



**REPORT ON
SUSTAINABLE
DEVELOPMENT**

2013-2014



CONTENTS

- 4** FOREWORD

- 6** FIGHTING CLIMATE CHANGE AND ADAPTING THE CITY TO THE EVOLUTION OF CLIMATE
 - 8** Designing layouts adapted to climate change
 - 11** Improving the energy efficiency of the Paris habitat
 - 15** Involving the tertiary sector
 - 17** Adapting the city to climate change

- 20** PARTICIPATING IN THE IMPROVEMENT OF AIR QUALITY
 - 21** Reduction of chronic pollution
 - 22** A better sharing of the public space
 - 23** Facilitate the movement of pedestrians
 - 24** Fostering the use of bikes
 - 25** Strengthening public transport
 - 25** Developing electric mobility and non polluting means of transportation
 - 26** Adapting the transport of goods to new urban, environmental and economic requirements

- 29** ENHANCING NATURE IN PARIS: CREATION OF GREEN AND BLUE CORRIDORS
 - 30** Acknowledging the benefits of nature in the city
 - 31** Opening new green spaces
 - 31** Strengthening ecological continuity
 - 33** Reintroduction of living beings in buildings and in the public space

- 34 Involving Parisians in the greening of Paris
- 35 Introducing urban agriculture in Paris
- 37 Eco responsible management of green spaces
- 40 Promoting an ecological, comprehensive and solidary management of water

- 45 CONTRIBUTING TO THE FULLFILMENT OF CITIZENS
- 46 Helping the Parisians to find housing
- 47 Inventing the city of tomorrow
- 48 Making the city accessible to the greatest number of users
- 48 Improving the sound environment
- 49 Limiting the exposure of the Parisians to magnetic waves
- 50 Preserving environmental quality

- 53 STRENGTHENING SOCIAL COHESION AND SOLIDARITY BETWEEN TERRITORIES AND GENERATIONS
- 54 Adoption of a parisian pact against social exclusion
- 56 Diversifying child and family support policies
- 58 Implementing the department plan for the autonomy and citizenship of Parisians with disabilities
- 59 Access to rights
- 60 Fostering social and professional integration
- 61 Particular attention must be paid to the most vulnerable neighborhoods

- 66 PROMOTING RESPONSIBLE MODES OF PRODUCTION AND CONSUMPTION AND SHIFTING TOWARD CIRCULAR ECONOMY
- 67 Responsible purchase
- 69 A better management of waste

- 74 CONCLUSION

FOREWORD

The fourth edition of the Report on Sustainable Development takes stock of the actions undertaken in 2013, the trends for 2014 and the outlook for 2015. The action of the new municipal team is a continuation of the public policies initiated by the previous city executive whose latest achievements in the field of sustainable development are presented in this report. Aware of what is at stake, the new team has decided to move on to the next stage and respond to new challenges. The adaptation to climate change, the reduction of pollution and solidarity toward vulnerable populations are priorities. To address these issues new research programs must be undertaken. A close cooperation between experts, partners and users must also be established so that they might work together on the actions set forth in ambitious programs and contribute to the construction of the Metropolis of the Greater Paris.

A privileged place is reserved this year for local stakeholders. More and more individuals, associations and companies are joining the **Eco Paris Network**. There were 102,000 participants in August 2013 and they are now more than 180,000. They follow in the footsteps of all those who are engaged and use their creativity and determination to improve the society of today and to build that of tomorrow. Their initiatives are often easy to reproduce. Their objective is to reduce our ecological footprint by consuming less, consuming better, encourage solidarity toward the most underprivileged and make our environment more pleasant. They actively contribute to the virtuous change of the territory by changing our life habits through innovation. With this in mind, the new team in office has launched two citizen's initiatives in which Parisians are invited to actively participate in the vote of the participatory budget and suggesting proposals for the greening of a few urban spaces.

At the same time, the achievements presented in this report highlight the extraordinary mobilization of the Paris administration and their partners. For example, more than 700 agents are mobilized within the **City sustainable development Network**. This commitment to sustainable development is a powerful stimulation for the implementation of the new priorities of the municipality concerning the adaptation to

climate change, the greening of the city, the creation of soft transport modes or the fight against precarious situations.

As in previous years, **innovation** plays an important part in the projects initiated by the City of Paris. The many examples presented here demonstrate that Paris has become a rich and diversified laboratory of innovation. Experiments ranged from the energy efficiency of buildings to urban furniture and urban agriculture, and home care for the elderly. These experiments are expected to continue. This is why innovation is a priority of this new mayoral term with the objective of making Paris a smart and sustainable city.

In compliance with the decree of June 17, 2011, this report develops the five goals of sustainable development:

1. Fighting climate change and the protection of the atmosphere,
2. Preserving biodiversity, protecting natural environments and resources,
3. Fulfillment of all human beings,
4. Social cohesion and solidarity between geographical territories and generations,
5. Dynamics of development based on responsible production and consumption patterns.

In another supplementary section, the contribution of the City to better air quality is highlighted. The purpose of this report on sustainable development is to provide a background for the debate on the guidelines of the 2015 initial budget.

Throughout the text, readers will discover important initiatives, marked by symbols that correspond to innovation, the circular economy, the Eco Paris Network, Metropolis of the Greater Paris and the eco-committed administration.





What will Paris look like in 2100 in the context of climate change? The City of Paris has asked the collective "Et alors ?" to plunge Paris into a fictional climate of +2°C
© Yannick Gourvil & Cécile Leroux, gathering « Et Alors ? », Mairie de Paris, DEVE, AEU

FIGHTING CLIMATE CHANGE AND ADAPTING THE CITY TO THE EVOLUTION OF CLIMATE

The IPCC (Intergovernmental Panel of Experts on Climate Change), an authority in this field, confirmed once again in its last report published in 2013-2014 (fifth IPCC report) that climate change is a reality and is caused by human activities.

International negotiations on climate, especially the Kyoto Protocol signed in 1997 and the 2009 Copenhagen Agreement, have generated a worldwide impetus to limit global warming to 2°C by 2100. The international conference that will be held in Paris in December 2015 will be an opportunity to reach a historic agreement applicable to all countries as of 2020.

More than half the world population lives in cities that are areas of high energy consumption and greenhouse gas emissions due to the resources necessary for their functioning (water, food, materials, biodiversity...).

This is why cities are a fundamental level of action to fight climate change. For about ten years, they have been leaders in the field of energy-climate policies.

The City of Paris is at the forefront of this movement as shown by the unanimous approval of its first Climate Plan in 2007 by the Paris Council and its updating in 2012.



The first Paris Climate Plan was adopted in October 2007 whereby the City undertakes to adopt a “factor 4” approach aimed at reducing greenhouse gas emissions that result from its own activities on the Paris territory by 75% in 2050 relative to 2004. The objectives for 2020 are:

- 25% reduction of greenhouse gas emissions on the territory,
- 25% reduction of energy consumption on the territory,
- 25% renewable energies in energy consumption.

An assessment for the period 2007- 2012 was made on the occasion of the updating of the Paris Climate plan.

In December 2012, the “2012 update” of the Climate Energy Plan was adopted. It corresponds to the new legal, economic and social context and meets European and international obligations.

The following themes are addressed:

		
Urban development and energy efficiency	Low energy housing affordable to all	New challenge for Paris tertiary sector
		
Mobility, climate and air quality	Responsible consumption to reduce the production of waste	Adaptation to climate change

The Paris Energy Climate Plan for 2012 is divided into 4 documents:

1. The 2007- 2012 assessment of the Paris Climate Plan presented above,
2. The broad guidelines that describe political commitments for 2020,
3. A Guidebook for the Administration that specifies how these guidelines should be implemented in the different areas under municipal responsibility,
4. The “Paris Climate Action” Partnership Charter signed in October 2013 by four companies: RATP, Monoprix, CPCU and eight other partners in October 2014 (Air France, Bouygues Immobilier, Caisse des Dépôts et Consignations, Eau de Paris, EDF, GRDF, GreenFlex, La Poste).

In 2013, the following tools were used to implement the 2012 Climate Energy Plan:

- The Housing Guidebook presents 46 actions concerning social housing and the private housing stock, as well as cross-cutting actions such as the reduction of fuel poverty,
- The solar cadastre that identifies roofs where solar equipment might be installed,
- The Citizen’s Guidebook: educational and fun post-cards intended for all Parisians,
- Clim’Way, an on line educational and fun video game.

During the period 2015-2016, a “Guidebook for the Tertiary Sector” (companies and administrations) and a “Guidebook on the Adaptation to Climate Change” will be published following the same principles.



DESIGNING LAYOUTS ADAPTED TO CLIMATE CHANGE



In 2001, Paris undertook an ambitious program of urban renovation on 10 % of its territory. More than 940 hectares, and 70 different operations, are part of an urban development plan. The objective of the City of Paris in its urban projects is to combine a variety of functions, to mix populations, to maintain high architectural and environmental quality and to enhance heritage buildings.

DEVELOPMENT PROJECTS ARE LABORATORIES TO FIGHT CLIMATE CHANGE AND ENHANCE BIODIVERSITY

To reach the objectives set forth in the Climate Plan and the Biodiversity Plan, 5 major actions are undertaken by the City:

1. The prescriptions of the Climate Energy Plan are systematically integrated into general conditions each time plots of land are sold. Later on, developers must draw up an annual report to check whether these regulations have been respected. The Paul Bourget (13th district) and Porte de Vincennes (12th district), mixed development zones (ZAC) that were created in 2013, have benefited from these measures.
2. Since December 2012, impact studies are mandatory prior to any development project. They are aimed at determining the measures the City of Paris has to take in order to prevent, reduce or offset the negative impact of projects on the environment and human health. They also specify monitoring procedures.
3. Biodiversity is taken into account in every development project. Like in Claude Bernard ZAC (19th district), these projects play a significant role in the preservation of biodiversity because they contribute to strengthen green and blue corridors. These corridors are positive for the presence of “coolness islands”. An assessment made at the preliminary stage of the project examines the potential for expanding the presence of nature in the city.
4. Construction projects now combine the greening of roofs with the installation of thermal or photo voltaic panels. These aspects are mentioned in the specifications for competitions and apply to major projects like Paris Rive Gauche (13th district) or Clichy-Batignolles (17th district).

5. Plans for the management of work site waste must be defined. The experience of Pajol ZAC (18th) where parts of the obsolete structure of the hall were removed by rail shows how the requirements of the Regional Plan for the Prevention and Management of Work site Waste are respected (PREDEC).



As a result of these measures, the City of Paris was awarded the Eco Neighborhood National Label in 2013 for two projects (out of 13 labels nationwide): the Claude Bernard ZAC (19th) and the Frequel-Fontarbie sector (20th). This Label rewards and spotlights the most sustainable and virtuous projects. For 2014, two projects – Boucicault (15th) and Clichy-Batignolles (17th) are in competition. The results will be announced in November 2014.

CHANGES IN THE PARIS LOCAL URBAN PLAN WILL STRENGTHEN THE IMPLEMENTATION OF THIS STRATEGY

In 2014, the Paris Council started working on the modification of the Local Urban Plan.

The Local Urban Plan is an essential document for the territory. It sets urban planning standards and rules on the use of lands.

This planning document integrates provisions concerning the production of housing units, especially in the social housing sector, the fight against climate change and pollution, the improvement of environmental quality and the place devoted to vegetation in the city. They will be binding on every construction and renovation project.



Calls for innovative projects will be launched on the theme of urban planning

In her 2014-2020 project, “Paris qui ose”, the Mayor of Paris has made innovation the key element of her urban planning strategy. To this effect, the City will launch a call for innovative projects at the end of 2014. It will be targeted to investors, developers and designers with the purpose of implementing innovative initiatives on sites that belong to the city and are intended to be sold. This call for projects is aimed at proposing innovative solutions to achieve more efficiency and a greater urban quality. Innovation is the driving force of a city that is more attractive, sustainable, responsible and inclusive because it provides concrete responses to municipal ambitions in terms of production of housing, economic development, cultural creation, environmental protection and enhancement of biodiversity. The innovation expected will concern both the substance and the form. In terms of substance, it should bring innovative solutions to the content of the project, its planning, the way it will be used and its technical specificities. As far as the form is concerned, innovation will be assessed on the basis of the procedures proposed, the different forms of partnerships and debates, the methods of management of the deadlines and the various phases of the projects.

THE ENERGY EFFICIENCY OF PUBLIC LIGHTING IS IMPROVING

Public lighting is the second largest source of energy consumption for the administration and the first in terms of electricity. It includes traffic lights, the lighting of public spaces and illuminations.

In 2014, public lighting in Paris was comprised of 175,000 light sources, 63,000 lighting columns, 30,000 lighting consoles, 21,000 traffic light posts and 313 illuminations sites.

Energy savings, based on the gradual replacement of energy consuming bulbs and obsolete streetlight fixtures, reached 18% in July 2014 compared with 2004, i.e. 27GW/h, the equivalent of the annual consumption of a city of 300,000. These savings result from the implementation of the energy efficiency procurement launched by the City of Paris in 2011. This energy efficiency procurement contract guarantees that goals are met through actions on the operation and management of equipment, the enhancement of sites or monuments and, above all, energy efficiency. The service provider selected has pledged to cut energy consumption by 30% relative to 2004 without taking new light sources into account. Each year, objectives and levels of efficiency are assessed. For 2013, particular emphasis has been placed on a progression in the quality of the service provided and respect for energy objectives.

In addition to improved energy efficiency, it was decided to provide “appropriate lighting” and adapt lighting fixtures to the evolution of uses. For instance, in pedestrian areas or sectors devoted to soft modes of transport, whiter lights have been installed in order to improve the perception of obstacles and atmospheres.

The LED technology (electroluminescent diodes) plays an increasing role in innovative technologies deployed in Paris with the installation of 1,600 LED street lights thus far. In 2014, rue Labois-Rouillon (19th) was the first street where speed was limited to 30 km/hour and LED streetlights were fitted. They have generated a 55% drop in energy consumption.

The development project on rue Broca (5th and 13th) is also part of this approach. It combines several technologies (LED, remote management systems), which enhance the underpass under Port-Royal Boulevard and improve the safety of pedestrian walkways, visual comfort and the lighting ambiance, while saving energy.



Alexandre III Bridge (7th district) – © Evesa, Yves Chanoit

RENEWABLE AND RECOVERED ENERGIES ARE DEVELOPING



The Halle Pajol (18th) is a positive energy multi-purpose facility
© Mairie de Paris, DPA

The Halle Pajol (18th) is a positive energy multi-purpose facility

It houses a youth hostel, a library and shops. Many innovative solutions in terms of heating, hot water, lighting and ventilation have been introduced during the renovation of the building, completed in 2013. The efficiency of the building's insulation is ensured by more than 30 cm of insulating material on outer walls, fixed double-glazed windows, mobile awnings on facades and thermal insulation (for the library) made of a cellulose wadding from recycled newspapers or shreds of new printed paper. The building is connected to the CPCU urban heating network (Paris Company of Urban Heating) that uses, among other things, the steam produced by the incineration of domestic waste. 150 m² of thermal solar panels coupled with a heat pump account for 50% of the heating of the water used in the showers of the youth hostel. A heat exchanger recovers heat from waste water to preheat the cold water of the showers.

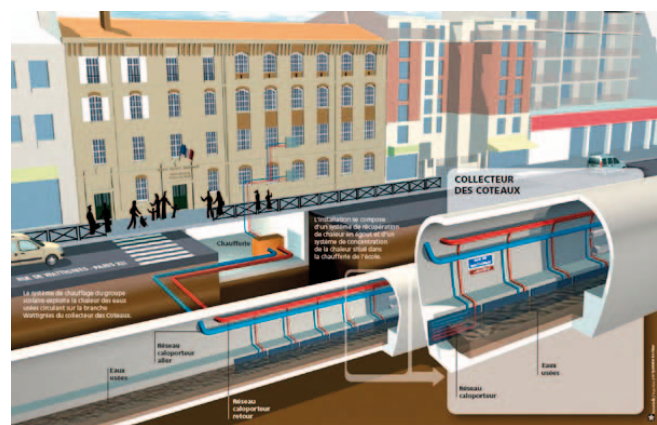
A double flow mechanical ventilation system has been chosen because it is more cost-effective. It permits to use calories from the air extracted from the building to heat the incoming air. During the summer, a Canadian well made up of 1.2 km of tubes buried in the garden cools the performance hall and the meeting rooms.

The Halle Pajol is a positive energy facility thanks to the largest photovoltaic installation in Paris (3,500 m²). The production of electricity reaches 410 MWh per year for a power of 465 kWp.

Wattignies school (12th) is heated thanks to the recovery of heat from the sewage system.

The city of tomorrow will need to be more resource efficient. In order to limit the use of nonrenewable energy, the Paris Authorities have decided to recycle waste water from the sewage. The system is made up of exchangers and a heat pump. It permits to cover up to 70% of the heating needs of Wattignies School (12th) where it was installed in 2011. Later on, the Aspirant Dunant swimming pool (14th) will benefit from this heating system at the beginning of 2015.

After these first installations, a study on the energy potential of the Paris sanitation network will be launched by the end of 2014. It will list all the techniques that can be used, to map sites on the Paris territory that offer the best conditions for the recovery of energy, and to identify several projects to be carried out.



Wattignies School – © Mairie de Paris

Geothermal energy is developing in Paris

Paris has underexploited natural resources with which the city could produce its own energy. Geothermal energy can take several forms: it can be a Canadian well, a soil-air heating system with heat pumps that utilize the heat present a few meters deep. It can also be drillings which facilitate the use of the much higher temperatures deeper underground: at 1800 meters deep, underground water can reach 57°. This very hot water can be used in a central heating network to provide the needs in heating and hot water of hundreds of homes.

Geothermal energy in the Dogger aquifer (-1,800 meters) in Claude Bernard ZAC (19th) supplies 12,000 homes with hot water and heating. The Albien aquifer (-800 meters) in the Clichy-Batignolles ZAC (17th) will supply nearly 3,000 housings. The Louxor geothermal well (10th) covers 40% of the energy needs of the movie theater of the same name.



IMPROVING THE ENERGY EFFICIENCY OF THE PARIS HABITAT



The residential sector in Paris represents a crucial energy challenge (33% of total consumption), an economic challenge (1 billion euros annually) and a social issue (1.3 million homes, more than 220.000 of which are managed by social landlords).

If the Paris Climate Energy Plan is successfully implemented in the residential sector, almost half a billion euros per year will be saved on the bills paid by Parisians as of 2020. It will also create more local jobs in the eco-construction sector, protect the most underprivileged from future crises and save the equivalent of the annual energy consumption of all housings in a city like Toulouse, or the annual electricity consumption of the first eight districts of Paris (i.e. 4 TWh per year).

Since 2008 the City of Paris has made the allocation of subsidies to most social housing construction or renovation programs conditional upon the Climate Plan criteria. Social landlords must integrate the energy efficiency objectives defined by the Municipality in their projects.

Almost 21,000 new social rental housing units that comply with the Energy Climate Plan criteria were funded from 2008 to 2013.

During the same period, the renovation of more than 24,000 social housing units was financed by the City of Paris. Thanks to these Climate Plan renovations more than 220 GWh/year should be saved.

LE THE NEW HOUSING GUIDEBOOK INFORMS MANAGERS OF SOCIAL AND PRIVATE HOUSING BUILDINGS



At the operational level, the Paris Energy Climate Plan takes the form of thematic guidebooks, one of which is the Housing Guidebook.

Published in September 2013, the Housing Guidebook specifies 46 concrete actions that should be implemented both in the social housing stock and in private buildings. The targeted areas include energy savings, the reduction of greenhouse gas emissions, and the fight against fuel poverty, as well as innovation and the adaptation to the consequences of climate change. Drawing upon 5 years of experience and in connection with the first Climate Plan, this Guidebook has been elaborated after a broad consultation with the key partners of the City of Paris in the field of housing.

These guidelines are strengthened in the plans for the 2014-2020 mayoral term. The objective is to produce 10,000 housings per year for all social groups, with priority given to low and middle income families, and to transform 200,000 m² of obsolete offices into housing units.

In conjunction with the most important social landlords, the City of Paris set up in 2014 a unified system of funding for the production of housing and renovation programs: the operations that for technical or heritage reasons cannot reach the level of energy efficiency set by the Energy Climate Plan may qualify for certain funds, provided that they comply with the strictest regulations.



Condominium "Fontaine d'Aligre", replacing windows
© Jean-Baptiste Gurliat, Ville de Paris



An innovative solution for exterior thermal insulation using wood fiber



Building located on rue de la Roquette (11th) built at the beginning of 20th century – © Logement français

This process is a very good compromise between investment cost and the reduction of consumption. Insulation on the exterior facades with 100 mm of wood fiber reduces the energy loss from the facades by 84% and the energy consumption and greenhouse gas emissions by 40%. Wood fiber is produced from recyclable wood residues. Because of its great permeability it is particularly effective on facades sensitive to humidity.



Chevaleret shelter (Paris 13th) – © ICF La Sablière



Recovering heat from waste water

The renovation of the shelter on 134, rue du Chevaleret, (13th), is part of an internal policy of renovation of the Paris real estate stock. This shelter is now equipped with an innovative installation that recovers the heat from waste water and is coupled with a micro co-generation gas heater. The system permits a double reuse of energy that would usually goes to waste. Firstly, calories from waste water are recovered via a heat pump to preheat hot water and then electricity is produced from the heat generated by the gas heater.

MOBILIZATION OF THE PRIVATE HOUSING SECTOR

The OPATB of the 13th district

Since the Program of Thermal Improvement in buildings (OPATB) was launched in the 13th in 2010, 150 condominiums (11,600 housing units) have decided to carry out an in-depth energy audit of their building. The works voted by 26 condominiums (almost 2.000 housing units) for the 2011-2013 period, have involved complete programs of energy renovation, better roof insulation and the installation of more efficient heaters.

