France urbaine is the only association of city majors and urban center presidents in France. Its 104 members, of all political tendencies and representing some 2,000 cities, gather more than half of France’s population. France urbaine is linked to the evolution of France territorial organization that aims at promoting the urban fact among public authorities and all citizens. The association participates in the structuring of the urban world and the attractivity of our country, within the framework of a permanent dialogue with the French Government. In order to ensure the best efficiency for public policies, France urbaine encourages “The alliances of territories” by strengthening the links between cities and peri-urban and rural areas.

Plus d’informations/More informations : www.franceurbaine.org
Over recent years, we have witnessed the constant growth of urban density all around the world: according to the United Nations (UN), around 70% of the world’s population will live in cities by 2050. This global phenomenon is associated with numerous challenges, such as ecological transition, the transformation of transport and mobility, the preservation of public services, access to health care and the promotion of living better together.

In this publication, France urbaine, an association bringing together major cities, inter-municipalities and metropolises across France, wanted to draw up a panorama of the initiatives implemented by urban centres and demonstrate how the use of new technologies can help people live better together in cities. In keeping with the topical issues of solidarity and access to public services, this publication examines the possible existence of a specific French model of the smart city.

THE SMART CITY: DOES A SPECIFIC FRENCH MODEL EXIST??

In view of the different contributions, rather than being a frenetic race to acquire new technologies, the use of digital technology by major French cities is the result of a global reflection process concerning its contribution to the improvement of local life: although technical in nature, digital technology should first and foremost be political and fulfil a societal function, in the general interest. The illustrations contained in the publication enable several common characteristics to be identified:

• THE QUEST FOR PERFORMANCE AND RESTRAINT
The development and exploitation of the smart city target performance, be it in terms of energy, to combat global warming, or in terms of mobility, in the face of increasing urban density. These aspects combine to make the city an attractive and desirable entity, while digital technology is positioned as being increasingly essential to maintain and develop public services.

• GOVERNANCE THAT IS HORIZONTAL AND LOCAL
The contributions described highlight a city that needs to be supported by an efficient governance structure, horizontally mobilising all local players contributing to the rapid development of usages and digital practices. Smart city projects need to be understood and embraced by citizens, by the people who interact with the city, and lend themselves to daily urban usages. The different contributions emphasise the creation of a local digital ecosystem – mobilising the local executive (elected officials and employees), businesses and start-ups, associations and citizens – to provide collective and appropriate reflection concerning digital and new technology usages for territories: a champion of the common good, the smart city should also be the champion of proximity.
• ADAPTATION OF PROJECTS TO SPECIFIC LOCAL CHARACTERISTICS

The problems and challenges facing cities are often common to all, as reflected in the determination to define a collective vision of the smart city and the way in which digital technology – new technologies, data, computerisation, artificial intelligence – should be adapted to local issues. Specific territorial aspects are thus of crucial importance: the specific feature of French smart cities is that they transcend project standardisation, implementing initiatives specific to their own territorial, social, geographic and cultural characteristics.

• A SMART CITY BASED ON AN "ALLIANCE OF TERRITORIES"

The social innovations stemming from the territories are the result of joint reflection processes, often transcending the perimeter of urban centres, since policies - living together, health, digital inclusion, etc. - are developed systemically, impacting both peri-urban and rural areas. French metropolises, made up of densely populated city centres with their high concentration of human and economic activities, also have peri-urban and rural zones within their territory, which are incorporated into reflection processes relating to the development of usages. For a city to be smart, it has to be a protection against territorial disparities and reflect in terms of reciprocity: such is the alliance of territories.

SMART CITY AND DIGITAL PUBLIC ACTION: WHAT PERSPECTIVES?

The promotion of these initiatives carries a message: give meaning to the digital era. The idea is not to make digital technology an end in itself or to convey a vision of “more digital”, but rather to address the issue of “better digital”: how can new information and communication technologies help improve public policies, maintain public services and foster more effective relations with citizens? Among the various changes and trends, major French cities and metropolises have opted to play the trust and transparency cards, well upstream of regulatory and legislative texts governing open data and data protection (French law relating to the Digital Republic of 7 October 2016, General Data Protection Regulation (GDPR) of 25 May 2018). Local executive bodies are also contributing to the definition of “general interest data”, data that, although private in nature, may be exploited by public institutions due to their interest in terms of improving public policies.

Often poorly understood, the development of digital technology and its usages should be supported by significant political mobilisation: mayors – who are trusted by their citizens – should seize these opportunities to promote their acceptance and usage development. As such, Les Interconnectés/Réseau des territoires innovants, a national association led by France urbaine, has spent more than ten years disseminating digital usages and new technologies to local authorities across France. Its wide-ranging initiatives help raise awareness among mayors, local authority employees and all those more generally who want to act to support their region through digital technology.

A shared determination exists in French cities to develop practices relating to digital technology, consolidate incubators present in French urban centres by promoting innovation and experimentation and initiate a convergence between university research and issues associated with various digital public policies: the development of artificial intelligence (AI) from the point of view of economic development and ethics, privacy rights and data protection, cybersecurity, etc. In addition, major French cities, alongside other local institutions, the State, businesses and start-ups, are positioned to develop a French smart city model that fosters social and sustainable innovation for the benefit of all.
Addressing the American Mayors’ Association in 2007, the former Mayor of Denver, Mr. Wellington Webb, said “the 19th century was the century of empires, the 20th century was the century of nation-states and the 21st century will be that of cities”. You only have to look at the size of the world’s major metropolises, megalopolises and, more recently, hyper-regions, their substantial economic weight, the sociocultural trends they convey, the race to become more attractive and the competition between them, even within the same country. Cities are thus developing a very strong socio-territorial identity, often removed from the identity of the country and, consequently, that of the state, with differences, contradictions and even clashes. It was in 1991 that the sociologist Saskia Sassen first coined the term Global City, underlining the influence of cities. Today, it is a factor that we need to understand.

SMART CITY: THE GENESIS

Cities everywhere are still built around four constants: urbis, i.e., infrastructures; spatium, i.e., the public space, which represents a melting pot of diversity; res publica, i.e., the public thing, the common good, the general interest; and civis, the citizen. With new technologies, the digital internet revolution and communicating intelligence, a fifth, ubiquitous constant has now emerged: the ubiquitous revolution and its tools that are radically changing our lives in our cities, transcending time and space.

In this context, the term “Smart City” appeared in 2010 as a platform to raise the profile of cities, given that the city would become smart by developing technologically advanced solutions to address complex problems. These origins, carrying a neo-positivist vision - giving rise to international competition, including to “rank smart cities” -, initially addressed techno-corporate interests. All too often, this led to the construction of showcases, heavily technology-oriented neighbourhoods that in many cities have ended up coexisting in a dehumanised manner with challenging forms of day-to-day urban life, with deficiencies and even a lack of essential services!
Reduced, from its origins, to the silicon and the algorithms deployed, this “smartness of cities” has thus corrupted the concept of a city in which intelligence is that of an eco-system working for social, economic and technological convergence to help improve the quality of urban life. In France, discourse and practice have shifted in recent years to reverse this “technocentric” drift of the smart city concept.

In 2015, we witnessed the emergence of an alternative vision to move away from the idea that a connected city was a smart city. As a result, we are beginning to see the smart city in a different light, designing it with the primary and constant objective of improving quality of life, placing people - all people - at the heart of the urban project. If the connected city does not create social links, paradoxically it becomes regressive, fostering isolation, developing what we now refer to as zombie-geeks, whereas what we need are citizens who, while being comfortable with digital technology, are, first and foremost, proactive.

NO SINGLE MODEL OF THE SMART CITY EXISTS

The challenges facing cities are also constant over time and they can be divided into five broad categories that are relevant everywhere: ecological, social, cultural, economic, and resilience-related. Above all, a city is a context, a living space, a complex system with its own personality. It is the product of a history, the image of its residents and their shared plans and projects; it is a living entity. It is essential to take into account its context and complexity. In fact, it is impossible to talk about “THE” smart city in general, given the fundamental importance of this context. Let’s take the example of car sharing. This is a solution that is appreciated and supported by people in major European cities since they see it as an opportunity to reduce their transport costs while at the same time helping to improve their environment. In Latin America and the USA, the car remains an important status symbol and, as a result, car sharing has not yet gained social acceptability. Similarly, there is resistance in Southern Europe, including France, to a shift from the use of cars to less polluting mobility options, such as cycling, whereas in Northern Europe cultural adoption took place many years ago.

Despite differences in context, it is nevertheless possible for us to define the common objective of smart cities with this human vision: to improve quality of life. We can be delighted that this approach has gathered momentum in France in recent years since local governance bodies have taken ownership of it, activating the convergence of three levers: social inclusion, the reinvention of urban infrastructures and the technological revolution.

FOSTERING PROXIMITY AND CITIZEN OWNERSHIP

A key factor determining the impact of technologies has also been the capacity to change their governance models. Move away from technical verticalization and adopt an integrated and global approach to urban evolutions. Be amenable to private initiatives operating in the social space, in the city, with capacities in terms not only of economic performance but also social cohesion and ecological responsibility. Make way for citizen-led initiatives, always bearing in mind that while the mayor is there to provide a vision, set development boundaries and manage an administrative team, he/she also has a duty to encourage expression in the city in its various forms to shape this open, participative, vibrant and creative city approach. Urban intelligence and new citizen usages, which are proliferating thanks to the social media and new technologies, provide a platform for the emergence of new initiatives for greater involvement in implementing changes to the living environment, here and now, via, for example, participatory budgets - crowd sourcing - and their associated projects to transform the life of the city, i.e., exploiting collective and citizen creativity. The power of the many, channelled into the common good, the public good.

If we manage to ensure citizens invest in the common good the city represents, to ensure that citizens identify with their city, we will have taken a giant step towards the smart city. The penny is beginning to drop with citizens and it is a game-changer.
In many cities, the key to the creation of this citizen dynamic is giving the public space over to citizens to provide a platform for diversity and mixing within neighbourhoods, i.e., shared by and accessible to all. In order, too, to create a feeling of ownership, which in turn will lead to the notion of the individual responsibility of each citizen with respect to this common good. New technologies can play an important role in developing this new “hyperproximity”, which is going to help reinforce the link between citizens and their cities. This “hyperproximity” means, for example, rethinking urban social functions (finding accommodation, working, eating, getting medical treatment, learning, obtaining fulfilment) within the territorial and global approach, and exploiting digital technology and social media focused on the territory, usages and the city’s identity, fostering solidarity within neighbourhoods, while also transcending them. The idea is to anchor the intelligence of urban ecosystems in the reality of city life, to bring citizens closer to their living spaces. Here we have encapsulated the essential challenge facing smart cities: to ensure technology is not something that isolates and alienates, but, rather, is a tool used as a platform for increased dialogue, increased diversity and increased responsibility with respect to the common good.

THE SMART CITY REQUIRES POLITICAL BACKING...

Through the numerous experiences across the continents, a strength emerges that is also a weakness for projects that fall within the framework of the smart city vision: given the complexity of the associated challenges, a smart city can only be constructed over the long term, i.e., over a period that exceeds a mayor’s term in office. In this context, the Mayor’s fundamental role today is to anticipate the long-term value of new usages essential to address the future challenges lying before us: climate change, threats to biodiversity, the scarcity of resources, economic and social instability, the fragile nature of socio-urban fabrics, the rise of populism, threats from extremism in its various forms, etc.

Mayors are trusted by the citizens they represent; they can bring people together around a common project, helping to give the city a purpose, a trajectory over time. The Mayor is the anchor for this smart city roadmap, which now has a human vocation, since it is not technology itself that provides solutions meeting the needs of citizens but the capacity to create usages and services that help improve quality of life. Without ensuring this coherence and perspective over time, the smart city is meaningless. The core value lies in proposals for new usages, coming up with new breakthroughs, implementing an approach that is innovative, even taking risks by doing things differently in the convergent creation of social, ecological and economic value. All three of these components must be present since our capacity to address the radical changes of our century is at stake.

