



City of Paris – Climate Bond

Investor presentation

November 2015



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Paris city hall



A leading European city

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- Paris has developed, through the ages, into a center of art, medicine, science, fashion, tourism, culture and finance, becoming one of the world's most influential global cities and the most visited city in the world (29 Million visitors in 2014*)

** Source : Paris-Ile de France Tourist Board (CRT), 2015*

- Paris is at the heart of the Ile-de-France Region, one of the wealthiest regions in Europe and main economic hubs
- Paris ranks among the top cities in the world in terms of livability and hosts one of the planet's most vibrant cultural and artistic scenes
- As the capital, Paris is the political, administrative and business center



Seine banks transformed in pedestrian area



A dynamic city with economic strengths

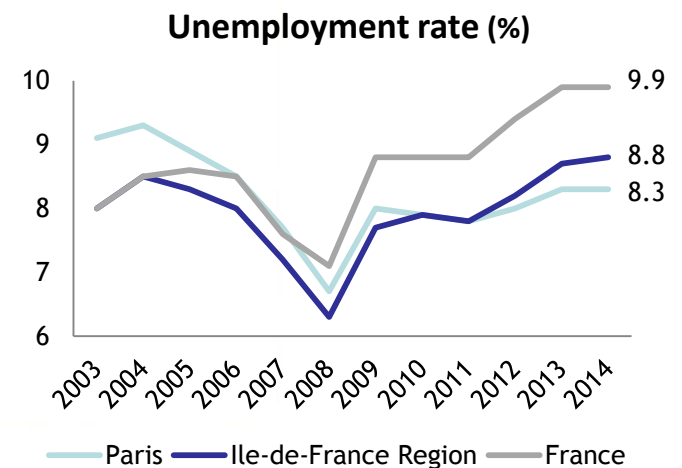
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- The gross domestic product (GDP) of Paris represents **10% of France's GDP**. Its GDP per capita is equivalent to 3 times the EU-28 average*
** See methodology by eurostat*
- It is essentially a **service economy**, with business and financial services (around 85 % of the GDP)
- **Business facilitated by top notch infrastructures and heart of Europe location**
 - **A hub of Europe's economy.** Paris region offers some of the most favorable economic conditions for setting up a business : 2 major airports, 5 container terminals along 310 miles of navigable waterways, 6 railway interchanges, 14 metro lines, 5 RER (regional express trains) lines, 7 tram lines, more than 300 bus lines,...
 - **First European city for hosting of headquarters of top 500 global companies**
 - **High foreign investments** (13% of total foreign investment in France for Paris – 2013)
- **The unemployment rate is structurally lower than the national level**
(see the attached graph)



Harbour at Tolbiac, 13rd arrondissement



Source : Insee, 2014



A dynamic population

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- With 12 million inhabitants, the region Ile-de-France where Paris is located represents almost **19 % of France's total population** (central Paris : 2.3 million)
 - Since 1999, **the population of central Paris has increased** by over 100,000 people
- This **population is on average younger** than the rest of the national territory
 - The Paris region has over 600,000 students, including 335,000 within the city limits
 - 372 educational institutions (7 Universities, 2 IUT, 13 engineering schools, 37 business schools,...)

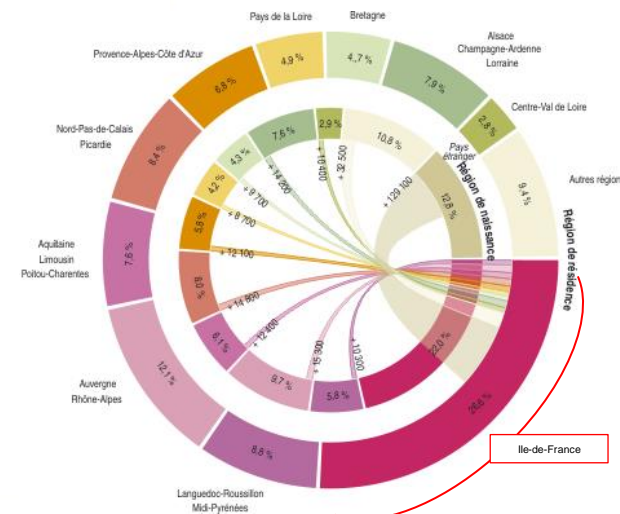
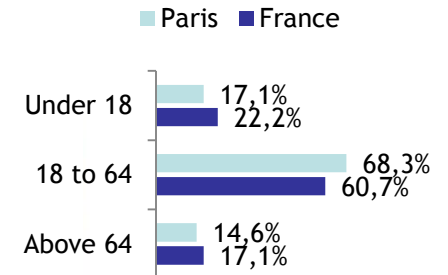
Source : Insee, 2013

- A highly **qualified workforce**
 - 43.1 % of the working population are French executives in Paris
 - 6.5 % of Europe's researchers (over 130,000 people) are located in the Paris region
 - A relatively strong share of new technology companies in Paris' economy



ESPCI - Higher School of Industrial Physics and Chemistry of the City of Paris

Pyramid age structure



Source : Insee, Distribution of the graduates of Higher education according to the region of residence 2012





**Organization
& Responsibilities**

Paris' fields of responsibilities

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- Paris is committed to the **well being of its population, sustainable development, and supporting the French economy.**
- By law, **the fields of responsibilities cover :**
 - Social services & Healthcare
 - Urban planning
 - Primary and Secondary Schools
 - Culture
 - Environment
 - Economic development
 - Water Management, Waste collection and recycling



Elementary school Wattignies



Renovation of Les Halles district



Philharmonie concert hall



Paris institutions

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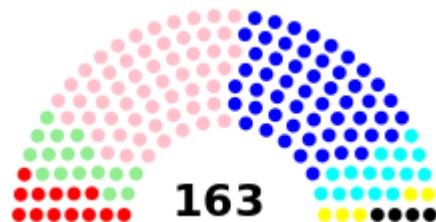


Party	Elected Representatives
The Majority (90 seats)	
Socialist Group and related	56
Communist Group – Front de Gauche	13
Green Group of Paris	16
Center-leftist Group and independents	5
The Opposition (73 seats)	
Les Républicains	54
UDI – MoDem	16
Non-Attached Members	3

President of the Council of Paris

Ms. Anne HIDALGO

- **Paris' specific status** : a City and a Department, run by the same Council made up of 163 representatives who are elected every 6 years (last election : 2014)
 - The Mayor and Deputy Mayors are elected by the Council of Paris
- The **French law on territorial reform (n° 2015-991, 07th august 2015)** seeks to simplify local administration in order to make it more efficient
- The city will become the largest member of the **Metropole de Paris** which will become a legally-recognized administrative body in 2016.

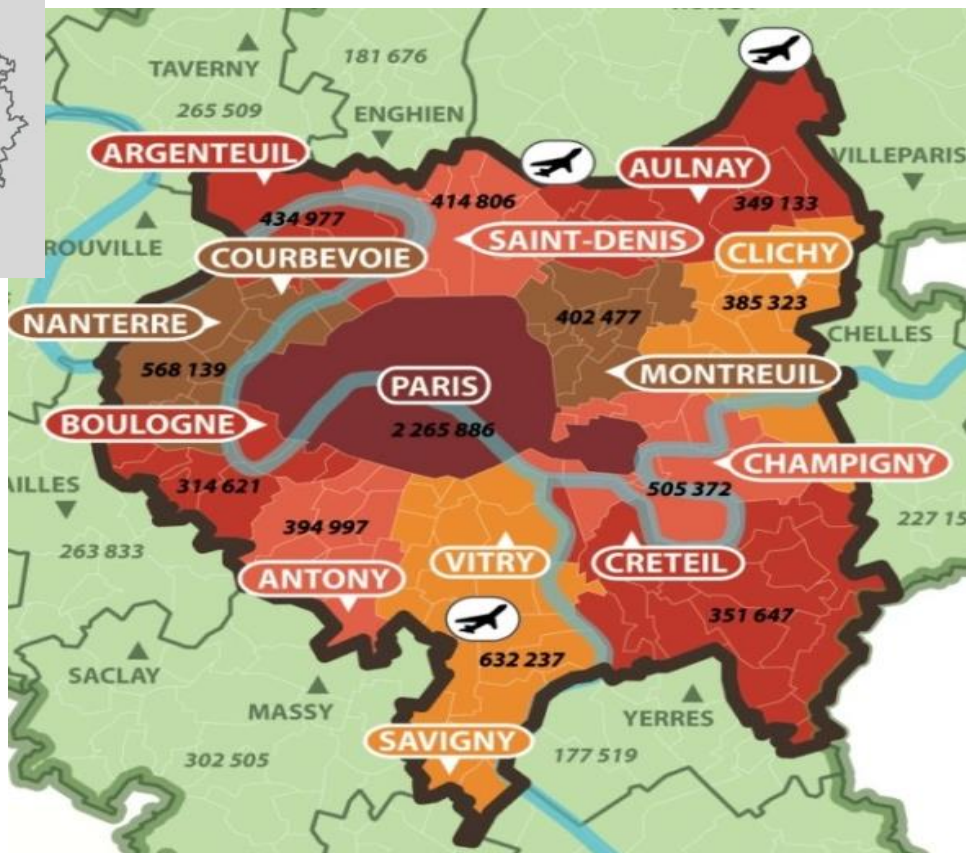
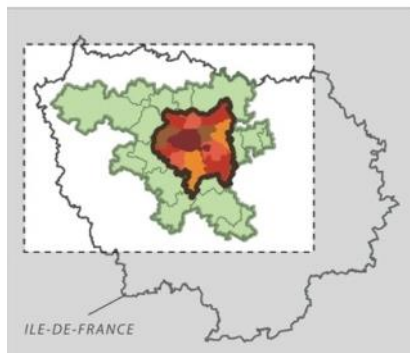


