

Dear all,

This annual report goes back over the work carried out by the various departments of Nantes Métropole in 2019, in order to take stock of the measures implemented across the 24 municipalities as a whole. It almost goes without saying that at the time of publishing, circumstances have changed significantly, particularly due to the health crisis we've been experiencing for a number of months now. However, 2019 has also brought out all of the qualities that make the Nantes metropolitan area so strong in recent months, particularly the public policies implemented at local level and the widescale involvement of citizens, local authorities, businesses and associations in making this a place of innovation for the benefit of quality of life.

To this end, a total of €454.1 million has been invested in 2019 to finance structural projects that couple intermunicipal cohesion with the green transition. One example of this is the opening of the new wholesale agricultural produce market (MIN) in Rezé, which reflects the strategy of our Local Food Project for responsible and local food. This investment can also be seen in the transformation of the western section of the Miséry quarry, which is now home to the Extraordinary Garden and its 25-metre waterfall. It is also visible in the creative district on the Île de Nantes, with the laying of the foundation stone for the Nantes-Atlantique School of Design and the new Halle 6, an interdisciplinary university centre dedicated to digital art.

Named European Capital of Innovation in 2019, the Nantes metropolitan area is testament to a policy of virtuous innovation for the benefit of the local area, as illustrated by its all-electric e-busway on line 4: a more comfortable, more spacious and more environmentally friendly solution that reduces transport-related greenhouse gas emissions.

Because if mobility is a fundamental element of our daily lives, it requires constant evolution and adaptation. In 2019, the Chronobus C5 route was transformed into a busway, a new navibus line was created, cycling was reinforced and a new Covoit' TAN carpooling service was introduced. This allows passengers using the Tan network to combine travel by tram, bus and carpooling throughout the metropolitan area, for the price of a tram ticket.

Nantes Métropole is also working to promote more energy-efficient housing, by continuing its efforts in energy renovation and by creating tools to help residents financially in reducing their energy consumption, such as the Mon projet Renov' web platform launched in 2019. The continuation of major projects carried out in priority districts is evidence of that same desire: to offer quality housing to all residents of the metropolitan area, grounded in continuous and constantly reinforced dialogue.

Dialogue is key in a vibrant and dynamic metropolis, and 2019 was marked by a new Big Citizen Debate on the theme of longevity, aimed at changing public perspectives on ageing. Organised across the metropolitan area, the debate brought together 350 people to brainstorm concrete actions through a participative approach. This approach was also deployed in the organisation of a dedicated festival at the Nantes School of Architecture, which highlighted the project's intergenerational aspect and the importance of dialogue between perspectives.

Finally, dialogue is enshrined in every aspect of democratic life in the Nantes metropolitan area, with the particular aim of enhancing complementarity between urban, suburban and rural areas, as evidenced by the reciprocity agreement signed with the Pays de Retz Centre for Local Area and Rural Balance (PETR), or the five semaphores installed on the banks of the Loire between Nantes and Saint-Nazaire.

This dialogue ensures that the specific and unique features of each municipality are taken into account, allowing them to launch attractive projects or make them permanent. In 2019, the first stone of the Town Centre Comprehensive Planning Zone (ZAC) was laid in Les Sorinières, the first joint Local Urban Planning Scheme was adopted by all 24 municipalities of the area, a funeral centre was opened in Saint-Jean-de-Boiseau and the first lintel of the Jardins de Barbara was laid, marking the launch of this first 100% social rental housing project in the West of France.

These many examples all reflect a desire, shared by the 24 municipalities of the metropolitan area, to offer efficient and responsive public services, such as the basic day-to-day services of water, waste collection, cleanliness of public spaces and sanitation. So, for example, plastic sorting instructions were simplified in 2019 (for Orvault, Carquefou, Nantes, Saint-Jean-de-Boiseau, La Montagne and Le Pellerin), largely to prepare for the expansion of the national waste management plan.

Dear friends, once again, the wealth of action compiled in this annual report is testament to the work accomplished in 2019 by the 3,750 employees of Nantes Métropole. I'm sure you will join me in thanking them for their dedication, their sense of public service and their professionalism.

Johanna Rolland, *President of Nantes Métropole*

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Focus Area

CONSOLIDATING THE METROPOLITANIZATION OF NANTES

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

Bringing together the 24 local municipalities, the pact primarily aims to strengthen the appeal of Nantes Métropole at European level and reinforce its closeness to residents. 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, the cornerstone of the initiative

The metropolitan pact is built on a number of founding principles:

- greater solidarity, particularly towards the least densely-populated municipalities, to ensure a balanced development;
- heightened efficiency with the addition of new major metropolitan facilities and the promotion of municipalities' potential to raise the collective profile in terms of sports, cultural and touristic appeal;
- more collective, open governance between the municipalities, with a remodelled development council and greater involvement of local stakeholders and citizens.

The pact's implementation has resulted in bold and deliberate measures such as the financial pact, the transfer of facilities to boost the appeal of Nantes Métropole, the transfer of skills to consolidate its capacity for action and the re-election of governing bodies, in particular the development council, to foster closer ties with citizens and interaction with stakeholders.

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

- the Musée d'Arts de Nantes; the Natural History Museum; the Castle of the Dukes of Brittany and the Musée d'Histoire de Nantes; the Planetarium; the Jules Verne Museum; the Rezé Heritage Interpretation and Animation Centre: the Chronograph; the Beaujoire Stadium and the José Arribas Training Centre; the Beaulieu Sports Centre; the ice rinks in Nantes and Rezé and the Couëron Velodrome.

Nantes Métropole now has wider powers in the following areas:

- archaeology to facilitate development, and particularly in terms of urban planning;
- opera and the lyric arts. The aim is to recognise the vital role played by Nantes Métropole and the Regional Council in the Syndicat Mixte Angers Nantes Opéra (SMANO: Angers-Nantes Combined Opera Syndicate);
- the development and funding of places in inter-municipal corporate crèches (tied to the main employment areas in the conurbation).

It should be noted that when Nantes Métropole decided to take on 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 in the city of Nantes).

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

- the Housing Solidarity Fund (FSL);

- the Youth Assistance Fund (FAJ);
- the Local Information and Coordination Centres (CLIC);
- the road network.*

The pooling and cooperation plan

In place since 15 December 2015, the pooling and cooperation plan between Nantes Métropole and its 24 municipalities is grounded in the mayors' shared desire to develop greater solidarity and efficiency within the Metropolitan area. It sets out the principles for shared governance based on the sharing of skills by municipalities and the pooling of resources for their benefit. In doing this, it also aims to improve the level of service provided directly to residents through collective upskilling and more reliable public action.

The plan takes a variety of forms:

- 1) closer cooperation between multiple volunteer municipalities with regard to library services, the running of music schools and cost optimisation for swimming pools. Depending on the subjects and opportunities, the municipalities are also putting in place networks for exchange of professional practices or sharing of technical resources;
- 2) the creation of shared services between Nantes Métropole and the municipalities;
- 3) buying consortia.
- 4) investment assistance funds.

1) Cooperation between municipalities

- In the area of **public library services**, cooperation has continued along the following two lines of action:
 - knowledge-sharing: exchanges of experience and the joint organisation of training courses (provided by the CNFPT) have made it possible to strengthen ties between working teams, foster up-skilling and pool resources.
 - Cultural action; 12 municipalities (Bouaye, Carquefou, Couëron, Indre, Les Sorinières, Nantes, Orvault, Rezé, Saint-Herblain, Saint-Jean-de-Boiseau, Sainte-Luce-sur-Loire and Vertou) were jointly involved in the 3rd Reading Night on 19 January 2019 (shared communication, partnerships and cross-programming).

At the same time, the "reading" technical group led a study on the **preparation of a development plan for library services** in the Nantes Métropole area. The plan aims to encourage complementarity between libraries by adapting services more to their catchment areas and expanding the range of public reading services available.
- Where **music schools** are concerned, in the 2018-2019 year, 16 municipalities played a more active role in the network in the context of quarterly meetings on 2 key issues:
 - providing support for the development of school projects, teaching practices in relation to cultural and educational development, the needs of local authorities and the expectations of the Nantes metropolitan area;
 - promoting a common culture shared by all staff of music schools in the metropolitan network.

Of the several priority actions identified by the network, 2 have seen promising trials. These were the development of a staff discovery tour and the implementation of an exchange protocol for the occasional transfer of teachers between two schools.
- With regard to **swimming pools**, the master plan drawn up by AURAN has highlighted key user resources and methods affecting these facilities in the metropolitan area. Also worth

noting is the start of construction work on a bathing facility carried by the City of Orvault, in a project that has enabled closer collaboration between neighbouring cities (Nantes, Saint-Herblain and Sautron).