...AND A REVITALISED TERRITORIAL APPROACH

The backbone of democratic, participative and citizen-led engagement is that of local governance structures, with mayors on the front line. Historically, cities have always been the driving force behind economic and social development, playing a major role in the credibility of political players. Action taken at city level generates a real capacity for engagement through communication, creativity, solidarity and collaboration, essential markers for the construction of a smart, human city. But it is also strategically and pivotally important that new forms of territorialisation emerge to accompany the increasing development of metropolises and megalopolises globally. In a world that is shifting inexorably towards the East/South axis, with Chinese hyper-regions, Indian and African megalopolises, the influence of cities in Latin America - the world’s most urbanised continent - and the threats and disruption to urban life caused by GAFAM and BATX, new forms of territorialisation are required in France to deal with the radical changes taking place. Beyond the role of the Mayor, new “urban and territorial frameworks” are required to plan for a future in which, 10 years from now, 60% of global GDP will be generated by 750 urbanised territories. French regions will remain a key element, with, in parallel, the need to reinforce an innovative metropolitan approach.
with networked cities. These cities will need to be capable of managing a common project, targeting the inescapable challenges that must be met by 2050 to ensure the very survival of humanity at the end of this century: carbon neutrality, to tackle climate change and the protection of biodiversity, under threat of extinction.

New practices supported by this collective intelligence are now key to future solutions for these smart cities and territories: a genuine state policy of large-scale territorial decentralisation, regions building multipolar urban and territorial frameworks, the alliance of territories to transcend divisions between compact zones, medium population centres, sparsely populated areas and rurality, multicentre, networked metropolises, networks of cities all reinventing short distances, and, at the heart of it all, cooperation between local, regional, national and international governance structures with the exchange of good practices and mutual inspiration drawn from the sharing of reflection processes and actions, etc.

These actions now represent an imperative, a vital and essential force in the construction of an innovative urban, territorial policy benefitting citizens. Today, they are one of the biggest challenges associated with the construction of the urban and territorial smart cities of the future.
Angers, the plant capital (Végépolys competitiveness cluster, France’s leading green city, at the heart of the Val de Loire wine-producing region) and a territory of innovations (electronics, smartworld, FrenchTech, 42,000 students), offers the highest quality of life (wines and gastronomy, vibrant culture and heritage, proximity, etc.).

A historic electronics centre, for a number of years now, Angers and its surrounding area have been cultivating expertise in the field of new technologies. It has a foundation conducive to the networking of players with a view to developing a Smart Territory.

ANGERS, GET CONNECTED.

KEY FIGURES FOR THE TERRITORY

- 300,000 inhabitants
- 31 municipalities
- 7,000 jobs, 900 companies, €1.3 billion turnover generated in the electronics and digital sectors

A COMPREHENSIVE DIGITAL ECOSYSTEM TO CONTRIBUTE TO TERRITORIAL INFLUENCE

Angers and its territory already boast numerous strengths to support this ambitious transformation. At the heart of this comprehensive ecosystem are numerous businesses and higher education and research establishments specialising in electronics.

The “Angers French Tech” label awarded on 24 June 2015 has provided a platform for establishing and developing Angers’ digital and IoT ecosystem, drawing on its long-standing electronics and IoT expertise. Electronics Manufacturing Service companies contribute to the vitality of this ecosystem.

In 2017, the city hosted the 22nd World Electronics Forum (WEF), confirming the region’s position as the European electronics capital. The event brought together federations and executives from all over the world to discuss the current and future challenges facing the electronics sector.

Based in Angers, the WE Network (West Electronic & Applications Network) regional cluster also contributes to this territorial momentum, uniting industrial players in the electronics and smart systems sectors in Western France. Today, the cluster brings together 200 players from the fields of Industry, Research and Training in the Pays de la Loire and Brittany regions.

By enabling companies to test their products and services before rolling them out on a national and international scale, the “Cité de l’Objet Connecté” [an IoT support centre for businesses of all sizes] acts as an innovation accelerator. Now a “panel” territory, Angers has become a major centre for hosting experimental technological projects.

The recent integration of the “Cité de l’Objet Connecté” into the WE Network reinforces the organisational structure of the Technology Campus for the Electronics Industry of the Future in the Pays de la Loire in Angers.
FROM EXPERIMENTATION THROUGH TO LARGE-SCALE "LIVING LAB"

The maturity of innovative projects that have emerged in Angers and its territory in recent years already has an impact on many public policies: management of buildings, green spaces, water and sewage, waste, parking, public transport, road signs and safety.

Elected officials from Angers Loire Metropolis unanimously launched the "smart territory" initiative in December 2018 to go further still. It is hinged around three objectives:

• To save resources in order to accelerate the territory’s ecological transition.

• To improve and offer new services for residents via more effective public action more in line with expectations.

• To optimise public service management and operating costs, by modernising methods and implementing more economical processes.

A UNIQUE 12-YEAR CONTRACT

The implementation of the Smart Territory is a long-term project for which Angers Loire Metropolis and the City of Angers launched a 12-year contract, representing an estimated budget of between €120 and €150 million.

The competitive dialogue procedure has been used to award the contract. With this procedure, several applications can be selected, with their project leaders then invited to take part in question and answer sessions and meetings to fine-tune proposals, prior to the definitive choice. When it awards the contract in November 2019, Angers aims to be the first of a new generation of smart territories.

NEW DEVELOPMENT PRIORITIES SUPPORTING DIGITAL USAGES

This smart territory project also extends to the development of digital usages. Angers Loire Metropolis and the City of Angers will soon have a new strategy focusing on digital relations with residents. Currently in the process of being drawn up, this future framework document sets four priorities: guaranteeing a digital relationship that is connected, personalised, inclusive and participative. Angers aims to address the new expectations of citizens regarding their relationship with digital public services.

This ambition draws on recent advances in terms of usages. The city of Angers is already one of the French-speaking users of the "Decidim" open-source digital citizen participation platform, created by the city of Barcelona. In Angers, this civic tech tool provides a platform for a growing number of participatory initiatives, sometimes mobilising several thousand residents. While these participatory initiatives concern the design of public policies, Angers is also developing the personalisation of public services, enabling individuals to access public services. This year, it launched an app containing a wealth of information enabling users to combine and personalise content.

Finally, the urban community, the municipality and its Municipal Centre for Social Action are defining a vast portfolio of projects specifically targeting digital inclusion. It is aimed at structuring public intervention to make it easier to complete online procedures, help public policy beneficiaries gain access to what they are entitled to and guide them towards digital culture and literacy.
DRAWING UP A DIGITAL TRANSITION STRATEGY

In 2015, the City of Annecy adopted a smart city strategy under the title “Ville du futur” or “City of the Future”. Following on from this first experience, and against a background of major changes in terms of the geographic perimeters covered and scope of the actions implemented by the two territorial authorities in 2017, the City of Annecy and Grand Annecy [the Greater Annecy area] jointly developed a Digital Transition strategy in 2018.

THE DIGITAL TRANSITION, A TANGIBLE AND Complex Reality

The digital transition may be seen as the fundamental shift occurring in modern societies as a result of the rapid development of digital tools and their usages. The transition affects every aspect of our daily lives.

The digital transition initially developed as a result of the rapid emergence of disruptive technologies, but it is in no way limited to notions of infrastructures, connectivity and software alone. Digital tools are also associated with changes in the ways we think, communicate, work and “live together”. Digital technology should be understood as a complex societal reality rather than a simple series of technical options. While efforts have focused on infrastructures - the roll-out of ultra-fast broadband for everyone -, there has been relatively little investment so far in the support for digital usages.

The City of Annecy and Grand Annecy are affected by the digital transition and need to implement an internal transformation policy. Digital tools help make territorial authorities more efficient: they generate savings in terms of resources and time, they simplify administrative tasks and make public services more accessible to users.

The aim is also to support the territory’s players and residents through the digital transition. While the economic world has already begun its “digital metamorphosis” to varying degrees depending on the specific sector, the situation is more contrasting for the non-commercial sector and the general public.

To give the digital transition a more human face, citizens of all ages and from all social backgrounds must be offered support enabling them to embrace digital tools and usages. Digital technology should not accentuate the inequalities that already exist; it should serve instead to maintain social links and create new ones.

KEY FIGURES FOR THE TERRITORY

- 130,000 inhabitants
- New municipality since 2017: 29th biggest city in France, including the delegated municipalities of Annecy, Annecy-le-Vieux, Cran-Gevrier, Seynod, Meythet and Pringy
- 33 digital transition projects planned, 59 projects under way and 24 projects completed across Annecy since 2018
Digital Transition Strategy 2018-2022

In March 2018, elected representatives of the City of Annecy and Grand Annecy adopted a shared Digital Transition strategy covering the two local authorities for the 2018-2022 period. The strategy provides a general framework setting out how the digital transition will help address the major issues facing Annecy and its territory:

- The digital transition as a lever for environmental challenges;
- Guarantee a territorial public service that is easily accessible for citizens, reactive and efficient;
- Make the territory more attractive in terms of business, tourism, sport and culture;
- Support citizens in terms of digital usages;
- Be an active player in the new data economy.

The strategy has been translated into an action plan that specifies concrete projects to be conducted by both territorial authorities, sometimes jointly.

Some digital projects have already been undertaken by the two authorities, but the implementation of a Digital Transition strategy provides a platform for going beyond individual, sector-specific actions, developing a joint vision and identifying cross-cutting themes for which resources can be pooled.

The City of Annecy and Grand Annecy have assembled the driving forces from across the territory to spearhead the operational roll-out of the strategy, via a committee of partners including Savoie Mont Blanc University, chambers of commerce, industry and agriculture, Annecy Startup (French Tech in the Alps), economic sectors of excellence and other institutional partners from civil society.

Completed projects include:

- Internal improvement projects such as the use of electronic signature solutions;
- Business-specific tools such as those used for the management of childcare units or checking play areas and sports facilities;
- For users, the roll-out of a smartphone application to report incidents on the roads, and a new “Families” web portal;
- For local associations, the launch of a call for projects to support their digital initiatives;
- Digital education initiatives open to all.

Gain a better understanding of the digital divide in order to address it more effectively

Digital mediation is a priority for municipal elected representatives seeking to ensure nobody is left behind by the digital transition. The issue is a complex one to deal with, especially given the number of departments involved: social action, culture, the elderly, socio-cultural events, etc. And small-scale initiatives abound across the territory, led by a multitude of different players.

In 2017, the City of Annecy wanted to better define its public service mission in the field of digital mediation, taking into account initiatives already being implemented today, the expectations of the people of Annecy and a more precise knowledge of the existing digital mediation provision.

First logical step: a study of the existing provision and demand. This was carried out using two statistical surveys, one targeting residents and the other targeting local digital mediation players.

This comprehensive analysis will be used as a basis for drawing up a concrete action plan (currently under construction). This will be done collectively with all local digital mediation players with a view to developing an effective and coordinated range of widely accessible digital mediation services, delivered by both public and private players.
Dijon Metropolis is inventing the territory of tomorrow with a smart metropolis project that is ground-breaking in France, placing the management of the public space at the heart of new citizen services and the modernization of public action. It is the first time that a project has addressed problems relating to road maintenance (waste collection, road works, etc.), the efficiency of operations in the public space (coordination of teams from various departments and of vehicles) and mobility at the same time. Dijon has become a regional driving force for reflection processes surrounding the transformation of local authorities, mobilising technological innovations for the benefit of the metropolis and its residents.