Council of Paris



2016 : "Métropole du Grand Paris"

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Map : distribution of inhabitants in the future metropolis (2016)



2016 : “Métropole du Grand Paris”

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Métropole du Grand Paris : an intermunicipal body which will be in charge of coordinating housing policy and urban planning over 131 municipalities (7 Million inhabitants) of the greater Paris area

▪ **A gradual transfer of devolved responsibilities :**

- **2016-2017** : setting up of the Metropolitan Project and setting up of Master Development Plans (urban planning, energy distribution networks, pollution control, risk management,...)
- **2018** : transfer of responsibilities

▪ **A council of 209 elected members from the member’s cities** (62 from Paris City)

▪ **Budget :**

- EUR 3.8 bn
- Income = Cities’ taxes transferred + State grants
- Expenses = Devolved responsibilities + Compensation towards Cities

 **NO BUDGETARY IMPACT FOR PARIS**



Paris' relationship with the State

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- French local and regional governments' **financial and administrative autonomy** are constitutional principles.
- No explicit guarantee on local authorities' debt from the State but **close relationships** :
 - ↳ The State guarantees the notion of **general public interest** :
 - **3 types of central control** :
 - controlling the legality of the city's initiatives by the representative of the State for Paris Region
 - controlling public accountancy tasks and local authority budget by the Finance Ministry
 - checking by a public financial Court
 - **The State guarantees financial backing** :
 - by determining tax bases (local authorities are free to determine most of the tax rates)
 - by guaranteeing that local authorities receive tax revenues due
 - by giving local authorities monthly advances of local tax revenue
 - by compensating for devolved responsibilities





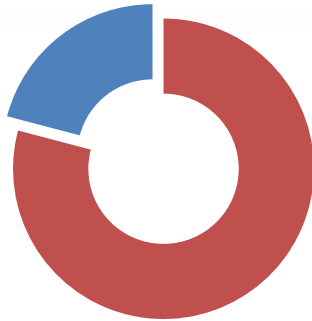
Financial balances

Local Authorities in France

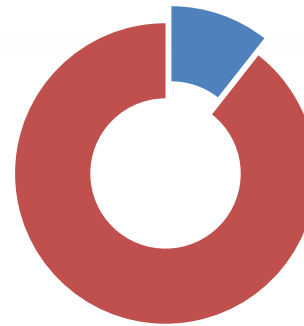
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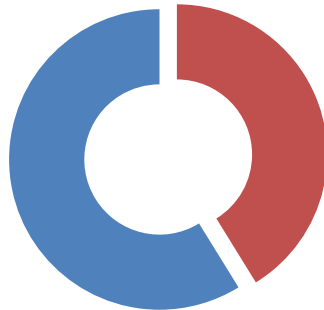
20.9%
of public spending
or EUR 252 bn



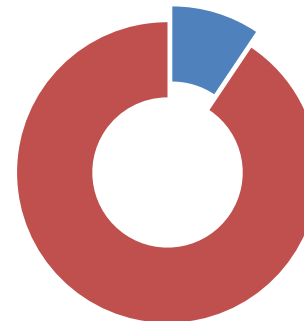
10.6%
of the public deficit
or EUR 9.2 bn
out of EUR 87.1 bn



58.8%
of public investment
or EUR 50.4 bn



9.4%
of public debt
or EUR 182 bn



Source : 2013 figures



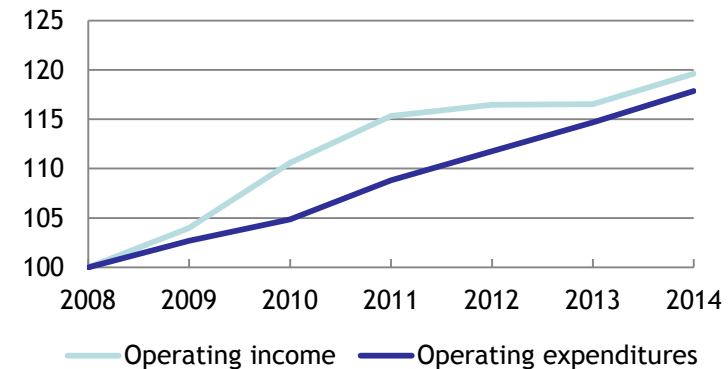
Paris Budget structure

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- A total budget* of EUR 9.4bn
- Cautious budget planning as a matter of principle :
 - Execution rate (realized vs forecasted)**: Operating surplus = 131%
External funding = 61%
- A structural and significant operating surplus** : EUR 677M
- Investment budget of EUR 1.5bn

Operating budget growth rate (2008 = 100)



- Golden rules imposed by the law :
 - operating income funds operating expenditures
 - debt amortization is paid by own resources
- ➔ debt funds investment

* Consolidated budget 2015 (City + Department)

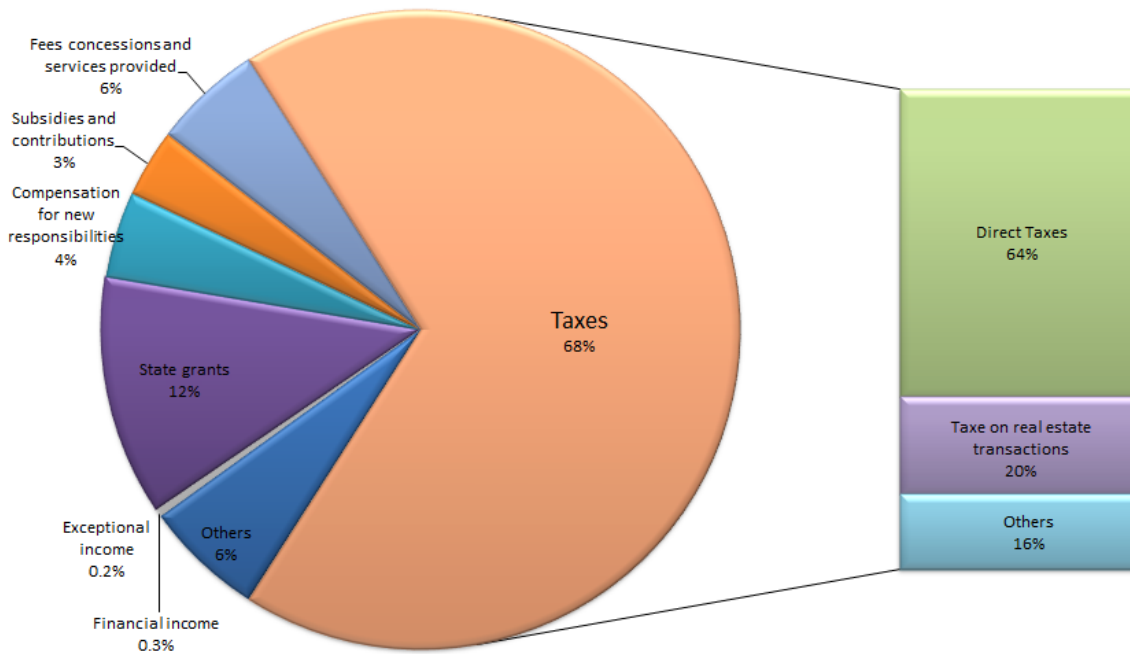
** On average over the last 6 years



A diversified operating income



Operating income = EUR 8 bn



	2011	2012	2013	2014	2015
Taxes	62%	65%	65%	63%	68%
State grants	17%	17%	16%	15%	12%
Compensation for new responsibilities	4%	4%	4%	4%	4%
Subsidies and contributions	3%	3%	3%	3%	3%
Fees concessions and services provided	6%	6%	6%	5%	6%
Others	7%	5%	5%	8%	6%
Financial income	0,3%	0,3%	0,2%	0,4%	0,3%
Exceptional income	0,1%	0,1%	0,4%	0,5%	0,2%
Operational income	100%	100%	100%	100%	100%

