



CONTEXT DOCUMENT

**A KNOWLEDGE-
AND INNOVATION-
BASED CITY IN
WESTERN GREATER
PARIS**

2015 Paris-Ile-de-France Region
workshop

les ateliers

maîtrise d'œuvre urbaine

"There are few places in the world where freedom of expression, mix of cultures and disciplines, mutual cross-fertilization and production of ideas, combined with a true professionalism allow us to think about those spaces where more and more inhabitants of our planet live: cities."

Pierre-André Périssol, Chairman of les Ateliers

Les Ateliers internationaux de
maîtrise d'œuvre urbaine

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based on the template «Bonhomme»

Published in July, 2015

A non profit-organization since 1982, Les Ateliers – International workshops of planning and urban design – aims to develop the collective creation of ideas that tackle the challenges and processes of everyday city planning and design by promoting a process of collective and multidisciplinary work that produces innovative and illustrative proposals relating to urban design and spatial development.

Whether it involves students or professionals, each "atelier" brings together people of diverse nationalities and disciplines: architecture and urban planning, but also geography, economics, landscape architecture, sociology, art, engineering, environment...

Year after year, Les Ateliers internationaux network has been growing: it includes more than two thousand former participants who are now professionals, academics, and decision-makers in the urban field.

Our convictions

Creating cities is by its very nature a collective process. As true as architecture enables an individual and identifiable creation of masterpieces, developing cities cannot be ascribed to a single person who would dominate all the aspects of urban creation: this process is collective in its essence.

Based on the logic of laboratory work, urban project management should encompass the various disciplines required to plan urban areas and their interfaces. Therefore, each atelier is a place of freedom of proposal, where the aspirations of collective and voluntary work enable the development of new ideas, innovative projects and proposals for the future of urban areas which are in perpetual transition.

Les Ateliers would like to thank all of their partners for this workshop :



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workshop

Foreword

GENERAL INTRODUCTION TO A KNOWLEDGE- -AND INNOVATION- BASED GREATER PARIS	8
BUILDING A KNOWLEDGE- AND INNOVATION- BASED CITY : FOR WHOM? BY WHOM? AND WHY?	30
THE MANY FORMS OF KNOWLEDGE- AND IN- NOVATION-BASED TERRITORIES	48
TOWARDS A LOCAL BUT GLOBALLY CONNECTED ECOSYSTEM FOR SHARING AND MUTUALIZATION	58

Sources

«Innovation and creativity are part of a value creation process that capitalises on knowledge by introducing and applying, in an optimal way, discoveries in a specific field of science, technology, urban development or culture, and refers to as yet latent, uncoded knowledge .»

Raphaël Besson

ONE WORKSHOP, ONE AREA, URBAN PLANNING CONCEPTS

The aim of this workshop is to produce **territory-relevant proposals that can be transposed to other areas**, in order to strengthen the cohabitation and synergy between urban planning stakeholders and promote a balanced, reasonable development. The workshop organisers will assess the extent to which special attention is paid to the methodology for managing new urban features, notably in terms of governance and management.

The study area is the Western part of Greater Paris, and precisely the territory of the **Confluence** and **Cergy-Pontoise** (founded as a former new town, now a young agglomeration with a surface area of 8,700 ha with 200,000 inhabitants, 27,000 students, 100,000 workers and 90,000 jobs).

- The city as a driver of the economics of knowledge and innovation? Which innovations can contribute to value creation, creativity and inventiveness?
- Where can technological innovation lead urban innovation? How much can the relationship between individuals or groups of individuals be dematerialized before it threatens this essential driver of innovation processes? Can one speak of social innovation and managerial innovation?
- In virtual times, what are the new spaces for meeting, experimenting and innovating together in the urban environment? What scope is there for the contributions of urbanity and serendipity (the unexpected, the unknown, the chance encounter) to the fostering of knowledge-based urban ecosystems?
- How can a knowledge- and innovation-based city assert its place in the immediate zone of influence of a global metropolis? What could give a new impetus to Cergy-Pontoise as the innovation laboratory it once was as a New Town?

*How to reconcile the need for
international reach,
regional competitiveness
and the will to be firmly anchored at local level ?*

KNOWLEDGE AND INNOVATION: FROM ECONOMICS TO THE CITY

CITY : a space, connected and linked to other spaces, host to numerous and varied human activities, where internal and external flows of all kinds and the resultant interactions create an endemic culture and way of life.

KNOWLEDGE : mindset of they who know and who perceive - wisdom, facts, skills, capacities, nurture, culture...

INNOVATION : introducing a new element - progress, renewal, change, inventiveness...

WHAT IS A KNOWLEDGE AND INNOVATION ECONOMY? HOW DOES IT TRANSLATE SPATIALLY?

In his book *The strength of the intangible: transforming the economy*, published in 2012, Laurent Habib separates two kinds of economic eras : the pre-internet and the internet eras. Those eras cover six “generations”. The pre-internet era covers the industrial economy, market economy and service economy, The internet era, still under definition, covers the functions economy, people-based economy and collaborative economy (or “gift” economy).

Alan Fustec classifies intangible assets into air assets, invisible and volatile assets. Contrary to tangible assets like machines and liquidities like debts and funds, intangible assets cannot be quantified. **In the internet era**, collaborative economy means rethinking the traditional practices of knowledge and innovation management. It means **leaving a logic of production** that still influences so much of the organization, governance, marketing and stakeholder relationships in place. This implies taking into account the uncountable nature of **social progress, quality of life and well-being**. It also accepts the demonetization of relationships by accounting for the value of acknowledgement, personal and collective growth, as more powerful and effective compensation. Today, investment in intangible assets (R&D, organization, software, publicity, marketing, design, creation...) is growing at a significant pace to tackle tangible investments. This is highly relevant to our global approach of the **changes affecting the grounding of our economy: the socio-economical systems of cities, territories, universities and companies**.

A «virtual economy» of knowledge and innovation

Knowledge production and intangible output by private and public R&D centers has been growing since the 1990s. Technological innovation and the development of NICT (New Technologies for Information and Communication) have supported and enabled knowledge diffusion. This led to a **shift in practices, uses and consumption patterns**, and increased the pace of **idea circulation**, furthering the dematerialization of relationships between individuals or groups of individuals. Today, through the general diffusion and diversity of virtual outlets (15 billion of connected objects in 2013, 80 billion forecast for 2020) feeding into a “cyberspace”, **the consequences of innovation bleed out of the economy into issues of social and territorial development**.

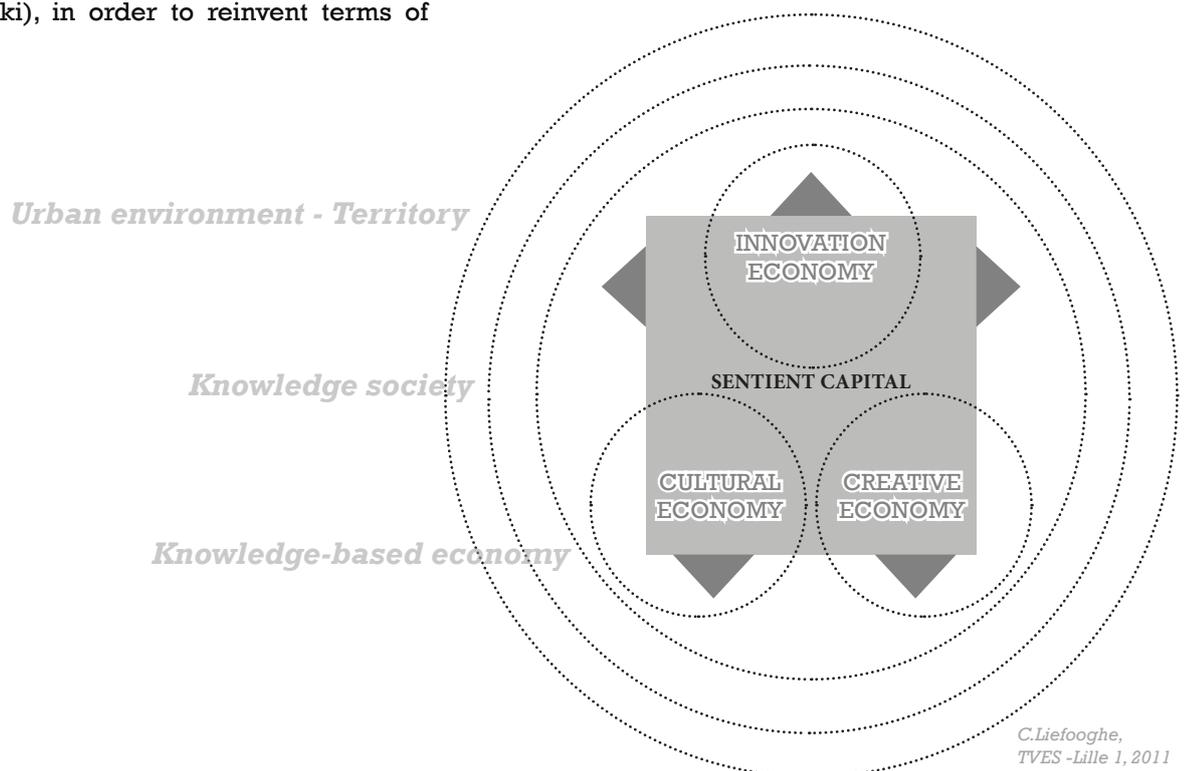
Towards a «real city» for knowledge and innovation

Issues of “city creation”, “collective living” and “sustainable cities” mean looking at concepts of functional and social mixity, governance, and taking into account the **emergence of new technologies and new democratic organisation practices**. In the virtual era, the post-industrial (internet age) global and technical city must reconsider the ways in which it grounds its activities in the territory that supports them.

**WHAT CAN A KNOWLEDGE- AND INNOVATION- BASED CITY BE IN THE XXIST CENTURY?
TOWARDS A HYBRID MIX OF REAL AND VIRTUAL SPACE (B.BEAUDÉ)?**

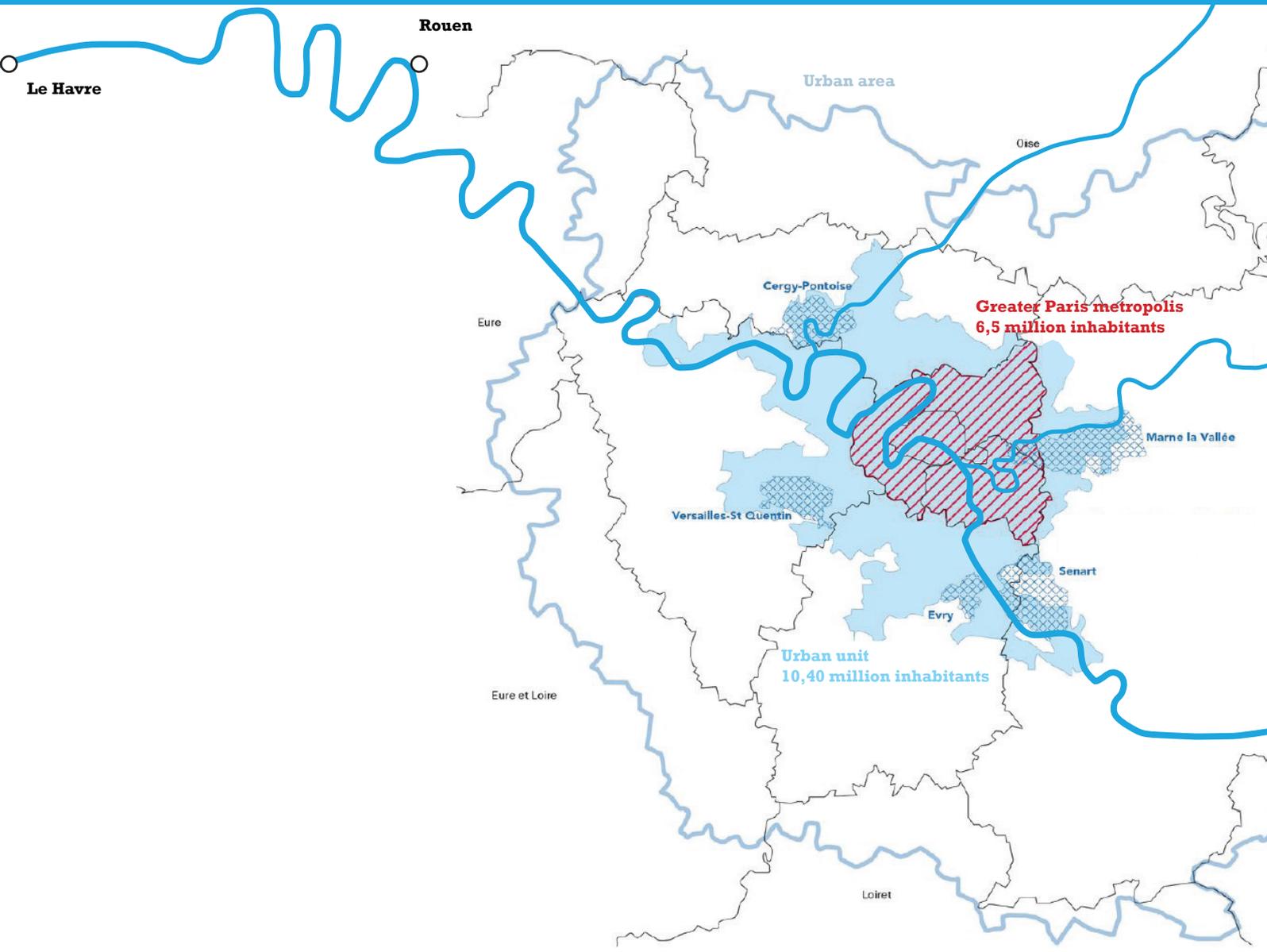
Campus city? University City? Learning City? Teaching city? Playing city? Smart city? Creative city? Knowledge city? Fab city? Science city? Urban cluster? Virtual city? 2.0 City? Cyber District? Sensitive City? Shared City? Playable City? Sentient urban system? Brain-hub City?... are only some of the possible names to understand and define the emerging new city. Therein, **the value- and money-creating triptych of universities, companies and the territory are reinstated as vital agents for urban growth.** Furthermore, empowerment movements that rely on new virtual tools for collaboration and cooperation make it essential to reconsider the role of individuals, of civil society and the public authority, both in terms of **involvement and responsibility at the local level** (L.Gwiazdzinski), in order to reinvent terms of governance.

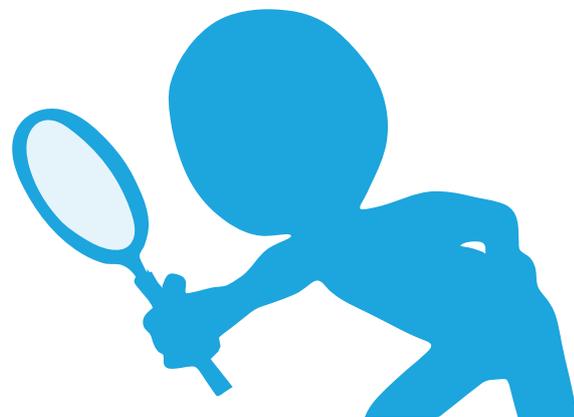
**Dynamics of sentient capitalism:
socio-economic and territorial stakes**



*C.Liefooghe,
TVES -Lille 1, 2011*

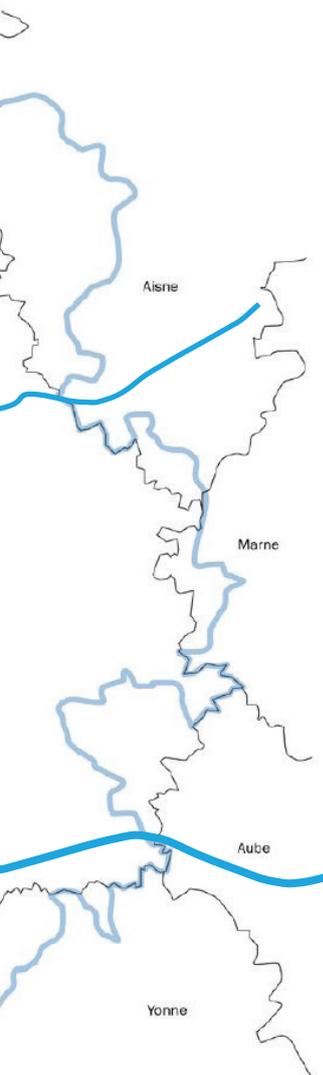
Bounderies of Greater Paris





1

GENERAL INTRODUCTION TO A KNOWLEDGE- AND INNOVATION-BASED GREATER PARIS



GENERAL FRAMEWORK : GREATER PARIS	10
THE PARIS-ÎLE-DE-FRANCE REGION	10
THE PROJECT OF A GREATER PARIS METROPOLIS	14
PRACTICAL FRAMEWORK : THE SEINE AXIS	18
THE SEINE OISE JUNCTION	19
CERGY-PONTOISE	20

Cabinet Leclercq

PARIS-ILE-DE-FRANCE

January 1st, 2016 will mark the birth of the **Greater Paris metropolis**. It is composed of the Paris municipality and the three surrounding counties of the first ring, but functions within a larger territory, and especially that of the Ile de France region (12 million inhabitants over 12 000 km²), the influence of which can be felt nationally and internationally.

ILE-DE-FRANCE ECONOMIC HUBS

The Ile de France region holds the highest concentration of jobs in Europe. It is the **capital region and economic drive of the country**, ranking 2nd in Europe for international investments, and accounting for 330million consumers within 2 hours's fly time. It represents 30% of national GDP, 4,7% of European GDP and is responsible for 40% of national spending on R&D (50% of the 214 SCR, public/private Shared Research Facilities, can be found in the Ile de France and Rhône-Alpes regions). It is driven by the tertiary sector (86% of jobs) but can boast of advanced industrial facilities for auto-manufacturing, aeronautics, printing, electronics, pharmacy and agrobusiness (9,6%), of a dynamic building sector (4,2%) and an evolving primary sector (49% of the land is agricultural) of orchards and cereal grounds (0,2%). Ile de France also holds accounts for about half of french jobs in the arts (cinema, photography, music, stage, publishing, advertising, video games, software, architecture.)

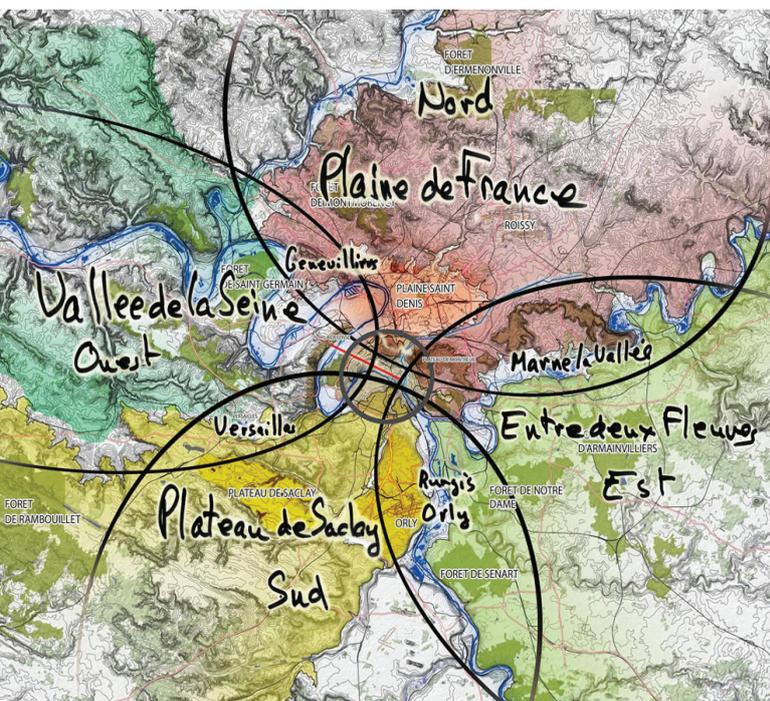
The Ile de France region hosts 8 of the 71 “**competitive hubs**” created between 2004 and 2007 nationwide (3 have worldwide impact). Each of them encourages network synergy between companies, labs and education facilities on a specific topic and a large territory. Their goals are job creation, economic growth, innovation and a greater attractiveness of the region on the national and international stage.

- *System@tic (digital systems) : 750 organisms, 1060 innovating small-and-medium companies*
- *Medicen (health, infectiology, neuroscience, cancer) : 800 members*
- *Cap Digital (digital transformation)*
- *Advancity (sustainable urban and mobility issues)*
- *Mov'eo (clean mobility) : 370 members*
- *Finance Innovation*
- *Cosmetic Valley (perfume and cosmetics) : 300 companies*
- *AsTech Paris Region (motors, aeronautics, partners of Aerospace Valley)*

Besides the competitiveness hubs, other centers and economic hubs articulate the metropolis, amongst which:

- **La Défense business district**: 71 high-rises host 2.500 companies, 180.000 jobs and 20.000 inhabitants (2009)
- **Roissy Charles-de-Gaulle International airport** : 8th airport worldwide, 62 million passengers in 2013, 18 million consumers
- **Rungis international market**: 1st agricultural produce market worldwide, 1.200 companies, 12.000 jobs, 18 million consumers
- **La Plaine Saint-Denis**: Stade de France stadium and business district
- **Saclay plateau**: top performance science hub
- **Major tourist attractions**: Paris attracted 29,3 million tourists to the city in 2013 and 72,1 million visitors to the monuments and musea in 2012; Disneyland Paris attracted 14 million visitors in 2014; Versailles attracted 7,5 million in 2013.
- **Gennevilliers self-standing harbor on the Seine industrial valley**: 1st river harbor nationwide and 2nd in Europe, 275 companies, 8.000 jobs.

Ile-de-France landscape profiles



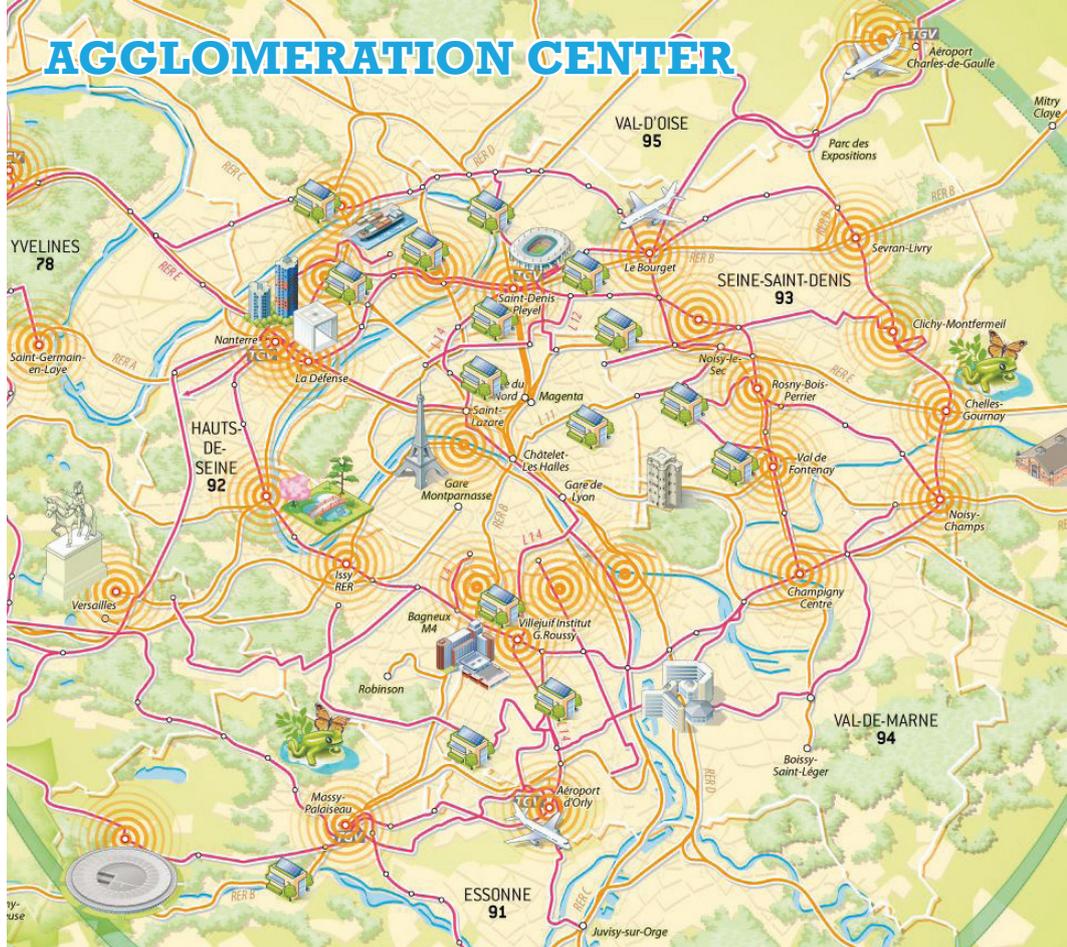
AIGP

MASTER PLAN

2030

A Greater Paris for the whole region

-  Cultural, touristic and natural heritage
-  Centers for living
-  New urban neighborhoods (regional nominees)
-  New network (LGP)
-  Existing network (modernized)
-  Ile-de-France Natural Parks
-  Edge of the urban spread
-  Regional nature reserves



HIGHER EDUCATION

HIGHER EDUCATION IN ILE DE FRANCE

The region holds the **greatest concentration of higher education premises and research facilities nationwide**. It accounts for over 650.000 students, a fourth of the nationwide number, as well as a third of researchers and 40% of research facilities.

The *Law on Higher Education* of 2013 follows in the wake of the *Law on the rights and responsibilities of universities* of 2007, which had set elements of the Plan Campus:

- **12 high-performance university hubs** : Lille, Condorcet Paris Aubervilliers, Paris Intra-Muros, Saclay, Lorraine, Strasbourg, Lyon, Grenoble, Montpellier, Aix-Marseille, Toulouse, Bordeaux
- **5 growing campuses** : Créteil-Marne-la-Vallée, Rennes U.E.B Campus Numérique, Nantes, Clermont-Ferrand, Nice Sophia Antipolis
- **4 innovation campuses** : Le Havre, Cergy, Valenciennes, Dijon

The aforementioned laws grant greater autonomy to universities with an aim to improve study conditions, encourage international outreach and internal cooperation between higher education facilities. It started by grouping facilities within PRES structures - Research and Teaching Hubs - and now functions as about twenty COMUE structures - Universities and Facilities Partnerships.

This **new mapping of universities** banks on the relationship between higher education premises and the market - via research, innovation, entrepreneurship, ongoing education - and takes into consideration the key issues of **transportation, housing and general amenities** for education, and services to teachers, researchers and students.

