

Draft editorial for RANM 2018

In 2018, Nantes Métropole pursued its route on an ambitious and demanding path. The path to a different metropolitan area: one that is growing and expanding with its 24 municipalities, in synergy with the neighbouring local authorities; a Metropolitan area that protects what we have and propels us towards what we want to be, a Metropolitan area that combines economic vibrancy, an ecological transition, social justice and democratic renewal. This is the direction in which we want to achieve balanced growth, to ensure quality of life for all throughout the local area, to create quality jobs that are sustainable and not at risk of relocation; jobs that enable each and every one of us to form projects for our lives and flourish in the area.

Nantes Métropole is fighting for its people's future and for our area's prestige and appeal. We are throwing ourselves into the task of making Nantes Métropole a unique, standard-setting, inclusive and attractive area of France and Europe. This drive helps us deliver a high level of services for the people of Nantes Métropole.

This is why we invested €350 million in strategic projects in 2018. With flagship projects, such as the new wholesale produce market in Rezé, the biggest photovoltaic building in Western France, a facility that underpins our ambition to deliver high-quality locally-produced, sustainable and fair-priced food with the Agropolia hub. Let's not forget the recently remodelled Musée d'arts, with its flagship exhibitions that drew over 400,000 visitors in 2018. Or the expanded and renovated Palais des sports in Beaulieu, where elite sport and sport for all are equally at home.

The Nantes metropolitan area has set out to become a benchmark city for change and transition. The adoption this year of the metropolitan climate, air quality and energy plan, along with roadmaps for the energy transition, food and the circular economy is driving us forward on the path to sufficiency and social innovation.

By adjusting to these transitions, and even staying ahead of the curve, we remain in the driver's seat and can turn challenges into opportunities. At a time when eight out of every ten job fields of the future have yet to be invented, we must - now more than ever - continue to boldly innovate. The Nantes City Lab is one such seat of innovation. In 2018, it guided and supported nine projects that are life-size trials of the solutions we want to mainstream tomorrow. Building a low-energy social housing unit in days with a 3D printer, or testing a driverless electric shuttle bus in Bouguenais, are endeavours that will enable us, with the leaders, to address the area's challenges. Innovation, too, is a driving force in our certified French Tech digital ecosystem. Highlight events such as Nantes Digital Week and Web2Day link Nantes and Saint-Nazaire, and spill over into municipalities throughout the metropolitan area and beyond. Innovation continues to infuse the Creative District, with the construction in 2018 of Halle 6, a multidisciplinary university hub dedicated to digital culture and set to open in September 2019. Innovation in the Nantes metropolitan area is also - and especially - manifest in community dialogue and 2018 marked a turning point in this respect: the 24 municipalities pulled together to prepare the third metropolitan "great debate" on a key issue for society: ageing and longevity.

Innovation will be the motor that enable us to meet the 33 commitments contained in the energy transition roadmap, and construct a carbon-free metropolis in which we can breathe clean air, travel simply and easily, and live better. This is reflected in the development of local renewable energies: witness the four hectare solar power plant at the Zenith entertainment venue. Or the innovative mobility options chosen. In 2018, we unveiled the first fully-electric e-busway, which will eventually service the entire area. Car sharing is a priority in our latest urban travel plan, as are the new Chronobus lines throughout the area: the C9 in Basse-Goulaine and Saint-Sébastien, or the C20, which links Chantenay and the universitie without going through the urban core area. It is also being achieved through our decision to create a natural metropolis, where the area's five river valleys will form a "green star" pattern in the project unveiled this year. Its first branch, the Loire, became visible

in 2018. The train station's recently remodelled northern forecourt, now filled with plants, opens onto the Jardin des Plantes, which marks the beginning of the path from the station down to the Loire.

Being an exemplary metropolis, one that finds solutions to problems, also means combating the urban sprawl that is eating into farmland and natural areas, and taking a toll on families' finances, time and quality of life. This is why, in this year's metropolitan urban planning plan and the local housing plan, we reasserted our ambition to build 6,000 homes, including 2,000 subsidised homes. This is the first time that Nantes Métropole has produced a common document, the result of four years' work with the 24 municipalities and all of the stakeholders involved in these issues, and which achieved a very broad consensus. It is also in the light of these concerns that we have entered the operational phase of our four major urban renovation projects, which were mapped out with the local residents, to transform the districts of Bellevue, Les Dervallières, North Nantes and Bottière-Pin-Sec. And, to provide a more efficient and effective response to each citizen's healthcare needs, Nantes Métropole is promoting quality of life by laying the groundwork for future healthcare, with the new health district and its university hospital.

In an unflagging effort to serve the population of the 24 municipalities, Nantes Métropole works through its neighbourhood hubs, as close as possible to the population's needs and expectations, to deliver the most appropriate solutions. This may mean maintaining or remodelling the road system, reinventing public space and facilities - as for the new funeral facility in Saint-Jean-de-Boiseau - or providing high-quality services for waste collection, water and sanitation, or cleanliness.

Together, we are building the metropolis of the future in an ongoing dialogue with the municipalities, to address and anticipate each citizen's needs and expectations.

This report tells the story of what was accomplished in the course of 2018 by Nantes Métropole's 3,721 employees as they serve the 646,500 people who live in our local area. I would like to thank them for their commitment and their vital contribution.

CONTENTS

Focus areas

- Metropolitan planning
- Community dialogue
- Ecological transition
- Managerial project
- International action and Europe
- Culture
- Sport
- Education – Research – Innovation
- Economy
- Urban development
- Employment
- Accommodation and housing
- Effective equality
- Climate and energy
- Travel and transportation
- Waste management
- Water cycle
- Environment and urban services / Security and risks

CONSOLIDATING THE VISION OF NANTES AS A METROPOLITAN HUB

In anticipation of Nantes' official change of status on 1 January 2015 from a community of urban municipalities to a metropolitan hub, the Conseil communautaire adopted a "metropolitan pact" on 15 December 2014.

This pact unites the 24 municipalities in a bid to consolidate Nantes Métropole as a European metropolis with renewed appeal, remodelled to become more tangible and understandable for the people who live there. Ultimately, the goal is to build a more innovative and efficient conurbation, where the local area's community and business leaders play an active part in its initiatives.

The metropolitan pact: cornerstone of the initiative

The metropolitan pact rests on a number of founding principles:

- greater solidarity, particularly in favour of the least densely-populated municipalities to ensure balanced development;
- heightened efficiency, underpinned by major new metropolitan facilities and local communities' contribution to boosting Nantes' reputation for sporting, cultural and tourist appeal;
- more collective, open governance between the municipalities, with a remodelled development council and greater involvement of local stakeholders and citizens.

The pact is implemented through strong, proactive measures: the financial pact, the transfer of facilities to bolster Nantes Métropole's reach, the transfer of skills to consolidate its ability to take action and the renewal of governance, especially the development council to foster closer links with citizens and interaction with stakeholders.

Some of the facilities transferred in the broader metropolitan interest include:

- the Musée d'Arts de Nantes; the Muséum d'histoire Naturelle; the Château des Ducs de Bretagne, which houses the Musée d'Histoire de Nantes; the Planétarium; the Musée Jules Verne; the Rezé heritage museum, named the Chronographe; the Beaujoire stadium and the José Arribas training centre; the Beaulieu sports centre; the skating rinks in Nantes and Rezé, and the velodrome in Couëron.

Nantes Métropole has extended powers in the following areas:

- archaeology, to facilitate development especially in terms of urban planning;
- opera and the lyric arts. The aim is to recognise the significant contribution of Nantes Métropole and the region to Syndicat Mixte Angers Nantes Opéra (SMANO);
- the development and funding of places in inter-municipal corporate crèches (tied to the main employment areas in the conurbation).

Note that when Nantes Métropole decided to assume responsibility for inter-municipal corporate crèches in December 2014, there were 473 places in corporate crèches in the metropolitan area, of which 137 were in Nantes (the hospital, the Regional Council and the Babilou crèche). An additional 207 places were recorded in January 2015, most of them in inter-enterprise crèches (including 141 places situated in the city of Nantes).

As of January 2018, Nantes Métropole is also responsible for areas previously managed at departmental level:

- the housing solidarity fund (FSL);

- the youth aid fund (FAJ);
- the local information and coordination centres (CLIC);
- the road network.

The pooling and cooperation plan

Nantes Métropole and the 24 municipalities have a pooling and cooperation plan, which was approved on 15 December 2015. It is grounded on the mayors' common desire to develop greater solidarity and efficiency within the metropolitan area. The plan's shared governance is based on the principle that the municipalities share the responsibility and authority, and pool their resources. By doing so, it also aims to improve the service delivered at grassroots level through collective upskilling and more reliable public action.

The plan takes a variety of forms:

- 1) tighter cooperation among several volunteer municipalities with regard to public readings, the operation of music schools and cost optimisation for swimming pools. Depending on the subjects and opportunities, the municipalities are also setting up networks to exchange professional practices or share technical resources;
- 2) the creation of shared services between Nantes Métropole and the municipalities;
- 3) group orders;
- 4) investment assistance funds.

1) Cooperation between municipalities

- The work begun in 2017 on encouraging the public to read has been consolidated and stepped up:
 - a group has been set up where people from different professions can get to know each other, through shared training courses (National Centre for the Regional Public Service - CNFPT - unions) and networking opportunities;
 - the annual "Nuit de la lecture" evening encourages people to read books;
 - a "Library" service has been added to the "Nantes in my pocket" mobile app. It provides practical details and the cultural programs of the public libraries in Nantes Métropole;
 - a "Libraries" tab has been added to the tree structure of the area's [website](#), currently under development;
 - a system of group orders optimises costs;
 - a plan has been launched to plan and develop the use of public libraries in the Nantes metropolitan area. It aims to expand and enhance the opportunities for public reading by encouraging complementarity between libraries and adapting libraries more to their local areas.
- With regard to music schools, two of the four initiatives launched in 2017 were carried out during the 2017/2018 school year:
 - the music schools in Carquefou, Indre, Orvault, Saint-Herblain, Sainte-Luce, Sautron and Vertou tested the idea of occasionally "swapping teachers" between two establishments;
 - a directory was created, listing all of the possibilities for joining an amateur music group in the Nantes metropolitan area.

Another two actions are making progress:

- the discovery-trail concept, which introduces music teachers to innovative educational programmes, is still under construction;
- the CNFPT's training plan for music teachers has yet to be put into practice.
- The master plan for swimming pools has been drawn up in liaison with the Nantes region's urban planning agency, AURAN. One of the tangible results of the cooperation in this area is that: work has begun on building a swimming pool in Orvault, which will be open to the neighbouring municipalities of Nantes, Saint-Herblain and Sautron.
- Other cooperative initiatives follow:
 - Nantes Métropole's new Open Data platform has been opened: it will cater for the obligation placed on municipalities with a population of over 3,500 to make the information they hold (with the exception of protected data) publicly available on a digital platform. Nantes Métropole has signed an agreement under which free guidance and support is available: now the municipalities have simply to appoint an Open Data officer and embrace the initiative.
 - The "TETRA" digital radio network infrastructure has been pooled, so interested municipalities can take advantage of high-performance individual or in-vehicle radio resources. The tool has obvious benefits for municipal police forces or public transport networks, but can also prove useful in municipal safety and protection plans.

2) Pooling actions between Nantes Métropole and the municipalities

The shared services agreements were approved in the 24 municipal councils and in the Metropolitan Council on 8 December 2017, and four shared services began operating on 1 January 2018. The decision adopted in December 2018 reviews the first full year of these services' operation:

- the metropolitan Geographic Information System (GIS) handles the pooling of tools, data and human resources for the subsequent sharing of geographic data. Some of the first cross-cutting projects undertaken in 2018 include the following: the pilot scheme for bike stands on private municipal property was used to test the technical and organisational aspects of the scheme; the first digital and offline mapping services went into operation; the first municipal accesses to the metropolitan data warehouse were opened. The arrival of a second engineer in mid-October will make it possible to deploy the GIS tools on a larger scale and undertake new cross-cutting projects;
- Document management and archiving staff have been pooled in a bid to harmonise procedures and practices. This is an essential prerequisite for implementing the future electronic archiving system (EAS). The situation of the 17 member municipalities was assessed and it was suggested that in 2019 work should focus on: constructing tools to map line-of-business applications and data, and making public procurement processes and land use authorisations totally paperless. These issues will be examined by working groups involving the municipalities.
- The shared service dealing with land use authorisations has set out to pool human resources and coordinate a network of experts in land use authorisations through a network leader. Now that the Local Metropolitan Planning Scheme has been adopted, it is essential to ramp up this service so that it can help the municipal services responsible for processing these applications adapt to the changes in their frame of reference (the PLUM and PLH local urban planning and housing schemes). The arrival of a leader in the final quarter of 2018 has enabled this deployment and the inclusion of another seven municipalities in the system, which now includes all 24 municipalities.
- the Urban Surveillance Centre: the aim is to install cameras in public spaces or connect up the existing cameras so that the images can be used for surveillance. The agreement establishing

this shared service was signed at the Metropolitan Council meeting in December 2018 (and written into the framework agreement).

3) Group orders

Collaborative purchasing has continued to gain ground in three areas: after electricity, a group was formed to purchase gas; following the establishment of the Urban Supervision Centre, 16 municipalities joined forces to make group purchases of video protection equipment for public buildings; 12 municipalities are expected to enjoy the services of a consulting architect to assist with establishing the Metropolitan Urban Planning Scheme.

4) Investment assistance fund

On 22 June 2018, Nantes Métropole approved the terms and conditions for drawing on the investment assistance fund to contribute towards building local facilities, managed on an inter-municipal basis and used by the inhabitants of a number of municipalities. To date, four projects submitted by the municipalities are eligible under the call for projects.

COOPERATION BETWEEN MUNICIPALITIES

For several years now, Nantes Métropole has been developing collaborative relationships with neighbouring areas and other cities in western France. They work together by harnessing their strengths and developing joint projects so that western France can establish itself at national and international level.

Strengthening ties between Nantes and Saint-Nazaire

Often praised for being successful at national level, the collaboration between Nantes and Saint-Nazaire is based on solid foundations spanning over twenty years and harnesses actions led by the Nantes and Saint-Nazaire metropolitan area.

The "SCoT 2" master plan, designed to ensure consistent development across the metropolitan area, has been in force since 2017. This "new generation" SCoT, which was approved on 19 December 2016, paves the way for the five public inter-municipal cooperation establishments (EPCIs) - Nantes Métropole, Saint-Nazaire Agglomération, Estuaire et Sillon, Pays de Blain, Erdre et Gesvres - to make significant progress towards greater consistency in their development strategies, especially those concerning housing, the economy, the environment, urban planning and mobility. Its main orientations are now imposed on urban planning documents such as Nantes Métropole's Metropolitan Urban Planning Scheme (PLUm), Local Housing Programme (PLH) and Urban Travel Plan (PDU).

The local areas are accordingly committed to halving the amount of land taken up by housing and businesses; for the first time, a green and blue network has been drawn up for the entire SCoT scheme; the urban framework has been bolstered to focus population growth and economic development, and 100,000 new housing units (of which 32% will be social housing) will be built across the SCoT scheme, i.e. between 5,500 and 6,200 new homes per year for Nantes Métropole.

In 2018, the Nantes-Saint-Nazaire metropolitan cluster continued to carry out its action plan for 2017-2020. It also moved forward with planning the construction of five panoramic viewpoints to be dotted along the future north-Loire cycle route mapped out by the Loire-Atlantique department, including one in the Saint-Herblain municipality and one in the Couëon municipality. The Cluster also launched an experimental initiative to "imagine the peri-urban living environment of tomorrow" in four municipalities, including Brains, to address the difficulty of adjusting the offering to the populations' changing needs.

In addition to the initiatives conducted by the metropolitan cluster, Nantes Métropole and Saint-Nazaire are collaborating closely on cultural matters, economic development and digital technology. For example, in 2018 the École des Beaux-Arts de Nantes merged with the École d'arts de Saint-Nazaire to form the École des Beaux-Arts de Nantes Saint-Nazaire. The main fields of collaboration are:

- implementation of the Nantes Saint-Nazaire Développement strategy;
- strategic industry segments (e.g. aerospace, marine bio-resources, renewable marine energies, shipbuilding and digital technology), mainly through support for schemes designed specifically for the Nantes Saint-Nazaire area, such as PlugIN or Maia Mater, or jointly-organised events such as Digital Week;
- joint appearances at national and international trade shows such as the MIPIM (international corporate real estate fair) and the SIMI (national corporate real estate fair);
- introduction of a river freight service between Nantes and Saint-Nazaire, namely FlexiLoire, in partnership with the major maritime port authority.

The Loire-Bretagne metropolitan cluster (PMLB): political coordination on current issues for the west of France

The major cities in western France (Angers, Brest, Nantes, Rennes and Saint-Nazaire) continued to work hand-in-hand in 2018. The Loire-Bretagne metropolitan cluster's main priorities remain unchanged: to raise the Loire-Bretagne region's profile both nationally and internationally for the benefit of all of the areas involved and their inhabitants; to promote dialogue and partnerships between local areas; to work as a network. The members have confirmed their desire to undertake joint projects.

The main projects include:

- improving rail access in western France. The Loire-Bretagne metropolitan cluster, which had produced a set of stakeholder position statements, expert appraisals and counter-proposals through the process of public debate, continues to contribute to reflections on transport links throughout western France now that plans for a new airport in the region have been dropped.
- economic development. The major cities forming the Loire-Bretagne metropolitan cluster make joint appearances at national and international trade shows, such as the MIPIM in Cannes and the SIMI in Paris.
- promoting the area. In 2018, the members of the Loire-Bretagne metropolitan cluster together organised an event designed to promote career opportunities in digital technology in western France. Called "La Ruée Vers l'Ouest", the event will undoubtedly be repeated.

Nantes and Rennes: the backbone of western France

This collaborative initiative begun in 2009 promotes the two areas at national and European level and contributes to the success of major projects in both cities. In addition to the initiatives implemented by the Loire-Bretagne metropolitan cluster, Nantes and Rennes are working together to boost culture, accessibility, higher education and research, international appeal and tourism.

To boost culture, for instance, Nantes Métropole and Rennes Métropole backed residency exchange programmes for nine teams at La Fabrique (Nantes), Au Bout du Plongeoir (Rennes) and Brest (La Chapelle Dérézo) in 2018. The aim is to support the artists during winter and spring/summer residencies, help disseminate their works in all three areas and bring the projects to the attention of a wider audience. Nantes, Rennes and Angers have also finalised plans to have their opera companies work together on a common opera project, with a strategy of inter-regional opera productions and the creation of a common laboratory.

THE INNOVATION AND DIGITAL TECHNOLOGY MISSION

Innovation and digital technology are an integral part of the metropolitan project. There is a twofold thrust: to bring in innovative public services and to support innovations developed by local players. The aim is to factor in and support the changes associated with digital technology and harness new forms of innovation to build the city of the future.

The smart city, as Nantes sees it, promotes a collaborative city that encourages stakeholder networking. Here innovation, whether economic, technological, social or cultural, is everywhere; it is by, and for, all. It works towards three main goals: boost employment and support economic development; make the city easier to live in; support the energy and ecological transition.

A number of flagship projects reflect this ambition: the open evaluation of the trial of Wi-Fi access in public spaces, initiatives to support digital mediation, the fifth annual edition of Nantes Digital Week, the open data strategy, and the call for digital arts and street furniture projects.

Flagship projects carried out in 2018

Evaluation of the Wi-Fi service in public spaces and public transport

A free public Wi-Fi service has been under testing in public spaces and on two public transport lines since June 2017. The trial is being conducted at seven test sites: Place du Commerce, the Parvis des Nefs, the Jardin des Plantes, Place Rosa Parks, the Haluchère-Batignolles public transport interchange, Busway line 4 and the airport shuttle bus. In 2018, the municipalities of Bouguenais (Place de l'Église) and Rezé (Place du 8 mai) joined the trial scheme.

The trial is also designed to identify the purposes for which public Wi-Fi access is used, the requirements and any improvements necessary, and clarify the prospects and conditions for its future deployment.

At the end of the trial, a citizens' group was tasked with evaluating the project and presenting recommendations to the elected representatives. The general requirements and expectations of public Wi-Fi in Nantes were then published online (see "Nantes Wifi Public : Quel internet pour tous sur l'espace public ?" at www.nantes.fr). This report documents the how and why of public Wi-Fi usage, sets out recommendations and presents the local authority's commitments.

It was decided to provide permanent public Wi-Fi access at all of the sites tested by end-2019. Work will then be done to be able to deploy public Wi-Fi access in other locations, in consultation with the interested municipalities in Nantes Métropole.

Call for projects on "digital arts and street furniture"

As a flagship feature of public space, street furniture holds new opportunities today for creative design and experimentation in the city. To this end, Nantes Métropole was keen to encourage an innovative approach with JCDecaux, its partner since 2017 (under a contract for the supply of street furniture in part of the area). At the initiative of Nantes Métropole and the City of Nantes, JCDecaux and Stereolux launched a call for projects in September 2018 (coinciding with Nantes Digital Week and the inauguration of the Scopitone festival) to interweave the digital arts, street furniture and public space. The project consisted in converting four interactive digital screens into digital artworks. Two artistic projects were selected and will be presented in public space in April/May 2019.

Digital mediation

Digital mediation is an endeavour to combat the digital divide in the city of Nantes. It does this by:

- clearly identifying digital paths that users can follow to obtain the guidance and support they need;
- supporting digital mediation professionals by structuring and coordinating a network of stakeholders to address this need.

In 2018, digital mediation took the following forms:

- a new edition of the user guide to digital practices (**Pratiques Numériques à destination des usagers**), which lists the public and voluntary-sector organisations in Nantes engaged in digital mediation (from simple Internet access through to the fablab). This made-to-measure guide helps users in Nantes find the digital mediation solution best suited to their needs and expectations (from among those run by the local authority or by local voluntary-sector organisations). To find what they need, users can simply enter a geographic location and a type of use, such as: using the Web; learning how to use digital tools; getting help with administrative procedures; learning about the risks of using the Internet. The guide is available in print form or online through [the City of Nantes website](#). The content will also be available as open data on the <http://data.nantes.fr/> website;
- the City of Nantes hosted and supported the "Numérique en commun(s)" event, co-produced by Mednum and Sonum, and orchestrated by PING, for stakeholders involved in digital mediation and digital cultures. Over the two-day event, 850 people attended themed learning tracks, workshops, masterclasses, prototypes and presentations. During the event, the French Secretary of State for Digital Affairs announced the national plan for inclusive digital technology.

Open Data

In 2011, Nantes Métropole and the City of Nantes committed to making public data more accessible (i.e. making it "open data"). In 2017, the local authority adopted a purpose-designed strategy.

This strategy was implemented by the following actions in 2018:

- encourage open data to provide the best possible conditions for developing new digital services. This entails:
 - holding round-table talks at the data show during Nantes Digital Week;
 - constructing a range of guidance and support services to help local municipalities make their data "open data".
- enhancing the portal. This entails:
 - pursuing the drive to open up public data, following the multi-year roadmap drawn up in 2016. Another 29 datasets were made available online in 2018;
 - the re-engineering of the open data platform shared with the Loire Atlantique department and the Pays de la Loire region. This common platform for open public data is tailored, simple and free, and enhances the presentation of datasets. It also has mapping and graphics functions that can be used by novices and which make the data easier to handle. Where appropriate, it allows datasets to be cross-referenced, thereby opening up new possibilities for data analysis and mining. Each local authority coordinates deployment in its own area. Nantes Métropole offers its member municipalities guidance and support with this in the form of tools and engineering.

Key figures in 2018

- 936 datasets are available on the data.nantes.fr website, which is pooled with the Loire-Atlantique department and the Pays de la Loire region; 279 of them were opened by Nantes Métropole;
- An average of 1,000,000 API queries and 76 downloads per month.

Highlights in 2018

- Won the "Jury Prize" in the OpenData Awards run by the *Gazette des communes* and Open Data France.

Nantes Digital Week

Nantes Digital Week - "the week for all digital cultures" - was created in 2014 with the aim of offering a time for reflection, contribution, training, practice, creation and exchange on matters of digital technology and its associated challenges.

The purpose of the event is to embody and demonstrate the plurality and density of what local actors are imagining, creating and achieving in the digital field.

Nantes Digital Week typically offers:

- gatherings in various formats (lectures, workshops, exhibitions, etc.);
- discussions among various groups (researchers, students, artists, start-uppers, VSE/SMEs, large groups, specialists, associations, insiders and lay citizens, etc.);
- a programme compiled jointly with local stakeholders (companies, associations, researchers, schools, etc.).

In five years, Nantes Digital Week has developed into a major event that draws together steadily growing numbers of contributors and attendees. In 2018, the event drew 80,000 participants and 232 project leaders to 117 events spread over 80 venues. To mark this anniversary, 1,200 project leaders and partners gathered for the launch evening at the Nefs venue, where they were treated to a performance of the digital opus "Control, non control".

This year's rich and varied line-up included events for industry professionals: the Salon de la Data trade show (1,000 attendees), Numérique en commun (850 attendees) and the Safari des Métiers (400 attendees). There were also events for the general public: the digital districts, "Seniors et numérique" and Jules Verne 2.0, which was an interactive, immersive experience with 1,702 participants.

Nantes Dans Ma Poche (Nantes in my pocket)

To make life easier for citizens and users across the local area, in May 2015, Nantes Métropole released a trial version of a mobile app designed to help users on the move: Nantes Dans Ma Poche (Nantes in my pocket).

No other local authority has an app like this. Distinctive features include:

- customisation as a core feature: the service adapts to each individual user's requirements;
- a broad selection of useful services for the whole area. The app is not confined to services managed by Nantes Métropole: it also includes partners' services;
- participatory design: user feedback and suggestions are used to continually tweak the app.

In 2018, two years after the app's release, new services were added to the line-up:

- live train times: users simply enter their local station and regular line to obtain train timetables and receive alerts about incidents such as delays. The service covers a 150 km radius around Nantes as well as the TGV rail links to Paris.
- The "Library" service: provides information about the opening hours and events at the user's library.
- The "Weather" service: once the user has been geolocated, the service provides a weather report for the next three hours and for up to two days for a municipality in the metropolitan area.
- The "Nearby" service: tells users about the services on offer nearby: free public Wi-Fi, areas set aside for sport, etc.
- The "Air quality" service: this module is kept up to date with information about pollens and a signal in the event of an air pollution spike.
- A new "Vigilance" service also broadcasts reports about exceptional conditions such as flooding, severe cold weather, a heat wave, etc.

The app's user friendliness was also revised for version 2. Users can now activate a magnifying glass function for easier reading and a close-up view of the app's "tiles". The new presentation of the diary also makes it pleasanter to use.

Key figures

- 158,000 downloads since 2015 and 4,500 daily active users.
- App store rating (average of the Apple Store and Google Play ratings): 3.9/5

"Innovation et numérique : Cap sur les transitions"

A special report entitled "Innovation et numérique : Cap sur les transitions" was produced to spotlight the key movers and shakers, places, events and networks making up Nantes' digital ecosystem and the local authority's main achievements (available on www.nantesmetropole.fr).

INSTITUTIONAL PARTNERSHIPS

Nantes Métropole has for many years been involved in collaborative projects with its institutional partners: the EU, the French government, the Pays de la Loire region and the Loire-Atlantique department.

These partnerships provide a means of ensuring that the various local public policies are consistent, coordinated and complementary.

In 2018, Nantes Métropole worked in new or updated partnerships under which our partners provided financial backing for our projects.

The Departmental Council's regional support scheme

The Loire-Atlantique departmental council issued rulings on its new support arrangements for the local areas for the period 2017-2021. Priority was given to four focus areas, namely:

- developing social housing;
- education, to cater for the population growth;
- mobility, to develop alternatives to car travel;
- digital technology.

Under this scheme, all seven of the funding requests submitted by Nantes Métropole were approved: €6.38m for the e-busway, €2m for studies into extending line 1 of the tramway as far as Babinière, €1.65m for studies into new sections of tramway in the metropolitan area's urban core, €749,260 for the major north-south cycle track on the banks of the Erdre, €214,410 for the extension of the "Loire à vélo" cycle track along Rue des usines, €5m for the Park-and-Ride facilities at Neustrie and Vertou, and €500,000 for the site for traveller communities in La Chapelle-sur-Erdre.

Nantes Métropole was also awarded a €443,750 subsidy for developing the Place du Pays Basque in the Clos-Toreau area, under the city's policy of supporting the districts. The City of Nantes was awarded a €637,500 subsidy for extending and restructuring the Jacques Tati school in the Clos-Toreau area.

The Metropolitan Development Contract

In December 2016, the Region approved its new contracting policy for 2017-2020. It is implemented essentially through Metropolitan Development Contracts (MDCs), which are meant to address the specific challenges facing the Urban Communities of Angers, Le Mans and Nantes Métropole.

Nantes Métropole and the Pays de la Loire region accordingly signed the MDC for Nantes Métropole, worth €17m, on 27 July 2018.

The contract includes operations at metropolitan level and operations at the municipalities' initiative, for which a sum of €5m has been set aside and split between the municipalities on a pro rata basis according to the number of inhabitants. A solidarity sum of €60,000 has also been maintained for the smaller municipalities in the conurbation.

The metropolitan area's main focus areas, as set out in the contract, are as follows:

- Focus area 1: land use planning projects and mobility;
- Focus area 2: Nantes Métropole's cultural and tourism appeal;
- Focus area 3: energy transition;

- Focus area 4: economic development.

Accordingly, Nantes has now obtained approval for its plan to allocate €3m to financing the new wholesale agricultural-produce market (MIN)

Nantes Métropole has also obtained a €1.5m subsidy for the e-busway under the SMILE programme and a €1m subsidy for developing cycle tracks under the "Loire à vélo" programme.

As the MDC's lead partner, Nantes Métropole assists the municipalities with submitting their request for funding.

The 2018 Local Investment Support Fund

Under the 2018 budget bill, the French government has renewed its allocation to supporting local investment, which is designed to support local authorities. The main priorities are:

- thermal renovation, the energy transition and the development of renewable energies;
- the upgrading of public facilities for regulatory compliance and safety;
- the development of infrastructures to facilitate mobility or the construction of housing;
- the development of digital technology and mobile telephony;
- the creation, transformation and renovation of school buildings;
- the production of accommodation and public facilities to cater for the increase in the number of inhabitants.

Nantes Métropole and the City of Nantes lodged submissions in response to the call for projects issued by the Prefect of Loire-Atlantique. As a result, Nantes Métropole was awarded €450,000 to purchase vehicular natural gas-powered buses, €300,000 to build the CETEX de la Vertonne urban bus maintenance centre, and €15,000 to structure the roadmap for the Local Food Project. The City of Nantes was awarded €1m in state funding to build the Leloup Bouhier school and school canteen.

The ERDF in 2018

Nantes Métropole received a reserved ERDF budget of €23.47m for the period 2014-2020, but has also applied for other funding elsewhere.

Nantes Métropole and the City of Nantes submitted five projects eligible for ERDF funding in 2018, worth a total of €5.9m. They concern:

- the "Loire à vélo" cycle tracks in the Rue des usines in Nantes;
- the public spaces at Nantes train station's northern intermodal transport hub;
- the extension and restructuring of the Jacques Tati school;
- the development of the Place du Pays Basque in the Clos-Toreau area;
- the major North-South cycle path on the banks of the Erdre in Nantes.

INCORPORATING COMMUNITY DIALOGUE INTO THE MAKING OF THE METROPOLITAN AREA

Nantes Métropole has reasserted and renewed its commitment to placing its citizens and users at the centre of the metropolitan project. Community dialogue is one of the defining features of the new managerial project to "reinvent public service". As such, it contributes to managing the area and implementing public action.

In 2018, particular emphasis was placed on conducting dialogue-driven projects, especially as part of the "Fabrique de la ville" city-making process. The making of the metropolitan area increasingly incorporates end users input: travel, urban development, public space, and the inclusion of nature as an integral part of the cityscape in the different projects.

Dialogue-driven city-making

In 2017, a study was launched into dialogue-driven city-making. In February 2018, some 40 employees of Nantes Métropole and the City of Nantes met to exchange views on how to more effectively factor end-user input into urban planning processes. Collective planning and discussion of three issues (the benefits of community dialogue; the incorporation of end-users' input in the project; citizens' influence on decision making and project enhancement) helped forge a consensus on a new approach to designing the city.

Following this collective phase, to give community dialogue a more formal, structured role in city-making, two changes were made to managerial practices:

- consolidate the strategic dimension of community dialogue-driven city-making by organising a cross-cutting leadership and launching discussion on the various projects involved in this dialogue-driven city-making process in order to anticipate, set priorities and more effectively support their achievement;
- help project managers and all of the operators (whether delegates or not) adopt the new approach by sharing a consolidated vision of city-making for the years ahead, and building knowledge to ensure consistent practices.

Four work packages have now been selected for 2019 to continue structuring dialogue-driven city-making: map out the range of dialogue-driven city-making projects, set up a "dialogue-driven city-making" Technical Approval Group, run a seminar on "dialogue-driven city-making" and draw up a reference document to support project management.

Community dialogue underpinning shared responsibility

Other highlights of 2018 include drawing up collective strategies and defining shared roadmaps that will unite numerous stakeholders in co-constructing common projects for the metropolitan area.

In February 2018, the "**Nantes, métropole en transition**" roadmap was unveiled at the end of the Great Debate on "The Energy Transition, it's us" (Sep. 2016 - May 2017). The roadmap, which was adopted by the Metropolitan Council, is an expression of a collective ambition. These commitments have not been made by Nantes Métropole and the municipalities alone. They are also the result of a collective effort; the starting point of a movement to be shared with the local area's inhabitants and stakeholders: associations, companies, collectives, council chambers, trade unions, public and private organisations... The roadmap is built around three distinctive features: the transition is to be 100% community-drive and designed to benefit all of the area's inhabitants and showcase Nantes' emblematic local resources. The roadmap will ensure that the area's energy transition will be beneficial for all of its residents (especially when it concerns housing and mobility issues, by promoting equal opportunity and combating fuel poverty). It must place all energy users on an equal

footing. The energy transition must be an opportunity for the local areas to work together as a fully-fledged partnership, using 100% of the local renewable resources and accommodating inhabitants' power to take action by facilitating local community initiatives. The roadmap is structured around 15 ambitions and, most importantly, 33 commitments to take action.

The local food project addresses Nantes Métropole's objective of changing the local food model for everyone by 2030, by working on the entire food cycle, from production to consumption. It was set down in a shared roadmap (8 commitments and 30 actions) in October 2018. Over the course of eight meetings, the initiative gathered over 150 food cycle stakeholders to draw up commitments and translate them into operational actions. The aim is to work together through to 2030 to promote "local, sustainable, universally-accessible food". Emphasis was placed on working alongside and in line with the competent agriculture and food authorities, the Regional Council and the Departmental Council.

In 2018, consultations were held in connection with the **"urban forests" project** to plan for the forests of tomorrow in the Nantes metropolitan area. It yielded a shared, well-accepted roadmap, drawn up in consultation with stakeholders and local residents. Over 200 people contributed to co-constructing the planning guide.

Launch of the Great Debate on longevity

Nantes Métropole kicked off a collective initiative in 2018 to lay the groundwork for the third metropolitan Great Debate on "population ageing", launched in 2019. Faced with the challenging demographic trends of the years ahead, it has begun a process of participatory, long-range planning to support the players and initiatives to be developed in the area. It proposes to approach the debate on "ageing" as a major stake for society.

To guide the Great Debate and identify the challenges, certain local stakeholders and consultative bodies have been asked to carry out an initial diagnosis and define the issues at stake for the metropolitan area. Similarly, a diagnosis has been conducted in the 24 municipalities making up the metropolitan area to gauge the extent to which municipal public policy addresses population ageing. An initial survey was already conducted on how the subject is handled in metropolitan public policy.

All of the submissions were collected, shared and made available to the elected representatives of the conurbation's 24 municipalities at long-range planning workshops run between September and December 2018. These long-range planning workshops, co-chaired by Claudine Chevallereau and Fabrice Roussel, were constructed around three sequences and helped define the issues raised by the subject, along with the procedure for conducting the debate.