Sources : Consolidated budget 2015
Administrative accounts 2011-2014



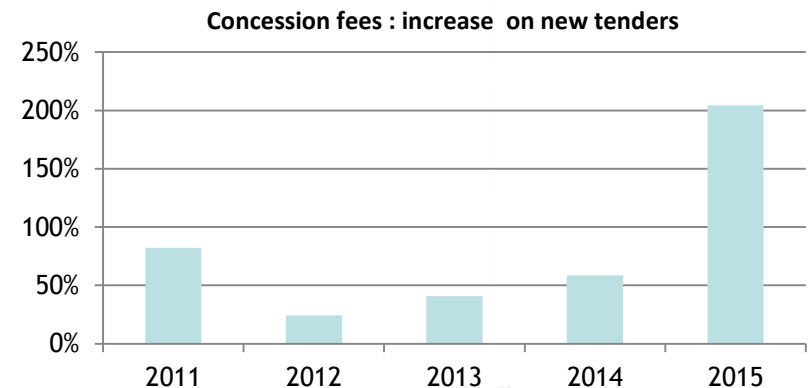
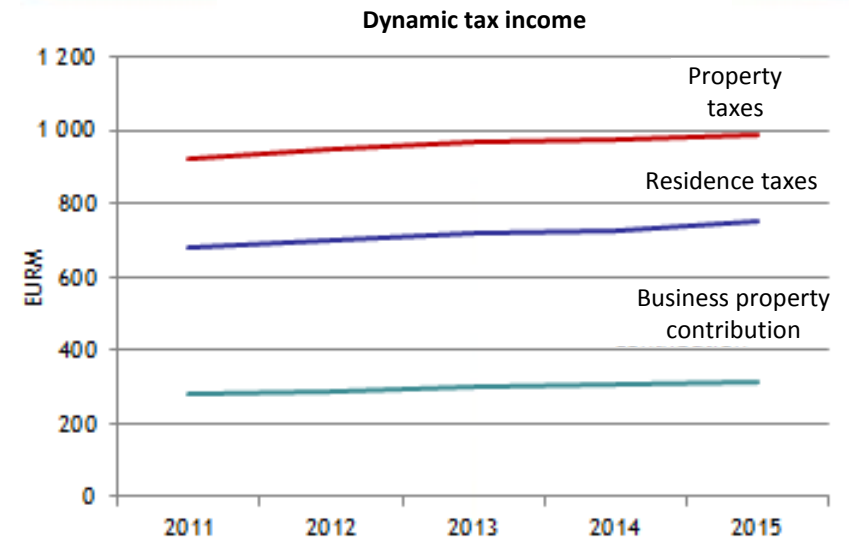
A diversified operating income

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▪ A strong base for incomes :

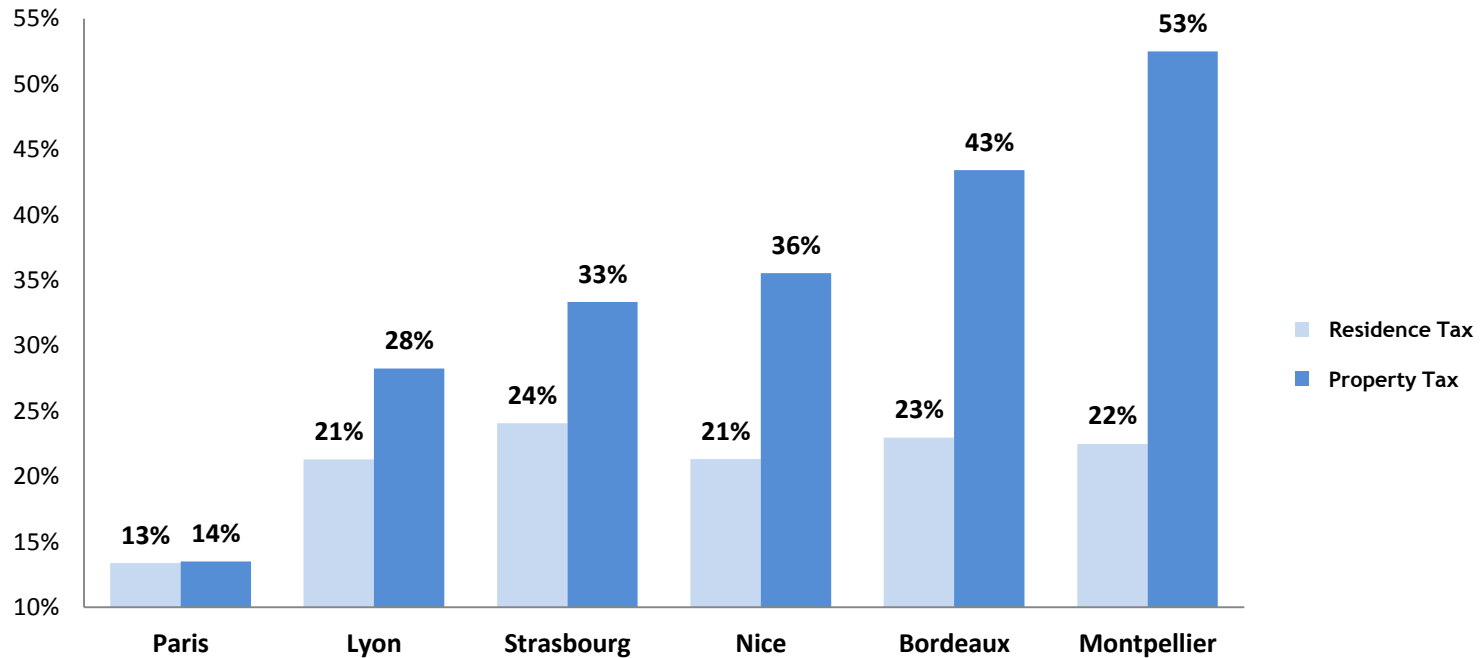
- **Low tax rates** compared to the national average
- **Dynamic tax income** due to the population profile and solid economic activity base
- **High potential for future income from concessions**
- **An ability to reform** to face decreasing State grants
- Stability of other resources



Low tax rates



■ Tax level comparison :