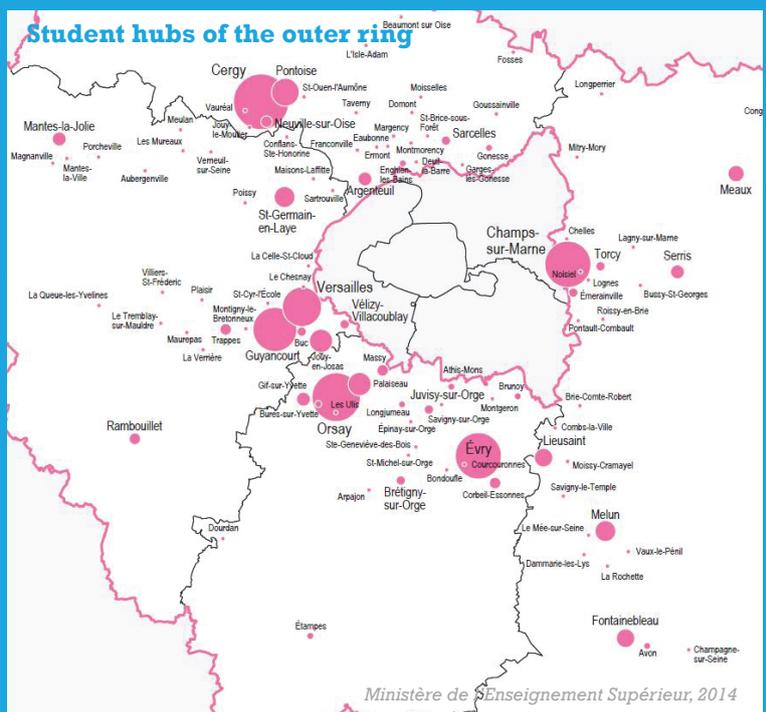
In Ile-de-France, higher research facilities are grouped within 8 COMUE. **The Paris facilities are grouped within 4:**

- **Université Sorbonne Paris Cité** (120.000 étudiants, 13 members and associates)
- **Sorbonne Universités** (57.800 students, 11 members and 11 associates)
- **Hautes Etudes-Sorbonne-Arts et Métiers** (55.000 students, 11 members and 4 associates)
- **Université de Recherche Paris Sciences et Lettres** (14.000 students, 25 11 members and 11 associates)

Suburban university hubs

Within the inner and the outer suburban rings, the four other university structures have growth around major education facilities and ambitious projets such as the science hub of the Saclay plateau, the genetic science Genopôle in Evry Centre Essonne, the Condorcet Campus “Humanities and social sciences center” in Aubervilliers, the sustainable urban cluster of Créteil/Marne-la-Vallée and the urban university center of Cergy-Pontoise:

- **Paris Saclay**
(70.00 students, 19 members and 1 associate)
- **Université Paris Lumières**
(55.000 students, 13 members and 11 associates)
- **Université Paris-Est**
(50.000 students, 7 members and 15 assocites)
- **Université Paris-Seine**
(35.000 students, 13 members)



PARIS-SEINE UNIVERSITY

The recently structured **Paris-Seine University** is grounded in the west part of the region. It regroups around 15 higher education facilities, or about 35.000 students (three quarters of which study in Cergy-Pontoise).

It aims to fuel cooperation between teaching facilities, research centers and the business environment to enable “breakthrough” innovations in the field of technology and services. The four departments for teaching and research embody **a new academic model dedicated to innovation, entrepreneurship and creativity**:

- **Department for heritage and creation** (ENSAPC, ENSAV, ENSPV, ISIPCA, UCP)
- **Engineering department** (IPGP : EISTI, ENSEA, SUPMECA, ECAM-EPMI, EBI, ISTOM, UCP)
- **Management department** (ESSEC, UCP, ITESCIA, ILEPS)
- **Department for teaching and humanities** (UCP, EPSS)

The University drives a strategic reflection on new student living, new socialization quarters for students and researchers, and new opportunities for international cooperation. In order to do this, the Paris-Seine University COMUE can build on its **strategic situation both as a stakeholder of the Paris metropolis and as the gate to the Seine valley** that links Paris to the Normandy harbors of Rouen and Le Havre.

PEPITE

A **cross-regional partnership** with Normandy University was launched in 2014 to support and develop student entrepreneurship and innovation. This partnership, PEPITE (“gold nugget”) brings together 32 institutional entities and 9 public partners around 6 challenges: information, advocacy, teaching, support, incubate and create.

Paris-Seine University : from Paris to Le Havre



COMUE

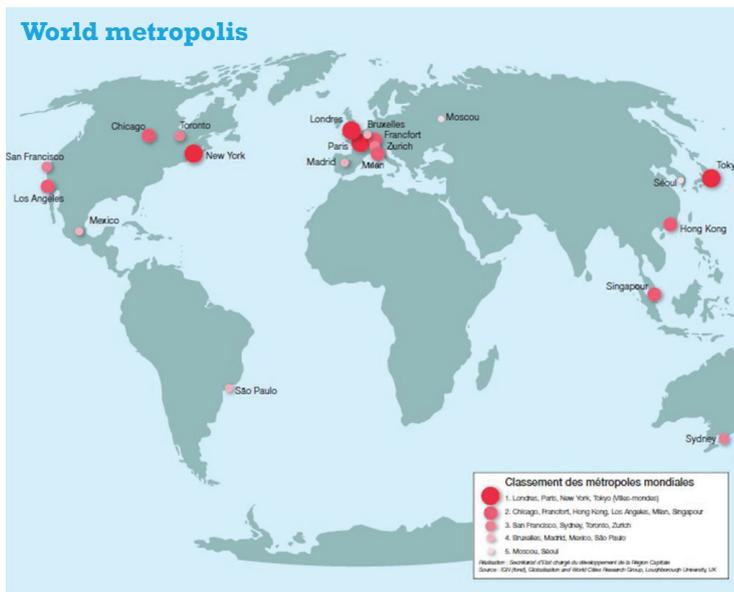
GREATER PARIS

THE GREATER PARIS PROJECT

The Greater Paris Project, launched in 2008, spurred a development strategy for the agglomeration that relies on:

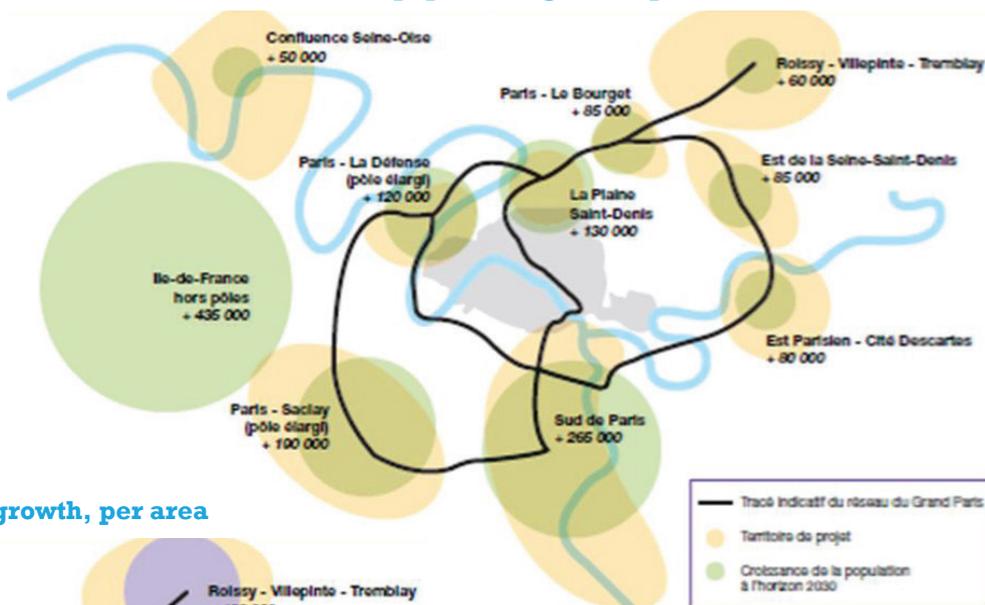
- The Grand Paris Express network
- Powerful growth hubs
- Metropolitan-scale projects.

Initially, the project aimed to **increase the growth rate of the capital region, improve the competitiveness of the agglomeration on the world stage and secure the role of Paris as world-city**, by developing 9 (then 10) territorial hubs as “clusters”, 8 of which were structured and organized around the new Grand Paris Express network for optimal networking and accessibility.

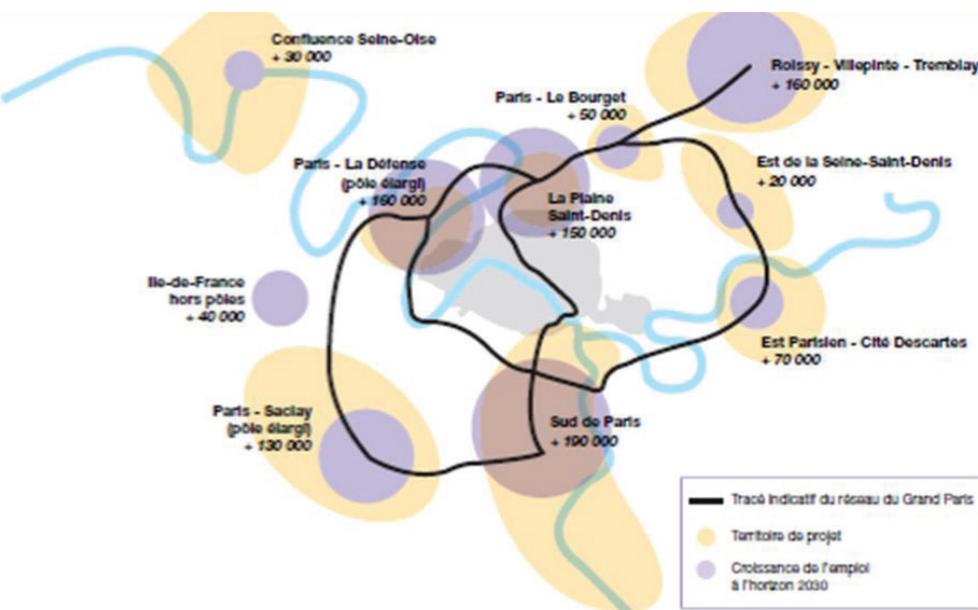


2030 forecast population growth, per area

The mapped areas were expected to host 70% of the 1.500.000 new inhabitants and 95% of the 1.000.000 new jobs forecast for the region by 2030 by the project promoters.



2030 forecast job growth, per area



Those forecasts have since been dampened :

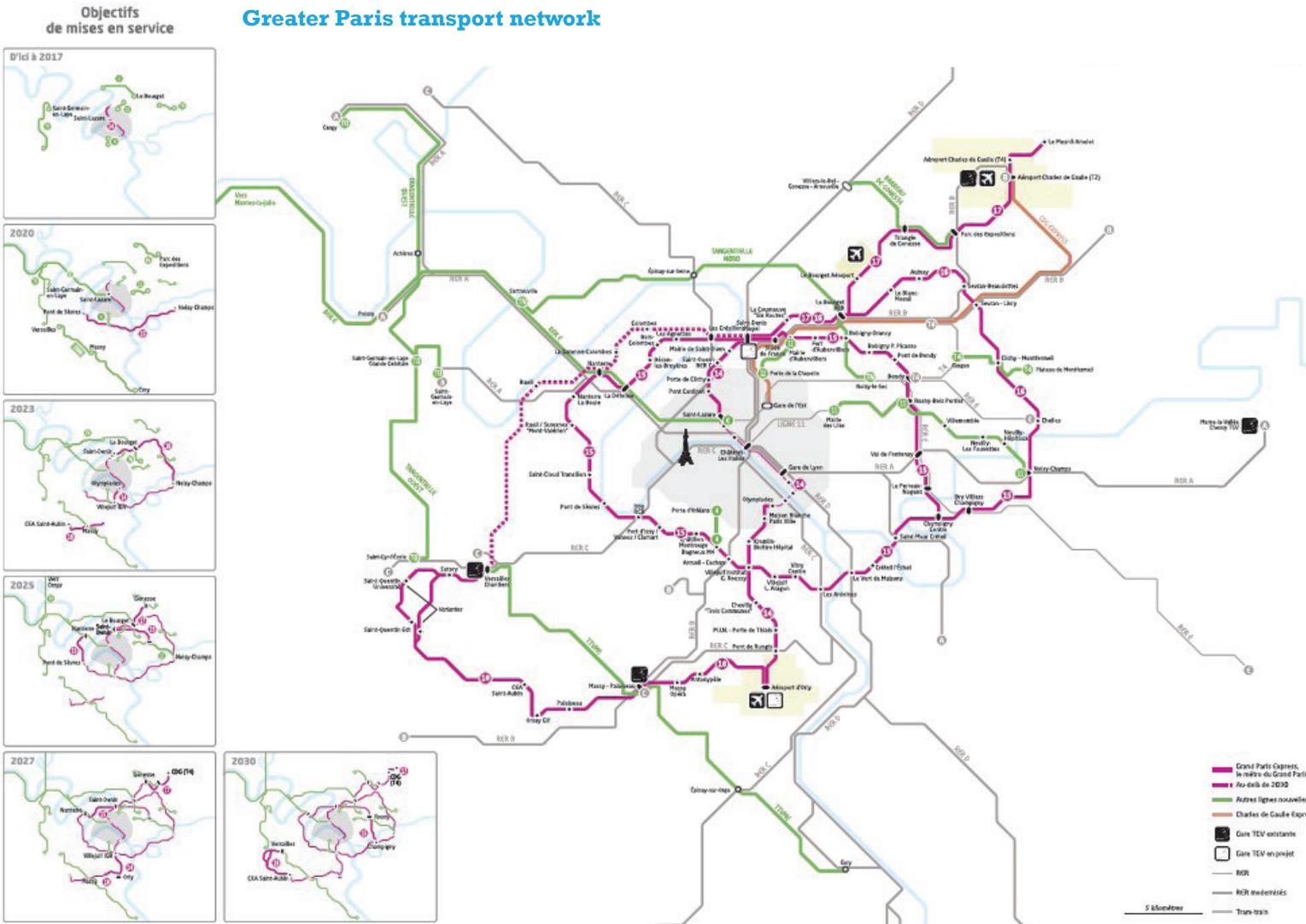
- By around 50% for job growth, since the forecast numbers were considered unrealistic given the economic trends of the past 15 years and the current state of the economy
- The idea of hubs and clusters is still relevant, in order to spread out job and housing development.

Société du Grand Paris

Grand Paris Express

The project calls for **three new metro lines** hooked to the existing network:

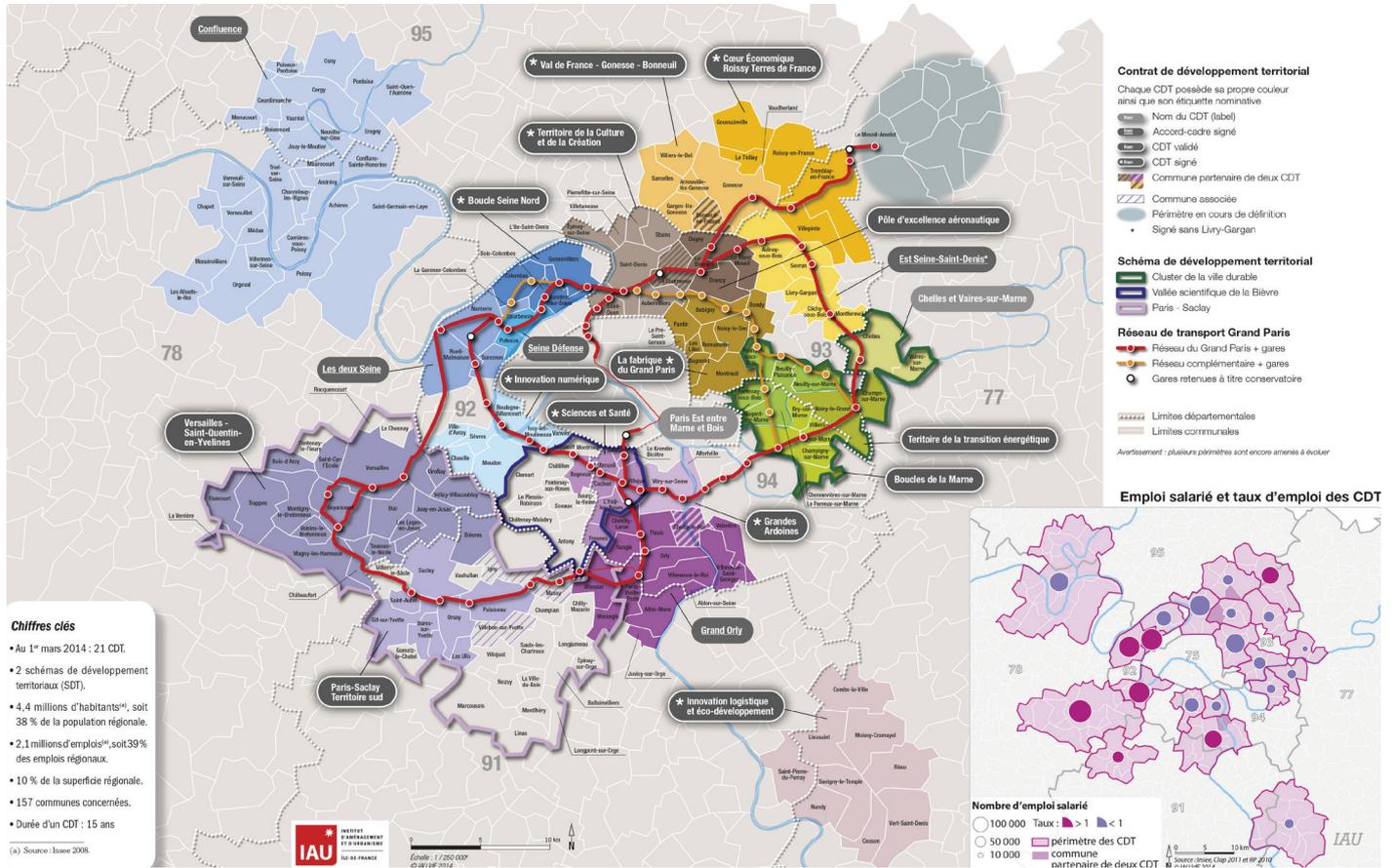
- A ring line (line 15) underground subway of equivalent capacity to that of the Paris metro, to reduce congestion in the central network,
- Automatic vehicles with a capacity to serve growing territories: lines 16, 17 and 18,
- Extension of existing lines: line 14 to the North and line 11 to the East..



METROPOLITAN HUBS

The strategic development goals of the Grand Paris project are framed within a contracted transition between the state and the collectivities: the **CDTs, territory development contracts**. 23 CDTs cover the territorial structure of operations within each territory, but must remain compatible with the regional SDRIF masterplan. Within this new framework, “clusters” are not a systematic choice. Most of the territorial projects are based on and around one of the future stations of the Grand Paris Express:

CDTs - Greater Paris Territory Development Contracts



- **Roissy – Villepinte – Tremblay** : interational trade shows, fairs and congresses, development of industry and logistics focus
- **Paris – Le Bourget** : northern gate to the capital region, focused on aeronotics and business tourism
- **La Plaine Saint-Denis** : creativity and digital arts
- **Paris – La Défense** : finance, service development and high value-added companies
- **Est Parisien – Cité Descartes** : sustainable urban development hub, focused on city maintenance and green city-building
- **Paris – Saclay** : internationally known scientific and technological development facilities
- **Southern Paris** : biotechnology and life science research valley, and nearby, the growing hub of Orly-Rungis
- **Est de la Seine-Saint-Denis (Clichy / Montfermeil, Livry, Sevrans, Aulnay)** : create a new urban centraliy

However, two territories are not served by the new Grand Paris network :

- **Confluence Seine Oise** : the future rivergate and river harbor of the capital region, at the cross between the Seine axis and the Seine Nord canal
- **Sénart** : high value-added logistics

SEINE AXIS

« Paris, Rouen, Le Havre, are one city and its high road is the Seine. »
(Bonaparte visiting Le Havre on November 7th, 1802)



IAU IdF

An economic axis

To quote from the “Seine Metropole” project of Antoine Grumbach & Cie, the Seine Valley territory spreads from Paris to Cherbourg over 3 regions and 8 counties. It accounts for 5% of national superficity and 15 million inhabitants, 1/4th of national economic facilities, 7,3million jobs, 720.000 students (30% of the total student population) and 100.000 researchers (40%). The combined harbors of Le Havre, Rouen and Paris (HAROPA) handle 1/3rd of national maritime and fluvial freight transit, create 490.000 logistics sector job (1/4th of national total) and 600.000 industry sector job (1/5th)

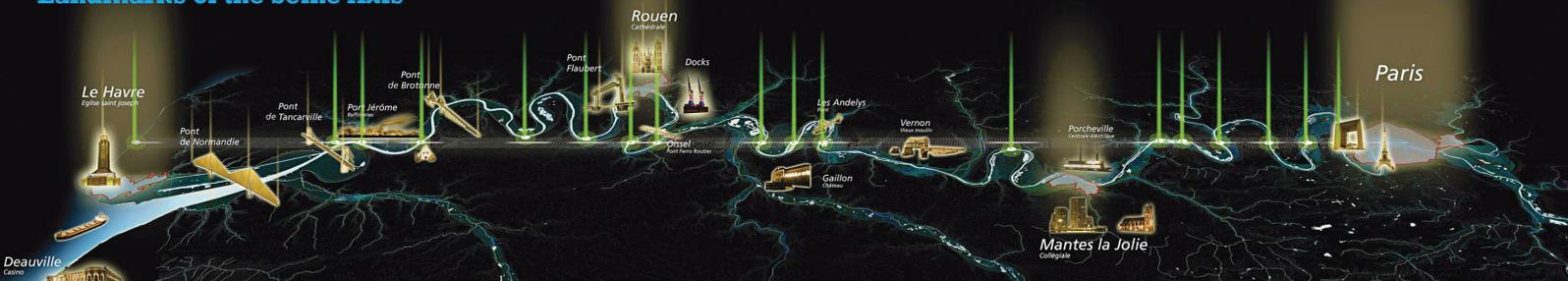
A touristic axis

Today, tourism accounts for 10% of regional GDP (420.000 jobs) and is poised on the verge of important growth (28% of Normandy visitors come from the capital region). It draws on powerful assets: heritage sites (castles of La Roche Fuyon and Gaillars, Jumièges Abbey...), naural sites (Vexin Français national park, Boucles de la Seine Normande national park), cultural weight (Paris is the first city for tourism worldwide, Rouen has the Armada, Le Havre had Auguste Perret, the Seine Valley saw the birth of French impressionism, D-Day, one can cycle the Green Avenue from Paris to London...).

An axis for projects

Where it crosses the capital region, the Seine Valley is home to an **OIN - National Impact Project - called 'Seine Avail' and to the Seine-Oise confluence**. The latter territory stands rather isolated from other metropolitan project areas, but nevertheless at a strategic interface between Paris, the Western part of France and Northern Europe. Therein, industry sector jobs have grown by 8% in ten years (while they fell by 25% regionally), innovative startups have settled, and about ten research and development centers tackle issues of eco-mobility, aeronautics, defense, cosmetics, logistics and green building.

Landmarks of the Seine Axis



AIGP, Grumbach

SEINE OISE CONFLUENCE

THE SEINE OISE CONFLUENCE

With 1750.000 jobs and 350.000 inhabitants (250.000 jobs and 500.000 inhabitants are forecast for 2025), the territory at the crossroads of the Seine and Oise rivers is called the Seine Oise confluence. Its structural center is Cergy Pontoise. The confluence is emerging as the **new hub for the western part of the region, at a midway spot between the La Défense - Boucle Nord - Val de Seine territory and the Seine Aval project area, at the interface between the central agglomeration and the rural/agricultural western landscape.** From a regional point of view, the main issue for the Seine Axis is to organize logistical and urban service functions in an optimal manner; to balance economic and residential areas; to maintain and valorize open ground, planted landscapes and natural sites; to uphold the ecological function of the Seine river and identify the value of the characteristic landscape of the rolling hills of lower Seine. The confluence territory hosts a number of large infrastructural and service projects that not only are essential to the metropolis, but may also be triggers for growth:

- **The 420 ha “Seine Métropole” harbor site of Achères** is a multimodal (river, rail, road) freight hub where the **large-vessels canal of Seine Nord Europe** should open into the Seine (by 2023). This is the biggest harbor project for the Ile de France region in the coming 20 years. It will spur the development of the Limay harbor (1st river-to-see harbor in the region) and the creation of the new Triel-sur-Seine harbor.

- **The green-industry hub of Chanteloup** hosts eco-construction oriented companies (that make use of biosource materials) and initiatives for industrial ecology. An eco-construction agency was set up to front the project, complete with a space dedicated to the exhibit of eco-material samples and new building techniques.

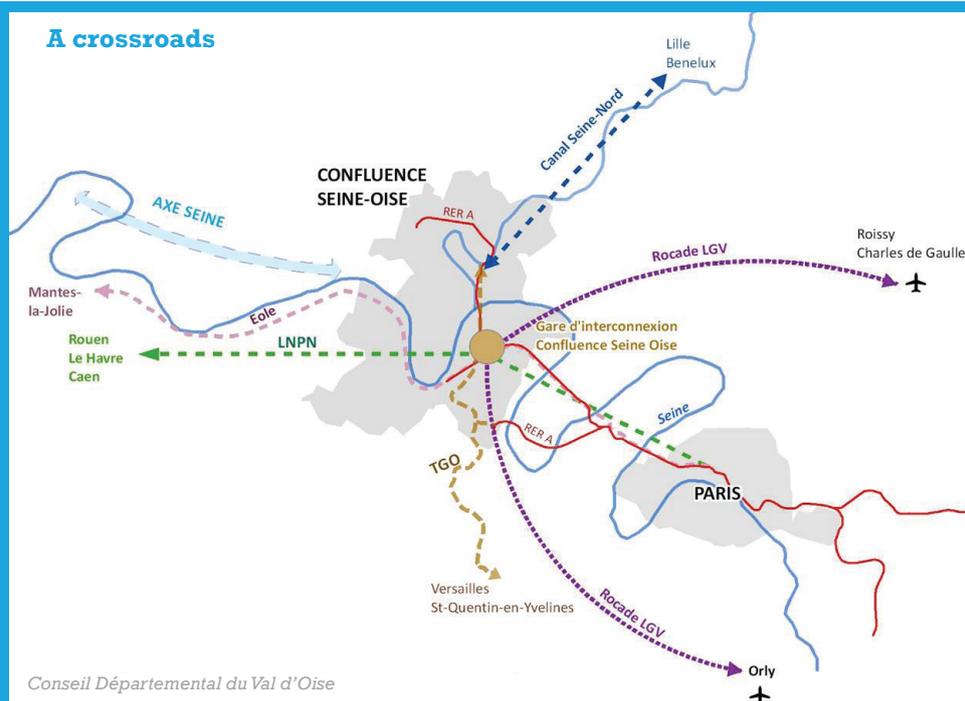
- **The extension of RER line E (Eole)** from La Defense to Mantes-la-Jolie by 2022. The aim is to improve transportation services and connectivity between the eastern and western parts of the Paris region. The extension should improve access to employment hubs and support the growth of new centralities. Thus, it is expected to provide balance in the growth of regional territories, while boosting their power of attraction. Finally, this extension should improve service to Cergy-Pontoise by freeing rail space for the RER A.

- **The Western Tangent (TGO, Tangentielle Ouest)** is a tram-train project that will extend the Western Outer Ring linking Saint-Germain Grande Ceinture to Noisy-le-Roi since 2004. Three successive phases will first bring TGO to Saint-Germain RER in 2018, to Achères-Ville station in 2019, then to Cergy by 2025 (according to the Nouveau Grand Paris roadmap). The TGO should, in time, link the job and housing hubs of Cergy-Pontoise, Saint-Germain-en-Laye, Poissy, Versailles and Saint-Quentin-en-Yvelines, thereby linking together a number of higher education facilities.

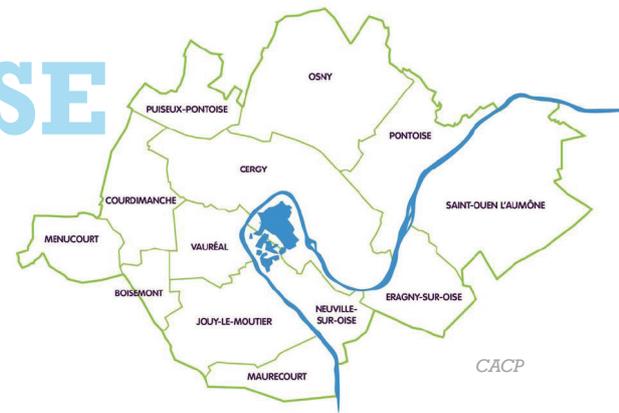
- **Finishing the A104 highway** between Cergy-Pontoise (Méry-sur-Oise) and Saint-Quentin-en-Yvelines (Orgeval) will be essential to service the future urban harbor of Achères.

The future transportation exchange hub of Achères Confluence

The aim is to improve regional transportation services and create an access to national transport and air travel facilities. It will serve a hinterland of 1,5 million inhabitants and 600.000 jobs. It should enable interchange between the LNPN (New Paris-Normandy Link with Rouen, Caen, Le Havre, etc) and the Normandy trains (TER to Vernon, Evreux, etc.), and between the RER lines E and A, the regional Transilien lines, the TGO Tangent and, in time, the LGV high-speed train ring to Roissy Charles de Gaulle and Orly airports.