During the period 2008-2013, as part of the “Condominiums: Climate Objective!” scheme, 250 applications to finance energy audits have been submitted, 124 energy audits have been financed by partners in the scheme (ADEME, City of Paris, Ile de France Region) and 38 condominiums have decided to undertake works.

The 2D2E Housing Improvement Plan near Place de la République

In 2013, the first call for applications for the housing improvement plan was launched with a particular focus on sustainable development and energy savings (OPAH 2D2E). The sector concerned is located near République Square (3rd, 10th, 11th). After a free audit, the 28 condominiums selected benefited from support to carry out energy saving works and to make environmental improvements in their buildings.

After the audit, 19 condominiums decided to undertake a project of thermal and environmental renovation.

In 2014, a second call for applications was launched. Another 29 condominiums were selected following a preliminary committee meeting and 8 others were examined in October 2014. 1,400 housing units are affected by these 2 calls for applications.

The thermal improvement plan in the 19th district (OPATB)

After the two previous operations, the City launched a new project at the end of September 2014 to improve thermal efficiency in buildings located in the 19th district of Paris. 2613 buildings and 55,000 private housing units will benefit from support from the Paris-Hauts-de-Seine-Val-d’Oise PACT, an association specialized in habitat improvements which manages the project on behalf of the City. Under this Plan, free personalized help from advisers, collective information workshops and financial aids are proposed. This is a new step towards the objective of the municipality to retrofit the 1,000 most energy consuming buildings of Paris by 2020.



Thermal renovation of 26 rue Couëdic (14th)

In line with the City of Paris Climate Energy Plan, and with the support of the Paris Climate Agency, this condominium has taken steps in favor of the Climate.

After an energy audit, the roofs were insulated with ecological materials (cellulose wadding). A thermal engineering firm (Pouget-Consultants) assisted the contracting authority and worked with the architect of the building to install external insulation on several facades facing the courtyard. This was part of the complete renovation of the facades. In addition to

insulation, a complementary program involving ventilation works and the replacement of windows acquired through a joint purchasing procedure will take place. These major works are still under study. This is one of eight condominiums in Paris participating in a study on the reduction of water consumption (water eco-assessment and installation of water saving devices in all apartments) on proposal of the ARC (Association of condominium managers), Eau de Paris (municipal water agency), the Paris Climate Agency and Eqwergy Company.

THE PARIS CLIMATE AGENCY

The PCA helps Parisians through the different stages of their energy efficiency projects.



In addition to the operations presented above, the Paris Climate Agency (PCA), created upon the initiative of the City of Paris, offers individuals and professionals an opportunity to obtain free information and advice. This association is a member of a network of information services on renovation (Rénovation Info service). In 2013, it launched a web platform, CoachCopro aimed at providing assistance for the energy retrofit of Paris condominiums and at mobilizing professionals.

The PCA continues its work analyzing the challenges of climate change issues and their implementation in the metropolis with its partners: more than 85 public and private shareholders.

In 2014, it launched the platform: <http://www.paris-green.com> in preparation for the Paris Climate Conference (COP 21) scheduled for December 2015. It also won a call for projects launched by the ADEME and the Ile-de-France region for the development of a local platform on energy renovation.

In addition to the information and advice offered by the Paris Climate Agency, 16 guidebooks on “Sustainable Housing” published by the City of Paris are aimed at Parisians and professionals in the construction and sustainable renovation sectors. These thematic guidebooks also include information on experiences and good practices to help them with their projects. Several themes have already been addressed: heating, thermal insulation, renovation of windows, etc.

THE DEPARTMENT OF PARIS AND THE PARIS CLIMATE AGENCY TAKE ACTION AGAINST FUEL POVERTY

In France, fuel poverty was defined by the Law n° 2010-788 of July 12, 2010 on the national commitment to the environment. It is considered a situation of fuel poverty when “a person is facing particular difficulties in her/his housing to obtain the energy necessary to satisfy her/his basic needs because of insufficient resources or because of the energy performances of the dwelling”. Fuel poverty results from 3 main factors: household income, the energy efficiency of the building, and cost of energy.

In order to combat fuel poverty, a Local Commitment Contract was signed in May 2011 by the Department of Paris, the Prefect, social and economic partners and the Paris Climate Agency. On December 31, 2013, the partners agreed on an amendment by which the Local Commitment Contract is extended until December 31, 2017 to take into account the new conditions set by the reform of the subsidies granted by the National Habitat Agency and the latest decree of July 10, 2013 on the aids available from the Fund for Thermal Renovation.

A plan of action based on the identification of households in a situation of fuel poverty, thermal audits, and support to carry through the works and to obtain financial aid is defined in the local commitment contract on fuel poverty.

Between 2011 and 2013, 424 situations of fuel poverty have been identified by welfare services, 377 households have been contacted and 222 homes have been visited. 24 owners-occupiers have been referred to a specific set of measures called “Habiter mieux”. 105 owners occupiers have benefited from aids from the Fund for Thermal Renovation for an amount of € 299,570. A hundred of them have also received an additional bonus from the City of Paris that amounts to € 50,999. In order to finance a total of € 21.8 M of works, these subsidies have been added to the € 1 M from the National Agency for Habitat and the € 2.2 M from the City of Paris.

Since 2013, the Paris Climate Agency has been shifting its activity towards the training of social actors and the staff employed by social landlords. More than 400 social workers have been trained. The Agency

also organizes awareness and training workshops for the users of social services, especially social housing tenants. For instance, 3 workshops were created to help people to understand their bills, and to adopt behaviors aimed at reducing the consumption of energy and water. 450 people have been trained since 2013: 340 users and 110 social workers.

Lastly, as part of the national plan for the energy retrofit of housings, a one-stop desk of information on thermal renovation has been opened for the general public. On a local level, Paris operators have been mobilized to answer the calls arriving through the national platform.



The Eco Paris Network participates in the challenge “Positive energy families”. What about you?



“Positive energy families”

The challenge “Positive energy families” is aimed at showing that all together we can efficiently fight greenhouse gas emissions by taking concrete, measurable and community actions. We can also take advantage of this opportunity to reduce our energy bills.



New energy efficiency solutions are being tested

The City of Paris, the Paris Région Lab’ and the Paris Climate Agency have launched two calls for experimentation projects “on the energy efficiency of buildings”. 38 projects have been selected during the two previous calls for projects (2012 and 2013). Eleven projects are currently installed in buildings that belong to the City of Paris or its partners (social landlords, museums, research centers...). Some of these projects dealt with the monitoring of consumption using sensors that identify each device connected (Smart Impulse), the purification of air (Air-sur), the regulation of consumptions (THZ), the psycho-sociological study of the evolution of behaviors in the field of energy efficiency (ADSC/IME).



Energy, efficiency of buildings



INVOLVING THE TERTIARY SECTOR



In 2013, four major companies (Ratp, Monoprix, Saint-Gobain Distribution, Compagnie Parisienne de Chauffage Urbain), and eight new partners in 2014 (Air France, Bouygues Immobilier, Caisse des Dépôts, Eau de Paris, EDF, GRDF, GreenFlex, La Poste) representing the whole spectrum of the Paris economic fabric, signed the Paris Charter on Climate Action by which Paris companies pledge to reduce their energy consumption and greenhouse gas emissions.

In January 2014, the City of Paris launched a new tool to highlight the commitment of the signatories and monitor their progress: the Paris Climate Action Platform. The site also invites economic players to become partners by proposing concrete solutions to control the carbon footprint of their companies and their energy expenses.

In 2015, in partnership with these companies and their representatives, the City will draft a Tertiary Sector Notebook, similar to the Housing Notebook, that will chart the roadmap for economic activities in order to reach the 2020 objectives. It will be based on the development of the Charter and will help shopkeepers and craftsmen to improve their energy efficiency.

Boucicaut Paris Innovation business incubator (15th). As well as being classed as a low energy building, it is equipped with a composting system and hosts a beehive. An innovation program specifically targeted to molding the city of tomorrow and focused on circular economy and energy issues is also being developed in the building.

In 2013, more than €500,000 was allocated to support the initiatives of corporate networks, research and development programs, as well as experiments conducted by small and medium sized companies on the Paris territory. These included calls for projects on the energy efficiency of buildings and innovative planting methods.

The eco commitment application in favor of small and medium sized companies

The City has developed a mobile application titled Guidebook for Eco committed SME's. Its objective is to promote the development of eco innovative activities that are more respectful of the environment. Businessmen who adopt an environmentally friendly approach can find in this new application a ready-to-use procedure including, among others, evaluation tools.

These procedures have been adapted for the City of Paris business clusters in order to generate synergies between the managers of these premises and the companies that rent them. 4 business clusters (more than 200 companies) have now adopted this procedure. Ultimately, a network of eco committed business clusters is expected to be established.

A call for projects on the improvement of the urban metabolism was launched in 2014. It is the logical outcome of this demand for solutions that foster synergies between the various stakeholders in the context of a transition toward circular economy.



© Mairie de Paris



To be exemplary and to generate a dynamic among local stakeholders, the City has set itself even higher standards such as reducing greenhouse gas emissions by 30% instead of 25%.

When reviewing its Climate Energy Plan, the City of Paris adopted in 2012 the Notebook for the Administration that defines the critical path to meet the commitments for 2020 as well as all the measures that must be undertaken to reach these objectives. It includes 44 actions concerning public facilities, transportation, consumption (sustainable food, among others) and waste, and the adaptation to climate change.



The City retrofits its schools

The City of Paris has launched a thermal renovation program in municipal schools.

The audits carried out in the 45 schools retrofitted in 2012 and the 55 retrofitted in 2013 show that the objectives of reducing energy consumption and greenhouse gases by 30% are reached.

A study on the retrofit of an extra 200 schools is underway. This project is supported by the European Commission through the ELENA program of the European Investment Bank for a maximal expenditure of more than €1.3 M.



The City limits the consumption of its computers.

The City of Paris has introduced a procedure to limit the electricity consumption of its 30.000 computers. By carefully controlling the stand-by and automatic switch-off functions of the computers, new energy savings can be made. They add to the results already achieved thanks to the growing awareness of the staff.

A control device tested at the end of 2013 on about 40 computers used in offices has highlighted the advantages of this approach: a computer active 24 hours a day can use 8 times more electricity than a computer equipped with the automatic stand-by and switch-off functions. The test will be extended to 1.000 computers during the second semester of 2014.

Should the results of this second phase be as expected, stand-by and automatic switch-off functions will be installed on all City computers. Specific uses in each service will of course be taken into account.

ADAPTING THE CITY TO CLIMATE CHANGE

According to the latest IPCC Report (International Panel of Experts on Climate Evolution) published in 2013, the Earth has already warmed by 1°C in a century and, according to the most alarming predictions, temperatures could rise by almost 5°C by 2100.



The new climate models developed in 2013 and 2014 confirm global warming and its consequences: a rising number of extreme climatic events both in terms of intensity and frequency, disruptions in rainfall patterns, rising sea levels, etc. These risks will directly affect human societies, including life in cities.

Like other large cities in the world that are starting to prepare, Paris will have to face more and more frequently extreme climatic events and especially strong heat waves while water resources are likely to become increasingly scarce.

Adaptation to climate change is still a new topic in most large western cities. It offers unprecedented and innovative opportunities to build the Paris of the 21st century: a resilient and resourceful city that is adapted to its time and climate.

As early as 2007, the City of Paris has integrated the adaptation to climate change into its Climate Plan, especially in encouraging the greening of the territory as a cooling method during heat waves. The section of the 2012 Energy Climate Plan on adaptation can now rely on a broader technical basis and new solutions are available: environmentally-friendly techniques to cool the City (presence of water in public spaces, ventilation, sunscreens and innovative materials in buildings...), acknowledgment of urban heat islands, monitoring of the heat wave plan, preparation for floods and droughts, awareness of the public,

research and planning for the future. This work was launched in order to draw up a strategic notebook on the adaptation of Paris to Climate change. The results will be available in 2015.

Faced with climate change, Paris studies its weaknesses and strengths

In order to face this evolution more efficiently, the City of Paris commissioned a study in 2012 and 2013 to assess its weaknesses and strengths.

This study is now available in the form of 25 “Adaptation files” intended for the administration. These files analyze the strengths and weaknesses of Paris in the face of climate change.

Altogether, 8 climatic hazards (heat waves, floods, storms...) and 4 types of resources (water, energy...) have been studied with respect to 13 vital activities for Parisians (production of drinking water, public health system, transport and mobility, urban development...). These data will be used as a basis to draft the Adaptation Notebook and the operational roadmap for the adaptation of Paris to climate change by 2015.

At the operational level, these files on the effects of heat waves have been followed by three studies carried through by the City of Paris services. They are aimed at finding and testing new solutions to cool public spaces. They correspond to the need to preserve the environment and the health of an urban population (through the reduction of nuisances caused by heat waves).

What is the cooling power of green areas in the summer?

Within the framework of the study on the thermo regulating role of green areas and wetlands in Paris, 21 temporary meteorological stations were set up during the summer 2014.

Temperature, moisture, sun, rainfalls, and solar radiations, wind: all these parameters are measured to quantify the thermal comfort in public spaces, in green or wet areas and on their outskirts.

This study permits to better understand the advantages of nature in the city. The objective here is to assess and quantify the cooling power of green and water areas during the summer. Ground measurements will be compared with thermographic aerial photos in order to obtain information on the dissemination of the cooling phenomenon. The objective of the study is to determine the best way to lay out green spaces for an optimal cooling power and to limit at best the presence of heat islands in the city. These recommendations will be applied to future green areas or developments programs. The results of the study are expected in 2015.



Temporary meteorological station, Atlantique Garden (15th district)
© Mairie de Paris, Marie Gantois



The City studies the cooling power of road works materials

The Paris Planning Agency (APUR), the Laboratory on Materials and Complex Systems (SMC) of Paris-Diderot University, a laboratory in charge of testing materials for the City of Paris (ELM-VP) and the Water and Sanitation Department have joined forces to identify the thermal and climate properties of the materials used in Paris public spaces. This will help the City to better take this aspect into account when choosing materials in the future.

The study has been carried out by a Ph.D. student under a CIFRE contract (industrial convention on training through research). Representative samples are made by ELM VP and tested by the SMC Laboratory. This experimental system will study the temperatures and heat flows of these samples at different depths. Transfers in the form of thermal radiation or warming of the air will also be studied.

The second phase will be focused for instance on the use of new, more permeable materials. Six surfaces will be tested: the conventional roadway (bituminous coating), conventional pavement (asphalt coating), modular pavement (granite slab), stabilized soil, grass, and a permeable roadway structure. The initial feedback for the test on current materials should be available in the fall 2014.



The City is testing cooling techniques in public spaces

Cooling public spaces by sprinkling non drinking water is one of the potential solutions against heat waves in Paris which are expected to become more and more frequent and intense. After a first campaign of night sprinkling in 2012, a second campaign took place during the day in 2013 on Louvre street (1st and 2nd districts), and Lesage and Ramponneau streets (20th).

Concretely, the sprinkling of the roadway and/or the pavement with non-drinking water is activated during summer heat waves on these streets. Micro climate effects are measured by meteorological stations to better understand the role of the various mechanisms involved (evaporation, conduction, radiations...), and to determine and optimize the cooling effect obtained with this method. After the results of the summer 2013, a new campaign took place in the summer 2014 and the water consumption was optimized.



The City proposes a “serious game” to adapt Paris to the climate challenges of tomorrow

The scientific simulation game “Clim’Way Paris” is an educational tool aimed at raising public awareness on the fight against the climate change. This interactive game invites participants to develop a Paris Climate Plan. The player has 46 years to reach several objectives: to reduce greenhouse gas emissions by 25%, to reduce energy consumptions by 50% and to develop renewable energies, and carry through at least 35 actions anticipating climate change. Players work out their own strategies and implement their actions. On line since August 2013, the game can be accessed free of charge at home, at school and during extra-curricular activities. The game is available to all on: www.climway.paris.fr. This game is a new version of the Clim’Way released in 2009.





The administration's innovation Network



Innovation is not only a matter of technology. It also consists of new practices and methods such as the purchase of new products or services. In order to encourage its employees to innovate and propose cross-department solutions, a City of Paris "Innovation Network" was set up in 2013. It is aimed at pooling ideas, discussing good practices, capitalizing on innovation and sharing resources.

Like the Sustainable Development Network of the City of Paris created in 2011, the Innovation Network is open to all City agents. Any person interested in innovation is welcome. The Paris Region Lab is the permanent guest of this network.



Innovation network



© Mairie de Paris, Sophie Robichon

PARTICIPATING IN THE IMPROVEMENT OF AIR QUALITY

According to the study published by Airparif in July 2013 on air quality in Paris between 2002 and 2012, NOx emissions dropped by 30% and Pm 2.5 emissions caused by road traffic dropped by 40% during this period. Despite this, the AirParif assessment for the Ile-de-France region in 2013 clearly shows that air quality remains problematic. More than 3 million people who live in the region could be potentially exposed to levels of pollution that do not comply with regulations, especially near high-traffic streets.

AIRPARIF measures about 60 pollutants, 15 of which are regulated (thresholds have been set).



REDUCTION OF CHRONIC POLLUTION



Three pollutants still do not comply with standards: Nitrogen Dioxide (NO₂), PM₁₀ particles (diameter inferior to 10 µm) and PM_{2.5} particles (diameter inferior to 2.5 µm).

	Trends for 2000-2013		Standards to respect	
	Far from traffic	Close to traffic	Far from traffic	Close to traffic
PM ₁₀	↘	↘	Respected	Above limit
PM _{2.5}	↘	↘	Respected	Above limit
NO ₂	↘	↘	Above limit	Above limit
O ₃	↘			
Benzen	↘	↘	Respected	Respected

© AIRPARIF

Concerning pollution episodes, the information and alert procedure was triggered on 36 days in 2013. This is noticeably less than in 2012. However, an intense and lasting episode took place in December with 6 days of pollution above alert thresholds for particles. During this period, meteorological conditions (little wind, low temperature and temperature inversion) prevented the dispersion of pollutants.

A CITIZENS' CONFERENCE ON THE FIGHT AGAINST AIR POLLUTION TO DEFINE A COURSE OF ACTION

The City of Paris' new executive has expressed very clear ambitions concerning this problem, which is mainly the consequence of car traffic. Several long term measures have been considered, such as the gradual eradication of diesel, and more temporary measures during episodes of pollution. In order to involve Parisians, stakeholders and recognized air pollution experts at every stage of the political decision, the Mayor decided to organize a Citizens' conference focused on this major public health issue. After the Conference, proposals will be submitted to the elected Council.

Since 2001, the policy of the Municipality is aimed at developing modes of transport that are environmentally friendly. The measures implemented are intended to encourage better sharing of the public space, to strengthen the public transport options available and to develop mobility modes that are more respectful of the quality of air and the climate.

SPEED IS LIMITED TO 70 KM/H ON THE RING ROAD

This important decision made by the Minister of the Interior, at the request of the City of Paris was officially announced on Friday, January 10, 2014. Every day, 1.3 million vehicles use this urban highway around the Capital. If the benefits expected from the speed limit can be assessed at more than 40% in terms of reduction of greenhouse gas emissions, a positive and important impact is also expected on road safety, in particular on the severity of accidents, and the reduction of noise pollution.

In addition, the limitation of the speed from 80 to 70 km/hour had another positive effect: a considerable reduction of traffic jams. According to a study made by the Consulting firm Inrix® on the travels of millions of car drivers over a 6 month period on the ring road, traffic jams have dropped by 36% on average, relative to 2013.



Dédale: organizer of Park(ing) Day in Paris

Other initiatives to experience the street differently consist of transforming it temporarily into a place of urban initiatives. For instance, Park(ing) Day is a worldwide event open to everyone. It takes place during the third weekend of September. During these two days, citizens, artists and associations work together to temporarily transform paid parking spaces into friendly, green and welcoming areas. Park(ing) Day contributes to the overall reflection on the urban space, the place of nature and the quality of life in city centers. Created in 2005 in San Francisco by Rebar, a group of artists and landscape designers, this event brought together more than 180 cities in over 30 countries in 2013.

The association Dédale, has been working for several years on the concept of a creative and sustainable city. Since 2010, it has decided to extend the mobilization to the whole country and especially to Paris. The City supported the project in 2013.



© Mairie de Paris



A BETTER SHARING OF THE PUBLIC SPACE



Within the framework of the program “La rue en partage” (Let’s share the street) launched in the summer of 2013, 23 “encounter areas” were created in which speed is limited to 20 km/h. 29 areas limited to 30 km/h were created or extended. Apart from these sectors, a 30 km/h speed limit now applies to another 50 streets as well as in the vicinity of every school. This represents a total of 570 km of streets where speed is now limited to 30 km/h (or less), covering one third of the Paris street network. These traffic-calming measures contribute to a better sharing of the public space and facilitate coexistence between the various street users. It also encourages people to reclaim the public space.

INVOLVING PEOPLE FOR A BETTER UNDERSTANDING OF THE NOTION OF “ENCOUNTER AREAS”

To permit a better understanding of the notion of “encounter area” by the public, participatory initiatives have been taken in two sectors concerned by this approach: the Olive market (18th) and the Florian sector (20th). During these events, the population had the opportunity to experience the street in a new way, involving outdoor games, drawings on the ground, and an outdoor library... The public was invited to express a first opinion, before taking part in participatory workshops to share ideas and proposals.



© Mairie de Paris



© Mairie de Paris

In the same way, in the Olive market sector (18th), an initiative proposed during a workshop was aimed at enhancing the self-esteem of youngsters in difficulty at school. They designed posters and conducted an awareness campaign on how the street should be shared.