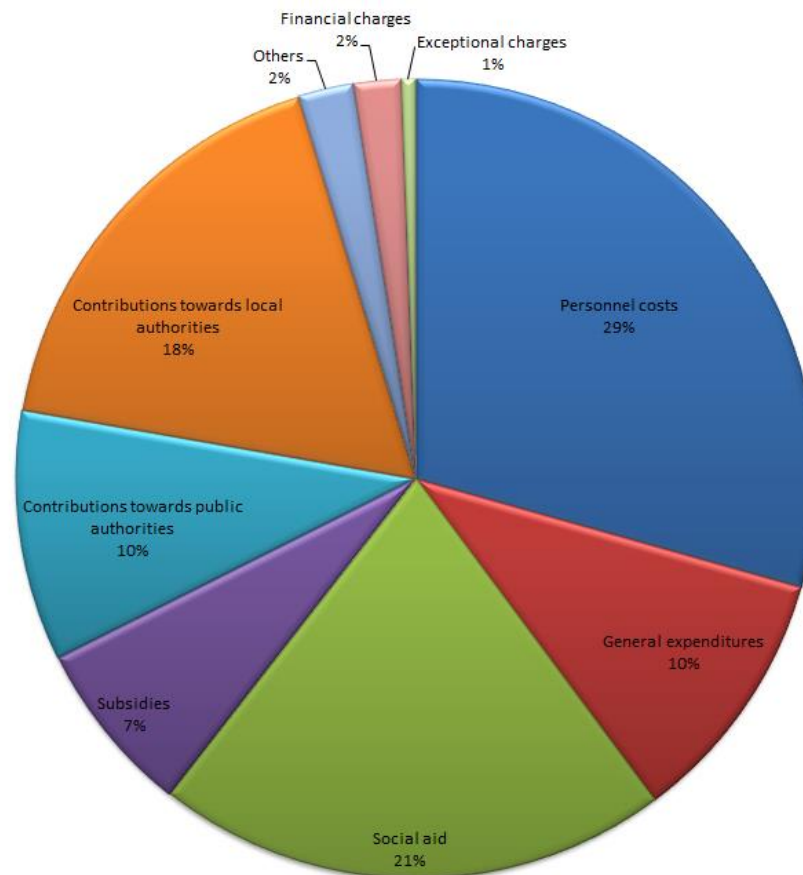


Operating expenditures



Operating expenditures = EUR 7,7 bn

	2011	2012	2013	2014	2015
Personnel costs	30%	30%	29%	29%	29%
General expenditures	12%	12%	11%	11%	10%
Social aid	21%	22%	21%	21%	21%
Subsidies	6%	6%	7%	7%	7%
Contributions towards public authorities	11%	11%	11%	11%	10%
Contributions towards local authorities	15%	16%	16%	17%	17%
Others	2%	2%	2%	2%	2%
Financial charges	1,3%	1,4%	1,5%	1,7%	1,9%
Exceptional charges	1%	1%	1%	1%	1%
Operational expenditures	100%	100%	100%	100%	100%



Source: Consolidated budget 2015
Administrative accounts 2011-2014



Controlled operating expenditures

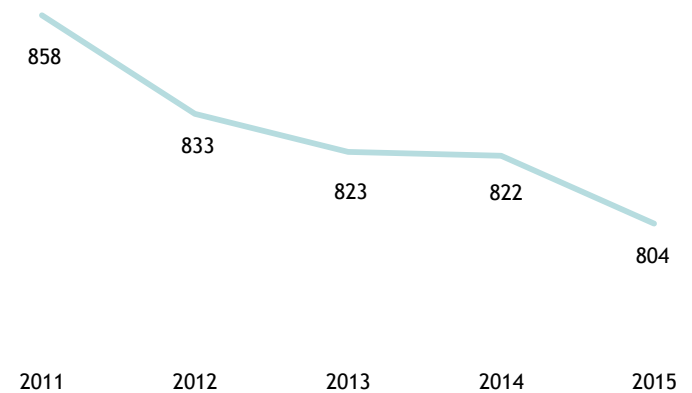
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▪ Operating expenditures strictly controlled

- Human resources costs and general charges under tight control helped by **administrative reform**
- **Social aid stable** despite adverse economic situation and high level of non-compulsory expenditures
- **Contributions** towards public authorities **expected to decrease**
- Transfers towards other local authorities increased substantially in the last years

General expenditures (EURM)



Source : 2015= forecasts



An ability to reform

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2015

Savings on general expenditures

EUR -34M

Decrease in communication expenditures, IT expenditures, road maintenance...

Non-compulsory subsidies

EUR -17M

Human resources costs

EUR -24M

Structural reforms



Investment budget

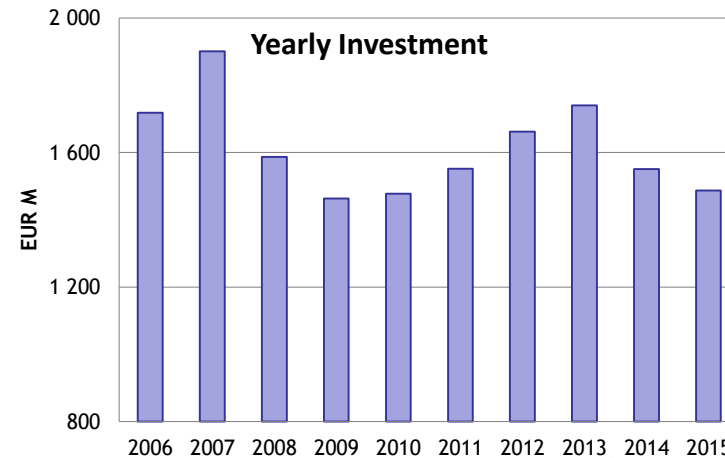


A high level of self financing enabling a high level of Investment :

- Investment* = **EUR 1.57 bn**
- self financing* = **84%**



Social housing - street bleue



* On average over the last 6 years
** Consolidated budget 2015 (City + Department)
Administrative accounts 2006-2014



Investment budget

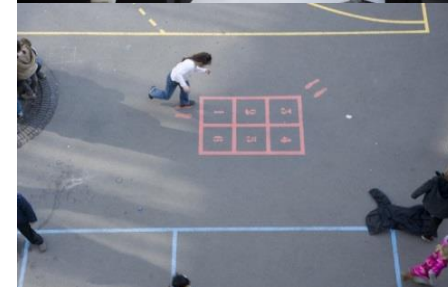
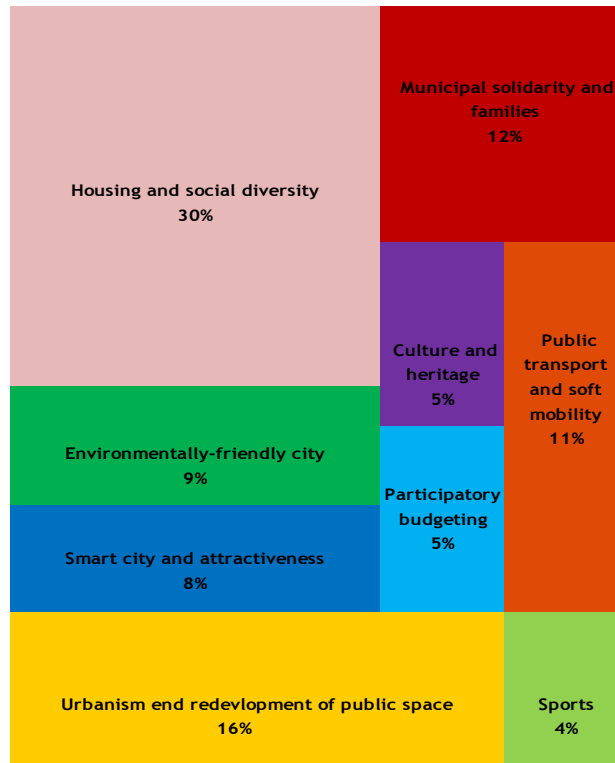
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2014 – 2020