To address the specific issues associated with longevity in the Nantes metropolitan area, four main topics were selected in consultation with the municipalities and will be discussed in 2019:

- 1) longevity as a life project: what choices are open to each individual?
- 2) how do we invent a home that evolves in step with its inhabitant?
- 3) what are the necessary conditions for ensuring that longevity is inclusive, fair and civic-minded?
- 4) opening up the realm of possibilities for longevity.

Training in community dialogue

To address the managerial issues involved in community dialogue and the many needs voiced during the annual performance appraisals, a training course on community dialogue, designed with the Community Dialogue, Evaluation and Long-Range Planning cluster, became operational in September 2018. Nearly 100 staff members have already taken the two modules and learnt about designing and running co-construction processes, and facilitation techniques. This training offering will be repeated over four years. It is part of Nantes Métropole's strong support for building the skills staff need to incorporate community dialogue into project management.

AN ECOLOGICAL TRANSITION

Of the three main thrusts of the metropolitan area's political project, Nantes Métropole aims to set the standard in ecological and energy transition. In this respect, it plays an active part in the key environmental challenges while taking up new cross-cutting challenges: efficient, clean mobility, the climate, renewable energy, energy efficiency and universal access to energy, green growth, the circular economy and waste prevention, water policy, and Nantes Métropole role in setting an example.

Placing ecological transition at the heart of metropolitan planning

Aware of the urgency of ecological issues and the responsibility of cities to provide solutions, Nantes Métropole has been committed to sustainable development for 15 years, a commitment rewarded by the European Green Capital title in 2013. Since then, following the Great Debate on the energy transition, Nantes has stepped up the pace and cleared another landmark by committing the local area and all its stakeholders to the ecological transition, to reduce greenhouse gas emissions, and protect the environment and its citizens' quality of life.

In 2018, five years after obtaining the European Green Capital title in 2013, Nantes Métropole has reviewed its action in the intervening years. [The 2018 Sustainable Development Report](#) (closely related to this document) has set out to take stock of Nantes Métropole's achievements in the ecological transition, whether they concern energy efficiency and renewable energies, sustainable mobility, waste issues, nature in the city or everyday quality of life.

The outlook is closely linked to the Energy Transition Roadmap adopted by Nantes Métropole last February at the end of the Great Debate on the Energy Transition. It outlines a rather distinctive path to kick-start the Nantes area's transition, leveraging its assets and players and revolving around three principles. The transition must:

- be led entirely by its citizens;
- benefit all of its inhabitants;
- make use of local resources.

Harnessing public procurement to ensure a sustainable city

Nantes Métropole, just like the City of Nantes, is pursuing the approach it adopted 15 years ago, using public procurement as a tool to build a sustainable local area and reaffirming its exemplary record in sustainable procurement.

With sustainable public procurement providing a basis, this initiative is rolled out and ingrained in several purchasing categories including foodstuffs, office supplies, maintenance products and vehicles.

These purchases address sustainable development's core focus areas: workforce integration, disability, combating discrimination, Corporate Social Responsibility (CSR), the environment, energy and the climate. These concerns are being met through a number of dedicated, specific initiatives.

Initiatives in 2018 to boost responsible public procurement were shaped by several priorities:

- **Implement the Responsible Purchasing Promotion Scheme (SPAR)** adopted in March 2017 by the municipal council and the metropolitan council. The aim is to reinforce public procurement's role as a driver and tighten the requirement for it to be exemplary, supporting and consistent with the objectives of building a sustainable metropolitan area. The scheme is implemented in the operational departments, where "responsible purchasing" is factored into annual procurement budgets.

These objectives are fulfilled during the annual procurement budgeting process, when the desired contracts are awarded, with the priority going to workforce integration, the environment, energy and the climate.

The SPAR is an in-house guide for the departments and an aid to help companies respond to calls for tenders issued by the two local authorities.

- **Energy transition, Local Area Food Plan and the circular economy** The City is incorporating the three roadmaps (approved by the Metropolitan Council in late 2018) into its public procurement processes.

The impact of energy consumption is an important consideration in contracts where utility consumption is a major component (vehicle fleets, buildings, street lighting and IT equipment in particular). The objective of reducing these consumption levels is systematically written into the technical requirements of tender calls, mainly through certification schemes for eco-friendly businesses. There is a specific lot for purchases of renewable electricity.

Nantes Métropole is also stepping up its action on waste. For construction site waste in particular it aims to reduce the quantities to be eliminated by re-using the waste on site or recycling it into raw materials. Since the beginning of 2018, each roadworks contract contains a data table about the outgoing waste intended for recycling and the incoming recycled materials. The aim is to evaluate these volumes and devise an appropriate strategy for reducing waste that cannot be reclaimed.

These ideas are being tested in emblematic development operations that are introducing materials with less environmental impact. Carbon footprinting missions have also been conducted at several large construction sites, such as the train station redevelopment and the new wholesale fresh produce market. These missions helped identify processes that are low on greenhouse gas emissions and persuade businesses to adopt more environmentally-friendly practices.

THE MANAGERIAL PROJECT

Our tagline: "We are reinventing public service"

The managerial project places citizens and users at the heart of our public service. It is designed to upgrade our management model and the professional practices of our executives and employees in order to:

- carry out the local area project across Nantes Métropole and the City of Nantes;
- enhance and adapt our public service;
- be an example of corporate social responsibility (quality of life at work, environmental footprint, fair practices, etc.).

More specifically, the aim is to:

- uphold the requirement for quality and sufficiency in public service;
- do more to conduct projects on a partnership basis;
- do more to listen to users, citizens, partners and municipal employees and co-construct the metropolitan area with them;
- foster empowerment, initiative and innovation in the teams;
- anticipate and support the energy and digital transitions.

This ambition is captured in our new tagline, "Nous réinventons le service public" (We are reinventing public service), which was presented to municipal employees at the New Year greetings ceremony for 2018

A few of the initiatives carried out in 2018

- The local authority reasserted its commitment to being a standard-setter by approving the energy transition roadmap in February 2018. A €775,000 budget was approved for renovation and thermal insulation work, proof of the local authority's determination to speed up efforts to shrink municipal buildings' environmental footprint. The technology changeover in the in-house vehicle fleet is also gathering pace: in 2018, all light passenger vehicles will be replaced by vehicles running on vehicular natural gas (VNG), fully-electric vehicles or hybrid (and preferably rechargeable) vehicles. To encourage municipal employees to adopt sustainable travel solutions, Nantes Métropole has brought in a travel allowance for cyclists and is testing teleworking. A network of eco-activators is helping to spread the best practices from within the teams.
- Long-range planning and foresight initiatives are taking form, particularly on the subject of new methods of funding: forward-planning workshops have been created for senior management and a network of in-house information specialists has been set up.
- In human resources management, actions to promote the quality of life at work and effective workplace equality are continuing:
 - the psychosocial risk prevention initiative is being rolled out in the departments. Each manager and each employee will receive training on this topic in 2019;
 - training or awareness-raising initiatives on all forms of discrimination involved, respectively, 264 and 460 employees. Special emphasis was placed on preventing

discrimination against LGBT people. Moreover, the in-house advisory board on equality, diversity and job desegregation has been extended;

- a support system was set up for teams and employees following the rioting in the districts in summer;

- an initiative is under way to give job security to employees who are neither civil servants nor on permanent employment contracts. It has yielded some initial measures, which have been applied since 1 January 2018;

- The "Rebondir à Nantes" scheme helps repositioned employees go back to work by giving them appropriate training.

- In the digital field, the Data strategy is currently being drawn up and the project to upgrade in-house collaboration equipment and tools has been kicked off.
- The in-house innovation initiative, which is built around a system for collecting and investigating innovative ideas put forward by the employees and an in-house network of 50 ambassadors, received the trophy for participatory innovation (awarded by Innov'acteurs).
- The second edition of innovation week, which is open to all employees, ran 88 workshops in 31 different locations. Employees can also take part in "creative hours" during their lunch break, where they come to grips with creative techniques.
- The awareness-raising and support scheme on changing work practices is being expanded:
 - the monthly talks on "management and innovation" are now open to all employees;
 - the training courses for management staff have started up again, with the priority given to line management;
 - the training offering on community dialogue is in place;
 - the service offering also includes occasional, one-off consulting sessions for line

A CITY OPEN TO THE WORLD

The local area's international appeal is a major stake for the Nantes conurbation. Nantes Métropole relies on both its values and its projects to maintain and boost its attractiveness. With the help of various local stakeholders, it forms close partnerships with other major cities abroad. It also encourages and promotes associations' initiatives outside France.

Consolidating partnerships with target areas: Quebec

In recent years, Nantes Métropole has forged very close ties with Quebec and consequently been able to develop a variety of projects in the two areas. These projects heavily involve our digital ecosystems, our cultural establishments, our research and development centres and our companies. The sharing of experiences and initiatives helps define and implement more efficient public policies.

These exchanges lead to core projects under the joint call for decentralisation projects issued by France and Quebec (FFQCD), with financial support from the French government and Canada.

Six projects supported by Nantes Métropole were selected in the FFQCD call for projects for 2019-2020:

- collaboration between the Quartier des Spectacles and the Creative Factory on a crossover programme of digital experimentation in public space;
- partnership between Femmes digitales de l'Ouest and Le Printemps numérique, in association with Femmes Alpha, on the role and importance of women in digital technology;
- the SYNAPSES dance project: a mobility grant for the live show, and written texts in partnership with structures based in Montreal and Quebec;
- collaboration between Arkham sur Loire and the association Rhizome in Quebec;
- the PUI project: meetings focused on the book on photography;
- collaboration between the Muséum d'histoire naturelle, Nantes' natural history museum, and the Musée de Saguenà in Quebec.

Highlights of the digital component:

- a delegation of around 30 businesses from Quebec attended Web2Day 2018;
- 40 international entrepreneurs were present at Web2Day as part of the "Parcours francophone numérique" supported by the Organisation Internationale de la Francophonie and the Office franco-québécois pour la Jeunesse. The series comprises four events: Web2Day, KIKK (Namur), WebÀQuébec and the Africa Web Festival in Abidjan;
- participation in Expo-Entrepreneurs MTL, with a workshop on business development involving France and Quebec: active participation by the Maia Mater boot camp and the École de design.

Highlights of the cultural component:

- collaboration between the Maison de la Poésie and Rhizome, and continuation of the residency exchange project;

- the three-year agreement (2017-2019) between the CALQ, the Lieu Unique and the City of Nantes (with the collaboration of the Institut Français);
- Stereolux: the "art-science" project involving three artists (Maxime Dangles, Vincent Malassis and François Joncour), the Laboratoire International Associé franco-québécois BeBest, the CNRS research centre on coastal ecology, and the SAT (Montreal);
- At the Maison régionale de l'architecture des Pays de la Loire: international residency exchanges in partnership with the Maison de l'Architecture de Québec and on the topic of the river. The French teams (including Nantes-based "collectif mit") went to Quebec in October 2018 and the teams from Quebec visited Nantes in November 2018.

PLAYING A KEY ROLE IN EUROPEAN NETWORKS

Nantes Métropole plays a key role in European networks, leveraging its relations with numerous European stakeholders to underpin its lobbying strategy. This strategy helps to raise Nantes' profile in Europe, which is a strategic springboard for its international development: 80% of the trading operations by companies in the local area take place within Europe.

The relations formed within Europe provide an opportunity to take other European cities' experiences on board, highlight the success stories in Nantes and raise the local area's profile while defending the challenges faced by local authorities at European level. This strong presence in Europe is also a useful tool for obtaining EU funding, which is a powerful accelerator for the area's projects.

Nantes in Europe: playing a key role in networks

As an active member of various European networks, Nantes Métropole has the opportunity to voice its concerns on strategic issues at European level, such as employment, social and territorial cohesion, local public services, education, culture, climate change and responsible economic development.

This European presence is vitally important, since 75% of national legislation stems from European law today. Decisions at European level have a direct impact on local public policies. By playing an active role in European networks and nurturing its relations with European institutions, Nantes Métropole is exerting its influence on European decision-making processes and defending the local area's interests.

EUROCITIES: post-presidency strategy

The Eurocities network, consisting of some 130 European cities with a population of over 250,000, was presided over by Nantes Métropole from November 2014 to November 2016. For 2017 and the years to come, Nantes is continuing to contribute to Eurocities' governance and political influence. It is focusing its involvement in:

- social cohesion, employment, public service and corporate social responsibility (CSR);
- Europe's contributions to the issues raised by the transitions currently under debate in the metropolitan area (viz. the social, economic, democratic, ecological and digital transitions);
- the development of synergy at local level, by strengthening the EU's ties with the local area's citizens and stakeholders.

While pursuing its lobbying of the European institutions, Nantes Métropole remains active through the following special-focus forums:

- the **Social Affairs Forum**, which follows on from the initiatives conducted on social cohesion, employment, public services and CSR. This forum also promotes the European Pillar of Social Rights and the United Nations' 17 Sustainable Development Goals. Within this framework, Nantes Métropole was able to develop the social component of government energy transition policy at the Stuttgart Forum in October. It also promoted the micro-credit scheme at the Annual Convention for Inclusive Growth held by the European Commission in Brussels in April. Nantes Métropole's "5Bridges" project and "early childhood quality charter" were presented to the European Committee of the Regions in October. Nantes Métropole leads the Working Groups (WGs) on employment and education, and is a member of the WGs on migration, Roma integration and urban ageing. Note also: Nantes'

involvement in the "CITIES-GroW" project on migrant integration and combating discrimination on the job market, and the "Gen-Y City" project on developing innovative, creative-tech digital activities;

- the **Economic Development Forum**, chaired by Nantes Métropole, works primarily in the fields of innovation, CSR and new forms of economy in general (circular economy, sharing economy, social and solidarity economy, etc.);
- the **Culture Forum**, where Nantes Métropole is vice-chair of the Working Group on art in public space;
- the **Environment Forum**, in which the energy transition roadmap and the new Local Climate, Air and Energy Plan were shared and discussed in the Working Group on Air Quality, Climate Change and Energy Efficiency.

Nantes Métropole's ongoing action can also be seen in the following cross-cutting Working Groups:

- **Creative Citizenship:** Nantes Métropole is co-steering this WG with Athens and helping to rally citizens to the European idea by launching awareness-raising campaigns, and showcasing and exchanging remarkable experiences in this area:
- **Public Services and Public Procurement WG.** In this capacity, Nantes Métropole represents the network's cities in the Urban Agenda Partnership on Innovative and Responsible Procurement, which aims to use public contracting as a tool for cities' overall strategy and sustainable development. It was also an opportunity to present Nantes' initiatives during a study tour organised in Nantes in October, and to influence European legislation on the subject.

AFCCRE/CEMR

The Association Française du Conseil des Communes et des Régions d'Europe (AFCCRE) brings together some 1,500 local authorities, municipalities, departments, regions and groups of municipalities. The Council of European Municipalities and Regions (CEMR) brings together national associations, including the AFCCRE. Nantes Métropole sits on the committee of the AFCCRE/CEMR, which is tasked with assisting and advising municipalities in their European activities and initiatives, such as searches for information, contacts and funding for their transnational projects. It carries out ongoing monitoring of EC legislation so that local and regional authorities can anticipate the consequences at local level.

Nantes chairs the AFCCRE's Environment and Sustainable Development Commission.

CEEP

Nantes Métropole is a member of the European Centre of Employers and Enterprises providing Public Services and Services of General Interest (CEEP). Several Nantes-based local semi-public companies (Sociétés d'économie mixte) and local public companies (Sociétés publiques locales) are also involved in the CEEP: NGE, La Folle Journée, Semitan, La Cité Nantes Events Center and Nantes Métropole Aménagement. The CEEP is active in the field of CSR.

Nantes has chaired CEEP France since December 2015.

The city has also sat on the general assembly advisory committee of CEEP Europe since June 2018.

The climate, a major European and international issue

For several years now, Nantes Métropole has been taking action to combat climate change. It has been the "climate" spokesperson for the "United Cities and Local Governments" (UCLG) organisation since 2010. It has thrown itself into the task to make the voice of cities and local authorities heard in international negotiations and ensure that cities' role in combating climate change is recognised and

supported. To this end, Nantes Métropole, after having hosted the inaugural Climate Chance global climate summit for non-governmental stakeholders in 2016, took part in the second edition in Agadir from 11 to 13 September 2017. It drew 5,000 participants, helping to sustain the movement and recognise Nantes as a major player on the subject.

As a member of Eurocities, Nantes is actively involved in the strategic climate round-table that began in September 2018. Its purpose is to present a strategic overview of climate change issues and the related policies implemented in the member cities. Another goal is to engage in advocacy and lobbying of European bodies, and share experiences of the innovative practices supported by these cities (co-chairs Amsterdam and Oslo, along with London, Budapest, Stockholm, Port, Malmö and Manchester, among others).

Nantes is also pursuing its commitment as signatory to the Covenant of Mayors for Climate & Energy, whose objectives have been extended from 2020 to 2030, and member of the European Green Capitals network. This prompted it to take part in an exchange project on energy transition issues with experts from the United States (Charlottesville and Cambridge) and Germany (Heidelberg) in 2018 and 2019. The delegation was received in Nantes in March 2019 to discuss members' own experiences as they relate to Nantes' policies, during a three-day workshop involving a wide variety of local stakeholders (associations, private sector, etc.).

Partnership agreement signed with Hamburg for 2017-2020

After the signature in 2017 of a multisectoral partnership agreement between Nantes and Hamburg for the period 2017-2020, and to coincide with Nantes Métropole's participation in the Hamburg Port Anniversary festival - the world's most popular maritime event - 2018 saw this ambitious agreement enter its operational phase. A large number of European Cooperation Projects between partners in the two areas received support, especially in the field of economic development and culture.

A EUROPEAN AND INTERNATIONAL CITIZENSHIP PROGRAMME

Nantes Métropole's desire to interact more fully with Europe and the international community can also be seen at local level: the city offers the people of Nantes a fully-fledged European citizenship programme that allows them to benefit from the various European and international experiences on offer.

This goal is achieved through events and schemes that help make the people of Nantes more aware of and receptive to what is happening in Europe, and through Nantes Métropole's support for a number of associations that are helping to develop a sense of European citizenship, open to the world, in Nantes.

Sharing European and international issues with citizens

Active European and international citizenship relies on a better grasp of the issues and impact of Europe and globalisation on our local area. Nantes Métropole offers opportunities to think about and discuss topical issues, by inviting European and international personalities and experts to talk them over with inhabitants.

- From 9 to 19 May 2018: Fête de l'Europe on the theme of gastronomy and food

Various events were organised to celebrate the Fête de l'Europe; they were coordinated by the Maison de l'Europe in partnership with the European Cultural Centre and involved close to 40 local partners. Numerous activities were organised at the Cosmopolis international venue or at special events held in a number of districts of Nantes or municipalities in Nantes Métropole. Visitors were able to discover the languages, cultures, games, dances and arts of different European countries.

- 28 and 29 September 2018: the 6th "Géopolitiques de Nantes" event

For the sixth year running, the Institute for International and Strategic Relations (IRIS) and the Lieu unique venue offered citizens a programme of fifteen round tables involving around sixty speakers, with a view to unravelling the strategic challenges facing the world today. Claudi Haigneré - a doctor, astronaut, former government minister and currently special advisor to the head of the European Space Agency - presented her own personal understanding of "the stakes that space represents for Europe". This was followed by a round table on European cities: "Are new technologies serving democracy? : How can they be used for cities in Europe?" with Fabrice Roussel, first vice-president for local areas and community dialogue; Martine Delannoy, head of future studies in the city of Gand; Chantal Enguehard, teacher and researcher in IT at the University of Nantes, and Nicolas Le Berre, director of CITYZENS Factory.

Nantes Creative Generations: making young people the focus of Europe

The Nantes Creative Generations (NCG) initiative was launched by Nantes Métropole and the City of Nantes in 2009 with a dual objective: boost Nantes Métropole's visibility at European level and turn Europe into an attainable reality and an opportunity for young people.

- From 24 to 27 October 2018, the eighth edition of the annual Forum, a highlight of the initiative, brought together around 60 young project developers from Nantes and Europe to share their citizen-focused and innovative initiatives. They spent three days discussing their projects and acquiring the skills required for putting together European projects.

- The 2018 NCG Cooperation Prize rewarded five projects initiated by the collaborative efforts of young people from Nantes and Europe who took part in the 2017 Forum. Financial and technical support enabled these young people to try their hand at setting up a project with a European reach.
- During the summer of 2018, 13 young people from mainland France with little or no international experience took part in the NCG On Tour scheme. On a self-managed basis, they travelled Europe (Odessa, Athens, Warsaw and Tbilissi) to meet other young Europeans belonging to the NCG network and former Forum participants, then presented feedback on their experience at the 2018 Forum in Nantes.

Europe in Nantes: a breeding ground for associations

Based on the belief that Europe should be an opportunity that people experience for themselves, Nantes Métropole supports local associations that raise awareness of Europe and its challenges. Associations that run a variety of exchange schemes between citizens in Nantes and citizens from across Europe receive support, such as:

- La Maison de l'Europe, which informs citizens and raises their awareness of European issues, also guides local project owners and helps them give their projects a European reach;
- Euradionantes, the European radio/school that continues to expand listeners' knowledge of European news and issues while at the same time spreading Nantes Métropole's reputation and influence in Europe. In 2018, the association achieved a major milestone by starting to roll out its project across France from its base in Nantes. Three local stations have been set up in Lille, Lyon and Strasbourg. Others are expected to follow in 2019;
- the European Cultural Centre and its binational cultural centres (Franco-German, Franco-Spanish, Franco-British and Franco-Italian), which are tasked with raising the profile of the various European cultures in the conurbation;
- Graine d'Europe, Gare de l'Est...

The process of creating a hub in Nantes dedicated to Europe also moved forward in 2018 and the new facility is due to open its doors to the public in September 2019. Named "Europa Nantes", this new 1,000 square metre facility aims to forge closer ties between the people of Nantes and Europe. It will house the main European associations based in Nantes in a venue that is open to all and dedicated to informing, testing and setting up projects with a European focus. It will be located along the Boulevard de la Prairie aux Ducs and managed by La Maison de l'Europe.

INTERNATIONAL COOPERATION

To work towards the global challenges defined in the UN's Sustainable Development Goals, Nantes Métropole is conducting and supporting international cooperation actions grounded on reciprocity.

Accordingly, Nantes Métropole and its partner local authorities are focusing on upgrading their services to the population and giving them a permanent footing.

What Nantes Métropole and its partners are doing in Africa and Haiti

1. Next steps in the DANK Programme

Initially, the DANK Programme (2012-2017) was designed to draw up public policies on water and sanitation on the basis of North-South cooperation with the partner local authorities in Dschang (Cameroon), the Amaga (association of mayors from Grand'Anse in Haiti), Nantes and Kindia (Guinea).

The objective is still to share experiences among the various partner towns in the South with regard to the organisation of urban services and the way local residents can be involved in the initiative. Note: the hazards of the electoral calendar and the differences in the administrative context can make it difficult for certain towns to act on the suggested changes to the organisations.

Accordingly, Nantes Métropole in partnership with Dschang, the other five municipalities in the Menoua department and other partners at national level in Cameroon, drew up a programme for rolling out urban services at inter-municipal level for close to 620,000 inhabitants. The programme, which is designed to be transferable to other areas in Cameroon and Africa, is currently seeking funding.

- **Application of the law on water and move to address other urban issues**

Water and sewerage are priority sectors when it comes to helping with development at international level. In France, since 2005, local authorities can draw on specific funds, up to the value of 1% of the public water and sanitation services' resources (for Nantes Métropole, the ceiling is 0.5% of the water and sanitation budgets).

The aim is to step up collaboration between municipalities in Nantes Métropole and their partner cities with a view to improving access to drinking water and sanitation services for their inhabitants.

In 2018, Nantes Métropole maintained the support it began providing in 2017 to municipal projects addressing other topical issues, namely waste management, natural risk prevention, combating climate change, and cities' resilience.

In 2018, Nantes Métropole supported the EduKindia programme (conducted by Orvault, Bouaye, Basse-Goulaine, Saint-Jean-de-Boiseau and Sainte-Luce-sur-Loire), and the cooperations between Carquefou and Materi (Benin), La Montagne and Guede Village (Senegal).

- **Supporting the energy transition**

The City of Dschang, Électriciens Sans Frontières and Nantes Métropole have devised a programme to roll out Dschang's municipal policy on renewable energy. The programme consists in equipping the City with micro-hydropower plants and managing a public service for producing and selling clean, affordable, always-on electricity. It received substantial co-funding from AFD, the French Development Agency (€405,000 out of a total budget of €627,000).

The programme will build two plants and launch studies into setting up plants at another three sites. It will also organise and set up the municipal department responsible for managing the service (maintenance, distribution and invoicing). In 2018, work began on the first plant.

Nantes Métropole's local action

- **Supporting international associations**

In 2018, Nantes Métropole provided financial assistance to three associations that are partners in its cooperation schemes:

- Bolivia Inti Sud Soleil: conducting initiatives to promote solar energy and development in emerging countries;
- Compostri: recycling household waste, providing methodological and technical support for the development of composting in Kindia and Dschang;
- Electricians Without Borders: contributing to the project to roll out micro-hydropower plants in Dschang.

- **Contribution to the Festival des Solidarités**

Nantes Métropole is a member of PLATFORMA, a European network of local authorities involved in decentralised cooperation, and on 12 November 2018 organised its second "European local solidarity days". This annual event, run with financial support from the European Union, sets out to inform citizens about sustainable development issues, showcase local authorities' decentralised cooperation initiatives and strengthen ties between European local authorities.

This year's topic - "What role for cities and their local areas in climate change?" - was discussed by around 50 participants (elected representatives, technicians and associations) from municipalities in Nantes Métropole and from partner countries (Cameroon, Haiti and Guinea).

The partner cities, Nantes-based NGOs and Nantes Métropole's technical departments contributed to the 2030 Agenda's Goal 13: "Take urgent action to combat climate change and its impacts". The discussions and testimonials, grounded on actual experience of the various areas, underscored the necessity of anticipating public policy on climate change.

TOURISM, AN ECONOMIC DEVELOPMENT DRIVER

There are a number of factors that contribute to making a place appealing for tourists: an image, entertainment, sites and activities, accessibility, atmosphere, accommodation, etc. Tourism is a sector of the economy that holds significant growth opportunities. It is a key driver for development and appeal, and can make a significant contribution to shaping and boosting the local area's growth prospects by developing assets and employment.

For several years now, Nantes Métropole has chosen to implement a fresh and bold tourism development policy. The ultimate goal is to turn the conurbation into a well-renowned urban destination, bolster its appeal and raise its profile at national and European level for holidaymakers and business people.

A creative and appealing city

In the space of 20 years, Nantes Métropole has become one of the most vibrant and inventive cities in France. A significant number of creations, activities and events take place in Nantes throughout the year, some of which have an international reach: La Folle Journée (classical music festival), Royal de Luxe (street theatre company), Estuaire (permanent open-air collection of contemporary art between Nantes and Saint-Nazaire), Machines de l'île mechanical animals and monsters, and the Castle of the Dukes of Brittany, among others.

In 2018, the offering for international visitors was expanded to include a new tourist trail from Nantes to the Mont-Saint-Michel, called "Traversée Moderne d'un Vieux Pays", roughly the "Modern Trip through an Old Country".

Over time, Nantes Métropole has developed unique and offbeat cultural and touristic attractions that are available to everyone by pursuing projects that combine contemporary art, cityscapes, nature and events.

A few highlights in 2018:

- the 7th "Voyage à Nantes" summer event: all year round, the SPL Le Voyage à Nantes works on a delegation of public service basis to develop tourism in the metropolitan area. The most visible part of its action is seen in summer: from 30 June to 26 August 2018, the event paid tribute to the city's spirit of daring with its "Éloge du Pas de côté", clocking up 54 stages, 23 new features, 7 new venues used for the first time, 19 artists or artist collectives, 21 cultural stakeholders and 200 partner businesses certified "The Voyage à Nantes passes here";
- the new tourist trail, "Traversée Moderne d'un Vieux Pays", was officially launched on 22 May 2018 at the Musée d'arts de Nantes. It aims to boost Nantes' reputation as a tourist destination among international visitors by leveraging the Mont-Saint-Michel's renown. The ultimate goal is to increase the number of foreign visitors, not only from Europe but also from North America and Asia, who will represent the bulk of the growth in international tourism in the years to come;
- the installation of the first prototypes of the Heron Tree (a model of the tree, with geese and a humming bird) drew visitors to the Machines de l'île site;
- the "Mauves Balnéaire" and "La Sablière de Sainte-Luce" installations were expanded along the "Loire à Vélo" cycle path. The outdoor installations around the Château de la Frémoire in Vertou have turned it into a new stage of the "Voyage dans le Vignoble" through the vineyards;

- a partnership charter has been signed between 10 municipalities, 4 inter-municipalities and the department to promote tourism on the Lac de Grand-Lieu, which is the largest lowland lake in France in winter, the second-largest bird refuge after the Camargue, and a national and regional nature reserve;
- Nantes' cultural life and tourism continues to be punctuated by flagship events such as La Folle Journée and Les Rendez-vous de l'Erdre.

In 2018, Nantes Métropole reaffirmed its tourism development goal by bolstering the momentum provided by Le Voyage à Nantes. Today, Nantes Métropole is a recognised destination for urban tourism, but also for art and culture at national, European and international level. The original and vibrant tourist attractions and event line-up have contributed to the local area's economic development. Nantes has seen an increase in the number of visitors from outside the area, as well as in the annual total of overnight stays (and especially summer stays), and an increase in economic benefits.

Sport as a tourism driver

Over and above urban and cultural tourism, Nantes Metropole was also keen to use sport to enhance its tourist appeal. With the media enthusiasm that it generates, along with the excitement and fun, sport is a good way of raising an area's profile. Hosting major sporting events in the heart of the metropolitan area helps develop local tourism. The 2018 European Women's Handball Championship was held in the metropolitan area, along with the Nantes Marathon.

In addition, with its wealth of sports facilities (Hall XXL, the Beaujoire stadium, the Palais de Sports in Beaulieu, the Nantes and Rezé ice rinks and the velodrome in Couëron), Nantes Métropole has developed a truly ambitious strategy. It now has a full range of sports halls in the required configurations, in particular in terms of spectator capacity.

Steady, confirmed growth

Tourism occupancy rates have been steadily rising since 2010, proof that Nantes Métropole's strategy is the right one. This is clear from the main tracking indicators:

- 3,338,895 nights in paid accommodation (source: tourist tax statistics and Airbnb), up 2.5% on 2017 and 32.8% on 2014;
- summer 2018 (July and August): 614,673 nights in paid accommodation, up 2.8% on summer 2017 and 34.8% in 4 years;
- international visitor numbers have risen sharply: in 2018, international guests accounted for 12.8% of paid accommodation nights and 16% of the visitors to the Machines de l'Île;
- the Château des Ducs de Bretagne registered record visitor numbers with 333,995 visitors in 2018 (103,013 more than in 2017).

Business tourism: a key sector generating new opportunities

The business meetings and events industry (organising seminars, study tours, conferences and other shows) generates significant economic benefits for all tourism stakeholders and in particular hoteliers.

For years now, the main venues in Nantes have played a key role in developing the MICE (Meetings, Incentive, Conferences, Exhibitions) market. According to France Congrès, Nantes' Cité des Congrès and exhibition centre generate €250 million in annual benefits for the local area.

Noteworthy events in 2018 include the second edition of the Salon du Végétal plant show in Nantes and the trade show for live entertainment professionals, "Les Bis" .

Moreover, the business meetings sector has the advantage of boosting the local area's profile: it promotes the destination to business visitors who may return for pleasure.

Key figures for business tourism in 2018

- Cité des Congrès: 142 MICE events, 25 international events, including 15 ICCA (International Congress and Convention Association) events and 101 cultural performances, representing 183,300 congress days and 152,000 spectators.
- Parc des Expositions exhibition centre: 106 events hosted and 7 events produced for a total of over 580,000 visitors.

In 2018, the Convention Bureau run by Nantes Saint-Nazaire Développement (in charge of the region's promotion and economic and international development) strengthened its positioning. Event organisers can perform searches on the portal according to theme: hotels, sites for private hire, caterers, events agencies, service providers, restaurants etc. The Convention Bureau was also behind the creation of a MICE club, coordinated jointly with the Nantes Saint-Nazaire Chamber of Commerce and Industry. The club brings together professional and sporting events actors in partnership with the tourist offices and major facilities. Its objective is to enhance the visibility of what the local area has to offer in terms of professional event facilities. It is also tasked with promoting the offering at national and international level and already has 80 members.

Finally, Nantes Métropole supports the development of fields of excellence in its local area. It supports some 40 business, tourism or scientific events with a national or international reach, including Nantes Digital Week, the Journées Scientifiques de l'Université, Scopitone and the Salon des Métiers d'Art.

A CULTURAL POLICY WITH A STRONG FOCUS ON INNOVATION

Nantes Métropole's objective is to aim high with a cultural policy that engages fully with the idea of building community spirit and developing the local area. It is based on a very rigorous vision of culture as a means of individual and collective liberation and as a free space in which a society can reinvent itself through interaction.

By sharing with a broad audience and making room for innovative ideas from near or far, great attention is given to the capacity for innovation and diversity, whether it is in the way culture is lived out, in the creative process or in the cultural projects.

A very positive trend in the metropolitan area's museums and cultural establishments

Visitor numbers shot up in 2018

- **Musée d'histoire de Nantes (at the château): 333,995 visitors:** a record 24% increase in visitor numbers by comparison with 2017.
- **Musée d'arts:** an outstanding total of **326,296 visitors**, making it the third-ranking art museum outside Paris after Le Louvre Lens and the Musée des Beaux-arts de Lyon.
- **Muséum d'histoire naturelle: 144,500 visitors**, up 22% on 2017.
- **Planétarium: 52,427 visitors**, over 10,000 more visitors than in 2016.
- **Chronographe** (archaeological interpretation centre): **26,171 visitors**, higher than the initial estimates of 20,000 visitors per year.

These increases are part of a broader trend, as visitor numbers have been steadily rising for several years now. This renewed interest in museums can also be seen at national level. However, in a trend that is particularly noticeable in Nantes, the increase in visitor numbers goes hand in hand with a growing social and generational diversity of visitors: there are now more young people, families and inhabitants from all over the metropolitan area going to visit museums.

Foreign tourists have also been visiting museums at less expected times of the year, such as during the mid-term school holidays: at both the Musée d'arts and the Musée du Château, there was a very noticeable increase in the number of Spanish tourists and, to a lesser extent, British tourists, during the last Christmas holidays.

Both local and international visitors

Visitors from the metropolitan area account for a large part of the visitor numbers at cultural facilities: they represent over half of the visitors to the Muséum and the Planétarium, a quarter of the visitors to the Musée du Château, and nearly half of the audience at La Folle Journée.

However the cultural establishments are also known outside the metropolitan area and draw visitors from further away. For example, 50% of the audience at the Zénith and 51% of the visitors to the Musée d'histoire are from the Loire-Atlantique department, while 45% of museum visitors and 50% of planetarium visitors are not local.

The number of foreign tourists visiting establishments is very satisfactory and rising, especially at heritage sites. They represent 19% of the visitors to the Château, the Mémorial, the cathedral crypts and the Musée Jules Verne, and a significant proportion of the visitors to the Musée d'arts.

Tailored pricing to ease access for everyone

The metropolitan area's museums are maintaining their broad eligibility conditions for free admission: all under-18s, job seekers and benefit claimants. As well, admission is free for everyone on the first Sunday of every month (from September to June) and during special events such as the International Heritage Days, the "Nuit des Musées" and the "Nuit du Voyage à Nantes". These provisions encourage young people under the age of 18 to visit cultural establishments: they represent 45% of museum visitors and 24% of art museum visitors. They also eliminate the economic barriers that often stop people from visiting cultural facilities: 53% of the visitors to the Musée d'arts were admitted free of charge.

Substantial price reductions are also available for Young people under the age of 26 and people holding a "large family" card.

Annual museum passes are also available at very attractive prices (€10 for 1 year's unlimited access to a museum) and are increasingly popular. At the Musée d'arts, for example, nearly 15,000 passes were sold in 2018 and 28,000 visits were made with a pass.

Special conditions for children attending school in the metropolitan area

All preschools and elementary schools in Nantes Métropole are entitled to free admission and guided visits in the museums.