ZONE DE RENCONTRE :
FAITES COMME MOI, ROULEZ À 20 KM/H



© Mairie de Paris

FACILITATE THE MOVEMENT OF PEDESTRIANS

THE BANKS OF THE SEINE ARE NOW OPEN TO PEDESTRIANS

The transformation of the banks of the Seine into an urban boulevard on the right bank, and into a car free zone on the left bank between Pont Royal and Pont de l'Alma, has opened the way for alternative uses of this sector which is on the list of UNESCO world heritage sites. The access to the section of the right bank from City Hall (4th) and Henry VI Port (4th) is now easier for pedestrians and people with disabilities. Walking comfort has been improved and viewpoints permit to rediscover the rivers cape. At Celestins Port (4th), the 19th century Pavillon, formerly used by the river trade administration, has been converted into a bar/restaurant.

On the left bank, where car traffic is now banned, the site is reserved for pedestrians and bikers who can enjoy the view on the Seine, the bridges and the Grand and Petit Palais architectural complex. A staircase that can be removed in case of floods forms an extension to the Esplanade of Orsay Museum (7th) and facilitates the access of pedestrians to the lower bank. It can also be used as a new venue for events and is in harmony with the Museum esplanade whose accesses have also been enhanced. The landscaping, archipelagos, and flowerbeds in the rear part of the quay evoke the natural landscape of the river and enhance the biological corridor of the Seine valley.

PEDESTRIANS TAKE POSSESSION OF RÉPUBLIQUE SQUARE

It was decided to ban the traffic of private cars in the central and northern parts of the square and this has completely changed the perception of the space. The large pedestrian esplanade now looks like a plaza from which the beautiful neighboring buildings can be rediscovered. It has been immediately adopted by the public as a meeting point or a place for leisure and picnics. A "world and media" café generates a lot of hustle and bustle on the square. It is used to organize many information and discussion meetings. At the "R de jeux" kiosk, people can borrow all kinds of games and chairs on a free basis. With a better sound environment, the refurbished square now attracts crowds of pedestrians all day long.

NEW SERVICES FOR PEDESTRIANS IN BUS SHELTERS

All the 1920 bus shelters will be replaced by a new generation of models due to be set up at the end of 2014. The design of these new bus shelters facilitates access for people with disabilities. An urban diagnosis of each of them will be made prior to a micro project of development aimed at adapting bus shelters to the characteristics of the street. Several systems already provide many new services to pedestrians. Better information will be available to passengers and passers-by in the form of 2000 maps of Paris. These maps will help them to find their way all over the city and in their neighborhood or to locate nearby transport stations. (Other bus stops, metro stations, taxis, Velib...). Benchmarks will enable them to identify places within less than 5 to 10 minutes walking distance.

The electric consumption of these new stations will be reduced by 35% compared to the previous model and they will be fitted out with a smart terminal to manage lighting according to the activity. The roofs of the 100 bus shelters will be equipped with integrated photo voltaic panels and 50 of them will be greened.



© Marc Aurel

FOSTERING THE USE OF BIKES

New measures to encourage biking will be taken to reach the objective of tripling the number of bike journeys by 2020. This ambition will be based on the creation of bike lanes adapted to new requirements (growing number of bikers, diversity of uses that implies an evolution of materials, bike deliveries...); the network of parking areas will be denser and secured parking facilities created, especially near railways stations to encourage inter modality; the right of way for bikers at streetlights and two way biking will be the rule, cycle tourism will be developed thanks to clearly identified and adapted routes. National and continental cycling roads and green routes will find their place.

Velib, now deployed in Paris and 30 neighboring cities reached record numbers of users in 2014, especially in terms of the number of annual subscribers at 274,413. The milestone of 200 million rentals since the opening of the service was reached in March.

THE «PTIT VELIB» IS INTENDED FOR CHILDREN FROM 2 TO 8



Available during the summer 2014 on an experimental basis, the «Ptit Velib» service offers families the opportunity to rent 2 models of bikes for children aged 2 to 8 in the various green or pedestrian areas: in Bois de Boulogne and Vincennes, on the recently remodeled left bank of the Seine, along Canal de l'Ourcq in the 19th and during Paris Plage.

Because it is never too early to acquire good reflexes, the City Hall of Paris aims to familiarize children at an early age to the use of environmentally-friendly modes of transport.



Did you know?



CYCLOFFICINE is an association that works in Paris and the suburbs. It organizes collective and solidarity-oriented workshops to “repair and take care” of bikes. It won the 2013 call for projects launched within the local program of waste prevention.

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STRENGTHENING PUBLIC TRANSPORT

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The City, in cooperation with the Ile-de-France Transport Authority (STIF) has actively participated in several important actions to promote public transport in the region. For instance, the removal of the different zones of the Navigo Pass (replaced by a single fare) started during the 2013 summer school holidays as a continuation of the single fare already in force since 2012 during weekends and holidays. In 2014, zone C will also be removed during short school holidays.

A few facts about the transport network:

- Line 4: the extension to Montrouge (92) has been operating since March 23, 2013. Studies on its automation are going to be launched.
- Line 14: extension works to Mairie de St Ouen (93) started in June 2014.
- Line 11: Studies on its extension to Rosny Bois Perrier (93) are going on.
- Tramway T3: the extension works to the west started during the first semester 2014.
- A high level service bus called "T Zen 5" is under study for the 13th.
- A new entirely electric bus line for local service from Brancion to Commerce in the 15th started operating in October 2013



© Marc Verhille

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DEVELOPPING ELECTRIC MOBILITY AND NON POLLUTING MEANS OF TRANSPORTATION

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© Mairie de Paris, Bernard Pedretti

Autolib, a public electric car-sharing service started operating in December 2012. With 5.5 million rentals today, and peaks at 15,000 daily rentals, it is available in 64 cities and at the end of 2014 had more than 57,000 annual subscribers for a fleet of 3,000 vehicles. With the new cities that have joined in and the creation of 100 new stations in Paris on street and in underground car parks, the service has now more than 870 stations.

In order to emphasize its commitments in favor of a more environmentally friendly mobility, the municipality has pledged to deploy a network of 180 high speed recharge stations in 60 terminals. They will be set up in all the districts, on sites specifically dedicated to cars that require an electric recharge: individual cars, delivery and commercial vehicles. Two recharge speeds are available: high speed in one hour, regular speed in 6 to 8 hours. In addition, the AutoLib stations are equipped with a regular recharge system for private electric and 2 wheeled vehicles. 147 recharge stations are also available in 65 car parks under concession. Over the short term, high speed recharge stations could be installed in 10 service stations located in public spaces. This measure will be generalized to all service stations when their concession contract is up for renewal.



ADAPTING THE TRANSPORT OF GOODS TO NEW URBAN, ENVIRONMENTAL AND ECONOMIC REQUIREMENTS



80 PARTNERS ARE MOBILIZED BY THE NEW CHARTER ON SUSTAINABLE URBAN LOGISTICS

The transport of goods accounts for 20% of road traffic and 38% of particle emissions (PM 2,5).

In 2006, the first “Charter on good practices for the transport and delivery of goods in Paris” provided for specific rules for goods and the classification of major logistics sites as zones of Major Urban Services. Areas dedicated to logistics have also been created in car parks under concession.

On September 18, 2013, 80 partners of the sector (local authorities, institutions and professionals) decided to continue their efforts by signing the new Charter on Sustainable Urban Logistics. This commitment takes the form of a charter of operational projects managed and supported by the signatories. The purpose of these projects is to reduce the negative impact of the transport of goods and to improve delivery conditions. For instance, the share of bulk supply by railway or river transport (Seine and canals) will be increased with the creation of specific logistics areas. The so called last mile distribution will also evolve with the use of vehicles adapted to city centers. The signatories of the charter want to support and encourage innovative practices through experiments carried out by professionals and university laboratories. They can focus for instance on the cargo-tram, on a service of reservation for mobile professionals who want to stop and park (delivery-drivers, movers, craftsmen) or walking delivery routes.

THE PNEUMATIC COLLECTION OF DOMESTIC WASTE IS ARRIVING IN THE CLICHY-BATIGNOLLES ECO-NEIGHBORHOOD (17TH)

In order to fight noise and air pollution, door to door collection of domestic waste by trucks has been ruled out for the Clichy-Batignolles eco-neighborhood.

Residents of new buildings will drop their waste in a porthole located in adapted premises inside the buildings. The vacuumed waste is pulled through an underground tube up to a collection station located north of the neighborhood, next to the future sorting center of the 17th SYCTOM, where waste is recovered to be either incinerated or recycled, depending on its nature. The construction of the collection station and the first section of the network were completed in mid-September 2013. At the end of 2014, 5 buildings will be connected on the network. The system will be progressively extended following the progress of this mixed development zone.

WASTE COLLECTION AND STREET CLEANING ARE MORE ECO-RESPONSIBLE

Municipal services are actively working on reducing the impact of their collection and cleaning activities on air and noise pollution. This will have a positive impact on the Parisians and their agents who sometimes have to work several hours with the same equipment.

New collection methods are based on a technological monitoring and the technical expertise of the agents. The majority of the equipment that builders plan to put on the market is tested on the Paris territory. These tests concern vehicles, hybrid collection dumpsters, hybrid washers, electric sweepers, and smaller equipment (electric weeding devices, electric blowers...). This research could also be useful for other City of Paris departments. For instance, electric blowers are now used to clean school courtyards.



Electrical street sweepers – © R. Pula

There are many levers of action to reduce the impact on air quality and noise: purchase of new equipment (that comply with the latest Euro standards) and innovative equipment (28 electric pavement sweepers, changeover to waste dumpsters powered with natural gas) thanks to the technological monitoring carried out by the services, work methodology (training to eco-driving for all truck drivers), rationalization of activities, very strict specifications concerning the reduction of pollutant emissions clearly stated and controlled in service procurements.

The efficiency of these actions is assessed every year according to the updated evaluation of the costs resulting from the quantities of local air pollutants and greenhouse gases produced by the vehicles used to collect waste or clean streets. This means that, according to the decree of May 5, 2011, the cost of the environmental and energy impact of vehicles throughout their lifespan is taken into account.

For many years, the services in charge of waste collection and street cleaning have been promoting alternatives to diesel when purchasing new vehicles: using dumpsters powered with natural gas (NGV) since 2002, NGV washers since 2005, and electric pavement sweepers since 2012. The City has banned the use of diesel in its service procurement contracts. For example, the trucks used by waste collection service providers all run on NGV or electricity. Roadway washers and heavy trucks used by service providers who transport bulky objects all operate on NGV.



BlaBlaCar

BlaBlaCar, is one of the major car sharing actors in France. This company puts drivers and passengers who agree to travel together in contact to share expenditures and thus bring down travel costs. Today the network has been extended to 12 countries and already has 10 million members.



Vert chez vous

Delivery by means of barges, three-wheeled bicycles and trucks. This company specializes in eco responsible logistics. With its electric vehicles, it offers a noiseless solution for delivery rounds that do not exceed 130 km. With its NGV vehicles, Vert Chez Vous can deliver goods in the city and to places located more than 150 km away.



franprix

Franprix

“Franprix entre en Seine!” Delivery by river transport to 80 Paris stores of this supermarket chain. Each day, 450 pallets of goods and 26 containers are transported on the river, which generates 2 to 4 times less CO₂ compared with road transport.



© Mairie de Paris, DILT



The City adopts an eco-responsible approach for its travels

The results of the actions presented in the Paris Administration Mobility Plan (PDAP) over the period 2013-2014 are quite satisfactory. The number of municipal cars and sedans was reduced by 23% compared to the initial objective of 15%. 150 service vehicles have been replaced by a fleet of 50 models used according to a car sharing system. Implemented in 9 sites, car sharing has both economic and ecological advantages.

Considering this success and in order to reduce the use of diesel and thermal vehicles, the City already encourages alternative engines, especially electric and hybrid rechargeable light vehicles and GPL for trucks, in its vehicle procurements. Concerning diesel vehicles, the current fleet has already dropped to 20% for the categories for which an alternative exists.

In parallel, all City agents can now participate in eco driving training sessions to learn how to drive more responsibly.

A constant effort has been made since January 2013 to progressively replace motorized 2wheeled vehicles with other means of transport such as electrically assisted bikes. To encourage municipal staff to use bikes for personal purposes, the subsidy granted to Parisians who want to buy an electric bike (33% of the purchase price, limited to 400€) is now open to all agents irrespective of their place of residence. They can also be refunded for their Velib subscription and special bike parking areas have been installed in every administrative site of more than 300 agents.

Strict conditions for deliveries are now included in municipal calls for tenders concerning supplies and services. They encourage companies to adopt eco responsible processes. Studies are underway to install one or more logistical platforms in order to optimize the delivery of products for the Paris administration.

Lastly, it has been possible to reduce the number of professional travels with the development of remote meetings such as audio-conferences, web conferences and video conferences, as well as the dematerialization of documents and the optimization of shuttles used for mail transport by means of electric vehicles (Kangoo ZE).



An agreement with the Seine-Saint-Denis department provides two major actions concerning the deployment of river freight and urban ports

The first one consists of developing freight activities on Paris canals, to meet, in particular, the transport needs generated by Greater Paris infrastructure projects, such as the removal of rubble and the supply of construction materials.

The second action concerns the promotion of all innovations that improve river logistics. These range from the transport of materials, to port facilities adapted to the needs of shippers as well as new river users. Ensuring the urban integration of these facilities is a constant concern.

In order to bring together shippers, operators and project managers, a “canal workshop” focused on river freight was organized in 2014 and 2013. In addition, the port project in Bobigny is under study and a call for tender led by the Société du Grand Paris and the Ile-de-France Transport Authority (STIF) is scheduled for 2015.



River freight – © François Grunberg



Jardin naturel (20th) – © Mairie de Paris, DEVE, Paul-Robert Takacs

ENHANCING NATURE IN PARIS: CREATION OF GREEN AND BLUE CORRIDORS

In addition to its cultural heritage of historic buildings, Paris also boasts a rich natural heritage that now occupies a privileged place in the hearts and minds of residents and visitors. This natural heritage is in constant evolution; it is vulnerable but it is also very resilient. It is a major asset for the adaptation of the territory to climate change.

Among the 2000 vegetal and fungal species and the 700 animal species identified on the Paris territory, at least 9 vegetal species and 159 animal species are protected at a national or regional level. 560 vegetal species and 239 animal species are on the Lists of Protected Species. The main purpose of these lists is to alert the public, developers and politicians of the magnitude of the risk of extinction that threatens many species, and the urgent need to develop conservation policies.

It is however more common species that make up our natural heritage on the streets, in gardens and on the Seine banks, and that form original or exceptional eco systems in the Capital.

The new municipal team wants to reimagine the city and make biodiversity one of the structuring axes of its action in order to improve the ecological footprint of Paris and contribute to the wellbeing of the Parisians. These objectives reflect strong commitments in favor of the re-vegetation of public spaces and buildings and the creation of new gardens, and urban agriculture facilities. By 2020, 30 ha of new parks, garden and other will be open, and an additional 20.000 trees will be planted. The presence of vegetation will be considerably increased in public spaces. Sports facilities along the green belt will be transformed into landscaped and leisure parks. By 2020, Paris will have a 100 ha of green roofs and facades, one third of which will be used for the production of food and vegetables.

All urban infrastructures are concerned: walls, roofs, ground floor of buildings, balconies, school courtyards and car parks. These areas, that combine the use of public spaces with the presence of vegetation and biodiversity, will strengthen the green and blue continuity.

The Biodiversity Plan voted by the Paris Council in November 2011 takes these strategic challenges for Paris into account and aims to change the way nature is viewed in cities.



ACKNOWLEDGING THE BENEFITS OF NATURE IN THE CITY



The presence of nature in the city contributes to improve the quality of life of city dwellers and to reduce the effects of climate change or of an excessive urbanization (heat islands, air pollution, risks of floods...). Urban biodiversity brings an added edge to the built heritage and contributes to the attractiveness of the city. It improves social relations and will help animal and vegetal species to survive this short term threat.

The City has launched a global reflection on the benefits provided by nature in a dense urban environment through studies, especially on the thermo regulating role of green species and wetlands.



Path near Porte de Vincennes (12th-20th) – © Mairie de Paris, DEVE, Loïc Le Nohan

OPENING NEW GREEN SPACES

The main natural spaces of Paris are the green belt, Boulogne and Vincennes woods, the railroad infrastructure, the Seine, the canals and a few major municipal facilities located outside Paris, such as cemeteries and aqueducts. They connect the heart of the urban area with large natural spaces in the surrounding region and thus fully contribute to this region-wide dimension.

The City of Paris has opened 33 ha of new green areas to the public between 2008 and 2013. These are some of the most noteworthy projects:

- Extension of Martin Luther King Park in the new Clichy-Batignolles neighborhood (17th): 2.2 ha,
- Creation of a new promenade on the Petite Ceinture (disused railway track converted into a pedestrian mall) (15th): 3.6 ha,
- Opening of the Gardens of Du Breuil school in Vincennes wood (12th),
- Planting of the 1st phase of the “linear forest” that borders the ring road (19th),
- Niki de St Phalle archipelago (7th) created during the redevelopment of the riverbanks: 5 planted floating islands that form a refuge for biodiversity.

During the same period, the Buttes-Chaumont Park, (19th), a historic Haussmann style park, that is a victim of its own success, will undergo major renovation works to restore the quality of its landscape and renovate its networks and walkways.



Linear wood (19th) – © Arpentère

STRENGTHENING ECOLOGICAL CONTINUITY

Strengthening the ecological continuity facilitates the movement of vegetal and animal species, which is essential for their adaptation and survival. This green and blue network must be studied at the various levels of the territory by creating connections between spaces devoted to nature. It must also be considered on a broader scale by connecting the green belt of Paris and the woods to major natural areas in the region. At the same time, the other uses of the public space must be taken into account. The City of Paris, the Ile-de-France region and the Prefect of the region approved, in 2013, the Regional Plan of Ecological Coherence (RPEC) that identifies region-wide ecological continuities.

DESIGNING NATURAL TRACKS IN PARIS

The objective for Paris now is to implement this program through actions listed in its Biodiversity Plan. A first action consists of drawing up a map of green and blue corridors in the city. This network must link all natural spaces whether they are located in the urban environment or in surrounding rural sectors.

The strategy implemented is based on a diagnosis of the Paris territory to determine the potential for reservoirs and urban biodiversity corridors.

For this purpose, several tools were created in 2013: a typology of Parisian natural habitat, a list of priority habitats, a list of 6 sub-corridors and a list of target species. Every surface of vegetation larger than 1 ha (public or private green spaces, cemeteries, sporting grounds) has been qualified that is to say assessed in a simple and objective way according to its capacity to host biodiversity. The ecological continuity that permits the movement of species between two reservoirs (inside or outside the city) will be identified and classified later on according to simple criteria. This classification of urban corridors will complement the mapping of urban reservoirs and will enable the drawing of a chart of the initial state of biodiversity on the Paris territory by the end of 2014.

As of now, species and ecosystems are systematically taken into account in the management or the development of green areas. More generally, the preservation and development of ecological continuities must be a key element of urban development. These nature paths, along with soft means of transportation, are already present in a few major urban infrastructures: the Seine banks are a very good example that must be improved to leave more space to the flora and fauna of the river.

THE “PETITE CEINTURE” HOSTS A BIODIVERSITY THAT MUST BE ENHANCED



Petite Ceinture (little belt railway) – © Mairie de Paris, Jean-Baptiste Gurliat

In 2013, the main guidelines for the development of the “Petite Ceinture” railroad were identified. They are based on the Regional Plan for Ecological Coherence on the Paris territory. This work had been done with the participation of all stakeholders and citizens concerned. In September of the same year, a 1.3 km section of the “Petite Ceinture” was opened to the public in the 15th.

In parallel, a study on the biodiversity and ecological continuity of the “Petite Ceinture” was launched at the beginning of 2014. It will be completed in 2015. This ecological diagnosis will result, among other things, in recommendations aimed at combining the preservation of biodiversity and ecological continuities with the different uses planned in this sector.

A social and ethnological research project (2013-2015) deals with the way in which the specific problems of biodiversity are perceived by the different players concerned in the sector of the Petite Ceinture. This thesis is written in cooperation with the National Museum of Natural History. It will permit a better understanding of the place of nature in the relationship between city dwellers and this wasteland. It will shed light on the social representations of the urban biodiversity.

THE SEINE IS A MAJOR ELEMENT OF THE REGIONAL BLUE CORRIDOR

The diagnosis of biodiversity in the Seine and on its banks published in early 2014 was made in cooperation with all stakeholders: potential developers and managers of the river banks such as the Paris Port Authority and the French Waterway Agency.

The study, co-funded by the City of Paris and the Seine Normandie Water Agency, has evidenced the ecological potential of the river; the water quality, which is constantly improving, is no longer a limiting factor.

The major principles of action suggested by the study aim at improving the migration potential and the anchorage of species, in particular of the target species. The results of the first inventory go in this direction as they show that the archipelago of 5 floating green islands (1800 m2 at the foot of the Eiffel Tower) play an important role in hosting the river wildlife.



Clematis vitalba, fruit and seeds on the archipelago
© Mairie de Paris, Paul-Robert Takacs



GREENING BUILDINGS AND THE PUBLIC SPACE



Paris is a very dense urban territory where available land is getting scarce. Therefore, the development of an ecological network requires, among other things, the greening of built up areas. The City will seize every opportunity to create green roofs on municipal buildings and to promote their implementation on private buildings, whilst raising awareness among stakeholders on the sustainable implementation and management of these spaces.

The development of high quality green roofs and walls on the territory by 2020 is included in the Biodiversity Plan and the program of the new municipal team. Based on the conclusions of a three year experiment, the methods of creation and maintenance of quality roofs that foster bio diversity are by now better known.

To reach the 100 ha planned for 2020, a study must be carried out on all roofs and walls of buildings that belong either to the City or to private owners. At the end of 2013, on City of Paris buildings only, 173 green roofs were installed, i.e. 56,531 m². During the year 2013, 23 green walls were created on City of Paris buildings, i.e. a surface of 6,073 m².