EUR **10** bn

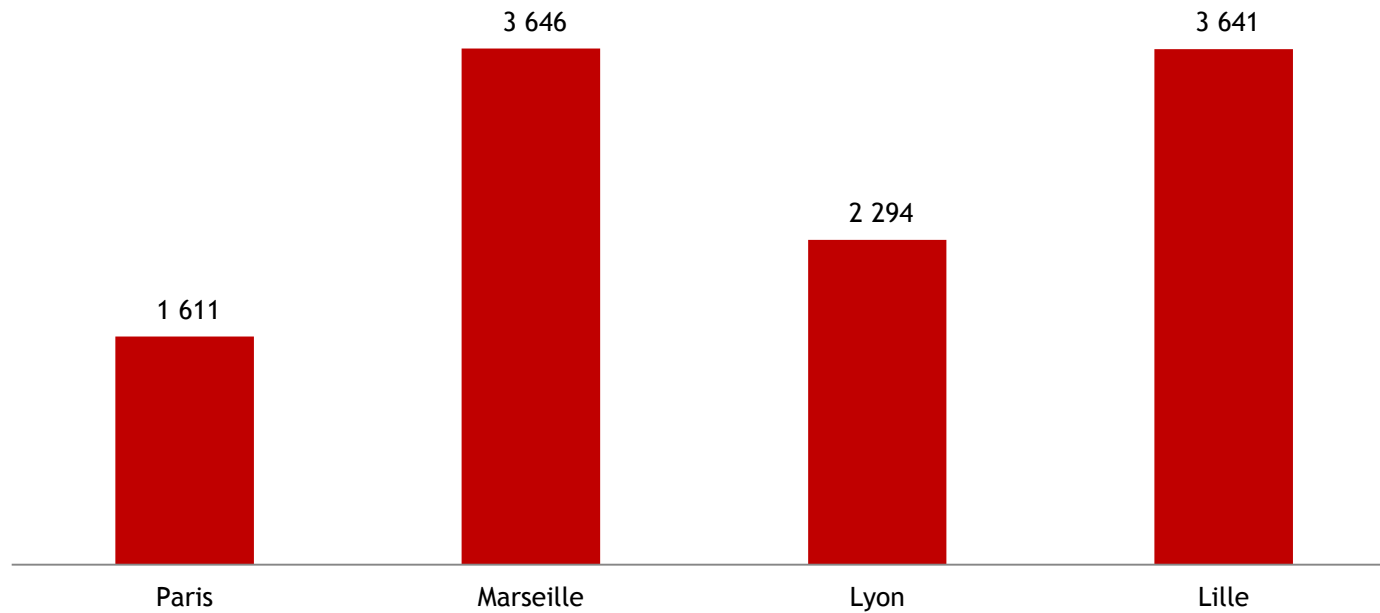
for the future of Paris



Debt comparison



Debt per capita
(EUR)



- Paris : City+Department (jan 2014)
- Marseille : City+Department+Urban community (jan 2013)
- Lyon : City+Department+Urban community (jan 2013)
- Lille : City+Department+Urban community (jan 2013)





Debt Management



Debt management

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- To minimize present and **future** financial burdens
- To maintain the City's ability to raise funds **whenever** necessary

- **A pragmatic and skilled management :**

- **Sophisticated debt management**
- In house pricing tools
- Stress-tests are run periodically,...

- **A conservative debt management :**

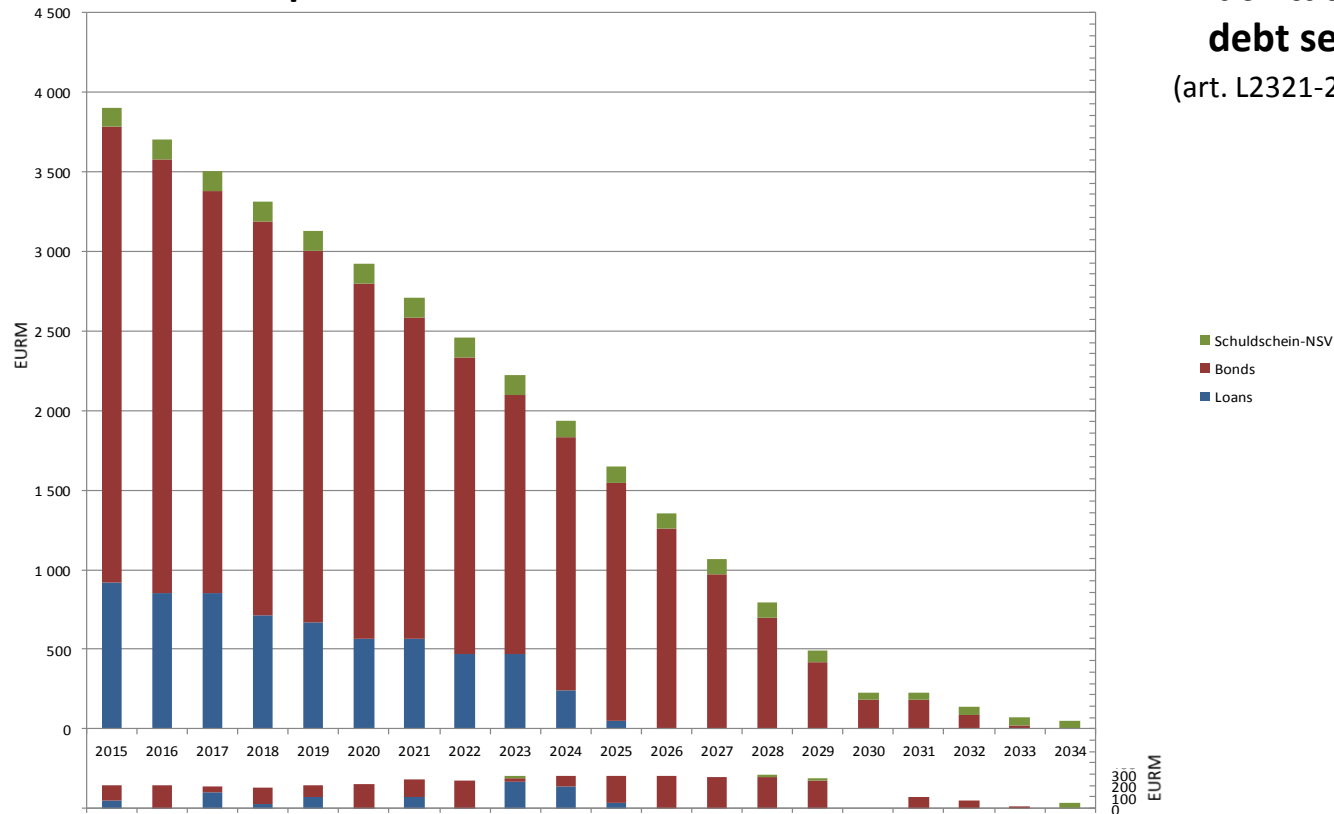
- Use of vanilla products (1)
- **A limited interest risk exposure** : no structured products (2)
- No currency risk (3)
(1)+(2)+(3) ➡ 100% of the debt ranked « A1 » (lowest risk) according to Gissler risk score card
- Management of counterparty risk
- An ability to raise funds via various channels
- A smooth debt amortization profile



Debt and Cash Management



A linear debt amortization profile...



...facilitating the mandatory debt service obligation

(art. L2321-2 from Local Authorities Code)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Outstanding amount as of 01/01	3 905	3 706	3 506	3 312	3 126	2 921	2 711	2 461	2 221	1 936	1 646	1 356	1 070	795	495	230	230	135	70	50
Annual repayments	200	200	194	186	205	210	250	240	285	290	290	286	275	300	265	0	95	65	20	50

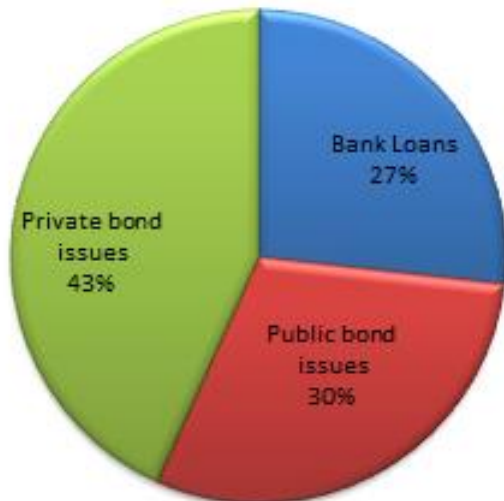


Debt and Cash Management



Pragmatic Management...

Systematic evaluation of the different funding opportunities: Credit Loans vs Bonds, Private Placements vs public bonds, in Euros or other currencies,...