In 2018, 10,000 pupils from preschools and elementary schools in Nantes Métropole visited the Musée d'arts; 3,000 visited the Planétarium and over 2,000 visited the Chronographe, a large percentage of whom came from schools outside the Nantes area.

Moreover, each year around 40,000 school pupils visit the Musée d'Histoire and the Mémorial; one-third of them are from schools in the metropolitan area.

Lastly, note that, for the past two years, the museums have set aside specific times for school visits to the Musée d'histoire, the Musée d'arts and the Musée Jules Verne.

Key achievements in 2018

Resounding success for the Musée d'arts

In 2018, the Musée d'arts continued to consolidate its position in the metropolitan area and in the national landscape of major museums.

On 23 June 2018, on the first anniversary of its reopening, the museum had already received 402,000 visitors. Visitor numbers for the whole of 2018 came to 326,296 visitors. In all, 24% of its visitors are under the age of 18.

As far as the programme of exhibitions is concerned, the exhibition entitled "Nicolas Régnier, l'homme libre" finished on 11 March 2018 after drawing 105,000 visitors. The seminar associated with the exhibition took place on 22 and 23 February and was fully subscribed, as was the choreographic promenade created by Ambra Senatore as part of the "Trajectoires" dance festival.

The summer exhibition, "James Turrell, it becomes your experience", drew 68,000 visitors between 1 June and 2 September.

Among the large exhibitions and small exhibitions produced in spaces other than the patio, special mentions go to "Luc-Olivier Merson, illustrateur et décorateur" in the white room, the installation "The Waves" by Thierry Kuntzel in the Chapelle de l'Oratoire, the "Potager" by Laurent Tixador in the

display case on the museum forecourt, and the cross-cutting exhibition "Une histoire sensible des couleurs : le blanc".

The year's flagship events include the "Musée des étudiants" held on 12 April 2018, the special private viewings for children that accompanied each major exhibition, and the museum's participation in the event "Carrément biscuits", with participatory choreography created by INUI, not to forget the hip-hop concerts organised for the Fête de la musique.

The Musée d'arts finished the year in 2018 with its second major exhibition, "Nantes 1886 : le scandale impressionniste" (from 12 October to 13 January 2019). The exhibition looked back over a little-known chapter of Nantes' artistic history: the time when the city organised a major art show in which almost all of the artists in the impressionist group exhibited alongside representatives of the official art school. This exhibition was a huge success with the public, attracting 122,683 visitors.

Overall, the museum's reopening created an enormous stir in the media. The abundant press coverage (the museum is in contact with over 400 journalists), sweeping multichannel communication campaigns (posters, street marketing, radio spots, etc.), a website with growing visitor traffic linked to a monthly newsletter with over 15,000 subscribers, and a strong social media presence (over 20,000 Facebook fans) are raising the profile of the entire metropolitan area.

The museum also has many loyal sponsors (including RSM, Le Noble Âge, the CIC, etc.) and on 41 occasions during its first year of activity the museum rented out space: proof that it is an attractive venue for business partners.

The Muséum, top-ranking regional establishment for scientific culture

Visitors numbers at the Nantes metropolitan area's natural history museum - close to 145,000 visitors in 2018 - confirms its ranks as the leading regional establishment for scientific culture and one of Nantes Métropole's major museums.

Its varied exhibition programme has something for everyone, alternating naturalist exhibitions such as "Mille milliards de fourmis" on ants (2016) or "Au fil des araignées" on spiders (2018), and exhibitions on current issues such as "Éternité, rêves humains et réalités de science" (2017) on achieving human immortality. The museum's flagship exhibitions regularly entail collaboration with other establishments in France, such as the Espace des Sciences in Rennes, or abroad, with the Musée du Fjord in Quebec. Add to this the ongoing effort in recent years to install all of the tools necessary for receiving visitors with a disability.

The growing visitor numbers are confirmation of the museum's appeal for families. While under-18s are still a major visitor segment at the museum (estimated at 45% of all visitors), there is a trend towards an increase in the "18 to 25 years" segment (estimated at 8% of all visitors).

From the cultural offering to the expression of each person's culture, the museum supervises over 300 visits, events and workshops. In 2018, special attention was paid to certain visitor segments who are less familiar with the museum, such as foreign-language speaking pupils in Nantes Métropole ("tailored school visits"), residents of the city's districts (the "spiders in the city" participatory operation) or students (the "Night at the Museum" on 24 May 2018, in partnership with students, when close to 500 students visited the museum).

As the metropolitan area's subject-matter expert on scientific culture, it is involved in national and local events such as "Sciences Noctambules", the "Fête de la Science", the "European Heritage Days", "Carrément biscuits", the "European Night of Museums" or "En quête de Nature".

As in previous years, it ran its "Museum Tuesdays" lecture programme entitled "Mardis Muséum, les rendez-vous de la science". It was an opportunity to host the "Astronomy Week" lectures organised by the Société d'Astronomie de Nantes, and the "brain week" led by INSERM.

The Muséum is keen to develop its partnerships and, since 2017, it has worked in collaboration with the bookshop "La Géothèque" to organise the "Nature nomade" festival. An improved second

edition was held in November 2018. Similarly, at the 2018 "Utopiales" festival, it once again presented "Post-mortem and au-delà", a curio cabinet created in partnership with the municipal library, the Chronographe and the Plantétarium.

Note also that the museum's website was completely overhauled, then officially launched in mid-October 2018.

The Muséum has also been tasked with coordinating the Pôle métropolitain de Culture Scientifique Technique et Industrielle (the metropolitan cluster for scientific, technical and industrial culture). It was also within this framework that the Muséum organised its second conference in Nantes on 5 October 2018, focused on the development and enhancement of the collaborative platform "Échosciences", a social network dedicated to amateurs of science and technology, launched in 2017.

All of the initiatives and projects it initiates are firmly rooted in the metropolitan area but also in the region, thereby assuming the role of benchmark for scientific, technical and industrial culture.

The Musée d'histoire de Nantes: renovated displays and impressive exhibitions

In 2018, the Musée d'histoire de Nantes pursued its cultural and scientific development policy, which had been renewed in 2016 (learning opportunities on the Château des ducs de Bretagne, new permanent exhibition rooms, renovation of the reception area, the book shop and the group reception area).

Two major exhibitions were opened and reflected the new policy on temporary exhibitions. The first, "Rock ! Une histoire nantaise", brought new cultural offerings and new visitor demographics into the museum. The second, international exhibition, "Nous les appelons Vikings", was a tremendous success, especially during the summer.

The cultural programming that is being developed to complement the permanent and temporary exhibitions is drawn up with numerous cultural, scientific and artistic partnerships at local, national and international levels. Examples include the partnership with the Chronographe and the Hellfest festival on the Viking theme in 2018, and international and local partnerships to accompany the launch of "Expressions décoloniales", etc. Over the past year, these varied events and lectures drew 91,813 people, adding to the overall visitor numbers, which reached 333,995 visitors: an exceptional year (up 24% on 2017).

This policy of openness and development is being maintained through 2019 and 2020 with: a programme of major temporary exhibitions and touring productions (the Tromelin exhibition finishes its "tour" at the Musée de l'Homme in Paris in 2019), investments in improving conditions for visitors, new offerings and the management and coordination of visitor access to the "Paysage glissé" work - a giant slide that is attracting new visitor demographics - up until 2021.

International recognition for the Mémorial de l'abolition de l'esclavage

The memorial to the abolition of slavery continues to gain recognition as an attractive and powerful site. In 2018, it received 214,269 visitors. This popularity is reflected in the many school visits, which combine history and memory on a trail that links the museum and the memorial.

Since launching its new website in May 2017 (for its fifth anniversary), the Mémorial has pursued its efforts to raise its profile. The Mémorial has also hosted special events, such as the commemoration, on 10 May 2018, of the 170th anniversary of the abolition of slavery in the French colonies. A New York Times article dated 30 October 2018, which spotlights the Mémorial and Nantes' novel initiative to confront its past, has helped strengthen this place of memory's international renown.

The inaugural edition of the "Transfert" project exceeded everyone's expectations

The "Pick Up Production" association is at the helm of the "Transfert" project, a local initiative that combines urban planning, art and culture. This particularly ambitious urban park and its fanciful

architecture explore realms at the crossroads of innovation and cultural experimentation, boosting the metropolitan area's attractiveness and creativity.

By taking over a brownfield site (the ZAC Pirmil-les-Isles) and infusing it with new life, "TRANSFERT" has adopted a resolutely cross-cutting approach that draws together a whole constellation of local stakeholders from a wide variety of backgrounds. It aims to get people thinking about the defining features of tomorrow's urban centres, while striving for new forms and directions for artistic creation.

In 2018, the association set about developing part of the site and transforming it into 2 hectares of living space equipped with a variety of facilities (reception area, catering area, exhibition space, artists' workshops, games areas, festival tents and so on). The inaugural edition of the project took place from 1 July to 8 September 2018, at the crossroads of the artistic, tourist, economic, social and sustainable development goals of an area in the grip of far-reaching change. During the 10 weeks it was open, the project clocked up 172,500 visitors. These visitors had the opportunity to attend 298 artistic and cultural events, all disciplines and styles combined, presented by 141 artists or companies, 36% of whom were from the local area. Around 1,000 visitors played an active part in the project by attending the participatory workshops. Lastly, 235 volunteers and around 100 partners were involved in making the project a success.

The "TRANSFERT" project is part of the "Voyage à Nantes". Through its singularity and the artistic diversity of the works and acts presented there, it contributes to the vitality and reach of the metropolitan area's culture. This innovative project is the only one of its scale in France. It helps sustain the creativity that today makes the metropolitan area a standard-setting area and a distinctive destination.

After the first edition's undeniable popular success, work will be done on consolidating the project's business model. Some improvements and additional developments may also be undertaken for the next edition, due to begin in May 2019. The project itself will continue to interact with its immediate environment by engaging with local residents and being attentive to the many proposals stemming from the metropolitan area

Document and archive management: a new area of responsibility for Nantes Métropole as of 1 January 2018

Archives de Nantes is the department tasked with collecting, conserving, classifying, communicating and promoting the public archives of the City of Nantes and Nantes Métropole, and private archives that have been purchased or donated. To do so, the department develops methods and procedures for conserving and accessing data, and compiling the archival heritage of the future. Nantes Métropole and 17 municipalities signed a shared-services agreement on the document and archive management function, which was approved at the Metropolitan Council meeting in December 2017, and the new cultural remit has been assumed since 1 January 2018.

In 2018, Archives de Nantes continued to coordinate the shared-services arrangement, based on the municipalities' various requirements: coordinate the professional network, set up training courses, conduct a needs analysis and a management study on electronic data archiving, oversee procedures for adding or eliminating archives, and process the backlog. The first operations at the sites began in autumn 2018.

Archives de Nantes also pursued its cultural mediation policy, in particular for schools: it receives over 1,400 pupils in workshops each year. It also works in partnership with local associations and helped coordinate the cultural programme for the First World War Centenary in 2018 (which was awarded "Centenary" certification by the Mission Centenaire 14-18).

Fresh impetus for Angers Nantes Opéra and the Zénith

Angers Nantes Opéra (ANO) and Opéra de Rennes stepped up their collaboration in the 2018-2019 season with four joint production projects. It prefigures plans for a joint opera programme supported by "Opéra en Grand Ouest", the association currently being set up by Nantes Métropole and the Cities of Angers and Rennes. The ANO will also organise a first-ever event in Nantes with the live broadcast of Wagner's "Vaisseau fantôme" on a giant outdoor screen on 13 June 2019.

The Zénith is one of the top live entertainment venues in France. The future Public Service Concession Holder will be appointed by Nantes Métropole before next summer.

The Planétarium, the Chronographe and the Musée Jules Verne add to the diversity of Nantes Métropole's cultural offering

The metropolitan area's cultural offering includes rich programming by the Planétarium, the Chronographe and the Musée Jules Verne.

The Planétarium was once again very popular with visitors. 2018 was the first full year in which it opened seven days a week: 52,427 spectators visited the facility, which is over 10,000 more than in 2016.

Likewise, the Chronographe archaeological centre was very popular, with 26,171 visitors in 2018, which is higher than the estimates made before its opening. Additionally, visitor numbers for summer 2018 topped those for summer 2017, showing that the establishment has made a name for itself among the summer tourist attractions. A architectural and landscaping development study has been conducted with a view to pursuing the overall site development project and upgrading the conditions for receiving the public.

Visitor numbers at the Musée Jules Verne were stable in 2018, confirming the trends observed in previous years, especially with regard to international visitors, who account for 19% of all visitors. Because the museum was closed for work from September to December, the number of visitors in 2018 did not exceed 25,564. The upgrades undertaken brought the museum into compliance with the standards: the visitor trail was improved, the museum's capacity was increased from 50 to 90 people, access to the terrace and garden was simplified to take advantage of the view over the Loire.

SUPPORTING ELITE SPORT

Elite sport is an avenue that cannot be overlooked for enhancing the local area's appeal. Accordingly, Nantes Métropole also manages the local area's sports facilities and supports local sporting events and activities.

Promoting and developing elite sportspeople

Professional sport in Nantes Métropole represented nearly 140 matches between professional teams and 800,000 spectators in 2018. It is only natural, then, for team sport clubs competing at European level to receive support.

For the 2018/2019 season, seven professional teams received support: Football Club de Nantes, Nantes Rezé Basket (women's basketball), Nantes Basket Hermine (men's basketball), HBC Nantes (men's handball), Nantes Atlantique Handball (women's handball), Volley Ball Nantes (women's volleyball) and Nantes-Rezé Métropole Volley (men's volleyball).

Three of them compete at European Cup level: HBC Nantes, Nantes Atlantique Handball and Nantes Rezé Basket. In this respect, the year was marked by the outstanding performance of Nantes' handball players from HBC Nantes, who were acclaimed European vice-champions in May 2018.

Alongside these clubs, there are two "amateur" clubs firmly rooted in the local area and competing at the highest levels of their disciplines: Nantes Métropole Futsal and Nantes Métropole Athlétisme.

Nantes Métropole's support takes the form of subsidies and the purchase of communication services for a total of €5,534,009 (no investment within this framework).

Nantes Métropole also provides specific support for elite athletes (26 elite athletes as at 1 November 2018). These sportspeople, who are on the lists of elite and senior sportspeople drawn up by the French Ministry of Sport, represent France at international competitions in around 12 disciplines. The support provided (€72,000) was used to purchase specific equipment.

Sports facilities in Nantes Métropole

The main sports facilities follow:

Palais des Sports de Beaulieu (PSB):

After an initial two-year phase of renovation and extension work (new entrance, reception areas), the Beaulieu multipurpose sports hall reopened in July 2018. In addition to the two multipurpose halls with stands, the complex comprises five specialised sports halls, three meeting rooms and 12 offices.

Following the reopening, five professional clubs (HBCN, NBH, NRB, NAHB and VBN) moved there in September 2018. They now have very high-quality facilities that allow them to more actively pursue their sporting goals.

HBC Nantes moved back into its original facilities in summer. In 2018, it played five championship matches and five Champions League matches, all sold out. Two championship volleyball matches (men's and women's) were also played at this centre. Over 65,000 supporters cheered the professional teams on.

Stadium Pierre Quinon:

This specialised facility, equipped with a 200 m ring track, a central track, jump areas and 18 badminton courts, hosted numerous athletics events in 2018: six departmental championships, four regional championships, 4 meetings, the pre-French championship and the French Masters

championship, along with an international event. The Stadium has also hosted events for people with disabilities, such as wheelchair basketball, adaptive sport and disability sport challenges, or competitions in other disciplines.

Salle sportive métropolitaine de la Trocardière:

Designed for professional basketball clubs, this sports hall (with a capacity of 4,200 spectators) was HBC Nantes' home base up until June 2018. Since the beginning of the 2018-2019 season and the reopening of the PSB, it has been the stronghold of the Nantes Basket Hermine and Nantes Rezé Basket teams. In 2018, seven international meetings took place at the sports hall (men's handball and women's basketball). Also 25 national professional sports meetings (handball, basketball and volleyball) and the French rhythmic gymnastics championship were held there. Over 68,000 spectators attended these events.

Supporting major sporting events

Nantes Métropole has also supported the following:

- the mobilisation associated with the European Women's Handball Championship in December 2018;
- the Nantes marathon in April;
- the return of the Jumping International de Nantes.

Along with various "multiple-edition" events:

- Open International de squash de Nantes at the Cité des Congrès in September;
- Open Gaz de France (women's tennis tournament) in Vertou;
- Odyssée foot race with 14,000 participants in March; Les Foulées du Tram (8,000 runners) in October;
- Tournoi international de futsal de l'Erdre;
- Trophée des Sprinters in Couëron.

DEVELOPING HIGHER EDUCATION AND RESEARCH

Higher education and research, the cornerstone of any knowledge-based metropolis, are behind many local innovations. Health, materials science and human sciences are areas of particular importance for Nantes Métropole. By supporting the University of Nantes, higher education institutions and numerous research centres in the region, Nantes Métropole is playing an active part in harnessing local expertise and extending its reach at European and international level.

Campus Nantes: five registered sites

Following the approval of Campus Nantes' strategic priorities in June 2013, all the academic, institutional and business partners involved have been taking part in site committee meetings, where they discuss general issues such as the development of the site, roads, services, etc., along with issues more specific to the establishments and students (housing and catering arrangements, timetables, etc.).

On the five sites registered with Campus Nantes, 10 committees are now in place:

Namely the La Géaudière, Tertre Lombarderie and City Centre/Île de Nantes sites. At the IRT Bouguenais site, committee meetings will be held as the *Zones d' Aménagement Concerté* (Comprehensive Planning Areas) are planned and approved.

Management and coordination continued throughout 2018: the metropolitan conference was held in July and site committees met in the sectors of Tertre-Lombarderie, Chantrerie- Fleuriaye and the IRT hub in Bouguenais.

Campus Nantes: new site agreements

Site agreements are one of the tools associated with the Campus Nantes initiative set up by Nantes Métropole. Site agreements (each for a three-year term) are designed to establish a contractual relationship with virtually all of the higher education and research institutions in the Nantes conurbation. They define, pursue and step up Nantes Métropole's support by financing initiatives in strategic areas based on the common priorities set out by Campus Nantes.

Site agreements also provide information on all of the funding provided by Nantes Métropole to each institution regardless of the contractual arrangements and public policies concerned.

In 2018, the site agreements with the University of Nantes were renewed for the same sum, viz. €1.55m per year, to which Nantes Métropole added the sum of €0.8m per year, specifically to support the NExT project.

Likewise, the agreement with Audencia was renewed for three years specifically to support its change of status to *Établissement d'Enseignement Consulaire* (EESC): a new legal system for management schools under the responsibility of the Chambers of Commerce and Industry.

Nantes Métropole has also signed an agreement with the *École de Design de Nantes Atlantique* that factors in the construction of the new design school on Ile de Nantes, which will add to the range of training and research facilities in the Creative District in 2022.

Health is one of the main fields of excellence in research in the Nantes metropolitan area. One of its distinctive features is the close partnership between fundamental and clinical research, and also between the hospital and patients. Under the CPER planning agreement between the national and regional governments, Nantes Métropole is taking part in the pre-operational studies conducted by

the Region on the higher-education component of the future university hospital (CHU) on the Île de Nantes and the future IRS 2020 health research institute led by the CHU.

NExT: a 2018 event for higher education in the metropolitan area

The year 2018 was marked by the signature of the NExT (Nantes EXcellence Trajectory) agreement between the University of Nantes and the Agence Nationale de la Recherche.

Nantes is now one of the 18 French universities accredited to receive support under the Programmes d'investissements d'avenir programme.

NExT recognises the scientific reach of the local area's higher education and research stakeholders in two fields: healthcare of the future and industry of the future, led by its founding members: the University of Nantes, École centrale de Nantes, the CHU and INSERM in collaboration with the associate members (IMT-A, ONIRIS, ICO, INRA, IFSTTAR and the CNRS).

Nantes Métropole is supporting the university under the Campus Nantes agreement, which was renewed in 2018. It has now added specific support to the value of €800,000, bringing its total support to €1.1m, including other forms of funding. The bulk of these funds is channelled into attracting new talents, employing tools to develop innovation and a feeling of belonging among past and present students of the establishments in Nantes.

NExT also includes a plan for the university and École Centrale to work together on the scientific and technical course component of the Nouvelle Université Nantaise (NUN). This innovative pooling of interests will substantially modify the training and research environment in the years to come. Nantes Métropole will guide and support this change, which should be carried out from 2021.

Targeted studies into future facilities

The year 2018 was mainly marked by the ongoing studies into the future building planned in the CPER planning agreement between the national and regional governments:

- the studies related to the planned construction of the new healthcare faculty on the Île de Nantes are being carried out for the Région, as project owner, with funding split equally between the State, the Region and Nantes Métropole. In addition to overseeing the facility's pre-programming, Nantes Métropole initiated the programming of a subsidised student restaurant catering for over 7,000 students, along with the construction of an underground public car park for the future users of the site, namely the healthcare faculty and the future CHU (expected delivery date 2026-2027);
- the studies related to the IRS 2020 with the CHU as project owner, the financial agreement for which was approved in 2018 (expected delivery date 2026-2027)
- the studies into the university buildings for the construction of the IT IUT on the La Lombarderie site and the renovation of the Erdre university libraries at the Le Tertre site (expected delivery date 2021).

Note also in 2018: the inauguration of the teaching innovation room in the university science library, financed by the partners in the CPER out of its digital component.

The Research-Training-Innovation initiative

Research-Training-Innovation initiatives are designed to support major subject areas as part of an integrated approach. The aim is to boost the area's visibility and appeal through collective strategic thinking to provide a strong stimulus for the three priority areas (Research-Training-Innovation).

Nantes Métropole was asked to finance six of the Research-Training-Innovation initiatives in line with its sectors of excellence (West Atlantic Marine Energy Centre/Energies Marines Renouvelables -

WeAMEC/EMR, Alliance Europa, Bioregate, Atlanstic, Food For Tomorrow, Creative and Cultural Industries – CCI).

Financial agreements have been signed for six Research-Training-Innovation initiatives. Four of them are managed by the University of Nantes (Bioregate, Atlanstic 2020, Alliance Europa and Ouest Industries Créatives) as part of Campus Nantes; Food for Tomorrow is managed by ONIRIS and WEAMEC is managed by Centrale Nantes.

Support for hosting international researchers ("Connect Talent")

"Connect Talent" is an international call for projects initiated by the Pays de la Loire Region in 2013, in partnership with higher education and research institutions and local authorities. It supports initiatives to host **leading international scientists, working alone or in a team**, to kick-start a new research topic or speed up progress on an existing topic.

In 2018, Nantes Métropole continued to support three projects that have been in progress since 2015, 2016 and 2017:

- **the UneSEA project** (Marine/Maritime Sciences) led by Gwenaële Proutière-Maulion. The aim is to create the first international and interdisciplinary digital university dedicated to distance learning in marine sciences;
- **the "PERMEATUM" project** to advance cancerology research. It is being conducted by Julie Gavard, CNRS Research Director from the Cochin Institute in Paris, at the IRS. Her team's work on oncogenic signalling, angiogenesis and permeability (SOAP) is completely in line with the research topics being investigated by the Nantes-Angers Cancerology Research Centre (CRCNA) and will further consolidate the centre's international excellence in cancerology;
- **the "Gene Therapy for Vision" project** led by Carolina Isiegas, currently hosted at the gene therapy laboratory – UMR1089 (Inserm - Université de Nantes/CHU Nantes), targets rare and highly heterogeneous genetic diseases. The underlying mechanisms and the pathophysiology are very difficult to understand; it is also very difficult to develop therapeutic strategies. Multifaceted therapeutic approaches will increase the chances of success and enable researchers to generate new preclinical models.

Five new projects have also been supported:

- **the "EpiFat" project** led by Jérôme Jullien, hosted at the Transplantation and Immunology Research Centre (CRTI, UMR 1064), aims to understand how epigenetic information regulates the determination and maintenance of cell fate. These mechanisms are particularly important for regenerative medicine and the development of effective cell replacement therapies;
- **the "EpiAlg" project**, led by Leïla Tirichine, who is being hosted by the Functionality and Protein Engineering Unit (UFIP, UMR CNRS 6286), aims to create an international centre of excellence in fundamental and applied scientific research into microalgae. It will help leverage the research outcomes to support the local economy and develop this segment on a lasting basis. The aim will also be to educate future generations, make science accessible to young people and raise public awareness of the importance of oceans;
- **the project to host Shadi Ibrahim** in the Nantes Digital Sciences Laboratory (LS2N) (UMR 6004 - Ecole Centrale de Nantes - Université de Nantes - CNRS - Institut Mines Telecom Atlantique), aims to create a new Inria team in 2018: Stack, hosted in Nantes by the LS2N on the IMTA site. This new team's purpose is to consolidate the LS2N's Data Science and Decision Science unit. The LS2N is taking over research activities in the field of software engineering and distributed

systems in order to address specific topics in the field of the industry internet. This is a key field for the industry of the future.

- **the "Multimodality Imaging In Cardiovascular Disease"** project led by Romain Capoulade, who is hosted by the Institut du Thorax (Inserm UMR 1087 / CNRS UMR 6291), aims to establish a centre of excellence in multimodal translational imaging, targeting cardiovascular diseases. This will make it possible to offer comprehensive, on-site expertise for analysing and interpreting imaging data and ultimately identifying the mechanisms involved in the development of cardiovascular diseases.
- **the MILCOM (Multimodal Imaging and Learning for Computational Medicine) project, led by Diana Mateus** at the Nantes Digital Sciences Laboratory (LS2N) (UMR 6004 - Ecole Centrale de Nantes - Université de Nantes – CNRS – Institut Mines Telecom Atlantique). This project combining data sciences and health sciences addresses machine learning applied to the analysis of multimodal medical images, to confirm and discover cancer biomarkers. The aim is to enhance diagnostic support for people suffering from more or less advanced stages of cancer

Nantes Métropole, a popular partner for international events

The conurbation plays host to a number of academic conferences and symposia. Around 30 events have accordingly been supported for the benefit of the university and the metropolitan area's main higher-education and research establishments. They include the following international scientific meetings:

- European Mechanics of Materials Conference (EMMC), 26-28 March 2018;
- 24 hours dedicated to Innovation & Development of Marine Renewable Energies, 29-30 March 2018 (European);
- INFORSID 2018 (36th edition) and International Conference on Research Challenges in Information Science - IEE RCIS 2018 (12th edition), 28-31 May 2018;
- International Symposium on Bioluminescence and Chemiluminescence, 28-31 May 2019;
- European Magnetic Resonance Meeting (EUROMAR), Nantes, 1-5 July 2018;
- International Conference on Time Perspective, 27-31 August 2018;
- Meeting of the Association of Embryo Technology in Europe - AETE, 7-8 September 2018;
- 13th FIAPAC Conference (International Federation of Professional Abortion and Contraception Associates), 14-16 September 2018;
- CARV (Changeable, Agile, Reconfigurable and Virtual Production) Conference, 8-10 October 2018;
- Symposium of the International Association of Bridge Structural Engineering - IABSE 2018, 19-21 September, 2018;
- International Conference on Harmful Algae - ICHA 2018, 21-26 October 2018;
- Journées de Recherches en Sciences Sociales - JRSS 2018, 13-14 December 2018.

Key figures

Higher education (2017 census)

- 58,274 students in the Nantes metropolitan area, broken down as follows:
 - 35,385 students at the university's sites in Nantes;

- 7,656 students in the Certified Technician Programme preparing for the BTS (Advanced Technician Certificate) and in preparatory classes for the grandes écoles;
- 9,644 students at the grandes écoles;
- 5,589 students in other specialised schools (medico-social, artistic and cultural, business and management, etc.).

Research/Université de Nantes

- **43** laboratories, including 26 joint research units, 16 host teams developed jointly with the research bodies (CNRS, INSERM, INRA, INRIA) and the schools in Nantes (ECN, EMN, ONIRIS), 1 emerging team and **11** overarching research structures. A total of **54** research units have been accredited by the Ministry of Higher Education and Research;
- **1,266** doctoral students (2016-2017);
- **246** doctoral thesis viva voce examinations (2015-2016);
- Nantes Métropole spends an average of €12 million per year to support higher education and research in the metropolitan area, totalling more than €150 million since 2002. Investment has doubled during the current mayor's term of office, amounting to €120 million;
- 4 founding members;
- 6 partners;
- €60 million over 3 years
- Over 200 businesses support the project;
- 2 focus areas:
 - industry of the future: advanced production technologies, ocean engineering, involving 670 French and international researchers;
 - health of the future: innovative biotherapies, nuclear medicine and cancer, precision medicine, involving 330 French and international researchers.

ENCOURAGING CREATION, INNOVATION AND THE GROWTH OF DIGITAL TECHNOLOGY

Nantes Métropole aims to feature at the forefront of innovation and digital technology in Europe. The city is therefore safeguarding industrial activities, promoting competitiveness clusters and supporting niche technology as well as emerging sectors (digital technology, health, cultural and creative industries, the environment).

To pursue its strategic approach to innovation in business and technology, the metropolitan area will:

- build on six fields of excellence in innovation (digital technology, healthcare, cultural and creative industries (ICC), the sea, manufacturing and agri-food) backed by core projects;
- encourage the creation and development of companies/start-ups with a market-oriented approach (competitiveness clusters, link between research and business, student entrepreneurship and academic incubation (deep tech), services to innovative companies);
- optimise the public innovation ecosystem (governance and interconnected support structures);
- consolidate cohesion in the local area around collaborations and shared strategies (Region, Chamber of Commerce and Industry (CCI), CARENE, University of Nantes, CHU, etc.).

This strategy is in line with the French government's new goals in the matter.

Digital sector - Nantes Tech / French Tech

Nantes Métropole aims to become a major digital marketplace in Europe and has brought together all of the digital players in the area under the Nantes Tech banner.

French Tech was launched at the initiative of the French Ministry for the Economy, Industry and Digital Affairs in early 2014. It comprises both the community of stakeholders (primarily businesspeople) who work in or for French start-ups in France or abroad, and the innovative public policy designed to promote this community, growth and the start-ups' international reach.

French Tech entered a new phase in 2018 and now has two priorities: hyper-growth companies and Tech for Good (i.e. technology with a positive impact).

Highlights in 2018 included:

- a new application for the "French Tech Capital" label;
- new movements launched in the area: NaonedIA (a collective for ethical, responsible and popular artificial intelligence), the PropTech movement (technology and property), driven by businesses in Nantes and Montpellier, and Tech for Good;
- support for moves to promote gender balance in digital professions by backing the initiatives led by Femmes Digital Ouest;
- initiatives to attract talents in the digital industry, with an operation in Paris (Ruée vers l'Ouest) covering the PMLB cluster (Nantes along with Angers, Brest, Rennes and Saint-Nazaire) and a local initiative led by local digital services companies (Safari des Métiers);
- the permanent establishment of booster schemes in the local area (1Kubator, ADN Booster, Novapuls, Village by CA, etc.) and a shift to new models for some of them (Startup Palace, Imagination Machine);

- the ongoing Plug IN initiative (third edition by the Pôle EMC2). This scheme aims to foster collaboration between industry and digital technology, and support the digital transformation of industrial companies, in partnership with the CARENE;
- the presence of local start-ups and innovative companies on the international market (Web à Québec, Web Summit, etc.);
- an impressive event programme backed by Nantes Métropole, revolving around 4 major highlights: Web2day, Nantes Digital Week, DevFest and Digital Change;
- the announcement of a merger between the Images & Réseaux and TES (Normandy) competitiveness clusters.

Key figures:

- 25,000 jobs in the digital industry (up 7% in one year);
- Over 500 events and meet-ups (networking evenings) held in the digital industry throughout the year, including four nationally-recognised flagship events.

Development of the Creative District - Cultural and creative industries

With the Creative District, located on the western tip of the Ile de Nantes, Nantes Métropole aims to create an internationally-recognised skills cluster at the crossroads between the economy, research, training and culture. The aim is to develop new forms of business, thus fostering a model for economic growth that is driven by the cultural and creative industries.

Highlights in 2018 included:

- the press conference on the Halles redevelopment project in November 2018: **the rehabilitation of the former industrial building is one of the Nantes metropolitan area's core projects**. As the nerve centre of the Creative District, the Halles will contribute to its reputation as a centre of excellence in the knowledge economy, fostering synergies between higher education, research, culture and business activities.

Creative Factory's key figures

- 203 companies hosted
- 309 companies interviewed and given guidance
- 75 companies and collectives, including 24 cultural projects, supported per year on a routine basis
- 3 project accelerators:
 - Creative Factory Selection (over the past six years: 34 companies accelerated, 105 jobs created, €9.6m of financing obtained for the award-winners);
 - Creative Care Factory: 10 companies accelerated, 30 jobs created, €2.2m of financing obtained for the award-winners;
 - NM Cube: 7 companies accelerated, 15 jobs created;
- 11 sites under rental management (12,570 m²);
- 223 companies and collectives hosted (400 jobs), including 60 artist collectives.

Open Innovation / Experimentation

- 337 hectares dedicated to innovation, creativity and experimentation;
- 22 creative and cross-disciplinary initiatives and 33 innovative projects rolled out or in progress;
- 140 business events produced or co-produced / 3,280 professionals received;
- 3 annual cultural festivals (L'Art est aux nefs (6th edition), Sofilm Summercamp (3rd edition) and Motion Motion (2nd edition, with over 2,500 visitors).

"Health of the Future" sector

Nantes Métropole, in partnership with the CCI Nantes Saint-Nazaire, has launched an initiative to define a strategy for developing and organising the health sector across the Nantes metropolitan area and beyond, factoring in the various industry segments: pharmaceutical industry, medical devices, medical analysis, top-up health insurance, the silver economy, biotechnologies, e-health, medical transport, prevention, cleaning and sterilisation services, funeral services, etc.).

The health sector also overlaps many other sectors, such as materials (prosthetics), digital technology (telemedicine, e-health, AI, big data), cosmetics (dermatology), nutrition (dietary supplements), sport (connected devices), textiles (smart clothing), urban planning, architecture and more.

The initial phase of diagnosis indicated that the area's main strengths are:

- academic excellence in higher education and research (the NExT i-site project conducted by the Université de Nantes with the CHU de Nantes and INSERM, ICO, IHU Cesti, GIP, Arronox, Institut du Thorax and others);
- a very dynamic innovation ecosystem in biotechnology, as seen in the Atlanpole Biothérapies competitiveness cluster, and in digital technology, as evidenced by the many start-ups and the increasingly substantial fund-raising initiatives (led by NantesTech);
- the quality of life and the "health and environment"-oriented urban projects, in particular on the Île de Nantes.

"Factory of the Future" sector

As part of the REBOND initiative, the stakeholders in the "Factory of the future" sector, specifically the IRT Jules Verne and the EMC2 cluster, took part in strategic planning on the international reach of the current airport, its accessibility and its facilities. There is also a move to refocus the airport's economic development on industry of the future and tomorrow's healthcare.

It was therefore agreed to rework the business park's development with a view to consolidating industry of the future's ecosystem of excellence in the future; ensure the long-term viability of the IRT Jules Verne; reinforce the EMC2 cluster and continue investing in developing the techno-campus:

- create an emblematic venue, the "Maison Jules Verne", for informal gatherings;
- create an industrial innovation campus that provides initial or continuing education in the job fields associated with industry of the future, alongside the manufacturing academy.

"FOODTECH" sector

Continued to provide guidance and support for setting up a metropolitan Foodtech community in collaboration with the Region and DIRECCTE.

Kicked off the initiative at Oniris in June 2018, an event attended by Xavier Boidevezi, national representative of the FoodTech network (French Tech).

Two flagship events were organised during the Nantes Food Forum:

- at La Cantine, two metropolitan projects were presented: the new wholesale fresh produce market (*Marché d'Intérêt National*) in Rezé and the local food project (*Projet Alimentaire Territorial*), both sources of business opportunities for the start-ups present;
- at the ENSA: start-ups delivered their pitches to the public (Food Ride, Rhum Saka, vite mon marché, Insectéine and others) to promote the food of the future; this was followed by a debate.

Supported the NutrEvent event, which featured stakeholders in innovation, research and the manufacturing community, at the crossroads of food and health. The event was organised by Eurasanté, Valorial (competitiveness cluster for food) and ABT (competitiveness cluster for health), in partnership with the Hauts de France, Bretagne and Pays de La Loire regions, Lille Métropole, Rennes Métropole and Nantes Métropole.