**KEY FIGURES FOR THE TERRITORY**

- Some 260,000 inhabitants
- 23 municipalities
- 11 April 2019: Launch of the smart metropolis with the commissioning of the connected control centre
- Finalist at the Smart City World Expo Congress 2018
- A €105 million contract financed by Dijon Metropolis, the city of Dijon, the Bourgogne Franche-Comté region and the European Regional Development Fund (ERDF)
- Replacement of more than 34,000 lighting units (100% LED)
- 113 junctions and 180 buses fitted with bus priority systems
- 205 geolocated vehicles and 130 equipped with radio communication
- More than 140 km of fibre-optic cable installed
- 180 buildings, including 13 renovated buildings, managed with safety and security monitoring and connected to the control centre
- 65% energy savings at the end of the contract
- Renewal of 26 access points
- Renewal of 269 CCTV cameras

**OnDijon: a ground-breaking smart metropolis project**

Commissioned on 11 April 2019, the OnDijon project is hinged around a connected control centre that manages all urban amenity equipment across the territory’s 23 municipalities. Thanks to digital data from public amenity equipment, this control centre makes it possible to facilitate and better coordinate operations in the public space and to manage urban amenity equipment remotely. With this connected control centre, the OnDijon project addresses several urban issues with a view to:

- simplifying and better coordinating the metropolis’ service maintenance operations in the public space (waste collection, roads, green spaces, cleaning)
remotely managing urban amenity equipment across the metropolis’ 23 municipalities (traffic lights, street lighting, CCTV, road management, etc.)

• ensuring the safety and security of the public space: crisis management (snow, floods, etc.), public building safety (fire, intrusions, access control, etc.), CCTV and municipal police intervention

• organising residents’ mobility, via the coordination of transport modes and journeys throughout the territory

• managing some 630 calls made by residents per day to the dedicated call centre

CREATION OF THE FIRST DIGITAL PUBLIC AUTHORITY

Convinced that data management lies at the heart of local authorities’ new public service missions, Dijon Metropolis implements a proactive open data policy providing access to public service data and sharing it with digital economy players.

It is the first time that a project on this scale in the field of open data and data governance has been launched in France by a public authority.

DATA FOR THE BENEFIT OF USAGES AND CITIZENS

Dijon Metropolis’ objective is to better address residents’ needs by creating the adaptable and sustainable city of tomorrow, for the benefit of citizens.

The construction of this new governance model also fosters transparency in terms of the way the Metropolis and its services are managed (follow-up of citizens’ requests, the development of participative democracy processes, etc.). Digital technology actually facilitates the Metropolis’ decision-making processes by providing relevant operational solutions of benefit to citizens.

A PROJECT THAT CREATES COLLECTIVE VALUE AND MAKES THE TERRITORY MORE ATTRACTIVE

Using digital data from public amenity equipment, Dijon Metropolis wants to benefit from this outstanding opportunity to increase its economic growth and become a leading, digitally attractive metropolitan player.

An open data policy stimulates local innovation and creativity for the benefit of the common good. Thanks to the OnDijon project, Dijon Metropolis is becoming a benchmark in the field of urban open data. The Metropolis is going to develop and test services associated with new city usages. To do so, it will be able to draw on the excellent expertise of companies throughout the territory in the fields of data science and artificial intelligence, who will be responsible for analysing the wealth of data collected.

Dijon Metropolis is developing new innovation spaces across its territory (FabLab, incubators, etc.), supported by a structured open data platform, in line with its determination to create a local digital sector of excellence. The city is becoming a full-scale testing ground to develop the metropolis of tomorrow thanks to the creation of a future Living Lab.

AN INNOVATIVE ECONOMIC AND CONTRACTUAL MODEL THAT CAN BE COPIED BY OTHER LOCAL AUTHORITIES

Through this project, Dijon Metropolis has developed a ground-breaking economic model whereby a major territorial transformation project is financed by an innovative leverage effect from investments in everyday public services and by savings generated by the optimisation of urban amenity equipment and services. The 12-year project will generate energy savings from street lighting amounting to 65% as a result of the use of 100% LED lighting.

Savings generated by the project (energy savings, optimisation of equipment and services, etc.) finance the creation of new smart metropolis services and contribute to the development of Dijon Metropolis’ digital economy.

Thus it is a model than can easily be adopted by other cities seeking to develop a smart city project. Dijon Metropolis is already talking to a number of authorities interested in the ground-breaking, reproducible model it has developed.
With a dedicated mission, the Urban Community of Dunkirk encourages digital innovation and falls within the framework of European, national and regional projects. Its strategy is structured around 8 priority areas, the objectives being to improve day-to-day public services and make the territory more attractive economically and as a place to live.

DIGITAL TECHNOLOGY TO MAKE THE TERRITORY MORE ATTRACTIVE ECONOMICALLY AND AS A PLACE TO LIVE

With a dedicated mission, the Urban Community of Dunkirk encourages digital innovation and falls within the framework of European, national and regional projects. Its strategy is structured around 8 priority areas, the objectives being to improve day-to-day public services and make the territory more attractive economically and as a place to live.

KEY FIGURES FOR THE TERRITORY

- 200,000 inhabitants
- 17 municipalities
- More than 20 digital projects supported
- €2.410 million of ERDF funding obtained

Adopted in 2016, the Dunkirk Community’s digital strategy sets out a new ambition for the territory in the field of digital technology. Thus the community project is hinged around innovation though the exploitation of digital technology to make the territory more attractive economically and as a place to live, improve day-to-day public services and ensure our practices evolve to transform the territory.

The Urban Community of Dunkirk decided to adopt an approach placing it within the framework of European, national and regional projects. In 2016, the creation of a dedicated mission within the Communication and Digital Technology Department enabled the local authority to step up its activities in this area. Around twenty digital projects are currently being accompanied and supported, in fields as diverse as culture, economic development, the promotion of tourism, open data, citizenship, etc.

The Les Balises library network

What if all the libraries throughout the urban community became one? In 2013, this simple idea led to the creation of an inter-municipality public reading network bringing together the various towns in the Dunkirk agglomeration: Les Balises.

The first step was to harmonise library access conditions, particularly in terms of making them all free. An IT management system was provided by the Urban Community of Dunkirk (CUD), with catalogue migration in 2013 and 2014. All these operations were covered by an agreement between the intermunicipality and towns, culminating in 2015 in the launch of the Les Balises network, its unique access card and its web portal.
UNIQUE CARD AND NEW SERVICES
Bringing together 12 municipalities across the agglomeration, the network provides access to 600,000 documents that can be borrowed or consulted. The unique card enables users to borrow a document from one library and return it to any other library within the network. The CUD does not have jurisdiction over public reading; towns continue to own their own collections and are free to make decisions concerning further acquisitions. Eight community officers administer the IT tools and coordinate and manage a network of 150 municipal employees.

The “Operation Dynamo” tourism application
Bring back to life Operation Dynamo and the Battle of Dunkirk via an immersive digital experience, such is the aim of the application developed by the Urban Community of Dunkirk. One of the priorities of the community project, the reinforcement of the territory’s appeal went hand in hand with another specific objective: to support remembrance tourism and the creation of tours incorporating digital technologies, geolocation and data access. In the wake of anniversaries commemorating events from the Second World War and the release of Christopher Nolan’s film “Dunkirk”, a vast heritage site enhancement programme was thus launched. The first phase, conducted in 2016 and 2017, concerned symbolic locations, including the 1940 Dunkirk museum, little ship Princess Elizabeth and the Le Sablier monument. A second phase (2018-2020) is aimed at developing the sites and tours to provide a structured offer.

OPEN-AIR MUSEUM
Going beyond the physical museum, the CUD launched a call for projects concerning an open-air museum concept. The idea was to provide historical mediation surrounding relics still present - monuments, blockhouses, wrecks, etc. - and to recreate the past precisely where the traces disappeared. The result is the development of “Operation Dynamo”, an application that offers scripted historical tours in Dunkirk.

IMMERSIVE EXPERIENCES
The two tours currently available offer immersive experiences: virtual re-enactments of scenes, augmented reality of landscapes, panoramic views, sound narration, etc. Users follow an augmented map showing points of interest on each tour: visual elements, mobility, combination with other databases (tourism, culture, etc.). The scenarios developed are aimed at a both family and adult audiences. Further tours will be added in 2020, covering the entire agglomeration.

A PLATFORM FOR FUTURE PROJECTS
This project led to the design of an innovative tourist tour management interface, which could be rolled out for other projects, with the possibility of incorporating a “physical” extension to the virtual experience through the involvement of the region’s players: libraries, facilities, hotels, restaurants, etc.

BENCHMARK DIGITAL LIBRARY
In 2017, within the framework of a call for projects, the Les Balises network was awarded the French “benchmark digital library” label by the country’s Ministry of Culture. The €1.9 million budget, including more than €1 million provided by the Ministry of Culture, helped equip the libraries with RFID technology (to move the lending chain over to RFID technology). Investments in digital infrastructure include automated loans systems and compatible readers now installed in libraries; all volumes have been assigned their RFID identifier. IT systems have been overhauled, both for public reading officers and visitors.

REINFORCEMENT OF ONLINE SERVICES
A reflection process conducted with partner towns led to the reinforcement of services available via the Les Balises portal, initially restricted to document searches and consultation of works borrowed. Today, users can watch 8 films per month, choose from a broad range of training options and read numerous press publications, all free of charge. Public reading officers test and choose the services provided, a provision that is set to expand in the near future with a selection aimed at younger users.

IN FIGURES
→ +43% readers signed up between 2015 and 2019
→ 29,000 active readers
→ 31,000 visits recorded every month on www.lesbalises.fr
→ > 2,000 people use the online services (VOD, training, online press)
→ More than 600,000 documents available for loan or consultation
→ Between 200,000 and 230,000 documents loaned every quarter
The Smart City initiative, implemented within the framework of the GREnoble Alps Together (GREAT) project, is aimed at mobilising intelligence and energies in support of a sustainable territorial transformation, making the sharing economy a lever for transition. While the urgent need to tackle climate change becomes increasingly palpable as time goes on within our Alpine metropolis, the objective is to encourage a return to local resources in support of the energy and ecological transition and the development of increased social and territorial cohesion.

Fitting squarely with the long tradition of the Grenoble metropolitan area, marked by major scientific progress but also by developments such as the birth of family planning and the creation of the first scientific, technical and industrial centre, the GREAT project combines technological and social innovation. It is the result of a collective dynamic bringing together some one hundred institutional, economic, academic and citizen players.

It is based on the conviction that it is through the large-scale dissemination of innovation that territorial transformation is made possible, via new, more agile forms of organisation and cooperation, mobilising public and private players, mirroring its governance approach that also brings together neighbouring territories.

**KEY FIGURES FOR THE TERRITORY**

- **Number of inhabitants:**
  - GREnoble Alpes Métropole: 443,000
  - Urban area: 700,000

- **The Metropolis’ 49 member municipalities actively contribute to the initiative alongside the neighbouring territories of Voironnais, Grésivaudan and South-Grésivaudan**

- **Around fifteen collaborative projects with the direct involvement of the local authority are currently under way, and a further thirty or so are in the preparation phase. Additional individual projects are being conducted by specific players.**
The GreEn-Er project: 2009 - ongoing

Led by PRES Université de Grenoble (Grenoble University Research and Higher Education Centre) and administered by Grenoble INP (Institute of Technology), GreEn-Er is a new innovation centre for energy and renewable resources of global importance. The ambition behind the GreEn-Er project is to assemble training and research players in the field of new energy technologies on a single site. The site incorporates the Grenoble INP - Ense3 (Energy, Water and Environment) engineering school, undergraduate and master’s degree courses run by Joseph Fourier University, a laboratory, G2Elab (for electrical engineering) and training/research platforms (PREDIS and MEE).

Developed as part of a public/private partnership with Eiffage Group, GreEn-ER was set up to address challenges relating to renewable energy production, energy storage, energy management and energy efficiency. More than 1,500 students are based in this European excellence centre.

Period Ecocity “City of Tomorrow”: 2015 - 2020

In April 2015, CGI launched its “City of Tomorrow” call for projects, with a view to funding new actions for the period 2015-2020. The general principles of the Ecocity initiative are the same as those for the 2010-2015 phase but there has been a greater emphasis on usages, new digital technologies and social innovation. Moreover, intervention fields have become more diversified:

• urban design and the environment;
• buildings and usages;
• energies and networks;
• mobility;
• innovative urban services.