... which enables low global funding costs

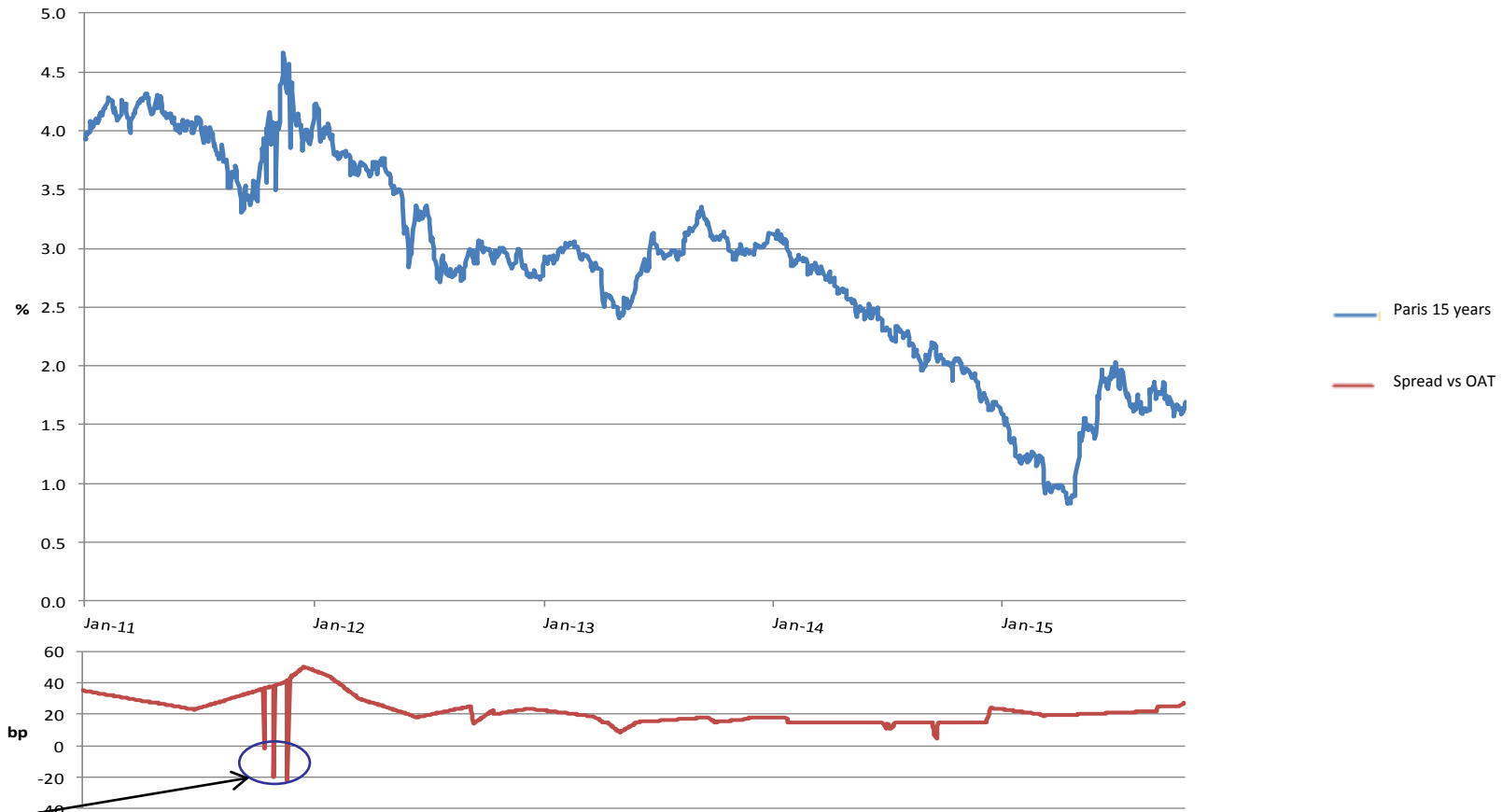


Debt and Cash Management

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City of Paris funding rate



EIB funding



Debt and Cash Management

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Funding 2015*

Format	Trade date	Size (EURM)	Maturity (years)	Re-offer yield (%)	Spread vs mid swap (bp)	Spread vs OAT (bp)
Schuldschein	05/03/15	50	25	1,54	35	20
Bond (PP)	05/03/15	110	15	1,21	22	20
Schuldschein	11/03/15	40	24	1,20	20	19
Bond (PP)	07/09/15	50	15	1,72	37	22
Bond (PP)	09/09/15	40	15	1,80	39	25
Schuldschein	11/09/15	15	23	2,10	53	25
Bond (PP)	15/09/15	20	20	2,01	44	25
Bond (PP)	15/09/15	20	22	2,08	49	25
Total 2015		345				
Weighted average			18,6	1,54	31,8	21,6

(*) as of now

Outstanding debt :

- a funding rate of 2.78%
- an average maturity of 8.9 years

Average funding last years

Year	Yearly borrowed (EURM)	Average maturity	Average funding rate (%)	Average spread vs mid swap (bp)	Average spread vs OAT (bp)
2011	381	14	3,91	89	8
2012	470	15	3,25	96	27
2013	630	15	2,95	58	16
2014	510	12	1,91	30	13
2015	345	18,6	1,54	31,8	21,6



Debt and Cash Management

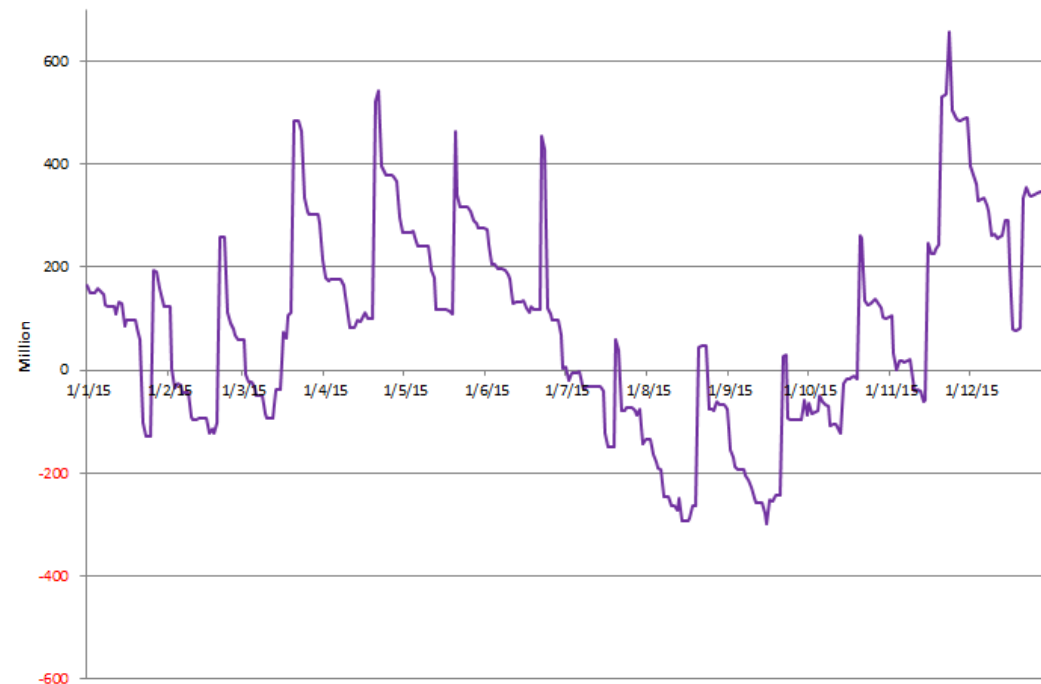
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- Cash management and **short term funding capacity** :

Commercial paper program	EUR 800M
Banks credit lines	EUR 400M
EIB credit line	EUR 128M
CDC credit line	EUR 63M
	<hr/>
	EUR 1.4bn

Cash Position for 2015





▪ High rating for a local authority in France

FitchRatings
(AA / Negative / F1+)

- « revenue flexibility »
- « moderate indebtedness »
- « strong liquidity and prudent debt management »
- « highly efficient management »
- « diversified economy »

**STANDARD
& POOR'S**
(AA / Negative / A-1+)

- « very strong economy in an international context »
- « strong financial management »
- « high financial transparency, and detailed financial planning »
- « exceptional liquidity position »
- « prudent and sophisticated debt and liquidity management »
- « low contingent liabilities »
- « sizable disposable assets »





Paris' Climate Action Plan : Commitments

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- June 2005: the City of Paris decides to draft its first community Climate Action Plan.
- October 2007 + December 2012: the Council of Paris unanimously approved the Paris Climate Action Plan, aiming to decrease the overall emissions in Paris by 75% in 2050 (compared to 2004), which exceeds European objectives. To reach this long-term purpose, short-term objectives are :



-25% Greenhouse Gas (GHG) emissions by 2020 compared to 2004



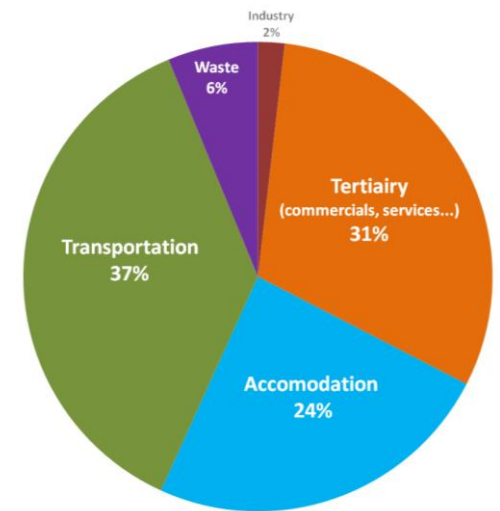
-25% energy consumption by 2020 compared to 2004



25% of renewable energies in the supply mix by 2020



Adapt Paris to climate change and resources scarcity



7.9 million tons CO₂e

Source : Paris GHG inventory (2009) - ISO scope 1+2 and waste

- A revision is planned in 2016 by the Mayor to define the Action Plan between 2020 and 2030 in order to reach -40% of the overall emissions in 2030.