2) Pooled services between Nantes Métropole and the municipalities

The shared services agreements were approved by the 24 municipal councils and the Metropolitan Council on 8 December 2017, and four shared services were launched on 1 January 2018. The decision adopted in December 2018 takes stock of their first full year in operation.

- **the metropolitan Geographic Information System (GIS)** handles the pooling of tools, data and human resources, allowing the sharing of geographic data. The start of 2019 was devoted to structuring the technical platform, involving organisation and access to shared and private databases, the management of rights and the definition of roles between the municipalities and Nantes Métropole. This emerging shared heritage of geographical data has also been crystallised in two major cross-cutting projects:

- the launch of a green space management tool and the creation of control panels for the municipalities of Basse-Goulaine, Bouguenais, La Chapelle-sur-Erdre, Orvault, Rezé, Saint-Herblain and Sainte-Luce-sur-Loire;

- a polling station search function via the websites of the municipalities for the citizens of Nantes, Orvault, Rezé, Saint-Aignan de Grand Lieu and Saint-Herblain for the European Elections.

These projects are testament to a strong intermunicipal and metropolitan dynamic for the co-construction of the metropolitan GIS.

- **Document and archive management** staff have been pooled in a bid to standardise procedures and practices, an essential prerequisite for the implementation of the future electronic archiving system (EAS). One of the key working areas for 2019 is the preparation of tools, methodology and procedures. This will allow the mapping of applications and data (on network trees) and the development of an application audit grid. NB: at the end of 2019, 7 new municipalities expressed a desire to join this shared service.
- **The shared service dealing with land use authorisations (ADS)** aims to pool human resources and coordinate a network of land use authorisation instructors. Following the adoption of the Metropolitan Urban Planning Scheme (PLUm) in April 2019, the service's main objective was to support the instructor centres in the development of their reference framework (PLUm/PLH - Local Housing Programme). To this end, a facilitator has deployed a PLUm training system. Group workshops were also organised within the network to develop training tools, exchange training practices and practice training in line with the PLUm. Finally, a collaborative space was set up in July 2019 to share a database of training professions and allow exchange between instructors.
- **the urban surveillance centre (CSU)** addresses the objectives of improving the management of public spaces and the safety of people and property. Its aim is to provide a better response to the public demand for safety and prevention and to combat the feeling of unsafety. The scheme supports the police and gendarmerie services in solving investigations and providing emergency assistance. NB: The cameras linked to the Urban Surveillance Centre are used solely for the protection of public spaces that are typically prone to significant levels of crime and have high traffic flows (urban centre areas, transport hubs and shopping districts). The service has 18 agents, including 15 specialized operators who control the cameras in real time 24 hours a day, 7 days a week. This allows the comprehensive management of public order disturbances, regardless of the time of day or night;

3) Buying consortia

Cooperation in procurement has proven to be effective, with substantial gains in quality and/or costs. It has also offered an opportunity for sharing of expertise, in both technical and legal engineering. In 2019, for example, two buying consortia were launched for urban planning consulting services and video-surveillance of buildings.

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 residents of several municipalities. To date, 3 projects are eligible:

- The Orvault swimming pool;
- the Saint-Herblain childcare facility;
- The central kitchen in Vertou.

INTER-METROPOLITAN COOPERATION

Over a number of years, Nantes Métropole has been developing collaborative relationships with neighbouring areas and other cities in western France. Working together, they harness their strengths and develop joint projects to establish western France as a force at national and international level.

Strengthening ties between Nantes and Saint-Nazaire

Often cited as an example of success at national level, the collaboration between Nantes and Saint-Nazaire has been built 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 guidelines are now enforced in urban planning documents such as Nantes Métropole's Metropolitan Urban Planning Scheme (PLUm), Local Housing Programme (PLH) and Urban Travel Plan (PDU).

As part of the master plan, the local areas commit to reducing their land consumption for housing and activities by 50%; for the first time, a green and blue belt has been designated across the SCoT scheme; the urban framework has been bolstered to focus population growth and economic development, and 100,000 new housing units (32% of which 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 2019, the Nantes Saint-Nazaire Metropolitan Area continued to implement its 2017-2020 action plan. This included the official opening of five semaphore signals installed along the future North Loire cycle route designed by the Loire-Atlantique department, with signal systems installed in the municipalities of Saint-Herblain and Couëron. The Metropolitan Area also launched an experimental initiative "Imagine the Peri-Urban Living Environment of Tomorrow" in four municipalities, including Brains, with the aim of addressing the difficulty of adjusting the housing supply to meet the changing needs of the general population.

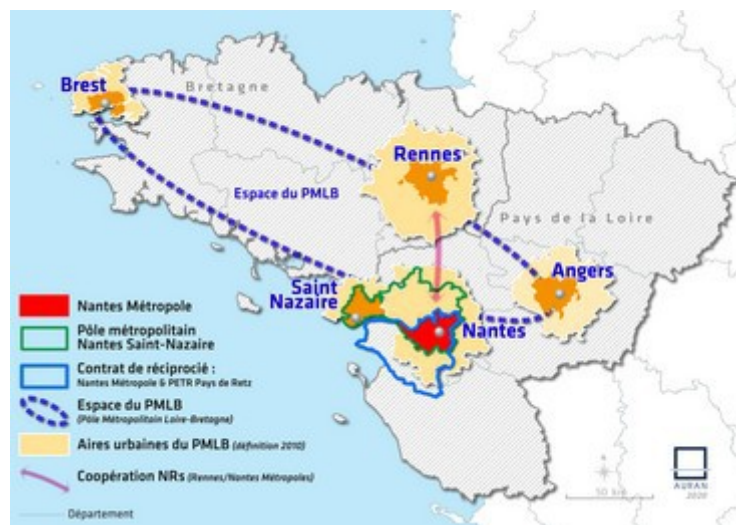
In addition to the actions carried out by the Metropolitan Area, Nantes Métropole and Saint-Nazaire are also involved in productive collaborations in areas such as economic and digital development. The priority areas for collaboration are:

- the 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.

Political coordination on current issues for the west of France

The major cities of western France (Angers, Brest, Nantes, Rennes and Saint-Nazaire) continued to work hand-in-hand in 2019. The Loire-Bretagne metropolitan area'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 residents;
- to work as a network;
- to promote dialogue and partnership between local areas; This approach culminated in a conference on the partnership between local areas for the benefit of transitions, which was held in Rennes in 2019. The members have reaffirmed their desire to undertake joint projects.



The main projects include:

- improving rail access in western France. The Loire-Brittany metropolitan area continues to contribute to discussions on its accessibility in the revised context of the abandonment of the airport;
- economic development. The major cities of western France that make up the Loire-Bretagne metropolitan area make joint appearances at national and international trade shows, such as the SIMI commercial property show in Paris.
- promoting the area.

Nantes and Rennes, the backbone of western France

Launched in 2009, this collaboration promotes the two local 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.

As an example of their work on culture, In 2019, Nantes Métropole and Rennes Métropole backed residency exchange programmes for nine teams at La Fabrique (Nantes), Au Bout du Plongeur (Rennes) and La Chapelle Dérézo (Brest and Rouen). The aim is to support the artists during winter and spring/summer residencies, help distribute their works in all three local areas and bring the projects to the attention of a wider audience. Nantes, Rennes and Angers have also finalised plans for their opera companies to work together on a joint 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 metropolitan planning. Nantes Métropole seeks to introduce innovative public services and support the innovative efforts of stakeholders across the local area. The aim is to factor in and support changes associated with digital technology and harness new forms of innovation to build the city of the future.

The smart city, as seen by Nantes, promotes a collaborative city that encourages stakeholder networking. Here, innovation - be it economic, technological, social or cultural - is everywhere; it's practised by all, for the benefit of all. It's a driving force in three key issues: boosting employment and supporting economic development; making the city an easier place to live; and supporting the energy and ecological transition.

In 2019, this vision could be seen in a number of flagship projects: the data strategy, public WiFi, measures to support digital mediation, a policy on urban furniture and digital arts and the 6th edition of Nantes Digital Week.

Flagship projects in 2019

Data Strategy

Data of all kinds is increasingly present in everyday life. It affects everyone, whether a citizen, employee or user of public or private services. There are many issues at stake: ethical, legal and economic. In 2019, Nantes Métropole took the decision to draw up a metropolitan data charter that sets out strict ethical guidelines to protect citizens and regulate data use in the local area. The project involves:

- Guaranteeing sovereignty over public service data;
- Protecting citizens' personal data;
- Ensuring transparency;
- Promoting new uses.

Through this charter, the local authority makes commitments and, in dialogue with the relevant stakeholders, creates the conditions for access to data for the benefit of the general public.