Grenoble Metropolis submitted a proposal in response to this new call for projects in September 2015 before signing a contract with the State in October 2016. Its proposal is hinged around a multi-centre strategy supporting a balanced territorial organisational structure. The Grenoble Ecocity takes into account consolidation (the Presqu’île scientific district) and the emergence (Flaubert joint development zone) of model smart, sustainable and resilient city neighbourhoods, the promotion of exemplary and efficient “metropolitan villages” and the integration of cross-cutting actions. The French Investments for the Future Programme awarded the region €10,441,750 to support a dozen actions (new building usages and the energy renovation of envelopes, energy storage, hydrogen mobility, participative housing, new-generation urban heating networks, ageing and home care, etc.).
Located south-west of Paris, Issy-les-Moulineaux, a town of 70,000 people, launched an innovative digital technology strategy as early as the 1990s. Citizens are at the heart of a project aimed at building together a people-led, collaborative smart city serving its residents.

When Issy-les-Moulineaux embarked on the process now referred to as the digital transformation, nearly twenty-five years ago, the objectives were to make the territory more economically attractive, modernise municipal services and anticipate residents’ usages. These objectives have been met, and indeed surpassed when we look at the urban metamorphosis of a town that now has as many jobs - primarily in the digital sector - as it does residents, healthy local finances and almost zero debt. During this period, the population grew by 35%, without increasing the number of municipal civil servants.

More than half of all businesses located within the perimeter operate in the digital sector, including some flagship international companies (Capgemini, Orange, Microsoft, Cisco). Working in partnership with private players, as well as other local authorities and specialist schools in its catchment area, the town prepares the way and experiments, demonstrating that the digital revolution concretely changes our day-to-day lives.

The residents of Issy-les-Moulineaux have often been the first to be able to test and adopt new digital services, from online administrative procedures to electronic voting, payment for parking by mobile phone, digital tablets in our schools, Li-Fi (wireless communication technology that uses light to transmit data) at the museum and fibre-optic technology rolled out across the town.

This strategy deliberately seeks to be pragmatic, but it is based on the conviction that our towns and cities have an essential role to play in the development of the digital society.
Issy is also actively involved in cooperation and experience sharing with other towns and cities, taking part in innovative European projects such as PoliVisu and Internet of Radio Light (IoRL), but also through its twin and partner town network.

### The Smart City mobilised for the climate

The Smart City should be conceived as a powerful tool for tackling global warming, to be used primarily to reduce air pollution and energy consumption, as well as to develop new, less polluting, more efficient modes of transport.

For example, the Issy Grid project, led by a consortium of a dozen or so large companies, all leaders in their sectors, resulted in the development of a locally-produced energy storage system with a view to reducing consumption peaks during periods of extreme cold or hot weather.

So Mobility, another project led by the town, is aimed at identifying digital solutions to make urban travel more fluid. Working with partners Bouygues Immobilier, Cisco, Colas, Transdev and the Caisse des Dépôts [a French public-sector financial institution], the aim is to demonstrate that solutions exist and simply need to be adopted on a larger scale. Experiments conducted in Issy-les-Moulineaux (driverless shuttle, smart car parks based on the use of open data, car-sharing, etc.) are being used to demonstrate the value of these new services.

### Open Data, our passion!

Keen to stay a step or two ahead of the field, Issy-les-Moulineaux launched its transparency and open data initiative in 2012, opening up data relating to its preliminary budget. The municipality constantly updates its website, data.issy.com, determined to democratise open data. To make it accessible to as many people as possible, the website is designed around maps, graphs, key figures, photo galleries and videos.

For example, its financial report supported by open data makes it easier for users to understand the budget and its mechanisms. Available for consultation at http://rapportfinancier.issy.com, since 2012 users have been able to visualise the debt level and see at a glance sources of expenditure. Data Issy also offers an open diary that contains details of all the town’s events and can be used on any other third-party service.

### The protection of personal data: an imperative

In October 2018, the Town signed a partnership agreement with Qwant, making the French search engine the default search engine for all computers used by its municipal officers, primary schools and public municipal facilities. A strong signal illustrating shared values surrounding the protection of individual rights.

Designed and based in France, Qwant is the European search engine that respects privacy, protects the freedoms of its users and preserves the digital ecosystem.

Qwant Junior also becomes the default digital workplace search engine in primary schools in the Town. This is a secure search engine suitable for use in schools, specifically developed for children aged between 6 and 12 years. With no advertising and no access to pornographic and online shopping sites or those containing violence, Qwant Junior filters out content that may shock or be inappropriate for younger web users. The format was extended to secondary schools (middle school or junior high level) in September 2019.

**USEFUL LINKS**

- [http://www.issy.com](http://www.issy.com)
- [https://data.issy.com](https://data.issy.com)
- [http://rapportfinancier.issy.com](http://rapportfinancier.issy.com)
A smart and shared city is one that is able to take advantage of the accelerating capacities and agility of digital technology. It focuses on optimising the use of technologies, data, artificial intelligence, computerisation, etc., to accompany the transformation of society in general, and improve relations with users, residents and citizens, more specifically.

**THE METROPOLITAN VISION OF MY SMART AND SHARED CITY AS A GOVERNANCE TOOL**

The intelligence qualifying the city determines not only a capacity to link together and combine information but also defines new forms of interactions between individuals and their material, physical and social environment.

In this context, the city, seen as much as an urban space as a space that creates a community, can thus aspire to become an optimised, connected and shared city. Intelligence is exploited for the purposes of delivering a good quality of life, reinforcing and optimising the capacity of users, residents and citizens to access services in tune with their aspirations and lifestyles, in terms of mobility, education, training, health, work, housing, consumption, etc.

Accordingly, it questions all registers and scales of public action, avenues for citizen involvement and methods of territorial governance. It also influences new economic models, doing so in a context of increasingly restricted budgets.

By making the smart city a strategic banner for its action, European Metropolis of Lille (MEL) increasingly adopts an approach centred on users and the joint creation of its public policies.
This approach is reflected in:
• The development of a citizen participation platform combined with jointly constructed initiatives conceived with MEL’s residents, municipalities and services;
• Support for and networking of third places (spaces outside the home or workplace) across the territory, with a particular focus on those located in priority neighbourhoods;
• Support for social centres who have decided to pool their reflection processes to ensure digital technologies are exploited in such a way as to simplify the day-to-day lives of residents;
• The digital transformation of the territory’s retailers;
• Open data and mobilisation surrounding the 5G Challenge;
• etc.

Third place policy

European Metropolis of Lille adopted its digital strategy on 24 June 2016.

This important milestone in the definition of the territory’s digital identity affirmed MEL’s determination to make digital technology an instrument serving territorial innovation, citizenship, creativity and performance. In particular, priority 2 of the “resolutely citizen-focused and creativity-oriented” strategy highlights the need to foster the emergence of creative and contributory places and mechanisms across the metropolitan area.

The ambition: to create and develop 40 new third places in 3 years, focusing on two targets:
• Social innovators and small structures;
• Bigger towns or structures (Social Centres’ Federation, Universities, Health Groups, etc.).

Support for social and digital innovation players is also an integral component of MEL’s social and solidarity economy policy.

It is for this reason that MEL works to ensure calls for Third-Place and Doing Business Differently projects are well coordinated and complement one another.

In doing so, its primary focus is local and territorial economic development and associated objectives:
• Economic initiative and business creation, proposing flexible, low-cost property solutions through the pooling of work spaces, material resources and contributory dynamics required by project leaders incorporating digital technology in their projects, and by independent or creative businesses in the start-up phase;
• The development of teleworking in order to take greater account of different paces of life and deliver a better work/life balance. Third places form part of the site provision available to MEL teleworkers;
• The metropolis of Makers: much like a FABLAB, third places are places of expression for the creative industry and collective intelligence. As such, they represent the Metropolis’ ecosystem of Makers supported, in parallel, by MEL in partnership with KissKissBankBank and actively involved players across the territory;

• Inclusion: 40% of the territory’s third places offer digital mediation services, thereby contributing to a better understanding of their usages. With a neighbourhood focus, they provide new services to residents thanks to the communities managing them;
• Attractiveness: numerous requests are made to third places for tours and experience sharing from players from outside the metropolis. MEL is now the second benchmark territory for third places behind Nouvelle-Aquitaine, which has invested heavily in the area since 2010.

MEL also supports the Compagnie des Tiers-lieux.

The Compagnie des Tiers-lieux is a network managed by its members on a mentoring basis. It acts as an incubator for project leaders and manages activities.

It also works closely with municipalities, providing teleworking solutions for the Metropolis’ officers and structures pooled training and service platform solutions. It is also considering the introduction of a property solution based on joint-ownership by users.
What is a smart city? The term implies the evolution of lives, territories and organisations as a result of digital transitions (technological, economic, usages, governance, etc.). The challenge is to consider and support the population, territory, local authority and all partners within the context of the resulting societal changes.

For the past 10 years, Lyon Metropolis has been actively engaged in an ambitious smart city programme, serving local people and improving their quality of life. The digital transition has a direct impact on all areas of public action: from mobility to social action, from citizen involvement to air quality, from education to energy management, etc. Over the course of this 10-year period, Lyon Metropolis and its partners have:

- set up numerous innovation and experimentation projects to explore the potential and limits of various technological solutions;
- rolled out new user services to adapt to evolving lifestyles;
- invented innovative cooperation arrangements to conduct partnership projects;
- defined territorial digital governance frameworks, particularly relating to data.

Following these numerous advances, the smart city must now, more than ever before, offer reassurance and demonstrate that its purpose is to serve the entire population. Beyond the dynamics of innovation and development, citizens and users are expressing the considerable expectations they have regarding the responsibility of public players as the guarantors of a smart city that is both human (encouraging inclusion and social cohesion) and benevolent (one that protects and supports individuals, particularly the most vulnerable, through these transformations).

Two projects, in particular, illustrate the types of solutions being considered to meet these expectations: the territorial digital inclusion initiative and the approach relating to the protection and use of personal data in the energy field.
Inclusion and digital mediation

Over the past 2 years, Lyon Metropolis has established a structured digital inclusion initiative aimed at building a Smart Metropolis serving and accessible to all residents, particularly the most vulnerable. Being able to adopt digital tools, skills and usages is crucial to ensure access to services and an individual’s capacity to act.

Support for publics who are vulnerable with respect to digital technology must be locally focused, extensive, better coordinated and more professionally oriented in order to best serve needs. The first step is to train social support structures in digital mediation.

3 priority initiatives are under way:
1. the creation of a network of digital mediation players to organise and reinforce mediation,
2. the establishment of a partnership finance structure to support action across the territory,
3. an awareness-raising campaign regarding the acquisition of digital technology skills via educational initiatives (secondary schools), events targeting young people and families (SUPER DEMAIN) and the development of “third places” (spaces outside the home or workplace) to communicate about digital cultures within the population.

The Self Data Territorial project - the exploitation of personal energy data by the user

This project represents the convergence of two major strategies implemented by Lyon Metropolis: personal data management and protection and the metropolitan energy transition strategy. France’s leading smart grid city, Lyon Metropolis has been testing smart energy meters since 2010. Today, these meters are used for electricity, water, gas and heating networks, offering unique usage potential integrated within local energy strategy. In addition, since 2012, Lyon Metropolis has been working in partnership with the FING [Next Generation Internet Foundation] to explore personal data management potential and solutions (MesInfos, MyData, Self Data territorial).

To enable citizens to take back control of their personal data and make good use of them, within a framework of acceptable confidentiality and governance conditions (privacy, GDPR, etc.). Concerning an energy component, to enable consumers to exploit their energy data in order to better manage their consumption.

Develop a concrete solution (secure personal data cloud) for individuals to manage their personal data, visualise them and combine them (energy data, banking data, diary, home automation, etc.), while guaranteeing privacy and GDPR compliance. Test usage scenarios to validate business models.

This solution is aimed at the end user.