CERGY-PONTOISE



CERGY-PONTOISE

A city in the North-West of Greater Paris

Cergy-Pontoise was created as a new town in the 1970s in the North-West of Paris, around a curve of the Oise river and at the edge of the Vexin national park. It is now a CACP - an agglomeration of 13 municipalities over 8700 ha (1/4th of which are natural sites) with 200.000 inhabitants, 100.000 of working age, 27.000 students and around 130 nationalities. It is a young territory, of which **45% of inhabitants were under 25 years of age in 2011**, a territory experiencing real **growth in housing construction** (1.300 new houses/year according to the goals of the Local Housing Plan) despite a slow-down in the population growth (+0,6% between 2006 and 2011).

Accessing Cergy-Pontoise



Accessibility - 30 minutes by train from Gare St-Lazare and La Défense, 40 minutes from Châtelet-les-Halles interchange and Roissy Charles de Gaulle airport, the Cergy-Pontoise agglomeration is a real transportation hub.

Cergy-Pontoise is located at the crossroads of **two major regional roadways**: the RN14/A15 to Paris and Normandy and the N184 to Saint-Germain-en-Laye, Beauvais (via A16) and Roissy (via N104). The agglomeration is accessible via **12 train stations** on the TER network lines H, J and L and on the A and C RER lines (65.000 travellers/day) and via 20 regional bus lines.

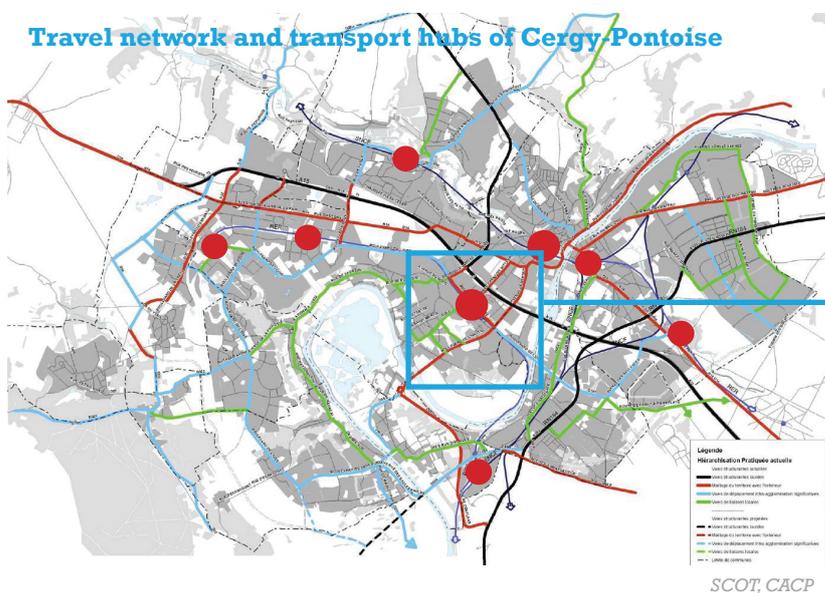
Locally, the agglomeration is accessible via 19 bus lines and 600 stops (85% of inhabitants are less than 300m away from a bus stop), that service 72.000 travellers per day; via 43 city-bike stations (Vélo2: 360 bicycles and 85km of cycle lanes) and 2 carshare services (Citiz & Deways). **4 major interchange hubs** handle most of the traffic: Cergy-Préfecture (32.000 travellers/day), Pontoise (5 to 15.000 travellers/day), Cergy-le-Haut (10.100 travellers/day) and Cergy-Saint-Christophe (9.400 travellers/day)

Nevertheless, despite these attractive characteristics of the area, Didier Desponds (professor at Cergy-Pontoise University) alerts to the start of a **process of devaluation and depopulation**. This stems from the isolation of Cergy-Pontoise from Greater Paris projects, from the ageing of the infrastructure and facilities (offices, retail), from the relocation of metropolitan activities to ex-industrial ground closer to the future stations of Grand Paris Express, and to the saturation of the transport network, especially the RER A. Heaviest transport line in Europe (in passenger numbers), the RER A links the East and West of the Paris region, carries 308 million passengers per year and experienced a 20% traffic growth in 10 years.

Major projects

GRAND CENTRE - In order to **reinforce the metropolitan weight of the agglomeration**, a study started in 2009 to define a project and a strategy for the evolution of the urban center. It involved three teams led by urban planning architects, : Devillers, Leclercq, Grumbach. In 2013, the CACP adopted Leclercq's PUR (Standard Urban Planning document) over a project area of 111 ha centered on the central slab and its 5.000 inhabitants. Some of the governing aims of the planning and development roadmap for 2015-2025 are:

- Creating **16 ha** of greenery
- **60 000m²** of higher education facilities
- Reorganising the soft modes network and valorizing public spaces (such as the Cergy-Préfecture interchange hub)
- Reinforcing the service sector via the creation of **3.000 new jobs and 45.000m²** of facilities (renovation or construction)
- Creating **3.000 new housing units** for 5.000 inhabitants
- **2500 m² small- and medium-scale retail** units at ground level
- A 15.000 m² extension of the 3 Fontaines mall (around the end of 2015)



In order to fulfill these aims, around **25ha of mutable property** were identified on and around the central slab. The Grand Centre project is defined within a larger 550ha territory in which major changes have already been launched or defined:

- **Caserne Bossut (17ha)** : 2500 housing units by 2030 and a 180-room student housing facility
- **Marjoberts Chauffours Neighborhoods**: pull down and relocate the 3M tower to build 1.100 housing units
- **Bus Rapid Transit link** between the Cergy-Préfecture and Pontoise train stations
- **Pontoise interchange hub** (strategic due to its connection, via train line H, to the 14, 15, 16 and 17 metro lines at Saint-Denis Pleyel, a future major interchange hub of Greater Paris)
- **Cergy II Habror**

Within the agglomeration :

- **Plaine des Linandes neighborhood (80 ha)** : 10 ha business parc, sports hub (Aren'Ice), urban parkland, 20.000m² retail, 1.500 housing units, nightlife center
- **Axe Majeur Horloge neighborhood**: Station hub «Pôle Gare» (2015-2017) and urban renewal
- ZAC projects (concerted planning areas) underway or planned for housing and/or business purposes (Closbilles, Hautiloise, Menucourt, Liesse, Neuville, Chaussée Puiseux, Demi-Lieue,...)

LÉGENDE :

La dalle

- Revaloriser l'espace public / 3 sillons suggérant les parcours principaux (étudiants, arts, commerces, tertiaire)
- Reactiver l'intensité urbaine de l'axe Mail des Cerclades/Grand place/Place de la Préfecture
- Aménager 3 places majeures
- Infiltrer le grand paysage sur la dalle (accroches)
- Requalifier les espaces publics

Les parcs

- Créer un parc linéaire sportif le long de l'A15
- Créer un parc de proximité (quartier des Marjoberts)

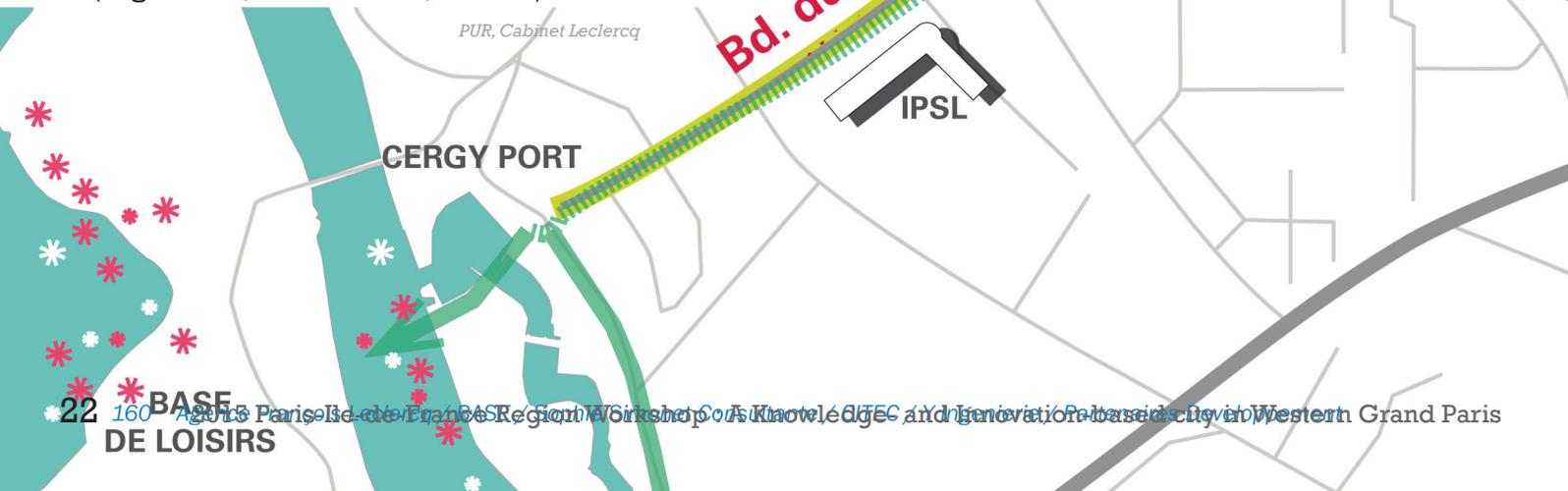
Les parcours

- Conserver les liaisons existantes
- Réaménager les sections problématiques
- Renover les passerelles, renforcer les liaisons avec les bd.
- Créer de nouvelles passerelles

Les boulevards (Bd du Port, bd de l'Oise, Bd de l'Hautil)

- Prolonger les pistes cyclables
- Créer un transport en commun en site propre
- Rendre confortable les circulations piétonnes
- Intensifier les liaisons piétonnes Dalle/Bd du Port/Equipements étudiants
- Renforcer caractère urbain des boulevards (alignement, cheminement, mobilier)

PUR, Cabinet Leclercq

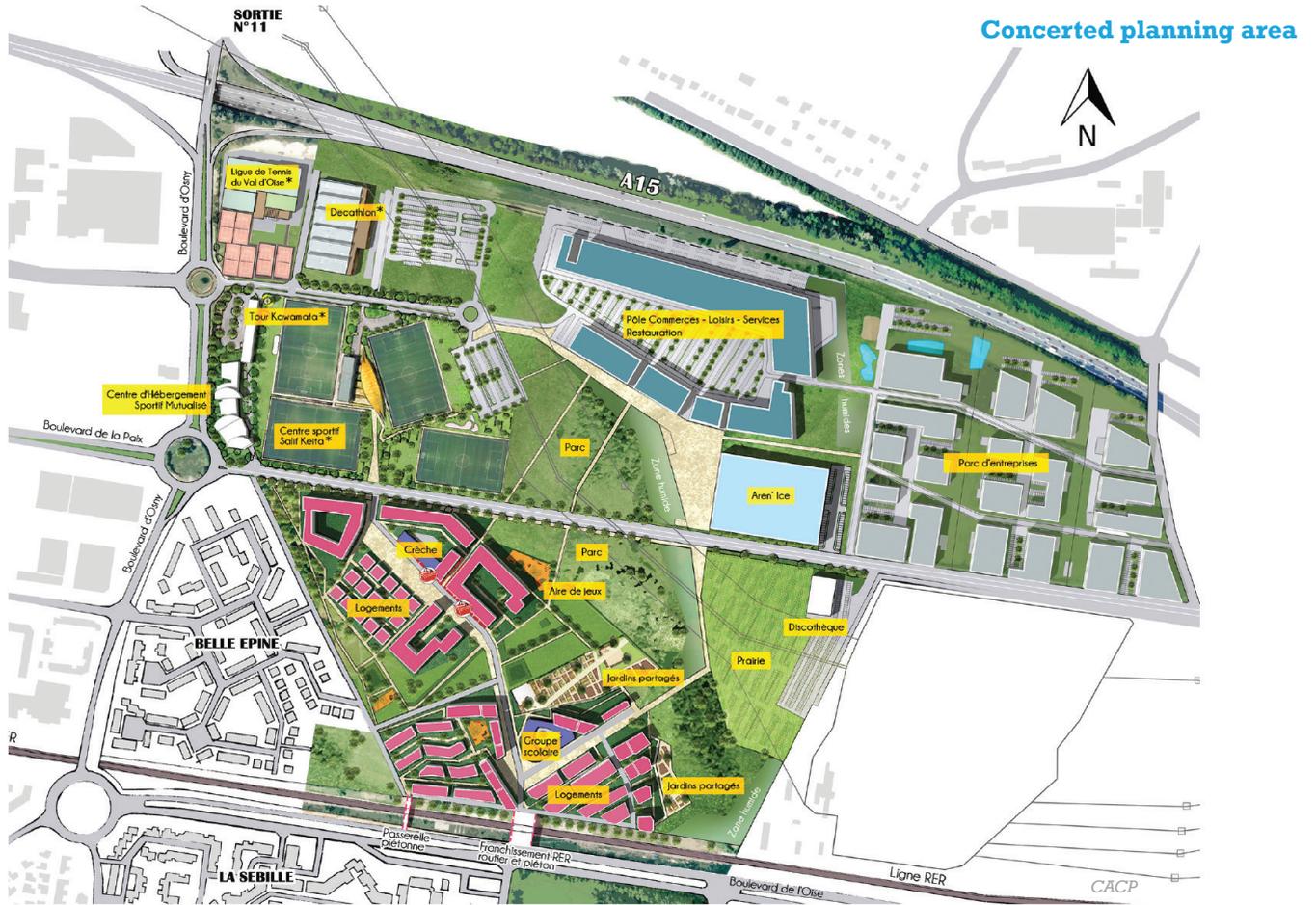


GRAND CENTRE

PLANNING AIMS



PLAINE DES LINANDES



CASERNE BOSSUT



Model of the Caserne Bossut project



A PROJECT HOTBED

Other Projects - In order to maintain the regional attractiveness and radiance of Cergy-Pontoise, local authorities have expressed a common will to create in the agglomeration: :

- **An Applied Sciences Institute:** built on two sites and featuring two new International Houses for Research. Said buildings should host international researchers (housing, congress center). The first site is in Neuville (opening in the fall 2015) and the second in Les Chênes.
- **An eco-city for innovation and entrepreneurship :** a new site, supported by the Val d'Oise county council and the Cergy-Pontoise agglomeration, should enable the creation of innovative startups and provide a meeting and networking space for stakeholders in the field of training, higher education, business and research. It stands to become a new tool for economic development that federates and structures a number of initiatives. Permeable to evolutions of the urban environment, the site would provide housing facilities and relevant services for entrepreneurs (IPHE, coworking, lifestyle, showroom...). A number of areas are on the shortlist: Hirsch grounds, Le Verger parking, IPSL Le Port.
- **A Fablab (200 to 300m²) :** the fablab project would provide a shared space for meeting and exchange between businesses, students and the general population. A proposed site is close to the Préfecture (Grand Centre neighborhood), and could let the city in via team workshops and workshops involving the surrounding school and leisure facilities
- **Telecenters :** around the main stations of the agglomeration.
- **An international university campus :** to bank on the attractiveness and radiance of the higher education hub of the agglomeration, the "international university campus" label draws together a number of functions and sites such as the Fablab, the innovating student housing units, business centers, culture- and sports facilities, student life premises... The campus project should revalorize the banks of the Oise river by promoting student appropriation..
- **Welcoming an engineering college (650 students)**

PROPERTY DEVELOPMENT: In order to welcome those new elements of the urban fabric, and pave the way for other future structures or services, a number of sites have been chosen. They can mostly be found around: :

A first axis along **RER line A** :

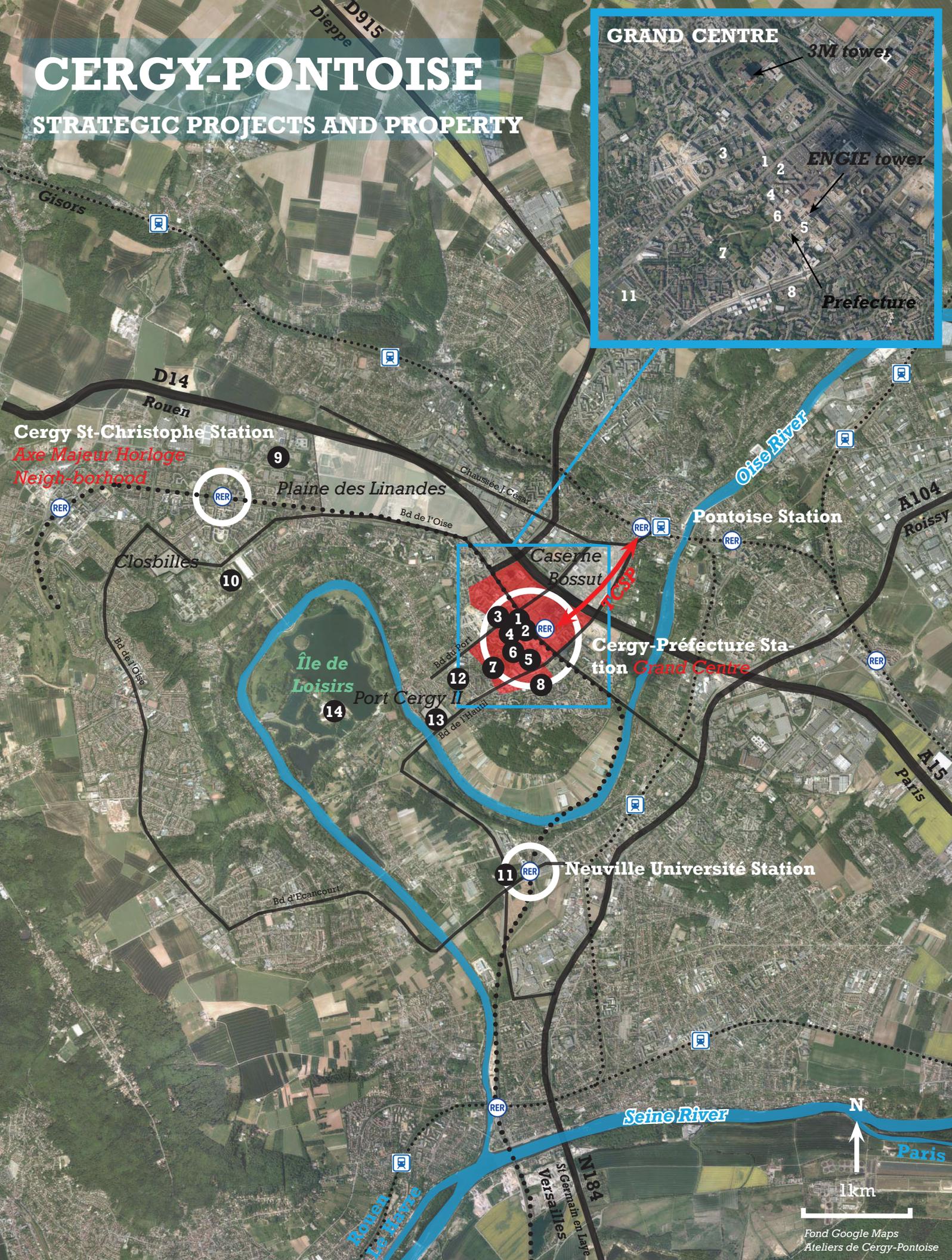
- **Cergy-Préfecture Station :** Etoile parking (1), Marché Neuf & Arcades parking (2), Chênes d'Or site (3), the ice rink which will move to the Plaine des Linandes site by 2017 (4), the old movie theater, closed since 2005 and considered as property reserves because of the cost and security issues associated to the building (5), the old Crédit Foncier property (6), the Parc university cafeteria (7), the ESPE, ex-IUFM grounds (8). **The main focus is on the continuity of urban paths, connection between the new sites and to the rest of the slap, valorization, visibility and finally on the animation of the neighborhood.** All these property development projects function as part of the Grand Centre agglomeration-level plan.
- **Cergy Saint-Christophe Station:** cluster composed of the COE (European Osteotherapy College), the EcoTech, the future CFA (Apprentice Training Facility) and the EBI (to be located in the old IUT building of Cergy Pontoise University) (9). It raises issues of reclassification for neighboring public spaces and of continuity for the motor and soft mode axes between Saint-Christophe Station and the Axe Majeur. We can also mention the land adjacent to the esplanade of Paris and SPIE Batignolles park (10).
- **Neuville Université Station:** isolated site composed of previous concerted planning area sites, of the CNCP (National Heritage Preservation Center), of the Louvre heritage site and the potential grounds on which to host the international university housing center (11). The economic development perspectives of this site question the future of the business nursery for the eco-city of innovation and entrepreneurship in the Grand Centre area, the associated animation of the neighborhood and the quality of nearby public space.

A second axis **close to the Oise river** :

- Banks of the Oise river: by the harbor especially, the abandoned buildings of IPSL (12) and the Port Cergy II project II (13) can use property reserves to valorize a territory on a privileged spot between the urban magnets of Grand Centre and Ile de Loisirs (Leisure Island)
- Ile de Loisirs (Leisure Island) (14): large nature and leisure area, underused between October and April.

CERGY-PONTOISE

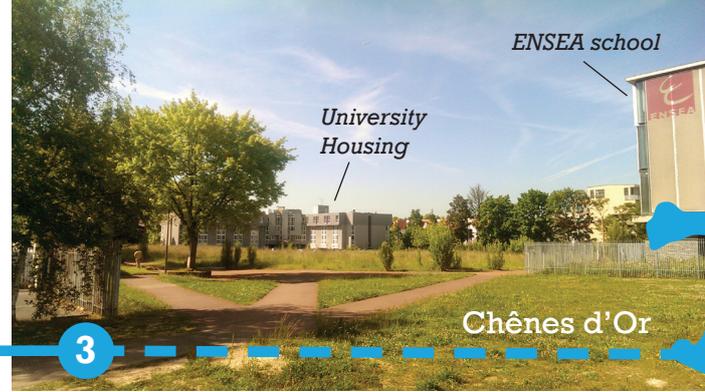
STRATEGIC PROJECTS AND PROPERTY





ENSEA school

(from the rear)



University Housing

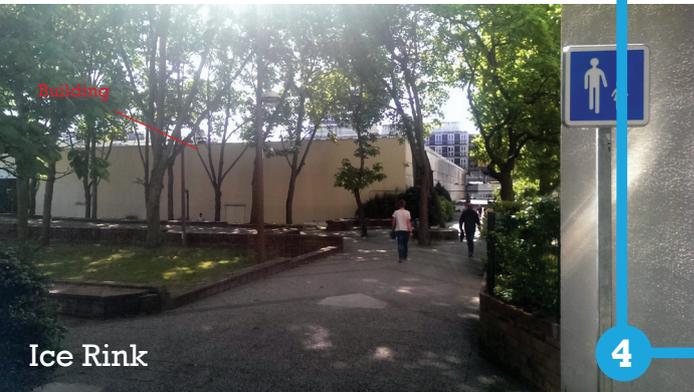
ENSEA school

Chênes d'Or



Chênes d'Or

3

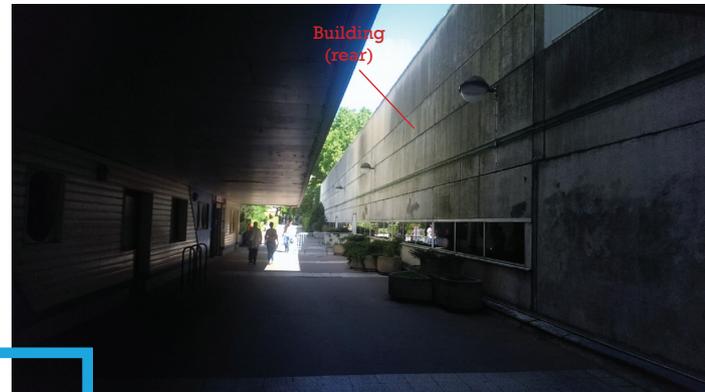


Building

Ice Rink



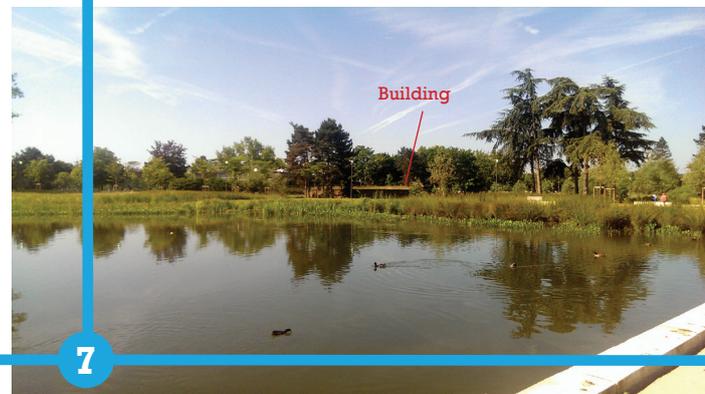
4



Building (rear)

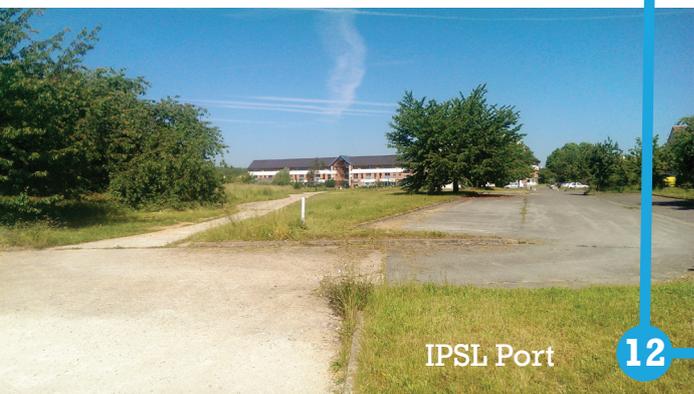


University Cafeteria



Building

7



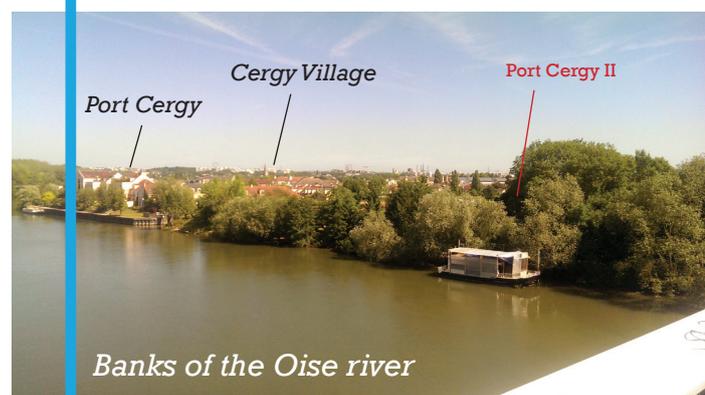
IPSL Port

12



13

Port Cergy II property reserves



Port Cergy

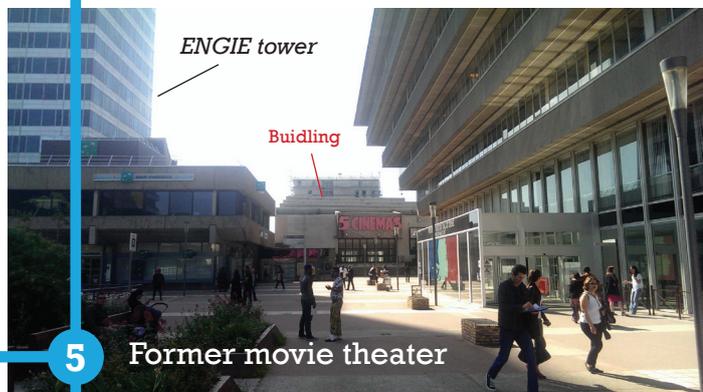
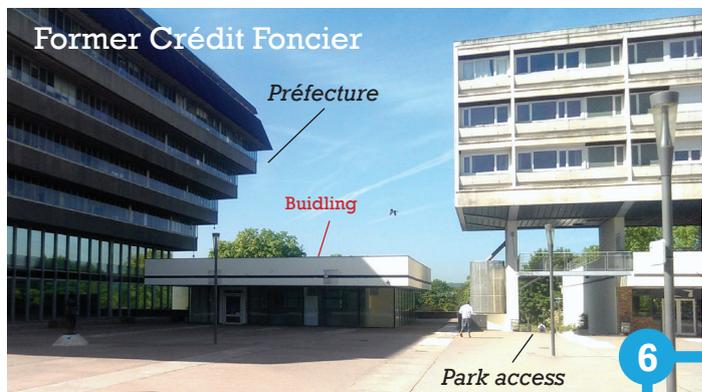
Cergy Village

Port Cergy II

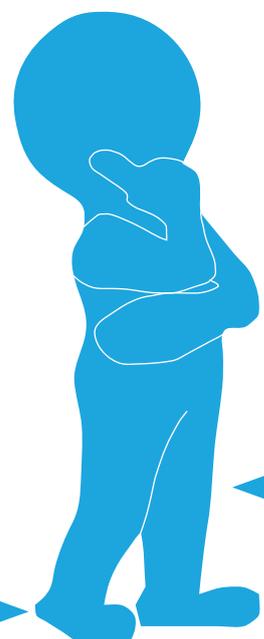
Banks of the Oise river

14

To Leisure Island

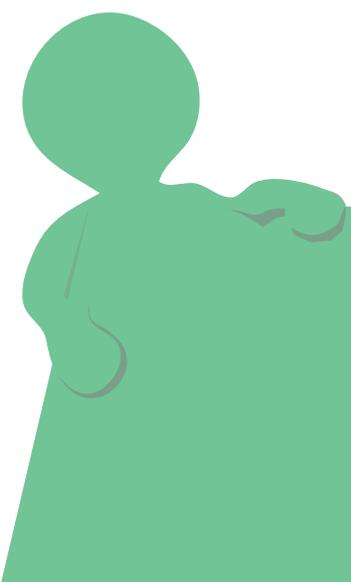


FOR WHOM IS THE KNOWLEDGE- AND INNOVATION-BASED CITY?