Some 60 public and private partners have already committed to the values of the charter alongside Nantes Métropole, creating a dynamic of virtue in terms of data ethics: <https://metropole.nantes.fr/charte-donnee>

This data strategy hinges on the Open Data approach that the local authority has been implementing since 2011, which is based on 3 lines of action:

- Encouraging the openness of data to create the conditions for development of new services by developers;
- Expanding open data for the benefit of community dialogue and public life. Datasets made available to the public in 2019 include the initial budget of Nantes Métropole and the city of Nantes, the 2019 minutes of the metropolitan and municipal councils and the mandate review;
- Enhancing the portal by opening access to new datasets and supporting partners. Nantes Métropole offers support to municipalities wanting to provide access to their data on the

metropolitan portal. In 2019, Vertou and Saint-Herblain signed an agreement to allow open access to their data on the local authority's site <https://data.nantesmetropole.fr>

Public Wi-Fi in public areas and transport

A free public Wi-Fi service has been piloted in public spaces from 2017 and on two public transport lines since June 2017. The trial covers 9 test sites: the Place du Commerce, Parvis des Neufs, the Jardin des Plantes, Place Rosa Parks, Place de l'Église in Bouguenais and Place du 8 Mai in Rezé, the Haluchère-Batignolles transport hub, Busway line 4 and the airport shuttle.

The review of the participatory assessment concluded that there is a genuine expectation for free public WiFi in public spaces: Assessment booklet "Nantes Public Wifi: What should internet for all look like in public spaces?" (www.nantes.fr > les-cahiers-de-levaluation). In response, Nantes Métropole has committed to continue its action to:

- Provide an internet connection that can be accessed by the majority of the public (high-traffic public spaces, public transport, etc.);
- Reduce the digital divide, with a particular focus on vulnerable groups;
- Increase the appeal of the local area as a tourist destination;
- Maintain the conditions of access to the service (free of charge; no need to create an account; Nantes Métropole "signature").

In 2019, the local authority decided to make all the pilot sites permanent, launching the necessary Public Call for Letters of Intent (CEI) to move from the trial phase to implementation. After ensuring that private operator wanted to deploy their own service in the area, Nantes Métropole was able to move into a new deployment phase for 2020-2023 by making the service permanent on the 9 pilot sites and the 2 public transport lines. The authority will also continue to study the potential for deploying 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"

Street furniture offers new opportunities for creation and experimentation in the city. To this end, a collaboration has been set up under the leadership of Nantes Métropole between JCDecaux (which holds the contract for provision of street furniture in part of the local area) and the Stereolux voluntary association. A call for projects has been launched in 2018 for the display of digital works on four interactive digital screens. The aim is to bring the worlds of digital art, urban furniture and public spaces together in the same space. Among the 23 projects submitted, the winners - Scenocosme with the "Exister" project and Screen Club & Superscript² with the "Translate" project - went on to work closely with JCDecaux's R&D teams for more than 3 months. The creations offer a unique artistic and interactive experience. They were open to the public from Monday 8 April to Sunday 12 May in four public spaces around Nantes (Les Neufs; Place Graslin; Place Ricordeau -skate park and the Haluchère interchange).

The process has also provided an opportunity to raise awareness and support young people in the digital arts and their uses. Stereolux held a workshop on the "Translate" project at Studio 11/15 (Île de Nantes). Aimed at a group of twelve teenagers, the workshop allowed them to design digital "paintings" inspired by those created by the project's artists (reuse of coding blocks).

Digital Mediation

In 2019, Nantes was selected as part of a call for projects issued by the Banque des Territoires and the Mission Société Numérique (Digital Society Mission) to create network leaders or "Hubs" from the various players in digital mediation. This involved strengthening the range of digital mediation services available in the local area and improving the consistency of public policies in terms of digital inclusion.

As such, the CONUMM hub brings together several actors, including voluntary federations (Community centre federations, School League, etc.), actors in the field (Ping, Cyb'@njou) and local authorities (Nantes Métropole, Loire Atlantique or Maine et Loire Departments). It aims to develop:

- A survey of the shared local area (map of places and actors, professions and skills observatory);
- Training for the various professions involved in digital mediation (mediators, social workers, local area employees);
- Government-sponsored schemes.

Nantes Digital Week

Nantes Digital Week - "the week of digital culture of all kinds" - 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 conceiving, creating and achieving in the digital field.

- 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 put together in collaboration with local stakeholders (companies, associations, researchers, schools, etc.).

In five years, Nantes Digital Week has developed into a major event that brings together a steadily growing number of contributors and attendees. In 2019, the event drew 80,000 participants and 252 project leaders to 101 events spread over 80 venues.

The wealth of programming on offer this year was exemplified by professional events such as the Salon de la Data (Data Show), Numérique en commun (Shared Tech), the Safari des Métiers (Trades Safari), Tech for Good forum, and the public events Scopitone, Totem, Jules Verne 2.0: The Interactive and Immersive Experience and Carrément Robot.

INSTITUTIONAL PARTNERSHIPS

Nantes Métropole has nurtured a longstanding collaborative relationship with its institutional partners in Europe, France, the Pays de la Loire region and Loire-Atlantique département.

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

In 2019, Nantes Métropole has continued its work as part of these partnership arrangements, enabling our partners to contribute to the financing of our projects.

Highlights in 2019

Early 2019 saw the signing of the **Contrat d'Avenir (Future Contract)** between the French Government and the Pays de la Loire Region, reflecting the commitments negotiated with Nantes Métropole following the abandonment of the airport project at Notre Dame des Landes a year earlier.

In June, Nantes Métropole decided on an amendment to the metropolitan agreement associated with the **Government-Region Planning Contract** (CPER 2014-2020), which brought the resources of the Government and the Region in line with the Contrat d'Avenir.

In October, the Government and Region jointly launched initial meetings with local authorities on the preparation of the future **CPER 2021-2027**.

Elsewhere, the Region also launched an initial online consultation on the **Post-2020 ERDF** starting in the spring of 2019. Nantes Métropole has taken the initiative to put together a more detailed contribution to the predefined objectives around the theme of a more connected, greener city. A seminar for local actors organised by the Region in November enabled it to complete its local area survey by the end of 2019.

The Departmental Council's regional support scheme

The Loire-Atlantique departmental council has set out the procedure for its support of local areas in the 2017-2021 period, designating four priority areas:

- Developing social housing;
- Education, to cater for population dynamics;
- Mobility, to develop alternatives to car travel;
- Digital technology.

As part of this drive, and in continuation of the projects supported in 2017 and 2018 (e-busway, tramway-related studies, pivotal cycle paths, stopping sites for the travelling community), Nantes Métropole was given the green light for two projects submitted in 2019: the development of the Feydeau-Commerce mobility centre for €1.27 million and cycle paths between La Chapelle sur Erdre and Nantes Nord for €500,000.

By way of support for City Policy priority districts, Nantes Métropole was also awarded a €123,000 grant for the renovation of the Place des Lauriers in Bellevue. Elsewhere, the City of Nantes received €162,000 to consolidate and extend the Santos Dumont childcare centre in Nantes Nord.

The Metropolitan Development Contract with the Region

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

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

The contract incorporates operations at metropolitan level and those managed at municipal level, benefitting from a fund of €5m that has been earmarked and shared between the municipalities on a pro rata basis according to the number of inhabitants. A solidarity fund of €60,000 has also been set aside for the smaller municipalities in the conurbation.

The metropolitan area's four priority areas, as set out in the contract, are:

- Land use planning projects and mobility;
- Nantes Métropole's cultural and tourist appeal;
- The energy transition;
- Economic development;

To this end, having already secured financial support for the E-busway project (deployment of electric recharging stations with a contribution of €1 million and €1.5 million to the SMILE programme) and the relocation of the MIN (€3 million), Nantes Métropole is currently preparing future funding applications for the Porte de Gesvres road development (€4 million) and the Arbre aux Hérons project (€4 million).

As the MDC's lead partner, Nantes Métropole also assists the municipalities in submitting their funding requests.

The 2019 Local Investment Support Fund (DSIL)

Under the 2018 budget bill, the French Government has renewed its local investment support allocation, aimed at supporting local authorities in the following “key priority” areas:

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

Nantes Métropole and the City of Nantes responded to this annual call for projects launched by the Prefect of Loire-Atlantique, and was awarded €1.7 million in Government funding from the 2019 budget towards the redevelopment of public spaces in the Feydeau-Commerce mobility hub, the demolition of the MIN and the extension of the Les Châtaigniers school complex.

The ERDF in 2019

Nantes Métropole benefits from an ERDF funding allocation of €23.47 million for the period 2014-2020.