Maritime sector

The maritime sector continues to gather momentum:

- in June 2018, the three presidents of the areas concerned (Johanna Rolland, David Samzun and Yves Métaireau) officially confirmed its strategic positioning. This follows the completion of a study into setting up a network of nautical industries across the estuary with Saint-Nazaire. Called Cap Atlantique, it would be underpinned by the NINA network and the Pôle Mer Bretagne Atlantique. Consultation in under way for the third phase, which will yield an operational action plan for the next five years;
- the Pays de la Loire, CARENE and Cap Atlantique held a joint stand at the Nautic show in Paris in December 2018, with support from Nantes Saint-Nazaire Développement;
- the working group is continuing to study the Loire estuary's tidal power potential with the CARENE, the Atlantic Sea cluster, the Loire estuary public interest group and the Nantes Saint-Nazaire port;
- Nantes has been selected to host Seanergy, an international event on marine renewable energies, in 2020;
- Nantes Métropole took part in the workshops tasked with drafting the regional maritime goals during the Assemblée Régionale Mer et Littoral meeting.

Nantes Métropole's support for competitiveness and other clusters

EMC2 competitiveness cluster

The EMC2 competitiveness cluster, which is supported by Nantes Métropole, finished 2018 with very positive results:

- 382 members (68% of whom are SMEs), including 53 new members;
- 50 new certified R&D projects (56% of which involve SMEs);
- the first edition of "Manufacturing Factory", an initiative designed to accelerate projects by innovative start-ups in the field of industry of the future.

"Images et Réseaux" (I&R) competitiveness cluster

This is a cluster with a global reach, bringing together stakeholders in new imaging and networking technologies in Brittany and the Pays de la Loire. I&R aims to develop research and innovation in these sectors. To do so, it aims to create closer links between the business and academic communities, and provide support for marketing the technologies derived from their R&D. With support from Nantes Métropole, the I&R cluster reported the following results in 2018:

- 251 members (including 44 from the metropolitan area);
- 36 collaborative, certified R&D projects (four of which involve Nantes-based stakeholders);
- Pass French Tech operator for the Pays de la Loire and Brittany;
- In 2018, announced its merger with the TES cluster as part of phase IV of the competitiveness clusters, and a strategic partnership with the EMC2 cluster.

"Atlanpole Biothérapies" competitiveness cluster

The Atlanpole Biothérapie competitiveness cluster, which has been supported by Nantes Métropole since its inception, reported positive results in 2018:

- 235 members (companies and research laboratories);
- involved in 14 major projects under the French government's *Programme d'Investissement d'Avenir* investment programme;
- ran the inaugural edition of the "Health-Tech Tour" in Nantes, which drew stakeholders from the biotech, medtech, e-health and silver economy sectors, and featured input from the City of Nantes' public health department;
- ran the inaugural edition of the Catel Visio French-language "e-health" symposium in Nantes: over 1,000 experts at 25 sites took part through video-conferencing facilities.

"Mer Bretagne Atlantique" cluster

This is an international-scale cluster formed to foster the development of collaborative R&D projects. These projects drive member businesses' growth by marketing new products, services or processes generated through research.

A strong local presence is one of the prerequisites for competitiveness clusters to succeed. The cluster's expansion into the Pays de la Loire region in 2014 boosted its impact across a broad catchment area straddling the Brittany and Pays de la Loire regions.

In 2018, the cluster consolidated its local presence through:

- a collaborative partnership with the other clusters in the area: I&R, ABT, EMC2;
- joint initiatives with the clusters, such as Néopolia and the organisation of **24ID EMR**. This ground-breaking, 24-hour event brought together companies and key stakeholders on the French, European and academic markets to address three common concerns: boost development and innovation in renewable marine energies, strengthen the French sector's organisation, develop international operations, or the NINA network for the water sports component;
- **involvement in the programmes and projects that are helping to structure the maritime sector** (RFI WeaMec, ENSM development committee, watersports sector working group SteerCo, working group on the Nantes Saint-Nazaire estuary tidal power potential, etc.);

- **participation in trade shows and major events** in collaboration with the local area's stakeholders (Seanergy, AFHYAC national conference, FWP, Nautic show in Paris, etc.);
- organisation of a "blue day" dedicated to the combination of marine bio-resources and agriculture at Oniris;
- 17 certified R&D projects since 2014 involving stakeholders from the Pays de la Loire region;
- work in partnership with Nantes Métropole, including facilitation initiatives and a strategic study of the maritime sector.

Néopolia

The Néopolia network was created at the initiative of the Nantes-Saint-Nazaire Chamber of Commerce and Industry. At end-2018, the network comprised 245 companies working to develop industry in the Pays de la Loire region, representing 130 professions, over 300 outstanding skills and 45 markets. Together these companies represent over 30,000 jobs that draw together 208 industrial companies in the region. Neopolia plays a particularly active role in the local area through projects or its involvement in organising industry sectors such as renewable marine energy (RME). For nearly 15 years, it has guided and supported collaboration between companies in the conurbation by coordinating five business clusters: Aerospace, Rail, RME, Marine, Oil&Gas and AtomOuest (nuclear).

Nantes Métropole guides and supports Néopolia in its initiatives, which help to establish and develop SMEs, very small businesses and large companies, and in the support it provides to collaborative projects and synergies with the metropolitan ecosystem.

Student entrepreneurship

Nantes Métropole continues to support and organise student entrepreneurship.

Apart from the "Les Entrep'" programmes managed by the Réseau Entreprendre (which every year supports teams of students planning to set up a company), Nantes Métropole continued to support the following initiatives and incubators in 2018:

- the "Maia Mater" Summer Camp managed by La Cantine (Nantes/Saint-Nazaire), an intensive business start-up programme launched in 2017 in cooperation with Saint-Nazaire. It is designed to support young people with a solid background in technology (the "doers") but no specialised entrepreneurial knowledge, through a tailored, multi-year programme. The goal is to change them into true entrepreneurs endowed with a clear, structured, development-oriented vision. They are supervised by other, experienced entrepreneurs, whether local or nationwide, in a long-term perspective;
- "Odyssée": this pooled platform for training courses and incubation support (launched in 2015) is managed by two incubators from prestigious schools: the Institut Mines Télécom Atlantique (formerly the École des Mines) and the school led by an alliance made up of Audencia, Centrale Nantes and the École Supérieure d'Architecture/ENSA);
- the academic incubation scheme run by the Université de Nantes PEPITE (hubs for student innovation, transfer and entrepreneurship), supported by Nantes Métropole since 2016.

Nantes Métropole's contribution in these fields consists in coordination with the stakeholders involved in setting up innovative start-ups, such as Atlanpole. Nantes Métropole also connects them to the innovation ecosystem and other programmes, such as Mash up, thereby contributing to an exhaustive offering of effective support in the local area.

FIL Innov'

This project aims to promote trials and turn the local area into a breeding ground for developing a partnership-based innovation culture with higher education and research stakeholders as well as

socio-economic stakeholders (incorporating a human and social sciences approach to innovation). The initiative is based on a sector-based approach and the recruitment of engineers who liaise with the business community. Nantes Métropole funds the project as part of Campus Nantes, which is going to be renewed as part of the NExT programme, backed by I Site certification.

Innovating by demonstrating

Nantes Métropole, Hamburg and Helsinki were selected under the EU Horizon 2020 programme to implement the EU project "mySMARTlife" on smart cities.

Nantes' project is designed to test innovative solutions to increase the overall energy efficiency of the metropolitan area while at the same time providing better living conditions for its citizens. Nantes Métropole, which is coordinating implementation of the local project, is being supported by the following nine local partners: Engie, Enedis, Nantes Métropole Habitat, Tan, Cerema, Nobatek, Atlanpole, Télécom Bretagne and École des Mines de Nantes (IMT Atlantique). The five-year "mySMARTlife" project (2016-2020) will address energy renovation, energy efficiency and renewable energies in private co-owned buildings, detached houses and social housing, the production and storage of renewable energies, the smart management of street lighting, electromobility (buses, vehicles and electric bikes), the management of urban data and the development of an energy datalab.

Test-driven innovation

In 2017, Nantes Métropole installed a new system to support project owners in need of full-scale testing facilities: the Nantes City Lab.

In this case, the whole metropolitan area becomes the testing ground. Nantes Métropole guides owners with their projects and provides a range of testing sites, facilities, data and engineering to test and accelerate their concept in life-size conditions.

This system, which is original not only in the way it operates but also in its governance, works with a system of quality certification. The Steering Committee is made up of representatives of the business, voluntary-sector and academic eco-system. Its role is to enhance the projects, which must meet criteria laid down by the members of the Nantes City Lab Steering Committee (projects must be collaborative, have at least one partner in the metropolitan area, be an original project, have a limited duration, etc.).

In 2018, five new projects were certified, taking to 12 the total number of projects certified since the Nantes City Lab's inception. The projects address the new uses of the city and the issues raised by the energy transition: street lighting (2), urban logistics (2), urban agriculture (2), disabled access to public spaces (1), housing (2), energy data (1), street furniture (1) and mobility (1).

This first year confirmed that test-driven innovation is genuinely relevant. The Nantes City Lab is recognised as a place where the eco-system's players can meet and exchange ideas. It helps accelerate projects. By playing an active role in the testing field, the local authority is broadening the existing range of innovation support systems.

Ultra-high-speed Internet is being rolled-out across the metropolitan area

Nantes Métropole aims to have the area covered by ultra-high-speed internet by 2022. In keeping with the French Ultra-High-Speed Internet Plan, it promotes complementarity between public intervention and private initiatives.

Private operators are investing in ultra-high-speed internet across the metropolitan area.

Following the French government's Call for Expressions of Intent to Invest issued in 2011, operators SFR and Orange pledged to cover 23 municipalities in the conurbation with fibre optic broadband for individual customers by 2020.

The operators continued with their work in 2018:

- SFR is continuing its deployment in 12 of the 14 municipalities assigned to it, namely Bouaye, Bouguenais, Brains, Couëron, Indre, La Montagne, Le Pellerin, Saint-Herblain, Rezé, Saint-Jean de Boiseau, Sautron and Les Sorinières. Work on the last two municipalities (Saint-Aignan de Grand Lieu and Saint-Léger les Vignes) should begin in the second half of 2019. On 1 January 2019, 54% of the SFR zone was served by the fibre optic broadband network.
- Orange is pursuing its installation in the nine municipalities assigned to it: Basse-Goulaine, Carquefou, La Chapelle-sur-Erdre, Orvault, Sainte-Luce-sur-Loire, Saint-Sébastien-sur-Loire and Vertou. Studies have been launched on Thouaré-sur-Loire and Mauves sur Loire. On 1 January 2019, 54% of the Orange zone was served by the fibre optic broadband network.

At the same time, the fibre roll-out is steadily continuing throughout the City of Nantes, which is open to all of the operators in direct competition (58% of homes are served by fibre).

In February 2017, in the presence of the mayors of the Nantes Métropole municipalities, Orange and SFR had each signed the agreements on monitoring and planning the fibre roll-out, which set out their commitments to serving 100% of homes with fibre access by 2022. In July 2018, the French government had accepted, by order, the commitments made by the operators Orange and SFR to reach the target of serving 92% of homes with fibre access by end-2022. These commitments are therefore legally binding and failure to honour them is punishable by law.

Every year, meetings are held to monitor their operations under the guidance of Mr Fabrice Roussel and Mr Francky Trichet, and in the presence of the mayors.

Similarly, the website set up by the ARCEP to inform users and track fibre roll-outs as part of a consumer communication plan initiated in 2016 once again proved its effectiveness this year and the number of requests from consumers has fallen.

The public initiative network "Nantes Networks" continued to show strong growth in 2018.

The network, which operates under a public service delegation, markets wholesale-priced service offerings for professionals to around 50 international, national or local operators.

This Ultra-High-Speed Network is a key asset for developing the local area and enhancing its appeal. It will be transferred back to Nantes Métropole on termination of the contract (in 2037).

Key figures for 2018 – Nantes Networks

- 2,000 sites connected;
- 114 business zones covered by fibre broadband;
- 11 mobile phone antennas;
- Average speed ordered: 59 Mbps;
- Network length: 900 km;
- 70 operators present.

Events

- 2nd Nantes Maker Campus;
- 5th Nantes Digital Week.

Key figures for 2018 – ATLANPOLE

- A network of 479 companies and 25,583 jobs;

- 282 diagnoses, of which 105 were in-depth assessments;
- 37 new projects supported, of which 15 were being set up, 4 were under development and 18 were being accelerate;
- 14 projects stemming from public research;
- 120 companies supported by Atlanpole (breakdown: 48% digital and Cultural and Creative Industries, 20% health, 32% the sea, energy, environment, advanced production technologies);
- 34 collaborative research and innovation projects set up by Atlanpole and certified by 3 competitiveness clusters (EMC2, Imaging & Networks, and Atlanpole Biotherapies), involving 78 companies.

HARNESSING THE ECONOMY TO DRIVE DEVELOPMENT

To consolidate its position as the business capital of western France, Nantes Métropole now needs to raise its profile among the major business hubs of Europe.

With this in mind, it is bolstering the strategic services that ground its international business appeal (Euronantes, Nantes Cité Events Center, the Creative District, the extended O-Mega digital communications network) and helping to open up the local economy to the rest of the world.

The development of companies rests on the development of business districts

In 2018, Nantes Métropole departments oversaw 902 plans for business installation, 162 of which were accomplished within the year. This translates to 3,740 jobs maintained in the local area and a projected 2,235 jobs created over the next three years.

Close to 1,000 local companies were given guidance and support for their establishment and development in the local area, in relation to regulatory information, staffing needs, public services available, signage, development work, networking and local coordination.

In 2018, Nantes Métropole also pursued the process of selling land in the area's business parks, launched construction work on the projects approved in 2017 and delivered a series of property programmes. For example:

- in the ZAC Haute Forêt mixed development zone, delivery of the SYSTOVI, VINK and Transport GUERIN buildings;
- in the ZAC Maison Neuve 2, extension of the Brison Traiteur premises and the ALEO training centre;
- in the ZAC Chantrerie, launch of the IMA IMT construction programmes and delivery of the Manpower-Proservia building;
- in the ZAC des Hauts de Couëron 3, construction work on the LE SAINT platform, extension of the Grosseron production unit, confirmation of the plan for a restaurant, La Fraterne, for the site's employees
- in the ZAC Ar Mor, continuation of the tertiary programme TOLEFI, extension of the Euptouyou business centre and launch of the Novawest tertiary programme;
- in the ZAC Maison Neuve, marketing of the Concept Ty small-business programme, which offers small-business units to SMEs looking for scalable premises;
- in the Océane Nord business park, approval of the Kertrucks project and plans for a new company crèche, "Happy Ba'bees"
- in the ZAC Croix Rouge, launch of construction work on the UIMM training complex and delivery of the Loiretech building
- in the Haluchère sector, the first stone has been laid in the Orange tertiary programme.

In a broader perspective, the marketing of business parks continued in 2018 with a view to consolidating operations and densifying property projects.

Particular attention has been given to developing services for employees, such as expanding the range of food services, for example. Regarding company crèches, Nantes Métropole's action in economic sectors with a high density of employees has helped to:

- engage companies and explain the system's operation and potential benefits;
- help crèche operators gauge the size of their project, based on the metropolitan area's economic development strategies;
- facilitate the search for suitable premises or an available plot of land.

In 2018, three new company crèches began operating in the metropolitan area:

- the "Na! Enfantillage" crèche in the La Géraudière, with a capacity of 30 children, inaugurated in winter 2018;
- the "Petits Chaperons Rouges" crèche in Haluchère in Nantes, with a capacity of 20 children;
- the "Happy Ba'bees" crèche in the La Rabotière area of Saint-Herblain, with a capacity of 36 children.

Enhancing the attractiveness and commercial appeal of the Nantes city centre

The 2018 survey of commercial premises points to strong commercial appeal. This is based on a low vacancy rate (2%), which has been stable since 2014 (oscillating between 47 vacant premises in 2015 and 35 in 2017), a high rate of marketability and a low proportion of non-commercial services. The commercial strategy enacted in the city centre is one of differentiation from the areas on the city's outskirts. In commercial terms, differentiation initially involves the emergence of little concept stores, whose spatial concentration creates a distinctive identity and sets Nantes' city centre off from the outskirts. After this initial stage, differentiation is achieved by hosting national or international brands that are leaders on their market and the sole representatives in the metropolitan area. The turnover rate represents an average of 5% of the commercial premises. Turnover has gathered pace since 2016 and now exceeds 100 new outlets per year in the central business district. On turnover, outlets are mainly replaced by shops (between 60 and 70 businesses per year) and food services (around 30 turnovers per year). New outlets are spread over the entire central business district, but there is a greater concentration in certain streets (Château, Contrescarpe, Rubens, Scribe, Santeuil, Fosse, Franklin and Copernic). The new concepts and brands are completely in line with consumers' expectations (organic, fair trade, Made in France, bespoke, sustainable, etc.).

Supporting the growth of the circular economy

Nantes Métropole has adopted the local area's "circular economy" roadmap. The transition to a circular economy aims to move beyond the linear business model that consists in extracting, manufacturing, consuming and discarding. Instead, it calls for a sparing, responsible use of natural resources and primary raw materials. The aim is also to avoid producing waste, essentially by reusing products. According to the hierarchy of waste management methods, this means reusing, recycling and recovering waste. The roadmap features three cycles. There is the organic cycle: "from the field to the plate to the field" (agriculture, food, biowaste). The second is the technical cycle: "sustainable, circular building and public works" (development, construction, energy). The third is the technical cycle: "small everyday appliances" (eco-design, repair, reuse). The development of the circular economy is a tremendous opportunity to bolster the local economy and to radically transform Nantes Métropole's local metabolism (organisation and management of the various flows related to materials, waste, energy and mobility).

How one of the commitments in the energy transition roadmap is being put into practice on the ground

Nantes Métropole is backing an initiative by "Plein Centre", an association made up of 450 shops and businesses in the centre of Nantes, to recruit an energy transition facilitator. The latter will be tasked with rallying city-centre shopkeepers to the energy transition cause and guiding them through the steps of reducing energy consumption, and management and reducing waste, etc. Three years have been allowed for rolling out this action plan.

Nantes Métropole's Business Real Estate Assets (PIEM)

To ensure that all businesses have suitable premises, Nantes Métropole offers a range of public commercial property. The primary purpose of the offering is to support business creation or development and back certain strategic sectors. More specifically, there are 10 incubators and company premises offering shared services for start-ups (Nantes Créatic, Rezé Créatic, Couëron Créatic, Hub Créatic, Mallève Bureaux, Mallève II, Les Granits, La Géraudière, Bio Ouest Île de Nantes 1, Nantes Biotech). They represent:

- 25,000 m² of rental space;
- 255 tenants, 935 jobs;
- 49 new tenants in 2018 including 22 entrepreneurs;
- a 93% occupancy rate.

Supporting entrepreneurship

Nantes Métropole supports stakeholders engaged in providing start-up guidance and support (BGE, L'Ouvre-Boîtes 44, Bâtisseurs, CoopChezVous, Oz, Coopérative d'Installation en Agriculture Paysanne, Union Régionale des Sociétés Coopératives et Participatives) and funding projects (ADIE, Initiative Nantes, Fondes, Réseau Entreprendre Atlantique).

It also provides a range of local services for entrepreneurial ventures (in 2018, 1,050 projects were supported and 480 start-ups/take-overs were funded).

To support entrepreneurship, Nantes Métropole is also taking action in the following areas:

- coordination of the Sup'Porteurs de la Création 44 network, which brings together stakeholders providing support to start-ups and aims to improve the visibility and transparency of the services on offer to project owners;
- organisation of the 11th Salon des Entrepreneurs, which drew 10,500 visitors in 2018;
- continuing action on the roadmap for encouraging women's entrepreneurship, following a community dialogue initiative and within the framework of the gender equality commitments;
- reinforcement of the "Osez Entreprendre" scheme, which assists business creation and development in the city policy's priority districts, with the Agence France Entrepreneur;
- launch of the district business centre "coworking" trials. These venues offer a business hosting solution and services at special rates for businesses from the city's districts. They also offer the "Osez Entreprendre" scheme.

The attractiveness of the Nantes Métropole area

The Nantes Saint-Nazaire Développement agency has 4 missions:

- prospect businesses, investors and talents in France and abroad;
- host and support companies, investors and talents;
- coordinate and promote the local area for professional meetings;
- coordinate, promote and market the local area in France and abroad.

In 2018, with 82 companies coming in from outside the area to establish their base, the Nantes Saint-Nazaire Développement agency is coordinating the creation of 964 jobs within the next three years.

Key figures in 2018

- 65,450 establishments (including *auto-entrepreneurs*, or one-person businesses): + 2,093 establishments;
- 278,214 jobs (private employees): up 2.8% on 2017 (up 1.3% in France);
- 7,872 establishments created to 1 January 2019 (4,309 natural persons and 3,563 legal persons);
- 6,532 businesses set up. The metropolitan area accounts for nearly 60% of the businesses created in Loire-Atlantique and over 27% of the businesses created in Pays de la Loire;
- 7.1% unemployment rate (8.9% at national level);
- Nantes' central business district is one of the most dynamic in France. It has over 1,200 commercial businesses, 500 bars and restaurants, and around 100 service businesses. The commercial vacancy rate is extremely low (2.4%); the city centre's trading income was stable in 2018 (up 0.2%).

PROJECTS FOR MAJOR PUBLIC FACILITIES

In order to pursue its ambitious urban development policy and further enhance its national and international appeal, Nantes Métropole is building major facilities that contribute to the dynamism of the local area.

Nantes' new train station

Nantes' train station, which is the sixth largest regional station in France, is continuing the major redevelopment work begun in September 2017.

Currently 11 million passengers pass through the station each year, but the number is expected to reach 25 million by 2030. To cater for the heavier traffic in its facilities, the station is being enlarged for greater ease of use and better integration into its urban environment. The work will be completed in early 2020.

Also, to optimise convenience and safety for travellers using all forms of transport, SNCF Mobilités and Nantes Métropole are redeveloping the multimodal transport hub at the Nantes train station (in partnership with the State, SNCF-Réseau, the Pays de la Loire Region and the Loire-Atlantique Department).

In 2018, alongside the SNCF's ongoing work on the station building itself, Nantes Métropole began the vast project of redeveloping the public areas at the station's northern exit. From April to September, Semitan also renovated the infrastructure of tram line 1 and the "Duchesse-Anne/Château" and "Gare Nord/Jardin des Plantes" tram stops, which now have new shelters.

Finally, Nantes Métropole has supported the studies and work carried out by the SNCF in order to gain the necessary rights-of-way for the Southern Exchange Hub and the completion of the Pré-Gauchet Comprehensive Planning Area. The new train station car park was commissioned in October 2018 and work has begun on the SNCF's future telecom centre.

Palais des sports de Beaulieu

Built in 1973 and still the largest covered sports facility in Nantes, the Beaulieu sports centre is currently undergoing major work. The complex has been in the process of refurbishment and modernisation since spring 2016. In addition to a building upgrade, user facilities have been improved with new entrances, boxes, a reception area, a shop, and additional ticket offices and toilets. A drug-testing room, a recovery room and a physical preparation room have also been added. The capacity of the main room ("Salle 5000") has been increased from 5,300 to 5,400 seats.

The finished project (new public entrance, forecourt, extension to the reception areas) was delivered in summer 2018. Work on the adjoining rooms will continue until 2020.

The Wholesale Agricultural-produce Market (MIN)

The construction of the new wholesale agricultural produce market began in 2016 at the La Brosse comprehensive planning area (ZAC) and continued through 2017 and 2018. The first areas were handed over to the operators in December, before an all-inclusive delivery in late January 2019.

Since it was opened in March 2019, the new MIN has hosted around 100 businesses (wholesalers, producers and logistics services) on a 16 ha zone. An agrifood cluster is also established in the immediate vicinity.

Park-and-Ride (P+R) car parks at Vertou and Neustrie

Under Nantes Métropole's travel policy, in October 2016 the metropolitan council approved plans to build two P+R car parks at Porte de Vertou and Bouguenais (Neustrie). Work on the Vertou P+R began in October 2018 and is scheduled for completion in late 2019 or early 2020. The new car park will have nearly 1,000 parking spaces, including 749 spaces in a multi-storey car park, as opposed to 516 at present. Calls for tenders for the Neustrie P+R were issued in 2018 and work is expected to begin in spring 2019. This car park will provide around 950 parking spaces, of which 783 are in a multi-storey car park, as opposed to 314 at present.

University building in Rue Bias

Under the planning agreement between the national and regional governments (CPER), Nantes Métropole is the project owner of a university building situated at 10 rue Bias in Nantes. The project is part of the university training master plan and will accommodate students in the first year of a health-related course or studying at the pharmacy training and research unit, users of the health university library, doctoral students and research professors, and the university's administrative staff. The project's design studies took place in 2018, the project was approved by the Metropolitan Council in December and the building permit has been lodged. The building is scheduled for delivery in the first quarter of 2021.

Plan to transfer the Nantes-État railway yard

The Nantes-État railway yard, which is currently located on a 15.8 ha site in the west of Île de Nantes, is going to be transferred. Transferring the railway yard to the Nantes Blottereau site will make it possible to optimise railway operations in the conurbation. It will also maintain a switchback facility for trains on the railway track along the road to Pornic in the municipality of Rezé. This project will also, in the end, improve the railway system's operating conditions in the Nantes metropolitan area.

The transfer will cost around €108m in all, jointly financed by the French State, SNCF Réseau, the Region and Nantes Métropole. It is scheduled for late 2021, with clearing of right-of-way beginning in early 2022.

Aéroport du Grand Ouest

To support the local area's brisk growth and cater for the growth in the number of travellers using the Nantes-Atlantique Airport, Nantes Métropole and its partners acted as an intermediary in view of the airport's transfer.

The aim was to defend the stakes and the necessity for Western France and the metropolitan area to have a long-lasting, high-quality international airport to guarantee access to the area, the protection of the population and development.

The CHU and the health district

The university hospital and the health district aim to give the metropolitan area a 21st century public hospital set on an extensive site dedicated to healthcare, which, in the same, highly accessible sector, will house: healthcare, higher education and research.

Nantes Métropole, in conjunction with the SAMOA and its management, contributed to:

- drawing up the preliminary design and final project for the CHU;
- defining the urban project for the south-west of the Île de Nantes, thanks to the work of the new project management team (Jacqueline Osty, Claire Schorter);
- commencing the accessibility projects they entail (tram line, doubling of the Anne de Bretagne bridge, car parks, etc.).

DEVELOPING A SUSTAINABLE CITY, ACCESSIBLE TO ALL

Nantes Métropole is already shaping the city of the future by ensuring balanced local development, bolstering the urban cores and curbing urban sprawl. To do so, the authority is situating the conurbation within a broader development area.

Co-constructing the Metropolitan Urban Planning Scheme (PLUm)

The first step taken with the Mayors of the 24 municipalities and their inhabitants consisted in working together to develop the Sustainable Development and Planning Scheme (PADD). This metropolitan development strategy was then translated into the regulatory Metropolitan Urban Planning Scheme documents, the action plan of the 2018-2023 Local Housing Programme (PLH), the action plan of the 2018 Urban Travel Plan (PDU), the outlook for 2030 and the Climate, Air and Energy Plan for the Local Area (PCAET).

The Sustainable Development and Planning Scheme spans the entire metropolitan area and is broken down into six smaller areas: Erdre and Loire, Erdre and Cens, Loire-Chézine, South-West, Loire, Sèvre and Vineyards, and City of Nantes.

The general guidelines for the Sustainable Development and Planning Scheme contained in the Local Urban Planning Scheme hinge on three main challenges involved in ensuring the transition to a different type of development:

- develop a city whose residents live in harmony together and are prompt to show solidarity;
- turn Nantes Métropole into a standard-setter for the ecological and energy transition;
- take action for an innovative, creative, attractive and influential city.

By 2030, the plan for the local area aims to:

- lay the foundations for creating over 60,000 jobs, including 25,000-30,000 in Nantes;
- welcome over 75,000 new residents;
- build at least 6,000 new dwellings/year, including 3,000-3,100 per year in Nantes;
- achieve 72% of journeys made by alternative means of transport to the private car;
- halve per-capita greenhouse gas emissions;
- attain 20% of local renewable energies in the area's energy mix;
- halve the annual average rate of consumption of agricultural, natural and forest land;
- provide lasting protection for over 16,000 hectares of agricultural areas.

The aim is to enable everyone who lives in or wants to move to the local area to have access to:

- a home that meets their requirements at every stage of their life and which is within their financial means;
- a job;
- suitable and convenient means of transport throughout the metropolitan area;
- local services that meet their needs, from childcare to basic schooling to higher education;
- areas for leisure activities and relaxation;
- natural spaces, big and small.

These guidelines were discussed at the Nantes Métropole council meeting on 26 June 2016.

In the subsequent phase, the area's ambitions were translated into the regulatory documents comprising the Metropolitan Urban Planning Scheme (PLUm).

This was achieved through the ongoing process of co-construction initiated with the municipalities, the population and the area's stakeholders and partners. The project drew heavily on the community input gathered during numerous workshops and on-site sessions during "city walks".

Once finalised, the Metropolitan Urban Planning Scheme was presented then approved by the Metropolitan Council on 5 April 2019.

Coordinating urban development programmes in comprehensive planning areas representing between 30% and 40% of new homes

Programmes in comprehensive planning areas (ZAC), which fall within the powers of Nantes Métropole, enable local authorities to control land use, build necessary infrastructure, meet objectives in terms of social housing and affordable housing in line with Nantes Métropole's Local Housing Programme. The ZAC procedure also makes it possible to encourage architectural innovation, and architectural and environmental quality by imposing specifications drawn up by town planners, developers and local authorities.

Major undertakings in 2018 included:

- ZAC Champ de Manœuvre in Nantes: drew up the design directive setting out the main planning guidelines for the future district, which will comprise 1,800 housing units within the next 15 years; maintained 22 ha of natural areas, brought in new management methods, including eco-grazing, and opened up the site to neighbouring residents.
- ZAC boulevard de la Baule in Saint-Herblain: an initial section of the Boulevard Charles Gautier has been finalised. Accordingly, since September 2018, the C3 Chronobus line has been extended, on a reserved bus lane, up to the Ar Mor tertiary-sector business park. A provisional Park & Ride car park has been set up on the ZAC. At the health cluster, an initial section of the facilities has been commissioned, including the hand clinic and the Laboratoire Bioliance pathology lab. The first residents will move into this property development programme (block 9) in mid-2019. Work has begun on the residential blocks situated opposite the health cluster.
- ZAC de la Fleuriaye 2 in Carquefou: today phase 1 of the programme comprises 318 housing units, all PassivHaus-certified and equipped with photovoltaic roofs. There is also the first tertiary building (GSE), which happens to be the first "Passivhaus Premium" building in France. In 2018, the IME Pen-Bron institute was opened and marketing of phase 2 of the operation began (non-restricted lots went on sale and Aiguillon's programme of social and affordable housing was drawn up).

Within the framework of the Industrial Demonstrators for Sustainable Cities (DIVD) scheme, the technical, financial, organisational and sociological aspects of the project were assessed at the ZAC de La Fleuriaye 2. Diagnoses and action proposals were drawn up during the energy initiative conducted on the Haute Forêt operations and the Belle Étoile business park in Carquefou (total area of 235 hectares).

- ZAC Doulon Gohards in Nantes: once the interested parties had been selected, the urban agriculture programme moved into action with a view to setting up the urban farms in 2019.
- ZAC de la Gaudinière in La Montagne: joint public enquiry into the declaration of public utility and the Water Act; the administrative procedures have been conducted by the Préfecture (Water Act and declaration of public utility orders); the new urban planning management team specified the urban development and planning scheme.

- ZAC Vert Praud in Rezé: the studies are under way (at the design sketch stage).
- ZAC de la Minais in Sainte-Luce-sur-Loire: construction work has begun on the sports hall; blocks 4 and A (96 social and affordable housing units) have been awarded.
- ZAC des Indulgences in Sainte-Luce-sur-Loire: the Coty block and the Luciole shopping centre have been demolished to make way for their reconstruction.
- ZAC Centre-Bourg in Mauves-sur-Loire: construction work has begun on blocks 3 and 4 (in the south of the ZAC).
- Sales are continuing for all of the operations: West of the town centre and Métairie (Couëron), Les Vignes (Les Sorinières), Vallon des Garettes (Orvault), La Jaguère (Rezé), Les Ormeaux (Bouaye), Les Perrières (La Chapelle-sur-Erdre), Le Verger (Carquefou), Erdre Porterie and Bottière Chénaie (Nantes).

In 2018, new agreements with the ANRU (National Agency for Urban Renewal) also came into effect in Nantes. They concern projects in North Nantes and in the Les Dervallières district, and the following operations:

- ZAC Bottière Pin-sec in Nantes: the ZAC (ANRU project) will be created in December 2018. It covers 44 ha and will comprise around 250 housing units.
- ZAC du Grand Bellevue: the ZAC (ANRU project) will be created in December 2018. The project covers 61 ha and is expected to enable 1,000 housing units to be created. A health centre, a sports facility and possibly a small-business cluster are expected on the site. This urban renewal project is part of a wider 325 ha project comprising 10,000 housing units.

Key figures for 2018

- 33 comprehensive planning areas for housing;
- 19 development projects defined for economic development.

THE METROPOLITAN AREA'S URBAN CORE

The heart of the metropolitan area continues to develop. Nantes Métropole has set out to invent a new heart for the conurbation, to build a European metropolis that is natural, vibrant, a people-friendly size, convivial, compact and influential in both cultural and economic spheres.

This renewed ambition has prompted it to undertake a growing number of major projects, and make the river and nature a core feature of the city: a commitment that systematically underpins and structures the intentions of the local authority, developers and contractors. The vision for the urban core is all-embracing now, but it is careful to cultivate the distinctive features of each space and district; the aim is to build a pleasant city: an everyday living and working environment for its residents and employees, a place the conurbation's inhabitants will spend time in and visitors will explore.

In time, 300 hectares of Nantes' urban core are to be reinvented. The assets to leverage for the purpose are numerous. Beginning with an ambitious mobility policy that is tackling two tram lines in a bid to service and link up the future districts and urban core facilities.

The Île de Nantes: a sweeping project at the heart of the metropolitan area

For over 15 years, the Île de Nantes has been the focus of a major urban development project designed to consolidate the centre of the conurbation by establishing the full range of urban functions: housing, economic activities, shops and public facilities. It is being led by Nantes Métropole and implemented by the SAMOA.

The development of the island is currently focussed on its south-western area, which is gradually being cleared as the former industrial facilities are removed. The relocation of the wholesale agricultural produce market (MIN) in March 2019 and the railway goods sidings in 2022 are part of this move. Eventually this sector will be the site of a new, built-from-scratch city district that houses the future CHU.

The new team, organised around landscape architect Jacqueline Osty and urban planner Claire Schorter, has defined the intentions that will shape the main lines of the urban project for the next 20 years: the deployment of a system of parks, a restructured travel scheme (active, tram and car) and a diverse range of housing, work, study and recreation options. Underpinning this development is a manifesto for a sustainable island (Ile de Nantes): commons (social blend and a community of inhabitants), involvement (active modes of transport and new practices), resilience (cultivating fertility and limiting the ecological footprint), and wellbeing (fostering good health and wellbeing with nature, off time and solidarity).

The new République district, which includes 20 ha set aside for urban development and where the first consultations began in 2018, will spearhead a new urban ambition: to use nature to provide future residents and workers with a distinctive, eco-friendly environment.

Eventually the south-west of the island is expected to house:

- nearly 1 million m² of built space;
- 350,000 m² of major facilities (university hospital and district, the associated programmes, blood donation centre, etc.) and roughly 20,000 m² of local facilities (primary school, gymnasium, etc.);
- 390,000 m² of housing (on the basis of 6,000 housing units for 12,000 new inhabitants);
- 240,000 m² of offices, businesses, services and shops.

The new CHU: in 2018, Nantes Métropole and the CHU concluded two undertakings to sell confirming the exchange of land between the future site on Île de Nantes and the current site of the Hôtel Dieu hospital and its annexes. The application for a building permit for the new CHU was lodged in late July 2018 and will take a year to process.