This project defines the foundations for shared personal data governance between the citizen, the local authority and service providers (energy, bank, insurance, telephone, etc.). The FING - a national digital governance think tank - is co-managing this research.
For a number of years now, Marseille has been taking ownership of digital technology. Its strategic location, where transcontinental underwater cables converge, makes the city an international connection hub. This configuration, conducive to the creation of Data Centres and its ambitious Smart Port project, provides a solid platform for a new economy designed to “succeed better together”.

Over the years, therefore, our city has introduced a plethora of initiatives and is now positioned at the forefront of innovation. The French Tech label – renamed “Capitale French Tech” (French Tech Capital) in 2019 –, first obtained in 2012, reflects these efforts. But the city needed to pursue this metamorphosis. The political will since 2015 has been clearly demonstrated: to make digital technology one of the major themes of the new legislation, the principal tool for the territory’s transformation.

Today, the digital sector is booming. With a turnover of some €10 billion and annual growth of 13%, it liberates forces and consolidates synergies. Structured around numerous accelerators and the Belle de Mai media hub, it is underpinned by a rich ecosystem of entrepreneurs, start-ups, incubators and university research centres. It is an ecosystem that makes Marseille a highly competitive city.

By prioritising citizens, the City has embraced one of the key digital technology challenges.

It has exploited the strengths of the sector to improve the quality of life for the people of Marseille and its visitors.

Ambitious projects such as the Smartselle eco-district, intelligent energy resource management, ocean thermal energy, the 5G challenge and the introduction of a Smart police force reflect this commitment.

**KEY FIGURES FOR THE TERRITORY**

- Number of inhabitants:
  - Marseille: 870,000
  - Aix-Marseille Provence Metropolis: 1,887,000

- New economy: €10 billion, 8,000 companies, 49,000 employees

- 95% of the population eligible for high-speed broadband, full 4G, 5G challenge

- Digital Port: 14 underwater cables, Interxion and Free Jaguar Network data centre archipelago

- Aix-Marseille University: 750,000 students

- Marseille chosen by the State has one of three pilot sites to develop the sustainable city of the future.
Marseille is becoming a smart, safer and calmer city, a pleasant place to live.

Digital technology is actively contributing to its international influence. The city hosts an increasing number of conferences and trade shows on the theme.

Because a city that owns, understands and enhances all new technologies affirms its appeal and hence its ambition to attract investors, stakeholders and talent.

An outstanding Ecosystem

With its young population, creative and ambitious entrepreneurs and considerable appeal as THE metropolis of Southern Europe, Marseille provides the ideal breeding ground for the digital sector.

Marseille’s digital ecosystem is built on outstanding start-ups and several strategic spaces: the Belle de Mai Media Hub, the Château-Gombert Technology Park and numerous incubators and accelerators (such as Marseille Innovation), clusters, fab labs and digital mediation spaces that have been given the ERIC (referring to a regional citizen internet space) label.

Reflecting the vitality of this ecosystem, the “Cité de l’Innovation Aix-Marseille” building - the symbol of the city’s digital sector - houses Accélérateur-M, a stone’s throw from the Euroméditérranée urban redevelopment project and the Mucem museum. The site aims to assemble the territory’s forces with a view to ultimately becoming an international digital technology centre of excellence. Other facilities such as Marseille Innovation, Thecamp and La Coque for IoT represent ideal cross-fertilization platforms for project leaders.

The Marseille digital ecosystem has thus fostered the emergence of 150 companies that are “champions” in its key sectors: digital audiovisual, E-business, E-tourism, E-health, Data Centres and IoT (Internet of things), with combined annual growth of 13%.

Lastly, Aix Marseille University (AMU) with 100,000 students and researchers – the biggest French-speaking university in the world – provides useful support for the entire system. Actively engaged in the construction of Research-Entrepreneurship partnerships, Aix-Marseille University contributes to the dynamism of the digital sector and new technologies serving health and medicine.

https://accelerateurm.com/
https://thecamp.fr/fr

Local digital city, “local municipal office of the future”

Via the intelligent combination of Innovation & Digital and Living better together, Marseille is introducing and supporting an increasing number of initiatives aimed at tackling the digital divide. These include Emmaüs Connect: 5,000 hours per year of support as well as SIM cards available for the most disadvantaged. SFR’s SUN Numéricâble offer, triple play Internet access at a social rate, with more than 26,000 households connected.

With the support of the FSIL (local investment support fund), the city has launched a modernisation project at five pilot local municipal offices to facilitate procedures for the most disadvantaged interacting with the Platform State. In addition, the “Allo mairie” local call centre handles more than 400,000 calls per year alongside the e-services portal.

http://numerique.marseille.fr/

Marseille a pleasant place to live “SMARTSEILLE”

The digital plan supports a Southern Smart City dynamic that places “Living better together” and citizens at the heart of the approach.

A leading contactless technology (NFC) city, Marseille is developing a service offer aimed at making day-to-day life easier for users. Computerisation, e-services portal, automated Library, digitalisation of schools, the Big Data for public safety project and Open data are some of the applications that make up Marseille’s Digital offer within the framework of individual privacy rights and the requirements of GDPR and CNIL (data privacy compliance body) regulations.

IoT and Smartgrids are gradually emerging in neighbourhoods to integrate renewable energies and new usages.

Smartseille Eiffage, Ecodistrict of the future with its seawater loop, is emblematic of optimised smart buildings that reveal a successful urban transition with shared spaces.

http://www.smartseille.fr/
By working day-to-day with the territory’s players to invent its own Smart City project, Montpellier is anticipating and building the digital city, prioritising economic development, adaptation to climate change, innovation and future talents.

**KEY FIGURES FOR THE TERRITORY**

- 458,000 inhabitants, of whom 43% are under 30 years old
- Biggest demographic growth rate among French metropolises
- 72,000 students, of whom 15% come from outside France
- 7th biggest city in France with 8,000 new residents/year
- 2nd in the 2018 world top business incubator ranking (UBI Global)
- 1st place in the Shanghai Global Ranking of Academic Subjects 2018 for ecology

In partnership with businesses, universities, research bodies and state-run operators, Montpellier Metropolis is drawing on digital solutions to improve services and applications available to its citizens and users, foster a better quality of life and accelerate the energy and ecological transitions, while guaranteeing individual freedoms:

- > 40 projects under way,
- more than 10 application fields: housing, health, energy, waste, mobility, tourism, logistics, culture, risk management, citizen consultation, air quality,
- 1,015 data sets covering 13 themes (equipment, transport, sports, economy, tourism and heritage, citizenship, health, environment, urban planning, culture, finance and administration).

**A digital foundation for the Smart City**

A global approach with an urban ICT platform capable of incorporating data from a variety of urban management fields.

The metropolis has established a complete digital architecture, capable of integrating all types of data in order to develop this supervision tool, which is then used to provide information from communicating equipment via dashboards, aimed at 3 categories of users: the operator, functional divisions and citizens for their day-to-day usages. This reporting tool thus acts as an observatory for the territory.
3M has rolled out its own LoRa network, made up of antennas. All communicating objects connected to the LoRa network send information back to the same place in the Metropolis’ servers, the role of which is to combine and store data. It is a big data database, the strategic heart of the Smart City.

**Mon Cap Santé,**
the health component of the Smart City

Digital solutions dedicated to elderly residents of Montpellier Metropolis, to keep them healthy.

The consortium made up of Montpellier Méditerranée Metropolis, the e-health University Chair, the Montpellier CCAS [municipal social action centre] and KYomed INNOV are developing "Mon Cap Santé", the aims of which are to gather data from as many citizens as possible relating to unmet health needs, to rank these needs in terms of priorities for the population, to roll out pilot solutions for older residents - and their families - and ensure the long-term provision of these validated solutions, to promote ageing well.

Citizens are actively involved throughout the project, from the definition of needs through to the roll-out of appropriate, long-term solutions.

Mon Cap Santé in figures: Multiple surveys and interviews, 6 health themes, 6 citizen consultations with contributions from 250 people, 50 needs identified, 17 expert interviews, 3 themes selected, 2 to 4 needs selected, 1 call for projects, 2 winning companies, 3 digital solutions

Following these citizen consultations, 3 priorities were retained for the call for projects launched by the consortium:

- Mobility for everyone to stay healthy,
- From coordination concerning the patient (disease/condition) to coordination concerning the person (quality of life),
- From acceptance of change to adaptation of the environment to enable people to stay in their own homes longer.

It is an infrastructure and open solution for the management of connected objects based on standards, fostering interoperability between all communicating elements (collected objects, connectivity gateways, management platform). This technology is used for the deployment of a connected object infrastructure operated entirely by the Metropolis. The Metropolis is currently working on innovative usage scenarios with various partners: smart carparks, building energy management, people recognition in public transport, traffic management, street lighting management, pollution measurement, household waste management, flood monitoring, bicycle tracking, etc. The potential uses are unlimited.

**The founding principles of the Smart City**

- Structured public urban data policy,
- Built through partnership and collaboration, the Smart City will emerge without technological dependence,
- A non-proprietary, open and interoperable ICT platform,
- Citizen participation mode encouraged,
- Organisational, cross-functional and agile process.

**Two innovative solutions identified and two currently being tested:**

- The FACILIGO solution, a collaboration-oriented web travel platform. You can publish your journeys (train, plane, bus, car or on foot) and offer to take along somebody making the same journey or, alternatively, you may need to be taken to the dentist and you ask the community for help.
- LiliSmart has developed 2 solutions: the first assembles functions such as a digital contact log, which can be used to coordinate people, mainly professionals, looking after or interacting with the elderly. The second offers activities to stimulate and protect elderly people and help them remain independent at home for as long as possible.

This approach whereby citizens play a role in the decision-making process has made it possible to propose solutions matching user expectations, test the economic model and hence the long-term viability of these solutions and construct a methodology that can be rolled out in other agglomerations or cities.
Long engaged in the development of a lively and creative local democracy, the city of Mulhouse has placed citizens at the heart of public life and its strategy to construct tomorrow’s city. To improve quality of life and reinforce social inclusion, restore trust in institutions and also between local people, and invent new solutions addressing today’s challenges, Mulhouse has turned to participation, joint construction and full-scale experimentation involving all citizens and players across its territory.

**CITIZEN PARTICIPATION, A CATALYST TO BUILD TOMORROW’S CITY TOGETHER**

**THE PRINCIPLES AND TARGET OBJECTIVES**

In favour of a new form of power-sharing, in 2014, the City of Mulhouse launched a democratic transition process, incorporating various changes:

- residents who are seeking greater involvement and are experts when it comes to solutions for their city and their neighbourhood
- the profound conviction among elected officials that the agile and smart city they are seeking for tomorrow can only succeed with informed citizens and players, reinforced dialogue based on listening, education, trust and transparency
- the need to introduce innovative ways of operating to ensure as many people as possible can participate and encourage those who do not habitually express their opinions to do so via participative solutions that are less technical and more creative
- the gamble that real-context experimentation and joint construction deliver increased efficiency and ensure greater project ownership

**KEY DATA**

- Alsace’s 2nd biggest city
- 115,000 inhabitants
- 10 agents dedicated to the Citizen Participation Agency
- €4 per person/year dedicated to participation development
- 37 citizen events open to all since 2017
- 43 consultations conducted since 2015
- More than 800 participants in the 2019 Citizen Day event
- More than 2,800 voters for the participatory budget

• A “Mulhouse c’est vous” [Mulhouse is you] citizen forum, the first major step in the construction of the initiative (4,900 people signed up, 10 debates with national and international speakers, 20 workshops, 50 local partners involved) in October 2014.

• A partnership with the Démocratie Ouverte [Open Democracy] association to test the “Territoire Hautement Citoyen” [Resolutely Citizen-Oriented Territory] initiative and develop practices that are more open, more transparent and more collaborative.

• The introduction of the mulhousecestvous.fr digital platform enabling residents of Mulhouse to find and contribute information 24h/24

• The creation of a citizen participation agency in June 2015, which works alongside various players throughout the area to create an ecosystem conducive to the development of collective and citizen initiatives

• A rich and varied training provision, for citizens and associations

• A programme of consultations, urban walks, exploratory walks, participatory stands and projects, citizen days, etc.