Greening the façade of the “M6B2” Paris Habitat OPH building

Paris Habitat OPH is the contracting authority for a 50 meter high building with 16 floors intended for use as social housing. It is located on avenue de France (13th), on a plot named “M6B2”. The project manager is the OAL Edouard François/ICADE Arcoba Group.

The architectural project includes the greening of facades using a system of metal tubes in which chasmophyte indigenous plants found in Paris or in the country can be grown. These plants thrive in the cracks of walls. Considering the surface of the facades, several hundreds of plants can be added to the urban vegetation. Apart from their aesthetic role, they also contribute to the thermal balance of the building and the limitation of global warming.

Paris Habitat OPH puts the façade at the disposal of the City of Paris and the City of Paris provides the indigenous plants. Du Breuil School, the Paris horticultural school, has already started growing 800 plants selected from a corpus of 52 taxa chosen by the project manager. The school welcomes an experiment on this innovative mode of cultivation which will be a valuable source of information for the future operator and the builder on the cultivation methods and uses of these plants. They are ready to be delivered according to the schedule of the project, and the building should be completed by the spring 2015.



Plant-covered wall (2th) – © Mairie de Paris, Jean-Pierre Viguié



Plant-covered building (13th) – © Marc Verhille



INVOLVING PARISIANS IN THE GREENING OF PARIS



The active participation of the population and of the various users of the Capital is absolutely fundamental to this concern for biodiversity. Extensive information is already available on the City's internet pages and through the application "Paris eco Walks". Parisians have already been invited to contribute to a better knowledge of nature in the City by participating in scientific programs. In addition, they have recently been more officially invited to make suggestions concerning the greening of their neighborhood.

In 2013, the City of Paris consulted various networks (especially nature protection associations, scientists, social landlords, developers, its own departments) in order to define awareness actions that should be carried out to bolster the synergy between the various stakeholders.

The Paris Biodiversity Observatory (PBO), for instance, created in the wake of the Biodiversity Plan, represents the City in ministerial, regional and metropolitan steering committees on the creation of green and blue corridors. Many exchanges of experience have been organized at the Center of the Eco Paris Network (4th) and at partners of the City.

The Maison Paris nature, the City of Paris resource center on biodiversity located in the Parc Floral (12th), proposes many workshops and educational tools to raise public awareness on this issue. Its staff also provides technical support for the development of projects in favor of biodiversity. For example, more than 220 city agents in charge of green spaces have been initiated to biodiversity inventories and participatory sciences in order to be able to make the inventories required to obtain a label for their gardens.

At the end of June 2014, rue Jules Verne (11th) regained colors. The renovation of shop windows and the metal curtains of premises has been an opportunity to embellish the street and to improve safety in the immediate surroundings of the "Nautilude" toy lending library. On the recommendation of City agents and a local management association, 5 flower boxes have been installed by the City and 2 others by the "D'ici d'ailleurs" toy library association. Maintenance and watering are carried out by the municipal services. Local residents and passers-by alike appreciate these installations that embellish the street and enhance the entrance to the toy library.



© Mairie de Paris, DEVE, AEU

More than 1500 greening proposals made at the "Du vert près de chez moi" public consultation

In order to promote nature in the city, the City of Paris has decided to associate citizens and to support their initiatives. For instance, an unprecedented campaign of re-vegetation of neighborhoods called "Du vert près de chez moi" was launched on July 15, 2014, whereby Parisians were invited to suggest places in their neighborhood that might be planted. Among the 1,500 proposals received, 200 projects of local re-vegetation will be carried out. After analyzing the feasibility of proposals, the City services will offer their know-how to create a flower box, a green wall, or a landscaped or flowered development. Beyond the growing awareness of the public on making Paris a sustainable city, this initiative aims at encouraging the emergence of original ideas, at creating new solidarities and at fostering the appropriation of public space by citizens.

In parallel, after the vote of the "Participatory Budget" at the end of September 2014, 9 projects were chosen. This initiative enables the population to have their say on the use of 5 % of the City investment budget. The 2 projects selected are firstly: "Gardens on the walls" that consists in greening some 40 bare walls and, secondly, "growing plants at schools" with the objective of creating an educational garden in every Parisian school.



© France Fredon, Mairie de Paris,



The City innovates for mobile users

“Paris eco Walks” is a free mobile application that presents about twelve walks through Paris neighborhoods undergoing changes. The routes give an insight into the richness of the local environment and the local heritage. New developments that contribute to the greening of the city and improving the living environment are also presented on this popular digital application. All content is accessible on smart phones, tablets and a bilingual website. The application features several illustrations and permits users to discover municipal policies and private initiatives aimed at reducing the ecological footprint and in favor of sustainable development in Paris. Mobile users are given a new perception of the city and can thus be inspired to become more personally involved.

INTRODUCING URBAN AGRICULTURE IN PARIS



Vegetables are grown in the tropical agronomy garden in bois de Vincennes (12th)
© V'ilefertile



The Henri Matisse high school (20th) has a vegetable garden on its roof managed by the Veni Verdi association – © Mairie de Paris, Jacques-Olivier Bled

The success of community gardens in Paris reflects the wish for Parisians to meet their neighbors, to manage spaces collectively, and to restore direct links especially with the production of fresh and diversified food. The social demand for increased vegetation in the city is also very strong.

In order to better define fruits and vegetables production systems that could be set up in Paris, the City and the Paris Region Lab launched a call for projects in 2013. Public spaces where innovative methods of re-vegetation could be implemented were made available. This call for projects highlights the interest in this issue and the diversity of possible projects. They involve new economic dimensions, important social and educational aspect, an essential urban and environmental dimension and they offer many opportunities.

15 projects of urban agriculture have been chosen. They concern the production of food and vegetables (11 projects), urban composting (2 projects), the production of mushrooms, and a participatory hen house. In most cases, projects are initiated by associations but 4 companies and a university are also involved. Most projects benefit from public subsidies and sponsorships. Four of them are self-financed.

The potential for urban agriculture in Paris has been demonstrated by the number and diversity of the projects proposed.

To go further in the reflection, in 2013 the City listed all cultivated spaces, including non-municipal areas that belong to landlords, restaurants, universities or private companies. Various techniques were studied, such as soilless gardens, greenhouses or planting on thin layers of light soil on roofs. The constraints (bearing capacity, height of soil and water supply), the management methods (association, company or restaurant), distribution methods (direct sales or AMAP (associations supporting small farming)) and economic models (urban farm, community garden, etc...) were also assessed.

Today Paris has a hundred community gardens covering 4.7 ha and more than 280 educational gardens in schools and leisure centers. The Center of Horticultural Production of Paris stretches over 68.5 ha. Fruit trees are also present in Paris: at the City Hall of the 4th, the Paul Nizan garden (13th), the orchard of the Paris Farm (12th) and the Du Breuil school (12th), the Curial garden (19th) and Frehel Square (20th). Paris also hosts about 10 vineyards and 600 beehives.

In order to better know the impact of soil and air pollution on the vegetables produced in urban agriculture, the City of Paris has launched the "POTEX" research project: 4 experimental vegetable gardens are dedicated to this environmental and health study and the first result will be available in the spring of 2015.

In addition, the Center of the Eco Paris Network (4th), the House of Gardening (13th) and the Paris Farm (12th) regularly organize events to mobilize the Parisians on issues related to urban agriculture.

THE PARIS REGION LAB HELPS TO PROMOTE THE ILE DE FRANCE INNOVATION ECO SYTEM



Supported by the City of Paris, and the Ile-de-France region, the Paris Region Lab has 4 missions.

1. Experimenting with innovative solutions: Paris Region Lab – Experimenting gives the opportunity to companies to test their products and innovative services on the Ile-de-France territory in real life, prior to commercialization. It also supports the services of the City of Paris and other Ile-de-France local authorities when they want to test innovative solutions.
2. Incubation of young innovative companies: Paris Region Lab – incubators. Every year some 200 start-ups benefit from their support.
3. Fostering the networking between start-ups and major companies: Paris Region Lab – Open Innovation Club to develop their business contacts.
4. Organization of start-up events: Paris Region Lab – Events in order to promote start-ups through networking or innovation awards.



The Cotentin Condominium

The Cotentin Condominium, one of the actors of the Eco Paris Network, has engaged in an exemplary eco management of its green spaces: limitation on mowing, on the spot waste recycling, the reintroduction of local wild plants, limitation of watering, ban on phyto-sanitary products, etc...Nest boxes for birds and bats also foster the return of wild fauna and flora.



The Beaugrenelle green roof

The Gecina company has installed Paris largest green roof in the Beaugrenelle neighborhood (15th), that covers 7.000 m². Nearly 800 m² is occupied by a vegetable garden managed by an association and intended for neighbors and schools. Gecina is among the 2013 selection of Eco Paris Network.



ECO RESPONSIBLE MANAGEMENT OF GREEN SPACES



The objective is to standardize eco responsible management methods in all green spaces (public or private, municipal or not) on the territory by drawing on the innovative practices supported by the City of Paris. These new management practices, that have a positive impact on bio diversity, include in particular differentiated management, avoiding the use of phytosanitary products or the economical management of water.

Managers of private green spaces are mobilizing

In 2013 and 2014, on the initiative of the municipality, managers such as the Paris Hospital Administration, social landlords, the State, a few developers, Eau de Paris, the City of Paris Social Action Center, and the International University Campus have been working on protocols that integrate practices of management that are respectful of the environment (phytosanitary treatments, green waste and water management).



The City extends the Eco Garden National label



The Eco Garden National Label was created in 2012 on the initiative of several local authorities, among which was the City of Paris. This Label is awarded to recognize the ecological management of a green space: the absence of chemicals, monitoring of biodiversity, etc...) after an audit performed by an independent organization. In 2013, 38 Paris gardens received this Label joining the 16 sites already rewarded in 2012. Among them were Boulogne and Vincennes woods, the Parc Floral, the gardens of Du Breuil School and Bagatelle.

The program will be amplified in 2014, with the objective of obtaining the Label for almost all green spaces of Paris by the end of 2015.

In addition, the City of Paris's Laboratory of Agronomy now has a new smart application called "LaboAGro" at its disposal. It integrates the "Labo Expert" application that gives access to an online analysis report, as well as to a module of selection of fertilizers and conditioners adapted to the quality of soils.



The City shifts toward integrated biological protection

Since the early 1990s, a certain number of pests (white flies) can no longer be regulated by chemical treatments because they have become resistant to these products. Biological controls are now the only means to fight these pests.

In 2002, the City of Paris gave up the use of phytosanitary products and adopted an ISO14001 approach concerning plant healthcare and alternative and sustainable methods for parks and gardens. This approach combined with an overall environmental management has since been rewarded by the Eco Garden National Label.

The implementation and follow up of the integrated biological protection are the responsibility of the operators of green areas. The City services regularly offer advice on the production and collection of greenhouses products through cycles of visits adapted to specific cultures. Gardening workshops can also consult them.

Outside of greenhouses the objective is to foster a secondary fauna naturally present in gardens by choosing products that respect the environment and by making small specific developments.

In order to facilitate the implementation of the integrated biological protection, technical support is developed according to the needs of those who put it in practice.



The City weeds its cemeteries without phytosanitary products

Since 1991, the City has been committed to improving and reducing the use of pesticides. The objective is to renounce all phytosanitary products by 2020, in particular in all Paris cemeteries. This objective corresponds to the action number 16-1 of the Paris Biodiversity Plan: "generalize management methods in municipal green spaces that are favorable to biodiversity". It also abides by the 2014-110 law of February 6, 2014 aimed at better controlling the use of phytosanitary products on the national territory and whose implementation in the specific case of Paris cemeteries remains to be specified.

In order to limit the use of phytosanitary products while ensuring a good level of maintenance in Paris cemeteries, the City services are testing various types of surfacing that slow down the growth of vegetation (crushed stones from recycled funerals monuments), lawns, appropriate mechanical devices (string trimmer, reciprocator, mower).

Since 2010, Pantin cemetery, whose various sectors present a wide range of typologies, has been used for a series of tests. These experiments have evidenced various solutions according to the surface to treat : lawn on pavements, deactivated concrete at entrances, lawn with a honeycomb coating to facilitate the movement of vehicles, coatings that limit the growth of plants on 1 m and 0.60 m large paths, or re-vegetation with moss or other plants between tombs and at the bottom of walls.



Thiais Cemetery – © Mairie de Paris, DEVE



Horticultural production center – © Mairie de Paris, DEVE



The City is testing eco-grazing

Since 2013, 4 Ouessant ewes are grazing on the 2.000 m² of lawn of the Paris Department Archives (19th) and in Vincennes wood (12th). These grassland maintenance helps facilitate the renewal of vegetation and limit the use of mechanical equipment and phytosanitary products.



© Mairie de Paris

The Archives of Paris are located on the “Green Belt” between the ring road and the railway belt. It is a potential transit route for animal and vegetal species. Many green areas form a continuity: the lawns of the Lilas Réservoir, the green slopes along the ring road, gardens of Paris hospitals and of social housing complexes. The Archives plot presents a very interesting diversity of habitats comprising grass land, wet land and thorn bushes. The development of the green belt and the preservation of this rich habitat are among the measures recommended by the Paris Biodiversity Plan.



The horticultural production center is testing alternatives to chemical weeding

Installed since 1968 on three sites (the nursery of Rungis-Fresnes and the Thiais cemeteries that cover 40 ha, and the Achères nursery 31 ha), the horticultural production center produces every year more than 2.4 M flowering plants to embellish the city.

For several years, the horticultural production center has significantly reduced the use of pesticides in the fight against pests, diseases, and weeds.

It is important to find an alternative to the weeding of open ground cultures considering the surface of production of the center.

This is why the center has bought specific equipment adapted to outdoor production (trees, shrubs, chrysanthemums in open ground). This has resulted in a significant reduction (nearly 70%) in the quantity of herbicides used. The objective of the center is to completely give up the use of herbicides in its open ground cultures within 2 years. This work must be continued to solve the problem of weeds in container cultivation. Alternative solutions also exist, such as putting mulch made of different materials in the containers. The problem of grass that grows in non-cultivated plots remains to be solved.

It is still too early to assess the real impact of grazing on the vegetal composition and biodiversity, but an inventory made one year later by the City showed the presence of 81 vegetal species. A species of groundsel (an herbaceous plant) had never been observed in Paris previously, and the zygonea, a species of insect uncommon in Paris was also seen in the nearby Serge-Gainsbourg garden (19th).



© Mairie de Paris



The City shifts to differentiated management for the maintenance of its canals

The City of Paris service in charge of canals manages an area of 130 km spread over 43 towns, 5 departments and 2 regions. It includes Canal St Martin, Canal St Denis and Canal de l'Ourcq.

The changeover to differentiated management for the banks of the canals started at the beginning of the 21st century along the narrow section of the canal de l'Ourcq and has been implemented on large gauge canals since 2010. Contrary to traditional methods, in differentiated management, the public domain of a river is no longer considered as a whole but as a series of heterogeneous spaces. Each of them has its own traffic patterns and visual objectives and uses, which requires adapted human and technical resources.

Differentiated management involves, for example, the following actions: late mowing of grass to considerably reduce the maintenance of green areas by limiting it to a single annual mowing; limiting the development of trees and shrubs for the benefit of herbaceous plants, in order to create reservoirs of biodiversity; watering trees with the raw water from the canal; creating flowering meadows by bringing in seeds to attract insects and butterflies; eco-grazing to ensure the maintenance of spaces by ruminants (cows and goats); lastly, particular attention is paid to the management of invasive species.

Regular information is given to the users of the canal with the objective of associating them with this new management method and the landscapes that result from it.



The City is re-vegetating a disused road in Bois de Vincennes in an ecological manner

Preserving the quality of soils by restoring them and limiting their erosion is one of the objectives of the Iso 14001 environmental policy in Paris woods. This is a complicated task in Bois de Vincennes since it is a very popular public space. Soils are subject to heavy pressures because of trampling and traffic. Compacted and bare soils become impermeable and barren.

Several actions to prevent and limit this phenomenon have already been initiated: roads closed to traffic, optimization of soft mobility, increasing natural infiltration. All this is consistent with an approach aimed at recreating the natural atmosphere of a forest.

How can we recreate a fertile and permeable soil on a disused road open to car traffic as sustainably as possible?

Since the summer of 2013, the Route de la Gerbe (Bois de Vincennes) has been closed to car traffic. The substrate that replaces the former roadway is made of mixed materials recycled on the spot (stone materials from the dismantling of roads), and river sludge with a rich organic content. Only indigenous plants compatible with the environment develop there, and there is no need for planting or seeding. The evolution of the soil and its physical and chemical characteristics will be assessed by the City laboratory of agronomy. The quality of the soil and the flora that is going to develop will also be monitored. The first results of this experiment are expected by the end of 2014.



The City addresses these issues within the framework of partnerships with its neighbors

Action n° 11 of the **Protocol signed by the City with the Department of Essonne**, provides for the extension of the existing green path on the Vanne aqueduct.

The Vanne and Loing aqueducts belong to the City of Paris. They were transferred to the Eau de Paris municipal service when the water public service was re-municipalized. They span about a 100 km south of Paris and run through the Essonne department, covering a distance of almost 20 km. In 2004, a framework agreement was signed between SAGEP/Eau de Paris, on behalf of the City of Paris, and the Essonne Department, to create soft mobility routes on the aqueducts according to a dual property system. This agreement was implemented to create a green route from Savigny sur Orge to Ris Orangis on the Vanne aqueduct. To continue with this initiative, the department of

Essonne has commissioned studies to extend the green route to Menecy in the south, over a distance of almost 15 km.

In September 2013, the City signed a **partnership agreement with the Seine-Saint-Denis Department**. Among the axes of cooperation, action number 6 consists in drawing up a charter of the landscape, and of the uses and development of the Canal de l'Ourcq jointly with the Est Ensemble Urban community and the cities concerned. The project of Charter is now completed. Its adoption is likely to take place in the fall of 2014 at the conference of elected representatives of the "l'Ourcq en mouvement" alliance.

Action n°17 concerns the "eco-cité" mixed development zone. A permanent working group was set up in February 2014. Its objective is to raise awareness among urban development players on the creation of systems relating to water, such as wetlands, multifunction flood prone areas, the open run off of rain waters or the possible contribution of a network of non- drinking water, and the Paris canals.

Within the framework of its **partnership with "Plaine commune"** urban community the city is considering the place that should be given to water and nature in the city. The possibility of working together to strengthen green and blue corridors is also examined. Action n° 20 of this partnership consists in taking advantage of the projects undertaken on the borders of the two territories to strengthen or create biological corridors as well as connections between natural spaces in Paris and Saint- Denis. An action is going to be undertaken with "Est ensemble" and "Plaine commune" urban communities within the framework of the shares urban workshops.

Lastly, a three way partnership on green and blue corridors has also been launched between the City of Paris and the cities of Asnières- sur- Seine and Clichy-la -Garenne. Exchanges have been organized with Asnières-sur- Seine on the "green hands" charter that regulates community gardens in Paris and the associations in charge of them.

PROMOTING AN ECOLOGICAL, COMPREHENSIVE AND SOLIDARY MANAGEMENT OF WATER



© Mairie de Paris, DPE

PROTECTING WATER RESOURCES AND AQUATIC ENVIRONMENTS

The European framework directive on water adopted on October 23, 2000 (2000/60/CE), transposed into French law by the [Law in December 2006 on Water and Aquatic Environments](#), defined a framework for a EU water policy. It set the objective of maintaining or restoring the good qualitative and quantitative status of surface and underground waters by 2015, 2021 and 2027. [The 10th program of intervention of the Seine Normandie water agency](#) adopted in 2012 for the period 2013- 2018 specifies the actions to be carried out in order to reach these objectives.

The year 2013 was also marked by the updating of the [water management and development master plan \(SDAGE\)](#). This master plan, that sets objectives and guidelines for a balanced and sustainable management of water resources, will be implemented from 2016 after a consultation with the relevant assemblies and after its adoption by the Basin Committee of the Seine Normandy water agency.

Limiting water withdrawal

The consumption of drinking water by Parisians continued to decrease in 2013, which confirms the downward trend observed for about 20 years as a result of de-industrialization, a better efficiency of household appliances and a change in behaviors. In 2013, the total consumption of drinking water, all users combined, reached 174,7 M m³ – i.e. a 1.3% drop relative to 2012 - and the consumption of raw water, all users combined, 60.5 M m³ (Source: City Hall of Paris, Eau de Paris).

The City encourages a better control of water consumption in Paris homes and administrative buildings. To raise awareness among users and subscribers of the water public service, Eau de Paris has maintained in 2013 its partnership with multi-service information and mediation centers (PIMMS) and developed a new cooperation with Paris Habitat, the association of condominium managers (ARC) and the Paris Climate Agency (APC). These collaborations facilitated the development of educational tools and the spread of water saving practices. In addition, almost 30.000 children, from kindergarten to high school, visited the Water Pavilion in 2013 and participated in educational activities (guided tours, water classes or leisure center).



The City reduces its water consumption

For the Paris administration, the control of water consumption involves the respect of specifications that recommend the installation of water efficient equipment and the monitoring of consumption. In parks and gardens, the consumption of drinking water has considerably decreased after the implementation of a responsible irrigation method (MIR) that takes into account the needs of the plants and rain-falls, and thanks to the use of raw water.

For several years, the watering of Paris parks and garden has been optimized with the responsible irrigation method (MIR): between 2008 and 2012, water consumption has dropped by 40% considering that watering needs are closely dependent on climate conditions.

During the renovation of the Buttes Chaumont Park (19th) in 2013, the recycling of the water that feeds the waterfall and the lake led to the reduction by 75% of the water consumption (or 1 M m³ saved per year).

The City maintains a high level of performance in the drinking water public distribution network through to the systematic detection of leaks and the replacement of pipes in bad repair. In 2013, the performance of the drinking water public network was stable at 92% whereas the national average was 80%.