Nantes Métropole and the City of Nantes submitted six applications for ERDF funding in 2019, for a total of €8.22 million towards the following eligible projects:

- Espace Agnès Varda - formerly the Pierre Landais Restaurant (CCAS - Municipal Social Welfare Centre);
- The Auriol School Complex (Saint-Herblain);
- Construction of a childcare facility in Quartier du Bignon (Orvault);
- Extension of the Porte de Vertou Park-and-Ride;
- Neustrie Park-and-Ride;
- Demolition of the Wholesale Agricultural-produce Market (MIN, run by SAMOA).

NB: further funding may be applied for depending on the nature of projects undertaken.

A COMMUNITY DIALOGUE THAT NURTURES A SENSE OF METROPOLITAN CITIZENSHIP

Since 2014, the residents of the metropolitan area have been regularly invited to participate in a number of community dialogue initiatives, with the aim of enriching projects and informing public decision-making. The goal is to nurture a sense of citizenship that incorporates the metropolitan reality, through public participation in major projects or big debates that offer a shared vision of the Nantes Métropole local area.

One such example in 2019 was the Big Debate on Longevity, but a number of other structural projects were also put to the community for dialogue where the formats allowed.

The Big Debate on Longevity

From 16 January to 31 May 2019, the **third Big Debate "Longevity, let's open up the possibilities"** brought together the 24 municipalities of the Nantes Metropolitan area and was followed by 23,000 participants, including 8,000 contributors. With more than 400 contributions posted on the website, including 91 stakeholder projects, 76 events related to the debate, and the Citizen Festival, which received 3,500 visits over 3 days, the participants involved - citizens and stakeholders alike - were evidence of a broad motivation to address the challenges posed by longevity. They were able to share their ideas, proposals and initiatives for the future of the territory in relation to longevity.

The final report, which summarised the community output resulting from the Big Debate, was presented to the Metropolitan Council on 13 December 2019, before being made available to the public via the Internet. In light of its conclusions, the metropolitan elected officials voted to commit Nantes Métropole to an initiative by the French-language network of Villes Amies des Aînés (Age Friendly Cities). The report will also be used as a source of information and inspiration for new projects, experiments and future cooperation. Based on the recommendations of the debate, a roadmap for the coming years will be drawn up in collaboration with all the public, economic and voluntary sector stakeholders. In doing this, the elected officials have confirmed that "longevity" is becoming a strategic and civic issue for the metropolis of tomorrow.

"Loire au cœur" (Loire at Heart), a City-making demonstrator project in dialogue with the community.

Over the course of a year beginning in October 2018, the theme "Loire au cœur" was the focus of an in-depth debate with **800 citizens and stakeholders**, with the aim of exploring aspects of the city of the future, including: Aspirations for the Loire, future mobility, the green city and traffic-calmed spaces. Greater consideration has also been given to eventual uses, particularly in the redevelopment of the Place de la Petite Hollande.

Within this framework, citizens and economic and voluntary sector stakeholders have been offered three levels of participation. In the first instance, the agenda for the overall project (coherence plan) was shared with some forty stakeholders of the local area over the course of 4 workshops on the themes of appeal-research, mobility, use-culture-heritage and ecological transition-urban agriculture. In a second stage, the programme for redevelopment of the Place Petite Hollande was drawn up in a collaborative process based on ongoing and regular dialogue: this took the form of a citizen workshop of 28 people selected at random and volunteers as well as the project management (TER group). The 6 working sessions culminated in the formulation of recommendations for a car parking-free place de la Petite Hollande, redesigned for new uses and criss-crossed by new forms of mobility while maintaining and defining the market of the future. Finally, an open dialogue was maintained with the project community (approximately 500 people), to provide regular updates on the progress of the consultation.

In 2019, at the October Council meeting, the project underwent two major changes, firstly in relation

to the redevelopment programme for the square (parking and the study on the potential uses of Daviais Square), and secondly the strengthening of its key goals (green spaces, slipway towards the Loire).

Local Area Food Project "for local, sustainable and accessible food for all" and creation of the metropolitan council of food sector stakeholders

In conjunction with the definition of a co-constructed food strategy, the project involved an effort to draw up quantified objectives and actions with the stakeholders of the food sector. In order to implement these commitments, 28 meetings were held with the voluntary stakeholder between February and June 2019, with a total of 450 participants.

This culminated in the drafting of a roadmap consisting of 8 collective commitments, 30 operational actions and 71 quantified objectives. Adopted by the Metropolitan Council on 4 October 2019, the roadmap is part of an ongoing dynamic of partnership between local areas and is built on an approach of adaptive governance.

The governance of this project led to the creation of the Conseil métropolitain des Acteurs Alimentaires (CMAA - Metropolitan Council of Food Sector Stakeholders), which had been widely requested by the stakeholders of the sector. The CMAA is made up of 22 members, including representatives of companies and local authority voluntary associations, researchers and consular officials and covers all stages of the food chain, from production and processing to distribution and consumption. The CMAA is tasked with ensuring the consistency of the actions of the roadmap, to take stock of and follow up on the commitments set, to ensure reporting (production of deliverables), provide market intelligence and forecasting, and ensure the right of resale on behalf of citizens and the local area. The CMAA was instated on 17 December, 2019.

Tram 2 demain: user feedback put to good use

As part of the process to renovate the tramway fleet, SEMITAN and Nantes Métropole have involved users and stakeholders to ensure that their primary expectations and needs are identified in the general specifications for the future trams.

In 2018, a group of citizens began work on a study of the desired features of the future trains. This dialogue (the first time an approach of this kind has been used in the procurement of rolling stock) was drawn upon extensively when drafting the specifications of future trams, with the aim of meeting the needs of users, such as fluid passenger traffic, luminous line signage, ease of use of the doors and the effective integration of bicycles and public transport.

In a first for SEMITAN as the organiser, this dialogue approach allowed for mutual enrichment of technical and user expertise (session organized in the Dalby maintenance workshop, exchanges with the industrial designer).

Public action is structured around the challenges of participation

City-making Through Dialogue in Response to the Challenges of Transition

In 2019, Nantes Métropole has continued to structure itself to prepare the groundwork for a lasting dialogue that involves citizens and stakeholders in the process of city-making. From consultation to the co-construction of living spaces or public policies, this is a broad-spectrum citizen participation that is deployed at every level, from ground floor to block and neighbourhood, in urban planning and metropolitan planning. The purpose of this evolution in our professional practices is both to incorporate use management more widely in the making of the city, but also to factor in green and climate-aware approaches in projects. At managerial level, a strategic body was formed in April 2019 consisting of the general management teams of the metropolitan area and urban operators, in response to the need for a shared culture around the challenges of participation and to ensure debate in the process of shaping a dialogue offering that provides a "supporting role" to project management. From a more operational perspective, a roadmap "Fabrique de la ville dialoguée" (Dialogue-driven city-making) was published in July

2019. It proposes that the various project managers involved in the city-making process share a common direction for action, incorporating uses and transitions, identifying stimulating participative experiences and supporting professionals in preparing a dialogue-driven project approach.

105 initiatives on the community dialogue platform

Launched in January 2019, the digital space for community dialogue has now compiled the accounts of 105 community dialogue initiatives that have been organised across the Nantes metropolitan area. 130 articles were published on the portal this year.

37,000 users visited the community dialogue space in 2019, peaking in May to coincide with the Big Debate on Longevity and the topic of the redevelopment of the Place Petite Hollande.

The methods of community dialogue run in parallel with the workshops are diversifying. These include calls for digital applications to participate (Gohards fragment workshop), invitations for individual or more collective contributions via stakeholder projects (Big Debate on Longevity, Petite Hollande - Banks of the Loire), image collections (Nantes Erdre landscape and heritage plan) and initiatives via calls for projects (Nantes la Nuit).

During the third quarter of 2019, work started on a "digital democracy charter" with the support of Clément Mabi, a researcher at the Compiègne Technical University (UTC), to explore the potential opportunities offered by digital dialogue. NB: the digital space will undergo technical and editorial improvements in 2020.

A GREEN TRANSITION

Of the metropolitan project's three key lines of action, Nantes Métropole aims to set the standard in the green and energy transition. To this end, it plays an active role in tackling the major environmental challenges, while overcoming new cross-cutting issues, such as 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 the role of Nantes Métropole as a model for action.

Putting the green transition at the heart of metropolitan planning

Mindful of the environmental crisis and the responsibility of cities to provide solutions, Nantes Métropole has been committed to sustainable development for 15 years, an effort that was recognised with the title of European Green Capital in 2013. Since then, and following the Big Debate on energy transition, Nantes has stepped up the pace and cleared another landmark by committing the local area and all its stakeholders to the green transition, to reduce greenhouse gas emissions, and protect the environment and its citizens' quality of life.