The facilities: work has begun on two flagship projects: the grouping together of the "Pierre Landais" social restaurant and the public baths in the Creative District; the "5 Ponts" on the block known as the "Triangle des Marchandises". There are plans to turn this unusual venue into a reception centre for homeless people, while at the same time providing a venue for numerous other activities and keeping the building open to the public.

Plans have been approved to build the first "2020" school to the west of the Maison des Syndicats trade union headquarters. A school complex with 16 classrooms, and a gymnasium, are now programmed in the République district.

The Creative District: Now well under way, the redevelopment of the site of the Alstom halls - with a usable floor area of 26,000 m² - continued in 2018. By 2019/2020, the site will also house a university cluster dedicated to digital cultures (hall 6), affordably-priced premises and shared services for innovative start-ups (hall 6) and a food court.

The new 125,000 m² La Prairie-au-Duc district situated in the west of the Île de Nantes, is pursuing its development south of the Boulevard de la Prairie-au-Duc.

New, emblematic operations are continuing to develop in a broad sector at the foot of the Senghor bridge, such as the Senghor, Léopold, Mercure and Castel Riva operations. In all, 500 housing units will be built and new free spaces created, giving the Beaulieu district new openings onto the Loire.

New public spaces: the development work on the northern banks are completely finished now. They include a new promenade and recreational areas (a skate-park). The open-air café/belvedere and dance floor will be opened on 5 April 2019.

The other public spaces, including the temporary developments, are being examined as possible offshoots of the CHU worksite and the development of the south-west (including the Prairie-au-Duc district).

The historic city centre

The Feydeau-Commerce sector is taking shape

An emblematic site in the historic heart of Nantes, the Feydeau-Commerce sector is undergoing a major redevelopment. Following on from the redevelopment of the Château-Cours des 50-Otages segment, completed in 2015, and that of the northern forecourt of the station planned for 2019, this new phase forms part of the vast restructuring project of the route from the station to the Loire.

L'Atelier Jacqueline Osty & associés, charged with redeveloping this 27,000 m² sector, has been asked to design spacious pedestrian areas and bring more nature into the city. Construction work began in January 2018. The first significant outcomes will be visible in 2020.

Ongoing transformation of the historic centre

After the inauguration of facilities with a strong identity (the reflecting pool, the new Musée d'arts, etc.), the historic centre is continuing to evolve, guided and spurred on by Nantes Métropole's new local urban planning scheme (PSMV), striving for a city centre that is active, inhabited, accessible and visited.

-

- **The "Désiré Colombe" operation in the process of being delivered**

After several years of work, the 120 housing units (48 of which are social housing) were delivered in late 2018, along with the 5,000 m² of facilities for local associations. The Salons Mauduit, Jardin Say garden and the childcare centre are expected to open in early 2019.

- **Remodelling of Place Aristide Briand**

Construction work on the "Révélations" operation, which is taking the place of the former prison, began in 2018. On completion, the site will be completely transformed into a new micro-district that opens out onto the city and nature. It will comprise 160 flats, half of which are social housing, a childcare centre for 40 infants, a meal area comprising an entertainment venue, and a public car park for 250 vehicles.

- **Boosting a new commercial offering in the central business district**

Once the building permit had been granted and the land sold to a private operator, construction work began on a vast commercial unit measuring over 1,300 m², in a contemporary building also containing a few housing units in the Fleuriot de Langle sector. A major retail brand is expected to begin trading in the building in 2020.

Similarly, Nantes Métropole guided and supported investigations by the owner of the "Notre Dame de Bon Conseil" site, within the framework of development and programming guidance included in the local urban planning scheme (PSMV) and designed to foster the emergence of a new commercial offering in the city centre.

Petite-Hollande - Banks of the Loire: the "Loire au Coeur" project

The TER agency, which was appointed, after an international call for projects, to undertake the urban planning and operational management of the project, was awarded the Grand prix d'urbanisme for 2018. Within the framework of the "Loire au Coeur" project, which contributed to this award, the agency is tasked with thinking through the transformation of Nantes' city centre on the northern bank of the Loire river in 2030, between the Canal Saint-Félix and the Bas-Chantenay area.

Two studies were commenced in 2018: one on the entire area, the other on the Petite Hollande, yielding two urban planning documents, known respectively as the "plan de cohérence" and the "schéma de secteur". These documents lay the groundwork for the actions planned on these two areas, by proposing an operation on the public spaces on the banks of the Loire and the quays (Quai de la Fosse and Quai A. Morice), and a transfer of the Hôtel Dieu block.

The Gloriette - Petite Hollande area is the main area in which this initiative will be carried out. The city's citizens were invited to contribute in the programme discussion phase in order to identify, as best possible, the current and projected uses of this public space. A comprehensive range of opportunities for participation was offered: a community workshop on the above-mentioned sector, workshops with institutional and professional stakeholders, and specific meetings with stall-holders on the open-air markets.

Other major urban-core projects

Nantes' new train station

- The extension of the Nantes train station has been under way since September 2017 and will finish in June 2020. In 2018, work also began on the southern side, above the forecourt.
- The simultaneous redevelopment of the northern public spaces is continuing: renovation of the tram platform finished in early September 2018, redevelopment of the forecourt in progress and due for delivery in autumn 2019, including a new entrance to the Jardin des Plantes delivered in October 2018.

- On the southern side, the operations to clear the necessary right-of-way for the future multimodal transport hub are continuing: the new station car park (Gare Sud 1) was delivered in early December 2018, the old car park will be demolished in 2019, the transfer of the telecom centre to its new building will begin in summer 2019 and be completed in spring 2021.

ZAC Pré Gauchet / EuroNantes - Station

Work on the project continued to progress at a brisk pace in 2018:

- delivery of blocks 8A2 (40 intermediate housing units) and 1E "Tryo" (122 housing units + 4,800 m² of businesses) and the new "Gare Sud 1" car park for 450 vehicles;
- work continued on blocks 1F "Le Vendôme" (8,000 m² of offices), 1G "Vizio" (102 housing units and 4,500 m² of businesses) and on the public space in the Berlin/Marcel Paul sector;
- work began on block 5B "Viséo" (public car park for 500 vehicles, 2,500 m² of businesses and 61 housing units);
- studies continued for blocks 3D (6,000 m² of businesses) and 4B (5,000 m² of housing units and 16,000 m² of businesses, including premises for UCPA);
- an operator was chosen for block 8F (61 housing units).

Another highlight of 2018 was the issue of a call for expressions of interest in the "Saupin Ouest" block. This is a strategic parcel: it is situated right at the confluence of the Erdre and the Loire, at the junction of two major urban projects and on an emblematic site in the history of sport in Nantes. This accounts for the choice of an innovative procedure for appointing the promoter.

After the awardee has been designated in March 2019, an architecture competition will normally be launched in summer; the target delivery date in 2023. **The year 2019 will also see work continue on phase 3 of the ZAC, with the delivery of blocks 1F and 1G and the work on the Boulevard de Berlin and the Rue Marcel Paul; work will continue on block 5B and begin on block 3D. At the same time, the design studies will be conducted for blocks 4B and 8F, along with the studies for the multimodal transport hub and the public spaces around the south of the station.**

Bas Chantenay

This urban project stretches over an area of 162 hectares. It is made up of port sites, active industrial facilities, brownfield sites, a railway complex and sectors containing a mixture of homes and businesses. The area is undergoing far-reaching changes. The Miséry quarry is going to be transformed into an extraordinary garden that will house the Heron Tree in around 2021-2022. This urban project will make it possible to develop economic activities over an area of around 90,000 m², create 3,000 jobs and 1,500 housing units.

The year 2018 saw work begin on the Promenade des Belvédères and the Rue de l'Hermitage on the Butte Sainte Anne. It also corresponds to the preparation of the application for creating the ZAC. The application must be finalised in 2019 by continuing the studies into Bois Hardy and confirming that the Usine Électrique slipway will be attractive for innovative stakeholders in the fields of water sports and renewable marine energies.

In 2018, the Bas Chantenay project was also the scene of various community initiatives: the major "Complètement Nantes" event took place over 80 days in spring in the Miséry quarry. A few weeks earlier, Johanna Rolland, the Mayor of Nantes, had given a community committee composed of 12 volunteers the mission of producing a community opinion on the future of the CAP 44 – Les grands moulins de Loire building. The consultation was constructed around the notion of purpose and structured around two questions: "How do you think the site could be used?" and "To what extent would the building have to be altered to serve these purposes, in line with the development of the

quarry sector as a whole?". Based on the suggestions received, Nantes Métropole's response was to retain and transform the CAP 44 building. Work has begun on putting the suggestions into practice.

Pirmil-les-Isles

The ZAC Pirmil-les-Isles was created in June 2018. Nantes Métropole Aménagement is in charge of developing the site; the project management team had been appointed in autumn (representative: OBRAS). This ZAC will be one of the proving grounds for the ecological transition in the metropolitan area, by developing new city-making methods and procedures on a large scale: nature in the city, the circular economy, development and construction that are energy efficient and low carbon.

The development objectives include highlighting the scenic qualities of places by consolidating the green corridor and harnessing the presence of water. These are all stakes that strive to safeguard the existing residential fabric and dynamic business areas with a high concentration of jobs. The goal is to build new, mixed districts with a good level of urban services and which respect the current contrasts by preferring developments that can be grafted onto what already exists. One of the prerequisites for the project to succeed is for the new districts to be linked to the major transport and travel networks.

The operation concerns two sectors with the following programme:

- in Pirmil (Nantes), 1,000 housing units, 30,000 m² of offices, shops and services, and redevelopment of the Parc de la Confluence and the transport interchange;
- in Basse Île (Rezé), 2,300 housing units, 30,000 m² of offices, shops, facilities and services, un metropolitan park on the bank, which is liable to flooding, and developments along the new tramway.

The year 2019 will be devoted to the public enquiry on the Water Act, the preliminary technical studies and operational design studies for the ZAC, and work specifically on the ecosystems in development and construction. The aim is to develop environmental innovation with a view to beginning work on the first blocks in late 2019.

Rehabilitation of the Mellinet barracks

The development of the "Mellinet Barracks" site aims to convert this former military site for predominantly residential use, offering a very diverse range of attractive homes (1,700 housing units), especially for families. It also plans to reuse part of the existing buildings (approx. 12,000 m²) to house services, economic activities (services, craft activities, etc.) or even public facilities. Some of the existing buildings will be kept for their heritage value.

In the course of 2018, the first phase of work (the Chapus group) was launched on three lots with a view to delivering the first housing units in late 2019-early 2020: five building permits were issued to construct 164 social and affordable housing units. In the Eperonnière group, which corresponds to the second phase, a consultation was also launched in late 2018 with a view to building a crèche combined with a programme of 80 housing units.

The construction of the public school was assigned to the RAUM agency in Nantes, with a view to delivering the project for the beginning of the school year in 2021. Lastly, after a call for projects, the project information centre (*Maison du Projet*) was assigned to the "La Générale" collective, which will open the new building in summer 2019.

CITY POLICY PROJECTS

The city policy projects are structured around four cross-cutting issues:

- **social cohesion;**
- **economic development, employment and training;**
- **urban renewal and living conditions;**
- **new forms of governance, involving co-construction and residents' participation.**
- **Some local areas are undergoing major transformations as measures are taken to address housing, public spaces, facilities and services, and public action as a whole.**

Four projects fall within the scope of the agreement with the ANRU (the national agency for urban renewal).

The year 2018 was devoted to finalising Nantes Métropole's project for four major districts: Bellevue Nantes and Saint-Herblain, Nantes Nord, Bottière and Dervallières. The project was presented at the ANRU investment committee meeting in September 2018 and awarded funding to the value of €158.5m (€103.8m in ANRU subsidies and €54.7m in Action Logement loans) for Grand Bellevue, Nantes Nord and Bottière Pin Sec, taking the total investment to €533m. A multi-year agreement will be signed with the ANRU in 2019 to enable Nantes Métropole to mobilise contributions from all of the partners over and above the agency's funding.

Grand Bellevue

The Grand Bellevue comprehensive social and urban renewal project is under way. It works through a process of co-construction with the elected representatives of Nantes and Saint-Herblain, and with all of the local users (associations, businesses and residents). Nantes Métropole's goal is to address all of the challenges associated with town planning, the economy, social cohesion and living conditions.

Highlights in 2018 included:

- the creation of a ZAC in April 2018 and a development concession awarded to Loire Océan Métropole Aménagement (LOMA);
- the choice of the ZAC's new urban developer from October 2018: the Devillers & Associés firm;
- the beginning of project design and construction supervision by the social landlord CDC Habitat Social, for the renovation of 265 social housing units in the Mendès France sector;
- the continuing effort to rehouse families in the sectors of La Bernardière in Saint-Herblain and Lauriers-Bois Hardy in Nantes;
- the beginning of work on the Bel&co programme of 41 housing units for non-restricted and affordable purchase, including three shops on the ground floor; 127 housing units in Rue d'Aquitaine in Saint Herblain went on sale;
- the beginning of work on the Parc de la Méta in the Les Lauriers sector, a new adventure ground designed in collaboration with the local secondary school students and residents;
- work continued on plans to establish a new sports complex, along with an interprofessional health centre in consultation with self-employed health professionals.

Right from the beginning, the Grand Bellevue project was intended as a collaborative effort. Accordingly, as many people as possible have been involved in planning and defining its objectives

and programmes. In 2018, to cater for a new phase of the project, new tools have been defined, such as the Conférence permanente (to begin in 2019) and the project information centre (*maison du projet*).

Following a series of project design-phase workshops, the Maison du project situated on the Place Mendès France opened its doors for designated times set aside for the urban project, the citizen committee or the inter-municipal joint-creation cultural project.

Nantes Métropole has also volunteered for the "ANRU+" call for expressions of interest in the "Innovating in the districts" component. The projects, which are led by either local associations or businesses, offer urban, economic, environmental, social and neighbourhood services with a very pronounced co-construction method.

The year 2018 was devoted to bringing the projects to maturity, examining their relevance and the conditions for carrying them out. It generated interest and involvement among local residents and stakeholders. At the end of the year, six projects were selected and will be implemented in the course of 2019.

Bottière-Pin Sec

Nantes Métropole intends to continue transforming the urban, social and economic fabric of the Bottière-Pin Sec priority district. The objectives are to make the district a nice place to live in, attractive and accessible to all; to diversify the housing stock to meet each household's needs; to develop economic activity and boost employment.

Over the course of 2018, work continued on the urban design and co-development study entrusted to the Jacqueline Osty et Associés agency, in collaboration with the urban developer and architect Claire Schorter and the Mageo company. Likewise, work is continuing on preparing the various sector-based studies with a view to drawing up the ANRU agreement and the consultation initiatives pertaining to the overall project.

The ZAC Bottière-Pin Sec was created in December 2018 and the development concession assigned to Nantes Métropole Aménagement. The "Face" firm of architects, working in collaboration with the "Plages arrière" agency, was selected to work on the district's core area. The district's residents were involved in the hearings for the selection process.

In June, the municipal council approved the extension of the Urbain Le Verrier school. Work is also continuing on renovating 75 social housing units and constructing 30 new housing units and the crèche. The projects are scheduled for delivery in spring 2019. The study of the social and solidarity economy carried out by the Ecosolies is also ongoing.

A participatory approach was used, revolving around the future project information centre (*maison de projet*) in Bottière Pin Sec, due to open in 2019. The aim was to work collectively on programming, managing and development the site.

North Nantes

A comprehensive approach is being applied in this priority area. It aims to enhance the landscape by reinforcing the area's green infrastructure, facilitate travel within the district and the blocks, restore the balance between the centres in this large mosaic district and coordinate the urban development of the entire sector.

In 2018, the urban design study, entrusted to the Germe & JAM agency in collaboration with the Mageo company, was finalised through a process of co-construction with the district's residents. The various sector studies (in view of the ANRU agreement) and the consultation initiatives were carried out in the Bout des Pavés, Chêne des Anglais and Boissière sectors.

The developer, LOMA, has begun its mission. Studies are under way for an interprofessional health centre and a small-business centre in Le Bout des Landes. The shopping centre in La Boissière will be converted.

Nantes Nord is one of the seven pilot sites selected for inclusion in the European project, Urbinat, to test new urban development models. The aim is to use nature to improve social cohesion and residents' health. The programme plans to redevelop the central area of Le Bout-des-Pavés and the Les Renards stream, and start farming again at the Angle Chaillou farm.

Dervallières:

The Dervallières priority district continues to undergo sweeping changes. A new ANRU regional contracting process is under way for an urban renewal programme of regional interest (PRIR).

Within the framework of the overall urban and landscape consistency study, plans to draw up a design directive and in-depth sector studies were approved in 2018, to enable urban renewal of the Lorrain-de-La-Tour sector.

Since the rioting in July 2018 seriously damaged the Place des Dervallières, it had become essential to restructure it. Two scenarios are being examined to inform the choice of programming so that the operational phase can begin as soon as possible. Presentation meetings and workshops with the shopkeepers, associations and residents are planned in 2019.

Two other urban renewal projects

Le Château in Rezé

Nantes Métropole plans to enhance the quality of life and aesthetic appeal of the Château-Mahaudières district in Rezé. A public consultation was held between October 2016 and November 2017 with a view to creating a ZAC.

The operation as a whole is designed to:

- renovate the housing stock;
- diversify the range of housing stock to promote greater social diversity;
- renovate and enhance the public spaces;
- restore the site's ecological functions and create common areas that correspond to a green infrastructure;
- open up the Château and Les Mahaudières to the city's other districts and manage relations with the adjacent areas of low-rise housing;
- strive for functional diversity and re-energise the François-Mitterrand urban core.

The outcome of the preliminary consultation on the creation of the ZAC was discussed at the Metropolitan Council meeting in December 2017, and the ZAC's urban programming was defined. Discussions continued in 2018 to define the ZAC's programme and the most appropriate scope, with a view to its creation in 2019.

Plaisance district in Orvault

The Plaisance district is classified as a "priority urban area for urban policy". The great majority of the housing in Plaisance is social housing managed by the social landlord Atlantique Habitations. After a phase of studies in 2014-2016 that examined the district's public spaces and organisation, and the social landlord's housing stock, in 2016 the City of Orvault, Nantes Métropole and Atlantique Habitations expressed a desire to tackle the district.

The initial objective was to give Atlantique Habitations guidance and support in an urban project designed to improve the residents' living conditions, renovate a decayed housing stock and diversify the housing units for greater social diversity. However this objective was broadened to include a new configuration for the public spaces, a connection to the social cohesion objectives, the establishment of public facilities, and a broader vision of the urban changes around the Plaisance district.

This refocusing in 2018 opens the way to the objective, in 2019, of drawing up a design directive and a shared roadmap, based on an updated community consultation, with the goal of establishing an all-inclusive project.

TAKING ACTION FOR EMPLOYMENT AND INTEGRATION

Employment is a major concern for inhabitants and a key factor for social cohesion. As such, it constitutes a political priority for this term of office.

Over the past four years, salaried employment has been progressing in the Nantes Métropole area. In 2018, almost all industry segments had benefited from the upturn. Nantes Métropole has one of the lowest employment rates of any large city in France and is pursuing an employment and innovation policy that is socially-aware and partnership-driven. The aim is to enable all of the area's residents to reap the benefits of the improvement, with special attention given to those who face the greatest difficulties in finding employment. Another challenge is to help match the job supply with the demand by working closely with businesses.

Nantes Métropole focuses its support on three employment-oriented organisations: the Maison de l'Emploi and the Local Plan for Integration and Employment (PLIE), the Mission Locale and the École de la Deuxième Chance de l'Estuaire de la Loire (E2CeL). The Mission Locale and the Maison de l'emploi have eight branches in Nantes Métropole, seven of which are in priority districts. The latter two structures merged in 2018 to form, in November, the Association Territoriale pour le Développement de l'Emploi et des Compétences de Nantes Métropole.

The Metropolitan Employment Pact

Launched in September 2015 by Nantes Métropole and 23 institutional, economic, academic, employment and social partners, the Metropolitan Employment Pact is an incubator for new solutions and a collective space for sharing information about employment and skills.

In 2018, implementation of the operational roadmap continued in accordance with the two priorities defined with the partners: youth employment and anticipation of the major economic changes in the digital industry as they affect the energy and digital transition, and the agri-food sector with the businesses at the wholesale agricultural produce market (MIN).

The objectives remain unchanged:

- to stimulate innovation and the experimentation of new solutions responding to unmet or inadequately-met needs;
- to facilitate the deployment of partners' employment initiatives in the local area.

Major achievements for 2018 include consolidation of the **metropolitan scheme for obtaining the mandatory work placement in the final year of lower secondary-school**, in partnership with the Académie de Nantes, the Conseil départemental and numerous stakeholders in business or the voluntary sector. This dedicated service for young people and their families is available in 17 priority lower-secondary schools situated in priority education and urban policy zones. It has three components:

1. Preparation for looking for a work placement, through initiatives in lower-secondary schools run by business clubs;
2. A website dedicated to final-year work placements, listing offers by local authorities, associations and businesses, and useful advice (stage3e.nantesmetropole.fr);
3. Actions to re-motivate students who encounter difficulties, one month before the beginning of the work placement, in a speed-dating format.

Around 500 lower-secondary school students have received help with preparation; 200 have been able to meet businesses in the re-motivation actions at lower-secondary schools; 1,100 work placements have been offered by the partner employers.

The work of the partnership-based observatory of employment and economic development in the Nantes metropolitan area

Since its inception in 2016, the observatory has produced three economic barometers in 2018 and provided input for the Metropolitan Employment Pact's work on the digital sector (in partnership with ADN Ouest and the Conseil régional).

Further thought was also given to producing an annual analysis of employment and business for the Nantes metropolitan area.

Co-developing projects with businesses to boost employment

In 2018, Nantes Métropole continued to work alongside businesses to promote employment. It is implementing the roadmap for developing CSR (Corporate Social Responsibility) drawn up in 2014. The roadmap is co-managed by a group of elected representatives in charge of CSR issues and shared with the partners through the "RSE Nantes" platform. An in-house CSR group was also set up within the local authority to develop the synergies and joint initiatives aimed at businesses.

The roadmap addresses five complementary objectives:

1) Help local VSEs and SMEs develop their economic, social and environmental performance

Key figures for the CSR platform since the www.rse-nantesmetropole.fr website opened in June 2013):

- 281,666 visits since the site was launched;
- over 100 CSR initiatives by local stakeholders (networks and associations);
- 75 CSR best practice sheets produced.

Highlights in 2018 included:

- a major survey of the local area's service offering for businesses interested in joining a **Parcou'RSE** (over 60 offers registered in partnership with the Region and the consular chambers) or, more specifically, in making the commitment to be "**Host Companies**" (nearly 70 offers registered in connection with the Maison de l'emploi);
- the **Social Change** event held on 16 November at the Cité des Congrès. This is a major event designed to raise awareness of CSR among local VSEs and SMEs and encourage them to make a commitment to CSR. The first edition of Social Change drew 500 visitors, 30% of which were VSEs, and involved over 50 local stakeholders and experts.

2) Encourage VSEs and SMEs to give greater consideration to social and environmental issues in their economic development

Through its departments' activities, Nantes Métropole is committed to pursuing its own, in-house approach to sustainable development, responsible purchasing and diversity in the workplace. For example, since 2009, it has been working to include CSR criteria in public procurement. Today the initiative has been written into the Responsible Purchasing Promotion Scheme, which was approved in 2017 and is managed by the Public Procurement Department.

Nantes Métropole is also taking part in Planet'RSE testing scheme. This association was created in 2014 at the initiative of the area's business networks and Nantes Métropole, with support from the Audencia Business School. It is tasked with rating businesses on CSR criteria to promote their CSR

initiatives to purchasers and financial backers. Nearly 100 businesses have been audited since its creation. Since 2015, Nantes Métropole has acknowledged this rating in public procurement.

3) Give VSEs and SMEs easier access to funding to develop their economic, social and environmental performance

Around 10 "Pays de Loire RSE" loans have been granted since the launch. Alongside the Pays de la Loire Region, the Loire-Atlantique département and a number of banks, Nantes Métropole is co-funding the scheme led by FONDES (the body set up to help develop the social and solidarity economy in the Pays de la Loire Region).

4) Elicit economic stakeholders' support for the strategy and policies defined by Nantes Métropole

In 2018, the multidisciplinary working groups addressed three priority topics: the energy transition, the host company (a different approach to employment) and gender equality in the workplace. In the last field, Nantes Métropole supported the launch of **#NégoTraining**, an initiative put forward by Audencia Business School's Corporate Social Responsibility Chair, the "RSE Nantes" platform and local networks committed to promoting workplace equality: Business au Féminin Network, Les Entreprises pour la Cité, Femmes du Digital, the CJD, Dirigeants Responsables de l'Ouest, Femmes Chefs d'Entreprises and CFE-CGC. **#NégoTraining** is free training in salary negotiation for women. At end-2018, 1,000 women had been trained at no cost. One out of every two had been able to negotiate within six months.

5) Promote local actors' CSR achievements nationally and internationally to enhance appeal

Numerous speeches and testimonials about the action taken by Nantes Métropole and the "RSE Nantes" platform have been featured, including by the national CSR platform run by France Stratégie.

Youth employment, a major issue and priority for Nantes Métropole

Mission Locale

The Mission Locale offers personalised support for young people under the age of 26. It provides guidance and help with looking for a job and finding solutions to everyday hurdles such as accommodation, mobility, health, etc. To provide a locally-accessible service, it receives the public at eight sites in Nantes and 18 information points outside Nantes.

Highlights in 2018 included:

- 12,750 young people were given guidance and support;
- 1,100 young people started a training course;
- the ongoing Garantie Jeunes scheme helped 410 young people in the metropolitan area who have joined a dynamic and intensive 12-month course to prepare for the job market. At the end of the scheme, 55% of them find a job and/or a training course;
- the 7th edition of the Forum de l'Alternance, designed to facilitate meetings between businesses, training centres and young people interested in doing a sandwich course;
- a special effort to support young people living in the city policy's priority districts through targeted initiatives (passing the driving license for a car, young higher-education graduates, young single mothers, etc.).

École de la Deuxième Chance

This organisation receives young people aged between 18 and 30 who have no formal qualifications, and uses individualised, novel approaches to help them learn. In 2018, this "second chance" training establishment worked with 160 learners, 39% of whom live in the city policy's priority districts and 61% of whom have access to employment, training and a qualification, thanks to a solid network of host companies.

Fonds d'Aide aux Jeunes

The Fonds d'Aide aux Jeunes, or youth support fund, provides individual financial assistance for urgent needs or one-off projects contributing to the social and professional integration of young adults in great social hardship, aged between 18 and 24. It caters for people who cannot call on their family for support with building their future, either because they have no contact with or are in conflict with their family, or because of their family's financial precarity prevents from providing material support for achieving self-sufficiency.

In 2018, 990 young people from the local area received support to the total value of €326,000, corresponding to 2,025 aid requests. This aid is mostly to cover the basic living costs (82%), training (3%) or housing (6%). 36% of the beneficiaries are women, 87% of them are under the age of 23 and over two-thirds of them have a level of education lower than the CAP or BEP secondary-school vocational training certificate/diploma.

Nantes Métropole has managed the Fonds d'Aide aux Jeunes since 1 January 2017, when the Loire-Atlantique department transferred this area of responsibility to it under the NOTRe Act. The administrative and financial management of the Fonds has been entrusted to the Mission Locale. Assistance from the Fonds is allocated following interviews conducted by the Mission Locale counsellor and is a vital factor in finding employment.

Working in partnership with municipalities

Given the importance of youth employment, Nantes Métropole and the conurbation's 24 municipalities launched a working group devoted to this issue in 2015. In partnership with the Mission Locale, efforts in 2018 focused on providing young people with information, internships and mobility solutions, etc.

The Maison de l'Emploi: a powerful tool in Nantes Métropole's employment policy

The Maison de l'Emploi contributes significantly to the metropolitan area's employment policy. It caters for all sections of the population and helps them to look for or return to work in partnership with the Mission Locale, Pôle Emploi (French job centre), business networks and associations. To do this, it co-develops projects and initiatives with business networks in order to reconcile job offers with employment demands. It also conducts strategic workforce planning initiatives in high-growth industries and sectors in order to anticipate and adapt to changes in the world of work.

Highlights in 2018 included:

- over 21,000 connections to the eight employment cyberhubs by 13,000 users;
- 390 workshops (job search techniques, coming to grips with digital technology, etc.) for 1,500 people, 33% of whom live in the city policy's priority districts.

The range of services available was also expanded to include:

- **the ongoing coordination/joint coordination of employment-related events:** "Place à l'Emploi" at Atlantis, Job Dating in industry (in partnership with UI 44), in personal services, or for businesses at the MIN. Some events are conducted in close partnership with the municipalities: "Les Rencontres de l'Emploi" in La Chapelle-sur-Erdre or a Job Dating in Rezé Château;
- **more extensive recruitment drives** in close partnership with Pôle Emploi, amounting to nearly 150 dedicated recruitment initiatives, of which 120 took place in a city policy priority district. The initiatives reached 7,000 participants; 1,350 people took part in 136 pre-recruitment initiatives which resulted in 44% of them being recruited;

- **support for sectors** on the importance of strategic workforce planning for priority sectors such as digital technology, remote customer relations, industry, personal services, cleaning, agri-food, market gardening and agriculture. The renewable marine energies, shipbuilding and aeronautical engineering sectors also receive extensive support through the "Compétences 2020" initiative. In 2018, nearly 120 initiatives were conducted to highlight the attractiveness of certain job fields, along with 100 recruitment drives (essentially in digital technology and personal services).

Specific support for inhabitants struggling to find employment

Within the framework of the **local plan for workforce integration and employment (PLIE)**, the Maison de l'emploi coordinates workforce integration programmes and offers guidance and support until lasting employment can be found for people who face the greatest difficulties finding employment.

Achievements in 2018:

- nearly 2,000 people received support (78% of whom have a level of education lower than the CAP or BEP secondary-school vocational training certificate/diploma; 25% are seniors aged 50 and over, and over 34% live in the priority districts);
- nearly 1,300 job seekers found work in an integrated workplace.

Innovative initiatives were continued in 2018, in particular with regard to language learning for professional purposes. They are carried out by the PLIE with the support of teachers from Nantes Métropole. This addresses a very real need on the part of job seekers, many of whom are held back in their job search by a lack of proficiency in French.

In 2018, Nantes Métropole also continued to support 39 **structures for integration through economic activity**. Every year, these structures help provide on-the-job experience for 3,300 people who are having difficulties finding work (around 1,000 full-time equivalent employees).

Nantes Métropole's involvement in this sector can be summed up in three roles:

- financier (with an earmarked budget that has remained constant for over 10 years);
- principal (by carrying out hours of workforce integration on public contracts);
- facilitator (through its presence in workforce integration bodies in the local area and on the steering committees for various structures, and through project ownership assistance for principals using workforce integration hours, etc.).

Integration through procurement: leveraging the "social clause"

Since 2004, Nantes Métropole has been using its public procurement contracts to encourage companies to create jobs and foster integration through work. It has included socio-professional integration clauses stipulating that a portion of work must be set aside for people on integration schemes in the building, public works, green spaces, environment, cleaning and service sectors. This initiative is a means of promoting jobs for people who face the greatest difficulties in finding employment. It also provides a means of supporting employability organisations through economic activity and employer groups working to promote integration and qualification.

A six-person team is devoted to the initiative and provides support to purchasers and companies. It involves defining and implementing clauses, getting employment and integration professionals together, and assessing initiatives. Nantes Métropole is taking part in the scheme with 53 contracting authorities.

Since 2014, over 2,400 people have been given an employment contract on nearly 2,600 contracts, thanks to the workforce integration clause. Of these, 57% have gone on to obtain employment and

professional development. This has been achieved by enabling 304 companies to make use of 1.8 million "workforce integration" hours.

Combating discrimination

Nantes Métropole is actively involved in combating discrimination and promoting diversity and equality by:

- supporting the "resource" group's actions coordinated by the Maison de l'Emploi. This group of professionals conducts awareness-raising initiatives for employment professionals;
- helping business clubs that address these issues to set up local awareness-raising, information and networking initiatives for people who face the greatest difficulties in finding employment;
- pursuing the pilot initiative, conducted in partnership with the PLIE, the Conseil départemental and Pôle Emploi, to reduce the barriers to employment associated with French language proficiency;
- pursuing actions to remove the barriers to geographical mobility as part of the Mobility Platform coordinated by Nantes Métropole's Employment and Social Innovation Department.

DEVELOPING A SOCIAL AND SOLIDARITY ECONOMY

The social and solidarity economy (SSE) is a driver for regional cohesion, social innovation and economic vibrancy. It accounts for nearly 37,000 jobs across the conurbation (16% of private-sector employment).

Under its action plan for supporting the social and solidarity economy, and through a fresh seed fund, Nantes Métropole is supporting research and development into innovation and project emergence, which is in turn informing public policy.

Implementing the ESS 2020 Roadmap

Implementation of the roadmap co-constructed with local stakeholders in 2015 continued throughout 2018. The roadmap has three main priorities:

- encourage, guide and support innovation and collaboration between stakeholders in their various activities and initiatives;
- affirm social innovation as a real issue on a par with technological innovation and contribute to the energy transition;
- foster the growth of businesses and job creation with a view to supporting 200 projects by 2020.

Five sectors have been identified as priorities: services to people and families, waste and resources, short supply chains and the food sector, housing and digital technology.

Following on from the call for projects, **ESS Nantes Factory** was launched in 2017 to support the project owners. For the partners in the scheme, namely Nantes Métropole, FONDES, Ecosolies, Crédit Municipal de Nantes, ADEME and the Caisse d'Épargne Bretagne Pays de la Loire, the aim is to:

- continue to support projects in their initiation phase, but also ease project owners' and entrepreneurs' access to other sources of financing in the project start-up and development phases;
- facilitate guidance and support for project owners and entrepreneurs;
- pay particular attention to projects' progress after their start-up phase.

The scheme has been endowed with over €900,000 and plans to finance 14 new projects per year.

The second **Social Innovation Prize**, on the theme of "ageing well", was awarded in 2018. The prize, which is endowed with €25,000, is designed to showcase group projects in social and/or environmental innovation: projects that will have a positive impact on the metropolitan area's inhabitants through service and usage innovations and/or product innovations. This year's prize was awarded to the Hacopa shared housing project.

The Ecosolies Solilab: a cooperation and social innovation cluster that typifies the area's economic diversity

Housed on a surface area of 9,000 m² and comprising 4,000 m² of buildings on Rue de Saint Domingue on the Île de Nantes, the Solilab hub has been operational since February 2014.

It is one of the first facilities for multi-business initiatives and innovation in the social and solidarity economy in France. Managed by the Les Ecosolies association, this Local Area Business Cooperation

Hub aims to give the social and solidarity economy a visible presence in the heart of Nantes' eco-metropolis project. It consists of:

- a cluster to promote cooperation and the creation of non-relocatable businesses and jobs;
- a multi-business service offering to develop social entrepreneurship, the creation and consolidation of enterprises with a social purpose, and help with building the skills of structures in the metropolitan area's social and solidarity economy;
- a place where budding entrepreneurs can take initiatives, test their ideas and innovate. Central to the cluster is an array of tools for the promotion, consolidation and economic development of projects in the social and solidarity economy, including a business incubator, affordably-priced premises and shared services for start-ups, an event venue, a reuse/recycle shop and a solidarity-driven canteen.

A few key figures for Solilab in 2018:

- 137 tenant businesses and cooperative partners;
- 100 projects supported; 37 businesses set up;
- 14 businesses joined the incubator;
- 1 collective entrepreneurial event held a second time: "Demain Mode d'Emploi", which drew around 100 participants and seven projects (three of which received awards in the course of their development) on the theme of longevity, "Roulez vieillesse";
- 22 events organised at the Solilab and 19 French or international delegations received.

Key figures in 2018

- 17 projects were financed through ESS Nantes Factory and 8 through the former call for projects;
- 48 solidarity-based jobs (under two schemes: Contrats d'Accompagnement vers l'Emploi and Emplois d'avenir).

BUILDING ACCOMMODATION FOR ALL

With 638,931 inhabitants (2016), Nantes Métropole confirms its position as the French city with the sixth-highest population growth rate. To house its new residents, Nantes Métropole is implementing a proactive policy that stems from the Local Housing Programme (PLH).