To the Cergy Forest

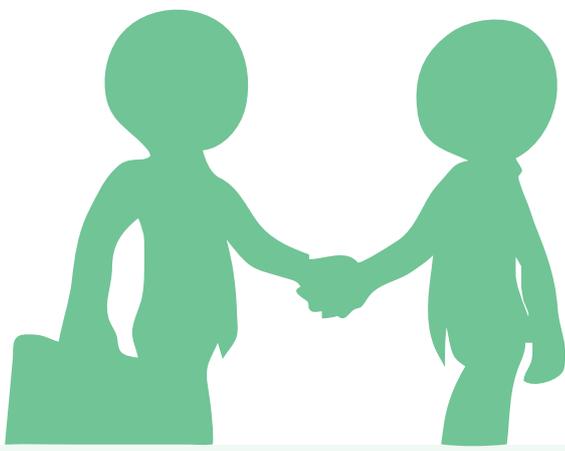




Cergy Grand Centre



Extrait du PUR, Cabinet Leclercq



2 BUILDING A KNOWLEDGE- AND INNOVATION-BASED CITY, FOR WHOM? BY WHOM? & WHY?



CERGY-PONTOISE :A LIVING CITY	32
BETWEEN METROPOLITAN AND LOCAL LIVING	34
A CITY CLOSE TO GREATER PARIS	35
A CITY THAT RADIATES WITHIN GREATER PARIS	37
CERGY-PONTOISE : A STUDENT CITY	38
A CAMPUS OF GREATER PARIS	38
CAMPUS AMENITIES	40
CERGY-PONTOISE : AN ENTREPRISING CITY	42
AN ECONOMIC HUB IN THE METROPOLITAN SYSTEM OF GREATER PARIS	42
INHABITANTS, STUDENTS AND BUSINESSES	44

GENERAL OVERVIEW

In order to define and build a knowledge- and innovation-based city, it is essential to **take its different users and stakeholders into consideration** - be they inhabitants or visitors, workers or jobless, students, researchers, investors or residents. Cergy-Pontoise is the study object for the 2015 summer school of International Urban Planning Workshop. We follow three leads to a global study of the territory, resources, functions and issues at hands: **a living city, a student city and an entreprising city**

In the first part, we covered access to the territory, the oncoming projects and the role of the area in a regional or metropolitan context. The second part of this report looks closer at **the geographical, urban and socio-economical situation of the territory.**

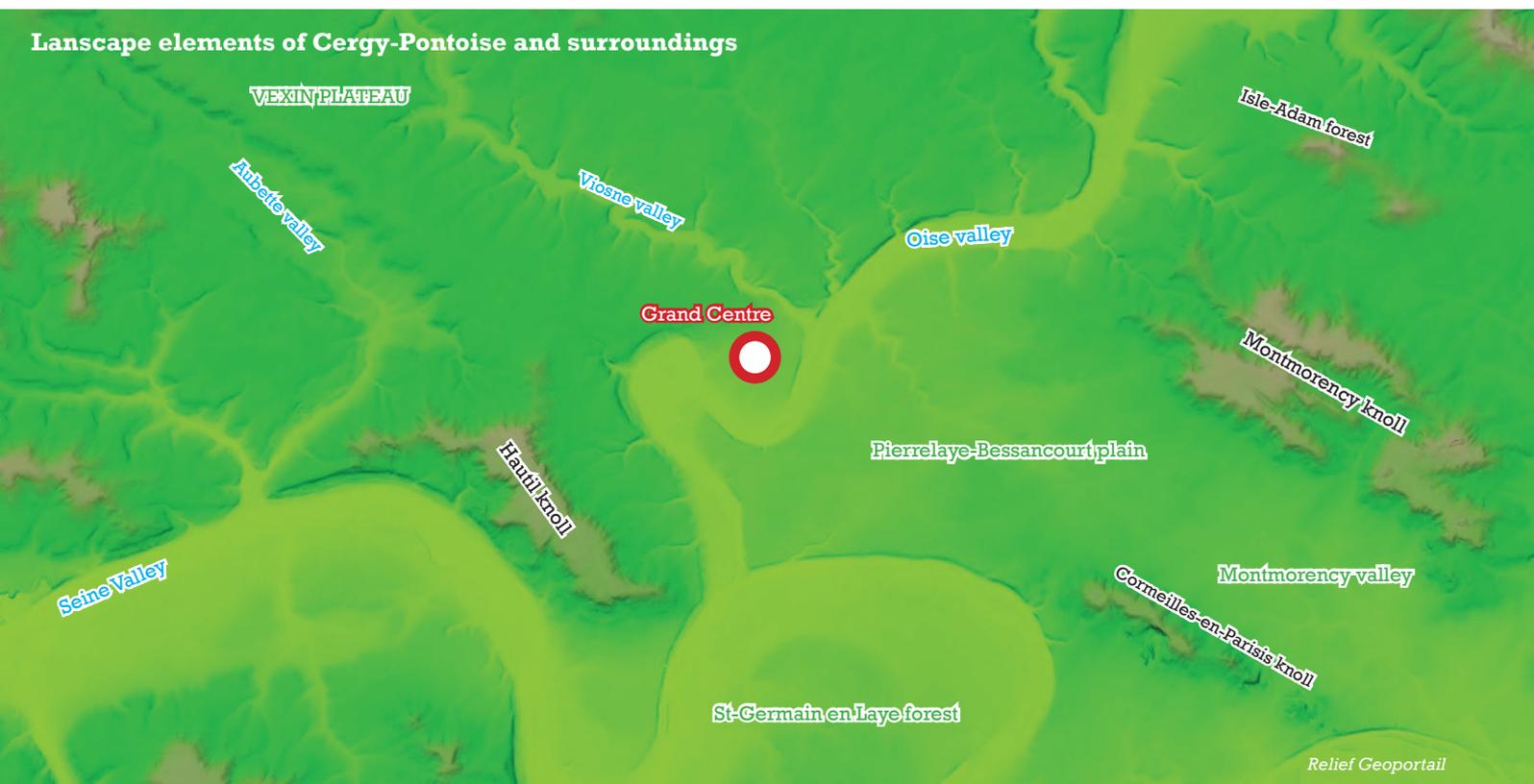
Landform - The Cergy-Pontoise agglomeration has been called a **landscape-city** for its interesting topography. It is centered around a curve in the Oise valley and is crossed by the Viosne river valley. The agglomeration owes part of its identity to specific landscape elements: *the Vexin plateau (North), the Hautil hill (Southwest), the Seine valley (South), the Pierrelaye-Bessancourt plain and the Pasiris and Montmorency knolls (East).*

Urban form - The Cergy-Pontoise agglomeration was founded as a new city. In the 60s, the territory was mainly agricultural. Urban growth took root in old villages and hamlets (the biggest of which Cergy, by the Oise river) and in the town of Pontoise ("Pont sur l'Oise", Bridge over the Oise, a crossing and trading point in roman and medieval times, with a road between Paris and Rouen that used to be the Jules César causeway and is now the A15 highway and the D14 road). Cergy-Pontoise is **as large as intramuros Paris** (87km²) but **a tenth of the density**, with 200.000 inhabitants instead of 2.250.000, 13 municipalities (compared to the 20 boroughs of Paris) and a density of 2.300 inhab/km² instead of 25.800 in the capital..

Housing - The housing property in Cergy-Pontoise is rather new (11% of "old" units) compared to other french cities. In 2011, the study area held around 77.860 housing units (94,6% primary residence units). Detached housing (houses) account for 40,6% of them, and collective housing for 58% (flats). 51,2% of inhabitants are homeowners and 47% rent. Around 30% are social housing units..

Priority neighborhoods - The law of January 1st, 2015 for "City planning and Urban cohesion" (politique de la ville) defined new geographical areas for intervention. Cergy-Pontoise includes **9 of these priority-intervention neighborhoods**. They are defined according to poverty, e.g. the concentration of inhabitants with resources below 60% of median income. Neighbourhoods Axe Majeur Horloge and Sébille benefit , under ANRU - *National Agency for Urban Renovation*, of specific funds to support and accelerate the redevelopment of neighborhoods (which should begin in the second half 2016).

Landscape elements of Cergy-Pontoise and surroundings



A LIVING CITY

CERGY-PONTOISE : A LIVING CITY

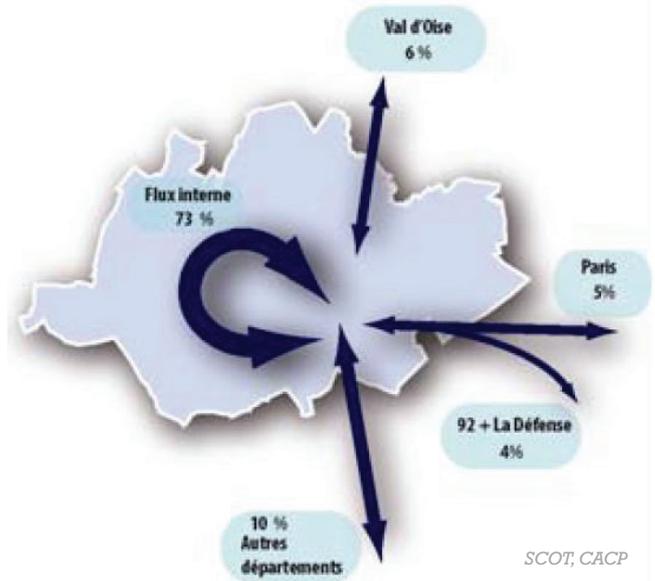
Between metropolitan and local living

In 2007, a Cergy-Pontoise inhabitant would make **3.9 average trips/day** (all purposes). Most of those were car-based (48%, for a 43% regional average), followed by walking and cycling (35% for 25% regional average) and finally PT (15% for 19% regional average). Out of all daily trips made by inhabitants, **3/4 take place within the agglomeration**.

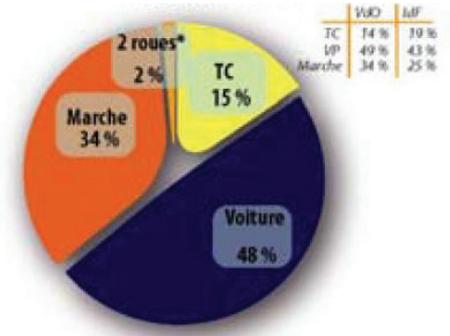
The clustering of urban services for leisure, practical needs, activities and higher education fosters a **decentralized, even polycentric development** of the Paris region.

The Cergy-Pontoise agglomeration is **self-standing and autonomous, with its own area of influence** over most of the Val d'Oise county and the north of Yvelines county.

Geographical situation of flows

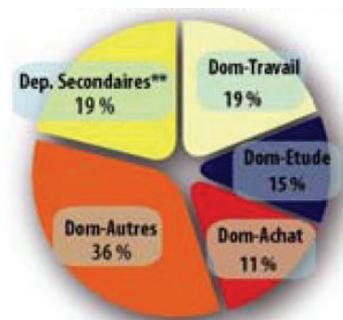


Modal split



* Le mode 2 roues inclue le vélo et le 2 roues motorisé

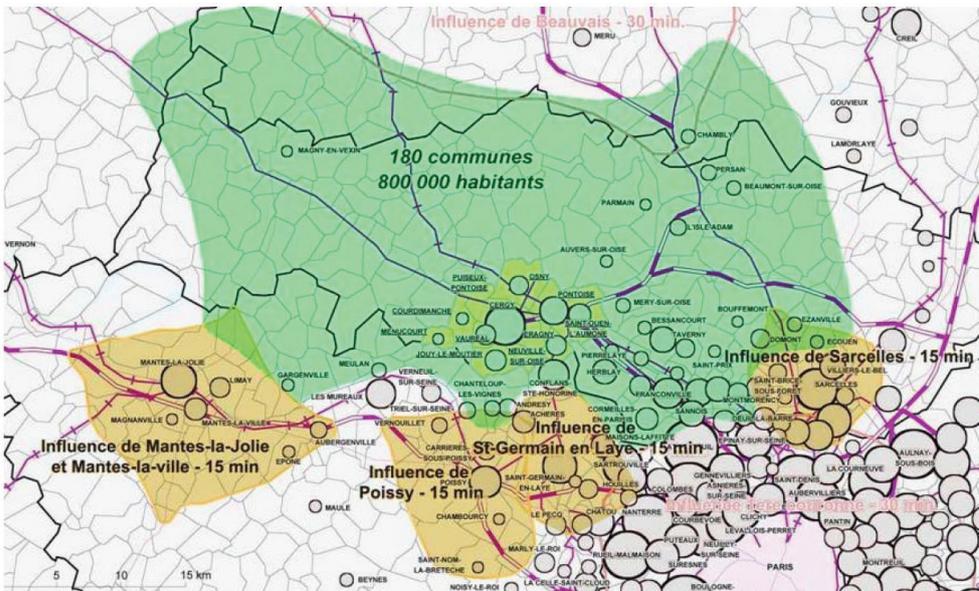
Trip purpose



** Déplacements ne passant pas par le domicile

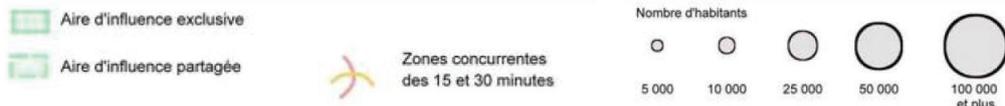
Sources : RG INSEE 2007
EMD VdO 2007 pour le VdO et EGT 2001 pour l'IdF

Area of Influence



Aires d'influence théorique

Population des communes de plus de 5 000 hab.

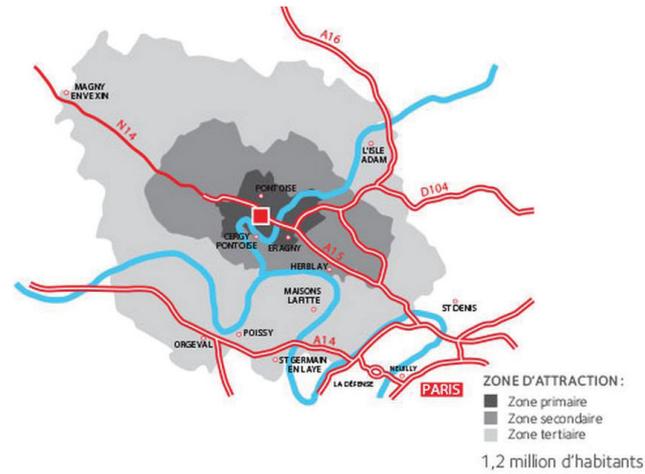


SCOT, CACP



PROXIMITIES

Customer Hinterland for the 3 Fontaines Mall



A city close to Greater Paris

Besides the stations and multimodal exchange hubs, the agglomeration can also count on a number of infrastructures that foster the development of attractive centers at a metropolitan and a local level.

Retail - 11% of trips have a shopping purpose. With 1.728 unis over 236.000m², retail is grouped around three major hubs along the axis of the A15/A14 and D915 roads, hubs which concentrate over half of the total supply:

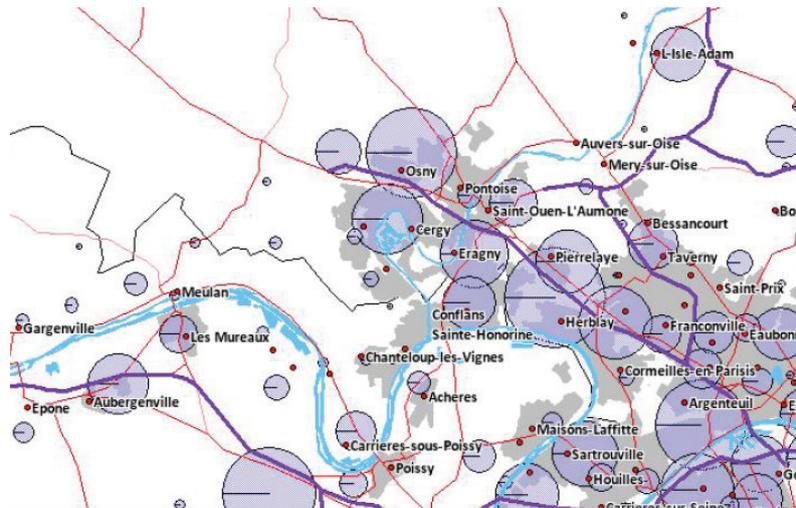
- **Cergy-Pontoise Grand Centre** offers 245 shops, most of which can be found within the 3 Fontaines regional mall (15 million visitors/year, a consumer base of 1,2 million inhabitants, 150 shops over 64.000m², very regular clientele with an average age of 31, 75% weekly frequency)
- **Oiseraie Retail Center** in Osny (65 shops)
- **Art de Vivre lifestyle mall** in Eragny (52 shops)

The agglomeration is situated within the catchment area of two commercial hubs: Herblay Patte D'Oie (between Cergy-Pontoise and Paris with a 1,5million customer base and 200 shops) and Plein Sud Vernouillet (90 shops).

Other retail centers are the 8 city-centers and 3 local malls of the agglomeration (Ville Haute and Ville Basse centers in Pontoise - 159 and 184 respective shops, St Ouen l'Aumône - 129 shops, Puiseux-Pontoise, Axe Majeur Horloge, Vauréal, Les Merisiers, La Challe, Croix St-Siméon).

At the local level, the neighborhood centers usually feature shops such as kiosks, bakeries, grocers, banks, a few service offices (doctors...) and socio-cultural facilities (neighborhood houses, LCR, social services, leisure centers) as well as primary school and higher school buildings.

Nearby retail hubs



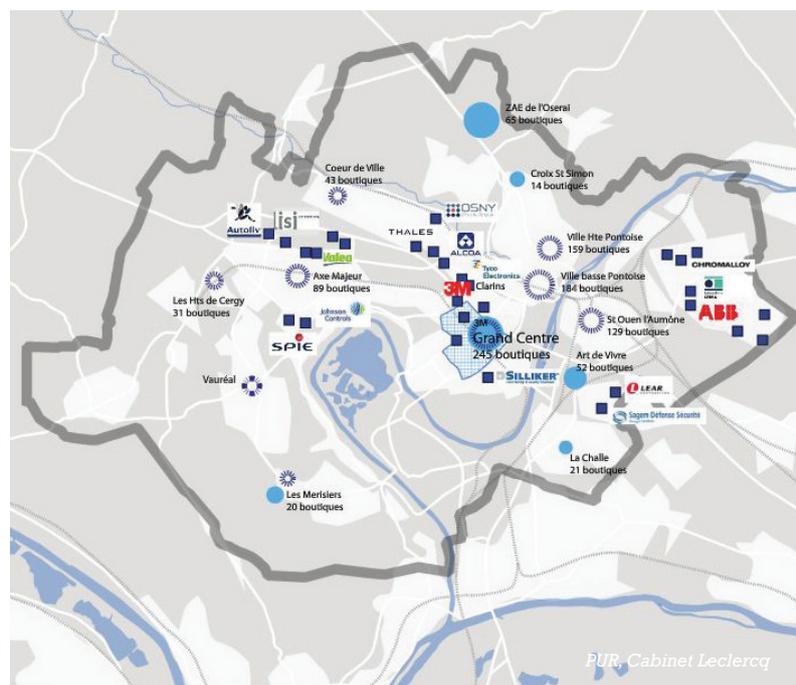
Surfaces de vente de plus de 300 m² à l'échelle communale

10 000
5 000
1 000

Source Surfddccr(f)s

SCOT, CACP

Local retail hubs and head offices



PUR, Cabinet Leclercq

Primary and secondary education - In the school year 2007/2008, there were about 22.500 students in 131 schools within the study area: 93 primary schools, 23 middle schools and 13 high schools. 3 of those high schools feature preparatory courses for business schools (Alfred Kastler in Cergy Grand Centre), scientific colleges (Camille Pissaro, Pontoise) and engineering colleges Jean Perrin, Saint Ouen l'Aumône).

Around 5.600 students are enrolled in an arts-oriented curriculum, for instance in Camille Claudel high school (Vauréal) or in the regionally famous Music Academy.

Libraries - In France, patronage of libraries doubled between 1989 and 2005, jumping from 23% to 43% (and 50% in 2010) while patronage of movie theaters and musea remained stable (50% and 33%). 72% French citizens aged 15 of older have been library patrons at least once. This growth stems from the multiplication of media libraries and the diversification of documentary resources (*Les bibliothèques municipales en France après le tournant Internet*, CREDOC 2007).

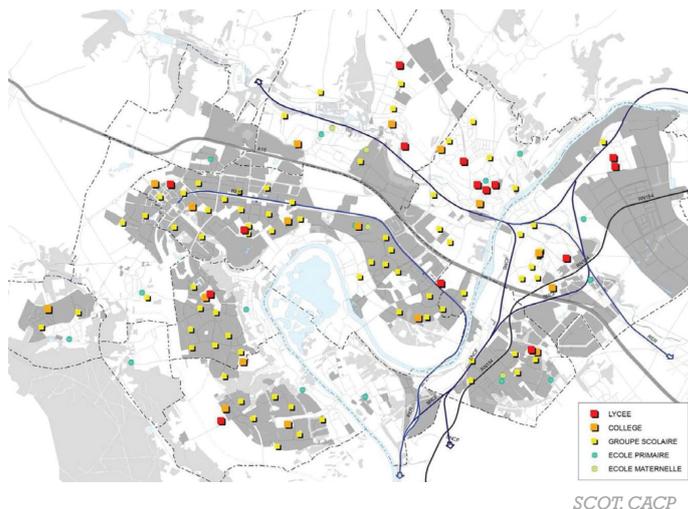
Libraries and media libraries are the most used of neighborhood public spaces. They keep evolving and reinventing themselves in order to attract a larger and more divers audience (via music lending, digital access, video games...) Cf. *Visages du Monde*.

The media network in Cergy Pontoise is made up of 15 libraries (16 in 2016), with a documentary resource of about 640.000 works. Furthermore, specialized associations such as the County Archives and school-based libraries add to this offer. In 2010, there were about 1,7 libraries per 10.000 inhabitants, which is a high average for the region. 6 out of the 11 municipal libraries were patronized at 99% by municipal or neighborhood readers.

Sports - 721 facilities are available in 273 sports sites, and about 300 associations cover 150 fields (8 swimming pools, 3 golf courses, 1 olympic ice rink, an horseracing arena, 29 stadiums, 40 sport-halls). The agglomeration owns one of the densest sports facilities network in the region (1 sports facility per 260 inhabitants). In 2005, inhabitants used them about 1,26 times/month (for a regional average of 0,74).

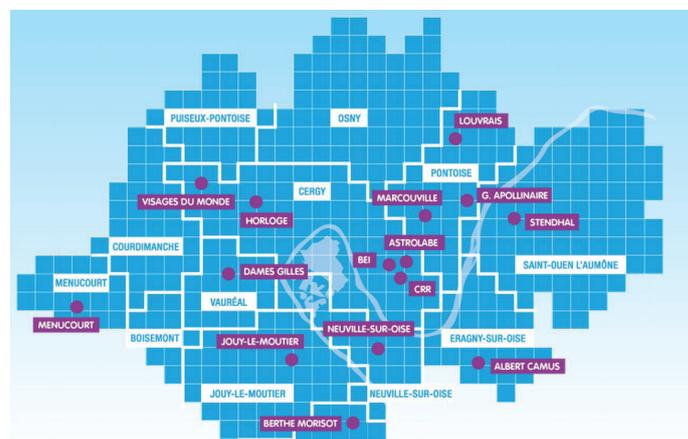
Construction work on the Aren'Ice started in 2015. The facility, within the sports hub of Plaine des Linandes, will offer a training and an olympic ice rink. The rinks can be converted in a show arena that seats 4.500. It will double the number of available seats in the large culture sites of the agglomeration (3.500 right now, so about 20 seats for 1.000 inhabitants).

Education facilities in Cergy-Pontoise



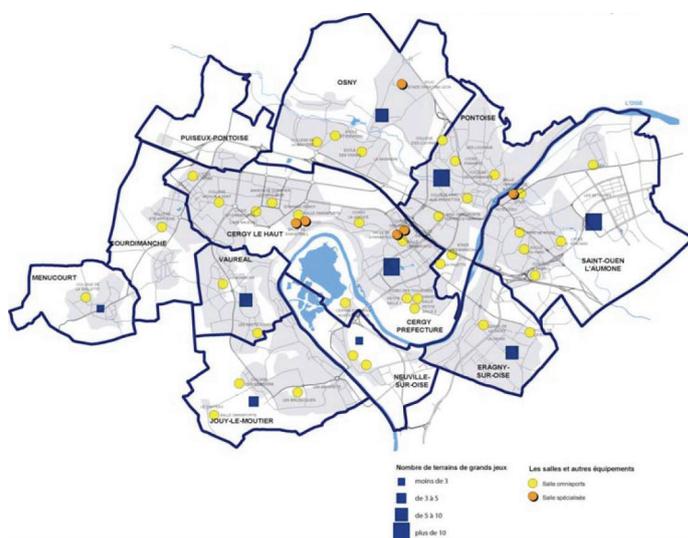
SCOT, CACP

Libraries in Cergy-Pontoise



CACP

Stadiums and sports halls in Cergy-Pontoise



SCOT, CACP

METROPOLITAN RADIANCE

A radiant city within Greater Paris

Arts and Leisure – There are 23 projection rooms in 4 movie theaters in the agglomeration: the UGC Multiplex in Cergy-le-Haut, the Utopia in Pontoise and the one in Saint Ouen l’Aumône, and the Antarès in Vauréal (nearby, there is a Pathé multiplex in Conflans Ste Honorine and the food courts and arcades of the ZAC des Boutries).

Furthermore, the agglomeration boasts 5 theaters (scène nationale de l’Apostrophe : Théâtre des Arts et Louvrais, Théâtre95, Théâtre St Vincent, Théâtre de l’Usine), 5 concert venues (Observatoire et Forum, 33Tour, Nautilus, CRR) and 5 show venues (Visages du Monde, Centre Culturel de Jouy le Moutier, l’Imprévu, le Dôme). Around 480 performances take place every year, as well as a number of festivals: : Festiv’Artère Publique (Festival Baroque in Pontoise, Jazz au fil de l’Oise, Piano Campus, Futur en Seine, Festival d’Auvers) and Cergy Soit every September.