In 2018, five years after being named European Green Capital, Nantes Métropole prepared a review of its actions thus far. The [goal of the 2018 Sustainable Development Report](#) (related to this document) is to take stock of Nantes Métropole's achievements as part of the green transition, whether they relate to energy efficiency and renewable energies, sustainable mobility, waste issues, nature in the city or everyday quality of life.

The resulting outlooks are closely in line with the Energy Transition Roadmap, which was adopted last February by Nantes Métropole on completion of the Big Debate on Energy Transition. The roadmap outlines a single route to set Nantes and the local area on the path of transition by harnessing its assets and stakeholders, based on three key principles:

- a 100% citizen-led transition;
- a transition that benefits all residents;
- a transition that makes use of local resources.

Sustainable public procurement

The municipal council's adoption of the Responsible Purchasing Promotion Scheme (SPAR) in March 2017 provided a solid and sustainable foundation for the local authority's environmentally and socially responsible purchasing policy by setting clearly identified objectives and the terms and conditions for their implementation.

Within this framework, the Public Procurement Department has assessed the actions implemented in terms of sustainable development.

A new contract management tool incorporating the SPAR's indicators was introduced in late 2018 and deployed in 2019, making it possible to both support and integrate a sustainable development approach.

In this sense, public procurement has supported the implementation of the three roadmaps adopted in 2018 for the energy transition, the local area food plan and the circular economy. To date, more than a third of contracts factor in the priority areas of the SPAR. It's an encouraging result, but it also highlights how much more work is needed in order to change procurement practices.

Unsurprisingly, integration is the first objective to be incorporated in contracts, complemented by the environmental aspect, in line with the markers set for the term of office. It should be noted that procurements made for the disability sector (ESAT, EA) have increased steadily over the term of

office (by more than 56% from 2014 to 2018), with an increase of more than 5% between 2018 and 2019.

This data analysis work also made it possible to identify the geographic distribution of suppliers who hold contracts with our local authorities. The findings show that nearly 50% of the recipients of our contracts are located in mainland France, and 65% in the Pays de la Loire region as a whole.

Other significant actions included:

- The reduction, and even elimination of plastics in food use, single-use items such as disposable cups in vending machines;
- A study on endocrine disruptors as part of the City of Nantes' commitment to becoming an endocrine disruptor-free area (City Council meeting of October 2019): dedicated clauses are included in supply contracts for Early Childhood and Education (nappies, school supplies), complementing the measures taken with regard to emissions of VOCs and other compounds that pose an identified health risk.

These more recent steps should not overshadow those taken previously, which are now fully integrated into the relevant procurement procedures, such as the consideration of energy and climate issues, in relation to the energy transition roadmap, particularly in the construction work of the BATI and the road network, the requirement for use of certified wood from a production chain that guarantees sustainable forest management, and health requirements for paints, cleaning products and furniture.

Among the exemplary approaches to sustainable procurement, the following are particularly worth noting:

- Energy is a major issue, and one that is extensively considered in procurement, whether it be in the requirements for the consumption of supplies (electrical equipment, IT equipment, etc.), which must meet the highest Energy Star certification standards, or in the display of Christmas lighting. The public property maintenance sustainability programme is continuing its efforts to control energy consumption. Finally, the local authority contributes to the development of renewable electricity production facilities, either through its electricity purchases by dedicating lots to these renewable sources, or by including solar power installations in its construction projects;
- Sustainable development is also a priority on a social level, with particular consideration given to the issues of inclusion and disability, particularly by means of contracts that make use of SIAE and EA/ESAT structures through classic procedures or reserved contracts, for example for green space maintenance or laundry services. These purchases have remained level or even seen a minor increase this year. The fight against discrimination and for the promotion of equality has also been addressed in specific clauses in a number of service contracts, such as the graffiti removal contract, with the impacts currently under assessment.

THE MANAGERIAL POLICY

An end-of-term review

The managerial policy, titled "We're reinventing public service" places the citizen-user at the heart of public service. It aims to change our management model and the professional practices of managers and City employees in order to:

- Implement the local area policy at the level of Nantes Métropole and the City of Nantes;
- Improve and adapt our public services;
- Stand as an example of social responsibility (quality of life at work, environmental footprint, fair practices, etc.).

2019 was an opportunity to take stock of the actions undertaken, particularly in a directors' seminar held in November.

Key actions in 2019

- The implementation of the "energy transition" roadmap approved in February 2018 has continued in its various dimensions (reduction of the environmental footprint of public buildings and facilities, sustainable business travel for employees, etc.). As of 1 January 2019, Nantes Métropole and the City of Nantes have been implementing an action plan for the management of waste from service activities, divided into 5 themes (waste from roads and various networks, cleaning waste, paper produced in offices, building waste, food waste). As part of the plan, the protocol department has conducted a study on the management of its bio-waste, which recommends its recovery for re-use by the City of Nantes' green spaces department.

Actions to make events more environmentally-responsible have been continued. In 2019, 90 of the local authority's employees took part in the annual "eco-event" meeting, a training and experience-sharing event around the theme of environmental responsibility.

In addition to this, the network of eco-motivators has continued to spread good practices at team-level.

- In terms of **HR management**, actions to improve the quality of life at work and ensure effective equality continued:
 - An audit of the HR departments of the City of Nantes, the CCAS and Nantes Métropole carried out by AFNOR in 2019 resulted in the renewal of the diversity certification and the award of the professional gender equality certification;
 - Psycho-social risks (PSR) have been integrated into the single occupational risk assessment document and each manager has received training in PSR prevention in 2019. Every employee will be given awareness training in 2020.
- On the subject of **digital tech**, 2019 saw the opening of the new shared intranet, dubbed "Naonantes", which offers new functionalities for collaboration. Several departments (education and sports, in particular) have started on the process of upgrading employee equipment. Finally, the "Managing by digital" guide, to be distributed in 2019, offers guidelines on the role of digital technology in management, its potential uses and the tools available.
- In terms of **forecasting**, discussions in 2019 focused on the subjects of open governance and proximity.

- On the subject of the **support and facilitation scheme**:
 - The third "innovation week" enlisted around 100 internal speakers to offer 110 workshops in 50 different locations. A total of 3,000 participants attended the 180 sessions held over the course of the event;
 - Training courses for managers have continued at a steadier rate, with three groups of local managers and three groups of intermediate managers in 2019;
 - The opening of the monthly "Management and Innovation Meetings" conferences to all employees has successfully refreshed its audience, with 18% of attendees in 2019 belonging to category C and 29% to category B.

A CITY WITH AN INTERNATIONAL OUTLOOK

The international appeal of the local area is a key concern for the Nantes conurbation. To maintain and strengthen its profile, Nantes Métropole relies on both its values and its projects. With the help of various local stakeholders, the authority forms close partnerships with other major cities abroad.

Strengthening partnerships with Quebec

Over recent years, Nantes Métropole has forged close ties with Quebec, which have made it possible to develop a number of projects in both areas. Our digital ecosystems, cultural establishments, research and development centres and companies have all been closely involved in these projects. The sharing of experiences and initiatives is used to help define and implement more efficient public policies.

These partnerships have been established largely through exchanges and structuring projects such as:

The Nantes Mission to Quebec in May 2019, which brought together 75 participants from a variety of backgrounds: 33 representatives of multi-sector companies (including EDF, La Poste, LACROIX Group, Transway, Blackmeal and Odiwi), 9 institutional representatives, 15 representatives of the cultural community and representatives of the higher education & research sector.

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

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

In terms of digital technology, standout activities included:

- The attendance of a delegation of some 30 international entrepreneurs at the 2019 Web2Day. 40 foreign entrepreneurs from the Web2Day took part in the "Parcours francophone numérique", supported by the Organisation Internationale de la Francophonie and the Office franco-québécois pour la Jeunesse. The series consists of four events: Web2Day, KIKK (Namur), WebÀQuébec and the Africa Web Festival in Abidjan;
- A delegation of 26 participants met during le printemps numérique (Nantes Digital Week) in 2019, including 11 companies from all sectors and Michèle Boisvert, Delegate General of Quebec in Paris. This led to the signing of a partnership between Centech and the Nantes Atlantique School of Design.

In cultural activities, highlights included:

- A collaboration between the Maison de la Poésie and Rhizome, and the continuation of the residency exchange project;
- A three-year agreement (2017-2019) between the CALQ, the Lieu Unique and the City of Nantes (with the collaboration of the Institut Français);
- The Maison Pour l'Architecture project: part of a joint call for decentralisation projects issued by France and Quebec (FFQCD), with financial support from the French and Canadian governments.
- New avenues for collaboration for the Cité des Congrès (Fantasia, Palais des Congrès, Maison de la Littérature, etc.).