The metropolitan settlement policy

To facilitate access to social housing stock and make it easier for tenants to move house, in 2013 Nantes Métropole established an Intermunicipal Housing Conference (CIL) which brings together the 24 municipalities, the social landlords, the French State and "Action Logement", a major stakeholder in social housing in France. In 2016, the conference was expanded to include associations operating in housing.

For the records, on 17 October 2016, the Metropolitan Council approved the strategic priorities issued by the metropolitan CIL. This document is structured around the following three issues: streamlining households' "residential paths"; establishing a balance in the local area; ensuring fair treatment for all households and equal opportunity in access to the social rental housing stock. The guidelines are set out in two documents (approved by the CIL) that define the objectives, the partners' commitments and the work programme for 2017-2022:

- the "inter-municipal allocation agreement": this document merges the Inter-municipal Collective Agreement, the Territorial Balance Agreement and the Metropolitan Rehousing Charter. It was approved by the Metropolitan Council on 10 February 2017 following a favourable opinion by the committee responsible for the Local Action Plan for the Accommodation and Housing of Underprivileged People (PLALHPD) and the Préfet;
- the "partnership plan for managing the demand for social housing and applicants' requests for information" (PPGDLSID), approved by the Metropolitan Council on 26 June 2017 following an opinion by the municipalities and the Préfet.

The Equality and Citizenship Act of 27 January 2017 provided further details about the definition of the housing allocation policies implemented by the Intermunicipal Housing Conferences (CIL). The documents establishing the Nantes Métropole CIL comply with the spirit of the Equality and Citizenship Act. However, certain details were added to the documents, mainly in relation to the objectives of restoring a balance in the social occupancy.

Accordingly, following joint work within the Nantes Métropole CIL, the framework documents (the strategic priorities and the inter-municipal allocation agreement (CIA)) were amended (giving priority to the action sheets), then presented and confirmed in January 2018. They were approved by the Metropolitan Council in December 2018. The Partnership Plan, which requires a prior opinion from the municipalities and the State, will have to be approved in 2019.

Development of the Local Housing Programme (PLH) 2019-2025

Within the framework of the housing policy conducted by Nantes Métropole since 2004, a procedure to amend the Local Housing Programme (2010-2016) was conducted in the course of 2015 (and approved in February 2016). It is combined with a two-year extension of the PLH until the adoption of the next PLH, the calendar for which is coordinated with the development of the Metropolitan Urban Planning Scheme (PLUm) and the Urban Travel Plan for 2018 (Council of Communes deliberation of 17 October 2014).

Following the Metropolitan Council meeting of December 2016, the years 2017 and 2018 were devoted to drawing up the Draft PLH for 2019-2025: diagnosis and stakes, and strategic priorities. Various other initiatives and meetings occurred during these two phases:

- statistical analyses of socio-demographic trends in Nantes Métropole's housing stock and in the housing markets, in collaboration with the urban planning agency AURAN;
- studies into specific points (housing of the more disadvantaged residents, housing of people with disabilities);
- meetings with the housing partners during a series of 10 round tables;
- meetings with the municipalities in Nantes Métropole.

The Draft PLH was accordingly approved at the Metropolitan Council meeting in June 2018 and after obtaining the assent of the 24 municipalities and the State. It was definitively approved at the Metropolitan Council meeting in December 2018.

This third PLH raises the target figures set down in the housing policy and strives to meet the metropolitan area's new challenges with higher-quality solutions, suited to the diversity of residents' current and future needs. To this end:

- in the existing housing stock, the emphasis was placed on providing more energy-efficient homes (5,000 homes are renovated per year) that are also better suited to the households' expectations, particularly by adapting homes in both the private and the social housing stock to population ageing and disability;
- new-build housing stock must address the unmet needs. The target figure for annual production is at least 6,000 new housing units per year;
- the PLH reasserts the intention to diversify the offering of new homes to cater for residents' residential paths. This will mean upholding the PLH's annual quality targets (2,000 social housing units, 500 subsidised-rent homes, 700-800 homes for sale at subsidised prices) and the creation of new "housing products" to fill out the range of offerings and streamline residential paths: social housing for subsidised rental and sale at "intermediate" prices (250 per year);
- to meet the housing needs of elderly and disabled people, there must be a variety of solutions, ranging from adapting the existing housing stock to producing suitable housing units that are either dispersed or grouped together;
- the first priority of the local area's housing policy must be to meet the needs of the most vulnerable households. Give priority to households whose most urgent need is housing.

A sustained production rate that exceeds the objectives outlined in the PLH

The PLH set out targets for the construction of 4,500-5,000 homes per year over the 2010-2016 period. These targets were exceeded: the average construction rate for 2010-2015 was permission for 7,500 homes per year. The pace was quicker between 2010 and 2012 (permission for 7,900 homes per year) and slower between 2013 and 2014 (6,800 homes per year).

The amended PLH, approved for the 2014-2018 period, sets targets of 5,500-6,000 new homes per year, which is a moderate, steady rate of production.

The PLH 3 (2019-2025) approved in December 2018 sets objectives of 6,000 new homes per year.

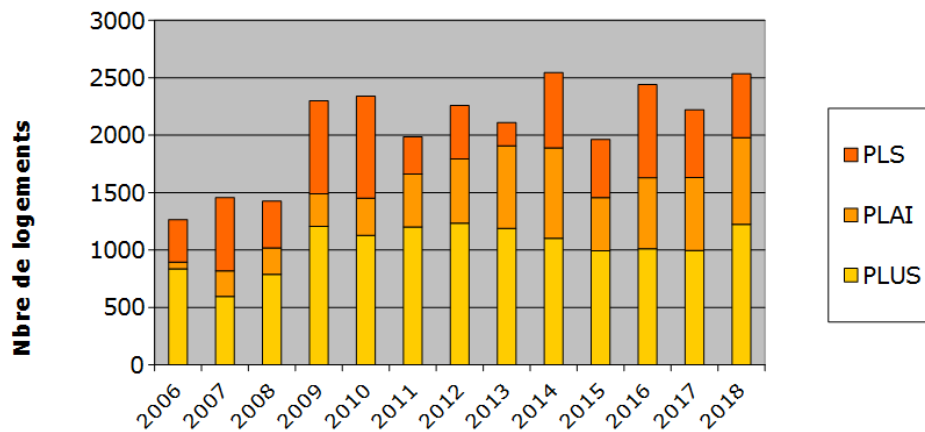
Note: between 2014 and 2018, permission was given for an average of 7,327 homes per year.

A sharp increase in social housing stock for rental

In 2018, 1,979 social housing units for rental were financed under the PLUS (social housing loan) and PLA I (subsidised rental housing loan for integration) schemes. Of these, 94% were family homes and 6% were in specialised accommodation/integration facilities. This represents a financial volume of €11 million in direct aid for Nantes Métropole.

In all, an average of 1,710 social housing units for rental have been funded per year since 2010 (the objective being 1,800 to 2,000 homes per year).

Programmation de logements sociaux et locatifs abordables de 2006 à 2018



Source: Housing Department

A growing stock of affordable housing

Low-income rented social housing loans (PLS)

This type of loan is used to build dedicated accommodation for students, elderly people and disabled people as well as family homes.

555 PLS homes were funded in 2018 (24% were dedicated housing units and 76% were family homes).

Since 2010, the annual average number of approved PLS rental housing units is 555 homes, compared with an initial target of 500.

PROGRAMMATION 2018 total

Vocations	PLUS	PLAI	PLUS ANRU	PLA I ANRU	PLS	TOTAL	%
Logement familial	1116	492	35	108	370	2121	75%
Logement familial - personnes âgées	73	13	0	0	53	139	2%
Logement familial - adapté / insertion	0	4	0	0	0	4	1%
Logement familial - adapté / pers. Hand	0	19	0	0	0	19	1%
EHPAD - résidence autonomie	0	0	0	0	0	0	0%
Handicap	0	0	0	0	0	0	1%
FJT / Jeunes salariés / Apprentis	0	0	0	0	0	0	6%
Etudiants	0	0	0	0	132	132	14%
Structure d'accueil (maison relais...)	0	119	0	0	0	119	0%
TOTAL	1189	647	35	108	555	2534	100%

1979

Source : DH - Parc Social

Affordable home ownership

This system allows medium-income households to find housing within their budget in the Nantes Métropole area: approximately €2,400 to €2,500/m² of living space, while free-market prices are in excess of €3,900/m². The PLH sets a target of 800 housing units per year.

Since 2010, an average of 781 affordable housing units have been authorised every year. The planned affordable housing units to be built as part of the current ZAC will have a positive impact on future output.

A total of 590 housing units available through a subsidised rent-to-buy scheme (PSLA) were approved in 2018, yielding an average of 395 per year since 2010. The marketing of affordable home ownership programmes, which includes PSLA housing units and programmes with controlled prices, represents a volume of 371 approved housing units in 2018.

Added to that are social landlords' sales of homes from their housing stock: 253 housing units sold in 2018, representing an average of 167 housing units sold per year since 2010.

Addressing specific housing needs

Some of the social rental housing and affordable housing financed in 2018 addresses specific needs:

Housing for students/young professionals

- "Canopée" student residence, situated Route de la Jonelière in Nantes: operation to build 119 housing units financed under the PLS scheme. The operator CDC Habitat Social bought this operation prior to its completion (VEFA) from Bouwfonds Marignan. It will be managed by the CROUS.

Housing for the elderly

- Six operations with family housing units intended primarily for the elderly, with a range of services available:
 - the operation involving the former Clinique Saint-Augustin, with 39 financed housing units (18 PLUS – 8 PLA I and 10 PLS), situated at 78 avenue Paul Bellamy in Nantes. It was sold prior to completion by Eiffage Immobilier to Habitat et Humanisme. This inter-generational operation also includes student housing units, a halfway house and family housing units with social support;
 - "So Green", situated at 7 allée de l'Allée Verte in Saint-Sébastien-sur-Loire. This operation comprises 13 PLUS and PLA I social housing units, six of which are primarily intended for elderly people. This operation was produced by SAGEC, which is selling the housing units prior to completion to SAMO. The services will be provided by two people completing a civic service programme and sharing one of the social housing units;
 - "Le Parvis", situated Place Saint-Pierre in Rezé. This operation comprises 34 PLUS and PLA I social housing units, 20 of which are primarily intended for elderly people. This operation was produced by Bati-Nantes, which is selling the housing units prior to completion to SAMO. The services are offered by Mutualité Retraite;
 - "Cœur de Ville", situated in Rue des Lauriers in Les Sorinières (ZAC Cœur de Ville). This operation comprises 30 PLUS and PLA I social housing units, 8 of which are primarily intended for elderly people. This operation was produced by Atlantique Habitations. The services are offered by Cémavie;
 - "Emblème", situated in Boulevard Allendein Saint-Herblain. This operation comprises 36 PLUS – PLA I and PLS social housing units primarily intended for elderly people. This operation was produced by Harmonie Habitat. The services are offered by Mutualité Retraite.

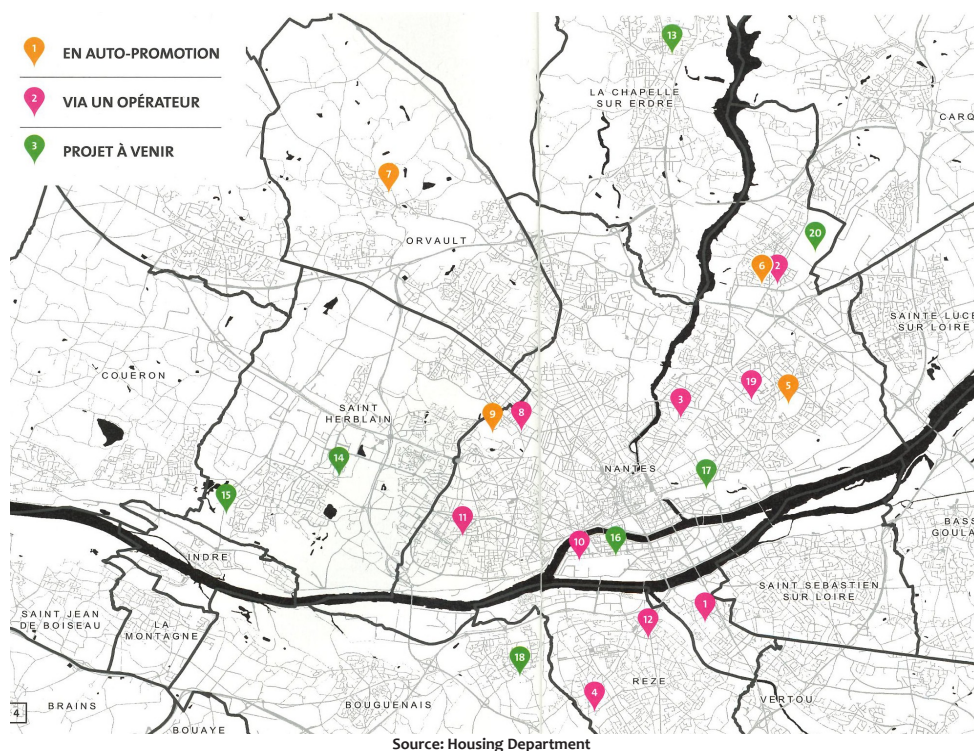
Housing and accommodation for disadvantaged households

- The "Résidence Safran" operation, situated in Rue de la Pelleterie in Nantes, was produced by Adoma. This social residence comprising 85 PLA I housing units was produced, in part, on a purchase-upgrade basis and partly as new-build. These inclusion housing units are intended for isolated people, single-parent families, etc.
- A halfway house for 20 people (PLA I) was produced by La Nantaise d'Habitations. This operation is situated in Rue Littré in Nantes. This halfway house intended for fragile, ageing people will be managed by Anef Ferrer.
- A halfway house for 14 people (PLA I) was produced in the former Clinique Saint-Augustin situated at 78 avenue Paul Bellamy in Nantes. The operation has been sold prior to completion by Eiffage Immobilier to Habitat et Humanisme, which will be responsible for its management. This inter-generational operation also includes student housing units, housing units for ageing people, and family housing units with social support.

The Metropolitan Participative Housing Initiative

The Metropolitan Participative Housing Initiative was launched in early 2016. Around 20 sites have been identified. Its aim is to develop a new way of living in one's home by involving future occupants in the process, from programme design to commissioning and future management of the premises or communal areas.

Construction of the first operations will begin in summer 2019. Around 10 projects are currently being arranged with the groups of residents, the contracting authorities and the contractors. The first building permit applications were lodged in 2018.



Upgrading the existing private housing stock

Since 2010, education and awareness-raising initiatives have been conducted to meet the challenges of improving the energy efficiency of existing buildings and halving greenhouse gas emissions by 2030. Nantes Métropole has accordingly developed an initiative to help co-owners living in residential blocks undertake energy-efficiency renovations. The initiative relies on a team of "climate" advisors who develop a methodology for co-owners' associations and help the co-owners to identify the financing options available to them.

Moreover, Nantes Métropole is managing housing improvement operations (OPAH) and Public Interest Programmes (PIG) to address specific issues or combat insalubrity and fuel poverty and ensure that rent for private housing remains affordable.

Highlights in 2018 included:

- the launch of a new comprehensive system of financial assistance, "Mon Projet Renov", following the adoption of the energy transition roadmap. It has been allocated a budget of €56m for the period 2018-2015;
- continuation of ongoing initiatives: housing renovation programmes on the Confluence and Bords de Loire co-owned building complexes, PIG "Habiter Mieux". A total of 984 housing units were financed by the National Housing Agency (ANAH) and/or Nantes Métropole (50 more housing units than in 2017);
- ongoing work on operational prevention and support for co-owned buildings (POPAC) in Grand Bellevue / Nantes / Saint-Herblain. In 2018, this included two collective workshops and a "theatre-debate" workshop.

Key figures for 2018

- Production of social housing: 1,979 housing units financed by PLUS and PLA I loans, of which 94% are family homes;
- 555 housing units financed with PLS low-interest loans;
- 590 housing units financed with PSLA (social lease-ownership loan);
- 984 homes upgraded under the policy of upgrading the older private housing stock with funding from ANAH and Nantes Métropole.

ACCOMMODATING ROMA COMMUNITIES

For many years, Nantes Métropole has been working to improve accommodation provisions for Roma communities. Up until 31 December 2016, it worked through an inter-municipal cooperation structure (*Syndicat mixte*).

The legal obligations for accommodating Roma populations are set out in the "*Schéma départemental d'accueil des gens du voyage 2010-2016*", which in late 2018 was carried over for the period 2018-2024. This document also lays down guidelines for housing Roma who have settled in the local area and helping them claim their rights.

Improving the range of accommodation options by creating new sites

As of late 2018, the metropolitan area had 17 sites with a total capacity of 205 pitches.

As regards the encampment requirements identified in the departmental plan for accommodating Roma communities, six sites have yet to be built to provide an additional 70 pitches.

Highlights in 2018 included:

- the operation to reconstruct/extend the Orvault site with 16 pitches, planned to open in mid-2019;
- the operation to construct the site in La Chapelle-sur-Erdre with 15 pitches, planned to open in September 2019.

Accommodating the major summer passages

In summer, large groups of travellers (50 to 200 caravans) travel together to attend family or religious events. The State manages the area's accommodation facilities by coordinating and authorising the arrival of these large groups. Nantes Métropole's participation consists in providing sites with suitable amenities. In 2018, only one site with the capacity for large groups could be fitted out; it is situated in the municipality of Bouguenais; 14 pitches were authorised for three successive groups (this represents 30 days of presence on the site, available between the months of May and September in 2018).

Developing housing for settled Roma people

Under its Local Housing Programme (PLH), Nantes Métropole is pursuing its commitment to developing suitable housing, more specifically for families identified in the departmental plan for housing Roma people. Against this backdrop, Nantes Métropole launched an initiative in 2011 to find out more about the settlement locations and situations in the local area, and develop housing solutions that cater to the families' needs.

Highlights in 2018 included:

- construction work continued on a suitable housing operation in Nantes (six homes) and a study into suitable housing operations (seven homes) in Bouguenais continued;
- work began on creating five family plots for rental in Rue Robert Schuman in Saint-Herblain (estimated budget of €550,000 ex. VAT);
- work began on upgrading the family rental plot situated at 7 Chemin Moulin des Marais in Nantes (estimated budget of €300,000 ex. VAT).

Note that the Act of 2 January 2017 on equal opportunity and citizenship assigned a new field of responsibility to metropolitan areas, viz. "The metropolitan area exercises, by right and in lieu of the

member municipalities, the following responsibilities: "create, develop, maintain and manage (...) family plots for rental..." (Art. L5217-2 CGCT). Nantes Métropole is accordingly now in charge of developing, maintaining and managing the family plots for rental in its local area.

Testing interim housing for vulnerable people

Following the "Mini Maousse 6" micro-architecture competition run by the Cité de l'architecture et du patrimoine on the theme of temporary housing, the City of Nantes offered the use of the site at 58 Quai Wilson to test the award-winning prototype called "Wood Stock". This experimental, innovative housing concept meets sustainable development requirements. It showcases the local timber industry and brings a novel answer to the very real housing needs of people in hardship. In 2018, proposals were made for fitting out and developing the concept to facilitate its use in a potential future development. Wood Stock's innovative building principle using weight-bearing blocks of wood has been enhanced and validated through testing.

Easing access to rights and citizenship

The following initiatives were taken in 2018:

- a project was launched to produce a booklet to help the residents of encampments claim their rights;
- the innovative "Economic Interest Group" (EIG) project led of eight metal collectors from the Roma community was consolidated. The EIG recuperates metals from the waste collection centre in Rezé under an agreement with Nantes Métropole. Based on recommendations arising from an appraisal, Nantes Métropole intends to pursue the initiative in a bid to achieve the Roma community's economic inclusion alongside initiatives for its social inclusion;
- Social mediation initiatives are continuing on the City of Nantes' family plots and on the conurbation's caravan sites, including the Aparthé initiative over a friendly cup of coffee. This type of mediation fosters social contacts and helps Roma communities claim their rights;
- The municipalities of Sainte-Luce-sur-Loire and Vertou are continuing to receive guidance and support to help them approach the communities concerned and raise awareness of the importance of schooling.

Changing perceptions of Roma communities

The Tissé Métisse, SRI and ADGVC associations, which receive support from Nantes Métropole for their operation, are continuing their initiatives for the Roma population.

An outstanding project led by the departmental association of Roma citizens (ADGVC44) and the JetFM association is the production of an audio documentary, based on the testimonials collected for the commemoration (in April 2019) of the internment of Tsiganes during the Second World War.

Key figures in 2018

- 17 caravan sites for Roma communities in the Nantes Métropole area, with a total capacity of 205 pitches;
- 1 adapted housing operation under construction (Nantes) and 1 under study (Bouguenais);
- A prototype of interim housing for vulnerable people has been tested and assessed in Nantes.

DETERMINED, CONCERTED ACTION FOR UNIVERSAL ACCESSIBILITY

Driven by the Equal Opportunity Act of 11 February 2005, Nantes Métropole's disability and accessibility projects are structured around four strategic priorities that underpin the 2014 - 2020 action plan:

- facilitate universal access to public services;
- build an inclusive society;
- promote user-centric public action;
- revitalise and strengthen public action.

These four strategic priorities lay the foundations for factoring disability into public policy, including travel, public space, housing and employment.

Consolidating the Metropolitan area's consultative bodies

Metropolitan universal accessibility commission (CMAU) This body, which was officially renewed on 2 February 2016, gives substance to universal accessibility by opening it up to the representatives of the elderly and the business community, in addition to the metropolitan vice-presidents and associations representing people with disabilities.

The CMAU holds three plenary meetings a year and meets regularly for special-focus workshops (on transport, public space, major urban projects, etc.).

Universal accessibility group 24 (GAU 24) Composed of mayors and elected representatives responsible for disability policy in the conurbation's 24 municipalities, the GAU 24 discusses and propagates metropolitan and municipal policies on disability and accessibility.

In 2018, the GAU 24 decided to focus on the subject of inclusive housing and held a dedicated event at the Chamber of Commerce and Industry in June 2018, attended by the local partners working in the field of disability and housing.

Improving accessibility in the Metropolitan area

- **Ensure pedestrian continuity with unencumbered footpaths:** in 2016, Nantes Métropole adopted an accessibility master plan (SDA). Over 2016 and 2017, it mapped out 600 km of itineraries throughout the 24 municipalities and assessed their accessibility for pedestrians. It then draw up a multi-year programme of work to achieve full accessibility. In 2018, 37% of the itineraries are already wheelchair-accessible and 48% are accessible for people who are blind or visually impaired. €1.76 was spent on this initiative in 2018.
- **Offer universally-accessible public transport and demand-responsive transport services:** Nantes Métropole's public transport accessibility master plan (SDAPTC) was approved in October 2015 by the Metropolitan Council. On top of the investments in the main lines, €250,000 are invested each year in making the existing stops fully accessible. At end-2018, 100% of the TAN's public transport vehicles, 82% of the bus stops and 100% of the tram stops were accessible, making Nantes' public transport network one of the most accessible in France.

In 2016-2017, a cooperative assessment of the Proxitan demand-responsive transport service was carried out, yielding an evaluation, along with supporting arguments and recommendations. They have been taken into account by the delegatee under the new

delegation of public service contract for 2019-2016. Note: the project for the Nantes train station and its immediate surroundings continues to be the focus of special attention and regular consultation with the members of the CMAU.

- **Receive users in suitable premises:** this is part of the Ad'AP planned accessibility agenda, which extends over nine years and concerns 82 public-access buildings (ERP) and facilities that are open to the public (IOP). At the end of the first three-year period of the Ad'AP (end-2018), €5.6m had been invested. A total of 65 public-access buildings had been made accessible, taking the accessibility rate of Nantes Métropole's building stock to 79%.

A guide to universal signage was also produced in partnership with users and associations, along with a catalogue of pictograms. This best practice has earned the city recognition: Nantes was awarded the APAJH Trophy in the category for community-minded and public service cities, in December 2018.

Nantes Métropole also supports associations that manage establishments, in particular by making available premises and plots of land.

Lastly, the equality mission is helping to change public perceptions by offering a range of simulation-based awareness-raising aids, such as a suit for simulating ageing, a wheelchair itinerary, various displays, etc.

Key figures for 2018

- €1.76m invested in making pedestrian itineraries fully accessible in the 24 municipalities;
- 65 of the 82 public-access buildings and facilities open to the public (i.e. 79%) are now disabled-accessible;
- 82% of the TAN's bus and tram stops are accessible.

PULLING TOGETHER TO MAKE ALL DISTRICTS EQUAL

One of the strategic challenges facing an attractive, growing conurbation such as Nantes Métropole is to nurture solidarity among the different areas forming the conurbation. This is the role of city policy: to analyse and rectify discrepancies and gaps between some working-class districts and the rest of the conurbation.

For instance, special attention is given to 25 districts in Nantes, Orvault, Rezé and Saint-Herblain, among others, to strengthen the public policies implemented as regards social, urban and economic issues. City policy must also involve voluntary-sector stakeholders and local residents, essentially through the Community Councils in these priority districts.

Involving and supporting residents and partners

Nantes Métropole's city policy and urban renewal mission involves the city's partners and supports residents of the priority districts through a variety of actions:

- managing and directing the city contract through participatory and open governance. To guide participation, a collective made up of associations and Community Council representatives has produced a booklet setting out the management and coordination arrangements, along with a charter governing each participant's contribution. An inter-association group was set up in 2018. It combines 17 associations involved in the various city contract working groups. This inter-association structure is now covered by an agreement and has been assigned operating resources to consolidate its coordination and participation. Nantes Métropole has supported the emergence, renewal and development of the Community Councils present in the four cities: Nantes, Saint-Herblain, Orvault and Rezé (by involving the local resource centre Résovilles). To make it easier for all of the partners to participate, Nantes Métropole built a digital platform dedicated to the contract, the local areas and the stakeholders. This platform reports on the latest developments, the initiatives and discussions conducted, and is a gateway to the city contract resources;
- the "city contract" call for projects, managed jointly by Nantes Métropole and the State, in collaboration with the towns concerned. Every year, the call for projects supports over 300 initiatives led by associations that are solidly rooted in the priority areas and help strengthen social bonding, education, integration, improvements to the quality of living and healthcare, etc. In 2018, the stakeholders began thinking about the call for projects' objectives and operating procedure;
- The "Habitants & Cadre de Vie" support fund. Twelve new or ongoing projects received support in 2018. Examples include:
 - in the Dervallières district (Nantes):
 - the association La Luna, an artists' collective that has set out to sustain artistic creation at the centre of everyday life, in public space, with residents' active involvement;
 - the association Consommation Logement et Cadre de Vie (CLCV, for Consumption, Housing and Living Conditions), which raises residents' awareness of sustainable development and responsible consumption with a view to enhancing the district's image and fostering social diversity;

- the association "Le Dernier Spectateur", which uses research, creation and what can be learnt from and through art, and advocates residents' participation while at the same time showcasing their practical expertise.
- in the **Port Boyer** district (**Nantes**):
- the Fédération des amis de l'Erdre (FAE), which runs environmental awareness-raising workshops for 7-10-year-olds, and guides and supports them as they create community-minded initiatives;
 - the Union départementale de la Confédération Syndicale des Familles (UD CSF), which aims to improve people's health through healthier eating with the communal garden project. A place for working and living together in harmony, fostering social diversity and involving residents directly in their living environment.
- in the Bellevue and Grand Bellevue district (Nantes and Saint-Herblain):
- the association "Environnements Solidaires", which offers residents in difficult circumstances solutions for finding work again, revolving around a range of neighbourhood eco-citizenship initiatives;
 - the association "Vous Êtes ici" helps residents learn about the urban environment, about living together more harmoniously in the districts by showcasing their heritage, developing cultural mediation and initiatives to learn about the environment and sustainable development;
 - the association Arlène, which leads creative sewing and embroidery activities in public spaces to help residents, and in particular women, feel more at home in their public environment;
 - the Union Nantaise du Commerce de Détail (UNACOD), which helps make the Place Mendès-France more vibrant and more attractive for shoppers through social bonding initiatives.
- in the Sillon de Bretagne district (Saint-Herblain):
- the ASEC socio-educational and cultural association aims to develop social diversity. It works with residents to construct areas and initiatives where people can live together in harmony, especially through activities conducted outside in the community.
- in the Plaisance district (Orvault):
- the Plaisance collective, a youth action centre that guides and supports young people's creative initiatives and projects. It works on building relationships of trust and respect, essential for maintaining law and order in the district.

Ongoing work on drawing up urban renewal projects

Nantes Métropole's agreement for the project design phase of the new national urban renewal programme (NPNRU, 2014-2024) was drawn up in 2015 and signed in March 2016. It has made it possible, with financial support from the ANRU (the national urban renovation agency) and the Caisse des Dépôts, to undertake a programme of studies and assign the necessary engineering resources to drawing up projects for the districts of Grand Bellevue (Nantes and Saint-Herblain), Nantes Nord, Bottière Pin-Sec (which the ANRU has designated projects of national interest) and Les Dervallières (project of regional interest).

In 2018, discussion continued on the implementation of these comprehensive projects, which involve a set of measures at the crossroads of housing, employment, economic development and social cohesion policies. The President of Nantes Métropole presented these projects to the ANRU's

investment committee in September. During this last phase, the committee approved the proposed transformation strategy for each of the districts, the ensuing multi-year programme of operations and the funding required to initiate the projects. The signature of the multi-year agreement in the course of 2019 will make it possible to launch all of the urban, social and economic operations.

Nantes Métropole is also supporting refurbishment and redevelopment projects for social housing in other districts (Château in Rezé and Plaisance in Orvault), by harnessing the public policies of the cities and of Nantes Métropole.

Harnessing public policies

As part of its responsibility for "city policy", and with a view to ensuring social and local cohesion, Nantes Métropole, which jointly steers the city's contract with the State, ensures that all public policy is fully harnessed and coordinated in areas that are more vulnerable or have fallen behind. The initiative involves the municipalities concerned, Nantes Métropole and the other partners to this 2015/2020 contract.

In anticipation of an extension of the contract term, the city policy and urban renewal mission carried out a mid-term review of the contract. The report covers all of the topics that structure the contract and proposes five "action keys" for the period 2018/2022. These recommendations are: 1. rely more on residents' expertise, 2. test, then, if the results are positive, 3. deploy, 4. systematise the "go to" steps and 5. be more responsive by making it easier for residents and the stakeholders to take initiatives. These tasks will be incorporated into the extended contract in the course of 2019.

In accordance with its areas of responsibility and depending on the priority districts' specific issues, Nantes Métropole acts in the following areas:

- employment and integration;
- economic development;
- housing and urban renewal;
- travel;
- the energy and digital transitions;
- living conditions.

However Nantes Métropole also plays a role in inter-municipal coordination for certain issues that are not directly within its areas of responsibility (health, culture, access to law, etc.), thereby bolstering cooperation between towns for the benefit of the priority districts.

In order to facilitate public policy and adjust it to the actual situation on the ground in the local areas, the socio-demographic, economic, social and health data has been updated. This has helped better understand these districts and eliminate stereotypes about their residents' situation. It also encourages Nantes Métropole to adjust the resources it allocates to the actual needs of the local areas and their residents.

The rioting that occurred in Nantes' districts at the beginning of summer 2018 prompted Nantes Métropole, with its partners, to re-examine the procedures and content of the targeted actions, especially in the city's working-class districts. This re-examination, carried out jointly with the elected representatives, association stakeholders, community councils and services, will be incorporated into the updated city contract in 2019. This contract will concern all of the conurbation's districts.

Improving Local Urban and Social Management (GUSP)

The Local Urban and Social Management network plays an active role in 15 social housing districts in Nantes, Orvault, Rezé and Saint-Herblain. Nantes Métropole coordinates and manages the network of GUSP stakeholders. A number of tools are available to improve the initiatives taken or complement the assessments of the districts:

- the survey conducted in early 2018, polling 2,550 households about their living conditions (third edition of the GUSP residents barometer survey). The partners were given feedback from the survey in 2018;
- support for GUSP stakeholders in the form of training sessions;
- technical and financial support for neighbourhood projects aimed at improving living conditions, along with the involvement of residents and local stakeholders in these projects.

TAKING ACTION TO ENSURE GENDER EQUALITY

Gender equality is an important stake for the local area because it drives social cohesion at metropolitan level. Nantes Métropole committed to the issue by signing the European Charter for Gender Equality in Local Life at the Metropolitan Council meeting on 13 April 2015.

This ambition has prompted it to pay particular attention to the issue of gender equality and strive to make concrete progress on this matter in the metropolitan area.

Within the framework of the public policies implemented by Nantes Métropole, several measures were implemented in 2018 across various fields (employment, economic development, tackling violence, public procurement, human resource management, etc.). These projects demonstrate Nantes Métropole's resolve to achieve gender equality.

Fostering women's entrepreneurship in the local area

Nantes Métropole is committed to supporting women's entrepreneurship by giving women the means to act. As it stands, only 32% of businesses in France are started by women. To address this inequality, the City of Nantes' gender equality council, in collaboration with Nantes Métropole, organised a community workshop in 2016. The following year, the workshop drew up a roadmap to foster women's entrepreneurship in the local area. In 2018, a monitoring group was created to track its implementation, further develop the actions and measure their results and impacts. Nantes Métropole's evaluation mission undertook an assessment in partnership with students from the Audencia business school, to track progress by using targeted indicators.

Moreover, a number of initiatives were set up in 2018: a dedicated communication plan in March, drawn up by the information and community relations department (DGIRC) and published on the website, social media and in Nantes Passion; a more substantial "women's entrepreneurship" component in the event programme (Profession'L trade show, entrepreneurs' trade show); the "Osez entreprendre" scheme, expanded to pay greater attention to women entrepreneurs.

Support for associations combating violence against women

Associations working to combat violence against women receive financial support from Nantes Métropole. These organisations help victims of domestic violence, family violence and incest or sexual abuse. They offer support so that women can be taken in charge and helped to escape the cycle of violence, fear and guilt. These associations also develop awareness-raising and information activities for the general public, professionals and institutions.

Workplace equality: a core concern in the local authority's human resource management

Issues of gender equality in the workplace are included in the workplace equality, diversity and gender balance initiative conducted in municipal and metropolitan departments. The workplace equality charter circulated to all employees lays down three objectives:

- promote equality for all within the departments;
- strive to reflect population diversity in the departments;
- over and above the statutory guarantees, and for equivalent levels of competency, ensure effective gender equality in the workplace by fostering a better gender balance in jobs and levels of responsibility.

The diversity certification process implies taking action to prevent any form of discrimination and in particular discrimination on the grounds of gender. On 20 October 2017, Nantes Métropole confirmed and extended the diversity certification obtained in 2015. In 2019, all municipal and metropolitan departments will also seek equality certification.

The flagship initiatives conducted by the City of Nantes and Nantes Métropole with regard to gender equality in the workplace include the following:

- recruitment guide: non-discrimination and promotion of gender equality and gender balance (working of job advertisements, feminisation of job titles, etc.);
- actions to promote job fields in the regional public service (job forums, work placements and apprenticeships, etc.): 374 people completed work placements at Nantes Métropole in 2018, including 150 women; there were also 31 apprentices in 2018, including 9 women;
- the in-house awareness-training group on gender balance and diversity runs sessions in the departments (460 employees received awareness training in 2018);
- the in-house "workplace equality" communication plan includes a component on gender equality in the workplace;
- a number of measures to ease parenthood and promote a sound work/life balance have been brought in since 2013 (PGJE, CESU, child minding, etc.);
- with regard to career management and compensation under the PPCR (career and compensation protocol) and the RIFSEEP (public service pay schedule), measures are in place for Categories A, B and C;
- a forum for dialogue in the departments, drawing together the trade unions and volunteer employees (around 50 civil servants, people on work placements, contract civil servants and temporary staff). This is the in-house advisory board on equality, diversity and job desegregation, one of whose working groups draws up proposals for action to promote gender equality in the workplace;
- the new "workplace equality" training cycle, under which 264 new staff members were trained in 2018.