Tourism and culture – L’agglomération compte des musées locaux sur l’impressionnisme (Tavet Delacour, Pissarro, William Thornley), d’arts contemporains (Maubuisson), d’arts visuels (Le Carreau) ou encore des espaces d’exposition (Hall St Martin).

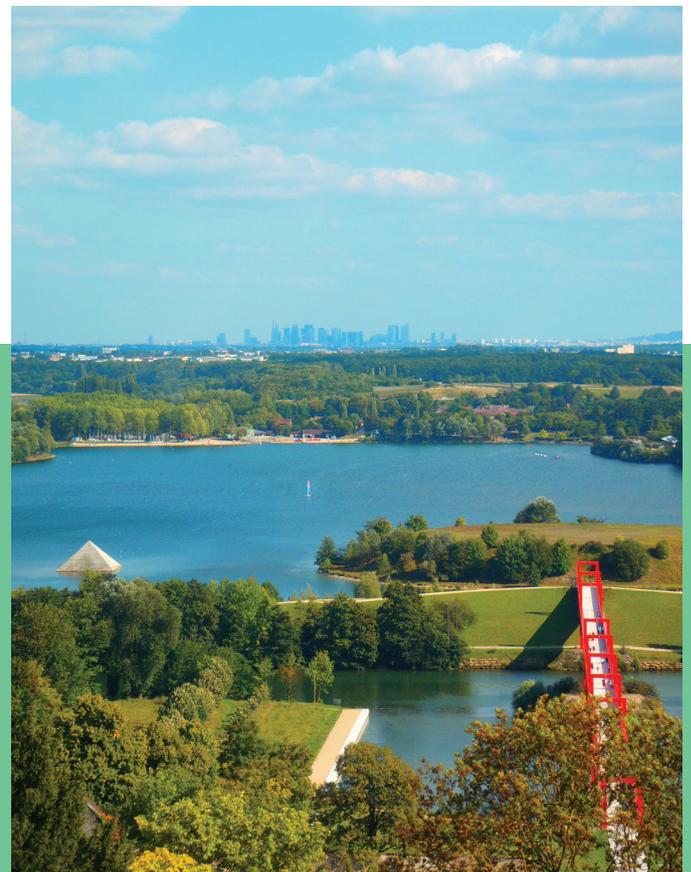
Some of the main assets of the study area are its (ancient and modern) urban heritage, its nature sites and landscape value, and its situation as a gateway to the Vexin Français Regional Natural Park (source: Office du Tourisme d’agglomération à Pontoise, banks of the Oise river).

There are a number of large parklands, nature sites and gardens to be found in the agglomeration. The most well-known are the historical center of Pontoise, the Axe Majeur and Port Cergy (2nd regional marina in size, lines with bars and restaurants). Also notable are the Hautil Forest, Cergy Woods, François Mitterrand Park, Pontoise City Gardens, 5 senses Garden, Grouchy castle grounds (42ha), Maubuisson abbey grounds (8ha), Le Nôtre Park (11ha), the Lieux Woods, the curve in the Oise river where it meets the Seine and near Auvers-sur-Oise (Human Rights garden, towpaths, orchards...).

In order to welcome tourists and visitors, there are 18 hotels in the study area, for a total of 1.325 rooms, as well as 13 bed and breakfasts (3 have the “Gîte de France” quality label). There are, however, no campings or youth hostels.

Leisure Island «Ile de Loisirs»

One of the major sites of the agglomeration is the Ile de Loisirs (former “Base de Loisirs”), literally “Leisure Island”, over 250ha (150ha water) in the heart of the agglomeration. In 2013, it drew a record number of 600.000 visitors. 38% of inhabitants in the region have heard of it. It offers a range of activities such as sailing, kayaking, paddleboats, a whitewater course, a canopy trail, waterskiing and a beach (5.000m2 swimming grounds).



A STUDENT CITY

A Campus city within Greater Paris

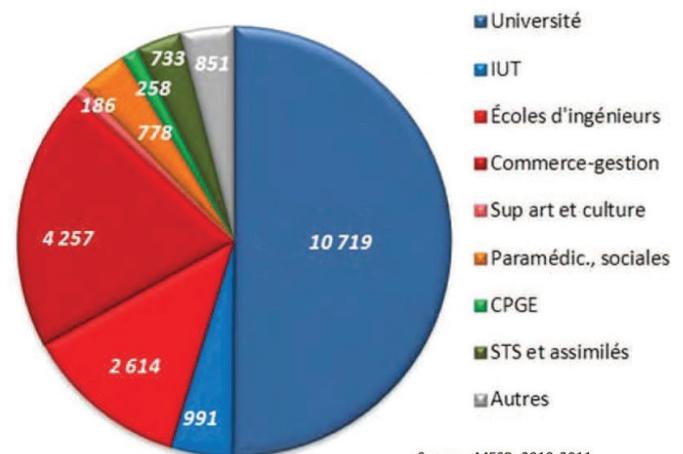
Primary, secondary and higher education facilities account for a quarter of the local population. Cergy-Pontoise is a major student hub within Greater Paris, hosting 27.000 students, 1.000 researchers, 14 higher education facilities (including 1 university, 1 business school, 5 engineering colleges and 1 arts college), 226 cross-field training curricula, 10 R&D centers, 23 labs (2 with the excellence label "LABEX"), 480 postgraduate students, 3 postgrad establishments, 650 engineers graduating per year, and 4.000 apprentices in 17 Apprentice Training Centers.

Higher education curricula can be found in 7 municipalities of the agglomeration, mostly in Cergy (138) and Pontoise (49). 133 curricula take 1 to 3 years (bachelor's equivalents), 94 take 4 to 5 years (master's equivalent).

The UCP (Cergy Pontoise University) and ESSEC account for respectively 13.000 and 5.000 students, and together represent two thirds of the total student population. They participate in the national and international fame of the campus, backed by other engineering schools (EISTI, EPMI, ENSEA, EBI). In 2012, the 1991-born UCP made it into the top 200 worldwide universities for mathematics training (Shanghai ratings). It offers 5 research curricula, 9 technical diplomas, and two other types of training (IPAC and ESPE for education). ESSEC, founded in 1973, has historically shaped the Cergy-Pontoise campus. It is the second best-rated business school in France. It seeks to widen its international and business impact and functions with two other campuses, one in Singapore and one in La Défense.

There are 250.000m2 devoted to higher education facilities, that function as a multi-site campus stitched within the city and essentially concentrated around the Grand Centre neighborhood. The campus holds 21.850 students and staff (a potential flow of 15.000 people/day from September to April). It should rise to 28.000 in 2018 (a potential daily flow of 19.000).

Enrolment in higher education facilities in Cergy-Pontoise



4 major sites:

- Les Chênes (8.400 people)
- Le Parc-Montalants (7.350 people)
- St Martin (4.250 people)
- Le Port (2.100 people)

Lesser sites dot the agglomeration :

- **Neuville** welcomes around 2.000 students
- **The Axe-Majeur-Horloge neighborhood** should soon host EBI (650-student engineering college currently located in Montalants neighborhood) in the former premises of the UCP by the European Osteopathy college (450 students). ITESCIA (1.500 apprentices in management and digital economy expertise) is present in two neighborhoods right now but should regroup on the St-Martin site in 2016.
- **The Veolia Campus** (Apprentice Training Center and Urban Environment Institute, 517 part-time students and 7.399 interns in 2011) A rather isolated but wonderfully situated facility, one of the 5 similar campuses in France, with 5 others in Europe, 2 in Asia, 1 in North-America and 1 in Africa.



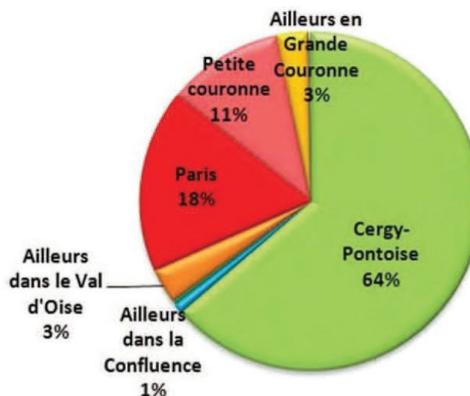
STUDENT PERFIL

Cergy-Pontoise students in the region

Enrolment area - Of all the students enrolled in one of the higher education facilities of the agglomeration (around 21.500), 82,2% are between 18 and 24, 9,3% between 25 and 29, and 5,7% over 30. More than half live in Val d'Oise county, 37% within the CACP, and 95% of students of CACP establishments live in the region (25% in Val d'Oise, 16% in the Yvelines county, 10% in Paris and 9% in the inner suburban ring). The rest live in Picardie or Haute-Normandie regions. **Of all the students residing in the agglomeration, 36% study in some other location** (around 5.000 students), mostly in Paris (18%) and the first ring (11%).

Open to the world - The student population includes 15 to 20% of foreigners, with an extra 250 foreign lecturers in residence every year. This was made possible by 754 exchange programs with 194 countries (ERASMUS equivalents) and 50 student associations handling projects abroad.

Study location of Cergy-Pontoise population

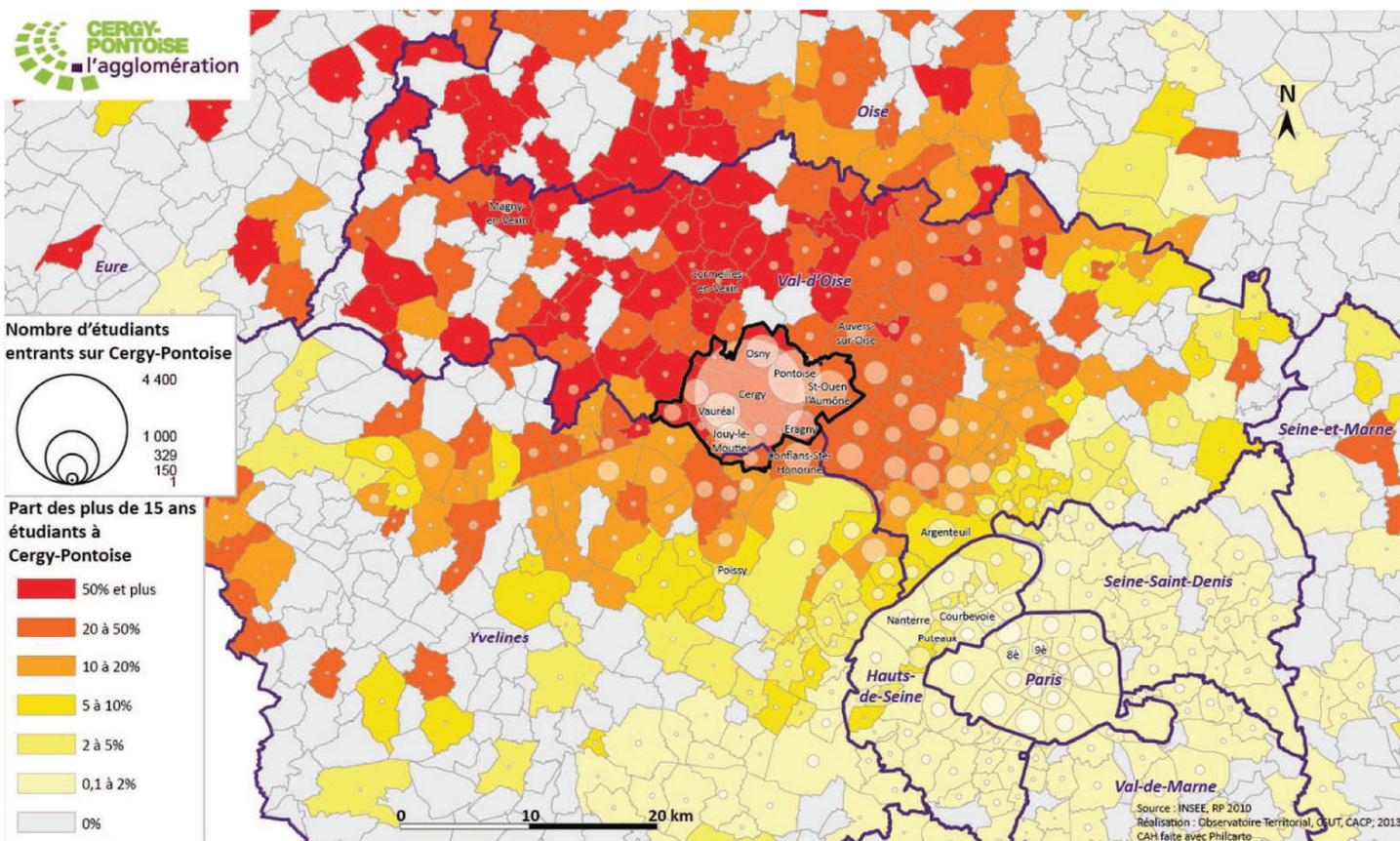


Living situation of Cergy-Pontoise students



Source : INSEE, RP 2010

Origin of higher education students enrolling in Cergy-Pontoise



VILLE CAMPUS

CAMPUS AMENITIES

Specific services

Housing – 60% of all students live with their parents, and 90% seem happy with that arrangement. Other students (“separates”) live in standard private housing (25%, with prices ranging from 400 to 600€) or student housing (15%). Flatshares and houseshares are the main housing structure for separates (45% of them, with 73% in private properties and 50% in four-room housing or larger).

Cergy-Pontoise offers 17 student housing solutions per 100 students (national average is 11%), which amounts to 4.495 beds in 24 student residences most of them in the Cergy municipality. 30% are managed by the public entity CROUS, 70% by a private entity (4 by ESSEC Business School, 1 by IPSI, 6 by private companies). The average price of student housing is 290€ for CROUS beds and 450€ for private offers. Most of the solutions are one-room apartments (59% of CROUS properties, which also has 27% private rooms in shared spaces, and 70% of private properties). The offer should be enlarged by the housing projects in Closbilles (143 beds), Caserne Bossut (180) and Grand Centre neighborhood (540). Another housing solution for students are the 5 Young Workers’ Home (for part-time students, apprentices, post-grads...), where they can occupy up to 25% of the 629 beds.

Libraries – Libraries in the agglomeration offer 1 seat for 8,26 students. This includes the aforementioned municipal library network, but also the 6.000m² University Library in Grand Centre with 700 seats (Cerclades). Furthermore, the education facilities have libraries and documentary sources of their own (UCP, ESSEC, Arts College, EISTI, IPSL.)

Sports – Students can use public and private facilities for sports, and furthermore gave access to a more specialized site (Maradas) with a stadium for rugby, track and soccer, an all-sports gymnasium and the ILEPS 7.000m² complex (sports hall, fitness center, 2 dance halls, a judo area, a gymnastics area, squash fields). Some colleges also have their own sports facilities (under the Chênes bridge, for instance).

Food – 56% of students on the main university sites can get food in dedicated facilities. The Grand Centre neighborhood offers seating for 1.441 in three CROUS sites: 34% in St-Martin, 15% in Chênes and 51% in Park. ESSEC has a 500 seat cafeteria. IPSL has two food vendors with seating for 300. This is supplemented by cafeterias (Chênes, ESSEC), associative networks (sandwich sales in ESSEC and ENSEA), and Social Catering Facilities (ESR, with microwaves). In 2012, however, a study by PH Partners pointed out that certain facilities were paradoxically underused (low awareness of the St-Martin facility, poor image and low awareness of the Park facility). Others are over capacity (the Chênes facility cannot supply enough food for the demand, and nearby ENSEA has no catering solutions). The institutional catering facilities can only fulfill 23% of theoretical daily demand (and 11% of total needs).

75% of student housing facilities in the agglomeration offer cooking equipment, and 23% of students eat at home, shopping for groceries at the 3 Fontaines Mall. The 35 food stores of 3 Fontaines (seating for 1.000) and of the Grand Centre neighborhood (Square Columbia, Place des Fontaines, Rue des Italiens, ESSEC plaza), welcome about 21% of the student population on a regular basis. 64% students choose fast-food (82% of Chênes students and 35% of Port students). 36% go to traditional restaurants (65% Park students and 48% St-Martin students). The average cost for those meals is 9€ (3,15€ in a CROUS cafeteria), and only Flunch offers student discounts. Students express the need for well-priced, high-quality, diverse food options. (Consultation Grand Centre, 2013).

Catering facilities have a much bigger clientele for lunch than for dinner. The Port (harbor) neighborhood fares better, with 11 restaurants and seating for 600 (average price 12€). In Grand Centre, only Sullivan pub and the City Rock bar draw an evening clientele. However, 30% of students stay overnight in Grand Centre housing, which means evening catering could attract a potential customer base of 1.800. There is a need for mixed-use, smaller-scale, adapted restaurants which offer both food and culture. (PH Partners).

VIE ÉTUDIANTE

Student living, urban living

In 2015, two separate evaluations (QS Ranking and Educpros) paradoxically ranked Paris **1st student city internationally, and 13th nicest student city nationally**.

QS Ranking distinguishes Paris, for the third year in a row, ahead of Melbourne, London and 113 other cities. It bases its ranking on 18 indicators including the notation of city universities, the diversity of the student population, life quality, attractiveness, reputation of universities amongst headhunters, and the cost of living.

Educpros looks at 40 national cities. The top three since 2009 are Toulouse, Montpellier and Grenoble (in 2009, Paris was ranked 9th). It bases its ranking on 4 criteria, which put Paris at the 29th, 40th, 1st and 8th place:

- Student life (events, culture, sports, welcome, facilities, success rate)
- Quality of life (transportation, housing, environment)
- Training (percentage of foreign students, success rate, evolution of the number of students over ten years, international impact)
- Jobs (diploma redundancy, finding work)

This **raises a number of questions concerning the scale at which to evaluate universities**, and the role of universities outside of Paris proper. It also underlines the strong ties between student life, economic life and the territory.

Local life – For students, the choice of where to live depends on the cost of living (housing, food), the location of their training site, but also on **local amenities**, leisure possibilities (events, sports, shopping, the look and feel of public space) and social space outside of the university.

In 2013, during the Grand Centre public concertation process, 40% of students who lived in Paris underlined the abovementioned criteria. **According to 70% of students, there was little to no student life in Cergy-Pontoise**. 65% of them travelled to Paris or to other parts of the region for their weekend outings, more than chose the Grand Centre, other Cergy neighborhoods or the Vexin National Park. The attractive spaces in Grand Centre are the 3 Fontaines Mall, the university premises and the parks. 75% expressed interest in a student house with mixed profiles from different universities (however, only 22% say they regularly hang out with students from other universities). The student panel (85% of which lived outside of the agglomeration before coming to study in Cergy-Pontoise) mostly think of their **campus as a temporary living or studying site (70%)**. 21% underline that they will only stay in the agglomeration if offered an interesting career opportunity.

AN ENTREPRISING CITY

CERGY-PONTOISE: AN ENTREPRISING CITY

There are 9.000 companies and 90.000 jobs in the agglomeration. Around 800 companies are founded every year (for every 2 that close, 3 emerge). 12% of all regional projects selected as part of the Interministerial Unique Fund (FUI) between 2006 and 2012 featured at least one lab or company from the agglomeration.

AN ECONOMIC HUB OF THE METROPOLITAN SYSTEM

The Val d'Oise is a major regional logistics hub thanks to Roissy and to Vert Galant (Saint Ouen l'Aumône), one of the largest business parks in Ile-de-France.

Like other parts of the Paris metropolis, Cergy-Pontoise can boast a rich economic weave that threads together a number of activity domains and every step of the value creation chain. Still, a few fields are especially productive. The agglomeration is part of 5 Ile-de-France and Normandy competitiveness clusters (System@tic, Mov'eo, Cap Digital, Astech, Cospemic Valley) in the fields of:

- automobile and aeronautics: 6.000 jobs, 100 companies, 200 researchers, 30 professional training curricula

- digital technology: 11.000 jobs, 700 companies, 100 researchers, 15 professional training curricula

- bio-technologies and -materials: UCP physics, chemistry and biology labs, IMI (Institute for Materials Innovation), IRCGN (Institute for Criminology and National Policing)

- green mobility: 6.000 jobs, 100 companies, 1.100 researchers and engineers

- health and cosmetics: 200 companies and 1.500 jobs

Companies

Local economic stakeholders – 84% of companies settled on the territory are TPEs (very small companies), 13% are PME/PMIs (Small to medium companies/industries), 3% large firms (accounting for 48% of private job provision in 2012).

Some of the major French firms settled in the territory are : Sagem, Renault, Thales, Clarins, Peugeot, Spie, CIC, Valeo, Louis Vuitton, Sisley, la Caisse d'Epargne, Groupama et St Gobain. Large foreign firms also settled in the agglomeration : ABB, 3M, Goodrich, Huawei Technologies, Johnson Controls, BP-France, ACNielsen, Yamaha France, Nintendo, Bandai, Hyundai, Mitsubishi Motors, Nike, Imation, SC Johnson,...

Also significant are a number of logistics firms: GEFCO, Calberson, Géodis, DHL, UPS, Chronopost International, Mory Team, Wincanton,...

Small to medium companies work in fields ranging from chemistry to electromechanics, network engineering, telecommunications... some are internationally reknown, such as La Cornue, which manufactures luxury stoves and furnaces, Papiers Jean Rouget, and Société Online (web publishing and design).

Business parks - Most of the above are settled in fifteen business parks (5 more are underway) that account for 23% of the job provision, with 1.400 companies and 23.000 employees. They cover 15% of the territory and feature mixed-used buildings, service centers, research and development centers, production units and logistics units.

Despite the aging of the business parks and a 10,5% vacancy rate, Cergy-Pontoise experienced in 2014 a growth in office property development, for the third year in a row. 90ha were put on the market, fulfilling a demand for 135.600m² (112.000m² before that). This was driven, at 70%, by a demand for mixed-used office and activity sites (in second place, for storage and pure office property). Demand grew 36% (20% regional average).

Demand was driven by:

- New property (22%)

- Influx of firms from other territories (50%)

- New companies (16%)

Those numbers are in line with the trend of the past five years, and distinguish Cergy-Pontoise as one of the most dynamic hubs of the Ile-de-France region. There should be bright perspectives ahead, with the creation of a mixed business park on the Plaine des Linandes (35.000m²), two logistics units (70.000m²) and the large-scale new property development for services planned in Grand Centre neighborhood (17.000m²). The competitiveness of the area is further driven by the growth of e-commerce and the rapid increase of housing and office rent prices in Paris and the first suburban ring.

INNOVATIONS

INHABITANTS, STUDENTS, ENTREPRENEURS

Professional insertion

Professional insertion could mean finding a very first job, recruiting coworkers, managing careers, creating or taking over an activity, ongoing training, professional reconversion or lifelong learning.

In 2011/2012, the third national enquiry on students' professional insertion rated that of graduates in Law, Economy and Management at 95% (10th/66), that of graduates in Science, Technology and Health at 94% (19th/66), that of graduates in Humanities, Arts and Linguistics at 74% (25th/66), and that of graduates in Social Sciences at 90% (18th/66). 60% of ESSEC Business School students landed their first job before graduation (and 95% in the six months after graduation).

Interactions between the business world and the world of education are shaped by a number of events: speed meetings, on-site recruiting sessions in higher education premises, research and innovation week, job fora... They are also spurred on by structures or entities that draw both worlds together via territorial initiatives (SATT IdF Innov, Initiative 95...). Finally, a third way is to make the business world more accessible and support students or inhabitants in their search for a summer job, an internship (CIJ), or the definition of their career plan.

In the year 2012/2013, 3.600 Cergy-Pontoise students followed an initiation course to entrepreneurship (10% of all students out of 60 curricula). Courses relied on interventions from, and meetings with, business world stakeholders, discussion fora and creativity competitions to valorize new ideas and entreprising spirits.

Innovation : projects, startups and value creation

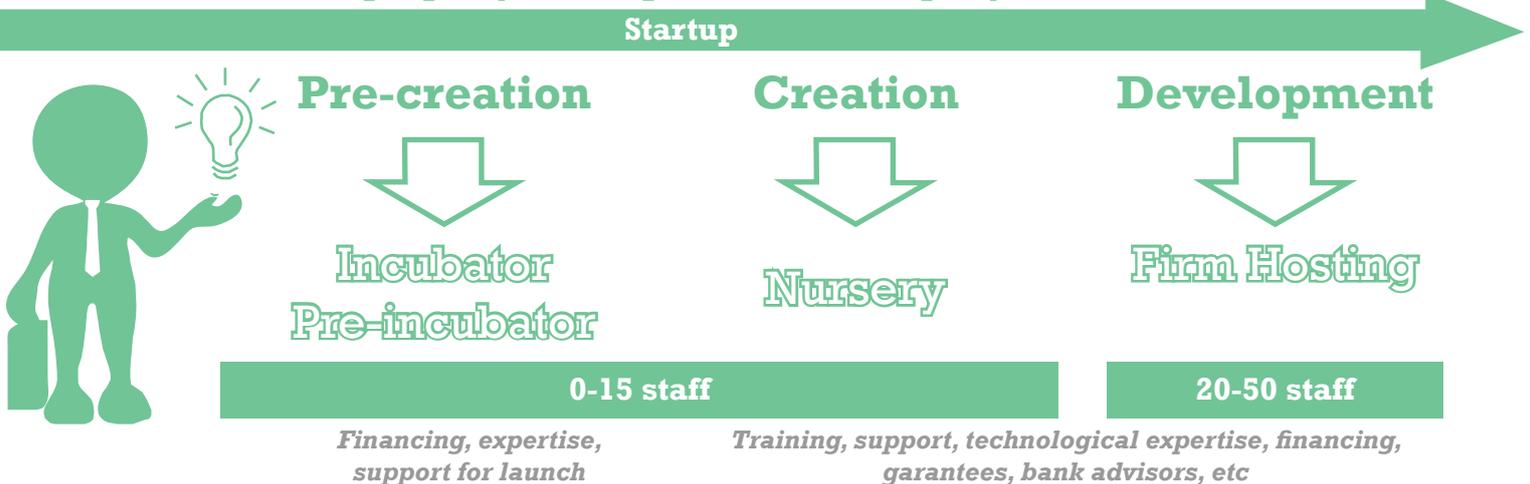
In 2014 alone, 10.453 startups sprang to life in the Val d'Oise county (there were 9.691 in 2011). Auto-entrepreneurs account for half of these, and 80% of all individual startups. In 2011, an ACCET-led study that looked at the emergence of a green city for innovation and entrepreneurship estimated that 600 projects could use some form of support. It underlined their **“strong potential, due to the diversity of stakeholders and the presence of a high quality higher education campus in the heart of Cergy-Pontoise, which makes it a unique example of a campus-city.”**

Today, in order to support, hasten and enable projects for value creation in the fields of finance, arts and startup initiatives (internal or external to the agglomeration), Cergy-Pontoise offers:

- **3 pre-incubators and incubators:** Val d'Oise Incubation, Neuvitec 95 and ESSEC (Antropia and ESSEC Venture)
- **3 nurseries :** Confluence Port Parallèle, Neuvitec 95, ACCET Val d'Oise Technopole
- **3 firm hosting sites:** Ateliers de Chennevières, Château d'Epluches, Cour des Arts

However, since the firm hosting sites are limited in capacity, few of the emerging activities settle in the Val d'Oise county.

Mechanisms for property development and company services



From an ACCET document

LOOK INTO :

Reflecting upon Cergy Pontoise as a knowledge- and innovation-based city means looking into:

- **RELATIONSHIPS** between companies (within business parks or monofunctional isolated facilities) and other users, other spaces for urban life and mixity,
- **PROJECT SUPPORT** : encourage and foster innovation, support project leaders, enable the optimal development process of a firm until it settles and attracts other initiatives and companies,
- **ANIMATING THE TERRITORY** and compensating the underuse of campus sites during the low-demand periods such as weekends, school vacations, and summer vacations (May to September),
- **APPROPRIATION** of the territory by students and workers who live and/or work therein; going further, appropriation of the work- and study- spaces by local inhabitants who, unmoved by get-together events such as Winter University or Campus Day, relying on their easy access to other urban amenities, sometimes consciously avoid crossing / passing higher education premises on their routes through the city.