Finally, highlights in the academic sector included:

- The signing of joint projects between the University of Nantes and the Universities of Montreal and Laval in Quebec in the health sector and digital teaching technologies;
- Growing exchanges with the Centech ETS (School of Higher Technology) in Montreal.

A presence in French-speaking exchange networks

As part of the International Association of Francophone Mayors (AIMF), the "Innovative Cities" commission chaired by Nantes Métropole met in Phnom Penh (Cambodia) for the association's General Assembly.

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 offers 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 make its voice heard in Europe on strategic issues such as employment, social and territorial cohesion, local public services, education, culture, climate change, responsible economic development.

This European presence is vitally important, since 75% of French national legislation now stems from European law. Decisions made 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 able to influence European decision-making processes and protect the interests of the local area.

EUROCITIES: post-presidency strategy

From November 2014 to November 2016, Nantes Métropole acted as chair of the Eurocities network, which brings together 130 European cities of 250,000 inhabitants or more. Since 2017, Nantes has continued to play an active role in the governance and political influence of Eurocities. It now focuses its involvement on:

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

While continuing to lobby European institutions, Nantes Métropole also 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. The 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 the government energy transition policy at the Stuttgart Forum in October, as well as promoting the micro-credit scheme at the Annual Convention for Inclusive Growth held by the European Commission in Brussels. Nantes Métropole's "5Bridges" project and "early childhood quality charter" were presented to the European Committee of the Regions. 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. Also worth noting is Nantes' involvement in the "CITIES-GroW" project on migrant integration and combatting discrimination on the job market, and the "Gen-Y City" project to develop 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**, of which Nantes Métropole is vice-chair of the Working Group on art in public spaces;
- The **Environment Forum**, in which the energy transition roadmap and the new Local Climate, Air and Energy Plan were shared and discussed as part of 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**: by co-piloting this WG with Athens, Nantes is involved in mobilizing citizens around the idea of Europe, by launching awareness campaigns and enhancement and exchanging their lengthy experience in this area;
- **WG on Public Services and Public Procurement** 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. This also allows it to promote Nantes' approaches and to influence European legislation on the subject.

AFCCRE/CCRE

The Association Française du Conseil des Communes et des Régions d'Europe (AFCCRE) brings together some 1500 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 is a member of the AFCCRE/CEMR office, tasked with assisting and advising municipalities in their European activities and approaches, including the research of information, contacts and funding available 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 particularly active in the field of CSR.

Nantes has chaired CEEP France since December 2015.

The city has also been a member of the general assembly advisory committee of CEEP Europe since June 2018.

Climate change: a major European and international issue

Nantes Métropole continues in its commitment to energy transition and combatting climate change.

As a member of Eurocities, the city is actively involved in the strategic round-table on climate change, which was launched in September 2018. Its purpose is to present a strategic overview of climate change issues and the related policies implemented in member cities (Amsterdam, Oslo, London, Budapest, Stockholm, Porto, Malmö, Manchester, etc.).

Nantes also continues its involvement as a signatory of the European Covenant of Mayors. The targets for reduction of greenhouse gas emissions have been raised to 50% by 2030.

In the same vein, the city has entered into exchanges with experts from the USA (Charlottesville and

Cambridge) and Germany (Heidelberg) on energy transition issues under the coordination of Energy cities. In March 2019, Nantes hosted a delegation to discuss members' own experiences as they relate to Nantes' policies in a three-day workshop involving local stakeholders from associations, the private sector, etc..

In 2019, Nantes also took part in a workshop on the "zero waste city" co-organised by ICLEI, Eurocities and the European Commission as part of the European Green Capitals network. The network aims to promote a model for sustainable cities across Europe.

For a number of years, Nantes Métropole has been taking action to combat climate change. As the "climate change" spokesperson for the "United Cities and Local Governments" (UCLG) organisation since 2010, the city has dedicated itself fully to the task of making the voice of cities and local authorities heard in international negotiations, and ensuring that the role of cities in combating climate change is recognised and supported. In this context, Nantes Métropole hosted the first Climate Chance event in Nantes in 2016 and took part in the second event, which took place in Agadir in 2017.

Signature of a partnership agreement with Hamburg 2017 - 2020

In 2017, Nantes and Hamburg signed a multi-sectoral partnership agreement for the 2017-2020 period. Since the operational implementation of this ambitious agreement in 2018, a large number of European Cooperation Projects between partners in the two areas have received support, particularly in the fields 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 its inhabitants 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 encourage a European outlook in the people of Nantes, and through Nantes Métropole's support for a number of associations that are helping to develop a sense of European citizenship with a global outlook, 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 debate with its inhabitants.

- From 4 to 27 May 2019: the Journées de l'Europe and the Fête de l'Europe, with a specific focus on the European elections in May 2019.

Various events were organised to celebrate the Fête de l'Europe, coordinated by the Maison de l'Europe in partnership with the European Cultural Centre with the involvement of around 40 local partners. A range of activities presenting the languages, cultures, games, dances and arts of different European countries were organised at the Cosmopolis international venue and at special events held in districts around Nantes and the municipalities of Nantes Métropole. There was a particular focus on the European elections, with a debate featuring representatives of the electoral candidates. An evening dedicated to breaking down the election results was also held at the Lieu Unique, in cooperation with Alliance Europa and Euradio.

- 27 and 28 September 2019: The 7th "Géopolitiques de Nantes" event

For the sixth year in a row, the Institute for International and Strategic Relations (IRIS) and the Lieu Unique venue offered citizens a programme of fifteen round tables featuring some sixty speakers, with the aim of deciphering the strategic challenges facing the world today. International footballer Lilian Thuram opened the event with an inaugural lecture on the theme of "The Geopolitics of Sport: Patriotism and/or Internationalism?". This was followed by a round table on Social Europe and the role of cities in this field: "At a time of lack of awareness of the European Pillar of Social Rights, what role can cities play in strengthening the social dimension of Europe?" with Abbassia Hakem, Deputy Mayor of Nantes, in charge of solidarity and integration, Liz Gosme, Director of the COFACE Platform of European Families, Luis Torres, Director at the Department of Social Affairs of the City of Barcelona, and moderated by Denis Bougé, Professor at the University of Nantes and specialist in social policy.

Nantes Creative Generations: young people at the heart of Europe

The Nantes Creative Generations (NCG) initiative launched by Nantes Métropole and the City of Nantes in 2009 aims to improve Nantes' visibility at European level and make Europe a reality of everyday life in Nantes, creating opportunities for young people from Nantes.

- From 23 to 26 October 2019, the eighth edition of the annual Forum and a highlight of the initiative brought together around 60 young project developers from Nantes and Europe to share their citizen-focused and innovative initiatives. Over three days, they were able to

discuss their projects and acquire the skills required to set up a European project.

- The 2019 NCG Cooperation Prize was awarded to two projects resulting from the collaborative efforts of young people from Nantes and Europe who took part in the 2018 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 2019, 12 young people from mainland France with little or no international experience were given the opportunity to take part in the NCG On Tour scheme. Acting independently, they travelled Europe (Palermo in Italy, Turun in Poland, Porto in Portugal and Tbilisi in Georgia) to meet other young European members of NCG network and former Forum participants, before presenting their experiences at the 2019 Forum in Nantes.

Europe in Nantes: fertile 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. The city supports associations that run a range of exchange schemes between citizens in Nantes and their counterparts across Europe, 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, a European radio/school that continues to improve access to European news and the issues it faces, while raising the profile and influence of Nantes Métropole in Europe. In 2019, the association continued to roll out its project across France from its base in Nantes. In October 2019, local branches went on air in Rouen and Le Havre. Also in 2019, the CSA approved branches in Paris, Marseille, Nice, Toulouse, Bordeaux (with launches planned for autumn 2020) Tours and Orleans (launch planned for 2021). A Brussels branch was approved in July 2019, with a provisional launch date of autumn 2020. NB: Euradio has been on air in Lille, Lyon and Strasbourg since 2018. In Lyon and Strasbourg, two journalists were hired in August 2019 and studios built;
- The European Cultural Centre and its binational cultural centres (Franco-German, Franco-Spanish, Franco-British and Franco-Italian), which are tasked with raising the visibility of the various European cultures in the conurbation;
- Graine d'Europe, Gare de l'Est...

2019 also saw the completion of the Europa Nantes project inaugurated on 25 September. "Europa Nantes" is a new 1,000 m² space designed to strengthen ties between the people of Nantes and Europe. Bringing together the main European associations of the local area, this public-access space sited along the Prairie aux Duc's boulevard will be dedicated to education, experimentation and the creation of projects with a European dimension. Europa Nantes is managed by the Maison de l'Europe.