Childcare institutions are interested in water uses

In 2013, 20 childcare institutions were pilots in the field of sustainable development practices and, in particular, the use of water. The City has fitted out 7 of these 20 day care centers with infra-red taps and water saving devices (dual flow toilets in 50% of the day care centers audited).

The use of tap water as a drink of choice has been encouraged except for infants (less than 1 year old). This considerably limits the consumption of water bottles while preserving the health of children.

In order to save energy and water, the staff is informed about the optimal load of washing machines and the responsible consumption of water during water games. These games can also be an opportunity to raise awareness among older children on the natural resource that is water. Plans are under way to recover rain water in order to cover watering needs, provided that the conditions of hygiene and the children's safety are respected.

In the same way, watering needs can be limited by choosing local species for the greening of the outdoor spaces of day care centers.

The quality of the Seine water is improving



View of the Seine River – © Mairie de Paris, DEVE

The water quality of the Seine has considerably improved after the modernization works undertaken in the 1990s on the sanitation network. They have reduced the discharge of waste and rain water by more than 70% since 1998. In 2013, the volumes discharged directly into the Seine have exceeded those of 2012 by 7.9% because rainfall was slightly higher than the average of the 42 last years (645 mm). These discharges have nevertheless been less significant than in 2009 thanks to the creation of a storage tunnel (TIMA) managed by the Interdepartmental Sanitation Agency of the Paris Conurbation.

However, figures confirm the sharp decrease of discharges since the implementation of a policy of works that prohibits discharges into the natural environment, and the realization in 2002 of a centralized management station to monitor the network. In addition, pumping stations and a grid of local structures were put into service in 2003.

This improvement also results from the control of low water levels by means of four dams located upstream from Paris and managed by the “Seine Grands Lacs” Public Agency (EPTB). The development of the fish population is the direct outcome of a better quality of water in the Seine: about 30 species are now present – including salmon – compared to 3 species in the seventies.

However, the City of Paris must further reduce the volume of waste and rain water discharged into the Seine, especially through an evolution of techniques in the field of public and private sanitation and urban development. This means that the exclusive channeling of rain water in the sanitation network must be progressively phased out despite it being a Parisian tradition since the 19th century. This is the objective of the rainfall zoning project, also called the Paris rainfall plan (PPAP).

The opportunity to increase the vegetation cover in Paris, especially on the roofs of buildings and along roads, is one of the benefits expected from this evolution. These elements will contribute to reduce the heat island effect and will be on the list of objectives of the climate energy plan and the Paris biodiversity Plan.

LISTING THE PLACE AND USES OF WATER IN THE CITY

Eco management techniques of rain waters are being deployed

In March 2012, new principles in the field of rainwater management were approved by the Paris Council. They encourage the management of rainwater per plot by limiting soil sealing and by designing layouts that reduce run-off and pollution. Urban projects also integrate more and more frequently alternative techniques for the management of rain waters.

In 2012 and 2013, many applications for building permits provided for a partial or total disconnection of rainwater. To reach this objective, 2/3 of the projects included green techniques (green roofs and rain gardens). The other solutions were “grey techniques” (trenches, wells or infiltration basins, storage to re-use water) or a combination of grey and green techniques.

Experiments on the management of rain waters are under way in public green spaces such as the Boucicaut ZAC (15th) or the Broussais Hospital sector (14th).

Several infiltration systems have been created in sites where important development works were carried out: an infiltration well on Place de la République (11th) and on rue Longueray (13th); drainage trenches in the Jean Bouin sector, or porous roadway, on Voie Nouvelle Charolais (12th). The infiltration capacity of these new techniques will be assessed by tests in the case of porous roadways, and on the occasion of the biannual maintenance of infiltration wells.



Ditch in the making at Broussais Hospital (14th)
© Mairie de Paris, DVD

To facilitate the infiltration of rainwater, techniques using traditional materials are evolving. This is the case for cobble stones jointed with permeable materials in areas reserved for pedestrians. Grass paving and paving with sand joints are currently being tested in a laboratory to check whether permeability lasts through time. At the end of this experiment, the techniques selected will be tested on work sites in real operating conditions. It is also envisaged, after this first phase, to continue the tests on the infiltration capacity of other ground materials to quantify the volume of water that runs off according to the slope and the volume that infiltrates into the ground.

The “green” techniques of rain water management are the only ones whose function is not only hydraulic but also climatic (fight against heat islands, thermal insulation of buildings, carbon capture), aesthetic or ecological (favorable to biodiversity). Because of these different functions they are a tool that should be valued.

The uses of non-drinking water are diversifying

Paris is one of the few cities in the world that has a double network, one for drinking water and the other one for non-drinking water. In order to adapt the quality of water to uses and thus to protect drinking water resources, the municipal service Eau de Paris and the Paris Planning Agency (APUR) continue their research on the diversification of non-drinking water uses over the medium and long terms.

The possibilities explored include the extension of the blue corridor in Boulogne and Vincennes woods, the refilling of the dried river in Boulogne wood, or the metropolization of the non-drinking water network.

Over the shorter term, the traditional use of non-drinking water to clean streets was extended to the cleaning of sewers by progressively putting cleaning reservoirs back into service to improve sanitary conditions in underground galleries. Since 2012, non-drinking water is used for the automatic watering of 22 ha of parks and gardens. These improvements result from the development of a multi-annual program of connections to the non-drinking water network.

On an experimental basis, new uses such as cooling public spaces to fight the heat island effect have also been tested during the past two summers.

However, developing the uses of non-drinking water must not add to the pressure on the resource represented today by the water from the Seine and the Ourcq Canal. This is why a study on other potential resources, such as mine waters evacuated today to the sewage or into the natural environment, rain water or reprocessed waste water has been undertaken by the City and Eau de Paris with the support of research teams. The resources that could be mobilized to supply the non-drinking water network represent a significant volume estimated at between 40,000 and 220 m³ per day.

The municipal services are currently examining the possibility of privileging non-drinking water prior to any urban roadway or green space projects. For instance, the experiment carried out by Eau de Paris on the use of the non-drinking water network as a source of energy for thermal exchanges with the heating and air conditioning networks reflect the general trend in favor of the diversification of the uses of non-drinking water.

MOBILIZING STAKEHOLDERS

Social landlords and private housing stakeholders are mobilizing to manage water in a more responsible and solidary manner

After signing a charter on water management with social landlords on March 27, 2012, the City and Eau de Paris signed another charter on December 10, 2013 with the private housing sector in order to promote a responsible and solidary management of water in favor of tenants.

The large water cycle is taken into account in these charters that also address the provision of drinking water, the protection of the natural environment, the use of rainwater and non-drinking water, the purification of waste water and the management of floods. The signing of this charter fully corresponds with the municipal policy on the protection of the water resource and the aquatic environment.

The signatories have agreed to carry out a policy of good management of their installations and of sanitation facilities, and to encourage the installation of water saving kits. These kits have a double environmental and social objective since the reduction of water consumption – 8% in average – results in cheaper energy and lower water bills. After the initial commitment with Paris Habitat, others partnerships for the funding and installation of water saving kits have been signed between Eau de Paris, the City of Paris Real Estate Agency (RIVP) and Elogie.

The second aspect of the charter is aimed at strengthening communication on water challenges, at fostering the exchange of information and at setting up innovative partnerships to raise the Parisians awareness. Communication aimed at co-owners and inhabitants on the quality of water and a system of subsidies for the payment of water bills will also be strengthened. Water management will be taken into account within the framework of the habitat improvement plans (OPAH) in order to fight insanitary housing and control the expenses related to water.



The first metropolitan conference on water took place in April 2, 2013 at Paris City Hall

According to the guidelines defined by the elected representatives of “Paris Métropole” the metropolitan conference has provided an opportunity to discuss and highlight metropolitan challenges in the field of water and sanitation, to better address social, economic and environmental issues to which the stakeholders in their diversity are confronted, and to make proposals in favor of the construction of a more sustainable metropolis.

More than 200 people participated in the three round table discussions on the following themes: how to respond to major water challenges in the metropolis (preservation of water resources, management of floods and risks of draught)? What should be the place of the different types of water in the city? How can we guarantee a fair access to water in the metropolis?

The executive board of “Paris Métropole” acknowledged the success of this unprecedented and fruitful meeting, as well as its large audience, its organization, and the quality and the diversity of the round table discussions. The metropolitan nature of existing networks and the abundant resources have also been recognized. The chairman of “Paris Métropole” concluded on the necessity of setting up a strategic working group. The proceedings of the conference were published in April 2014.



The City is working out a rainfall plan in cooperation with neighboring departments

In his communication on water presented to the Paris Council in March 2012, the Mayor expressed his desire to establish a rainfall sanitation zoning plan (Paris rainfall Plan) in order to implement new rainwater management principles on the Paris territory, as close as possible to the place where rainfalls occur.

The Paris rainfall plan corresponds to several challenges mentioned in the SDAGE such as the reduction of discharges into the Seine. This decision also complies with the SIAAP sanitation master plan that combines department policies concerning the transport and processing of waste water during dry weather or rainfalls. In addition, the departments surrounding Paris have launched initiatives with the same objectives. For instance, the Seine St Denis department, (93) has multiplied water management systems at the source and limited rainfall flows into waste water processing plants. The Haut de Seine department (92) is following the same path. The Val de Marne (94) with its blue Plan encourages municipalities to establish their own rainfall zoning plan in a common framework. The City of Paris has adopted the sanitation master plan for the urban area that takes into account all these actions in its guidelines for the future based, among other things, on outlooks for the evolution of the city within 20 and 50 years.



Public water-jet, Parc André-Citroën (15th) – © Mairie de Paris, Sophie Robichon

CONTRIBUTING TO THE FULFILMENT OF CITIZENS

It is specified in article 1 of the Declaration of Rio on the Environment and sustainable development that “human beings are at the center of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature”.



HELPING THE PARISIANS TO FIND HOUSING



A wide range of schemes in favor of inclusion through housing and the prevention of evictions

The Paris Solidarity Fund for Housing (FSL) encompasses several types of aids targeted to households in difficulty in order to prevent their eviction: direct financial aids (FSL Habitat, FSL Energy, FSL Water), indirect aids aimed at financing social support in favor of housing (ASLL), and subletting through associations (AML).

Since 2007, the Paris Authorities have set up a system called “solidarity-based rental without risk”. It provides temporary housing as an alternative to hotel accommodation and can be granted to recipients of child welfare. Since 2007, 1.722 households have benefited from this scheme.

A few figures

In 2012, almost €25 M were allocated:

- €14 M (56%) for direct aids. FSL Habitat: €11 M (or 23.385 aids) and FSL Energy
- Almost €11 M (44%) for indirect aids, €6.6 M of which was allocated to the solidarity-based rental scheme.

In 2013, the amount of FSL subsidies reached almost €26 M. 23.000 aids were direct aids to households and 3.000 corresponded to ASLL measures. “solidarity-based rental” amounted to €7 M and 390 applications were processed.

Better coverage of hotel accommodation for families entitled to Child Welfare Benefits

The City has partially delegated to its Social Action Center (CASVP) the allocation and management of a certain number of financial aids granted to Child Welfare Benefits, including aids for the provision of accommodation. The CASVP is also empowered to decide on the amount of aids and to pay them to families. Since 2011, the CASVP pays to hotel managers the total or partial cost of accommodation for families according to the level of aid granted. When it is decided after a social assessment that a family must contribute to the accommodation expenses, this contribution is paid directly to the hotel manager.

An experiment, led by the City department of social action, childhood and health (DASES), the CASVP and the Paris Samu Social has been underway since October 1, 2013. It concerns the management of hotel reservations and the control of the hotels used within this framework by the Paris Samu Social.

The objective is to improve the quality of hotels so that social workers can focus their attention on social support, and on better negotiating and controlling prices.

The experiment has permitted to find adapted accommodation options in the district of origin, to absorb 80% of over-occupancy in the 11th and 13th districts (1st sector tested), to reduce the level of unpaid contributions by families, to prospect new hotels and offer an outreach work in the field through the Samu Social in addition to social work.

A few figures

- In 2013, 679 families on average were taken care of every month by the Department for a total cost of €20.8 M.
- 1,311 people found accommodation in emergency shelters (CHU) and social integration centers (CHRS) in 2013. These institutions provide solidarity-based accommodation to support the inclusion of people in precarious situations (men, women, couples and families with children) on the Paris territory. Qualified professionals carry out these missions of public service to aid residents by helping them to recover their autonomy, their dignity, their integrity, their private life and their security. The percentage of people who benefit from accommodation is 71% for CHSR (medium term accommodation) and 47% for CHU (temporary accommodation).

INVENTING THE CITY OF TOMORROW

Schools are also preparing for the City of tomorrow. Workshops, activities and projects aimed at raising children's awareness took place over 110,000 days in 2013. For example, during the time devoted to extra-curricular activities, 961 workshops focused on the environment, the protection of the planet and citizenship education. The 17,300 participants discovered wild plants around their schools, were introduced to the waste sorting and to green habits, and learned how to make objects with recycled materials.



© Mairie de Paris

At the same time, 10,000 children took part in the organization of the “sustainable development week”. This was an opportunity for them to discover, among other things, the trees of the Parc Floral, the life of earth worms, biomimetics, bees and the profession of beekeeping. These activities were organized thanks to the professionalism of many workshop leaders and specialized associations.

In the short term, new participatory projects will enable children aged 3 to 12 to take part in the transformation of their environment, to become actors and learn to respect their surroundings. These projects will be based on the creation of one or several green areas in schools, such as trees, an educational garden, a vegetable garden, an orchard, compost, etc. Issues such as climate, biodiversity in the city, and sustainable consumption will be studied. Children will also be invited to make proposals during the Paris Climate Conference (COP 21) that will take place in France at the end of 2015.



In Paris, thousands of people are participating in the ecological transformation of the city, through local and concrete actions, either modest or more ambitious. In order to encourage the multiplication of these initiatives, the municipality took an innovative step in April 2011 in launching the Eco Paris Network. Its role is to highlight all the actions initiated by individuals, groups of inhabitants, associations and professionals, to substantially increase the number of proposals and to generate new ones.

Actions range from how to compost waste at the bottom of a building, and how to insulate housing, to how to retrofit business premises or start an educational campaign on sustainability.

At the core of the system is an online community. The website permits to discover the eco actions already carried out in Paris, to put those who have initiated them in the forefront, to foster exchanges and propose practical tools: guidebooks, contacts, sharing of experience.

A different theme is tackled each month and an expert is invited. A video portrait of a participant is presented. Important events are announced in a newsletter.

Others tools of exchange are available on the web: Facebook, Twitter, or the YouTube channel of the Eco Paris Network.

The Center of the Eco Paris Network is located on 21, rue des Blancs-Manteaux (4th). Every month workshops of exchange, conferences and visits of innovative places in Paris are organized.

More than 180,000 Parisians have now joined the Eco Paris Network, and over 57 eco-actions are presented in factsheets. The aim is to develop a dynamic community all over the territory that will propose shared and innovative initiatives in favor of a better living environment for all Parisians.

MAKING THE CITY MORE ACCESSIBLE TO THE GREATEST NUMBER OF USERS

Streets and public spaces, as well as buildings open to the public, must comply with standards aimed at facilitating accessibility.

The accessibility plan for the streets and public spaces of Paris (PAVE) sets guidelines to ensure and to maintain the accessibility of public spaces, and to provide Parisians with a territory where it is easy to walk and that is safe for everyone. At the end of 2013, 97% of pedestrian crossings were accessible to wheelchair users, with 4,770 of these equipped with audible signals, and 2.5% of on-street parking spaces were accessible to disabled individuals in possession of a GIC (for civilians with major disabilities) or a GIG (for war veterans with serious disabilities) card. Efforts were also made to de-clutter public spaces, leading to more comfortable and less obstructed paths and walkways. In addition to these actions, the City of Paris supports the testing of new systems (traffic lights fitted out with audible signals or tactile guidance...) to meet the objectives of the plan.

The law of February 11, 2005 on “equal rights and opportunities, the participation and citizenship of people with disabilities” introduced the obligation for new and existing buildings open to the public to be accessible to all users. In Paris, many new facilities completed during the previous mayoral term increased the number of accessible buildings open to the public. At the end of 2013, out of the 2,260 City facilities open to the public, 620 (28%) offered a service accessible to people with all types of disability. Moreover, 65% of the 460 facilities open to the public (IOP) – (green spaces and cemeteries) are now accessible to all users. The City authorities continue their efforts in this field, particularly following government authorization to complete the work over 3 periods of 3 years.



© Mairie de Paris

- ① Visible and detailed signage, contrasting colors
- ② Continuous handrails on both sides of staircases
- ③ Tactile warning strips prior to descent

IMPROVING THE SOUND ENVIRONNEMENT

Noise levels are a major cause of complaint amongst Parisians. In Paris, the densely-populated center of the metropolis, residents are exposed day and night to multiple sources of noise pollution, in which traffic noise plays a significant part. Improving the sound environment is therefore a major challenge in terms of health and coexistence in the city.

Measures to combat road noise are structured according to planning tools included in the Environmental Code and resulting from a European directive, namely, strategic noise mapping and environmental noise prevention plans (PPEN). The PPEN will be submitted to the Paris Council in 2015.

The objective is to reduce the number of Parisians experiencing a given level of road noise by prioritizing measures “at the source”, such as noise-reducing coatings, improvement of the rolling stock or a lowering of speed limits: all consistent with the City’s engagement in favor of calmer and more sustainable transport methods.

In addition, home improvements carried out within the framework of the Paris Climate and Energy Action Plan remain indispensable in achieving better insulation in homes exposed to transport noise.



Noise and vibration measurement campaigns – © Mairie de Paris

Low noise asphalt on the Paris ring road



Low noise coating – © Mairie de Paris

Since 2012, the City of Paris has been testing innovative, quieter road surfaces. Their formula is the result of the cooperation between the company contracted to complete roadway renovation and the municipal services. Having considered the high acoustic performances of this low noise coating, the City decided to extend its use to the ring road. Consequently, 11% of the Paris ring road was covered with low-noise coating in 2013. For 2014, a stretch of at least 500 meters was resurfaced with a low noise coating, notably in the vicinity of Porte de Clignancourt.

Acoustic assessments are made in social housing buildings prior to any thermal rehabilitation

As part of the Paris Environmental Noise Prevention Plans, since 2014 the City has required social landlords who apply for funding to retrofit their buildings to carry out an acoustic audit during the study phase. This phase is defined by the CERCAL certification agency, partner of the City of Paris for high environmental quality in housing. This new provision is aimed at obtaining better information on the acoustic qualities of renovated buildings and at taking greater account of the consequences of the work in terms of the acoustic comfort of the occupants.



LIMITING THE EXPOSURE OF PARISIANS TO ELECTRO MAGNETIC WAVES



In December 2012, the City of Paris signed a new charter on mobile phones with the four operators in the market.

This is the strictest charter today in France with a maximum level of exposure at 5V/m for the 2G-3G and 7V/m for the 2G-3G-4G: much lower than national exposure thresholds (between 40 and 61 V/m depending on frequencies).

The City maintains its commitment to the lowest exposure levels possible, all while ensuring quality service, transparent information, and consultation commissions on mobile phones (opportunities for exchanges and dialogue between elected representatives, operators, and associations). The City will also encourage measurement campaigns in Parisians' dwellings. Altogether, Paris accounts for one third of all measurements made in France. In childcare facilities, triennial measurement campaigns are planned, i.e. up to 400 annual measures.



Measurements on request – © Mairie de Paris, Marc Sauvage



PRESERVING ENVIRONMENTAL QUALITY



Campaigns to measure the quality of living environments were carried out in childcare facilities and schools

In institutions that welcome children, controlling the quality of the living environment is a priority.

Three types of controls are made:

1. An analysis of the quality of indoor air in childcare facilities and schools catering for kindergarten children, in compliance with the regulations. Week long measurement campaigns are in progress. One, when there is no heating and the other one during heating periods and school times. At the end of this campaign, a report will be posted in the institutions concerned.
2. 194 institutions welcoming young children, including 111 municipal institutions, benefit from a national audit aimed at ruling out any possible impact of soil pollution on children's living environments. The institutions were selected on the basis of the industrial background of the sites and according to the provisions of the "National Health and Environment Plan". In 2015, this campaign will be pursued in other schools selected in the same way.
3. Monitoring of mold growth is ensured in all these institutions.



The application "DansMaRue" involves Parisians in the improvement of their living environment



Launched in June 2013, this application allows users to report any deficiencies noted in public spaces (dirt, graffiti, problems on the roadway etc...). The objective is to improve the City together, and to involve Parisians in their environment, so that it better meets their expectations. Depending on the type of problem and its geographical position, the closest competent service receives the information and organizes the most appropriate intervention. Users have the possibility of leaving their email address to be updated on remedial actions taken to solve the problem.

The mobile version of the "DansMaRue" application can be downloaded free of charge on PlayStore and AppStore. It is also available on Paris.fr using the online form.

In July 2014, Parisians could use the application DansMaRue to propose areas where greening projects could be carried out within the framework of the project "Du Vert Près de Chez Moi". The application "DansMaRue" was rewarded again in 2014 with the "Coup de Foudre" Prize awarded at a trade fair for innovative practices, organized by the services of the Prime Minister and the Ministry of Economy and Finance to improve service relationships. This application had already won the "Territoria d'Or" Prize in October 2013, in the ITC uses category.



The City takes action in favor of health and security at work

The City of Paris has drawn up an organization plan for health and security at work in all its departments and services. Concrete advances were observed in most of these areas, and in particular concerning the prevention of chemical risks (many tools exist for the management and rationalization of the use of chemicals), muscular skeletal disorders (mechanization of certain tasks, such as cleaning markets, excavations in cemeteries, and the purchase of ergonomic seats for agents who are working in childcare facilities etc..), or psychosocial risks (drafting and dissemination of a framework document to each of the 5,600 executives employed by the City, training sessions, etc.).