This calls for **OPEN AND VISIBLE SPACES THAT FOSTER EXPERIMENTATION, INTERACTION AND SOCIABILITY** “with and between” people and/or moral entities (inhabitants, local authorities, associations, firms, students, researchers, schools and universities).

They would encourage greater democracy in the higher education process, support popular learning, strengthen social cohesion, ground the importance of the territory (especially in “priority neighborhoods”), and, finally, work towards value creation and collective innovation.

Social and territory-specific innovation

Social solidarity economy - Actors of the social solidarity economy can be mutual funds, associations, coops, foundations, etc., whose common goal is to uphold value principles that align the need of individuals with those of businesses, and reconcile economic growth with social justice and equity. **500 of those establishments can be found in Cergy-Pontoise**, accounting for **4.800 jobs** (6% of workers in the agglomeration), in fields such as catering, individual assistance, training, the environment, culture, fair trade, etc.

A number of dedicated structures were set up to support SSE stakeholders (ADESS 95, Antropia, Confluences - Port Parallèle, Initiative 95...) and encourage the growth of this enterprise. They promote social innovation, valorize and throw bridges between stakeholders within the territory.

Corporate social responsibility

The corporate and training environment offers a number of assets on which to build a positive image of the territory. Firms and higher education providers are core stakeholders and directly contribute to the evolution of their chosen territory.

FIRMS - Firms contribute to the attractiveness and the dynamism of their territory through economic impact, international networks, job provision, and **associated housing demand**.

HIGHER EDUCATION PREMISES - Higher education providers and student associations are an as yet underused resource that **bring life to the city** through cultural offers (Pass Open Campus, for instance), sports events, urban, festive or cultural happenings, and various projects or initiatives led by the student body. Education facilities further **contribute to the radiance of a territory** with the attractiveness of reknown research teams and laboratories or quality training curricula.

HOW TO ENABLE SERENDIPITY?

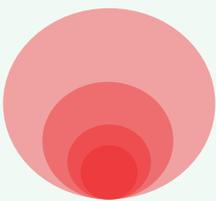
HOW CAN THE SHAPE OF THE CITY TAKE INTO ACCOUNT IDEAS OF STABILITY, OF TIME, OF RESOURCES AND CONFIDENCE?

WHAT KIND OF AN URBAN PHENOMENON WOULD FOSTER INTERACTION, ENCOURAGE CREATIVITY, GIVE A PUSH TO ENTREPRISE AND INNOVATION?

GRAND CENTRE



Fond Google Maps
Ateliers de Cergy-Pontoise



*Urban areas of attraction
(to be strengthened, according to Cergy-Pontoise SCOT documents)*



*Higher education facility
Planned higher education facility
Student housing
Planned student housing*

L'Horloge Park

Office and/or retail areas

Axe Majeur

Parkland for leisure

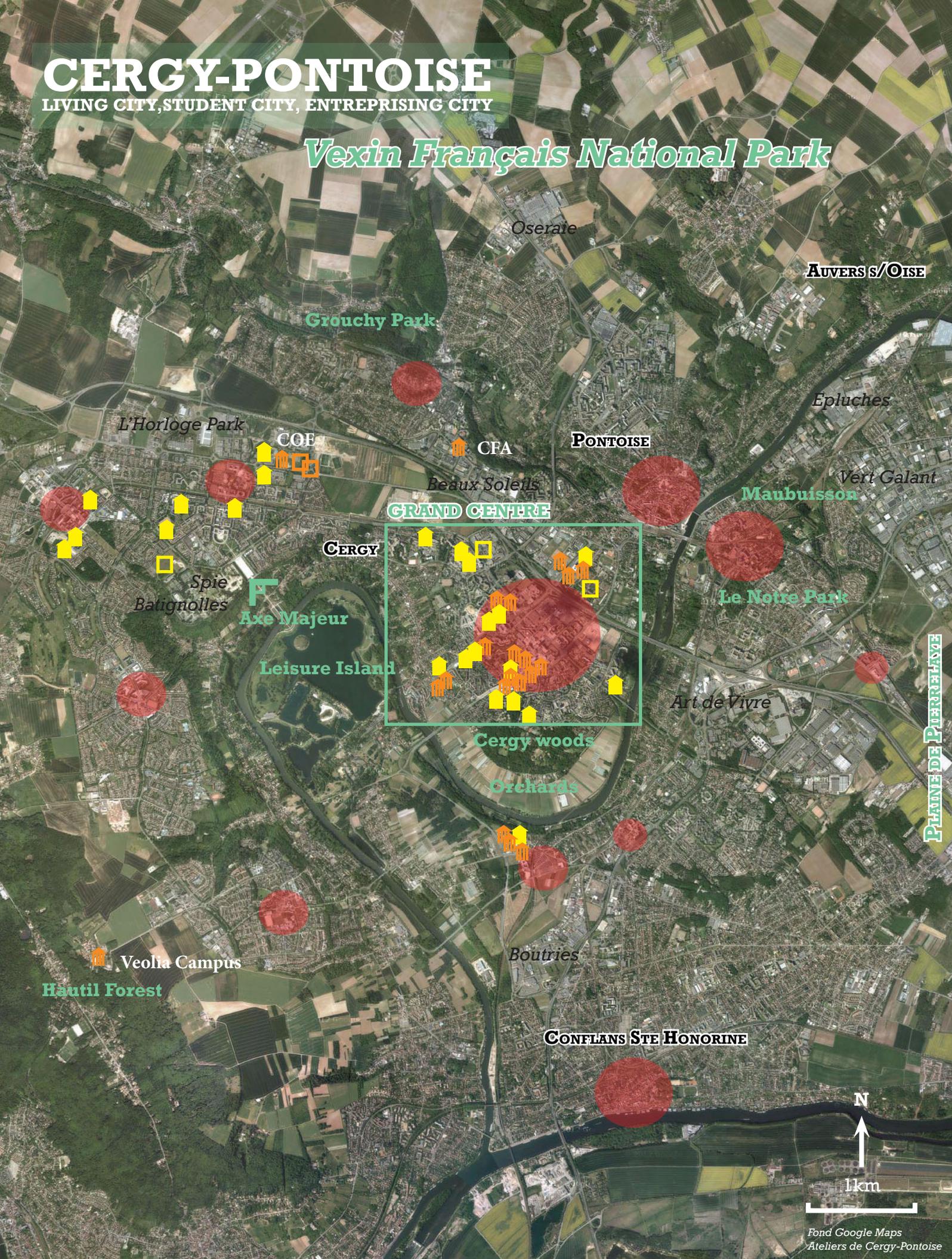
Port Cergy

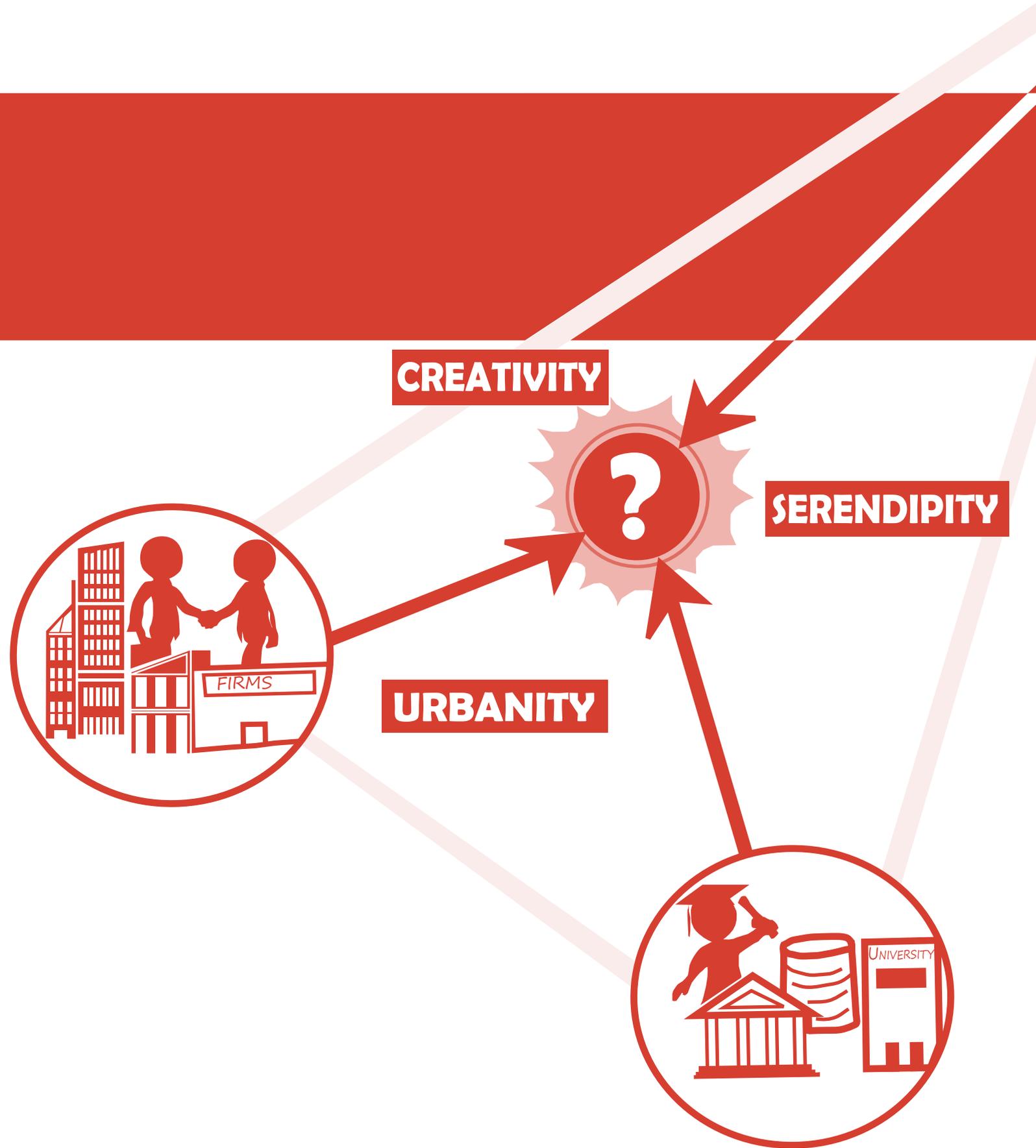
*Urban area for leisure
(retail, terrasses, sports, catering, walks...)*

CERGY-PONTOISE

LIVING CITY, STUDENT CITY, ENTREPRISING CITY

Vexin Français National Park







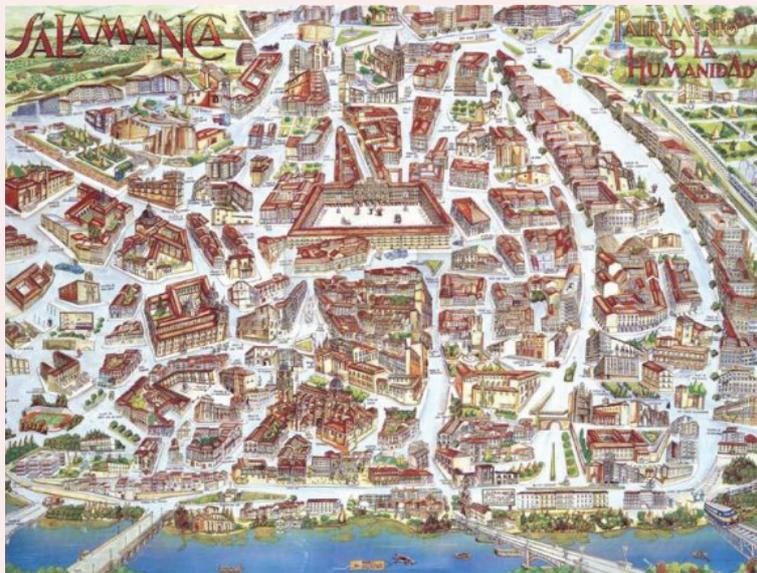
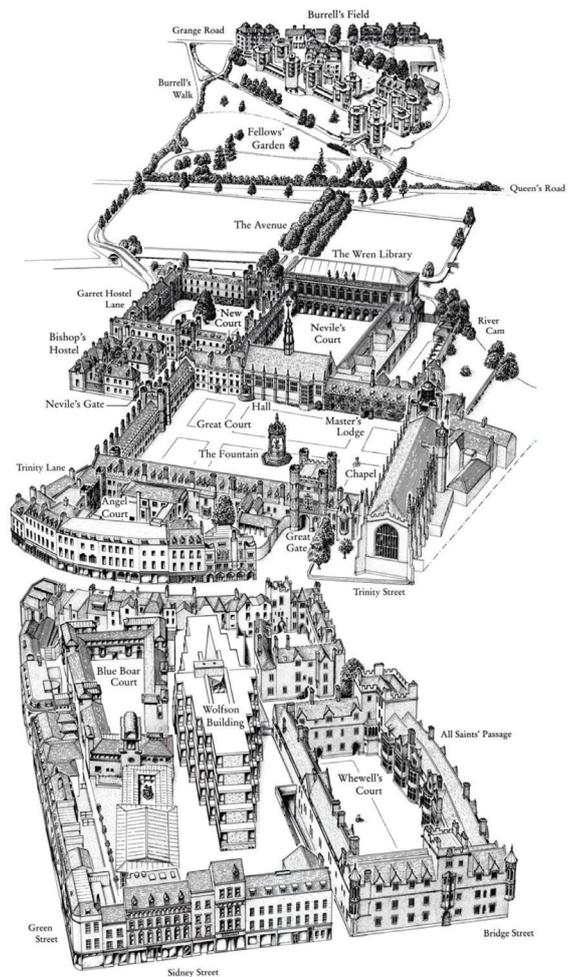
3 THE MANY FORMS OF KNOWLEDGE- AND INNOVATION-BASED TERRITORIES

CITY-UNIVERSITY RELATIONSHIPS, WORLDWIDE	50
COLLEGE TOWN	51
CAMPUS	52
TOWARDS «KNOWLEDGE CITIES»	54
CITY-UNIVERSITY RELATIONSHIPS, GREATER PARIS	56
SORBONNE	56
CITÉ UNIVERSITAIRE INTERNATIONALE	56
PARIS-SACLAY	56
CONDORCET CAMPUS IN AUBERVILLIERS	57
CITÉ DESCARTES IN MARNE-LA-VALLÉE	57

CITIES & UNIVERSITIES WORLDWIDE

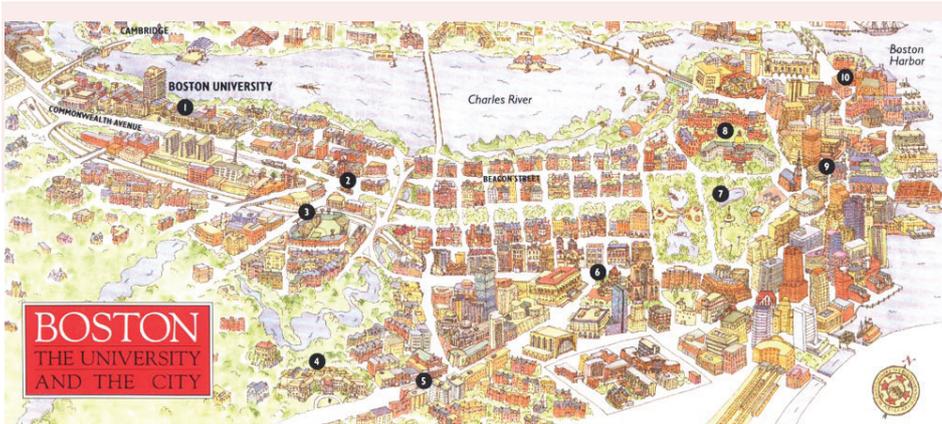
How to define a **knowledge-based territory**? Ever since the Antiquity, societies have designed spaces for researchers, scholars and engineers that are dedicated to knowledge and favorable to innovation. In classical Antiquity, those took the shape of libraries; Middle Ages saw the rise of monasteries and universities, then artists' workshops during the Renaissance era, research labs in the XIXth century, campuses and technopoles in the XXth. Knowledge-based territories **keep changing shape as they reinvent their purpose and their relation to the city.**

CAMBRIDGE – The entire town is dedicated to the university, founded with it in mind, and structured by dozens of autonomous colleges that are clustered around inner grounds, thereby underlining their isolation and elite status.



SALAMANCA – Founded in 1218, Salamanca was one of the first college towns in Europe with the Sorbonne, Oxford, Bologna and Coimbra. Monumental buildings and quality public spaces contribute to its attractive and prestigious reputation.

COLLEGE TOWN



BOSTON - Founded in a barn and caught up in the city, it features a number of prestigious campuses, including Harvard.

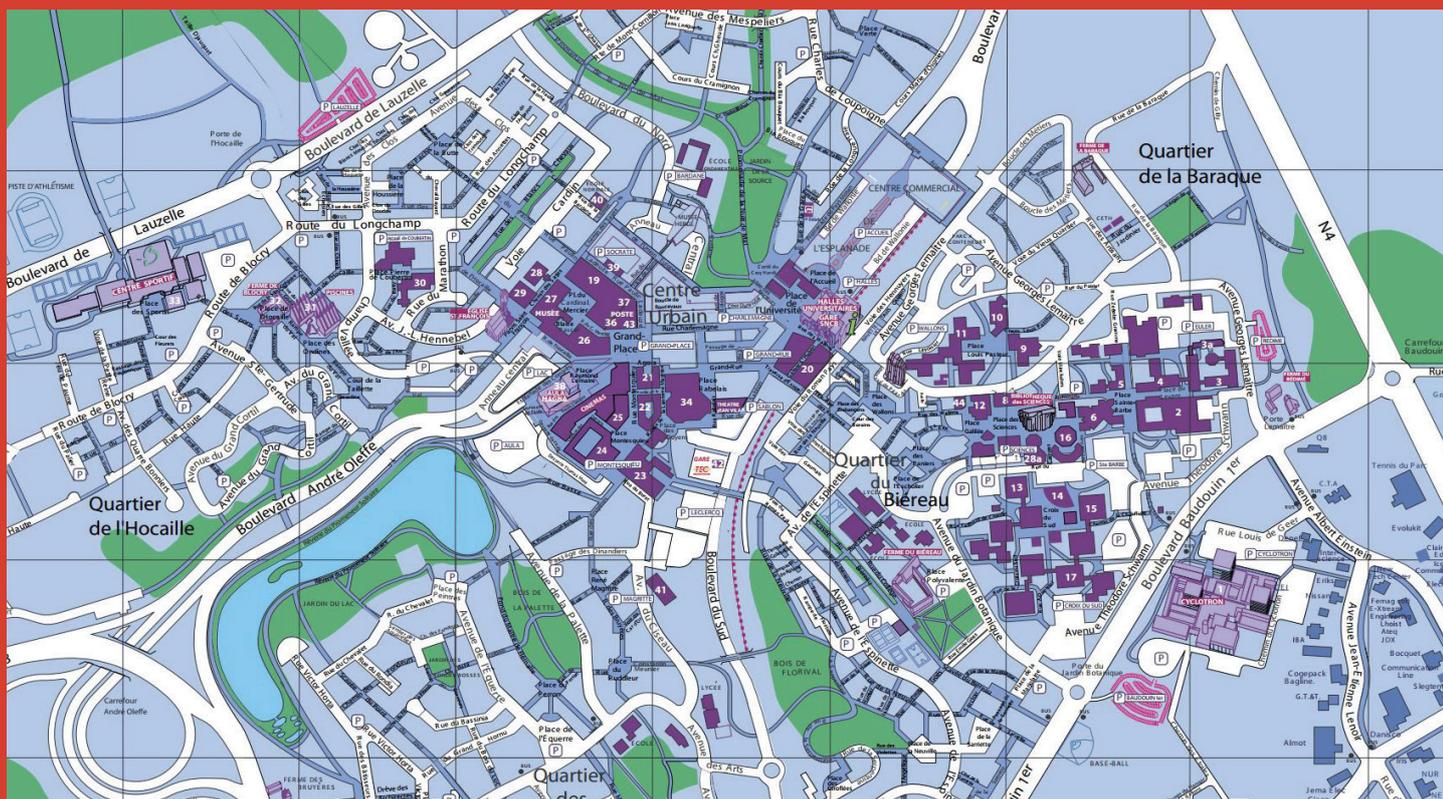
« To know how to create a city, lay by the shady towers of San-Gimignano. »
(Jean-Noël Capart, landscape architect in Louvain-la-Neuve)

Those three examples illustrate the **variety of knowledge-based territories** - in our case, urban territories. Knowledge establishments either drew the city to them, or shaped the city according to the desires, interests and rhythm of the main demographic group: students.

Historical models of cities shaped by history, such as the ones above, inspire the creators of modern equivalents. For instance, Louvain-La-Neuve in Belgium was founded in the beginning of the 1970s around a newly created university resulting from the split with historical college town Leuven. It is built around a cluster of university premises, in order to reproduce the spirit of medieval college towns.

ZOOM ON :

LOUVAIN-LA-NEUVE (BELGIUM)



CAMPUS

« A spatial unit clearly defined, a separate property, made up of a number of buildings and planned parklands or open grounds. Campus access can be controlled via walls, doors or guard posts, and its limit with the city can be judicial and/or physical. »

(Mitchell)

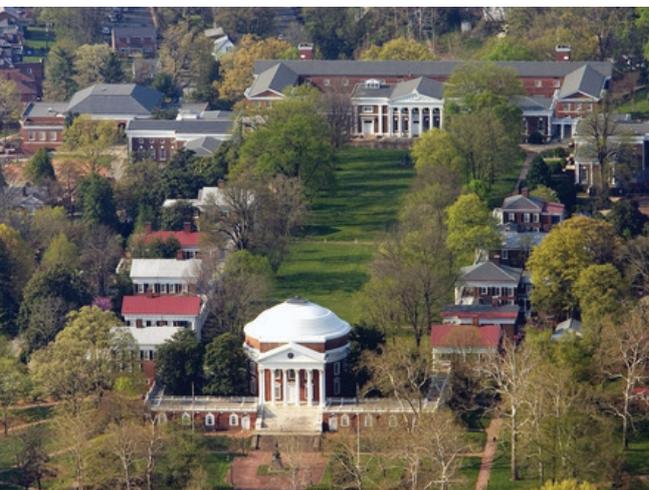
The idea of “**campus**” has not always been interpreted in the same way. In the anglo-saxon culture, it echoes the medieval legacy of **gothic college quadrangles**, although the XIXth century favored their evolution towards more modern shapes open to landscape, of which the archetypes are probably Virginia College in Charlottesville (founded by Jefferson) as well as Harvard and Yale.



YALE

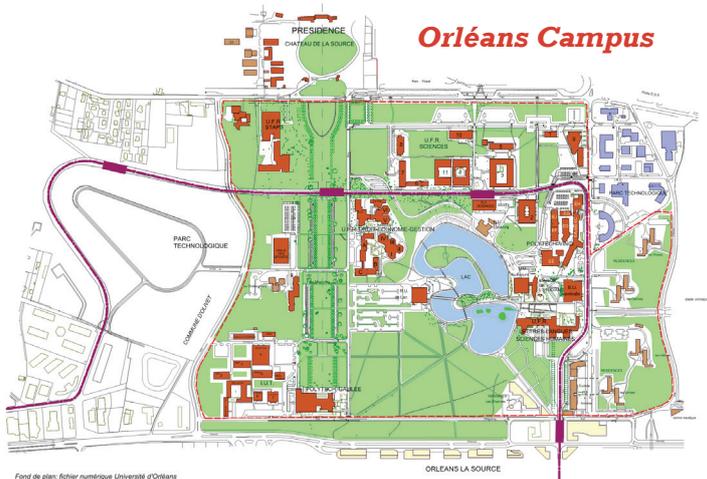


HARVARD



VIRGINIA

Orléans Campus



Fond de plan: Echir numérique Université d'Orléans

The idea of campus was reinterpreted during the XXth century, and led in France to the creation of knowledge territories on the outskirts of cities. Campuses were organized as large specialized units linked by transportation networks over properties of several dozens hectares almost entirely dedicated to the university and to student housing and services in shapes inspired by the functional city. This kind of development was possible thanks to the availability of large property units in the outskirts, and desirable due to rapid demographic growth and growing demand for higher education. It was also considered a good way to keep the troublesome student world outside of the city centers.

All major French college towns have had a peripheral "campus": Lyon, Marseilles, Bordeaux, Toulouse, Rennes, Toulon, Tours, Orléans, etc. The list goes on; but the result, from an urban planning standpoint, is rather tedious. In the past twenty years, considerable efforts have been spent reintegrating those "campuses" within the city itself, via metro lines, tramway service to the heart of campuses, mixed activity settlements.

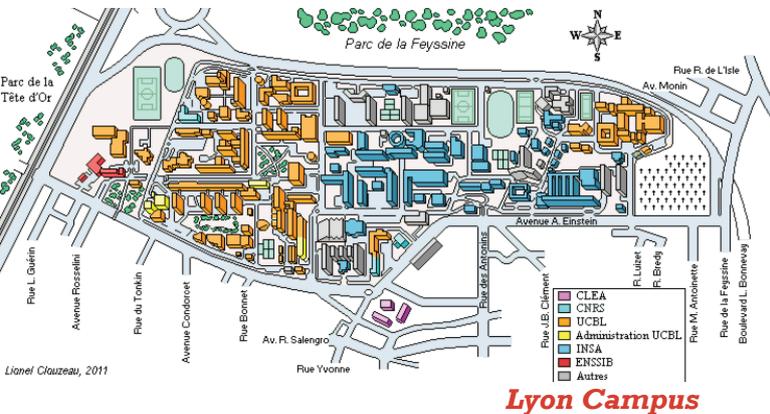
It was only with the most recently founded universities - especially in the "new cities" of the Ile de France (Cergy-Pontoise, Saint-Quentin en Yvelines, Evry) - that higher education premises were once again integrated to the city centers. For instance, in Cergy-Pontoise, ESSEC Business School was the first higher education provider to settle in the city, and settled from the start in the heart of the central Cergy-Préfecture neighborhood.

BORDEAUX 1

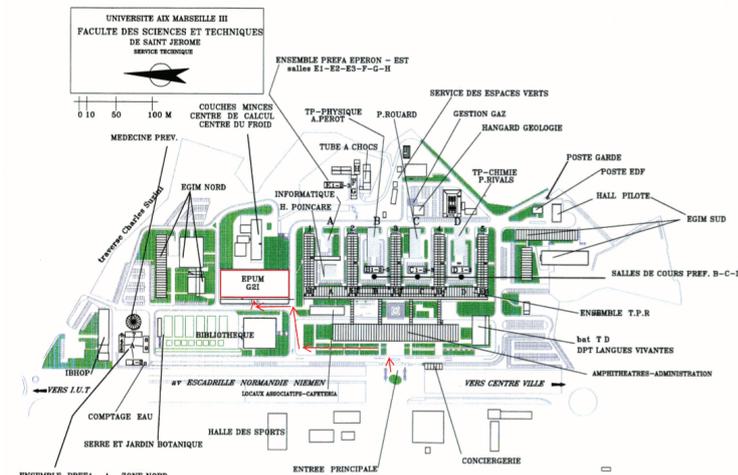
1ère et 2e tranches



Bordeaux Campus



Lyon Campus



Marseilles Campus



ESSEC Campus, Cergy



Chênes Campus, Cergy

TOWARDS «KNOWLEDGE CITIES»

The college town - expanded and reimagined as a “knowledge city” - needs to do away with the idea of “outskirts” and embrace its need for **proximity, diversity, interactions and urban intensity**. Universities are no longer limited to knowledge transmission and research. They now act as **platforms for enterprise, and contribute to the social, economic and cultural dynamism of a territory**. The Workshop will focus on the translation of those issues in space.