INTERNATIONAL COOPERATION

With the goal of working towards the global challenges defined in the UN's Sustainable Development Goals, Nantes Métropole both leads and supports cooperative international actions that are based on complementarity.

In addition to this, Nantes Métropole and its partner local authorities have also made it a priority to improve services to residents and ensure their sustainability.

Initiatives by Nantes Métropole and its partners in Africa and Haiti

- **Coherence of activity since 2012**

The DANK Programme (2012-2017) was initially conceived to draw up public policies on water and sanitation as part of a North-South cooperative approach with partner local authorities in Dschang (Cameroon), the Amaga (association of mayors of Grand'Anse in Haiti), Nantes and Kindia (Guinea), and to share their experiences on structuring urban services and involving residents.

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

- **Enforcement of the water act and actions to address other urban issues**

Water and sewerage are priority sectors in international development aid. Since 2005, local authorities in France have been able to draw on specific funds, up to a limit of 1% of the public water and sanitation services' resources (for Nantes Métropole, the upper limit is 0.5% of water and sanitation budgets).

The goal: to strengthen collaboration between municipalities in Nantes Métropole and their partner cities, with a view to improving access to drinking water and sanitation services for their residents.

In 2019, Nantes Métropole continued its support (started in 2017) for other municipalities in the metropolitan area that address other current issues, such as waste management, prevention of natural risks, combatting climate change and the resilience of cities. As part of this continued drive, the city supported the EduKindia programme (led by Orvault, Bouaye, Basse-Goulaine, Saint-Jean-de-Boiseau and Sainte-Luce-sur-Loire and coordinated by NGO Guinée 44), and cooperative projects 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 of equipping the city with micro hydropower plants and managing a public service to produce and sell clean, affordable and reliable energy. It will all also involve setting up a municipal department responsible for managing the service (maintenance, distribution and invoicing). The programme received substantial co-funding from AFD, the French Development Agency from 2017 to 2019: €405,000 of a total budget of €627,000.

This program was supplemented in 2019 by a second tranche of co-funding from AFD, allowing work to begin on the second phase of the hydropower program (construction of a third power plant) and the addition of a waste programme in preparation for the deployment of an individual and municipal composting service in Dschang and the Menoua Department, which included a component to mobilize the inhabitants of the various local authorities affected. AFD will contribute €933,000 of a total budget of €1.3M over 3 years (2019-2021).

Local action by Nantes Métropole

- **Supporting international associations**

In 2019, Nantes Métropole provided financial assistance to three associations that are partners in its cooperation schemes:

- Bolivia Inti Sud Soleil: initiatives to promote solar energy and development in emerging countries;
- Compos'tri: recovery of household waste, provision of methodological and technical support to instil composting as a practice in Kindia and Dschang;
- Electriciens sans Frontières: contribution 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 active in decentralised cooperation, and held its third "European local solidarity days" on 15 November 2019. This annual event, run with financial support from the European Union, aims to inform citizens on sustainable development issues, showcase local authorities' decentralised cooperation initiatives and strengthen ties between local authorities in Europe.

The theme chosen for the event: "Transition towards sustainable cities and clean energy: in Europe and Africa, how can cities and young people take action together?" was debated by some sixty participants (elected officials, technical experts and associations) from the municipalities of Metropolitan France and partner countries (Cameroon, Guinea).

TOURISM AS A DRIVER OF ECONOMIC DEVELOPMENT

A destination's tourist appeal depends on a set of features, such as its image, entertainment, sites and activities, accessibility, atmosphere and accommodation. As an economic sector, tourism offers significant opportunities for growth. It is a key driver of development and appeal and can also contribute greatly to shaping and boosting the momentum of the local area by generating wealth and employment.

In recent years, Nantes Métropole has chosen to implement a bold new tourism development policy. The ultimate goal is to make the conurbation a recognised urban destination, bolster its appeal and raise its profile at national and European level for holidaymakers and business people.

A creative and appealing metropolitan area

In the space of 20 years, Nantes Métropole has become one of the most vibrant and inventive conurbations in France. The area is brought to life by a wealth of creations, entertainment and events held throughout the year, some with an international reach, including: La Folle Journée (a classical music festival), Royal de Luxe (a street theatre company), Estuaire (a permanent open-air collection of contemporary art between Nantes and Saint-Nazaire), the mechanised animals and monsters of the Machines de l'Île, the Castle of the Dukes of Brittany and many more.

The 2019 summer visitor survey (source: AURAN) confirms that the metropolitan area is making itself known as a tourist destination. The proportion of tourists in the total number of visitors and international clientele saw a steep increase over the 2019 summer season. Paid accommodation continued to perform well, with Nantes' hosting sector experiencing strong growth over recent years.

As a destination, it has generated a high level of satisfaction through cultural and leisure activities that are particularly appealing to foreign tourists and first-time visitors. Over time, Nantes Métropole has developed unique and offbeat cultural and touristic attractions that are accessible to all by pursuing projects that combine contemporary art, cityscapes, nature and events.

A few highlights in 2019:

- The enhancement of the Voyage to Nantes with permanent installations, including: The Belvédère de l'Hermitage by Tadashi Kawamata, works by Eva Jospin (Le passage, boulevard de la Tour d'Auvergne) and Stéphane Vigny (Mirer, Le Katorza), a new version of Jungle Intérieure (Passage Bouchaud, Evor), barbecue street furniture and Les meules (Parc des Chantiers, Collectif Fichtre), not to mention three new artists' rooms by Makiko Furuichi (Hôtel Amiral), Justin Weiler (Oceania Hôtel de France), and Karina Bish (Péniche Le d'O).
- the 8th "Voyage à Nantes" summer event: The SPL (local public company) Le Voyage à Nantes works year-round to develop tourism in the metropolitan area by delegation of public services. The summer period continues to be most visible aspect of its operations: held from 6 July to 1 September, the 2019 edition was a resounding success, with the extension of the green line pathway to include the new branch in Quartier Chantenay: The Belvédère de l'Hermitage recorded more than 70,000 visitors (with a counter installed on site) and this increase in visitors spilled over to all the cultural establishments in the area, including a 60% spike in visits to the Jules Verne Museum and 117% to the Planetarium;
- the 1st edition of the Tables de Nantes event (following on from Nantes Food Forum 2017 and 2018), from 25 to 29 September 2019. The event aims to create synergy between culture, tourism and gastronomy, thereby highlighting the vital role of culinary heritage in the appeal of the local area;

- The installation of the sloth and a hummingbird from the artistic world of the Heron Tree brought an influx of interest to the Galerie des Machines which houses the Machines de l'Île.
- The launch of a campaign to promote tourism around Lake Grand-Lieu, in partnership with the department, the 10 riverside municipalities and their inter-municipal organisations;
- The 2nd Estuary-wide nautical festival 'Débord de Loire', held by the ACE on 23 to 26 May, allowed attendees to discover of the river in all its aspects, boosted by an unprecedented nautical parade of 200 boats, including the tall ships Belem and Hermione;
- The continuation of initial studies for the Heron Tree and the start of construction on the first elements of the bestiary, such as the Love Parade of the Birds of Paradise and the first Great Blue Heron;
- Nantes' cultural and tourism calendar continues to be marked by flagship events such as la Folle Journée and les Rendez-vous de l'Erdre.
- In 2019, Nantes Métropole reaffirmed its goal of developing tourism by capitalising on the momentum provided by the Voyage à Nantes. Today, Nantes Métropole is a recognised destination for urban tourism, but also for its art and culture at national, European and international level. The uniqueness and vibrancy of the tourist attractions and events on offer have contributed to the economic development of the local area. 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.

Sustained and confirmed growth

- According to key tracking indicators, tourist numbers have been steadily rising since 2010, confirming the wisdom of the strategy chosen by Nantes Métropole:
 - 3,544,767 stays in paid accommodation (source: tourist tax statistics and Airbnb), an increase of 4.7% on 2018 and 42.7% compared to 2014;
 - Summer 2019 (July and August): 660,288 stays in paid accommodation, up 7.4% on summer 2018 and an increase of 45% over 5 years;
 - the international customer base has grown significantly, making up 18.7% of all visitors to Les Machines de l'Île in 2019 (15.6% in 2018);
 - The city's emblematic Castle of the Dukes of Brittany welcomed 309,000 visitors (to its history museum and exhibitions) in 2019. Museum attendance increases by 2.5% and the Rock exhibitions! A Nantes story, *Cimarron and Amazonia, the shaman and the thought of the forest* welcomed 152,000 visitors.

Business tourism: a key and complementary sector

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 several years, the main venues in Nantes have played a key role in developing the MICE (Meetings, Incentive, Conferences, Exhibitions) contract. According to calculations by France Congrès, Nantes' Cité des Congrès and exhibition centre generate €259 million in annual benefits for the local area.

