of 1974, which explains why the residential and tertiary sectors alone account for 80% of energy consumption and more than 20% of the Paris carbon footprint. Paris buildings are also the second largest source of air pollution after transport, mainly due to oil heating.

Energy retrofit is a priority to tackle the main energy savings of the capital and achieve carbon neutrality. The city has been committed for 10 years to renovating its aging buildings and, by 2020, it will have renovated 30,000 social housing units, 300 schools and over 50,000 condominium units. The goal of a 100% eco-renovated Paris addresses the fundamental challenge of fuel shortages by guaranteeing low-energy healthy and comfortable housing.

At the same time, urban renewal operations as well as new building constructions, will act as laboratories for the Climate Plan to build low carbon and positive energy buildings. The City wishes to implement regulatory planning tools throughout its entire territory to apply Energy-Cli-

mate guidelines in urban development operations and build a more resilient and friendlier city, adapted to new lifestyles.

Key actions:

- **1 million housing units and 50 million sqm tertiary buildings renovated by 2050**
- **Local professional sectors for a successful works offer and create thousands of new jobs**
- **A new mechanism for pooling energy renovation projects: Concerted Renovation Zones (CRZ)**
- **100% low-carbon and positive energy new buildings**
- **New buildings designed in a reversible and flexible way with more common and shared spaces**

TARGETS



Paris 100% eco-renovated
to meet the fundamental challenge of fuel poverty
by ensuring healthy and comfortable housing
with controlled loads



Energy consumption on housing
reduced by one third by 2030
and by half by 2050

TOWARDS A FAIRER AND MORE EQUITABLE CITY, ENERGY AND CARBON SUSTAINABLE

An ambitious action plan for 2030 and a shared vision of the city in 2050

Tomorrow, Parisians will adopt new lifestyles improving their well-being while preserving the climate. Together, thanks to everyone's support, we will make Paris a resilient, inclusive city that becomes more and more attractive and pleasant to live in.

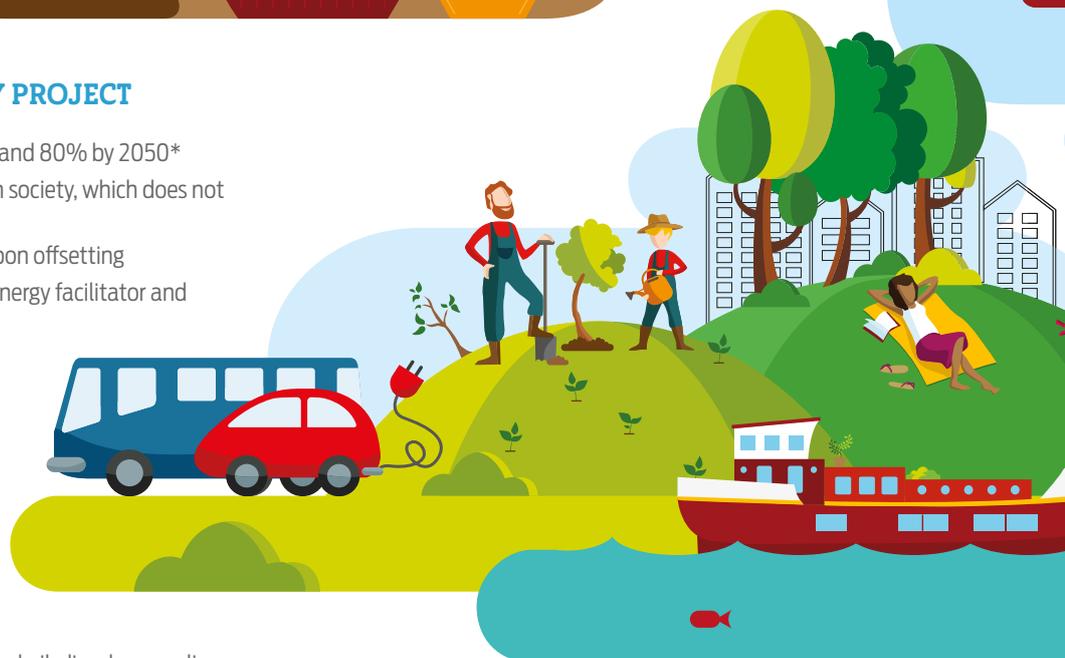
AN ACCELERATED ENERGY TRANSITION

- 100% of Parisians supplied with renewable energy by 2050
- 35% reduction in energy consumption by 2030 and 50% by 2050*
- More than 1 million housing and tertiary buildings renovated by 2050
- 20% of the energy consumed by Parisians produced locally in 2050
- Stronger solidarity to curb energy poverty



CARBON NEUTRALITY: A SOCIETY PROJECT

- 40% less greenhouse gas emissions by 2030 and 80% by 2050*
- A fair and equitable transition to a low-carbon society, which does not exclude anyone
- A responsible and innovative approach to carbon offsetting
- New professions for a new economic model: energy facilitator and eco-manager.