Paris' Climate Action Plan : a comprehensive strategy

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URBAN PLANNING FOR ENERGY EFFICIENCY

10% of Paris on high energy performances



LOW ENERGY AND AFFORDABLE HOUSING

25,000 social housing units retrofitted



THE TERTIARY SECTOR IN PARIS, A NEW CHALLENGE

Partnership contract with 31 major enterprises : 600,000 tCO₂e avoided/y



TOWARDS AIR QUALITY AND CLIMATE-FRIENDLY MOBILITIES

NO diesel inside Paris by 2020



TOWARDS SUSTAINABLE CONSUMPTION, LESS WASTE-GENERATING

Decrease food waste and open 1st methanisation center



AN ADAPTATION STRATEGY

Greening Paris for reducing impact of Urban Heat Island



Paris' Climate Actions Plan : GHG EMISSIONS REDUCTION

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2007-2014: what have we done ?

- ▲ Tramway and metro lines extensions: T3 14 8 12
- ▲ +300 km of cycle lanes
- ▲ 5 logistic spaces opened
- ▲ Alternative transportation:
 - ❑ Vélib' (self-service bikes)
 - ❑ Autolib' (self-service electric cars)
 - ❑ Traverses (small electric district buses)

2015-2020: what we will do

- ▲ +4km of circular Tramway by 2017
- ▲ New electric High Quality Transit Lines
- ▲ +200 km of cycle paths
- ▲ 26,000 m² inter-modal logistics space
- ▲ +300 charging points for electric vehicles
- ▲ Incentives for electric vehicles



 -12%* of persons transportation GHG emissions



* From 2004 to 2012

Few figures about Paris, at the moment :

- ❑ 6,000 streets = 1,700 km
 - 2.7 million car commutes/day
- ❑ 360 metro stations, 60 bus lines
 - 3 billion trips a year



Paris' Climate Actions Plan : REDUCING ENERGY CONSUMPTION

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2007-2014: what have we done ?



- ▲ **Street lighting : Energy Performance Market**
🔍 **-30 % of energy consumption by 2020**
.....
- ▲ **100 schools** heavily refurbished (-32 %)
.....
- ▲ **+15,000 new social housing units**
with climate action plan performance standards
.....
- ▲ **30,000 social housing units** retrofitted
🔍 **Gain : 297 GWh/y**
4,000 jobs created

🔍 **-9 %* of energy consumption**



* Since 2014

2015-2020: what we will do

- ▲ **“Relamping”** of tunnels road and squares 
- ▲ **200 new schools** to retrofit
- ▲ **25,000 social housing units** to retrofit 
- ▲ High Performance program to retrofit **swimming-pools**

Few figures about Paris, at the moment :

- ❑ 220,000 social housing



Paris' Climate Actions Plan : RENEWABLE SOURCES

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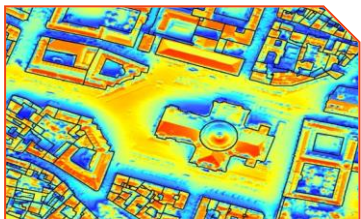


2007-2014: what have we done ?

- ▲ +30,000 m² of solar cells
-
- ▲ Creation of **solar potential map**
-
- ▲ +12,000 dwellings supplied with renewable heat (at Paris Nord-Est)
-
- ▲ 1st experimentations of heat recovery on sewage water or showers water

2015-2020: what we will do

- ▲ +7,000 m² of solar cells in urban renewal areas
-
- ▲ 7 buildings half heated by waste sewage energy recovery
-
- ▲ 2 new geothermal wells
-
- ▲ 2 swimming-pools heated by data-centers



Paris solar map



PV cells on gymnasium - 18th

Few figures about Paris, at the moment :

- ❑ Solar cells : 50,000 m²
- ❑ Local RES production : 5 %



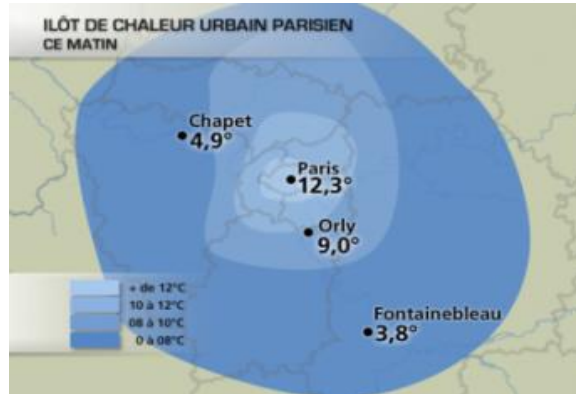
Paris' Climate Actions Plan : ADAPT PARIS

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2007-2014: what have we done ?

- ▲ +60 ha of new public parks
- ▲ Program to reduce water consumption
- ▲ Vulnerability survey
- ▲ 1st adaptation roadmap adopted on September 2015



'Natural urban heat Island' in Paris

2015-2020: what we will do

- ▲ +30 ha of new public parks
- ▲ +100 ha of green roofs
- ▲ +20,000 trees
- ▲ No Parisian far away 7' of fresh places



Few figures about Paris, at the moment :

- ❑ Land area : 105 km² (40.5 sq. miles)
- ❑ Woods and gardens : 2,600 ha

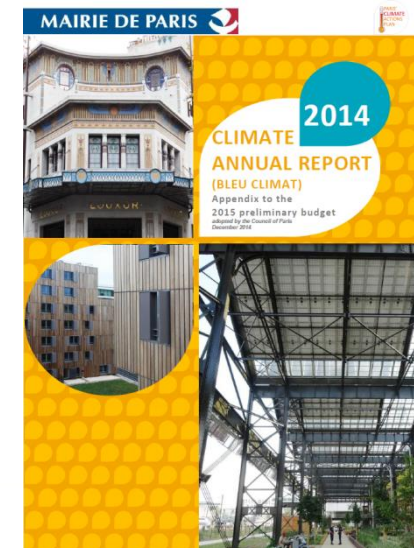


Paris' Climate Action Plan : reporting

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- **Bleu Climat** : annual report adopted by City Council on December with preliminary budget.
Published on Paris website on January
- **Performance contract** : document published with Paris budget with some indicators of Paris' Climate Actions plan
- **CO₂ assessment of Administration** :
 - **Every year for 80 % of the balance** (excluded freight and civil servant transportation assessed every 3 years)
 - Every year for main projects :
social housing and public buildings retrofitting, car fleets management, street lighting performance...
- **CO₂ assessment of Community** :
 - Every year for global trends on people transportation and building
 - Every 5 years in detailed for each posts (2004, 2009, 2014)
- **International reporting** :
 - Carbon Disclosure Project (every year)
 - Carbon Registry (every year)
 - Covenant of Mayors (every two years)
 - Nazca : United Nation Framework Convention on Climate Change platform





An inaugural Climate Bond for Paris

A strong commitment to address climate change



Paris' Climate Bond

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- Size = **EUR 300M**
- **Compliant with the four components of the Green Bonds Principles**
- **Use of Proceeds** = funding of projects which contribute to **fight against climate change**
- **Reporting** towards investors on a yearly basis
- **Independent second opinion**



Martin Luther King's park



Paris' Climate Bond : Eligible Projects

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Eligible projects have been selected to cover each of the 4 categories of Paris' Climate Actions Plan

Categories	Sub Categories
Reduction of GHG emissions due to low-carbon transport	<p>Public transport : High Quality Transit Line, Tramway Line extension</p> <p>Alternative transport : Cycling Plan</p> <p>Electric vehicles :</p> <ul style="list-style-type: none"> - Supporting the development of electric cars for residents and professionals, - Network of charging stations for electric and GNV vehicles
Energy efficiency & savings	<p>Buildings : Construction of energy efficient, thermal insulation for buildings (schools, social housing, nursing homes, etc.)</p> <p>Public lighting and signals : Replacement of energy consuming appliances</p> <p>Renovation of heating systems</p>
Production of Renewable energy	<p>Renewable energy power plants (solar panels)</p> <p>Geothermal energy</p> <p>Energy recovery (from wastewater networks, data centers, etc.)</p> <p>Municipal Heating network</p>
Adaptation to climate change	<p>New green areas : Areas opened to the public, green roofs, facades and walls</p> <p>Tree planting programmes</p>



GHG EMISSIONS REDUCTION initiatives (illustration)

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What you will fund :

+300 charging points for electric vehicles (not only Autolib')

▲ **2014 status : 507 points**

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▲ **Deployment : 2015-2018**

.....