• Unique experiments and formats: legislative theatre, joint responsibility method, mechanics of happiness, participatory budget, etc.

The gathering of individual and collective ideas, their interactive examination by the technical services, the choice of winners by more than 2,800 voters, young and old alike, and the implementation of some projects on a participatory basis or via integration into a much bigger development provide platforms for mutual enrichment and ownership by users.

METHODS AND TOOLS TO REACH A MORE DIVERSE PUBLIC

By organising recreational walks in areas of interest, a traveling educational table in various public spaces across the city, citizen events, a market stand, a dedicated space on the mulhousecestvous.fr digital platform, the opportunities to reach the city’s residents and users are increasing all the time. By being able to vote, either on paper or via digital technology, people who are habitually somewhat alienated from public issues may be encouraged to contribute more to collective initiatives in the future and, indeed, play an active role within them.

LONGER-TERM TRANSFORMATION OBJECTIVES

By providing residents with information and tools relating to the project and associated issues, citizens are empowered to contribute more. By having citizens play a role in budget allocations and adopting a joint approach to the construction of projects involving citizens, elected officials, the city’s services and various partners foster a culture of trust, mutual understanding and partnership. Finally, the opportunities available to everyone to submit ideas and take part in votes may inspire some to contribute more and join action groups over the longer term.

The Mulhouse Diagonales Participatory budget

AN INITIATIVE TARGETING SOCIAL INNOVATION AND THE TRANSFORMATION OF PRACTICES

The Mulhouse Diagonales participatory budget is a mechanism enabling City of Mulhouse users to participate in the process to allocate part of the Mulhouse Diagonales project’s investment budget (5%) during the 1st phase, i.e., €300,000, on the basis of projects proposed by citizens (individually, collectively or by associations). It was launched in the spring of 2017 and rolled out gradually: urban walks to discover sites and assess the challenges, in situ stands and collective workshops to submit ideas and projects, an examination phase, followed by a vote by the city’s residents and users and the concrete implementation of the 13 projects selected under way.

AN INITIATIVE THAT PROMOTES EXCHANGE AND THE EMERGENCE OF NEW IDEAS

Urban walks giving residents the opportunity to discover the attractions of the routes, share their knowledge of sites and react to the issues associated with the various locations reinforced the work of town planners/landscapers as well as the specifications of the participatory budget.
For a number of years now, Mulhouse Alsace Agglomeration and the City of Mulhouse have been actively engaged in the digital transition across their territory: creation of the KMO digital city, mobility account, open data, citizen platform, digital school, smart water metres, joint “digital risk management” department, etc.

The aim of all these projects is to pool the myriad of intelligence present in the territory via our local authorities, businesses, associations and citizen participation in order to construct, day by day, a territory that is more efficient, more responsible and more resilient.

THE E-SERVICES TERRITORIAL PLATFORM COVERING THE MULHOUSE AGGLOMERATION

KEY FIGURES FOR THE TERRITORY

- 273,000 inhabitants, 39 municipalities, 439.18 km²
- 300 digital sector companies across the South Alsace area
- 117 data sets available on an Open Data basis
- 20 digital projects across the Mulhouse area in the fields of the digital economy, education, training and citizen services
- 1 Industry 4.0 campus
- 1 “KMO” digital city in the la Fonderie district
- 1 Industry of the Future technological platform, managed by Cetim Grand Est [technical centre for mechanical industry, covering north-eastern France] and dedicated to 4.0 production lines and systems (taking ownership of the production of Data, Connected Objects and innovative control technologies)
- 1 artistic production space in the DMC district, bringing together 140 artists and artisans, primarily focused on the visual arts (Motoco)
- 1 usage experimentation platform for the services of tomorrow (TUBA)
- 1 mobility account (a single application for all forms of mobility incorporating post-payment)
- 1 joint “digital risk management” department including a Data Protection Officer, run by m2A and member municipalities

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The eServices territorial platform

THE FOUNDATIONS

The original feature of this initiative lies in its “territorial” dimension: provide a unified digital platform for all users across the agglomeration, while promoting the identity and prerogatives of digital service “emitters” (Agglomeration, municipalities, mixed entities, public service contract holders, etc.). The platform is the result of a partnership between m2A, the City of Mulhouse and a recently-established company in Alsace, Numésia. Based on a relation-
ship of trust and a shared ambition to offer the population innovative services, this interaction has been reflected in the active role played by Numésia in the operation and organisation of services with a view to identifying, structuring and developing future digital services.

**The platform is based on the 5 founding pillars below:**

1. **Population centre.** This represents a relevant scale for the digital transformation of local authorities. Residents and users must, ultimately, be able to have access to a coherent public service offer that is clear and balanced across the entire territory: place of residence, work, childcare facilities, etc.

2. **Clarity.** Users often have only a very partial understanding of the way public services are organised, not always knowing the appropriate structure to turn to. It is thus the responsibility of public players to facilitate and coordinate access to services, etc.

3. **Identity.** The identity and prerogatives of each public player must be preserved and promoted. The idea is to highlight the identity of municipalities and promote the collective territorial vision.

4. **Win/win.** The adoption of a digital transformation is based on the construction of a win/win model: the provision of new digital services to the population should not be to the detriment of public officials and the organisation of public players but should also be the opportunity to re-think and facilitate the day-to-day work of officials.

5. **Data exploitation.** Everyone is now aware of the fact that “data” represent a digital gold mine. Another of the platform’s major strengths is its “data usage catalyst” dimension. Like a connected object, the eServices platform gradually consolidates massive data sets (i.e., Big Data), enabling a better understanding of the relevance of public policies and paving the way for the anticipation of evolving expectations and priorities to adopt.

**A FEW RESULTS**

- **Nursery pre-enrolment application**
  (for a place in pre-school childcare facility)

  **Original problem:** 34 facilities across the territory (including 30 managed by public service contract holders), generating numerous requests for nursery places by parents, a lack of visibility concerning supply and demand, and difficulties understanding real childcare infrastructure needs.

  **Now:** A digital tool for day nurseries and administration involving all players with high added value indicators for managers.

  → **Annual volume:** 3,000 requests for places

- **ID CARD/PASSPORT appointments across the territory**

  **Original problem:** new regulations concerning the issue of identity cards, with all requests handled by just 7 municipalities equipped with biometric terminals. Result: a waiting time of more than 6 weeks to get an appointment, creating a deterioration in relations between the local authority and citizens, with no interaction or solidarity between equipped authorities and the others.

  **Now:** a digital tool with a calendar shared between all municipalities within the perimeter, allowing users to select a place, date and time for an appointment in a single connection and waiting time to obtain an appointment reduced to around one day!

  → **Annual volume:** 45,000 appointments

- **Enrolments for Water-based Activities**

  **Original problem:** more than 10,000 paper applications with endless queues to sign up to water-based activities, with no capacity to optimise pool occupancy.

  **Now:** all applications submitted using digital technology providing a complete vision of all activities in all pools, rapid online payment. This monitoring and management tool for the sports department also enables the online sale of any remaining individual places.

  → **Annual volume:** 4,000 enrolments and payments
After Barcelone (2014), Amsterdam (2016), Paris (2017) and Athens (2018), Nantes has become the European Capital of Innovation in 2019. The title recognises a new approach to building the city based on active citizen participation and innovation by and for all.

Convinced that solutions to the challenges facing the territory come from the active involvement of all stakeholders, Nantes has developed an open vision of governance and its practice characterised by permanent dialogue with citizens, associations and economic players. It also boasts a thriving community of young start-up and digital businesses contributing to the territory’s dynamism.

INNOVATION BY AND FOR ALL

Citizen workshops, participative evaluation, project offices, online platforms (dialoguecitoyen.metropole.nantes.fr, car-to-quartiers [participative neighbourhood data website], Nantes Patrimonia, Nantes dans ma poche [Nantes in my pocket]), etc. Citizen dialogue feeds local authority projects, enabling all citizens to build their city together. Three Great Debates have been organized since 2014: “Nantes, the Loire and us”, “Longevity, let’s open up the possibilities for all” and “Energy transition is up to us!”, the latter embarking more than 55,000 participants and 33 commitments, the implementation of which is monitored by an independent citizen committee.

This approach is also embodied by the daily practice of open and collaborative governance with Nantes City Lab for urban experimentation, the Metropolitan Data Charter, the Creative Factory, the Eco-Innovation Factory, the Eccossolies network of social and solidarity players, Capitale FrenchTech, the NaonedIA group.

KEY FIGURES FOR THE TERRITORY

- 630,000 inhabitants, 24 municipalities
- 2nd highest growth in digital sector jobs
- 2nd highest growth in industrial sector jobs
- €121 million invested in start-ups in 2018

THE NANTES WAY

Collective dynamics foster creative friction between players from diverse backgrounds, resulting in the emergence of alternative and original approaches. Such is the case of NaonedIA, a group of researchers, entrepreneurs, journalists and legal specialists demanding ethical, sustainable and responsible artificial intelligence formalised in a manifesto.

Nantes Digital Week, “the week that brings together all digital cultures” (80,000 participants) also embodies the Nantes way, with 250 contributors putting together the programme for this now major annual event.
French Tech Nantes brings together digital sector players to turn Nantes into one of Europe’s most inspiring ecosystems by 2025. Its governance structure is founded on a group of entrepreneurs whose roadmap is hinged around the roll-out of hyper-growth start-ups, the attraction of talent, the Deep Tech momentum and positive impact projects (Tech for Good).

A VIBRANT ECOSYSTEM

Symbolizing Nantes’ working class memory as well as naval and mechanical innovation, the former halles Alstom [Alstom warehouses] are reinventing a future for themselves: in 2020, they will be the nerve centre of a creative district fostering synergies between higher education, research and creative entrepreneurs, following the example of the University of Nantes’ multidisciplinary unit dedicated to digital cultures opened in September 2019 in halle 6 to trial tomorrow’s university.

On a wider scale, the île de Nantes represents a 350-hectare urban laboratory, the site of an exploratory public space design programme and property projects bringing together residents and users from the outset. The aim is also to launch demonstrator spaces mobilising the skills and creativity present in the location: projects such as “îlotopia” [designing a new living environment], “Rue connectée” [Connected Street], “Faites le parc !” [Design the Park] (prefigure the future great park on the île de Nantes), mySMARTLife Horizon 2020.

POSITIVE IMPACT INNOVATION PROJECTS

One of the characteristics that sets Nantes apart is its capacity to lead or facilitate positive impact innovation projects aimed at addressing environmental and social challenges: the 24 metre-long electric e-busway, the “Cinq Ponts” [literally, five bridges] urban poverty project, the Symbiose 5th façade project harnessing the energy of roofs, SmartMacadam for people with reduced mobility, Smile for smart energy networks, mySMARTLife Horizon 2020.

MAKING THINGS EASY TAKEN SERIOUSLY

Building a city that is easy to live in and where immediate dialogue is possible is a daily challenge. Here, technology leads straight to the service, either via Nantes Dans Ma Poche [Nantes in my pocket], the mobile phone app dedicated to mobility and daily life, Nantes Patrimonia, the collaborative platform dedicated to Nantes heritage, or the “Guide des pratiques numériques” [digital practices guide] setting out places and associations offering support in the use of digital technology.

The data charter

Data are increasingly present in daily life and city administration. Nantes took the decision to define a strategic framework surrounding the theme, which is associated with numerous legal, democratic and economic challenges. It has drawn up a data charter setting out ethical principles designed to protect citizens and oversee data usage across the territory. The principal objectives are aimed at ensuring sovereignty over public service data, protecting personal data, guaranteeing transparency and fostering new usages.

50 public and private partners are already actively working alongside the local authority on the charter’s values.

Nantes Citylab

Since 2017, the Nantes Citylab initiative has been facilitating full-scale urban experimentation. The initiative is both simple and ambitious: the entire territory becomes a playground where project leaders can conduct full-scale tests of their innovation in situ (streets, buildings, public spaces, urban furniture, street lighting, etc.).