The City uses situational prevention when designing new facilities and public spaces

Situational prevention is based on the assumption that the organization and development of urban and architectural forms may facilitate malicious acts, since they can create favorable conditions for offenders to take action. Its objective consists in recommending adapted measures aimed at limiting the possibilities of committing offenses or antisocial behaviors, and therefore at reducing feelings of insecurity. It is, however, only one of the elements of the security policy based on a whole set of prevention and repression measures.

Since late 2010, the City has been examining new projects of facilities and developments from the angle of situational prevention. The same approach has also been adopted for security assessments of municipal sites confronted with difficulties linked to insecurity.

The objective of this approach is to take safety into account right from the beginning in order to ensure a smooth functioning both for Parisians and City agents. It also avoids having to install various protection systems later on, which would involve additional

costs and modifications of the buildings which are not always easy to make. This is why taking safety into consideration is crucial for a high quality of life.



The City is attentive to health and security at work

In many cases, work sites on public streets are sub-contracted by the City to different companies that are not necessarily aware of the activities carried out by all these stakeholders. This lack of information may involve risks workers are unaware of. This is why the City of Paris has set up for the first time a team of four coordinators, to improve the protection of employees of companies working on its behalf. These municipal agents provide assistance to contractors in the field of security and health protection on work sites.



The City protects its staff and contractors against the asbestos contained in asphalt

Forbidden in France since 1997 because of its carcinogenic effects, asbestos can sometimes be present in certain materials used in the construction of roads.

In the absence of any construction work, asbestos is inert and does not pose any risk to the population. However, in case of construction work, municipal services enforce a strict procedure on the roads. Depending on its nature, work site waste that contains asbestos is transported to special facilities designed for the storage of non-harmful waste (NHWSF) or harmful waste (HWSF). In order to determine prevention and protection measures, test work sites are used to measure the levels of dust produced.

The protection of local residents and users of the public space is ensured by the containment of the worksite, using a system of barriers adapted to each situation. Dust levels are systematically measured within the work site. In all the asbestos removal works carried out in 2012-2013, dust levels remained lower than the maximum threshold set by the code of public health.

In response to the obligation for project managers to provide information on the presence of asbestos in the layers of the roadway, a mapping of asbestos coatings permits to draw up a list and to record the data collected through the tracking of asbestos, systematically carried out by the roadway department prior to road works.

The City works in cooperation with the State and actors of this sector to improve working methods.

Lastly, various provisions concern suppliers. Any purchase of aggregates and asphalts is now submitted to an asbestos tracking test in a laboratory.



Samples of materials to detect a possible presence of asbestos – © Mairie de Paris, DVD



The City pursues its strategy in favor of vocational training

This program, signed in 2010, was presented in the previous sustainable development report. Specific actions resulting from the agreement are structured around four strategic axes. Each of them led to new breakthroughs in 2013:

- Supporting innovation and change, and improving the efficiency of the Paris Public Service: in 2013, for instance, 12 Collective Improvement Projects (PCA) aimed at supporting projects launched by some of the City departments were continued or initiated. The training available is reviewed every year and, if necessary, reorganized in order to correspond to the diversity of professions and the evolution of the needs of the community. For example, concerning the re-organization of school times, several training modules were proposed to project managers, to education agents in charge of extra-curricular activities (RAE) and to the City education officials (REV).

- Improving managerial practices: since October 2013, all A category executives who change position participate in a managerial training session. The advisory role of executives is strengthened, and they can recommend training to agents under their responsibility, especially on the occasion of their annual professional assessment meeting.
- Strengthening the procedures aimed at improving health, hygiene and security: the vocational training policy supports the policy of health and security at work with the launching of trainings on the prevention of psychosocial risks.
- Fostering equal opportunities through relevant measures, such as the preparation for the First Level French Language Diploma (DILF), proposed to agents who are not fluent in French and who are not involved in traditional training schemes. Another procedure, the social promotion carrier pass (3PS) was created to maximize opportunities for agents who apply for an admission to pediatric schools. In 2012-2013, out of 17 agents who benefited from the 3PS system, 8 were admitted to a school. In 2013-2014, 27 beneficiaries were trained, among whom 8 are specialized agents for kindergarten.

Every year, some 30,000 agents benefit from 170-180,000 days of training.



© Mairie de Paris, DEVE



The City pursues a voluntary policy in favor of professional equality

Faithful to its commitment, more disabled workers were employed by the City in 2013. They now represent 7.1% of all agents (the legal threshold being 6%).

In order to consolidate these results, the City of Paris has been negotiating in 2014 a third triennial convention with the Fund for the Integration of Persons with Disabilities in the Public Service (FIPHFP) for the period 2015-2017. This convention will be structured around 4 axes:

1. The diversification of profiles, with particular emphasis on the recruitment of A and B executives,
2. The continuation of a policy aimed at adapting work stations by means of technical solutions or through the provision of services, in addition to the creation of a phone center and the provision of psychological support for the agents,
3. A wide range of trainings are proposed to agents who fall under the quota rule (almost 400 agents per year),
4. Information training sessions on disability for city agents in order to normalize this often tricky issue and to remove taboos.



The City wants to promote gender equality

The statistics on gender equality in the staff are changing. In 2013, 56.8% of the staff of the Paris administration (excluding temporary employees) were women, compared to 56.1% in 2012). In 2013, the percentage of women among higher executives reached 41.8% for deputy directors, delegates and heads of service, compared to 38.5% at the end of 2012.



How we perceive ourselves and other people

Action n° 10 of the **Agreement with the Essonne Department Council** allowed the establishment of an exchange partnership between Grange-aux-Belles College (an integration class for non-French speaking children) and Marie Curie College in Etampes (a class of students with disabilities). The project was re-conducted in 2013-2014 and involved the perception of “oneself and other people”. This educational project was carried out jointly with the Gesture and Image Center and the Chamarande Department Park.



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STRENGTHENING SOCIAL COHESION AND SOLIDARITY BETWEEN TERRITORIES AND GENERATIONS



ADOPTION OF A PARISIAN PACT AGAINST SOCIAL EXCLUSION



Thanks to the social policy conducted by the City of Paris for several years, poverty has not increased as much in Paris as in the rest of France. However, the number of persons in a situation of major exclusion has not dropped. Significant efforts have been deployed to remedy this, including the financing of 3,000 temporary accommodations, the creation of 7 restaurants and 9 centers oriented towards inclusion and solidarity.

€45 M have been allocated annually to fight major social exclusion, especially targeting social watch and the sheltering of homeless people. However, the diversity of people in a situation of major exclusion reflects the scale of the crisis: isolated individuals, men, women, youths, asylum seekers and, more recently, families with children.

Lesson can be drawn from the actions carried out by the City; the simultaneous access to a single social adviser, stable accommodation, health care and an economic integration scheme have all proved to be effective.

The City of Paris proposed to adopt in January 2015, the Parisian Pact on Fighting Social Exclusion that will unite all stakeholders. The Pact, the first stage of a process to be deployed throughout the mayoral term, will result from a collective approach launched during the second semester of 2014. Working groups involving all stakeholders will make proposals that will form the basis of the Pact. The action will be structured along 3 axes: prevention, intervention and long term inclusion.

- In terms of prevention, the actions taken prioritize the access to rights, especially to healthcare, in order to avoid breakdowns in personal development. The prevention of evictions and institutional ruptures will be anticipated and necessary steps will be taken before people find themselves back on the street. Particular attention will be paid to children and young people in precarious situations, so that they do not become the excluded of tomorrow.
- To intervene effectively, the City will provide access to essential services and support people out of homelessness throughout the process, and a decompartmentalization of care options is under study. The missions of street teams, social watch and the first contacts with users must be reconsidered to lead to a more comprehensive approach. This requires efficiency, responsiveness and coordination between the different partners involved.

- To achieve long term inclusion, the link between emergency and inclusion must be strengthened and the various types of care provision must be decompartmentalized (disability, old age, child welfare, precarious situations, health, etc...). Access to accommodation and housing must also be targeted at people in a process of reinsertion and rehabilitation. A return to employment, which recovers self-reliance, must be the backbone of support policies.

The Department of Paris, Paris Samu Social and the CASVP expand their interventions on the territory

Social watch is the mission of public services responsible for protecting homeless people and persons in distress. The Department co-finances a certain number of actions to strengthen interventions on the Paris territory and participates in the management of mechanisms and in the engineering of projects. The main mechanisms funded are: Paris Samu Social, food aid, day centers (like the 9 centers mentioned earlier that foster inclusion through solidarity), on-street outreach teams and luggage storage services. The City of Paris welfare center is also a major actor through its institutions which provide welcome, accommodation, restaurants, support and integration.

A few figures

- Paris Samu Social: the Department financed this public interest group for an amount of €3.3M in 2013.
- Food aid: more than 60 distribution sites (distribution of hot meals at tables or in the streets, distribution of food packages or social grocery stores). €3.37 M were allocated to food aid in 2013.
- On-street teams: made up of teams of social workers, they reach out to homeless people in public spaces. €1M allocated in 2013.
- Luggage services: they offer storage services to homeless people. €183,400 allocated in 2013. There are 6 such services in Paris managed by volunteers.
- Integration solidarity centers: (ESI) there are 15 ESI in Paris spread out over ten districts. €3.7 M allocated in 2013. These day centers provide sanitary, social and health services. More than 500,000 visits are reported every year. 70,000 showers, 110,000 medical consultations and 23,000 interviews were provided. The CASVP provided 3.6M meals in 2013.

The “First Hours” Scheme becomes permanent

This scheme targeted at major social exclusion was implemented for 2 years as an innovative experiment of access to integration workshops for people in situations of social exclusion, particularly homeless people, who benefit from a lighter schedule within the scheme.

The principle is that the weekly duration of the mission is adjusted to each individual. It can be gradually increased until the worker is able to work 16 hours per week (i.e. 72 hours per month) within the framework of a special employment contract. The employee can be recruited by the integration workshop of the structure that employs him/her, or elsewhere. 6 associations have joined the scheme, voted in in December 2010. 75 people have been recruited and 20 of them were permanently employed at the end of their contract.

A few figures about the profile of those who took part in the experiment:

Men	65
Women	10
Average age	42
The youngest	24
The oldest	60
Longest presence in the scheme	12 months
Average number of hours worked per month by the most assiduous beneficiaries	30 hours
Average number of hours worked per month by the less assiduous beneficiaries	10 hours

On-street teams expressed their satisfaction at the creation of this tool that has been very helpful to take care of people most excluded from the workplace. 7 associations have joined the scheme: (Emmaus Deif, Atoll75, the central neighborhood municipal service, the Mie de Pain, Carton Plein, La Chorba, Travail et Vie). The 32 people recruited in 2013 have since completed 2,874 hours of work, 25 have received an administrative support, 5 people have been entitled to the active solidarity income (RSA), 12 to health-care, 2 to housing (hotel, social residence), 27 have been helped in their search for a job or a training, and 16 found a job.



Carton Plein

**CARTON
PLEIN⁷⁵**

Carton plein is an association that sells used, ecological, and cheap moving boxes. According to estimates made by the association, there is a potential supply of 100,000 second hand moving boxes per month. Its activities consist in collecting boxes by means of an electric cargo bike, then sorting and reselling them. It provides paid work to people in a situation of extreme poverty and assures them of social and professional support. This is made possible thanks to the First Hours Scheme initiated by the City of Paris.

Drinking fountains are installed in Paris in places where they are most needed



© Eau de Paris

With almost 15,000 drinking water supply points (among which are 400 “sanisettes” public toilets), Paris has a significant network of drinking fountains in its streets and in gardens. In winter, about 40 of these fountains are selected by the City social services and are kept in working order in the streets and gardens. They are mentioned in the “Solidarity in Paris” Guidebook published in more than 100,000 copies. In 2014, work with the Paris Planning Agency (APUR) identified new areas to place drinking spots, in order to achieve a more homogeneous coverage of the territory and better access to water, especially in areas where there are large numbers of homeless people.



DIVERSIFYING CHILD AND FAMILY WELFARE POLICIES



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Specialized prevention is a prevention tool based on local actions

In sensitive urban areas and in sectors where there are risks of social maladjustment, the Department of Paris participates in actions aimed at preventing marginalization and at facilitating the integration and social mobility of young people and families. Specialized prevention actions are carried out with the support of 35 accredited social centers in Paris whose mission is to create social links. The Department of Paris contributes to the funding of 29 association-run social centers.

Specialized prevention is intended for preteens and adolescents, as well as for the most underprivileged young adults (12 to 21). It takes place at their place of residence and is centered on educational work. This educational aspect must be developed in an explicit, consistent and strategic way with these young people, as well as with institutional or association partners.

Under the leadership of a team of professionals and volunteers, the general objective of these social centers is to end isolation among the population of the local area, to prevent and to limit exclusions, and to strengthen solidarity between people by involving them in collective projects. They can then become actors and fulfill a social role in the community.

A few figures:

- 15,000 young people were identified and supported by specialized prevention teams in 2012 (208 field educators) with a budget of €17.8 million.
- In 2011, more than 46,000 Parisians were enrolled in social centers, and 1,915 volunteers organized their activities. The participation of the Department in the funding of these social centers has more than tripled in 10 years and amounted to €4 million in 2013.

Diversification of child welfare recipients (ASE)

The Child Welfare Service is aimed at providing a material, educational and psychological support to minors and their families, as well as to young adults under 21 when they are confronted with difficulties that could threaten their health, safety or morals, or compromise their development.

The Department of Paris has special units in charge of collecting information (CRIP) in order to harmonize practices and to consolidate data at the national level.

Within this framework, the Child Welfare Service implements actions of prevention and protection either in the form of collective interventions or of individual measures. These actions can take place in the family environment or outside of it if minors are entrusted to Child Welfare services after an administrative or jurisdictional decision.

The Paris Adoption Center, which processes applications and supports wards of the State, also plays a role in the child protection system.

A few figures:

- About 5,600 minors and young majors are entrusted to Child Welfare Services.
- 4,000 minors benefit from educational actions, and 350 future or young mothers and their children are welcomed to Mother and Child centers run by the Department or associations.

The accommodation offer has been expanded and diversified to meet the needs identified in the 2010-2014 Childhood Protection Plan. For example, 276 accommodation places have been opened since 2010. Moreover, day centers were created as an alternative to foster care. The preparation of the 2015-2019 Department Plan is scheduled for the second half of 2014 and will take contextual changes into account.

The medical and social prevention of children is based on new modes of action

To provide children with a stronger medical and social follow-up, the City of Paris has chosen to retain its regional school-based social and health services, despite these responsibilities being under the jurisdiction of the State. These services are run by the Department at a ratio of 1 social worker per 1000 pupils (on average) in all municipal kindergartens and elementary schools. There are also many school doctors (one doctor for 3,200 pupils, compared to one for every 8,800 pupils on average in France).

The first objective is to make an early diagnosis, with a systematic health check-up in the last year of kindergarten (aged 5 to 6 years), sensory tests (visual and hearing tests) and a screening of learning disabilities during the first year of kindergarten. An oral and dental health screening is also carried out during the second year of kindergarten in 7 arrondissements and during the last year of elementary school in all arrondissements. The second mission concerns the integration of children who suffer from chronic pathologies through individualized welcome schemes. In the case of children who suffer from disabilities, individual plans of educational development are implemented.

The Department of Paris contributes to actions aimed at preventing and fighting school maladjustment and failure. It also plays a part in the domain of child protection, in which it is responsible for assessing the situation of children who are in danger or at risk. Its interventions can also include educational support, social integration and the access to rights and health care. For the school year 2012-2013, 18,066 students received a social follow-up, that is to say 38,200 interventions. 10 psychopedagogical adaptation centers are aimed at facilitating the academic integration and adaptation of children and adolescents attending schools in Paris, and who have interpersonal, educational, social or family difficulties, through multidisciplinary support and rehabilitation programs. The number of children attending these centers has remained stable (2,877 children in 2012-2013).

“Paris Santé Réussite”, an experimental program of treating learning disorders, was set up at the beginning of 2011 in 2 arrondissements (11th and 20th). Its objective is to fight unequal opportunities that affect underprivileged populations, by offering support to children who have major reading difficulties. The plan consists in a systematic and strict protocol, and offers a graduated response according to the level of difficulties faced by the child.

- The first stage of detection of children who face reading difficulties is carried out by teachers and involves a preventive pedagogical response.
- The second stage of examination is carried out by school doctors for children whose deficit is serious and requires attention.
- The third stage involves the mobilization of a multidisciplinary team of experts in the neighborhood.

The intermediate assessment made during the summer of 2013 reported good results: the percentage of children achieving low scores in reading during the 1st year of elementary school dropped from 32% to 24%. The vast majority of children participating in this project reach autonomous reading and spelling levels sufficient to be able to continue their schooling. The experiment has been extended until the end of 2014.

The actions in favor of equal opportunities for children complement those in favor of family integration

Municipal childcare institutions actively contribute to integration, in enabling families to benefit from child care services and in enabling children to take part in stimulation and support programs and to attend collective institutions.

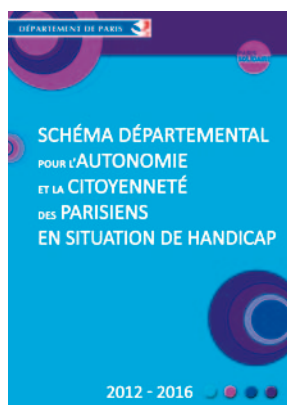
The contribution of these institutions to equal opportunities is significant. Children from low income families represent more than one fourth of the children welcomed by municipal child care institutions. Special procedures are in place to handle emergency situations and to accommodate the most vulnerable children, following a consultation with health or social professionals. A specific procedure also facilitates the admission of the children of RSA recipients who are engaged in integration projects. In 2013, 327 children were admitted within this framework.

In addition, for the past 5 years, municipal childcare institutions have been participating in a solidarity project in partnership with the “Restaurants du Coeur” and the arrondissement City Halls. It consists in collecting donations of clothes, hygiene products, and baby equipment, to be given to 2,000 babies supported by the “Restaurants du Coeur” in Paris. During the collection campaign organized from December 2-6, 2013, the equivalent of 515 100-liter bags was collected.





IMPLEMENTING THE DEPARTMENT PLAN FOR THE AUTONOMY AND CITIZENSHIP OF PARISIANS WITH DISABILITIES.



After more than 18 months of assessment and consultations with institutions, associations, professionals and users, the Department Plan on Disability in Paris reaffirms and intensifies the policy carried out by the Paris Authorities since 2001 to aid people with disabilities.

This policy involves all City departments; the integration of people with disabilities is taken into account in every action undertaken by the City and the Department. To take up this societal challenge, the City has multiplied by 12 the funds allocated to the policy.

Within the framework of this plan, a pilot institution for young children was opened at 18, quai de la Charente (19th). With a capacity of 66, it proposes 20 places (30% of its maximum capacity) to children with disabilities aged 3 months to 6 years. In order to welcome the children in the best possible conditions, 2 educators of young children and 2 childcare assistants have been recruited to staff the team. Medical care is provided by a doctor, a psychomotor therapist, and a psychologist who work part-time (50%).

The City also provides significant subsidies in order to accommodate children with disabilities, by supporting initiatives run by individual institutions', and therefore contributing to a significant increase in the number of places reserved for this population in the associative sector. 8 specialized institutions run by associations offer a total of 228 places and reserve 30 to 40% of their capacity for children with disabilities:

- 5 drop-in centers – multi-welcome: Le Chalet (10th), Les Trotte-Lapins (15th), Ram'dam (18th), Petit Prince Lumière (20th), La Maison Dagobert (12th),
- 1 kindergarten: Gulliver school (12th),
- 1 multi-welcome structure (drop-in center and kindergarten) La Caverne d'Ali-Baba (11th).

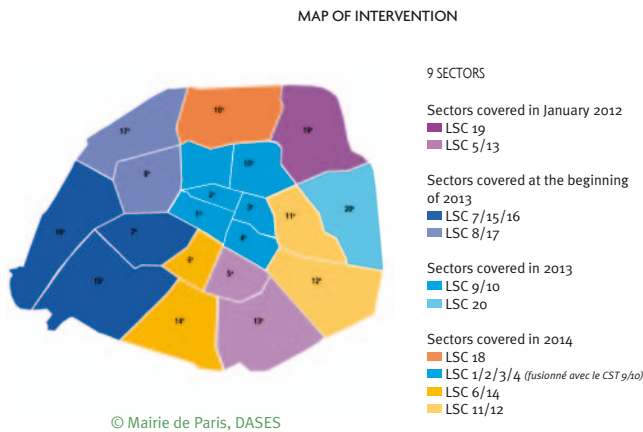
A multi-welcome structure managed by the association Crescendo at the 37 rue Vergniaud (13th) has an accreditation for 30 places, 10 of which are reserved to children with disabilities.



Kindergarten (19th) – © Mairie de Paris

ACCESS TO RIGHTS

Local social coordinators are close to the population



Almost 2/3 of French Departments have territorialized their social action to achieve greater proximity between the population and intervention teams. In the Paris context, this is primarily aimed at:

- Broadening knowledge of the local populations and the local problems,
- Improving coordination between social services and the implementation of the social policies and territorial action of the Department: local management, organization, etc.,
- Increasing partnership with local social stakeholders,
- Adapting actions to the priorities of the territory by encouraging the participation of residents,
- Fostering closer links between the population and available public services,
- Contributing to make social action more accessible and easy to understand,
- Harmonizing as much as possible the social intervention sectors.

In Paris, the territorialization of social services was launched in 2011. This led, in particular, to the creation of 10 positions for local social coordinators (LSC). Their responsibilities include animation and coordination, with 2 major missions:

- To strengthen coordination between the departmental social services on the local level,
- To implement the social component of the “Charter of the Arrondissements” (local social assessment, implementation of territorial actions, etc.).