BETTER AIR QUALITY

- Pure air in 2030: no more coal, fuel oil, diesel or gasoline
- 100% clean, active and shared modes of transport by 2050
- "Paris Respire" Breathing space in all boroughs on Sundays and public holidays by 2024
- Multimodal logistics platforms in the heart of the city for low-carbon freight in 2030

* on a 2004 basis

CITIZENS MOBILISED FOR A SUSTAINABLE CITY

- 25% of the participatory climate budget
- Involvement of Parisians in an Agora and as Climate Volunteers
- Paris Climate Action: economic stakeholders engaged in a carbon neutrality strategy



A CITY THAT IT IS ENJOYABLE TO LIVE IN

- 100% organic and local food in collective restaurants
- Organic farming developed in Paris and Île-de-France region
- More fountains, green spaces and cooling areas
- Olympic transformation: Zero single-use plastic in 2024



PARIS, A SUSTAINABLE FOOD CITY



Towards a more flexitarian and less meaty diet.

To feed its 2.2 million inhabitants, 1 million workers and 280,000 tourists daily, Paris is strongly dependent on other territories that produce and transform products transported to and consumed in the capital. The food sector accounts for 18% of the city's carbon footprint, making it an important issue to achieve the goal of carbon neutrality by 2050.

The transformation of the current system towards a more environmentally friendly agriculture will go hand in hand with the evolution of the behaviours and habits of citizens towards a more vegetable based and less meaty diet.

To promote short circuits, it is necessary to preserve and structure local production chains while improving the environmental quality of cultivated areas. In addition, food supply will have to be secured by developing clean modes of transport to the capital

Key actions:

- **Building a sustainable food system with 50% of the food consumed in Paris from agricultural products from the Paris Basin in 2030 and 75% in 2050**
- **Reduce the meat content of the diet and tend towards a flexitarian diet**
- **Reconnecting consumers with producers by raising awareness of environmentally friendly agriculture**
- **Increase the freight share to 50% by electric, active or river transport**

TARGETS



40%

reduction in greenhouse gas emissions generated by food by 2030



90%

sustainable food in collective restaurants in 2050

Usable agricultural land in Île-de-France region

20%

30%



2030

2050



PARIS, ZERO NON-RECOVERED WASTE AND CIRCULAR ECONOMY



To build a circular economy, Paris must focus on maximum value recovery of remaining waste.

The evolution of our production and consumption patterns has resulted in a significant increase in the production of waste by businesses and households. Although Paris waste has been declining in recent years, it has doubled since 1940 from 239 kg per capita to 485 kg in 2015.

To reduce the weight of our waste, mainly composed of packaging and bio-waste, solutions to be implemented include: new methods of bulk distribution, combatting food waste and encouraging reuse.

To build a circular economy, Paris must ensure that the greatest value of the remaining waste, which means improving the collection system and encouraging all stakeholders, individuals and businesses to practise better waste sorting. Waste can then be recycled or, in the case of bio-waste, transformed into an energy resource (biogas) or agricultural input (compost).

Key actions:

- A network of sorting stations in 2020
- 20 additional recycling centres by 2020
- 1 bulk, 100% package free store per 100,000 inhabitants in 2030
- 1,000 composting sites in 2020 on the ground floor of buildings and in public facilities
- 50% of sites “zero waste buried” in 2030 and 100% in 20500

TARGETS



10%
less Household
and Similar Waste
between 2010 and 2020



zero waste
not valued



50%
reduction of food waste
by 2025



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IMPROVE AIR QUALITY FOR BETTER HEALTH



To reduce the daily exposure of inhabitants to poor quality air.

The air we breathe is influenced by a multitude of parameters that can alter its quality: climatic conditions and emissions of natural or human activity-related atmospheric pollutants. For more than 10 years Paris air quality has improved. However, in 2016, 1.4 million people in Paris were exposed to air that did not comply with the regulations on nitrogen dioxide. And, according to several studies, fine particles and ozone are the cause of premature death of nearly 45,000 people every year in France.

Also, the issue of the air quality does not respond to administrative borders and affects both Paris and the surrounding urban districts. Air pollutants on Ile-de-France are mainly emitted by road traffic, airport activities, agricultural spraying in spring and heating in winter. Air quality can be improved mainly by reducing background pollution and a diligent

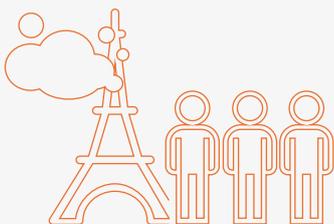
and concerted policy during peak pollution (limitation of agricultural and industrial activities, reduction of road traffic)

In addition, it is necessary to educate people regarding indoor pollution and continue applying preventive actions to reduce the daily exposure of residents to poor air quality.