Nantes CityLab provides engineering support and open governance made up of large groups, start-ups, SMEs and associations, a project labelling platform and a forum for exchange on experimentation issues. More than twenty or so projects have been labelled, including the positive impact Yhnova innovation project, the 1st social housing unit built in 3 days by industrial 3D printing and now home to a family.

A synthesis of Nantes’ application to iCapital awards 2019 is available on https://metropole.nantes.fr/capitale-innovation and #NantesiCapitalAwards.
Like many other cities, Paris is having to deal with numerous climate, ecological, security-related, economic, health and social issues that require a fundamental transformation in terms of the way the city is structured and operates. Accordingly, in 2014, the city launched Paris, Ville intelligente et durable [Paris, a Smart and Sustainable City], a strategy that pools three city models, hinged around:

• **A principle**: “The Open City”, which places people at the heart of every initiative, encourages citizen participation and open data and targets the joint construction of projects involving all the territory’s players (citizens, researchers, companies, associations, public officials).

• **Tools**: “The Connected City”, which exploits the potential offered by digital technology, from infrastructures to connected objects, via applications and websites, using public innovation methods (service design, agility, experimentation, etc.).

• **A purpose**: “The Sustainable City”, ingenious and resilient, which reflects Paris’ ambitions to address issues relating to climate, biodiversity, zero-waste strategy and pollution reduction.

This vision underpins the development of numerous projects and initiatives within the framework of experiments and roll-outs across Paris: renovation and supervision of the heating systems of 1,500 public buildings, 3,013 projects ratified in the Participatory Budget, including 1,815 that have already been delivered, roll-out of 1,000 new Trilib waste recycling stations, open innovation hinged around 39 challenges as part of the DataCity programme, the creation of two urban innovation neighbourhoods dedicated to experimentation, etc.

All municipal services are actively committed to building and improving public policies for the benefit of Parisians. This determination to innovate is now supported by Labo, a public innovation laboratory that uses collaborative methods and service design for the purposes of joint construction involving users and public officials. The City is also engaged in a data initiative, supporting the use of data within the context of the digital transformation of public services.
An ambitious project supporting the energy performance of an eco-district

CoRDEES (CoResponsibility in District Energy Efficiency and Sustainability), the first Parisian smart energy network project, managed by the City of Paris, has been rolled out in the western part of the Clichy-Batignolles eco-district (17th arrondissement). The aim is to manage the energy performance of buildings throughout their operating period and to ensure occupants of the eco-district take ownership of the challenges surrounding energy savings. It involves all of the district’s players, including promoters, owners, landlords, network operators, building managers, tenants, employees, businesses, etc.

Launched in 2016, the CoRDEES project is jointly funded by the ERDF-UIA “Urban Innovative Actions” programme to the tune of €4.3 million over a 3-year period, i.e., 80% of the project. Working with the City of Paris on this project: Paris Métropole Aménagement, EMBIX: a smart grid design office, “Une autre ville”: an eco-responsible urban planning design office and the MinesParisTech engineering school via its Systems Energy Efficiency Research Centre (CES).

→ http://cordees.paris

Digital technology training accessible to all and reflecting the needs of local companies

With ParisCode, the City of Paris and its partners provide training support and help to access the job market to 1,000 developers/coders and other digital sector professionals per year. The objectives are to overcome a shortage of technical skills, help companies across the area recruit and provide training to people currently excluded from the job market.

Since 2016, annual calls for projects, supported by a budget of €1 million, have made it possible to fund close to 3,000 training places, with an additional 1,300 places available in 2019.

One of the distinctive features of ParisCode is also its determination to appeal to the generosity of businesses, encouraging them to sponsor training courses (€1.3 million raised since 2016).

During its first two years, the ParisCode programme had a success rate of between 75 and 100%, with trainees either securing employment or going on to further studies.

→ www.paris.fr/pariscode

A community of engaged citizens mobilised to facilitate the mobility of the elderly and reduce their isolation

In 2019, the City of Paris launched the “Paris en Compagnie” service, an initiative whereby volunteers accompany isolated elderly people, either on foot or by public transport within Paris, to help them go out, encourage them to walk and maintain a link with their neighbourhood and local associations, and inform them about services specifically available to them. This initiative is hinged around a smartphone app that informs volunteers about requests for support made by elderly users via a free telephone number.

The service makes volunteering easy: the app, based on request geolocation, is intuitive and simple and it also enables volunteers to manage their own commitments, tailoring their missions as they wish to suit their availability without any formal restrictions.

The specifications for the service were defined in partnership with all stakeholders (City Services, elderly residents, associations, etc.), via the City’s Public Innovation laboratory.

→ www.parisencompagnie.org
The Eurometropolis of Strasbourg implements an approach to the digital transformation of its territory based on digital services designed with and for residents, the increased integration of the 33 member municipalities and an environment conducive to the development of innovative companies.

**STRASBOURG SMART STRATEGY: FOR AN AUGMENTED METROPOLIS**

The Eurometropolis of Strasbourg implements an approach to the digital transformation of its territory based on digital services designed with and for residents, the increased integration of the 33 member municipalities and an environment conducive to the development of innovative companies.

Governance of the digital roadmap reflects this partnership vision, with residents playing an active role. For example, the digital technology users’ committee, formed in September 2018, meets monthly and contributes to the design and evolution of online services provided by the local authority.

Digital technology provides the foundations for an “augmented” metropolis on several levels: through the collective intelligence behind the design of its digital strategy, through the lever effect represented by digital technology in terms of economic development and through the capacity offered to residents to contribute to and influence their environment.

**An inclusive and open approach**

In addition to support from partnership governance bodies, the roll-out of the metropolis’ digital services is accompanied by an approach promoting the digital inclusion of residents, particularly the most vulnerable. The Eurometropolis of Strasbourg mobilised local institutional players and associations to create a network capable of assessing, guiding and supporting residents struggling to cope with the rapid development of online procedures. Members of
this network collectively defined an action plan relating to the introduction of a set of fundamental tools, such as the map of key players, and the development of joint projects. Winner of the “digital pass” call for projects, in partnership with the City of Strasbourg, the CAF [French family allowance office], CPAM [French health insurance office] and the Bas-Rhin Département, the Eurometropolis will help around 1,000 people per year acquire basic skills in the use of digital technology, enabling them to become more independent.

The metropolis’ strategy also incorporates local businesses with a view to exploiting their know-how and their contribution to the transformation of the territory within the context of climate issues. For example, the “Strasbourg, innovation factory” call for projects is an opportunity to conduct full-scale tests of innovative products and services developed by local start-ups to meet the challenges set out in the 2030 Climate Plan concerning the optimisation of energy consumption, mobility, air quality, etc. Five winning projects received Eurometropolis funding of €219,000, with a total amount of €635,000.

The metropolis is thus asserting itself as the pilot territory in the field of digital health, with a shared digital platform at the core of the project. Here, digital technology is exploited for the benefit of people while protecting personal data and within a framework of ethical standards.

Within this context, the project is hinged around a “Maison Commune”, a shared centre based on:

• 3 principal pillars:
  - Act locally with citizens on health factors (environment, physical activity, diet, pace of life)
  - Innovate to develop local health service provision in all territories
  - Provide better care for at-risk patients within integrated care pathways

• A double foundation ensuring the effective development of innovative actions:
  - Development of an innovation ecosystem
  - Shared governance, support for change and citizen involvement

The 34 actions forming this “Maison Commune” were selected via a call for expressions of interest launched in January 2019 on the basis of 6 criteria: ambition, territorial alliance, innovation, citizen and patient involvement, impact, economic profitability. Through incorporation within the global dynamic, each action benefits from the synergy effects provided by the shared platform.

Moreover, in order to address urban and rural problems combined, the Eurometropolis has joined forces with the Saverne territories and the surrounding communities of municipalities. The project is thus designed in such a way as to gradually incorporate, over time, new actions and new territories, within a framework of defined admission procedures.

At the heart of the health territories of tomorrow

Strasbourg has long been recognised in the health field, for initiatives such as “sport-santé” sport on prescription launched in 2012, or in its capacity as the European leader in the medical technology sector. Building on these strengths, the Eurometropolis has brought together numerous institutional and economic partners to build the “Health territories of tomorrow”. The purpose of this project is to accelerate the dissemination of innovations so that the population’s health needs are more fully met, exploiting the potential of digital tools and open collaborations. It is also aimed at contributing to the development of new economic models and reinforcing local innovation ecosystems incorporating users and residents. The project is backed by funding amounting to €450 million over 10 years.

One of the project’s other objectives is to decompartmentalise existing practices and encourage all players - not just health sector players but also economic players, universities, air quality specialists and digital experts - to work together.
TOULOUSE, THE OPEN METropolis, FOR A SUSTAINABLE AND INNOVATIVE METropolis

The Open Metropolis, a project factory. For Toulouse Metropolis, the Smart City is much more than a concept built around digital technology. It is seen as actively supporting social innovation and citizen well-being. Building on these actions, the Smart City “project factory” is a key tool serving the sustainable city of tomorrow.

Toulouse Metropolis launched the “Toulouse, the Open Metropolis” strategy for the period covering 2015-2020, setting out five ambitions, namely “a metropolis that is more breathable, international, with a good quality of life, attractive, cleaner and safer and one with more fluid mobility”.

Named 2018 European Capital of Innovation, Toulouse Metropolis has been identified as a sustainable city management pilot-territory and for the implementation of a new national reference system with a European scope, the “Innovative and Sustainable City Label”.

Driven by this spirit of joint construction, in 2016, Toulouse Metropolis decided to join the global network of FABCITIES, alongside cities such as Paris, Barcelona, Copenhagen, Boston, Medellin; members are committed to fostering a transition towards a self-sufficient and connected city drawing on local resources to underpin a more sustainable and autonomous development.

The Metropolis of tomorrow, a joint construction with business and citizens.

KEY FIGURES FOR THE TERRITORY

- 37 municipalities covering the territory’s 46,000 hectares
- 762,956 inhabitants and 1,330,950 inhabitants across the urban area
- 2015: launch of the Smart City master plan, an ambitious programme developed in partnership with territorial players and hinged around three broad principles: citizens at the heart of public action, joint public-private construction and data sharing
- 94 projects initiated, including 52 experimental projects with local start-ups, 22 public-private partnership demonstrators, 5 European projects, 3 national projects, 4 calls for Citizen projects and 15 themes covered by the Laboratoire des Usages [Usages Laboratory], an innovative initiative fostering the joint construction of public services
- 376 entreprises, 60 partenaires publics et 21 partenaires universitaires
- 376 companies, 60 public partners and 21 university partners. More than 175,000 citizens have also been directly involved, testing the solutions rolled out
A Fab City action plan

In order to pursue and reinforce its action, Toulouse Metropolis has chosen to draw more on the contribution of local Social and Solidarity Economy (SSE) players, which represent 3,100 businesses and 33,000 jobs, i.e., 8.3% of the territory’s total jobs. The sector enjoyed growth of 8.4% between 2009 and 2018.

Hence, in 2019 it has been discussing the introduction of a “Fab City Action Plan”, developed around 4 priority areas: the dynamic mapping of innovative SSE companies, experimental projects, collaborative projects and calls for citizen projects.

The objective of dynamic mapping is to identify SSE companies offering innovative local goods and services. It is aimed at citizens who see themselves as “proactive responsible consumers” seeking a different approach to consumption. Available on an open data basis and on the “Toulouse” app from the start of 2020, it will be tested before being fully rolled out to citizens. Evolving in nature, it will initially contain data relating to around one hundred companies covering 7 themes: “Eating better, Wasting less and sharing, Acting for the environment, Discovering unusual places, Travelling, Ageing well, Doing business and working differently”.