The implementation of a plan of access to rights aimed at improving the access of users to municipal services has been tested. It is based on the creation of a mobile team and the possibility of filling applications in any service of the City of Paris Welfare Center. A dissemination and communication plan intended for the partners

likely to reach out to people who were not identified by the services, has also been set up.

Social help desks (PSA) welcome those in situations of precariousness and the socially-excluded. The objective is to establish a link with these persons and to get them off the street so that they can be reintegrated. The help desks offer homeless Parisians the opportunity of having an administrative address and guarantee their access to legal welfare benefits, as well as to the aids provided by the municipality. 9,155 households were attended to by these help desks in 2013, and 5,583 could receive their letter in June 2014.

Active Solidarity Income (RSA) expenditures on the rise in 2013

The basic RSA and the RSA plus child supplement are financed by the administrative departments. In Paris, within the framework of the Departmental Integration Plan and after a stabilization of expenses between 2010 and 2012, RSA expenditures have been rising in 2013 because of a growing number of recipients (+ 5.2% between June 2010 and September 2013, i.e. approximately 65,000 recipients at the beginning of 2014), and because of the revaluation of the maximum amount of the benefit. The Department’s policy is aimed at improving the rate of contractualization, the return to employment, at fighting fraud and at making sure that all the people who are entitled to these aids receive them.

Main figures concerning RSA expenditures:

	2008	2009	2010	2011	2012	2013
M€	271	285	300*	297	301	318

*of which €3,8 M for 2009

Three financial aids targeting RSA recipients are also funded by the Paris Department:

1. The City of Paris complementary housing benefit paid in addition to the national housing benefit,
2. A personalized aid granted to recently-employed basic RSA recipients covers the expenses related to a return to employment, training or the creation of a company,
3. After examination by a commission, the Initiative Fund (FDI) covers the financial expenditures resulting from an individual or collective integration project aimed at recovering personal and social self-reliance.

The objectives of these aids are to enable RSA recipients to stay in their home taking into account the heavy burden of rent for an Ile-de-France resident, and to encourage them to take up a job by reducing contingent expenditures.



FOSTERING SOCIAL AND PROFESSIONAL INTEGRATION



The City maintains strong support for structures that facilitate integration through economic activity (SIEA)

Integration through economic activity (IEA) allows unemployed people facing particular social and professional difficulties to obtain work contracts in order to facilitate their social and professional integration. The structures that can recruit these people are integration firms, intermediary associations, temporary work integration companies, Local Management Associations and integration workshops. The Department of Paris provides funds for the recruitment of Parisians who are entitled to the basic RSA.

Altogether, for the year 2013, the number of people on an integration contract diminished whereas the number of paid hours increased. People who benefit from this system stay longer in their jobs.

	Type of support	Benefits	Sectors	Number financed by the Department
Integration companies	Recruitment with a limited term contract	Social support, training integration and training	Cleaning, restaurants, construction	26
Intermediary association's	Agents put at the disposal of individuals or of enterprises/ associations	Support and follow up of integration	Child minding, care to elderly people, gardening	17
Temporary work integration companies	Temp work missions	Social and professional support	Various sectors	8
Local management associations	Associations gathering local stakeholders and residents	Professional integration, social link	Construction sector, enhancement of neighborhoods	10
Integration workshopst	Projects implemented by non-commercial organizations	Professional reintegration	construction, childcare, aid to individuals, environment	27

The Social Economy Trophies reward innovative Parisian projects that have a strong potential

An annual call for projects has been launched since 2009. It is aimed at project initiators whose initiative is likely to generate a significant development of their activity and increase their recruitment potential. It is also intended for initiators of innovative and emerging projects. Since the launch of the first call for

projects, 237 project initiators have shown their interest in the social and solidarity economy.

Several types of support can be provided to the projects selected: start-up or development aid (from €5,000 to €25,000), support to find premises, to develop partnerships, help in the tendering process to better meet market expectations, support to finalize the project, and use of communication media managed by the City of Paris.

In 2013, the “social economy trophies” call for projects concerned sustainable development. 11 projects were supported for a maximum amount of €15,000 each (Les Ateliers de Natema, La Réserve, ALINEA, Transport Challenger, Extramuros, Studio Carton, La Petite Rockette, Mezzanine Admin, Emploi et Interim, Solidarité Etudiante and the social integration enterprise “Rézo Social”).

Community Gardens welcome actions of solidarity



Community garden managed by Emmaüs, Paris (10th) – © Mairie de Paris

The community gardens program celebrated its tenth anniversary in 2013. There are now 100 community gardens, among which 12 were created in 2013. This program encourages urban greening, social cohesion, solidarity and inter-generational relationships. 8 community gardens have solidarity purposes. Such is the case of the Hérold garden (19th), opened in 2013 to help people in situations of social and professional exclusion to get out of their isolation through an ecological and community gardening project. The action is supervised by the “Espaces” association. The “Emmaüs” association also welcomes people who are hosted in its centers in the St Laurent (10th) community garden. These two gardens are already quite successful and are a real point of reference for the people who benefit from this support.



PARTICULAR ATTENTION MUST BE PAID TO THE MOST VULNERABLE NEIGHBORHOODS



The policy implemented by Paris in favor of employment and professional integration is accompanied by specific measures for the people in difficulty in neighborhoods concerned by the priority urban policy. It is carried out by the City and the Paris Department.

The Urban Contract of Social Cohesion (UCSC) is the contractual frame of reference for the urban policy. Developed by the State and the City of Paris, it was signed on March the 30th, 2007 for a 3 year period and extended until 2014 after a decision in 2011 by the Inter-ministerial Committee for Cities. It is part of the broader framework of the Paris project in favor of its working-class neighborhoods and recalls important decisions in the field of housing, mobility, urban renovation and welfare policy for 14 “Urban Policy” neighborhoods and their 330,000 residents.

THE “EMPLOYMENT AND ECONOMIC DEVELOPMENT” SECTION OF THE UCSC ENCOURAGES THE EMPLOYMENT OF THE MOST VULNERABLE POPULATION

This section includes a series of measures aimed at encouraging the employment of the most vulnerable people, and at economic development, namely: priority recruitment, mobilization of integration structures, integration workshops, strengthening of language training, and the development of a solidarity economy. As an employer, the City of Paris subsidizes jobs that concern 17% of people from these neighborhoods. In 2013, the City of Paris allocated 100 of its 300 “jobs for the future” (subsidized jobs for young people who have no diplomas) to young people from these areas.

More precisely, 4 aspects have been supported by the Department of Paris in 2013:

1. Support towards employment: 13 structures have been selected. Funding from the Department amounts to €117,000,
2. Support for business creation: 2 organizations were chosen. €34,000 was allocated to this mission,
3. Prevention of discrimination in hiring: 4 applicants were selected. The financing of these actions amounts to €40,000,
4. Support in favor of vocational integration for female single parents. 3 operators were chosen. €85,500 was allocated to these 3 projects.

In 2013, €276,500 was allocated to these actions. Considering the extreme vulnerability of the population concerned, the rate of return to employment through these measures cannot be the main indicator of their efficiency. In 2013, 2,703 people were informed about these actions, 1,866 people were supported, including 150 college students. 371 people were able to find a job and 181 took part in a training scheme.

Language training for professional purposes is becoming more widespread

Within the framework of a professional integration approach, language training sessions are organized by the Department (through the Departmental Program of Access to Employment) or by the Region. However, they require a minimum level that is too high for a certain number of unemployed Parisians. The Department also offers language training for people who are not fluent in French but who do not have an objective of professional integration (social-linguistic workshops).

The support for “professional language training” encourages activities organized by associations that establish a link between these social-linguistic workshops and the integration projects that the Department develops through its Integration and Employment Plan. The subsidies allocated in 2013 amounted to €447,665, and 1,000 people benefited from these measures.

Digital Public spaces (EPN) are created on the territory.

Since 2002, these spaces have contributed in offering neighborhoods and populations in difficulty the opportunity to benefit from the development of new information and communication technologies. In 2010, the City decided to integrate this program into the objectives of the fight against urban and social exclusion and the development of the “Urban Policy” priority neighborhoods.

In 2013, 16 such spaces were subsidized by the City for a total amount of €900,000. Most of these structures are located in, or nearby, neighborhoods examined under the Urban Contract of Social Cohesion. The structures that run these programs are either specialized association or welfare centers.

THE “SOCIAL LINK, ACCESS TO RIGHTS AND CITIZENSHIP” SECTION OF THE UCSC SUPPORTS INNOVATIVE ASSOCIATIVE PROJECTS

The support for neighborhood associations, funded within the framework of the call for projects relating to the City’s urban policy, concerns projects defined for each priority neighborhood. These projects can be temporary or innovative permanent initiatives.

In 2013, €2,186,000 of operating subsidies and €479,397 of investment subsidies were paid to associations within this framework. This budget is expected to be renewed in 2014.

The Department of Paris contributes to the financing of adult intermediaries hired by these associations to work in priority neighborhoods. These employees are paid 20% of the SMIC (minimum wage). In 2013, €535,896 was paid to associations to fund 118 jobs.

The “Accorderie” is a system of service exchange

The Accorderie contributes to the fight against poverty and exclusion by creating solidarity, social bonds, social cohesion and diversity in the neighborhood concerned, in the form of non-monetary riches. Through a service exchange network, it creates conditions to help improve the quality of life of all its members. A first experimental project in partnership with the Macif (the initiator of the project in France) was kicked off at the end of 2011, and managed by the Local Management Association. In 2013, 3 new “Accorderies” were created in “Urban Policy” neighborhoods, and some 1,000 Accorderie members exchanged almost 2,800 hours of service in the 4 Parisian Accorderies.



© AFP, François Destoc

THE “HABITAT, LIVING ENVIRONMENT AND URBAN RENOVATION” SECTION OF THE UCSC HELPS TO IMPROVE LIVING ENVIRONMENTS

The 2009 Convention continues

An agreement between the City and the various social landlords and semi-private companies was signed in 2009 as part of the City’s urban policy, to improve the service quality, to strengthen local urban management, to upgrade premises at the bottom of buildings, to encourage the installation of shops and premises for associations, to renovate spaces and improve buildings, to develop integration through specific measures, and to promote social support in the domain of housing.

In 2013, the City of Paris established a cooperation protocol with Paris Habitat, with the aim of developing new approaches concerning the fight against fuel poverty, cleanliness, the support of neighborhood municipal services, labor mediation, helping young entrepreneurs to set up businesses in the neighborhoods, and the mobilization of overall action plans for blocks of housings in great difficulty.

The local development teams work closely with the population

The local urban management initiatives carried out in all the “Urban Policy” neighborhoods are under the responsibility of local development teams. They are aimed at improving the living environment, especially through improved coordination with partners (City departments, social landlords, local associations), at identifying and reporting failures so that the causes of these problems can be addressed more rapidly, and at implementing a specific plan of action to address the causes of dysfunctions to provide sustainable and original responses.

The “Nature +” approach is spreading

Within this framework, the “Nature+ approach” tested in the 20th, has now been expanded to 9 other areas. It consists in upgrading neglected urban sectors through planting vegetation (wasteland and spaces between buildings, nooks and crannies, gable walls). In 2013, 45 sites were upgraded and improved following this approach.

THE “EDUCATION, YOUTH AND SPORTS” SECTION OF THE UCSC FOSTERS EDUCATIONAL ATTAINMENT

The city has undertaken an educational attainment plan aimed at offering educational, social, cultural, and health support to pupils in difficulty in neighborhoods where the City’s Urban Policy applies, or where education has been made a priority. The plan has been conducted since 2006 by a Public Interest Group and consists, on the one hand, in implementing personalized programs of educational attainment for children who show signs of vulnerability, and for their families; on the other hand, a collective package of local and crosscutting actions such as strengthened support to schooling, interpretation services, psychological support projects, and parents/school mediation.

A new system was implemented at the start of the 2012 – 2013 school years. The number of personalized programs of educational attainment was on the rise again with 870 programs in 2012-2013. For 2013 the total budget of the Public Interest Group amounts to €3,037,765. The City of Paris staffs the group and financially supports its actions for a total amount of €1,832,295.

THE “HEALTH” SECTION OF THE UCSC IS AIMED AT PREVENTING RISKY BEHAVIORS

In 2013, the seven city workshops on health (ASV) have continued their activities in the “City Policy” neighborhoods by developing health promotion actions, networking with local stakeholders, pooling resources, and by encouraging user participation.

In addition, a multidisciplinary Health Center has been opened in the 20th. It is run by the Association “Pole santé des Envierges” and employs 4 general practitioners and a team of nurses, all of which are in sector 1.

The City of Paris provides financial support for local associations experienced in the field of preventing high-risk behaviors and addictions and that provide assistance to the public (young people, parents, and relatives).

In 2013, the total cost of this financial support reached €497,500.

THE “CULTURE” SECTION OF THE UCSC SUPPORTS AUDIOVISUAL PROJECTS

In 2013, in 12 neighborhoods concerned by the “City Policy” scheme, the Cinema Mission decided to continue its support to local initiatives by financing the action of 14 associations and 17 audiovisual projects for a total amount of €30,000.

THE GENDER EQUALITY OBSERVATORY

In 2001, the municipality created a ‘gender equality observatory’, designed to play a crosscutting role in all the policies carried out by the city. In the field of integration, the Gender Equality Observatory supports the action of several organizations that provide social and professional support for women who have trouble finding employment and who are often single parents.



Espaces



For several years, this association has been running workshops on the ecological management of green spaces to contribute to the integration of people facing social difficulties.



The City provides better social protection and access to housing to its agents

Welfare benefits are aimed at preserving the agents’ health and at supporting the most vulnerable and their families. In 2013, the amount of welfare benefits paid to its agents by the Paris authorities and the Association in Charge of Social Action in favor of the City of Paris staff (AGOSPAP) reached more than €23.4 million. This amount increased by 1.5% compared to 2012.

The analysis per item of the expenses shows the major and growing role of health-care benefits (APS) in the obtaining of extended healthcare. Paid on an annual or monthly basis, the APS represented in 2013 a total expenditure of nearly €15 million, or 64% of all welfare benefits.

The funds allocated to APS increased by 5.9% between 2012 and 2013, because of the revaluation of the annual amount paid to the lowest incomes, and the increase in the number of agents who benefit from the monthly APS.

The main allowances are targeted to the most vulnerable, particularly through the system of emergency accommodation, and the system of allowances for families (new school year allowance, contribution to childcare expenses, etc.). The educational allowance paid to school pupils was revalued by 2.5% in 2013.



The City facilitates access to housing for certain categories of its agents

In the field of housing, the local authority is constantly looking for solutions adapted to the diversity of situations among its agents.

The strategy has two main objectives:

- To give civil servants access to social housing in prioritizing certain categories of agents because of their working conditions (working hours, arduousness of the work) that often require reducing the distance between the home and the workplace, or because of difficulties of recruitment in certain sectors,
- To retain staff and to develop the feeling of belonging to the City of Paris community.

In 2013, 788 agents could have access to social housing thanks to a system which, since 2004, has allowed 1/6th of the social housing offer to be reserved for City of Paris staff.

Particular attention is paid to agents who are facing temporary or social difficulties:

- The emergency accommodation plan for the agents has been reorganized through a procurement contract with the hotel industry. In 2013, 133 agents found accommodation thanks to this system, compared to 189 in 2012. This decrease can be explained by the efficiency of the network of partners offering alternative solutions..
- About 430 agents found accommodation in one of the six social residences that belong to the City. In addition, the City partnership with associations specialized in supporting victims of domestic and/or family violence has been renewed. Since July 2013, it applies not only to women but to men as well.



The city enhances its policy of collective restaurants

The renovation of the City's collective restaurants is ongoing in order to best meet the expectations of the agents. In 2013, 1,861,708 meals were served in restaurants managed by the Association of Social Action in Favor of the Staff of the City and Department of Paris (ASPP).

With a threefold objective of public health, social cohesion, and social justice, the Paris authorities have strengthened their policy in favor of collective restaurants:

- A new democratic governance system has been implemented at the ASPP since June 2013. It is characterized by joint committees that bring together trade unions and representatives of the employer (elected representatives, qualified personalities and City agents),
- A policy of contractual arrangements with the shared company restaurants has been carried on in order to cover all the different geographical locations of the services.

In 2013, 225,312 meals were served in contracted restaurants.



Collective restaurant – © Mairie de Paris, Déborah Lesage



The city renews its commitment in favor of professional integration

The Paris authorities carry out an active policy of support in favor of the vocational integration of young people, especially those who are less qualified. This policy is based on the different systems available such as subsidized contracts, subsidized jobs, apprenticeships, internships and voluntary work.

In 2013, in line with its commitment in favor of equal opportunities and solidarity, the City of Paris welcomed 1,532 people under subsidized contracts (1,209 one-time integration contracts and 323 subsidized jobs). Training programs concern not only the acquisition of skills but also the preparation for administrative examinations and screenings, and the acquisition of competences required for jobs where there is a skills shortage in the labor market. Moreover, a well-structured support program is now in place, involving in particular, the possibility of carrying out skill assessments (34 in 2013) and a system of strengthened mentoring in 2012.

The City also helps people experiencing difficulties finding employment by participating fully in the “Jobs for the Future” scheme (323 beneficiaries in 2013). In February 2013, the Paris Council reaffirmed its support to the nationwide mobilization in favor of the employment of young people aged 16 to 25 and who are in difficulty. An agreement was signed between the Mayor of Paris and the French government to offer full-time subsidized jobs in the Paris administration on the basis of a fixed term contract for a maximum of three years. These young people were recruited in services that have a social or environmental purpose or a strong potential of job creation.

A few figures:

- Apprenticeships: 602 recruitments at the end of 2013 compared to 441 in 2012, with a majority of these being women (69%).
- Internships: 6,150 internship conventions in 2013, 820 of which were for more than two months and 5,330 for less than two months.
- Voluntary civic service: 176 volunteers recruited for 2013.



The City pursues its commitments in favor of intergenerational links

In the context of the raising of the average retirement age and the aging of its staff, the City aims to offer a better quality of life at work to its agents, to fight against age-related discrimination and to guarantee all agents the possibility of obtaining a full-fledged place in the administration throughout their career. The framework agreement on “ages and generations” (ACAG) signed on March 19, 2013 with four trade unions (CFDT, UNSA, UCP, CFTC) for a 3-year period has already resulted in many targeted actions, including:

- The implementation of the commitments made regarding training, in particular, conferences organized on this topic by the University of Executives. In addition, two training sessions on intergenerational management were included the 2014 list of available trainings offered by the Department of human resources,
- The inauguration of the Mobility Career Center (CMC) in January 2014. This resource center has achieved great success among agents,
- The information conferences for agents on the verge of retirement (900 agents invited in 2013)..

The framework agreement on “ages and generations” shows that the Paris administration has taken extended working life into account, concerns itself with the employability of its agents throughout their careers, and promotes principles of diversity and non-discrimination at work.

The agreement is structured along seven strong commitments:

1. The improvement of provisional management,
2. The development of intergenerational management,
3. The promotion of mobility and enhancement of professional careers,
4. The improvement of career development for the staff and strengthening of training,
5. The enhancement of skill transmission,
6. Medical follow-ups and preservation of the health of senior agents,
7. Fostering the transition towards retirement.

Each of these commitments is outlined in 21 action plans. They are aimed at helping City departments to implement them on the ground and helping the Human Resources department to manage this agreement to the benefit of all staff. Two follow up committees with the trade unions that signed the agreement were organized in July and December 2013 in order to assess progress. Other committees will meet again in 2014.



Intergenerational links – © Mairie de Paris, Émilie Chaix



© ADEME, C. Chauvet

PROMOTING RESPONSIBLE MODES OF PRODUCTION AND CONSUMPTION AND SHIFTING TOWARD A CIRCULAR ECONOMY MODEL



RESPONSIBLE PURCHASE



To help the Parisians to better understand the issue of responsible purchasing, the City of Paris has recently created a new section on its Paris.fr website: “[Acting by consuming. Where? How? Why?](#)”. This section offers extensive and useful information on buying local produce, “buying responsibly”, and better understanding the importance of fair trade and its labels. It is directly associated with other themes such as social economy, reuse and recycling centers, sites where objects can be donated instead of throwing them away, and the innovative participatory initiative of the Eco Paris Network.



The City is constantly increasing the share of sustainable food in its collective restaurants

The City of Paris, in collaboration with its partners, especially Eau de Paris, initiated in 2010 a program of action aimed at developing sustainable food in collective restaurants. These are childcare centers, schools, colleges, retirement homes, social centers, child protection institutions and the staff restaurants.

In 2013, 24.3% of the products served in Paris canteens and 43.5% in childcare facilities came from sustainable supply chains (organic labels, Marine Stewardship Council or Red Label). For organic farming products, the percentage in June 2013 reached 21.5% in canteens and 39% in childcare centers (against 7.4% in collective restaurants and 9% in childcare centers in 2008). Should this trend be confirmed, the objectives set for 2014 (30% sustainable food) will be reached. This objective has been raised to 50% in 2020.

The City’s food procurement specifications prohibit products from genetically modified organisms. The presence of palm oil in prepared food is systematically tracked and analyzed. In addition, the deep-sea trawling fishing method which threatens sea bio diversity is now prohibited.

The actions of the program have contributed to expanding the sustainable food offer (organic, seasonal, local, labels) and to mitigating the environmental impact of Paris food procurement. For instance, Eau de Paris has adopted a policy of acquisition of farming lands on catchment areas in order to encourage organic farming.