« *Spatial concentration of technological stakeholders linked by economic value chains, in an environment supported by infrastructural services, sharing a common strategy and seeking to enter a common market.* » (Cooke)

SCIENCES CITIES

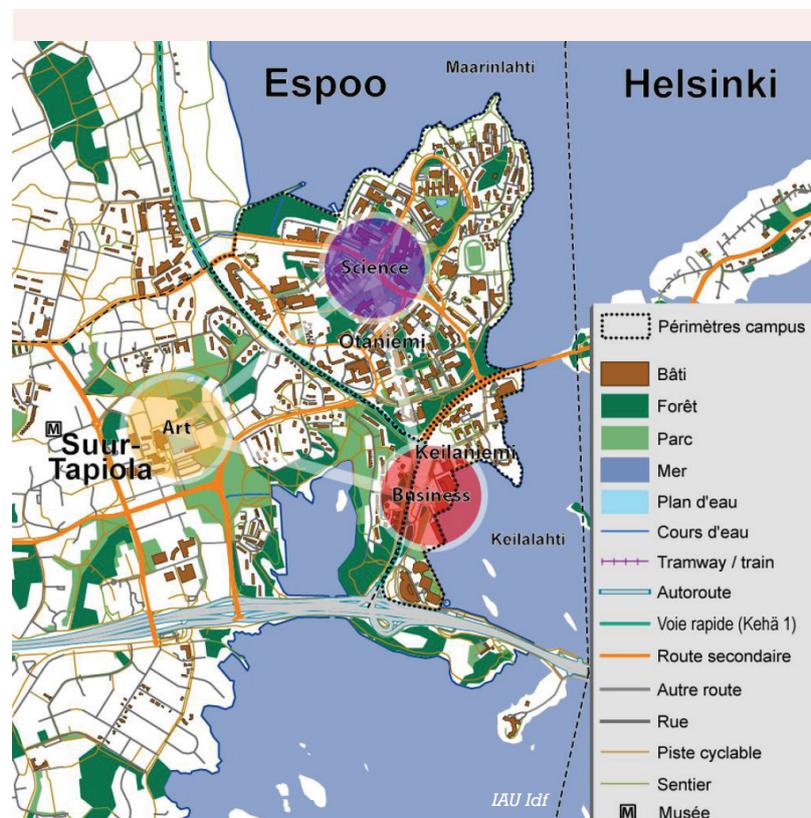
« Some key words of the modern metropolitan doxa are knowledge, research, innovation, creativity, and cluster. It has now become expected that **development policies and urban planning projects should seek to attract and integrate the best of national and international skills** in science or the arts, in spaces dedicated to the production of new objects or ideas.

Such spaces are often called “science cities”, and seek to **connect research- and knowledge-producing institutions** (universities, colleges, specialized research institutes, myseam, libraries, etc.) with **companies involved in high-intensity research** and development and with service providers expert in startup support. Science cities also provide housing, retail, services and proximity urban amenities for researchers, close (in travel time and/or distance) to their laboratories. »

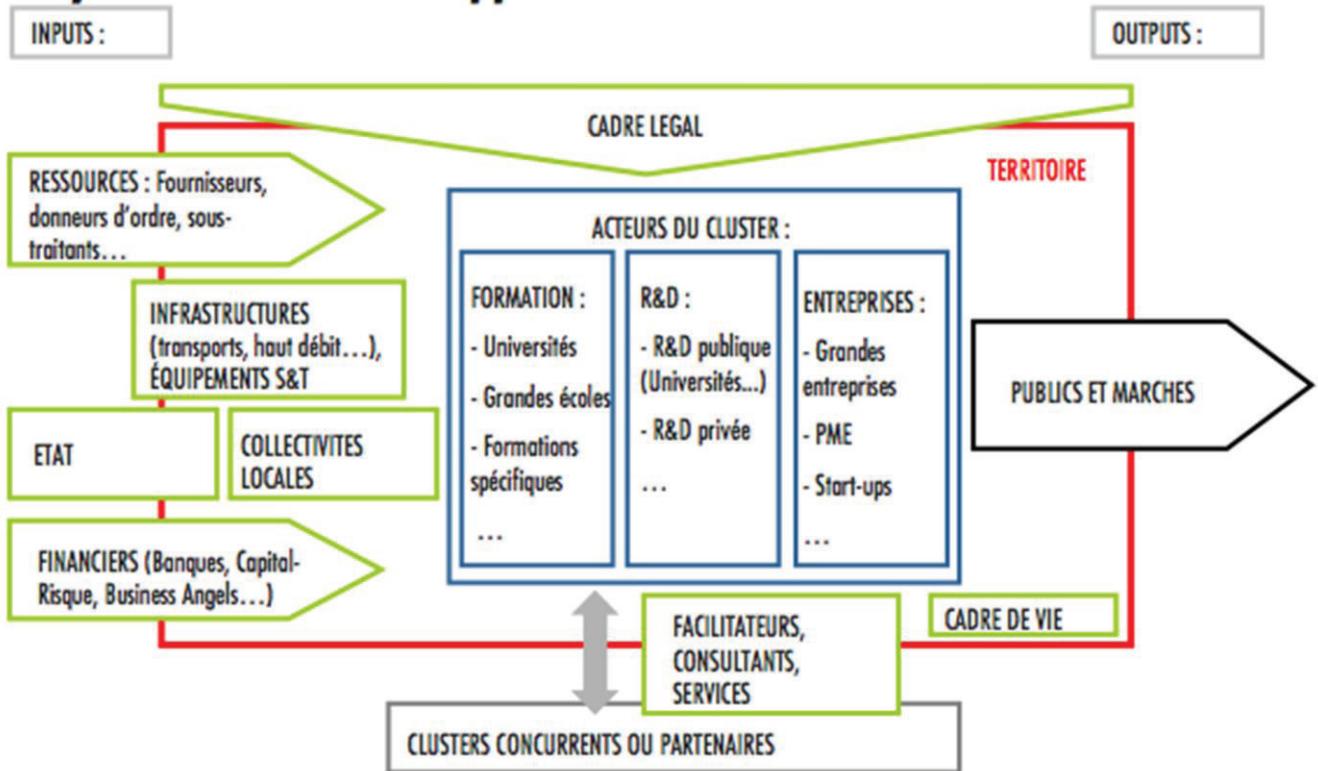
(From «*Sciences Cities : Campus scientifiques et clusters dans les métropoles du XXIème siècle, Document IAU, Octobre 2011*»)

There are a number of notable “science cities” worldwide. 6 were identified in an international comparative study led by the IAU (*Urban planning institute of the Ile de France region*) :

- **Europe** : Otaniemi in Helsinki and ETH Science City in Zurich
- **Asia** : One North à Singapore and Digital Media City & Songdo New City in Seoul
- **North America**: Mission Bay in San Francisco and Innovation Quadrant in Portland



L'écosystème du cluster : approche territoriale



ZOOM ON :

ARTEM (Nancy)

ARTEM is an integrated, open urban establishment located on the spot of former military barracks. Its unique site brings 3 schools together in order to foster cross-sectoral synergies. It also features a research institute, common shared spaces such as the open streetside gallery designed by architect Nicholas Michelin.



CERGY-PONTOISE AN INTEGRATED MULTI-SITE CAMPUS

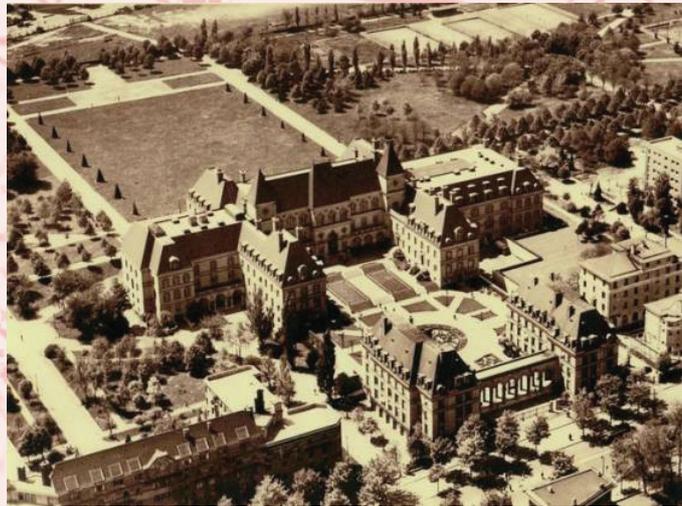


1. SORBONNE : an integrated legacy student neighborhood

La Sorbonne was founded in the XIIIth century in the heart of medieval Paris. It started as a simple college. As it developed, the whole neighborhood evolved into an education-based area filled with intellectual debates. It is nicknamed the “**Latin quarter**” after the teaching vernacular of the medieval schools and colleges dotting the area.

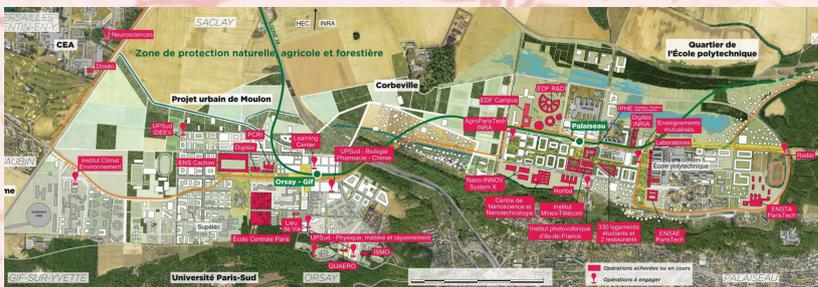
2. CITE UNIVERSITAIRE INTERNATIONALE : a student city open to the world

The “International Student City” was founded in the 1920s in the 13th district of Paris. It is a **private law foundation that handles about forty housing facilities** that host students from the world over (140 nationalities). It offers 5.600 beds, which makes it the largest site to host foreign students and scholars in the Ile-de-France region. Within the Cité Universitaire can be found a number of services for the scholar community and the surrounding city: libraries, theaters, exhibition halls, sports facilities, restaurants... It stands out as a year-round site for intense cultural offer (conferences, concerts, exhibits, showings...).



3. PARIS-SACLAY : a science excellence city hub in the fields

Paris-Saclay is a **science and technology expertise cluster** located on a rural plateau southwest of Paris. By 2030, it should concentrate 20 to 25% of all French scientific research. It covers a territory of about 7.700ha, and regroups numerous entities such as specialty colleges, universities, and private firms (Polytechnique, HEC, Renault technocenter, Dassault, Thalès, Airbus, Danone...)



CITIES & UNIVERSITIES WITHIN GREATER PARIS

5. CONDORCET CAMPUS : a drive for urban renovation

The campus regrounds nine higher education provides and entities specialized in **humanities and social sciences** on a site close to the Plaine-Stade de France station on the metro and tramway network north of Paris. It spreads on both sides of the peripheral Ring road (Aubervilliers and Porte de la Chapelle), in a **working-class district**, on the spot of former industrial wastelands. It should open in 2016 and become one of the major university hubs of the region.



5

4. CITÉ DESCARTES : a campus that seeks to city

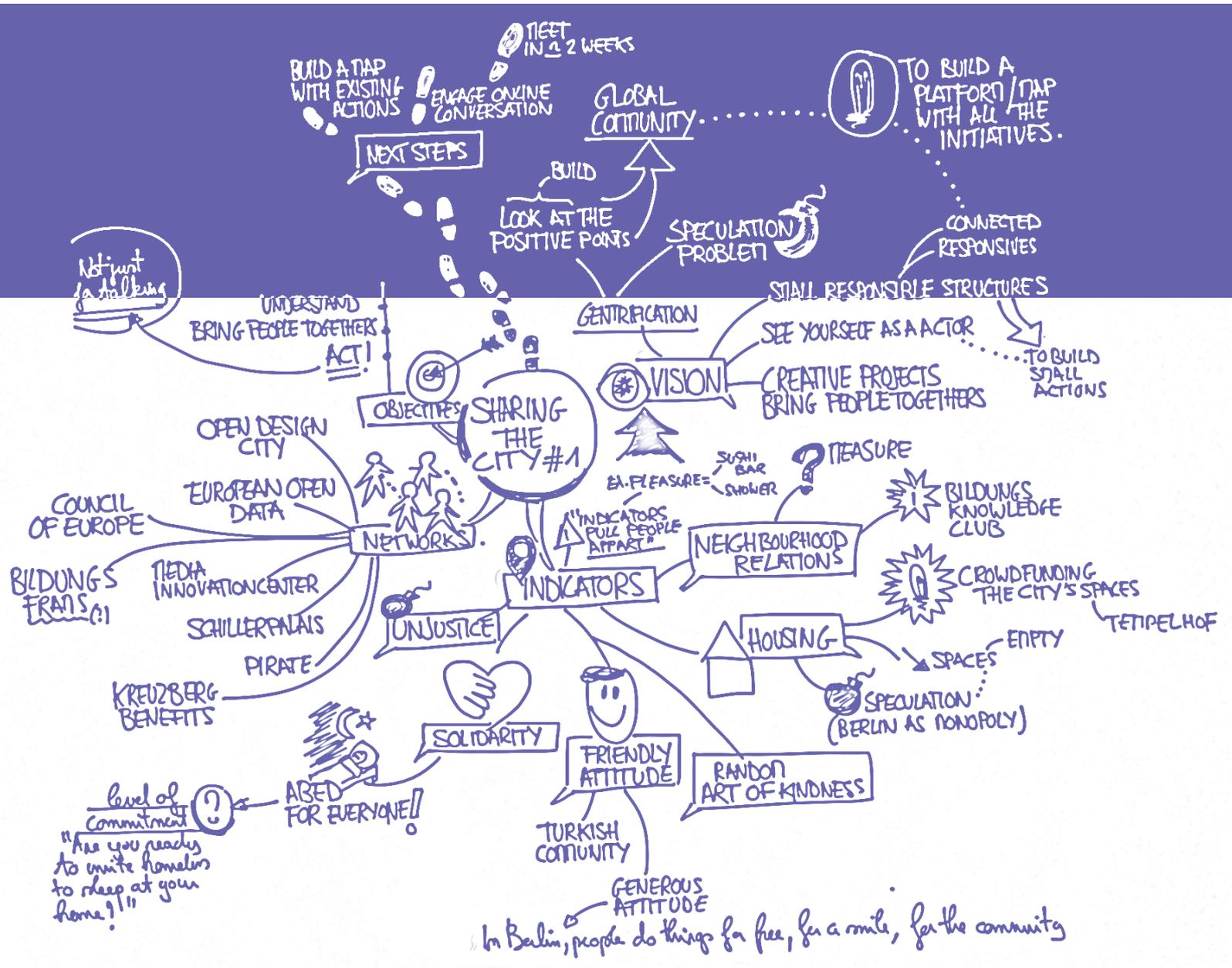
East of Paris, by the Noisy-Champs train station, cité Descartes is designed as a **sustainable-city design cluster** for the evolution of Greater Paris. It regroups a number of higher education premises (university, insititute, colleges) as well as student housing facilities and neighborhood services (retail, restaurants, drugstore, kiosk, hotel, post office, copy center, catering, etc.).

4



* Coriolis : enseignement et recherche École des Ponts ParisTech
** Espace Bienvenue : laboratoires de recherche (IFSTTAR, CSTB ...)

**HOW CAN WE REINVENT THE RELATIONSHIP
BETWEEN CITIES AND UNIVERSITIES, IN THE FACE OF
MULTIPLYING MATERIAL AND VIRTUAL SITES FOR LEARNING,
KNOWLEDGE SHARING AND INITIATIVES?
WHICH PLATFORMS TO FOSTER
COLLECTIVE CREATION AND INNOVATION?**



Virginie Gailing, strategic design



4 TOWARDS A LOCAL BUT GLOBALLY CONNECTED ECOSYSTEM FOR SHARING AND MUTUALIZATION

DIGITIZATION AND NEW TECHNOLOGIES (OR: EXTRA-LOCAL COOPERATION)	60
FROM DIGITIZED ECONOMIC ASSETS TO DIGITIZED TERRITORIAL ASSETS : HOW CITIES SUPPORT THE KNOWLEDGE- AND INNOVATION-BASED ECONOMY	60
A NEW PERSPECTIVE ON PRACTICES AND THE CITY	61
COMPLEX URBAN SYSTEMS AND “THE DIGITIZED URBAN ERA»	63
EMERGING «CO-» CONCEPTS (OR: LOCAL COOPERATION)	65
Co - COLLECTIVE EXPERIMENTING, OR COOPETITION	65
Co - COORDINATING AND ANIMATING AT A HYPERLOCAL SCALE	68

DIGITIZATION & NEW TECHNOLOGIES (OR: EXTRA-LOCAL COOPERATION)

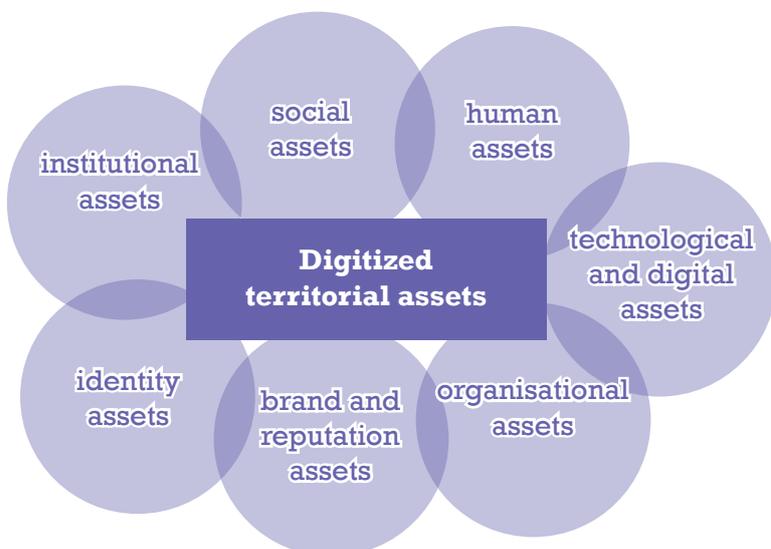
FROM DIGITIZED ECONOMIC ASSETS TO DIGITIZED TERRITORIAL ASSETS : HOW CITIES SUPPORT THE KNOWLEDGE- AND INNOVATION-BASED ECONOMY

An emerging conception of society, which fully integrates the possibilities of digitization, considers knowledge as a resource and ecosystems as enabling environments for value creation, knowledge production and innovation. The growth of digitized networks parallel to physical networks (transportation) and the social / identity groupings (social networks) ask us to reconsider the classical patterns of knowledge and to invent intermediary, hybrid platforms for learning. According to which model? How can we valorize what already exists? How to manage the new objects of knowledge?

« Digitized territorial assets are the cognitive, human, social and interactive resources that define the position of a territory in space and time and enable it to affirm its unique character while ensuring long-term growth.. »

(Ahmed Bounfour)

Digitized territorial assets: seven interacting components



Ahmed Bounfour, Revue Urbanisme 2015

Ahmed Bounfour, in an interview for the magazine 'Urbanisme' 51st special edition ("Universities and innovation: at the crossroads of economics and knowledge"), underlines the fundamental role of local cultural characteristics in building ecosystems that are powerful and attractive, on the operational and the institutional level.

He lists 7 categories of "digitized territorial assets" that interact in a dynamic and complementary way:

- **Human assets** : research, university training, scientific and technical skills, valorization of specialty know-how
- **Technological and digital assets** : speciality know-how and digital resources for fluid knowledge sharing and collaboration, within and outside of the defined spatial area
- **Organisational assets** : strategical and operational skills with which an area defines its growth project and follows through its daily unfolding
- **Institutional assets** : entities that shape the governance, institutional interactions, public policies and actions undertaken at the institutional level,
- **Social assets**: includes items such as trust between stakeholders, national and international influence networks spanning the area
- **Identity assets** : historical and cultural components of the specific local culture
- **Brand and reputation assets** : generate the attractiveness, growth and territorial branding of a territory for national and international radiance.

« Digitized assets contribute to the development of good socio-economic conditions at the level of a local, spatially defined area. »

NEW PRACTICES

« Ten years ago, we had to show people how a computer work sand how to use a web browser. Today, we are more likely to introduce them to carsharing websites or local social networking platforms, with a focus on use and participation. Practices have changed and multiplied. The computer room is no longer a panacea; in fact, it is usually empty and deserted.»
(Emmanuel Vandamme, EPN Nord-Pas-de-Calais)

A NEW PERSPECTIVE ON PRACTICES AND THE CITY

Internet-, smartphone- and tablet-users

In 2014, 3 billion people were online (+20% from 2012), and 2,046 billion were on social nerworks (+8% from 2012) : facebook, instagram, Vkontakte, twitter, tumblr, google+, whatsapp, snapchat, tinder, linkedin... The world is becoming multiscreen, interconnected, with an ever-wider offer of mobile interactive platforms (laptops, tablets, smartphones). A new sharing economy is on the rise, and with it, new practices for trade and exchange : Uber, Airbnb, Ebay, bitcoin, amazon, carsharing, chronodrive...New technological gadgets become part of our everyday life, are with us in every action or hour, enable us to create and invent. New areas of digitized interactions question our relationship to others and to the physical environment, its organization and its perception.

Over the last 20 years, France experienced a rapid growth of digital media. 0,4% of houses were connected to the internet in 1996, there are 80% in 2014. There are 43,8 million internet users in the country, of which 55,7% connect through their smartphone and 29,1% on their tablet.

In 2008 already, a Ministry of Culture report (“Cultural practices of the French in the digital era”) pointed out that classic media platforms (TV, radio, the press..) were falling out of favor with the youth. Meanwhile, books continued to fare well, and there was a rise of interactive uses of digital media : photography, video-making, games, writing (via opinions, blogs, tutorials...)

The generalized recourse to screens fosters the growth of new lifesyles, behaviors, uses and practices, that question our perspective on society: which parts of our life should be online, how to take into account those “off the grid” or in a situation of digital precarity, and finally on the traditionnal model of learning.

Digital innovation drives faster production and knowledge diffusion via social networks, data sharing and the opensource philosophy (peer to peer, wikis, streaming, digital resources, public archives, TedX-type conferences, etc.). The digitization of interpersonal relationships also affects out schools. The respective roles of teacher and student are being redefined with the ease of access to digital tools, platforms and networks.

New teaching philosophies and new relationships between teachers and students are emerging and, in the best case scenarii, foster greater autonomy and involvement of students, and better follow-through with faltering students. For instance, flipped classrooms are a 2007 concept by american chemistry teachers Jonathan Bergmann and Aaron Sams, founded on the idea of co-learning and “classes at home, homework in class”.

Taking those pedagogical innovations into account, a report on “designing teaching environments in the digital era” (Ministry of Culture, Fr) by Véronique Granger and Claire Delaporte tackles the topic through the lens of “open, empty, flexible and capable” environments:

- **formal space:** classrooms, aulas, labs, coworking rooms, learning centers
- **informal space:** intermediate and travel spaces, halls, monumental staircases, outside areas and «dessus-dessous».

« The silo model of learning is outdated; these are the last days of professors standing alone before a passive roomful of students. »

(Elisabeth Laville)

MOOCs

MOOCs : the end of classical teaching ?

« Provide free, quality teaching material, accessible from everywhere to all. »

(Salman Khan, founder of Khan Academy)

In higher education, the democratic access to online teaching material (MOOCs : Massive Online Open Courses) questions the **adaptation and evolution of physical urban teaching premises** (even though digitized teaching cannot completely do away with physical relationships). What will happen when “digital natives” (those born in the era of omnipresent connection) reach the time for college? What will be the shape and role of online universities? What will the student look and act like, in a world where network access and freely accessible teaching material are everywhere available, for all?

MOOCs were launched in Silicon Valley in 2008 and have been steadily growing since. In 2014, the least used MOOCs had about 10.000 views, for a 60.000 average. There are two types of MOOCs:

- **xMOOCs** are used for the teaching of existing knowledge
- **cMOOCs** involve the students in the teaching process and content edition.

Another option are **SPOCs** (Small Private Open Courses), with limited participation, a pre-selection of participants and an initial paying transaction. Those are in demand by companies looking to train their employees (for instance, Cergy-Pontoise ESPE college produces content for 300 distance learners in the field of education).

A number of alternative opensource platforms have emerged in Europe over the past few years, with an aim to counter the monopolistic tendencies of private american providers (Udacity, Coursera, edX). In France, the state launched the FUN initiative (France Université Numérique). It is a free national learning platform, following a public service philosophy, which enables medium-range universities to radiate on an international scale. It opened in October 2013. In the winter of 2015, it had a member base of 29 participating establishments, 200.000 users registering for 400.000 courses (October 2014 numbers), and 53 MOOCs with on average 8.000 followers. Students were mostly of working age (63%), with 11% jobseekers and 13% pensioners.

Online universities

An 06.02.2015 article in «Le Monde» newspaper titled «*What digital access in universities changes for students*» identified four trends in the evolution of universities:

1. Knowledge accessible to all
2. Personalized teaching
3. Faster sharing and cooperation
4. Skills to model, represent and 3D print

Other establishments have included digital capacities in their curricula, with up to 75% hybrid courses (Laval University) for all teaching fields, by training teaching teams in e-learning and techno-pedagogy (Berlin), or through the provision of evolutive, mutable premises (United Arab Emirates).

The MOOC phenomenon is still in its infancy. It is a jump forward from the 1990s initiatives of distance learning and e-training encouraged by the European Commission. The MOOC movement, however, evolves differently in France than it does in the United States, where they were first developed for economic purposes (CESE report on “Digital pedagogy: a challenge for higher education”, February 2015). “**In France, the territory has a well-spaced higher education offer, so that almost all training possibilities are accessible from all points of the country.**” The CESE report also underlines that according to a U.Penn December 2013 study, **only 4% of students enrolled in digital learning graduated from their curricula.** It goes on to suggest that the world of higher education should welcome a digital ecosystem, that calls for the connection and synergy of various stakeholders in order to heighten and enrich their offer, for the benefit of all.

« *Is the digital era really such a shift? What we call a crisis, could it not be a symptom of the complex nature of our daily lives? It is far from easy to jump from a defined, visible, repeating, collective form of daily life into a raging flow of every-shifting currents and unexpected eddies.* »

(Bruno Marzloff, sociologist)

BRAIN HUB CITY

COMPLEX URBAN SYSTEMS AND THE «DIGITAL URBAN ERA»

"What drives innovation and growth are the individuals, and social relations manifesting spatially as specific configurations for living."
(Robert Lucas, economist)

Bruno Marzloff (sociologist, expert in mobility issues) qualifies the growth of digital practices in a globalized world as a "revolution in time". Freedom is no longer associated with speed or territorial expansion, but with individual or community empowerment. The smart nature of cities and territories cannot, however, be limited to new technologies alone. Real and digital spaces for teaching and learning multiply, knowledge and initiatives converge, new fields welcome collective creation, new channels open for international radiance and visibility. Marzloff warns - like Jane Jacobs in the time of car omnipresence - against digital omnipresence and technological focus (Graham & Marvin, 1996; Sassen, 2011; Guallart, 2012). "There must be a link between cyberspace and the city." Consequently, practices should be shaped by an optimal use of urban resources, «digital territorial assets» (A.Bounfour) and "positive urban externalities" (R.Besson).

« Cognitive capitalism needs to multiply its contact points with society and living activity. »
(Yann Moulier Boutang, economist)

SPR – Magali Thlandier and Laurent Davezies have looked in depth into the emerging topic of SPR (Production-Housing systems). They study flows in order to explore the cross-reliance of production and value creation areas and housing or living areas. In a globalized era, the SPR concept helps to understand the new geography of French urban areas and suggest the need for spatial identity in metropolitan growth.

Brain-Hub cities are mostly "global cities" and some intermediate metropolitan areas of 1 to 3 million inhabitants. In order to attract high value jobs and talents, Enrico Morelly identified 9 fundamental elements of the brain hub city.

At the macro level : 1/ a service economy, 2/ a creative environment, 3/ a shift towards the new economy, 4/ high quality education, 5/ high quality living, 6/ cultural radiance.

At the micro level: 7/ attractive salaries, 8/ qualification structure and 9/ strategic company functions.