When nature inspires the city

To address the significant expectations of citizens and climate change issues, Toulouse Metropolis is committed to bringing more nature into the city, rallying citizens to the cause and getting them involved in joint experimental projects and demonstrators with businesses, prior to full-scale roll-out. In 2019:

• As part of the “Forum Toulouse + Verte” (Greener Toulouse Forum) event organized in April 2019, the Metropolis joined forces with the Laboratoire des Usages to run workshops with companies, associations and citizens. The 700 participants came up with proposals such as “providing community composters (managing agent, apartment building, etc.)”; “fewer roads for more green spaces”; “increasing the number of street vegetable gardens”. These proposals have given rise to an action plan for the City of Toulouse (100,000 trees by 2030, etc.).

• With start-up company Kyanos Biotechnologies, a joint construction workshop was organised with citizens concerning the introduction of an algal tree prototype, urban furniture used to cultivate microalgae with a carbon sequestration potential equivalent to one hundred trees. Thanks to photosynthesis, microalgae capture CO₂ and convert it into biomass, then used as fertilizer or turned into plant-based charcoal.

In 2019, Toulouse Metropolis has also launched the fourth Call for Citizen Projects promoting individual or collective initiatives aimed at improving quality of life across the territory. It is launched in partnership with public and private players, including the social innovation incubator “Première Brique” [First Brick], the purpose of which is to support the creation and development of innovative social and solidarity companies. The 2019 call for projects concerns the ecological transition and includes three theme-related awards, in the areas of “Climate”, “Nature in the City” and “Cleanliness”.

• A first “Urban Canopée” [Urban Canopy] demonstrator has been rolled out in partnership with start-up company Urban Canopée, Toulouse Metropolis, the City of Toulouse, the Jeune Chambre Économique [Junior Economic Chamber] and INP-Purpan engineering school for a period of 5 years. Its objective is to install “plant corollae”, connected urban furniture that can be used to trial oases of freshness in paved areas, supporting a more inclusive city that is a pleasant place to live.
CREATED IN 2009 by the AdCF (association of French local authorities) and France urbaine, the réseau des Interconnectés is the first national association established to disseminate digital technology usages and innovations. The reference point of contact for territories, it is an activation platform, a space for dialogue and expertise and a resources centre.

A COMMITTED NETWORK
Set up to support territories as well as citizens in their capacity as public service users and, increasingly, active project players in their own right, the réseau des Interconnectés has several missions and commitments:

• to provide strategic and operational support to territories in the field of innovation and to local authorities in the context of their digital transformation,
• to be the voice of territories at State level,
• to give meaning to projects and unite them within a collective dynamic.

VISION: REFLECTING AND ACTING TOGETHER
Because territorial transformation hinges around the development of innovative projects, the réseau des Interconnectés acts as a project developer and catalyst. Accordingly, it deploys a strategy structured around several key elements:

• using collective force to provide expert insight;
• fostering collective intelligence through reflection programs, regional events, the annual forum;
• conducting targeted reflection processes via working groups, publications;
• capitalizing on and promoting the energy present in territories to facilitate the emergence of innovative services and usages;
• encouraging the creation of networks with new technology players.

VALUES: SUPPORTING THE DIGITAL TRANSFORMATION FOR ALL
• the sharing and pooling of knowledge
• the human dimension at the heart of digital projects
• citizenship and purpose as primary criteria for actions
• a positive vision serving progress

KEY FIGURES
• 1,250 French municipalities (AdCF, association of French local authorities)
• 114 urban municipalities, metropolises and inter-municipalities (France Urbaine)
• 50 debates per year
• 1,900 event participants
• 26 Innovative Labels and 9 start-ups
• 5 Territoir’prod programmes
• The Forum des interconnectés (French forum for the network of innovative territories):
  • 900 Forum participants in 2018
  • > 50 workshops, pitches, etc.
  • > 40 partners (institutional, private, etc.)
  • 26 labelled local authorities
• The 2018 IntercoTOUR:
  • 9 stages
  • > 1,000 participants from all over France
  • > 110 speakers
  • 93 local authority and start-up projects

SUPPORTING THE DIGITAL TRANSFORMATION OF TERRITORIES
EXPLOITING DIGITAL TECHNOLOGY FOR THE IMPLEMENTATION OF PUBLIC POLICIES
IN CONCRETE TERMS, A WORKING PROGRAMME SERVING THE TERRITORIES

1. SUPPORTING PROJECTS:

• The Territoir’Prod training programme
  The challenge: to accelerate the roll-out of digital technology usages to support public policies.
  The objective: to enable participants to acquire the knowledge and skills required to carry out their projects.
  Each theme is tackled via a comprehensive mechanism including:
  - Regular collective group sessions;
  - Sessions dedicated to joint coaching and the development of tools
  - Monitoring by key contacts, who are experts in the field;
  - An intelligence, exchange and resource-sharing platform (decrees, projects, etc.).

• Themes for the period 2018-2019:
  - Training in the roll-out of the “Dites-le nous une fois” [“Tell Us Once”] programme
  - Building a digital inclusion strategy
  - Structuring an open innovation initiative / organising project scale-up
  - Moving towards MAAS: mobility as a service
  - Organising citizen participation with digital technology
  - Implementing territorial data strategy

2. IDENTIFYING GOOD PRACTICES:

• Regional events
  The network has been going out to the territories since 2015. IntercoTOUR is a national touring initiative involving a dozen or so events held in different regions. Dedicated to a specific theme addressing regional issues, each day-long event is an opportunity for participants to share experiences, an ideal platform for teams from the host territories to work together and a forum for exchange with local digital transformation experts and players. Each stage also incorporates a training workshop covering Data usages, as well as a regional selection process for the innovative territories Label and support for projects presented by local start-ups.

3. BUILDING THE REPUBLIC OF INNOVATIVE TERRITORIES:

• The digital committee
  Made up of elected representatives from the inter-municipalities and major cities, the digital committee is responsible for championing a political vision of innovation by disseminating local authorities’ ambitions and needs through balanced dialogue with the State and private players.
  It operates as a space for developing proposals concerning the major strategic priorities of digital technology and territorial innovation. It is structured around themed sub-committees, each of which works on a priority area. These sub-committees liaise with players to help them in their reflection processes.
  The results will be delivered in a variety of forms: concrete proposals addressed to the government; theme-based guides produced by the Interconnectés.

• The Annual National Forum
  The reference event for national players, the Forum national des Interconnectés is also the initiatives forum.
  The Forum brings together strategic national bodies, Government representatives and local authorities, as well as professional networks. Each edition is an opportunity to discover the latest innovations, meet potential partners and debate future developments. Organised around conferences, themed workshops and an innovation village, this Forum gives local authorities an insight into all the latest developments in the field of digital technology.
  Open, exacting and convivial, this event is a platform that highlights both territorial projects and project opportunities with partners.
  → https://forum.interconnectes.fr
To help it best fulfil its role of providing support to local projects, the Caisse des dépôts [a French public-sector financial institution] launched a radical strategic, organisational and digital transformation process. As part of this, in 2018, it created the Banque des Territoires [Territorial Bank].

A unique gateway for local authorities, it provides customised consultancy, loan funding and investment solutions tailored to their needs. It caters to all territories, from rural zones to metropolitan areas, the primary objective being to tackle social inequalities and territorial divides. The Banque des Territoires is also present via 16 regional departments and the 35 local offices of the Caisse des Dépôts, in order to provide customers with an optimal service locally.

THE BANQUE DES TERRITOIRES’ COMMITMENTS SUPPORTING THE SMART CITY

To contribute to the construction of territories that are more sustainable, more connected, more inclusive and more attractive, the Banque des Territoires put in place the Smart City programme. This programme has several objectives: to provide local authorities with support and advice concerning their innovation initiatives; to finance local experiments; to invest in and offer loans for innovative projects.

SUPPORT AND ADVISE

Through its Smart City programme, the Banque des Territoires provides local authorities with access to studies focusing on the issues of concern to them: “Smart city: gadget or creation of collective value?”, “Is digital technology going to hack local democracy?” or “Galvanising city-centre business in a single click? Guide to digital solutions”. The Banque des Territoires is committed to equipping local authorities for tomorrow’s city.

The online services available through the Smart City programme provide territories with new tools. Our Smart City directory currently lists more than 200 companies. It offers public players an overview of innovative products and services and the opportunity to contact businesses able to meet their needs.

The data visualisation service available to towns through the Action Coeur de Ville programme [French national programme aimed at improving living conditions for residents of medium-sized towns and reinforcing the role played by these towns as a driving force behind local development] contributes to the analysis of their territory and facilitates the implementation of local observation initiatives. It is also a communication vector between players and encourages the production and sharing of data.

The Smart City programme also operates within the context of various programmes funded by the Banque des Territoires. For example, it is part of the Action Coeur de Ville programme, which funds local strategic support missions.
EXPERIMENT

All the experiments supported by the Smart City programme incorporate one or more innovative dimensions: technological, social, economic, process-related, etc. The objective is to address public policy issues drawing on innovative methods and products. Examples include the co-design of an ADOMA social housing building in Tassin (Lyon Metropolis) with its future occupants, using participatory engineering, or the creation of local services in a physical space and a digital space to bring closer together businesses and residents in Chatillon with La Poste [French postal service] and CDC Habitat [the public housing subsidiary of the Caisse des dépôts].

Within the framework of the Action Cœur de Ville programme, the Banque des Territoires supports innovative experiments through engineering loans, such as in Arras, for example, where a series of data-related experiments have been conducted: visitor data analysis, public Wi-Fi network, etc.

FUND

The Banque des Territoires invests in innovative start-ups to support the transition towards territories that are more inclusive, sustainable, attractive and connected: one of them - SIMPLON - is a social business awarded the French Tech and Grande École du numérique [digital technology training] labels. The SIMPLON network offers training in the field of digital technology to young marginalised people and job seekers in deprived areas. The Banque des Territoires also invested in start-up company Cap Collectif, a collective intelligence platform that is now the leading online citizen debate tool, as well as ESS Ecov, another start-up company, this one offering three carsharing service options adapted to the density of the area in question.

To conclude, the “Territoires d’innovation” [Innovation Territories] programme operated by the Banque des Territoires within the framework of the French Investments for the Future programme supports 24 selected territories that embody an ambitious transformation strategy addressing major development issues in fields such as energy (Dunkirk, Montbéliard, La Rochelle, Lyon, Nouvelle-Aquitaine, etc.), mobility (Toulouse, Rouen, etc.), agroecology (Dijon, Cœur d’Essonne, Drôme Valley, etc.), health (Strasbourg, Meuse, etc.) and digital technology (Île-de-France, Occitanie, etc.). These projects will share an envelope of €150 million worth of subsidies and may also benefit from equity investment, with a dedicated envelope of €300 million.

Ynhova in Nantes, first social housing built in France by a 3D printer
Seule association nationale regroupant à la fois les grandes villes et les grandes intercommunalités que soient les métropoles, les communautés urbaines, les communautés d’agglomération et les établissements publics territoriaux franciliens. France urbaine compte 104 membres de toutes tendances politiques. Elle représente plus de 2 000 communes dans lesquelles résident près de la moitié de la population française. France urbaine a pour objectif de promouvoir le fait urbain auprès des pouvoirs publics et de tous les citoyens. Dans un dialogue permanent avec l’État, l’association participe pleinement à la structuration du monde urbain dans notre pays et à l’attractivité de tout son territoire. Elle défend une “Alliance des territoires” en mesure de faciliter les coopérations territoriales et d’assurer une pleine effectivité des politiques publiques.

France urbaine is the only association of city majors and urban centres presidents in France. Its 104 members, of all political tendencies and representing some 2,000 cities, gather more than half of France’s population. France urbaine is a new force linked to the evolution of France territorial organization that aims at promoting the urban fact among public authorities and all citizens. The association takes its part in the structuring of the urban world and the attractivity of our country, within the framework of a permanent dialogue with the French Government.

In order to ensure the best efficiency for public policies, France urbaine encourages “The alliances of territories” by strengthening the links between cities and peri-urban and rural areas.

Plus d’informations/More informations : www.franceurbaine.org