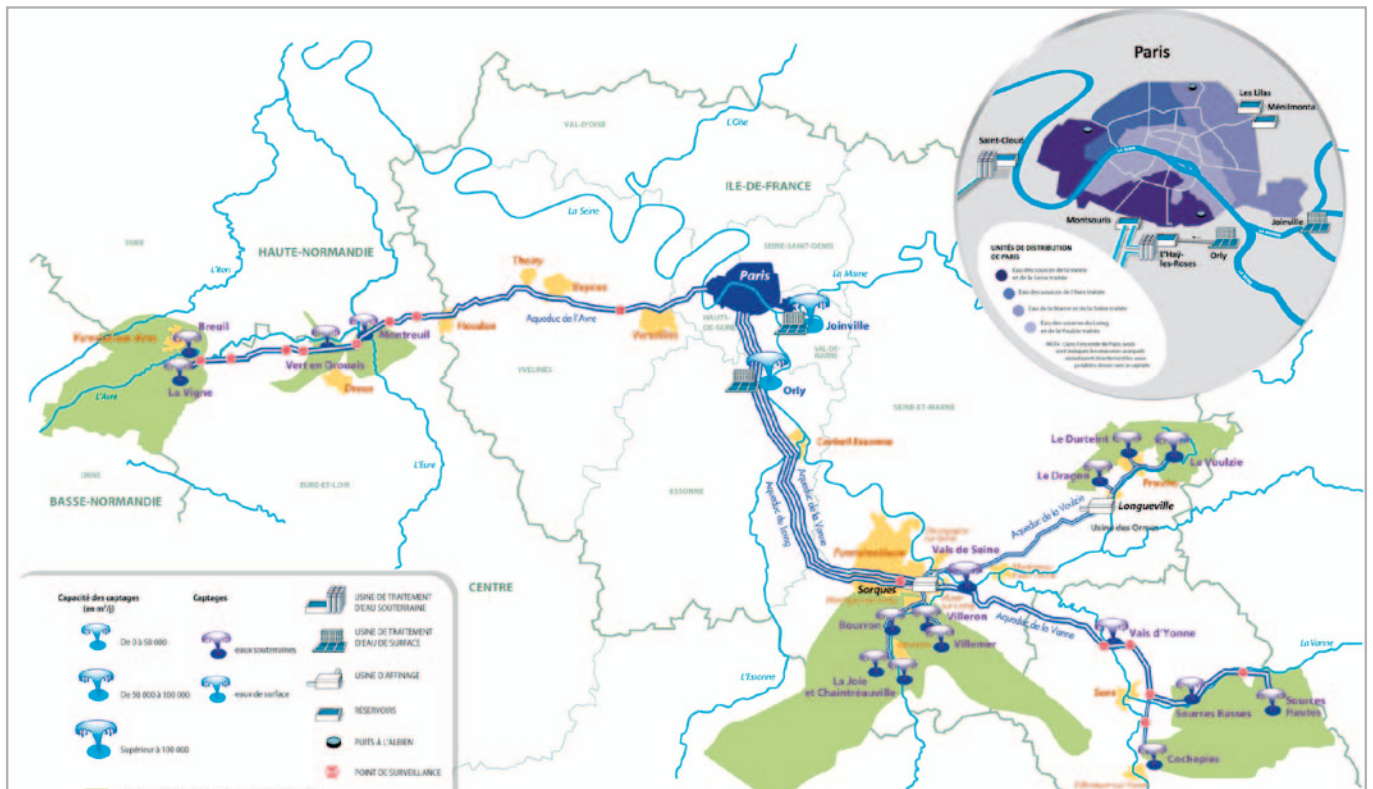
The [carbon simulation](#) application for menus is now available to the managers, the public, and visitors to the Farm of Paris. Concerning logistics, studies have shown that there was a strong potential for rationalizing deliveries and costs.



The city exceeds its sustainable food targets in municipal childcare centers

Meals are prepared on-site with fresh produce. Priority is given to labeled food (from organic farming or with a quality label).

The City of Paris included almost 45% (in volume) of organic food in the menus of its childcare centers in 2013, with 37 product references, concerning especially fresh fruits and vegetables, meat, and dried starches (rice, pasta, flour). A procurement contract for the supply of organic growth milk is about to be signed and will concern 20 childcare centers by the end of 2014.



Catchment areas network – © Eau de Paris

Eau de Paris expands its farming areas devoted to organic farming

Eau de Paris and the City of Paris are encouraging the development of organic farming practices compatible with the protection of drinking water resources in their catchment areas which supply Paris. The purchase of land on catchment areas in addition to financial support to help structure organic farming activities contribute to the preservation and the enhancement of biodiversity.

Eau de Paris has bought 142 hectares of farming lands in its catchment areas since 2010 and now owns 258 hectares of lands used for organic farming. The surface areas of farmland used for organic farming rose from 1.2% to 6.6%. For example, the sources located in the Vannes Valley exploited by Eau de Paris became in 2013 a “national pilot site for organic agriculture”. 23 farmers over 1600ha were already involved at the end of the year.



The City supports the actors of responsible trade.

Paris holds the title of fair trade territory, reflecting the will of the municipality to support actions aimed at raising awareness among the Parisians, as well as at structuring the sector and encouraging the functioning of the structures.

In 2013, Paris City Hall supported the Fair Trade Fortnight aimed at promoting fair trade. Marches, solidarity villages with stalls, and press conferences, are organized every year across the whole country to give the public an opportunity to meet the sector’s main actors. During this event, visitors can discover handicrafts or enjoy specialties from fair trade. Many partners take part in this event especially the Platform for Fair Trade and “Artisans du Monde” federation.

The application to obtain the title of Fair Trade Territory once again, is a new challenge for 2014. Additional means are provided by the City to support this sector, which now involves the public procurements of fair trade products, the development of the fair trade offer in Paris and the promotion of existing networks. It has contributed to the creation of a local Fair Trade Council to facilitate exchanges between actors and the emergence of proposals.

The citizens' market

The citizens' market presents on its website the map of all fair trade/organic/responsible businesses in Paris. It is managed in cooperation with a network that includes Crédit Coopératif, and other recognized associations (Colibris, Villesinternet) and committed companies.



Exemplary municipal procurements are progressing every year

The efforts undertaken by the City to integrate environmental and social clauses or criteria in its procurements have been maintained in 2013.

Environmental criteria

In 2013, the share of Paris public procurements that included environmental criteria or clauses increased by 48% compared to 41.5% in 2012 and 26% in 2010. 55% of these clauses concern service or supply procurements, 45% concern work procurements.

These clauses are directly connected with the City's environmental plans. The type of vehicles used, the training in eco driving provided, and the optimization of orders and deliveries all correspond to the guidelines of the City's Climate Plan. For example, almost 130 procurements had a "clean vehicle clause" in 2013 compared to 72 procurements in 2012. The clauses on ecological labels (wood in particular) are in line with the Biodiversity Plan, and the reduction of packaging and reuse comply with the Local Waste Prevention Plan, etc.

Social criteria

Since 2006, Paris authorities have been introducing clauses of inclusion in some of their public procurements. To this end, the City of Paris has created a network of referent persons in charge of social inclusion in its various departments. Their role is to promote social inclusion via the integration of social clauses in the City procurements. This approach generated 612,202 hours of inclusion (the equivalent of 380 full-time jobs) in 2013 on the procurements signed by the City and its semiprivate companies and social landlords (respectively 514,978 hours/320 full-time jobs and 97,224 hours/60 full-time jobs). The other levers used by the local authority are the purchase of services from structures in charge of helping people to get out of exclusion through economic activity and from the protected sector (respectively €1.4 million and €1.9 million in 2013).



A BETTER MANAGEMENT OF WASTE



© Mairie de Paris, DPE

Parisian households, companies and administrations have three main methods of management of their waste at their disposal: reduction, reuse or recycling of waste.

The City Paris has been playing an active role for several years in raising public awareness and implementing these systems of management, as exemplified by the "less waste in the 11th" program, which was completed at the end of 2013.

The Parisians contributed to the reduction of their waste in 2013. Waste collection services noted a drop of 24,000 tons collected, despite a growing population.

For instance, two years before the end of the Local Program of Waste Prevention, the number of tons of waste collected dropped by 6.2% (except bulky objects) with a final objective of 7% by 2015.

The results of the program remain nonetheless mixed. The reduction of packaging, office paper and newspapers/magazines, textile, special household refuse and sanitary textiles is noticeable, but small electric appliances, advertising materials, as well as the quantity of food products (especially those still in their packaging and not consumed) are increasing, therefore justifying the programs to fight food waste carried out by the City.



According to the ADEME, the circular economy is an economic system of exchange and production in which every stage of product lifecycles (goods and services), is aimed at using natural resources more efficiently and at reducing the impact on the environment.

Three aspects mobilize different actors:

1. The production and offer of goods and services,
2. Users' demands and the behavior of users,
3. Waste management.

It is based on seven pillars:

1. Eco-design: to reduce the environmental impact of products or services throughout their life cycle,
2. Sustainable supply: to exploit and extract resources in a way that limits waste and the environmental impact,
3. Industrial and territorial ecology: to foster new forms of cooperation between stakeholders,
4. The economy of functionality: to give priority to use instead of ownership.,
5. Responsible consumption: to buy and use in a responsible manner,
6. To increase the length of use: reuse, repair, recycle,
7. Recycling.

REDUCING

Private companies and institutions get involved

The City of Paris wants to test actions aimed at preventing waste in the workplace, to increase and spread good practices. For this purpose, free waste diagnoses are proposed as well as support in implementing actions aimed at reducing and reusing waste.

In 2013, 14 public institutions were already involved in 9 different sectors of activity: hotels, restaurants, caterers, transports, retirement houses, aeronautic company, childcare institutions, colleges and health. To participate in the effort in favor of an eco-exemplary administration, two district City Halls and a City of Paris administrative restaurant have already adopted this approach.

Food waste must diminish

Confronted with the problem of waste from non-consumed food products, the City, together with all the stakeholders concerned has launched an ambitious plan to fight food waste. This ambition was formalized in 2013 by the signing of the National Pact to Fight Food Waste.

Original participatory actions have been implemented:

- Anti-waste cooking classes are organized to raise public awareness on food markets in partnership with associations and the Federation of Amateur Cooking.
- The City supports volunteers from the private and collective restaurant sector to test and assess good practices in order to disseminate them as widely as possible (the "committed company and public institution" operation). Experiments concerning the distribution of non-consumed food to caterers have also been initiated in partnership with the Ministry of Agriculture.

The "3R initiative: Reduce, Reuse and Recycle our waste" in the Grange aux Belles sector (10th) has been re-conducted. It included a cooking workshop using special "recipe files" prepared by the City, a literacy workshop on the basis of these recipes, an animation on responsible purchase with two reference food baskets, an animation on composting, and a French toast workshop.

Two innovative projects were implemented by associations in 2013 thanks to the City Hall:

1. An educational program on the prevention of waste implemented in three schools from October 22, 2012 to June 4, 2013 and organized by the E-Graine Association enabled the raising of awareness among 279 children.
2. An awareness campaign was organized in February 2013 by the association. It was focused on nature and addressed the problem of the waste lifecycle, the time necessary for waste decomposition, and the problem of food waste. It was based on farm animals (the association proposed to feed animals with the food waste from lunch). The 230 pupils, the agents working in restaurants, and the parents continued the experiment throughout the year 2013.
3. Lastly, 12 school restaurants tested various actions on a voluntary basis to fight food waste between 2012 and 2013.



Private initiatives participate in this approach

A pilot waste reduction scheme in the Bastille-Popincourt and Nation-Alexandre Dumas sectors (11th) were conducted during a period of four years. This scheme was aimed at raising awareness and testing new practices of eco-responsible consumption on a large scale. 60,000 inhabitants participated.



Unsold products from markets redistributed at the gleaners' tent.



© La tente des glaneurs, Maou Bertrand

Merchants at the Joinville food market (19th) participated in a new experiment: the redistribution of unsold edible produce. Organized by the "Gleaners' Tent" Association, this initiative was a great success. In less than five months a total of almost 5 tons was distributed. Some 60 people benefited from these products every Sunday. This initiative will be generalized to other large Paris food markets.



Disco soup



Disco soup is a friendly awareness event. It addresses food waste: collective peeling sessions and the consumption of unsold fruit and food products. The City of Paris officially supported the organization of 15 Disco Soup events.



The city agents adopt eco-friendly behaviors

53% of all paper used by the Paris administration comes from forests managed according to sustainability criteria. 47% of this paper is recycled. The number of reams of paper used dropped by 26.55% between 2009 and 2013. These good results can be explained by the installation of multifunction photocopiers and the good practices adopted by staff.

Over the same period, a decrease in the consumption of office supplies (37%) and computer consumables (51%) was noted.



The City gives priority to tap water

The City pursued its policy of suppressing the use bottled water in the administration. In childcare centers for instance, the use of tap water has rapidly generalized to hydrate children. An awareness approach aimed at encouraging parents to give priority to tap water at home is underway. It will be tested in 2014 in a district before being deployed on a broader scale.

RE-USING



Domestic composting at the bottom of buildings is developing

Domestic composting at the bottom of buildings can be a solution to reuse organic waste. In 2013, 187 composting sites existed in Paris (109 buildings, 72 schools and 6 public facilities). On average, each site diverts 1 ton of domestic waste per year. The compost produced is reused on the site, in green areas or flower boxes.

To receive the support offered by the City, volunteers must live in Paris, mobilize at least 10 families in the building and name one or several reference persons in the building.

Another method to reduce waste: the reuse of objects

Its development corresponds to the joint effects of the economic crisis and a growing awareness among the Parisians in favor of an economic model giving priority to lasting goods rather than disposable ones. In 2013, the City of Paris provided financial and technical support to the activity of 7 recycling centers: Emmaüs Defi (19th), Emmaüs Coup de Main (20th), Interloques (18th), La Petite Roquette (11th), Ceterra and the solidary bookstore (10th), Ma Ressourcerie (13th) and Rejoué (14th). In 2014, a new Reuse Centre was opened in the center of Paris (Léopold Bellan street). It is the eighth project of this type supported by the municipality that is carrying out a voluntary policy to encourage reuse and circular economy. A recycling center fulfills four functions on the territory: the collection and recovery of discarded objects, their repair or upgrading, their resale, and environmental education for inhabitants as well as young people in schools. In many cases they enable a return to employment for people who have been jobless for a long time.

These recycling centers collected some 1600 tons of objects (textiles, books, toys, furniture, tableware, etc.), representing 30% more than in 2012.

The City also developed the reuse of textiles on its territory by authorizing Le Relais Val-de-Seine, Le Relais 75 and Ecotextile to place containers for textiles, home textiles and shoes on the streets. In 2013, 249 containers spread out over the whole territory permitted to collect 2,750 tons of textiles, that is to say a 32% increase relative to 2012. The majority of these materials is reused (60%), and recycled (35%). Practical information on these recycling centers and the map of textile containers are available on paris.fr.



Sorting waste better at home

Plenty of scope for further development remains in the field of sorting because half the content of domestic waste containers is still made up of recyclable waste.

In order to understand how to improve sorting, the City launched in 2011 a structured initiative in “strong sorting potential sectors”. To define these sectors, the City carried out two campaigns of treatment in each of them, one in 2011/2012 and the other one in 2012/2013. Each campaign covered 18 areas in 18 districts.

More than 50,000 homes were mobilized. This experiment showed that it is easier to improve the quality of sorting than to convince people who do not want to recycle. Sorting mistakes have in fact significantly diminished during this period: from 20.7% in 2011 to 17.3% in 2013.

Bringing one's waste to be recycled

Parisians have 7 centers at their disposal where bulky objects can be recycled and upgraded in Paris (another 3 are planned), 2 spaces where they can dispose of their bulky objects. It is also possible to have them picked up at the door of their building on appointment.



Textile containers – © Mairie de Paris, DPE



La Réserve des Arts



La Réserve des Arts (Paris 14th) is a recycling center specialized in the recovery of equipment. The association collects waste from materials (production scraps, damaged equipment, etc.) from the luxury, events and DIY sectors in order to recycle them with the help of professionals from the cultural sector.

RECYCLING

In 2013, 72,731 tons of recyclable waste and 66,889 tons of glass were collected. Since 2002, sorting by the population has evolved:

- Papers/magazines/packaging: from 16 kilos to 34.5 kg per inhabitant,
- Glass: from 16 to 29.4 kg per inhabitant.

Recycling furniture waste

Furniture waste includes chairs, sofas, armchairs, mattresses, bed bases, bed frames, kitchen furniture, storage cabinets or furniture parts. A potential total of 14,000 tons of furniture waste, collected separately on 10 sites, can be reached in the medium-term.

In order to develop the recycling of this type of waste, the City of Paris signed a contract between the SYCTOM and EcoMobilier in October 2013. Sorting started at the end of 2013, with the replacement of containers used for wood, or for the miscellaneous waste from the bulky objects centers by specific containers reserved for furniture waste.



Rejoué



reJoué
le jouet solidaire

This association collects and recycles second-hand toys in the 14th. More than 8 tons were collected in one year. It has also provided employment and training to people in integration processes.



Recycling small appliances: the EcoPointMobile



In addition to the pneumatic collection of waste in the Clichy Batignolles Eco neighborhood, an innovative collection tool for small appliances has been developed: The EcoPointMobile. It concerns batteries, bulbs, electric and electronic appliances, paint cans etc.



The EcoPointMobile – © Mairie de Paris



The City recycles its computers



In accordance with regulations and its eco responsible policy, the City of Paris makes sure that disused computers are appropriately recycled.

Since 2006, the Paris Authority has signed contracts for the recycling and reconditioning of computers with companies of the protected sector (that employ people with heavy disabilities). The current contractor is ATF Gaia, which employs 80% disabled people. Computers collected on the site are sorted and tested. Depending on their state of repair, they will be reconditioned and given a new lease of life for use by a Parisian association, a low income City agent, or will be available in free access to agents who don't have a computer in their service.

Out-of-use equipment is recycled in accordance with accepted principles: components are sorted (scrap metal, plastic, wires, copper from cards, rare earths and glass from screens) and sent to their respective reuse sector. Since the beginning of this initiative, almost 71,000 central units, screens, printers and other connected devices have been recycled or reconditioned.



CONCLUSION

Including the Parisians directly in the decisions of the Municipality in building ‘the Paris of Tomorrow’, and promoting the capital at an international level as a city of climate excellence and as a pioneer in the field of circular economy are the major challenges for 2015.

Paris, a citizen city

In 2001, the municipality set for itself the ambition of making the participation of associations and citizens one of the pillars of its actions, via the creation of neighborhood councils for one example. Today, further positive steps are being taken.

All Parisians, regardless of their age or nationality, are invited to vote and participate in the drawing up of the City Budget, within the limit of 5% of the investment budget. From September 24 to October 1, 2014, all Paris residents had the opportunity for the first time to vote in the Paris **participatory budget**. The Parisians chose 9 projects demonstrating their interest for initiatives in favor of the environment and the development of nature in the city. These projects will be implemented from 2015. The population is invited to propose ideas on local projects that could fit into the participatory budget of the arrondissement.

The will of the municipal team to intensify the participation of users in their immediate environment is also reflected in the opportunity citizens now have to make the public space their own. With the enactment of a plan named “**Du vert près de chez moi**”, Parisian residents selected sites to be planted or greened. The projects chosen will be deployed on the territory as of 2015.

A similar approach has been adopted in the field of **participatory habitat**. The City Hall of Paris launched a call for projects in 2014 to allow groups of individuals to design and manage their housing. The City thus aims to act in favor of solidarity, social and generational cohesion, and respect of the environment. It is proposed to future inhabitants to demonstrate the strong potential for social innovation that results from the participation of citizens in the production of buildings.

To encourage direct democracy alongside elected representative bodies, during this new term of office a mission of prefiguration for the creation of the Paris Economic, Social and Environmental Council will be launched. Its missions will consist in fostering the consultation of trade unions, associations, and professionals, and to start new exchanges with the Parisian citizens.

Paris at the forefront of the fight against climate change

Acting concretely against climate change means rethinking our modes of production, consumption and use. We must tend towards an economy that has a reduced impact on our environment. In other words, the objective is to extend the principle of **circular economy** in which the Parisians already participate, especially by recycling, repairing or buying second hand products, sharing cars, etc. The Paris administration also promotes the reuse of road material or the recycling of electronic equipment. To encourage the development of innovative solutions that will ensure a better management of resources in its activity, in 2014 the City of Paris launched a call for projects targeted to the economic and associative sector. The first realizations are expected to be completed next year. Lastly, the construction of the Greater Paris Metropolis offers new opportunities. The municipality will organize in 2015 a broad consultation during the General Assembly on the Circular Economy of Greater Paris, bringing together all stakeholders. This event will highlight the richness of initiatives and innovations made in this field on the territory. A strategic plan aimed at structuring the sectors of economic upgrading and reduction of waste will complete these measures.

In 2015, the metropolis will welcome the 21st International Conference on Climate, or the **COP21**. For 15 days, more than 40,000 people (States, companies, NGOs collectives, and artists) from the 190 countries represented at the UN, will attend this conference. They will gather to develop a new international protocol on the reduction of greenhouse gas emissions, and to define financial mechanisms to ensure the development and adaptation of less developed countries, and to set rules concerning the emissions of each country. During this **international**

year of climate, Paris will also host a calendar of significant events aiming at having a positive influence on the final agreement that is so crucial for the planet. This will be an opportunity for the City of Paris to speak up on behalf of all global local governments during various events throughout the year and to launch large international cooperation projects on the issue. Paris is already a territory of excellence in the field of climate. The COP21 will provide a unique opportunity to demonstrate Paris' expertise to the whole world, as well as the dynamics created by the Paris Energy Climate Plan among citizens, and to instill a proactive dynamism in all the cities of the world.

Thus, Paris contributes to raise awareness in favor of the environment whether it is immediate or remote.



"Participatory habitat" poster
© CUADD



"Du vert près de chez moi" poster
© Mairie de Paris, Dicom



"Participatory budget" poster
© Thibault Caizergues, Hands Studio

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