Selected figures and extracts from the 2018 Comparative Status Report

- 3,806 civil servants work for Nantes Métropole, including 1,409 women: in the majority technical branch, the proportion of female employees has increased slightly: up 1 point on 2016 (14% of women in 2018 as against 13% in 2016);
- In 2018, the total number of days' training delivered stood at 10,106 days for 2,810 employees trained, broken down into 35.9% of women and 64.1% of men. These figures are close to the gender breakdown of the permanent workforce (37% of women and 63% of men);
- The average net compensation for women has been rising since 2014. The average net compensation of men has been stagnating since 2017;
- There are gaps between the average net monthly compensation of women and men. Since 2017, a slight increase in the gaps has been observed, with a gap of €124 in 2017 and a gap of €176 in 2018. These gaps are in women's favour, given that there are more women in Category A and a lot of men in Category C;
- The great majority of part-time workers are women. The proportion of male part-time workers has decreased slightly (-0.4 point by comparison with 2016: 20% of the part-time positions taken are held by men).

Combating repeat offending, preventing criminality and facilitating access to law

As part of its "delinquency prevention" role, Nantes Métropole supports around 10 associations engaged in supporting people in prison and their families, combating repeat offending and providing assistance to victims of crime. In 2018, this support amounted to a total budget of over €220,000 (including Nantes Métropole's contribution to the Maison des adolescents).

Along with the City of Nantes, Nantes Métropole works in partnership with the Ministry of Justice to give work in its departments to people ordered to do community service or pay compensation.

Lastly, access to law - in the sense of bringing justice closer to residents to help them defend their rights - is a key area of the "social cohesion" component of the city contract. After the situational analysis conducted jointly by the State and Nantes Métropole, which was widely shared with the other partners, the question of overall coordination, means of financing and Nantes Métropole's involvement was raised. In agreement with the conurbation's 24 municipalities, it was decided in late 2018 that Nantes Métropole should sit on the departmental council for access to law (GIP CDAD). Nantes Métropole's effective participation from 2019 will allow the GIP to work on achieving better coverage of the local area in terms of facilities for access to law.

ACCOMMODATING MIGRANTS FROM EASTERN EUROPE AND ELIMINATING ILLEGAL CAMPS

Since 2007, the Nantes Métropole area has been confronted with the emergence of makeshift camps occupied illegally by migrant populations from Eastern Europe, essentially from Romania. In 2018, over 1,900 people were living in these conditions in camps in Loire-Atlantique, the vast majority of which were in the Nantes conurbation. In September 2016, Nantes Métropole decided to undertake, alongside the State, the Department and the 24 municipalities, a partnership-based solidarity initiative underpinned by two principles: humanity and firmness. Accordingly, the following steps were taken:

- a humanitarian approach that seeks to settle migrant families from Eastern Europe in a situation of lawful residence to help them make plans for their life in France, autonomy in the transition to common law, a comprehensive inclusion programme that will give them access to schooling, training, employment and medical care;
- a firm approach to illegal occupations of either public land (belonging to the municipalities or to Nantes Métropole, by systematically initiating eviction proceedings) or privately-owned land (by giving the owners guidance and support with lodging a complaint).

Against this backdrop, provisions were made in February 2018 for the urban-planning and social management (MOUS) of the situation for a three-year period. It is managed by Nantes Métropole on behalf of the municipalities and delegated by public contract to the Association Saint-Benoît Labre. The objectives are to make a survey of the illegal camps in the conurbation and detect opportunities for integration paths. The aim is also to conduct social diagnoses (for households at 15 of the area's 40 priority camps) and provide guidance and support with social aspects for around 500 people.

Moreover, the various stakeholders associated with the issue undertake specific complementary actions in their areas of responsibility, in particular with regard to interim housing (interim integration sites).

Key figures in 2018

- A survey was conducted at the 40 illegal camps;
- Social diagnoses were undertaken for 58 households (193 people, including 94 minors) living on three campsites identified as priority sites under the urban-planning and social management provisions (MOUS);
- Social support was provided to 46 households (185 people, including 96 minors);
- Alternative accommodation was found for 6 households (12 adults and 11 children);
- Nantes Métropole provided financial support through investment and operation for the management of 5 interim integration sites (with capacity for accommodating 65 households (around 245 people)) created by volunteer municipalities in their local area.

CLIMATE PLAN AND ENERGY TRANSITION

Nantes Métropole's climate objectives are to reduce greenhouse gas emissions to 30% below the 2003 per capita level by 2020. The objective for 2030 is to achieve a 50% reduction in GHG emissions. The year 2018 was marked by the adoption of the energy transition roadmap following the Great Debate on the Energy Transition, and the adoption of the Local Climate, Air and Energy Plan at the end of the year.

Nantes Métropole is helping to secure energy supply and curb the associated expenses. The authority is continuing its efforts to improve its local management schemes, develop local renewable energies and improve coordination between its energy networks (electricity, gas and heating).

A faster pace and new outlooks for energy and the climate

Nantes Métropole stepped up its "energy and climate" actions in 2018 by adopting the energy transition roadmap and the new Local Climate, Air and Energy Plan.

Adoption of the roadmap and first operational applications

In February 2018, the energy transition roadmap was adopted by a unanimous vote. It consists of 33 commitments, divided into three broad categories:

- an energy transition that benefits 100% of residents, especially in terms of housing and mobility: renovation of private and public housing, efforts to combat fuel poverty, interconnecting transport, 30 km/h speed limits, cycle routes, etc.
- an energy transition that makes use of 100% of local renewable resources: urban energy and plant canopy, renewable energies, decarbonised urban planning, urban cool islands, circular economy, zero waste, biowaste, sustainable agriculture, etc.
- a 100% citizen-led energy transition that empowers the city's residents to take action: 100 citizen labs, actions in the municipalities, involvement of business stakeholders, open conference on the energy transition, single energy transition laboratory, etc.

In late 2018, around 20 resolutions were approved by the Metropolitan Council for the roadmap's practical application, more specifically with regard to the funds allocated to energy renovation, travel and waste prevention. The open conference on the energy transition, composed of around 30 local stakeholders, was held in June and tasked with monitoring and assessing implementation of the shared roadmap.

Adoption of the Local Climate, Air and Energy Plan

The Local Climate, Air and Energy Plan (PCAET) unanimously adopted by the Metropolitan Council in December 2018 contains a number of shared challenges: reducing greenhouse gas emissions, building a city that contains more plants and making it more resilient to extreme climate events.

The PCAET revolves around an "attenuation" component taken from the energy transition roadmap and designed to reduce greenhouse gas emissions, along with an "adaptation" component for coping with the climate changes to come.

To make the "adaptation" component clearer and easier to understand, Nantes Métropole opted for a novel approach focused on dealing with unforeseen events. The strategy is built around two main focus areas: a basic event - the rise in temperatures - "adapting to a hotter climate", and the second event, "preparing for new types of climate events". Data sheets are drawn up for each focus area, depending on the issues identified: fostering behavioural changes and solidarity; protecting health

and improving quality of life; protecting the local area's resources and enhancing resilience; and managing crises.

Another strong point for Nantes Métropole is that the plan is flexible and adaptable: the idea is that of a "design directive" for use with the "mitigation" component, hinging on two decisive factors: our ability to curb greenhouse gas emissions (at international level) in view of the local impact; advances in climate science.

Continued efforts to educate, advise and support citizens:

- provided information and advice to citizens through the Energy Information Point run by Alisée (a regional association providing information and awareness-raising on energy and the environment), which handled over 1,500 enquiries in 2018;
- Alisée continued to run the "Positive-Energy Families" challenge: 130 households in 19 teams were involved in the 2018-2019 challenge in the metropolitan area (this was the first challenge for 80% of the participants);
- organised three "housing energy" forums with the Energy Information Centre in the municipalities of La Montagne, Carquefou and Thouaré-sur-Loire, along with around 60 workshops in the "eco-apartment" or the resident's home or in the municipalities in the conurbation. These initiatives helped reach nearly 1,300 people;
- in June 2018, brought in a full range of energy-renovation subsidies, Mon Projet Renov, to gradually achieve the target of no poorly-insulated buildings whatsoever. An annual budget of €7 million was approved to help finance the energy renovation of 1,000 homes per year (either detached houses or co-owned buildings). Low-income households are eligible for higher subsidies;
- expanded the resources used to advertise and inform households about the new support measures, in connection with the website www.monprojetrenov.fr. The new communication tools produced and distributed; the poster campaign in the city; the information meetings with professional stakeholders and the press conferences prompted over 5,000 people to log onto the website and quickly obtain information about the subsidies available. Interested citizens were able to talk to independent advisors and/or companies to finalise their renovation projects.

New resources for supporting energy-renovation projects in co-owned buildings

On the strength of the expertise it has developed since 2011, Nantes Métropole was awarded the "energy renovation" call for projects issued in 2015 under the "Ville de Demain" programme managed by the Caisse des dépôts et consignations on behalf of the State. Over €6 million in funding was obtained through the Investments for the Future Programme (PIA) to renovate private co-owned buildings to low-energy building standards.

In early 2019, all of the subsidies available under the PIA programme had been granted, making Nantes Métropole the most dynamic area in the programme.

The following results were achieved with funding from the PIA programme:

- 43 co-owned buildings (2,970 housing units) received funding for energy and architectural audits (€176,000 in subsidies);
- 37 co-owned buildings (2,646 housing units) received funding for their low-energy building project-management studies (€391,000 in subsidies);
- 20 co-owned buildings (1,052 housing units) voted to approve low-energy building renovation work (€5.52m in subsidies).

Nantes Métropole's support for co-owned buildings has measurable impacts on the local area, such as:

- homes with added value and comfort (roof insulation can increase the indoor temperature in winter by +1.5°C);
- energy savings;
- a reduction in CO₂ emissions;
- more business for building contractors.

The trend started by this programme is set to continue through 2019, thanks to the introduction of the local subsidy programme, "Mon Projet Renov".

A determined public energy policy

Over and above the objectives of reducing greenhouse gas emissions, Nantes Métropole must ensure energy supplies to the local area and its inhabitants over the short, medium and long term in a fast-changing energy context. Its public energy policy focuses on two strategic priorities designed to bring about the energy transition.

Develop and optimise public energy services at grassroots level:

- raise the energy transition goals;
- optimise the management of public electricity and gas supply services;
- continue developing affordable renewable heating;
- guarantee public services close to users.

Shrink the area's energy footprint, use less energy and produce more energy:

- manage the technical and financial aspects of energy use in local government assets (lead by example);
- make existing housing more energy efficient;
- raise the proportion of local renewable energies in the area's consumption to 50% by 2050.

To implement these two strategic priorities, the following steps were taken in 2018:

1. **work continued on linking energy policy and urban development** in order to factor energy transition goals into the new Local Urban Planning scheme (PLUm);
2. Nantes Métropole continued its action at national level to win acceptance of the principle of an "energy organising authority" (AOEn). This is a necessary condition for the energy transition to succeed, through gradual implementation of the organising authority at metropolitan level:
 - **electricity distribution**, i.e. its transport on low and medium-voltage lines from the substations (which interface with the transmission grid) to customers' electricity meters. This operation is granted by Nantes Métropole to Enedis (formerly ERDF) and represents 3,143 GWh of electricity distributed, 5,810 km of grid, 366,711 supply points and over 2,800 photovoltaic producers connected;
 - **gas distribution**, i.e. its transport on low and medium-pressure networks from the source points (which interface with the gas network) to customers' gas meters. This operation has been conceded by Nantes Métropole to GRDF and represents 3,799 GWh of gas distributed, 6,628 km of network and 179,316 supply points connected;

- **experimentation and deployment through the Datalab Energie project.** This joint initiative by Enedis, Atlanpole and Nantes Métropole aims to make energy data available by end-2019 to serve a dual objective: enable the development of services that will contribute to the energy transition, and bolster Nantes Métropole's energy planning;

- **a partnership framework agreement for 2017-2020** signed by Nantes Métropole and Enedis. Outside the framework of the above-mentioned concession contracts for public electricity distribution, ENEDIS and Nantes Métropole are working together to develop the local area and its major current and future challenges: the digital transition, the energy transition, the societal transition and new energy governance.

District heating networks are gaining ground

Three objectives:

- to give as many inhabitants as possible access to secure and affordable energy: by 2020, more than 30,000 homes will be connected to district heating networks; half of them will be social housing managed by the City of Nantes;
- to enable the development of locally-produced renewable energy;
- to reduce greenhouse gas emissions (68,000 tonnes of CO₂/year in 2020, i.e. 10% of the total target of the Local Energy and Climate Plan).

Heating networks already in operation:

- **the Centre Loire heating network:** under a public service delegation contract, renovation and extension work on the Centre-Loire district heating network has cleared another hurdle. At end-2018, the network had a linear distance of 85 km, which is 60 km more than in 2012. This network is fuelled mainly by heat generated by waste incineration at the waste treatment and recovery centre at La Prairie de Mauves, then by wood and lastly gas, as a backup fuel. When necessary, the Malakoff district heating plant (30 MW wood-burning plant) is supplemented by the Californie plant, the gas-fired section of which has been in operation since end-2016. The new wood-fired Californie plant will be brought online in spring 2019. The network currently services 17,900 homes and numerous facilities, running on around 71% of renewable and recoverable energy. Further extensions will be made over the coming years and the rate is expected to reach the target of 84%.
- **the Bellevue district heating network:** this network, which is operated by the Nadic company, was servicing over 9,600 homes in the west of Nantes and in Saint-Herblain at end-2018 and comprised a total linear distance of 23 kilometres of piping. The heat is produced by a 13 MW wood-fired plant commissioned in March 2013. Over 51% of the energy it injects into the network is generated from renewable fuels;
- **the heating network supplying the ZAC de la Noë in Saint-Jean-de-Boiseau:** operated by Idex Energies, it is fed by a wood-fired heating plant and services 140 homes. Its management is now been included in the new Nord Chézine public service delegation contract;
- **the heating network supplying the ZAC de la Minais in Sainte-Luce-sur-Loire:** operated by Idex Energies, this network is fed by a wood-burning plant and services 250 homes. Users and the operator regularly communicate through a users' committee to enable continuous improvement of the service;
- **the Nord Chézine network:** work is still in progress on this major new heating network. A new public service delegation was attributed to Idex Energies for the development of the Nord Chézine heating network. Supplied primarily by the Arc en Ciel waste processing and recovery plant, the network will cover Nantes' northern districts (Bout des Landes, Bout des

Pavés, Boissière), Orvault, Saint-Herblain and possibly Couëron, providing heating for nearly 10,000 homes. It will be brought online in 2019.

A local area that produces renewable energy

The Renewable Energies action plan will significantly increase the production of local renewable energies, while at the same time reducing the use of fossil fuels, which emit substantial amounts of CO₂.

Nantes Métropole is aiming to cover 50% of the local area's consumption with local renewable energies.

The year 2018 was marked by the continued development of a "Sun" plan, bolstering the initiatives already undertaken in recent years by the solar industry:

- ongoing work on the online solar land registry platform developed by In Sun We Trust;
- beginning of the construction phase of the photovoltaic solar-energy plant at the MIN. The Legendre Energie company (formerly Armorgreen) was selected to develop this 31,000 m² project, which will be the largest rooftop solar power plant in the West of France. This plant, which will make the building self-sufficient in energy, is financed by its own crowdfunding scheme. Note: Nantes Métropole is now a joint shareholder in the operating company, MIN à Watt;
- work has begun on building the photovoltaic shade structures in the P2 and P3 carparks at the Zénith venue. The project is managed by Legendre Energie;
- work has begun on building the ground-mounted solar photovoltaic park at the former Tougas rubbish tip. The project is managed by the company VSB Energies.

Nantes Métropole is also active in the other renewable energy sectors. For example, it has signed an agreement to sell a plot of land to the company Vol-V Biomasse for the construction of a methane gas plant.

Standard-setting local authorities, regardless of size

A shared energy advisory service (CEP) was launched for local authorities on 1 January 2018. The aim is to provide guidance and support to local authorities with fewer than 10,000 residents in the metropolitan area by pooling the services of an operational energy advisor, who can:

- carry out the energy assessment, analyse and track the energy consumption of local authorities' building stock;
- analyse buildings and recommend ways to reduce energy consumption;
- guide and support local authorities' energy efficiency projects.

Nine of the 13 eligible municipalities joined the scheme right from the beginning: Basse-Goulaine, Bouaye, Brains, Indre, La Montagne, Les Sorinières, Mauves-sur-Loire, Saint-Aignan-Grandlieu and Sautron.

Energy-efficient street lighting

In 2018, Nantes Métropole continued working towards energy-efficient street lighting by applying the principle of "rational lighting" and energy sufficiency. It continued to work on adapting lighting to actual requirements. Lighting levels in some areas have been dimmed where appropriate by:

- replacing old light bulbs and lamps with energy-efficient alternatives;
- continuing to switch off lighting completely in some districts where the municipalities are happy to do so;

- limiting middle-of-the-night street lighting to: main streets, town centres and business districts.

Nantes Métropole also monitors developments in innovative lighting solutions (LEDs, motion detectors, etc.).

Key figures in 2018

- 2,031 enquiries made to the Energy Information Point;
- More than 3,900 homes in co-owned buildings were given guidance and support during the year in view of thermal renovation work.;
- The Nantes Métropole area has 5,810 km of electricity networks, 2,324 km of gas networks and 110 km of district heating networks (at end-2016);
- Over 36,000 homes are connected to district heating networks and the same amount of heating is supplied to public buildings;
- 67% of the heating distributed by the district heating networks comes from renewable and recoverable sources (wood and waste);
- 130,000 m² of photovoltaic solar panels were installed across the local area at end-2017;
- 950,000 MWh of electricity had been produced from renewable and recoverable energies at end-2017.

URBAN TRAVEL: A NEW URBAN TRAVEL PLAN UNDER DEVELOPMENT

The Urban Travel Plan 2018-2017 follows on from the "Plan for 2010-2015 - Outlook for 2030" and has been constructed around the new Metropolitan Urban Planning Scheme (PLUm) and the Local Housing Plan (PLH).

Following the Metropolitan Council's approval of the procedure for its establishment with the municipalities, the partners involved and the local area's stakeholders (associations, business professionals and stakeholders, citizens), a process of co-construction has been in progress since 2017. The aim is to collectively define the plan's goals, focus areas and courses of action.

The Urban Travel Plan: a consultative process

A broad-based community consultation was organised to draw up the Urban Travel Plan's action plan in 2017. With the backing of a support mission, around 100 institutional and non-institutional stakeholders (including a citizens panel) took part in seven workshops and meetings.

After the diagnosis and evaluation carried out in late 2016, two major steps were undertaken:

- **defining the Urban Travel Plan's stakes, objectives and directions**, clarified to yield fresh avenues for action;
- **defining the action plan**: a number of workshops (developed by type of public) were run to further develop Nantes Métropole's ambitions and actions. An environmental evaluation of the Urban Travel Plan was carried out to factor the environmental issues into the construction of the actions and establish an environmental report, which is a mandatory appendix to the Urban Travel Plan.

Note also that communication initiatives had to be undertaken to ensure participation and publish the results of the planning and discussions.

The travel studies and initiatives conducted in 2018

Various studies and initiatives were carried out in order to contribute to implementation of the new Urban Travel Plan and Nantes Métropole's projects. They include the following:

- the "Public transport strategy for 2025-2030" studies, which resulted, in early 2017, in the definition of a new vision for transport by Nantes Métropole's elected representatives. This will be translated into a Public Transport Scheme when the future Urban Travel Plan is implemented;
- implementation of a river freight service on the Loire estuary by means of a purchasing consortium consisting of Nantes Métropole, the Grand Port Maritime de Nantes Saint-Nazaire and the Communauté d'Agglomération de la Région Nazairienne et de l'Estuaire (CARENE). This resulted in the establishment of the Flexiloire river freight service on 1 January 2018;
- a commitment was made, through the energy transition roadmap approved by a vote in February 2018, to speed up the development of the fleet of clean vehicles in the metropolitan area. This applies to both public transport (the e-busway in 2019, an exclusively VNG bus fleet by 2020, excluding charters) and the vehicle fleet operated by the City of Nantes and Nantes

Métropole (all household waste collection vehicles will run on VNG by 2030 and 20% of the light vehicle fleet will be replaced by electric vehicles each year);

- a call for projects in sustainable urban logistics (FLUX) was launched in September 2018 with a view to deploying new goods transport and storage solutions in the city that are more environmentally friendly and respectful of the living environment;
- it was announced that the regulations on inner-city deliveries in Nantes would be completely overhauled in 2019 then in 2020. Initially, a broader delivery time frame would be brought in for clean vehicles. Later, the rules would be made clearer and more understandable for all delivery stakeholders;
- studies into fostering the growth of alternatives to single-occupancy car travel as part of the metropolitan area's urban development and attractiveness. Eventually the idea is to offer solutions for improving car travel by reorganising traffic routes or creating facilities (excluding infrastructure). Flagship initiatives include:
 - a study into travel in the Beautour-Vertonne sector in Vertou;
 - a traffic map study (Indre);
 - a travel study on Carquefou;
 - a study of the urban core, aimed at articulating the various urban projects to come;
 - a study of travel in the north-east quadrant (the study of the Erdre and Loire area in progress);
 - support for various urban-planning studies: route de Vannes (in progress), Atlantis (in progress);
 - note that a strategic study was conducted into travel routes and parking in the centre of the metropolitan area in 2017/2018. It aims to define a travel plan for 2030-2035 to control car traffic and promote alternative modes of transport to the private car.

ORGANISED, COMPLEMENTARY AND ACCESSIBLE TRAVEL NETWORKS

Nantes Métropole has an efficient and coordinated public transport network, made up of TAN buses and trams, Lila coaches and TER regional trains, servicing all of the municipalities in the conurbation.

Over 143 million journeys were made on the network during the 2018 year, representing an increase of over 5% in public transport usage. Overall coverage has increased to 28.8 million km.

Highlights in 2018:

- **A new delegation of public service contract for the operation of public transport was awarded to Semitan for the period 2019-2025.**

The procedure begun in 2017 continued with a major phase of negotiation between the applicant and Nantes Métropole during the first semester, concluding with approval of the choice of SEMITAN at the Metropolitan Council meeting in October.

This new contract, concluded for a period of seven years, expands the delegatee's scope of operation by assigning it the role of mobility coordinator.

Accordingly the new operator is expected to have a more multi-modal vision, with a view to complementarity (rather than competition) between mobility services, in order to highlight all of the mobility services available in the metropolitan area.

- **The public transport offering increased significantly in September 2018**

To cater for the increased demand, **an additional 800,000 km were added to the transport network in September 2018**. This included the commissioning, in September 2018, of the first Chronobus peripheral cross-city line (the C20) and the extension of the TAN network beyond the ring road with the C9 and C3 lines (an investment of €9.7m with over 430,000 km/year).

- **Renovation of the Duchesse Anne/Gare Nord tramway infrastructure:** €15m of work in 10 weeks over summer 2018; an innovative new track fastening system ("*la voie nantaise*"); "nature in the city" with the line set in lawn as part of the overall development of the train station's northern forecourt; new passenger shelters at the tram stops Gare Nord- Jardin des Plantes and Duchesse-Anne Château.

- **Concerning projects currently under study:**

- **delivery of the first e-busway in December 2018** and finalisation of the plans for the CETEX Vertonne technical centre prior to the beginning of work in 2019;

- **replacement of the tram carriages:** the tram's design features will be defined on the basis of community dialogue and broad-based involvement of the SEMITAN employees concerned. A resolution adopted in December for launching a negotiated procedure for their purchase;

- **extension and connection of lines 1 and 2, Phase 2 / CETEX Babinière:** a general contractor has been selected and a call for proposals launched for the architectural and engineering team for the building component. Over and above the public transport aspects, the project also includes landscaping, connections with soft transport modes beyond the ring road, and the issues inherent in the energy transition (photovoltaic panels on the rooftop);

- **renovation of tram line 1 in the Feydeau-Commerce area:** support for the public space remodelling project, which involves moving the bus interchange situated south of Ile Feydeau and preparing for the tram infrastructure renovation (summer 2020);
- **tram services in the metropolitan area's urban core:** the studies have been launched in coordination with the stakeholders leading the urban project on the urban core (Île de Nantes, Petite Hollande-Bords de Loire, Pirmil-les-Isles) and in line with the project to broaden the Anne de Bretagne bridge;
- **replacement of the rolling stock:** articulated buses and vehicles for people with reduced mobility. Note: with the energy transition goals, suppliers have been encouraged to propose alternatives to diesel engines for all types of vehicles.

Key figures in 2018

- 5) Nantes Métropole boasts a tram network covering 45 km and a Busway network covering 7 km;
- 9 Chronobus lines cover a 95 km network;
- 44 bus lines cover the conurbation;
- 2 Navibus ferry lines;
- Traffic on the TAN network in 2018: 143 million journeys, an increase of over 5%.

ENCOURAGING SOFT TRANSPORT MODES

Through its successive cycle plans, Nantes Métropole continues to encourage and cater for cyclists.

In 2018, the French cycling federation (FUB) named Nantes as the second most cyclable city in France (in the category of cities with a population of over 200,000) based on the results of its national "cyclability" survey.

This result, based on over 113,000 responses, including 2,865 from cyclists in the Nantes metropolitan area, recognises the work done since the first cycling plan in 2010 and encourages the local authority to pursue its policy of promoting cycling.

An ambitious cycle plan for 2015-2020

Through its second cycle plan (2015-2020), adopted in February 2016, Nantes Métropole intends to invest €50m in promoting an ambitious cycling policy.

Over the course of 2018, 19.8 km of cycle lanes and cycle paths were built in the metropolitan area, bringing the total length of cycling infrastructure to 570 km (140 km of bike paths; 236 km of bike lanes; 16 km of "Chaucidou" shared-space traffic lanes; 67 km of bike superhighways; 38 km of shared-use paths (bike and pedestrians); 43 km of greenways; 20 km of bus lanes and 6 km of mixed-traffic zones).

The main lines of the bike plan:

Parking facilities

In 2018, there were 1,346 secure, sheltered parking spaces or open-access spaces in "véloparcs" or park-and-ride (P+R) facilities, along with 1,341 bike parking spaces in covered parking facilities in the city centre or at the train station.

There are also four "Vel'box" closed bike garages (i.e. 8 spaces) and 108 spaces in two collective facilities (for 96 bikes at the harbour station and 12 at Porte de Rezé).

Safety measures

These initiatives relate to public spaces. In 2018, 19.8 km of new cycle paths and network upgrades enhanced the area's bike routes:

- a new one-kilometre path (for pedestrians and bikes) along the Quais Rhuys, Hoche and Doumergue, along with 900m of bike lanes in the adjoining streets;
- bike lanes in Rue Félix Faure and Rue Alsace Lorraine in Rezé; in Rue des Usines in Nantes and in Rue du Général de Gaulle in Saint-Sébastien-sur-Loire;
- bike lanes in the ZAC d'Ar Mor and in the upper section of Boulevard Charles Gautier in Saint-Herblain.

New services

Of all the initiatives aimed at making cycling easier for citizens, long and short-term bike hire services such as "Bicloo", "Métropole à Vélo" and "Vélocampus" remain very popular.

In 2018:

- the number of annual Bicloo subscribers reached 10,000. Bike rentals averaged nearly 3,911 per day from Monday to Friday and 3,453 from Monday to Sunday;

- the Cyclotan service lets public transport subscribers rent folding bikes ;
- the "Métropole à vélo" service offers 144 standard bikes and 118 electric bikes for hire at the Commerce car park (NGE). 30 standard bikes and 20 electric bikes for hire at the Gare Nord car park (EFFIA);
- 7,463 subsidies for the purchase of an electric bike have been granted since the scheme was launched in 2010. This includes 382 subsidies (up to €300) for private individuals to purchase a cargo or family bike (since the scheme was launched in 2012);
- the introduction of financial assistance of up to €400 for professionals travelling by bike. At end-2018, financial assistance totalling €43,525 had been granted for 109 bike purchases.

On conclusion of a competitive bidding process conducted in 2017, JC Decaux was appointed to be the sole operator of the metropolitan area's bicycle hire services. The new services were installed in September 2018 and include new "bicloo" bikes ("bicloo plus").

The new bike rental offering is now operational and offers: 1,230 self-service bikes and 123 bicloo docking stations. There is now secure bike parking management and a new package, "mon bicloo", offers 1,000 bikes for long-term rental in 2018, 70% of which are electric bikes. This long-term rental option has been enormously popular.

4) The school eco-mobility scheme

The purpose of the school eco-mobility scheme is to limit the use of the car for travel between home and school and encourage alternative modes such as walking, cycling, using a scooter or public transport.

In September 2018, 33 schools had joined the scheme, including 13 schools in Nantes and schools in another 18 municipalities (La Chapelle-sur-Erdre, Orvault, Les Sorinières, Sainte-Luce-sur-Loire, Le Pellerin, Saint-Herblain, Sautron, Mauves-sur-Loire, Bouaye, Couëron, Indre, Basse-Goulaine, Saint-Sébastien-sur-Loire, Carquefou, Brains, St-Jean-de-Boiseau, Rezé and Bouguenais). After a trial phase and a review, two temporary pedestrian zones have been added to the scheme in the morning at the Bois Saint-Louis school (Orvault) and the Ledru Rollin school (Nantes).

Nantes Métropole organised a stand to promote the different mobility-related services at events held in various schools: Pierre Mara (Indre), Jules Verne (Mauves sur Loire), Paul Bert (Couëron) and Longchamp (Nantes).

5) Extension of the major north/south cycle route along the banks of the Erdre

Throughout 2017, a community consultation was organised on this project to define the cycling facilities between Quai Ceineray and the Tortière bridge, passing through the Sully, Barbusse, Motte Rouge bridge and Boulevard Van Iseghem sectors.

Work has been under way on the project since September 2018 and is expected to finish in July 2019, providing an additional two kilometres of dedicated, separate bike paths. The project also includes redevelopment of the pedestrian areas and new landscaped areas.

6) Easier crossings over the ring road

For greater safety and an uninterrupted flow of traffic, a bridge exclusively for soft modes of transport (pedestrians and bikes) is being built over the highway at the Porte de Rezé. Delivery is scheduled for spring 2019.

7) Ongoing work on the Saint-Herblain-Nantes expressway

To eliminate a number of discontinuities in the cycle path, Boulevard Léon Jouhaux has been remodelled over the last two summer periods. The area around the Égalité tram stop was also redesigned in summer 2018.

Key figures in 2018

- 570 km of cycling infrastructures: cycle paths and lanes, bus lanes open to bicycles, Chaucidou shared-space traffic lanes, shared-use paths (cycles/pedestrians), greenways, cycle superhighways and mixed-traffic zones.
- -2,687 off-street parking spaces, including 1,925 secure spaces and 762 self-service spaces.

ENCOURAGING AND SUPPORTING A CHANGE IN TRAVEL HABITS

To develop more eco-friendly mobility, we need to raise users' awareness of the environmental impacts of their travel choices and create a desire to change. To this end, Nantes Métropole informs, advises and supports inhabitants, based on their individual needs.

Providing cross-channel information tools and open data

To ease access to alternative means of transport to single-occupancy car use, Nantes Métropole has worked with various regional and national partners to provide a journey-planning tools for the general public:

- [Destineo](#) is a multimodal information system managed by the Pays de la Loire Region (including the departments) and 12 transport organising authorities such as Nantes Métropole and CARENE. This journey planner is one of the digital tools offered by SEMITAN and Nantes Métropole (websites and mobile apps, along with "Nantes Dans Ma Poche") to help online users plan their journeys or find out when the next bus will arrive at their stop, for instance, using live information. Version 4 of the tool was launched in December 2018;
- [Géovélo](#), is a route planner specifically for cyclists, using a variety of criteria (fastest route, safety, interest for tourists, etc.). Géovélo gives users information about the location and real-time availability of the bicloo bike hire stations. Cycle paths and bike parks are also included in the tool, which also lets users contribute to the maps by rectifying or adding information;
- [Questgo.fr](#) is the latest in-house car-sharing service. This open-source app is publicly available, free, spans several regions and relies on user solidarity. Launched by Nantes Métropole in July to replace the website [covoiturage-nantesmetropole.fr](#), the tool was developed and managed on a partnership basis with five other major local authorities in Western France;
- 38 "Mobility" data sets are available through the [data.nantesmetropole.fr](#) platform, which helps local apps find their audience. Some, such as [Naonedbus](#), have become very popular with users in Nantes;
- a partnership with the national platform [transport.data.gouv](#) to facilitate more extensive use of the data and help more users become familiar with the metropolitan area's mobility services. The partnership also lets users add to and check the data sets.

Financial assistance for bike purchases

Since 2010, Nantes Métropole has been encouraging local citizens and businesses to buy bikes, either standard or electric, to boost cycling in the area. In 2018, the local authority subsidised the purchase of 1,345 electric bikes, 195 family (cargo) bikes and 48 bikes for professional purposes, amounting to a total of €447,360 in subsidies.

The mobility plan

A quarter of all journeys made in the conurbation are related to work. The commute is also, on average, the longest journey of the day and is in large part the decisive factor in the choice of transport used for other daily journeys. Hence the importance of taking action in this area.

Since 2004, Nantes Métropole has accordingly been helping employers and their employees find the most suitable mobility solutions. The aim is to minimise single-occupancy vehicle use and encourage people to walk, cycle, use public transport and carpooling schemes.

The support provided by Nantes Métropole as part of the mobility plan initiative covers four main areas:

- assistance and advice;
- discounts on mobility services for employees and employers;
- information and awareness-raising initiatives for employees;
- training of employers' mobility officers.

In late 2018, a new form of guidance and support for businesses was adopted. It offers a range of tailored systems, depending on the extent to which each company wants to be involved in promoting sustainable mobility to its staff. There are three levels:

- Pack 1: information and benefits;
- Pack 2: event marketing;
- Pack 3: mobility guidance.

All told, at end-2018, 401 employers with a combined workforce of over 100,000 employees were involved in a mobility pack approach (70% had chosen Pack 1).

Mobility management schemes for business hubs

In addition to providing sustainable mobility support for individual employers, Nantes Métropole has also undertaken two major joint operations (mobility solutions with the employers) at two business hubs: La Chantrerie (Nantes) and the Jules Verne innovation hub (Bouguenais and Saint-Aignan-de-Grandlieu). The challenge is to map out more responsible mobility solutions for commuting by getting employers to work in tandem with the local authority on rolling out joint initiatives. The aim is to change mobility habits to factor in the energy transition.

Eco-mobility for school pupils: "transport and travel" event and learning expedition to the limited-traffic zone (ZTL)

In 2018, to raise awareness of eco-mobility issues right from primary school level, Nantes Métropole once again asked the Écopôle association, which runs educational initiatives on the environment and sustainable development, to organise a series of events. These eco-mobility discovery tours are part of the roadmap towards the ecology and energy transitions.

In 2018, 27 "transport and travel" modules and seven visits to the ZTL in the centre of Nantes were organised for 27 classes from 17 public schools and five private schools from 11 municipalities in the metropolitan area. A total of 677 pupils attended these events (including 148 pupils who attended both of the complementary events).

Travis the travelling snake

To encourage parents and their children to come to school by other means than their car, Nantes Métropole organises a fun, European eco-mobility challenge called "Travis the travelling snake". In 2018, two schools, in Couëron and Saint-Herblain, took part with 361 pupils from 14 classes.

SécuriTan: classroom activities run by TAN

Offered to CM2 pupils in schools that are on the school transport runs, SécuriTan is an educational initiative about safety and citizenship. It raises awareness about going to school using public transport, school buses and bicycles. Organised by Nantes Métropole, the initiative is run by SEMITAN mediators. The one-hour sessions are split into two parts:

- the first is theory-based, with the screening of a film on the various modes of transport available to CM2 pupils in the Nantes conurbation: public transport (how to behave at bus stops, near and inside the vehicle, the rules, etc.), cycling and walking;
- the second is practical, with a Q&A session exploring the public transport network, its use and safety.

Results for 2018: 79 classes from 42 schools, i.e. 1,932 students, took part in the initiative.

These tools and events are available for all public and private schools in the metropolitan area, but priority is given to the establishments that elect to take part in Nantes Métropole's eco-mobility scheme for schools.

The schools involved are also offered specific events, such as bike-riding lessons for pupils in CM1 and special eco-mobility awareness-raising events organised for parents and children. In 2018, 33 schools were involved in the scheme for bike-riding lessons or other learning events.