Key actions:

- **Continue implementing Low Emissions Zones, which progressively ban circulation of the most polluting vehicles**
- **Create a Metropolitan Air-Wood Fund to clean up heating pollution**
- **Target zero heating oil in Paris by 2030**

TARGETS



by 2024
No Parisian
shall be exposed to critical thresholds of air pollutants



More effective action during pollution peaks



Parisians shall be better informed
about indoor air pollution



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ADAPT PARIS TO THE EFFECTS OF CLIMATE CHANGE



The city must adapt to climate change and increase the number of fresh urban islands.

Very dense and mineral, Paris is particularly sensitive to the urban heat island (UHI) effect. The city can become a real furnace when affected by heat waves and put at risk vulnerable populations (children, elderly, homeless). To guarantee thermal comfort for Parisians and visitors during the summer months, the city must adapt to climate change and create multiple fresh areas.

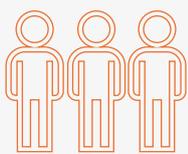
Anticipating and coping with the effects of climate change mean requires allocating more space to nature reserves and water bodies in the city and creating «cool islands and paths». Vegetation on roofs, streets, squares and the creation of small «urban forests» will bring shade and help bring down temperatures. At

the same time, it is essential to facilitate access for vulnerable Parisians populations to bathing sites, water points and cool meeting places (museums, bathing places, green spaces ...).

Key actions:

- ▶ **300 additional cool islands by 2030**
- ▶ **“Schoolyards Oases”, with vegetation and non bitumous surfaces**
- ▶ **20,000 new trees planted by 2030**
- ▶ **40 water areas developed by 2020 and 50 new ones by 2030**
- ▶ **New pools and new open water swimming sites**

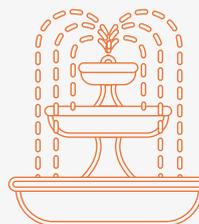
TARGETS



A resilient, inclusive city, thanks to the mobilization of civil society



40% of the territory covered by vegetation



Refresh the city with new urban developments



A more important role for water in the city by 2050

GENERAL INVOLVEMENT, A NEW GOVERNANCE

PARIS MOBILISES CITIZENS AND STAKEHOLDERS



TARGETS



Promote a dynamic partnership with local stakeholders



Inform and involve citizens and professionals so they may contribute to the success of the Climate Plan

Meeting the climate challenge is an opportunity to define a new collective project in which all Parisian, metropolitan, national and international stakeholders contribute to achieving the objectives set by Paris. These changes, which require a collective and transversal response, must benefit from innovative and adapted governance. Dynamic partnership is at the heart of the Climate Plan, and it relies on the involvement of citizens, businesses, institutions and stakeholders such as the Paris Climate Agency.

In addition, a profound cultural change will have to be achieved in order to transform our lifestyles and to direct our behaviours towards sobriety and a rapid ecological transition. To help this necessary transformation and involve all stakeholders in the territory, strong partnerships will be enabled by reinforcing

already existing tools such as Sustainable Paris Stakeholders (Acteurs du Paris Durable) and the Paris Climate Action Charter.

Key actions:

- **Recruit 150 volunteers for the Climate, who will mobilise others to participate in daily climate action**
- **Encourage economic and institutional stakeholders committed to achieving carbon neutrality**
- **Strengthen the role of local authorities in the implementation of the Paris Agreement**

FINANCE, COMPENSATION, ADVOCACY

TARGETS



Financing the transition



Set up carbon offsetting



Become a national and international spokesperson regarding climate concerns

City of the International Agreement on Climate, Paris must be a model of commitments and achievements. The place occupied by the city in international networks strengthens its voice and contributes to the role of local authorities as major players in the fight against climate change.

Paris must achieve its ambitions and deploy innovative financing mechanisms (green loans, Energy Saving Certificates, Territorial Investment Fund for the ecological transition...) to translate its commitments into actions.

To accelerate the transition, Paris will put in place a carbon offsetting mechanism that will make it possible to finance reduction and sequestration projects for irreducible emissions. These projects, with a high social and environmental value, will forge links of

solidarity via cooperation between territories at a local level and also include international cooperation with the countries of the South

Key actions:

- **Create a territorial investment fund dedicated to ecological transition, known as the Green Fund**
- **Set up a local carbon offsetting platform**
- **Advocate the implementation of a universal carbon tax for aviation**
- **Strengthen the role of local authorities in the implementation of the Paris Agreement**



**ici,
demain!**
ensemble pour le climat