▲ **Location : streets and underground car parks**

.....

▲ **Investment : 6 M€**

.....

▲ **CO₂ gain : 2-5 tCO₂/point/y**



Charging point and Autolib'



REDUCING ENERGY CONSUMPTION initiatives (illustration)

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What you will fund :
retrofitting of **200 schools**

▲ **2014 status : 100 schools retrofitted**

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▲ **Deployment : 2016-2020**

.....

▲ **Energy gain : -30 % (20 GWh/y)**

.....

▲ **Investment : 74 M€**

.....

▲ **Other benefits : green roofs or renewable sources use**



Parisian school



RENEWABLE SOURCES initiatives (illustration)

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What you will fund :

Swimming-pools heated by data-center and heat recovery

▲ 2014 status : 0



▲ Deployment : 2016-2018



▲ Energy gain : -50 %



▲ Investment : 0.1 M€



▲ Other benefits : **experimentation**
before High Performance program



Data center



Butte au Cailles swimming-pool
(13th arrondissement)



Paris' Climate Bond : Reporting Indicators

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Indicators on ESG Performance of the projects:

Domain	Criteria	Performance Indicators, at PROJECT level	Performance Indicators, at BOND level
Environment	Environmental management	<ul style="list-style-type: none"> - Environmental Certification - and/or Environmental management system (action plan, EIA, ISO 14001) - and/or Eco-design requirements (Yes/No) 	<ul style="list-style-type: none"> - Share of projects with environmental management program (certification, action plan, eco-design,...)
	Energy and Air quality management	<ul style="list-style-type: none"> - Energy consumption - and/or Energy efficiency (actual or estimated) - and/or Criteria related to energy integrated in the project (parks and garden) 	
	Waste management	<ul style="list-style-type: none"> - Segregated waste collection (Yes/No) 	
	Environmental impacts of disposal	<ul style="list-style-type: none"> - Segregation and treatment of hazardous wastes (Yes/No), at least for public lighting and signals projects 	
Society	Social integration		<ul style="list-style-type: none"> - Total number of hours worked under social integration contracts, - and/or Share of procurements with social integration clauses (in % of projects) Data collected at Paris' Purchasing Division level
	Person with reduced mobility (PRM)	<ul style="list-style-type: none"> - Project is accessible and/or contributes to improve the accessibility for PRM (Yes/No) – for transportation, parks and garden, social housing projects. 	<ul style="list-style-type: none"> - Share of projects which are accessible and/or contribute to improve the accessibility for PRM (in % of projects, or consolidated at bond level) – for transportation, parks and garden, social housing projects.
	Sustainable local development of territories	<ul style="list-style-type: none"> - Project proposes systematic information and/or consultation of main users and neighbors, whenever they are impacted (Yes/No) 	
Responsible development	Social responsibility toward labour rights & human rights	<ul style="list-style-type: none"> - Health and safety requirements (e.g. safety coordinator controlling all workers on construction site, health & safety awareness for workers, product safety data sheets, ...) 	<ul style="list-style-type: none"> - Number of Health a Safety accidents consolidated at bond level - Share of contracts with a environmental and/or social clauses (in % of projects), (data collected at Paris' Purchasing Division level)
	Business Ethics		<ul style="list-style-type: none"> - Number of court convictions against Paris' City, related to business practices / ethics (e.g. corruption) Data collected at Paris' Purchasing Division level
	Monitoring & internal control	<ul style="list-style-type: none"> - Project manager has been appointed (Yes/No) - AND Project is audited at minimum on a yearly basis (Yes/No) 	



Paris' Climate Bond : Reporting Indicators

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Indicators on Climate Benefits :

Domain	Criteria	Reporting indicator*	
Reduction of GHG emissions	Public transport	Passenger kilometers (i.e. cumulated distance traveled by passengers during a period of time, in km), and length of created transport ways	Ex-ante estimation of annual Greenhouse Gas (GHG) emissions reduced (tCO2e)
	Alternative transport	Distance of created cycle paths (km)	
	Electric vehicles	Number of created electrical terminals	
Energy efficiency	Buildings	Number of renovated housing or schools	Ex-ante estimation of annual energy savings (MWh)
	Public lighting and signals	Energy consumption (MWh)	Ex-ante estimation of annual Greenhouse Gas (GHG) emissions reduced or avoided (tCO2e)
	Renovation of heating systems	Num. of renovated heating system, or area supplied by renovated heating system (in square meters)	
Renewable energy	Renewable energy (solar panels)	Ex-ante estimation of annual renewable energy produced (MWh), and Area covered by solar panels (in sq. meters)	Ex-ante estimation of annual Greenhouse Gas (GHG) emissions avoided (tCO2e)
	Energy recovery	Ex-ante estimation of annual renewable energy recovered (MWh), and annual renewable energy produced (MWh)	
	Geothermal energy	Ex-ante estimation of capacity of renewable energy plant(s) constructed	
	Heating network	Delivered energy from heating network (MWh)	
Adaptation to climate change	New green areas	- Total New surface of green areas opened to the public (in square meters) - Total surface of new green areas on buildings : green roofs, facades and green walls, etc. (in square meters)	
	Tree planting programmes	- Total number of planted trees within Paris intra muros area	

* Detailed methodologies and assumptions have been established by internal expertise from Agence d'Ecologie Urbaine of Paris accredited for Carbon Evaluation



Rating and awards

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- City of Paris is leader of the sector (1st among local authorities rated by Vigeo) :
- Global score = 64/100 (vs 43/100 on average for the sector)

Domains min - / max ++	Scores 11/2014	Ratings 11/2014	Ratings 01/2014
Human Resources	65	++	++
Environment	70	++	++
Procurement and Services	53	+	+
Governance	61	+	+
Community Development	69	++	++
Human Rights	66	++	++

Legend :

- ++ means leading score
- + means score higher than the average

▪ Sustainability Performance :

- **Stable** since last review
- **Overall Advanced* performance**, above average scores in all domains,

* Vigeo scale of assessment : advance, robust, limited, weak

- *“The reporting commitments cover the selection of eligible projects, the estimation of climate benefits and the responsible management of projects, showing a consistent level of transparency and a capacity to assess and report on all ESG issues”*
- *“The bond (300 M€) to be issued by City of Paris is a “Climate Bond”, aligned with the Green Bond Principles and our level of assurance on sustainability of the bond is reasonable” (reasonable = highest level of assurance)*

▪ Paris graduated as “Positive energy territory”

by the French Ministry for Ecology, Sustainable Development and Energy



Contacts and Documentation

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Internet site : <http://www.paris.fr/>

- Climate policy documents : <http://www.paris.fr/municipalite/action-municipale/paris-pour-le-climat-2148>
- Budget documents : <http://www.paris.fr/municipalite/l-hotel-de-ville/budget-de-la-ville-de-paris-2529>
- Debt documents : http://www.paris.fr/municipalite/l-hotel-de-ville/taxes-et-impots-2318#programme-d-emissions-de-titres-emtn_10
- Vigeo documents : <http://www.vigeo.com/csr-rating-agency/en/3-1-investisseurs-et-gestionnaires-d-actifs>

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