Key figures in 2018

- 401 employers were involved in a mobility pack initiative, representing over 100,000 employees reached;
- 1,588 subsidised bikes (standard, electric or family) for a total value of €447,360;
- 38 "Mobility" data sets made available through the data.nantesmetropole.fr platform;
- 27 classes (677 pupils) from the conurbation took part in a transport and travel learning event and/or a ZTL visit;
- 79 classes from 42 schools (a total of 1,932 CM2 pupils) took part in the SécuriTan classroom sessions.

CALMING TRAFFIC

To enhance the appeal and vibrancy of its urban hubs, Nantes Métropole is seeking to slow down traffic throughout the conurbation.

It continues to make a special effort to improve road safety and make schoolchildren more safety-conscious. Nantes Métropole's municipalities have accordingly increased the number of go-slow areas with a 30 km/h speed limit.

Soft transport modes are making inroads

Traffic management plays a major role when it comes to changing habits and fostering a better coexistence and mobility between various road users in urban areas.

The aims are:

- to ease the flow of traffic, particularly by lowering speed limits;
- to give greater priority to soft transport modes (cyclists and pedestrians).

In 2018:

Following on the work done since 2012, the local municipalities have continued to develop go-slow zones limited to 30 km/h and mixed-traffic zones limited to 20 km/h.

Traffic in the conurbation

In 2018, average total traffic in the conurbation had decreased 2% by comparison with 2017. However, there was an increase in average journey time of 4.5% in the morning and 2.5% in the evening.

Pooled operating system tools

Since February 2014, the government department responsible for managing the ring road around Nantes has had a control post known as "Sextan" (traffic operating system for the Nantes conurbation).

This system manages all traffic flows on the ring road in real time. Its interconnection with Nantes Métropole's control post made it possible to respond more effectively to traffic across the conurbation and direct users using the equipment in place (cameras, variable message signs, measurement systems).

It also provides a more effective way of managing the closure of the east ring road due to flooding and the Cheviré bridge due to high wind or a serious accident.

Road safety

Nantes Métropole chose to consolidate its commitment to road safety by setting up a Metropolitan Road Safety Commission in June 2016. The Commission meets once a year and is chaired by Claudine Chevallereau, vice-president of Nantes Métropole for road safety and attended by representatives of Nantes Métropole, the 24 municipalities, State departments, the Departmental Council, the police, the Loire-Atlantique Departmental Fire and Rescue Service (SDIS 44), the Ministry of Education and the voluntary sector. The commission aims to be a new forum for discussion, sharing and the pooling of initiatives.

Nantes Métropole introduced a system for studying accidents in the conurbation with the aim of analysing the impact of new road features on road safety.

It also helps develop road safety awareness campaigns for schoolchildren, and regularly addresses the population in cooperation with its partners (Éducation nationale, gendarmerie, road safety organisation, etc.).

Key figures for 2018

- 3,772 km of roads (all categories combined), including 501 m on private land and 41 km managed by the département.
- Traffic on the Senghor bridge: 13,575 vehicles a day.
- Traffic on the Tabarly bridge: 13,157 vehicles a day.
- Traffic on the Cours des 50 Otages: 5,645 vehicles a day.
- Other pedestrian zones: 20 km, or 22 ha.
- Total length of cycle lanes and paths: 552 km (excluding zones with a 30 km/h speed limit).
- 30 km/h zones: 585 km (based on traffic orders) and 140 km of roads limited to 30 km/h. These zones include: west town-centre district in Couëron, Garenne, Chaume and Briandière districts in La Montagne, Châtaigniers and Convention districts in Nantes (among others).
- Mixed-traffic zone (roads on which pedestrians have priority): 16 km (according to traffic orders).
- Restricted Traffic Zones (ZTL): 2 km;
- Roundabouts: 1,144, of which 50 are double roundabouts.
- North-south traffic at Place Graslin: 4,363 vehicles a day (before redevelopment: 25,000 vehicles a day at Place Graslin).

A GROWING RANGE OF PARKING SOLUTIONS

Parking is one of the key levers of Nantes Métropole's travel policy. It is used to regulate the use of private cars in the conurbation. In recent years, a range of measures has been used to regulate supply and demand for parking in various areas: the city centre, the vicinity of the train station and the outskirts of Nantes.

Park-and-ride facilities: increasingly available near the public transport network

Outdoor or multi-storey car parks, with open or controlled access, Park-and-Ride (P+R) car parks allow drivers and cyclists to leave their cars, motorbikes and bicycles in secure parking and continue their journey by tram, BusWay, train, Chronobus or Navibus.

Work has begun on expanding the P+R car parks at Porte de Vertou and Neustrie. These operations will provide an additional 1,000 parking spaces for public transport users by 2020.

The new access-control system for managing P+R car parks (15 P+R and 4 P+R to come) has been operational since 5 December 2018. It provides preferential access to public transport users (holders of a Libertain pass will continue to enjoy free access) and will charge other motorists not using public transport. These measures have freed up parking spaces for motorists wanting to travel in the metropolitan area by tram, busway, train, chronobus or navibus.

To coincide with the extension of the C9 Chronobus line, the Quintaine P+R, with a 49-space capacity, is now operational; it is situated in Rue du Général Leclerc in Basse-Goulaine, near the C9 line's terminus.

The Duguay Trouin P+R (83 spaces, including two for people with reduced mobility) has been operational since February 2019. It caters for users of the C3 line and is situated near Boulevard Charles Gautier in Saint-Herblain.

In 2019, new parking spaces will be available at the Couëon train station (120 P+R spaces reserved for TER passengers). The north car park (83 spaces) will be opened in April 2019 and the south car park (37 spaces) in August 2019.

The extension of the P+R at Bouaye, again on the train network, is scheduled for 2020. An additional 190 spaces will be available for passengers.

End-2018: a total of 59 P+Rs are dotted across the metropolitan area. This represents 7,297 car parking spaces and 1,201 bicycle spaces, for a total of 8,498 parking spaces.

Car parks in the city centre and at the train station

Work on the Descartes car park began in early 2018. This 250-space car park is part of a plan to redevelop and renovate the former prison site. It is scheduled for public opening in February 2020.

On the Île de Nantes, the car park construction project at the École du Design is under way. The programming information has been defined for providing a 500-space car park in the heart of the Creative District in summer 2022.

The train station's north car park is now known as the Gare Château. The exterior has undergone extensive cleaning to restore and showcase the building's heritage value. The outer walls will be covered in plants as the final step in its embellishment, carried out in conjunction with the upgrading of Nantes' train station.

Work has also begun on the future car park to the south of the station. This 500-space facility is scheduled to open in December 2019. Situated at the centre of an urban project that includes housing and offices, the new car park will make it possible to clear the Malakoff slipway (currently used as an open-air car park) for tourism, cultural and recreational purposes.

Between 2017 and 2018, the use of multi-storey and outdoor car parks remained stable, even declining very slightly (by 1.6%). In 2018, 3,888,839 visitors used the car parks in the city centre and at the station.

Key figures for 2018

- 59 P+R car parks with 7,297 parking spaces including 1,186 spaces for bicycles;
- 15 multi-storey car parks and 14 open-air car parks, totalling 10,417 parking spaces in Nantes city centre, including 1,266 bicycle spaces.

REDUCING, SORTING, COLLECTING AND RECYCLING WASTE

Nantes Métropole is nearing the end of the three-year "Territoire zéro déchet, zéro gaspillage" programme to eliminate all rubbish and waste, which it began in 2015. This so-called Codec contract was signed with Ademe under the law on the energy transition for green growth. The waste prevention and reduction efforts will continue, nevertheless, in particular through initiatives written into the Energy Transition roadmap following the Great Debate.

Now Nantes Métropole must meet the national target of reducing the production of household and similar waste (excluding rubble) to 10% below its 2010 level by 2020, with a target of 400 kg/inhabitant. The production of household and similar waste (excluding rubble) has gone from 427 kg/inhabitant in 2016 to 421 kg/inhabitant in 2018. If we look at the figure from 2010, the reduction per inhabitant comes to 5%.

Nantes Métropole's Energy Transition roadmap, approved in 2018, has set an ambitious target of reducing household waste by 20%/inhabitant by 2030. This has been translated into 33 commitments, nine of which concern waste.

The 2014-2020 action plan

The plan features three main strategic priorities:

- turn citizen-users into enlightened stakeholders and facilitate access to services;
- align public waste management policy on the energy and ecological transition;
- offer an effective service that is tailored to the local area's goals.

The waste management department has been ISO 9001 certified since May 2015. This certification, granted by the French Organisation for Standardisation (AFNOR), sets out the requirements for the establishment of a quality management system. In particular, they must be part of a continuous process of improving practices with the aim of meeting users' needs and expectations as adequately as possible. In order to maintain this quality certification, which attests to the degree of control of activities, a renewal audit will be carried out in April 2018.

Implementing the 2018 action plan

With a view to implementing the action plan and meeting its objectives, 2018 was marked by renewed initiatives in the following areas:

Continuation of the "Zero waste local area" initiative

Over the 2016-2018 period, the initiatives of the "Zero waste local area" are part and parcel of a more circular economy across the local area and aim to achieve the national goal of achieving a 10% reduction in the amount of household and similar waste produced by 2020.

The project addresses all forms of household waste (household refuse, recyclable waste and waste taken to waste collection centres) as well as similar waste (i.e. waste produced by shopkeepers, tradespeople, companies, public bodies, etc. that is collected at the same time as household waste).

In 2017, several initiatives took place as part of the "Zero waste local area" project.

To **raise public awareness of the importance of reducing and sorting waste**, waste coordinators went to meet the public where they shop and live:

- inauguration of the European Week for Waste Reduction on 17 November in the Atlantis shopping mall in Saint-Herblain, with a display village and a waste collection bin that the public could visit (1,000 people were reached);
- 3 "Grande table de l'agglo" anti-food waste villages were set up, in Indre, in Nantes during the Nantes Food Forum, and in Atlantis Saint-Herblain, to raise awareness of the importance of food and of reducing waste (1,500 people were reached);
- events were held to raise public awareness of reducing and sorting waste, at around 15 events, including "Complètement Nantes" (April-June), the zero-waste village during the "Journée citoyenne de la propreté" (15 September) and the "Transfert" cultural event in Rezé;
- event for the 3rd year of a "zero-waste families" challenge, coinciding with the Energy Challenge. The number of citizens involved has doubled from 73 in 2017 to 150 in 2018, to tackle the challenge of reducing their waste over a three-month period (-41%);
- the event programme, which is held every year during the European Week for Waste Reduction (17-25 November 2018) by the group of associations led by Écopôle (35 associations). It was held in the metropolitan area and featured practical workshops, visits, forums and information stands on responsible consumption, waste reduction and repairing objects. 1,800 people took part;
- the initiatives led by the team of waste ambassadors in the districts (2,000 people concerned), in schools (1,600 pupils) and through door-to-door approaches (3,700 people).

To guide and support professionals in an eco-approach:

- event organisers were given pointers for finding more eco-responsible solutions. For the sixth year, one of the main focuses of the metropolitan area's eco-events programme aims to help 40 organisations hold "zero-waste events". This will involve training the organisers, diagnosing their practices, supporting their actions in the field (donations of unsold food items, non-throw-away beakers, composting, sorting, raising public awareness, etc.). Note the [reseau-eco-evenement](#) website, which is dedicated to providing this sort of support;
- the "Entreprises réduisez vos déchets, réduisez vos dépenses" initiative to help businesses reduce their expenses by reducing their waste, jointly led by the DGDEAI and the waste department. This is the 7th year of participation with the CCI, the Chamber of Trades and Ademe. In 2018, the initiative continued to support interested businesses with reducing and managing their waste. It coordinated the operation to compost unsold food products by retailers in Sainte-Luce-sur-Loire and organised professional gatherings on food waste.

To develop the composting of food waste and bio-waste, as well as the shredding of plants:

- financial assistance for individual composting and vermicomposting: since 2010, financial assistance from Nantes Métropole has helped nearly 17,332 households purchase composting equipment. This includes 753 new households in 2018. This financial assistance was increased on 1 November 2018: for the purchase of an individual composter, the amount reimbursed has been increased from €20 to €30, and for the purchase of a vermicomposter, the amount reimbursed has been doubled from €20 to €40;
- support for the Compostri association, which helps inhabitant with collective, community composting: 40 new sites have been opened in the districts (there are now 210 composters available to 2,962 households throughout the local area), including 49 schools;
- 104 events organised;

- 12 plant shredding operations conducted in 7 local municipalities in liaison with the municipalities, including 7 "Christmas tree" operations (150 m³ of plants collected and shredded).

To **develop the re-use of objects left at waste collection centres** and in the districts:

- re-use spaces have been set up at 8 waste collection centres/ecopoints (out of the 15 centres in Nantes Métropole), in partnership with 3 associations and integration organisations (L'Homme Debout, La Ressourcerie de l'Île, Stations Services). Bins for collecting textiles are present at all waste collection centres and ecopoints;
- projects led by the voluntary sector (roaming re-use bus, ressourceries® in the districts, repair workshops, etc.) with the help of the metropolitan area's action plan to collect large household items and illegal tipping (2014-2020) in social-housing districts;
- action by social landlords, who provide premises for pre-sorting, the collection of objects and bulky items, the establishment of partnership, the involvement of ambassador-residents. Three waste-collection areas were opened by Nantes Métropole Habitat in 2018.

Key figures for waste collection in 2018:

- 6,414,090 translucent yellow plastic bags and 14,332,900 Tri'sac bags were distributed in 2018;
- Trisac recorded: 156 distribution operations in the districts, 54,228 people collected bags from the Comptoir du tri, around 60 relay points distribute bags when users run out, and 7 points sell bags;
- Translucent bags were distributed door-to-door and at 24 municipal and metropolitan relay points;
- 1,170 underground waste bins (including 149 installed in 2018), 1,242 recycling bins dotted around the local area, including 926 for recycling glass.

In the south-western area (La Montagne, Le Pellerin, Saint-Jean-de-Boiseau):

- distribution of 3,500 bins for recyclable waste in the municipalities of Saint-Jean-de-Boiseau and Le Pellerin, previously collected in yellow bags, to reduce the heavy physical workload on waste collection personnel. It also aims to harmonise and improve the service provided to the user in the area serviced.

Optimised treatment facilities

As part of the drive to manage waste streams, including paid-for waste, household refuse, waste from selective waste collection, unsorted waste and green waste are treated at the Arc-en-ciel and ALCEA plants (delegation of public service contracts).

- **Arc-en-ciel:** energy recovery unit, sorting centre and the production of recovered solid fuel in Couëron;

The Couëron delegation of public service contract will end on 28 February 2019. A new delegation of public service contract was signed with the Geval company, which is a subsidiary of Veolia, after six months of negotiations and adjustments. The 15-year contract is the outcome of a partnership with the CARENE (community of conurbations in the Saint-Nazaire and Estuary areas) in the form of a group of concessionary authorities. The new scheme aims to optimise the economic, technical and environmental aspects of the existing

and future installations, while keeping within the framework of the Energy Transition for Green Growth Act of 2015.

Energy performance achieved in 2018: 87.5%.

- **ALCEA:** an incineration plant, Tri'Sac separation centre and transfer dock at La Prairie des Mauves.
- The renegotiations conducted in 2017 with ALCEA and ERENA (operator of the district heating network) resulted in an optimisation of the energy recovery by ALCEA from 2018 onwards: 178 GWh sold to the heating network in 2018, as against 169 GWh in 2017 and 6,421 MWh of electricity produced in 2018 as against 3,149 MWh in 2017.

Energy performance achieved in 2018: 71% (as against 57.9% in 2017).

Other streams, from collection centres among others (asbestos, rubble, wood, paper, etc.), are handled as part of public contracts.

Key figures

Between 2010 and 2018:

- The quantities of household waste collected decreased (from 249.7 kg/capita/year in 2010 to 214.3 kg/capita/year in 2018);
- The quantities of packaging and papers collected decreased (from 53.2 kg/capita/year in 2010 to 48.77 kg/capita/year in 2018);
- A 12.5% increase in the amount of glass recycled (from 28 kg/capita/year in 2010 to 32 kg/capita/year in 2018);
- An increase in the amount of furniture collected (3,142 tonnes collected in 2018);
- 210 collective composting facilities installed;
- 17,332 individual composters subsidised.

WATER CYCLE MANAGEMENT

Nantes Métropole coordinates public water policy on drinking water, wastewater and rainwater treatment, and the restoration of aquatic environments. This is referred to as the water cycle. Nantes Métropole acts on behalf of the conurbation's 24 municipalities.

Since 2001, Nantes Métropole has been the organising authority for the mains drinking water supply and waste water treatment for over 630,000 inhabitants. It has opted for a combination of water management systems across the local area. This makes it possible to provide certified high-grade water and a single tariff for all users.

Subsidised water rates: extension of the trial period

Nantes Métropole guarantees access to water for everyone. It applies:

- a single water rate, applied across all 24 municipalities since 2006;
- a guaranteed low price, thanks to its combination of management systems.

To consolidate its solidarity-based approach, Nantes Métropole has been taking part in a nationwide trial scheme since 2016, designed to ease access to water and apply a subsidised pricing system (the "Brottes Act" of 15 April 2013).

Each inhabitant of the metropolitan area is now entitled to a new right: the guarantee that no more than 3% of their income will be spent on paying their water bill, for a reasonable consumption of 30 m³ per person per year. This amount is calculated after factoring in the household income and the composition of the family.

In 2018, over 6,500 households were entitled to pay only the subsidised water rates, with the total subsidies paid amounting to €391,370. This trial scheme has been extended up until April 2021 nationwide, after which the scheme will be evaluated.

La Roche water treatment plant continues to upgrade its facilities

This water treatment plant was built in the 1970s. It produces roughly 40 million m³/year (85% of the metropolitan area's consumption and 45% of the Loire-Atlantique region's consumption). To maintain the quality of the water and guarantee its supply over the next 40 years, Nantes Métropole has undertaken a vast programme of upgrades to the value of €83m (ex. VAT) that will stretch through to 2021.

After the first facilities have been brought online in late 2017, demolition work will commence in late 2019 to allow construction work to begin on the last two facilities: the new sand filters, an ultraviolet lamp process that will provide additional protection against parasites, and pumping of the treated water. They will be commissioned in late 2022.

Alongside the programme of work, Nantes Métropole, in partnership with the CSTB (the building industry's scientific and technical centre), is continuing to monitor the water's organoleptic quality through its waste taste observatory.

Every quarter, 11 volunteer inhabitants of the metropolitan area taste samples of water collected at different locations across the local area. This ground-breaking test combines physiological measurements with the standard sensory reactions picked up by sensors, including heart rate, perspiration and cutaneous microcirculation. The aim is to detect whether the water's taste changes during the work and be able to adjust the process if necessary. Based on the initial results, work began in 2018 on setting up a quality indicator for the taste of the water.

Leak detection...

Between April and October 2018, 650 leak noise loggers were installed in the centre of Nantes. Every day at 3am, these connected devices record the noise in mains water pipes for a few minutes and send an alert if any unusual noise is picked up. The complexity of the network in the city centre (high density and substantial meshing) oblige Nantes Métropole to use this type of methods. After analysing the results on an online platform, investigations in the field can verify and pinpoint the leak. This system has already helped detect around 20 leaks in the Nantes city centre.

On the scale of the metropolitan area, the aim is to achieve a network yield of 86.2% of water produced reaching the subscriber, as against 84.4% in 2017.

At the same time, the other area of intervention is the deployment of an active property management policy of renovating the drinking water networks. Nantes Métropole will continue gradually increasing its capacity for renewing the drinking water network so that it can keep the average age of the network relatively low.

Stepping up self-monitoring in wastewater treatment

With the same view towards gaining a better knowledge of malfunctions in the wastewater networks and infrastructure – to gain in operational efficiency and limit the impacts on the natural environment – self-monitoring systems have been installed at 57 discharge stations and storm overflows and four water treatment plants. The aim is to better control overflows, using the associated supervision software.

Supplying drinking water to the north-west area of the department

A 70 km pipeline between the La Contrie station and La Baule has been brought into service. The aim is to anticipate a water shortage in the local areas comprising CARENE and CAP Atlantique (in particular during the summer periods). Since late 2018, the Loire-Atlantique Department has effectively had a secure drinking water supply. For Nantes Métropole, work on laying the 13 km of piping between Nantes and Vigneux de Bretagne was completed in August. The pumping capacity of the La Contrie plant had already been increased in 2017.

Nantes Métropole, CARENE and CAP Atlantique joined forces and signed an agreement to act as project owner and then as partners in selling the water.

Wastewater treatment: new operator contracts

To achieve scale economies, the new wastewater treatments that will gradually be brought in between 2019 and 2020 have been adapted. Accordingly, two contracts have been awarded for a period of seven years: a network operation contract and a contract for infrastructure operation and sludge management.

New requirements have been drawn up in line with Nantes Métropole's ambitions regarding the energy transition, citizen participation and innovation. The contract concluded will make it possible to raise the level of service while at the same time reducing energy consumption by developing new technologies (such as biogas injection). These technologies will be able to be used in other facilities, specifically the future Tougas wastewater treatment plant. Greater user involvement is also a sought-after factor when it comes to finding collective solutions (such as a panel of "judges" identifying and quantifying smell issues).

Managing aquatic environments and averting flood risk: a new area of responsibility since 1 January 2018

Built around a swathe of green and blue, Nantes Métropole boasts a rich array of natural environments that are often little known to local residents. For this reason, a consistent, concerted effort is being made to protect, restore and promote these aquatic environments. Since 1 January

2018, when responsibility for managing aquatic environments and averting flood risk was transferred to Nantes Métropole, it has stepped up its efforts in this area.

On the majority of its local area, the local authority fulfils this duty in its own right. However it also relies on the organisations responsible for managing the catchment areas and which are already tasked with restoring the environments, to whom it has transferred this competency in relation to certain sectors for greater hydrographical consistency.

In view, still, of enhancing the quality of the aquatic environments, studies on the catchment areas of the Charbonneau, the Cens and the Gesvres were begun in 2018 to establish the next restoration work to be carried out.

Rainwater: towards integrated management at individual parcel level

Will future constructions be connected to the collective sewerage system or managed under a system of private sewage disposal? What measures will have to be taken to limit soil sealing on my plot?

To define these rules, studies have been conducted on the entire metropolitan area in order to carry out the zoning of wastewater and rainwater. These specifications, which are appended to the Local Urban Planning Scheme (PLUm), are subject to public enquiry in 2018 and should be adopted in April 2019.

In a context where climate change could result in major episodes of heavy rain, rainwater manager, based on rainwater zoning rules, is designed to reduce sealed surfaces. This results in the use of permeable surfacings and rainwater collection where it falls, so that it can be returned to the natural environment, if possible by infiltration into the ground. Guidance and information tools to encourage the application of these rules are planned for 2019.

Key figures for 2018

- €3.49 (incl. VAT): the fixed price, as of 1 January 2019, per m³ of water used (based on a standard bill of 120 m³), including drinking water, sewerage and taxes paid to the Loire-Brittany Water Board;
- An average of 112,250 m³ of water/day was produced by the La Roche drinking water plant in 2018;
- 2 major intermunicipal water treatment plants were deemed compliant for 2018: Tougas at Saint-Herblain (600,000 population equivalents) and La Petite-Californie (180,000 population equivalents);
- 600 km of rivers and 400 km of marshland in the local area.

PROTECTING THE ENVIRONMENT

The variety of natural areas and farmland in the conurbation is a major factor in the quality of the inhabitants' living environment. To ensure they remain protected and enjoyed, Nantes Métropole focuses its environmental policy on:

- protecting biodiversity;
- maintaining agriculture;
- implementing a food roadmap.

Safeguarding the spaces and species of the local area

One of Nantes Métropole's priorities is to pursue its commitment to safeguarding biodiversity throughout the local area and in every urban development project implemented. The aim is to strike a balance between ensuring urban development and protecting natural heritage by taking broad-based, concerted action with its municipalities and partners.

Highlights in 2018 included:

- an ongoing partnership with nature-oriented associations (LPO, Bretagne Vivante, Groupe Mammalogique Breton, Groupe d'Étude des Invertébrés Armoricens, the Centre Vétérinaire de la Faune Sauvage et des Écosystèmes, and the Conservatoire Botanique National de Brest in order to foster exchanges of knowledge, practices and know-how. A targeted survey of current knowledge about the natural environment was carried out for the Atlas de la Biodiversité Métropolitaine project, mapping a vital aspect of the area's natural identity;
- the organisation of a biennial event, "En quête de nature" (formerly the 24 Hours of Biodiversity) to raise awareness and conduct a participatory inventory;
- the validation by the national nature conservation board (CNPN) of the angelica conservation plan;
- the coordination of a network of "reservoir stations" for Angelica heterocarpa and Scirpus triquetus, for which management plans have been drawn up;
- the finalisation of a characterisation survey of natural sites potentially in need of restoration (methodology and identification of damaged natural sites) with the aim of contributing to the development of the area's natural identity.

Supporting and developing agriculture

Nantes Métropole has always viewed agriculture as a key economic activity in the balanced development of the conurbation. It has joined forces with relevant partners to define and implement a shared action plan, before consolidating peri-urban agriculture in town planning documents.

In 2018, Nantes Métropole worked alongside the Chamber of Agriculture to continue its action in several areas:

- continuing to redevelop farming land that is no longer cultivated (3 land clearing projects and 10 new installations);
- contributing to the Local Food Project, particularly with regard to the first commitment "to develop food production system that contribute to the ecological transition", and by

shouldering the other commitments to "produce local, sustainable and accessible food for all".

Drawing up and implementing the food roadmap

The Local Food Project achieved a key milestone in 2018 when the food strategy was approved and a roadmap drawn up "for producing local, sustainable and accessible food for all".

150 food system stakeholders, representing 90 organisations, pulled together to define 8 collective commitments and 30 key actions: call for expressions of interest in setting up a farm, family "Positive Food" challenges, the new wholesale agricultural produce market, the 48 hours of urban agriculture, combating food waste, etc. These are early examples of initiatives launched or shared and promoted as part of the Local Food Project.

The Local Food Project takes a constructive, progress-oriented approach that is also down-to-earth (open to all positive contributions), collaborative (everyone plays a part), inclusive (no one is left out) and systemic (taking a wide-angle view). With a combination of clear directions and concrete actions, it has set out to be positive, creative and adaptive, with strong but realistic goals for 2030

Nantes Métropole's Local Food Project leverages the wealth and diversity of its agricultural output, and the solid organisation of the agri-food industry in Western France. It underscores the local area's ability to put new solutions and new practices to the test to find a new food model, shrink our environmental footprint and support the ecological and energy transition that is vital to everyone's well-being.

Expanding and safeguarding urban forests

Since 2006, Nantes Métropole has been committed to developing an urban forest project, which is being implemented on 1,400 ha of natural areas and farmland at three sites in eight municipalities in the Nantes conurbation.

This projects aims to:

- promote the presence of a variety of vegetation in these areas (afforestation, hedgerows, orchards, etc.) in connection with public and private properties and various institutional stakeholders;
- develop "carbon sink" sites and cool islands in the local area that have their place in the energy transition roadmap and feed into the Climate, Air and Energy Plan for the Local Area;
- provide areas close to urban centres where residents can enjoy recreation and nature.

Highlights in 2018 included:

- a move to consult with the various stakeholders in the "Urban Forests" project (owners, farmers, users' spokespeople, professionals in the forestry and farming industries, etc.) with a view to drawing up a forward-looking framework document (a masterplan for 2030-2050);
- the implementation of a forest management plan as well as planting and maintenance work;
- ongoing educational activities and taster sessions on the "Tree-Wood-Forest" cycle with seven classes from eight municipalities involved in the project.

Key figures in 2018

- 17,200 hectares of natural areas, i.e. 32% of the local area, including 9,250 hectares of wetlands;
- 13,700 hectares of farmed agricultural land, i.e. 25% of the local area;

- 241 farms generating 1,400 direct jobs;
- 5 "Natura 2000" zones protected by Europe, covering 7,062 hectares, i.e. 13.5% of the local area;
- 31 Special Fauna and Flora Ecological Interest Zones (ZNIEFF), including 21 type I zones (small areas and home to at least one determining species or one threatened habitat) and 10 type II zones (more extensive and representative of well conserved landscape features);
- 154 noteworthy plant species (protected, rare and endangered plants) including 88 related to wetland areas and aquatic environments;
- 408 animal species.

PREVENTING RISKS AND POLLUTION

Nantes Métropole is responsible for "preventing major technological and natural risks and combating pollution". With this in mind, it has been developing an overarching, concerted approach to risks, pollution and environmental nuisances since 2001, based on partnerships with all of the local stakeholders: the 24 municipalities, the Departmental Fire and Emergency Service (SDIS), government departments, network operators and economic stakeholders, civil society and researchers. Since December 2014, Nantes Métropole is also competent to ask the special administrative police to deal with perils in eight municipalities in the metropolitan area, including Nantes.

To protect its inhabitants' health and safety, Nantes Métropole aims to:

- learn to live with risks and reduce weaknesses in the local area;
- enhance the quality of the living environment and combat nuisances.

Making the local area more resilient

The resilience of an area is its ability to manage and overcome a disaster.

At Nantes Métropole, this view of risk management and the notion of resilience entails:

- prevention, with a town planning policy that factors in the risks;
- forward planning, with crisis management plans at both municipal and inter-municipal levels.

Key measures:

- Nantes Métropole is guiding and supporting the 24 municipalities as they draw up and maintain the local contingency plans (PCS): 22 municipalities had finalised their PCS at end-2018 and the other 2 were under way;
- local-area emergency response plan (PIC): enables metropolitan departments to respond rapidly in the event of exceptional circumstances (fire, road traffic problems, interruptions to the water supply, severe storms, flooding, bomb scares, etc.);
- the principle of continuous improvement, with crisis simulation exercises, training for elected representatives and employees, knowledge building from feedback to consolidate emergency preparedness.

Risk management initiatives

Nantes Métropole has three specialised departments to organise its action on the ground:

- the call centre for institutional calls and logistics organisation (CRAIOL): a dedicated phone number to contact Nantes Métropole 24/7. An operator responds to urgent requests, analyses the request and information given (level of urgency, context, ownership) and triggers the necessary actions (request for call-out, decision, information from departments, etc.). It also manages spikes in calls during major events and provides support in the event of a major crisis;
- The operational risk prevention unit (COPR): an operational team of technicians tasked with combating pollution (water, air and ground) and preventing industrial risks across the local area;

- the Prevention and Risk Management unit: an operational team responds to disasters occurring in the Nantes area. Usually working alongside the emergency services, this team takes all emergency measures for safeguarding victims. In the event of a major event affecting another municipality of Nantes Métropole, it would lend assistance, if necessary, to the municipal organisation concerned.
- Additionally, in fire prevention matters, Nantes Métropole works alongside fire-fighters and mayors to adequately address the risk and maintain the network of 6,999 fire hydrants installed across the conurbation in good working order.
- Note that the metropolitan and city of Nantes' dedicated risk management and civil security resources have been pooled since 1 January 2015 with the "risk prevention and management" sector, which leads the public risk prevention and management policy implemented by the City of Nantes and Nantes Métropole.

Local application of the EU Floods Directive

Under the EU Floods Directive, 11 municipalities in the metropolitan area are identified as "major flood risk areas". A local flood risk management strategy was adopted in 2018. Accordingly, a flood prevention programme for the lower Loire River, containing 29 actions, will be drawn up between 2018 and 2021 to reduce the impacts on the local area of major flooding of the Loire River.

Emerging risks, pollution and nuisances: contributing to inhabitants' health

To combat emerging risks and air pollution, Nantes Métropole has adopted overarching strategies to improve the quality of the living environment:

- Health, Safety and Environment Regional Plan "3", and Local Health, Safety and Environment Action Plan for the Nantes area;
- Atmosphere Protection Plan, playing an active part in the studies and work being carried out by Air Pays de la Loire, which is tasked with monitoring air quality.

With regard to noise abatement, Nantes Métropole has drawn up its draft plan for the prevention of ambient noise in accordance with a European directive. The plan comprises a series of initiatives that aim to avert, reduce and rectify the effects of noise pollution.

Regarding the erection of mobile phone towers in its local area, Nantes Métropole is working with the stakeholders concerned to implement a charter on the terms and conditions for installing radioelectric stations. The aim is to enable the continued development of digital technology across the local area, since this is a vital drawcard.

Lastly, Nantes Métropole manages the inter-municipal pound, delegated by an agreement to the Société Protectrice des Animaux animal welfare charity.

Video protection: helping to protect and manage public space

Inter-municipal cooperation to rationalise resources and optimise the system

Under the Notre Act and a pooling arrangement between Nantes Métropole and the 24 municipalities, a working group set up with 10 municipalities has identified the needs to provide video protection coverage for certain public spaces.

Given the need to protect people and property, and in view of the complexity and dynamic-management requirements of current networks, it was clearly preferable to act collectively, pool the resources and share the costs.

Accordingly, it was suggested that the interested municipalities set up a metropolitan urban surveillance centre within the framework of a metropolitan shared service.

This system aims to develop a carefully thought out, consistent, compatible and scalable system of video protection, and install cameras in the interested municipalities' local areas. By joining the pooled service, the participating municipalities will enjoy the benefit of technical support for installing, operating and maintaining the cameras, on one hand, and pooled operating and maintenance costs, on the other. Nantes Métropole also contributes financially to setting up the network of cameras installed in their local area.

Four municipalities have decided to join the pooled service:

- Nantes (104 cameras);
- Saint-Herblain (22 cameras);
- Rezé (8 cameras);
- Vertou (5 cameras).

A system dedicated to protecting and managing public space

The installation of the metropolitan area's urban surveillance centre, set up on 16 April 2018, was accomplished in strict compliance with the applicable regulations on video protection. Moreover, if they so desire, the participating municipalities can draw up a charter and/or set up an ethics committee to ensure that individual freedoms are upheld.

The cameras connected to the Urban Surveillance Centre are used solely for protecting public spaces that typically have significant criminality and heavy user traffic (urban core areas, transport hubs and shopping districts). Specific sites that are deemed to be at risk because of their spatial configuration or a specific vulnerability, may also be equipped with cameras.

Video protection in public spaces addresses the following objectives:

- improve the management of public spaces and the safety of people and property;
- provide a more adequate response to society's demand for safety and crime prevention;
- combat the sense of insecurity;
- assist the police force and the gendarmerie with their investigations;
- help keep people safe.

Provide comprehensive, continuous, shared handling of public order issues

The urban surveillance centre is tasked with:

- receiving video streams from the municipalities' cameras: 15 specialised operators control the cameras on a live, 24/7 basis;
- addressing public order concerns in general, regardless of the time of day or night;
- working in close collaboration with law enforcement (report criminal offences, carry out searches) and contribute to citizens' personal safety;
- extract images on judicial requisition (keep them for 15 days) and forward images as and when received to the police headquarters in Nantes.

A complementary system: video protection of public buildings

At the municipalities' request, Nantes Métropole launched a purchasing consortium to equip public buildings with video protection. Notice of the consortium was published in December 2018.

16 municipalities joined the purchasing consortium, namely Basse-Goulaine, Bouguenais, Brains, Couéron, Indre, La Chapelle-sur-Erdre, Les Sorinières, Nantes, Orvault, Rezé, Saint-Aignan de Grand

Lieu, Saint-Jean-de-Boiseau, Saint-Léger-les- Vignes, Saint-Sébastien-sur-Loire, Sainte-Luce-sur-Loire and Vertou.

Key figures for 2018

- 22 Local Contingency Plans;
- 16,850 calls handled by the CRAIOL call centre (8,850 incoming calls requiring 8,000 outgoing calls);
- 149 COPR operations to deal with environmental pollution, 131 on-site preventive inspections and files, and activities performed;
- 1,713 flow rate/pressure checks;
- 46 hydrants installed, 122 hydrants replaced, 65 hydrants repaired or moved;
- 68 hazard proceedings initiated, 8 of which were followed by orders;
- 430 RF radio repeaters in the Nantes Métropole area (pylons, water towers, churches, buildings);
- 5 inter-municipal technical committees in charge of approving proposed sittings of installations in the metropolitan area;
- 695 RF radio stations (antennae for radio infrastructure operators).

Urban Supervision Centre (CSU):

- 1,548 cases handled by the CSU between 16 April and 31 December 2018;
- 368 video viewings carried out by CSU operators at the request of law enforcement;
- 257 image extractions performed on a court order