Cities & Concepts

Meanwhile, the discussion around a new urbanism where knowledge would enable innovation (and vice versa) brings up a number of urban concepts that complement each other, amongst which:

- **the learning city:** a city founded on the lifelong acquisition and diffusion of knowledge. It encourages and enables rich, in-depth learning through positive conditions and environment (Montréal Summit definition, 2008)
- **the smart city :** a city may be qualified as 'smart' when the investments in human assets, energy infrastructure (electricity, gas), and flows (human, material, information) contribute to a sustainable economic growth and a high quality of life, while natural resources are sparsely managed (Wikipedia)
- **the knowledge city:** the knowledge city fosters several kinds of knowledge within specialized sites such as universities, research labs, cultural establishments and high-tech business parks with a focus on innovation (Henry Bakis and Alexandre Schon). For companies, the issue is then to recruit capable and talented managers to set a course towards sustainable performance in the new globalized economy.
- **the brain hub cities :** agglomerations with a high concentration of highly qualified positions, which each create five additional jobs (Enrico Morelly), by opposition to the former industrial capitals bleeding inhabitants and jobs.

COGNITIVE URBAN SYSTEM

According to an October 2014 Ile-de-France CCI (Chamber of Commerce and Industry) document called “Challenges for brain-hub cities in a global era”, the Paris region could attain the status of “brain hub city” by working on abovementioned criteria 3, 5 and 9. It will need to **reinvent the current regional pattern of talent attraction, by working on the economics and innovation assets and improving sustainable quality of life.** A Harris Interactive study on the matter showed that 62% of interviewed students (future workers) prefer a smart city to be “sustainable” rather than “connected”, by far.

« “Win-win” SPR mechanisms can be found in those large European agglomerations deeply rooted in their regional networks and supplying, at close range, a large range of production, housing, recreation and touristic functions.»

(Laurent Davezies and Thierry Pech)

SUCs – SUCs are “Urban Cognitive Systems”, a concept developed from the 2000s on by Raphaël Besson (PhD in territorial science and urbanism, head of the Villes Innovations study bureau) based on the examples of Barcelone-22@Barcelona, San Francisco-Mission Bay, Buenos Aires-Distrito tecnologico and Distrito de diseno, and Grenoble-GIANT/Presqu’île. SUCs are urban sites that attract talented individuals, arts and innovation. They try to take an active role in producing new forms of knowledge, as part of a locally anchored (globally determined) innovating & technology-based creative urban project.

Type 1 SUCs are top/down 100 to 300ha sites, while Tiers Lieux (3rd space) **Type 2 SUCs** are bottom/up sites. Both are based on the following principle: “create the conditions for open innovation that functions within an integrated economic, urban, and sociocultural system.”

SUCs question the traditionally isolated and autonomous processes of creation, in the city, of knowledge sites, in the light of the territory in which they choose to settle (for instance monasteries, cloisters, college campuses, technopoles, competitiveness hubs, clusters... or, more recently, the urban entities created by large internet global firms such as Facebook's Zee-Ville, Google Mountain View, Apple Spaceship...).

SUCs encourage physical knowledge sites to open onto the city and welcome its mixity, density and provided amenities, but also to welcome informal spaces for social life and community practices.

This new knowledge- and innovation-based urban entity, still in its growing phase, fosters the sharing of knowledge and skills, for instance through the emergence of collaborative spaces for collaboration, in the physical and the virtual realm. In order to trigger interesting interactions, SUCs focus on the physical meeting of territorial stakeholders: firms, higher education providers, inhabitants and/or users.



Specific characteristics of those drivers of urban innovation :

- Influence the spatial and architectural shapes to **trigger interactions** between formal stakeholders (research labs, universities, firms) and informal innovators (artists, inhabitants, users)
- Influence the attractive urban amenities (heritage sites, quality of the urban environment, accessibility) to **encourage the hybrid mix** of heterogeneous sciences, fields, cultures and know-hows.
- Influence the way innovations are showcased to **enable experimentation** in the urban public space (applied to the fields of mobility, safety, the environment, social relationships, culture, leisure...)

EMERGING «CO» CONCEPTS (OR: LOCAL COOPERATION)

"Relationships should foster innovation." (Michel Lussault)

Co - COLLECTIVE EXPERIMENTING, OR COOPETITION

In the digital era have risen all kinds of services, apps and tools for inhabitants or citizens to gather information, express their opinion, and act on their close environment (via local websites, carsharing services, augmented reality, etc...). It is a real opportunity to federate and create synergy from the various energies and resources within a territory. This is that much easier when virtual meeting spaces are backed by a number of physical sites for collaboration (3rd spaces, Tiers Lieux) dotting the city.

"How do virtual environments align with our cities and our territories? Will they foster introversion or social interaction? Will they generate non-places?"

(Michel Philippon, designer)

Connected city (dataville)

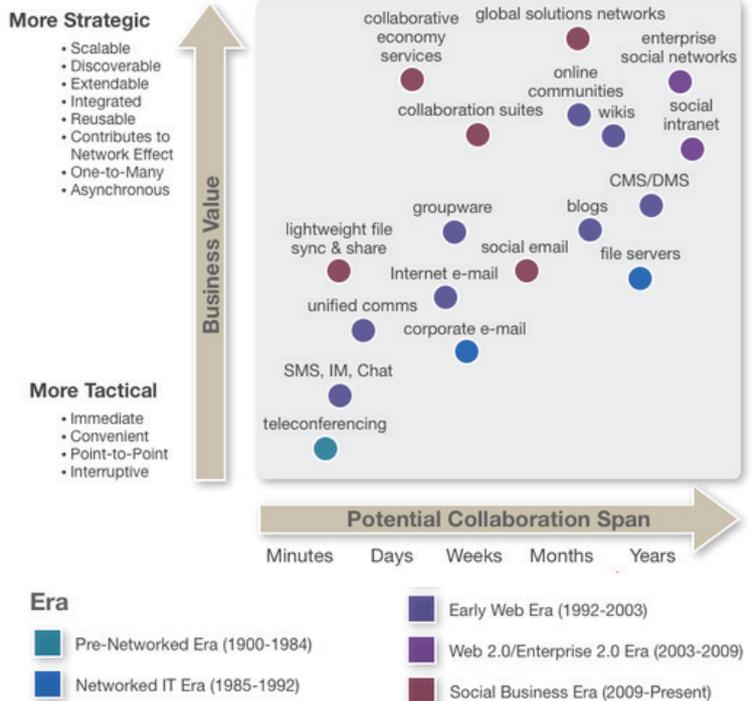
Digital media redefines our interactions with others and with our physical environment. It also enables us to look at the dataflow we produce, identify and rethink our use of space, our behavior and needs - for instance, via the path analysis of runners carrying a smartphone (Runkeeper app data on flowingdata.com).

Paths of Paris runners using the Runkeeper app



Flowingdata.com

Market value comparison of the main platforms for digital collaboration



Territories can be considered as physical areas of infinite data (BigData). In order to access and use that data, special equipment is needed: from simple interactive stations with maps, surveys, information... to 3G and 4G network provision in public transportation and public space. Physical networks must be up to speed, for instance fiberoptics deployment for professional stakeholders (FITO-Fiber To The Organization) or to all citizens (FITH - Fiber To the Home).

The Smart City, then, looks like a cluster of interconnected buildings, neighborhoods or towns ("smart grid") sharing networks for energy distribution, consumption management, waste collection, traffic management, parking, public lighting... (via heat captors, cameras, movement detectors...). The city may turn into a "coopetition" zone for R&D centers and innovation stakeholders ("coopetition" could be understood as a mix of cooperation and competition between public and private stakeholders). It should therefore foster marker-oriented experimentation.

The Smart City is oriented towards innovation and tends to question the balance between space and technology. It moves towards a final optimization and/or upheaval of the traditional networks and interventions.

LABs

« The past ten years were about looking for new ways of creating, inventing and collaborating online. The next ten will be about applying those lessons to the real world. »

(Chris Anderson, journalist and startup founder)

The «Lab» coproduction generation

“Labs” (for laboratories) are sites dedicated to experimentation and to the sharing of collective know-how, based on the DIY (Do it yourself) philosophy. They started emerging at the end of the 1990s at MIT (Massachusetts Institute of Technology), driven by professor Neil Gershenfeld. Then spurred the creation of a number of collaborative sites worldwide. Labs can focus on the production of tools or prototypes; on the supply of tools, instruments and machines... They constantly evolve, specialize and diversify : FabLab, Medialab, Hacklab or Hackerspace, Makerspace, Bricolab, Livinglab... and Citylab. Their spread dots the landscape with nodes in a network of sites for interaction, innovation, knowledge sharing and value creation. Thereby, they embody the evolution of a “knowledge city” into a “knowing city”.

UCP Faclab

Cergy-Pontoise University (UCP) was the first university in the Ile-de-France region to create a Fablab in its Genevilliers campus. The Lab is a 300m2 space open to all and animated by a “facilitator”. It is **dedicated to learning, sharing and creation**. The lab drew 10.000 visitors over 3 years (mostly workers, young jobholders and students). In the wake of this success, a second Lab should open in the Grand Centre neighborhood of Cergy-Pontoise. A number of higher education, economics and societal stakeholders could be involved in this

« The Lab welcomes an ever-growing number of users and variety of profiles. It shows that UCP was right in allowing a handful of people, and then a few thousand, to make their ideas reality, to boldly create, make digital possibilities their own, and imagine the jobs and society of tomorrow.. »

(François Germinet, head of UCP)

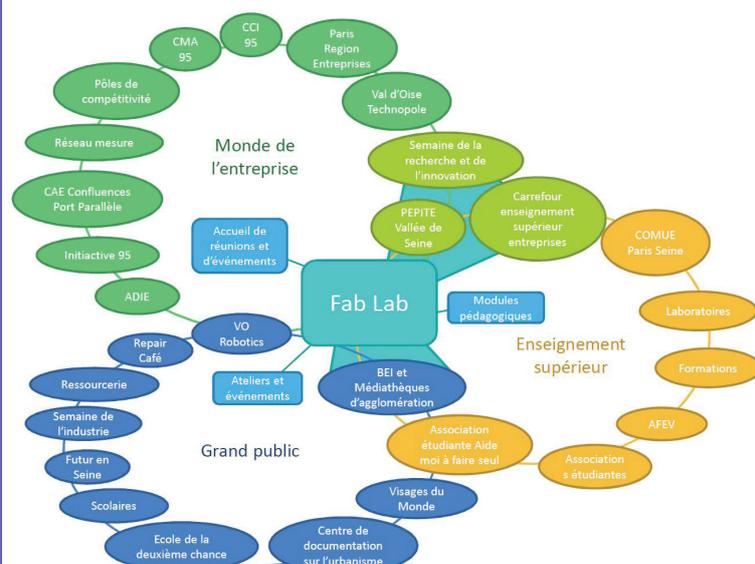
ESSEC K-Lab

The K-Lab (K for knowledge) in ESSEC Business School opened in 2014 thanks to a Samsung partnership. The space is designed as a **site for learning, sharing, and producing material or digital content**. It opened in the heart of campus and is open to students, teachers, staff members and partner companies. Its aim is to support creativity, experimentation and the emergence of new ideas. The Lab is animated by experts and special events. It supplies users with the latest technology for modeling and 3D printing, for video processing (MOOCs and e-learning content), and for virtual collaboration with other campuses and partners.

«How can this increasingly technological world also become more human? »

(Jean-Michel Blanquer, DG du Groupe ESSEC)

Fab Lab stakeholders



CACR, CD95, COMUE

HUBS & COWORKING

Collective living and space share for innovation

Coworking – Coworking sites are growing, as an answer to single-use spaces, and in the search for a real business model. They attract (young) workers and thereby offer benefits for **local development** (living and working in the same territory), for **environmental sustainability** (less travel-related pollution), for **health, flexibility and socializing**.

Coworking sites make use of spaces that were formerly made for one community or organization. They represent an opportunity for territories, and are sometimes integrated to higher education premises, translated into classrooms (Skillshare), and thereby foster cross-discipline knowledge, shared practices, innovative teaching tools, and closer interactions between students and the working world.

A recent study by the CDC (Caisse des Dépôts & Consignations, France) showed that close to **320 telework sites should exist in the Ile-de-France region in the year 2025** (2 will be close to train stations in Cergy). Telework sites mean time gains for employers and employees alike of around 75 minutes daily travel time, and financial gains of around 124€ monthly (employee services within firms), as well as a 13% production increase.

Innovation hubs – In order to support innovation from the first idea through the development process, innovation hubs are founded to integrate every step of startup entrepreneurship.

Numa

Numa is a Paris startup nursery featuring a coworking site and a startup accelerator (Cantine & Camping) that can host up to 200 startups over 1.500m². It is supported by public (city, region) and private stakeholders (BNP Paribas, Steelcase, Orange, Google). Numa enables the launch of digital innovations, and provides support for startups at their every step: creation, coworking, experimentation, acceleration, communication (each step is associated to a differently colored story in the building)..

Halle Freyssinet

In 2016, Paris will uncover the biggest startup incubator worldwide. Halle Freyssinet should host up to 1.000 innovating startups over 30.000m². It will feature a coworking site, a fablab, a large auditorium, meeting rooms, workspaces, a bar, a 24/7 restaurant. The project was driven by telecom company Free and is located on a former railway site, in a neighborhood (Rive Gauche) that features two universities, other incubators, startup nurseries and company hotels.



"Major productive innovations are only conceivable in a spatial and social environment that favors innovation, experimentation and risk-taking in every field, and especially in the fields of arts and creation."

(Richard Florida)

HOUSESHARE

Co - COORDINATING AND ANIMATING AT A HYPERLOCAL SCALE

Digital expansion fostered the emergence of a number of **cooperative websites** for project crowdfunding (ulule.com, kisskissbankbank.com), mobility (covoiturage.fr), food (laruchequiditoui.fr, amap.org), housing (appartager.com, mapiaule.com, couchsurfing.com), etc... At the local scale, cooperative practices are in their infancy, and are complex to evaluate. However, their development is indicative of **further evolutions in the medium and the long term**, that should impact actions, processes and coordination practices between local stakeholders (workers, students, researchers, associations and inhabitants)

Interaction and local determination

Houseshare – A 2014 CSA institute study for appartager.com (n°1 flatshare website in France), 16% of French people reported at least one experience in a flatshare or houseshare (31% aged 18-24, 28% aged 25-34, 17% aged 35-49, 8% aged 50-64, and 10% aged 65 and older). Houseshare is mostly chosen by workers (54%), followed by students (45%) and pensioners (1%). About a third of interviewees consider houseshare as a way of life.

This type of living concerns up to 10% of the housing offer in large agglomerations, and has been exponentially growing in the past few years. This is partly due to the dearth of available housing and by the high prices of private property to rent; partly, also, to the growth of abovementioned platforms that facilitate the interaction between owners and renters. Some of the main justifications given for this choice of living are conviviality (34%), paperwork simplicity (30%), and budget (83%). In 2012 however, in spite of the reported enthusiasm for houseshare, demand was five times the offer.

Houseshare lasts 11 months on average and is reported as a globally satisfying experience. Aside from economic justifications, practitioners underline the satisfaction of living in a larger space and of evading solitude. In short, houseshare is becoming an ever-more attractive way of life not only for students but also for young workers and for seniors. Emerging profiles for living are cross-generational housing and participative housing.

« Digital tools are only meaningful inasmuch as they provide citizens with greater control over their lives, and a greater capacity for action as a collective stakeholder.»

(Vicente Guallart, Barcelona head architect, author: "La ciudad autosuficiente")

Kap's Projects

Solidarity houseshare (Kap's) is a growing concept inspired by the Louvain-La-Neuve Kot-à-Projets (housing sites with an integrated student project considered as part of the university curriculum). In France, they were founded in 2010 by AFEV (Association of the Student Foundation for the City). There were 28 "kapsers" in 2010, 200 in 2013 and 1.000 estimated for 2017. It acts as a social innovation driven by the energy of higher education students and youth organization volunteers to launch local movements of "living together" and "creating together". There are 2 "kapsers" in Cergy-Pontoise, near Eragny sur Oise.

Its core principle is that a student houseshare in a working class neighborhood would develop solidarity initiatives for and with local inhabitants. It follows 3 goals:

- reappropriation of the public space
- answer to the needs of inhabitants
- participation in local neighborhood social life.

"Kap's" projects seek to involve students with their neighboring populations and settlement territory, via the organization of events, creative workshops and happenings, arts displays, cultural offers, neighborhood animation and meeting events. They foster interaction between the university environment and the local population, and, meanwhile, train students in valuable skills for cultural project management. Finally, Kap's also incite students to discover and welcome the territory they study in (71% of participating "Kapsers" report changing their perception of working class neighborhoods).

"Spatial translations are linked to the capacity of certain types of urban housing to stimulate innovation and creativity through the coexistence, in the same site, of very different social classes, and thanks to an innovation-driven environment.."

(Jane Jacobs)

SHARED CITY

Shared reappropriation of the «playable city»

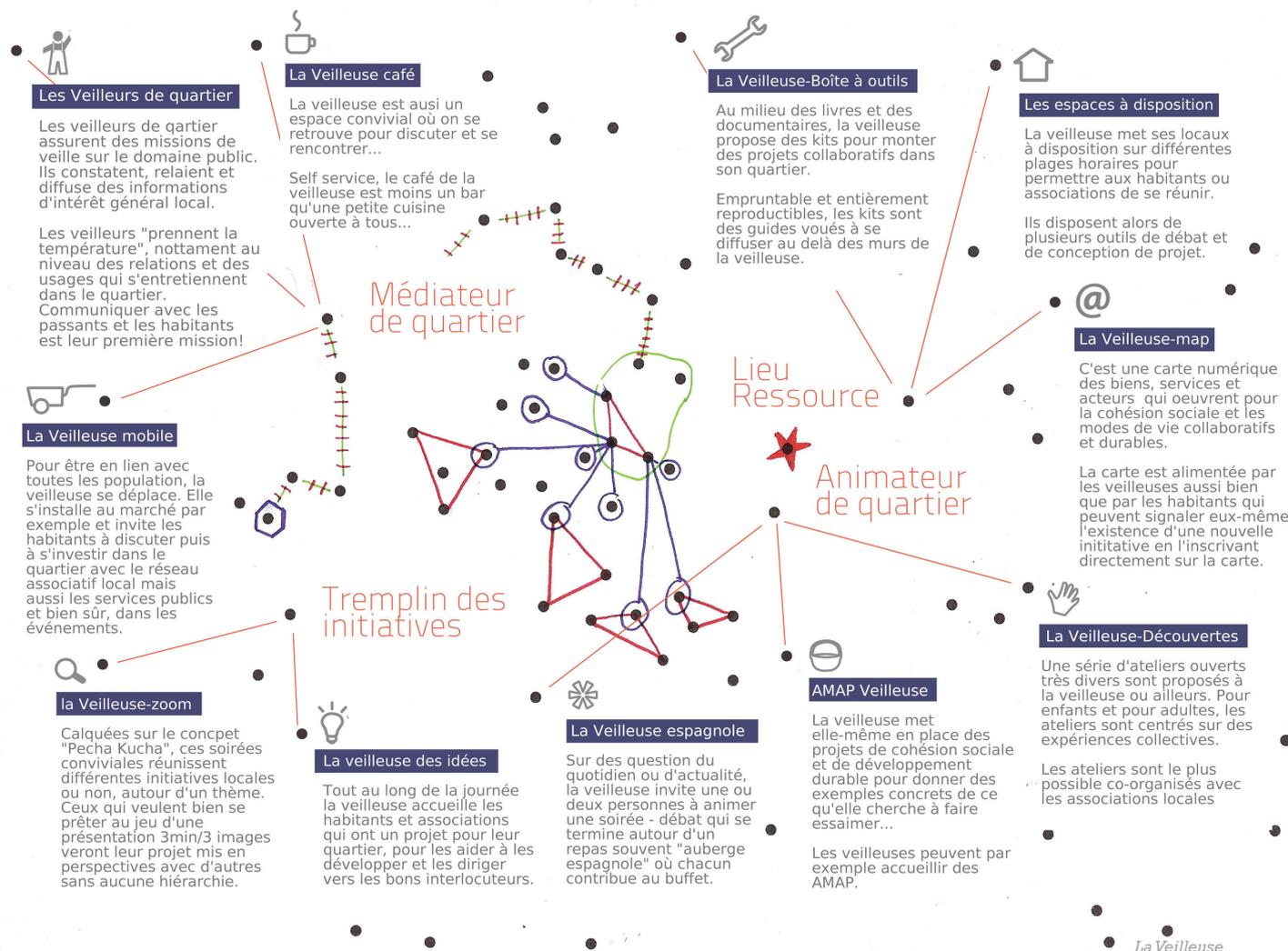
The diffusion of miniature digital access platforms enable ever-greater mobility and tends to **transform the city (and urban territories) into quite a playground**. The “playable city” is a notion invented by Care Reddington, of Watershed collective. It manifests as urban phikes, geocaching, geo-events (flashmobs, freeze, pillow fights, zombie walks...), unauthorized happenings, etc... **Ways to experience the city are demultiplying and diversifying as pervasive game forms, that act both as drivers for local animation and for the collective reappropriation of the city**. They also foster the growth of a new, **more interactive type of urban tourism** (augmented reality, 3D simulation...).

The city is also turning into a support for experimentation and artistic expression, in which citizens can **use their experience and skills to promote their own territory**. Take for instance the various amateur creations of slowmotion videos, timelapses, drone-taken videos...

Carlos Moreno (professor and expert in the intelligent management of complex systems) points out that in this new system, the **hyperconnected and geolocalized smart-citizen** is evolving from an observer to a actor of the city. Pr. Moreno argues that digital growth fosters the development of “**hyper proximity**” and can thus reconcile citizens with, and reconnect them to, their spatial environment.

The “Veilleuse” project in Strasbourg (2012) is an instance of **fusion between cyberspace and the city**. Veilleuse is a project led by Service Design students and illustrates the potential diversity in use of a space, of which digital media are only one component. Veilleuse is both a physical network (local, mobile physical structure) and a digital one (website and interactive map), that connects and valorizes initiatives for local development and social cohesion. The possible fields for digital media intervention keep diversifying, and act as new forms of mediation between territorial stakeholders.

La Veilleuse (creating a network between local stakeholders and initiatives)



CREATIVE CITY

"The polysemantic notion of "creative city" [...] promotes the invention of an urban alternative in which serendipity, movement and creation react to the inhabitants, and in which new types of intervention and regulation may emerge."

(Elsa Vivant)

Group intelligence, urban and citizen alternatives

What exactly is the goal of realizing such a knowledge- and innovation-based ecosystem? The issue stems from diverse points of views in the sociological approach of [the creative class](#) - which accounts for 20% of the population, according to Richard Florida. Who creates the city? For whom is the city created? Are we funding "knowledge elites" (Besson, 2014)? How to attract value creators without hurting "natives" and the territory? [How may resources, skills and "endemic" local talents emerge and be valued?](#) How to anticipate gentrification processes (Diaz, Ferme, Raspail, 2010; Langlois & Pawlak, 2010; Vivant, 2009) to include the other 80% of the population (Saez, 2009), and thus act towards group intelligence? Is the creative city a real alternative to the industrial city (Vivant)?

"A formatted and planified framework cannot allow space for serendipity. Instead of simply conceiving a creative city, the real challenge for urban planners is to create space for serendipity and creativity, allowing for the unknown, and to accept that urban practices may emerge that have not been planified and may even be unauthorized; in a word, by allowing for unplanned and implausible encounters."

(François Ascher)

The emergence of a XXIst-century knowledge- and innovation-based city is also influenced by the actual cases of (short- or long-term, spontaneous or planified) [reappropriation of existing cities](#) by artists and inhabitants. These manifest as the re-use of public space, wastelands or abandoned structures, as the bottom/up reinvention or development of neighborhoods or entire cities by informal and/or collective entities. Initiatives abound, evidence that [cities hold greater energy and more creative drivers than they may imagine](#) (C.Landry).

A number of practical cases followed the same principle of bottom/up individual or collective reappropriation of urban sites. For instance, alternative Berlin sites supported the growth of the electronic music scene, the "off" club Hacienda in Manchester saw the birth of house and rock music in the 1980s... one could also cite other sites such as [ciudadanos laboratorios](#) in Madrid, the Buits ("emptiness") roadmap in Barcelona, and the urban evolution movements in England (Totnes, Totmorden, Bristol...). They (consciously or unconsciously) hand back to citizens their right to the city (H.Lefebvre) and to "infrastructure" it (Corsin, 2014). Thereby, cities experience [the emergence of new society and innovation models via autonomous collective initiatives](#) (shared gardens, repair cafés...)

« We are asking architects and urban planners to conceive new urban objects that are open, shared, mutable, and capable of adapting to creative projects and evolutions. They should follow principles of density, mixity, play and recreation in order to foster informal interactions in a creative atmosphere - thus releasing creative energy and open, growing innovation. »

(Raphaël Besson)

Elsa Vivant states that creativity (in the arts, in society, in technology, in science or in urbanism) cannot be ordered, and [encourages humility in urban planning and in the design/management of the creative city](#). The many experiences of collective creation the world over already draw the outlines of what modern, sustainable, cognitive urban innovation could look like : autonomous, evolving in its functions, constantly adapting, open to social appropriation.

It all points to [the concept of "Tiers Lieux"](#) (3rd space), coined by Ray Oldenburg, which articulates the three dimensions of innovation : in space (mobile and/or cloudy growth), in society (urban encounters, socio-economic, environmental and technological inventions), and in production (prototypes, production and diffusion). Raphaël Besson, in turn, questions the potential issues of urban innovation, understood both as [the most evolved spatial form of cognitive capitalism and as a possible driver for the evolution of modern cities](#).

« Planning social and functional mixity is not enough to birth a creative environment. Urban planning operations often result in empty shells rather than a creative city.»

(Liefvooghe, 2009)

The 104 Experience

The 104 opened in 2008 at the initiative of the City of Paris. In the past 5 years (after an initial fiasco), it seems to thrive on a management strategy inspired by alternative urban sites. It is a "world-open" culture and innovation center open to neighborhood life. 104 includes a cross-field collaboration platform, artists in residence, retail, open public spaces that encourage "spontaneous appropriation", conference halls, a startup and projects incubator.

"We had to stop considering the space as a monument. When I started, we could not hang anything up or move anything, everything had been set by the architect."

(José-Manuel Gonçalves, directeur du 104)

In Cergy-Pontoise, a few experiences offer relevant food for thought:

La Caserne

The former 15ha military grounds of "Caserne Bossut" are situated between Cergy Grand Centre and Pontoise. Abandoned in 1998, they became an urban stronghold of artistic creation in the beginning of the 2000s. It then consisted of about fifty abandoned buildings, transformed into artists' workshops, and featured a circus, shared space for production (community gardens) and expression (murals, street art), punctual events and other community events of a musical, cultural, artistic or social nature. The Caserne was used by bands, artists, performers, circus companies... and acted as a real platform for some. It was abandoned again in 2008 and torn down in 2010. Today, the site is wholly planned as a complex urban development project.

La Ferme Cavan

La Ferme Cavan (Cavan Farm) is a former XVIIIth century agricultural site in Courdimanche, in which a couple dozen artists settled at the end of the year 2013. The development was initiated by the city (which owns the property since 2006). It now hosts associations, sculptors, street art practitioners, theater companies. The building itself is 2.000m², surrounded by 4.500m² of parkland. There a number of private spaces for artists' housing, and public spaces for all. Cavan is open to the city and inhabitants, especially when hosting events such as the Heritage Days or the "24hours of arts". It should feature, in the coming years, rental housing and a coworking space.



« Welcome the diversity of Cergy inhabitants to welcome global diversity. »

(Dominique Lefebvre, Cergy-Pontoise head of the agglomeration)

Visages du Monde is a new establishment, open in 2013 in the Hauts-de-Cergy neighborhood. Hybrid and multifunctional, it focuses on digital arts and modern dance. It features a media library, a neighborhood hall, an annex to the town hall, a music hall, a dance hall, a multimedia hub, a restaurant, a creative studio and associative quarters..

Visages du Monde



WHAT WILL THE XXI-ST CENTURY KNOWLEDGE- AND INNOVATION-BASED CITY LOOK LIKE?

**HOW WILL IT MANIFEST IN THE FOLLOWING DECADES,
ON THE PHYSICAL AND THE DIGITAL PLANE?**

**WHAT WILL BE ITS IDENTITY?
ITS URBANISM? ITS ARCHITECTURE?**



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