Just some of the outstanding events in 2019 were Mer XXL, the Floralties, Serbotel, the IASP conference (International Association of Science Parks and Areas of Innovation) and the National Public Transport Meetings (RNTP).

In this respect, the professional meetings sector contributes to the influence of the territory by promoting the destination to business tourists, some of whom will then return as leisure tourists.

Key figures for business tourism in 2019

- Cité des Congrès: 120 MICE events and 24 international events, including 13 ICCAs and around 100 cultural performances.
- Parc des Expositions exhibition centre: 89 events hosted and 8 events produced for a total of over 600 000 visitors.

In 2019, the Convention Bureau run by Nantes Saint-Nazaire Développement strengthened its positioning as the authority responsible for the Region's promotion and economic and international development. Event organisers can make use of the Bureau to perform thematic searches of hotels, sites for private hire, caterers, event agencies, service providers, restaurants, etc. The Bureau runs the MICE club jointly with the Nantes Saint-Nazaire Chamber of Commerce and Industry. The club brings together the various players in professional and sporting events in partnership with the tourism board and major sporting facilities. Its objective is to enhance the visibility of what the local area has to offer in terms of professional event facilities. The club is also tasked with promoting the area's range of sporting activities at national and international level and already has 80 members.

Finally, Nantes Métropole also supports the development of sectors of excellence in its local area. The authority 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.

AN INNOVATION-ORIENTED CULTURAL POLICY

Nantes Métropole's aim is to underpin a bold ambition with a cultural policy that plays a central role in building community spirit and developing the local area. This approach is based on an exacting vision of culture as a means of individual and collective empowerment 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, a particular focus is placed on the capacity for innovation and diversity, whether that be in the way culture is experienced, in creative process or in cultural projects.

An action based on five cross-cutting themes

- **The adoption of a single pricing policy for all cultural establishments of the metropolitan area**

This measure has resulted in standardised price lists that allow for identical criteria when applying free and discounted entry, the implementation of an attractively priced "museum pass", the introduction of free access to museums for all young people under 18 years of age, job seekers and recipients of minimum social benefits.

This standardised pricing policy aims to: facilitate access to culture for all, and encourage ownership of the metropolitan cultural facilities managed by the public authorities (museums and planetarium) by all inhabitants of the metropolis. It also makes it possible to remove the economic barriers that often prevent people from visiting cultural facilities:

In metropolitan museums, for example, nearly one in two visitors to the Musée d'Arts or the Museum of Natural History benefits from free admission. These provisions also encourage more attendance by young people under the age of 18: they make up 51% of visitors to the Museum, 31% of visitors to the Musée d'Arts and roughly 25% of visitors to the History Museum. "Museum passes", allowing unlimited entry to a museum for one year, are also popular.

This initiative to encourage attendance of cultural institutions is also active in the summer period, with 7-day opening and standard opening hours for all cultural venues in the metropolitan area (excluding the Zénith).

- **Increased attendance of metropolitan cultural institutions**

2018 saw record levels of attendance, with 1,126,222 visits recorded to the city's seven museums and related institutions; a 20.43% increase from 2017.

The History Museum saw its highest attendance ever recorded with 333,995 visitors, and the Art Museum rose to 3rd place among the Region's art museums (with 326,296 visitors), the International Biennial of Performing Arts (BIS) drew 13,195 participants, while the "Transfer" project was a success (with a total of 292,580 visitors over the two events), and the Zénith has seen a significant increase in attendance since its initial opening.

While visitors from the metropolitan area account for almost half of all visitors (this is particularly the case at the Museum, the Planetarium and the Folle Journée), cultural institutions do also have a reach that extends beyond the metropolitan area and can draw a more geographically distanced audience. 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 visitors to the Museum and 50% to the Planetarium are from outside the local area. Alongside this trend, the area has also seen a diversification of social and generational groups.

The number of foreign tourists visiting institutions is satisfactory and increasing steadily, especially at heritage sites. They make up 19% of 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.

- **Improving activity in the local area**

The metropolitan dimension of actions by cultural organisations has been broadly developed and consolidated. This is particularly the case for the Folle Journée, which has been expanded across the wider local area (9 municipalities affected for 2019), as well as the conduct of preventive archaeology missions and archival support, and the creation in 2017 of a metropolitan centre for scientific, technical and industrial culture.

Where young people are concerned, to encourage attendance of cultural institutions by young people and schoolchildren, all nursery and elementary schools in the municipalities of Nantes Métropole now benefit from free admission to museums (40,000 pupils welcomed to the History Museum and Mémorial, 21,675 to the Muséum, 10,000 to the Musée d'Arts, 3,000 to the Planetarium, and 2,000 to the Chronographe in 2018).

In addition, the rollout of this initiative has resulted in networked cultural cooperation across the metropolitan area, particularly in the fields of libraries, conservatories and music schools, and festivals (e.g. the partnership between the Nantes National Choreographic Centre and the Nijinskid Festival run by the Onyx, which will take place in 2020 in Saint-Herblain, Couëron, Nantes and Indre).

Finally, this local area network has given rise to new forms of artistic presence such as Pick Up Production in Rezé and Royal de Luxe in Saint-Herblain.

- **Innovative actions**

Five aspects should be highlighted in this area:

- **The policy of art in public spaces:** an ambitious strategy of art in public spaces is being implemented in the metropolis, with a three-fold objective: to share the arts with residents, develop cultural tourism and create new forms of urban living and connectedness. This requires the organisation of events with strong unifying power, as exemplified by the summer events of the "Voyage à Nantes". The opportunities offered by urban space according to its different components are explored (urban planning and furniture, green spaces, public transport, neighbourhoods, heritage). This opens up a wealth of opportunities to transplant artistic and cultural applications to urban projects, to create works in public space and to invest in brownfield sites;

- **Closer ties between the two major opera houses of the Grand Ouest region:** Nantes Métropole, Rennes and Angers initiated a process to build closer ties between their opera houses with the aim of setting up a shared opera programme. This culminated in the creation of the "Opéra en grand Ouest" association in 2019. After a trial season in 2018-2019, the initial results are positive. This collaboration has resulted in four joint opera production projects and opens up the possibilities for ambitious artistic projects. In addition to this, it facilitates dialogue with the other major French opera houses and leads to an increase in the number of productions as well as audience attendance. The additional reach of each production is substantial (joint productions by ANO and the Rennes Opera House are performed 9 to 12 times compared to an average of 6 to 8 performances per production at national level).

- the **creation of "Transfert", an arts and culture zone:** the set-up of "Transfert" in summer 2018 in a metropolitan comprehensive planning zone (ZAC) provided an opportunity to launch an evolving pop-up entertainment project conceived by the association Pick Up Production. Its goal is to create a new form of cultural space that gives free rein to experimentation, artistic renewal and to dialogue between art, urban planning, sustainable development and citizenship;

- The **establishment of the "Royal de Luxe" company in a city policy priority** district. Installed in Bellevue at the end of 2018 in collaboration with an urban renewal programme, "Royal de Deluxe" is the result of a desire to open a new chapter in the dialogue between culture and public spaces. A first in France and planned over several years, the project

combines artistic performances and the creation of permanent pieces. It is firmly focussed on the general public and the relationship that residents have with their neighbourhood;

- **The development of the metropolitan cluster of scientific, technical and industrial culture:** this cluster, led by the Natural History Museum, brings together all the institutional, cultural, university and associative players in the metropolitan area around a common roadmap. It enabled the launch of the "Echosciences" collaborative platform. This social network of science and technology enthusiasts brings the actors together around a cultural season on a common theme.

- **Commitment to structural partnerships in the cultural field**

A multi-year cultural agreement has been signed with the Loire-Atlantique department (co-signed by the City of Nantes). The agreement covers heritage, museums, visual arts, public reading and art education.

At municipality level, two priority partnerships are worth highlighting:

- With Nantes and Saint-Herblain on the Grand Bellevue project developed by Royal de Luxe;
- With Rezé, through its involvement in the steering bodies of cultural projects developed in the commune, such as the Chronographe and "Transfer" project.

New outlooks for the metropolitan archaeological research service

Approved in 2015 by the Ministries of Culture and Research, the Metropolitan Archaeological Research Service benefitted from a further extension to its research authorisation in October 2019. This means that in all 24 municipalities of the metropolitan area, archaeological research may be carried out on a chronological spectrum covering the last four millennia, from the "Bronze and Iron" Ages (from 2200 years B.C. to 50 years B.C.) to contemporary times. The extension to its authorisation was accompanied by a scientific partnership agreement with the Regional Cultural Affairs Department (DRAC) for the Pays de Loire region. The aim of the scientific work carried out under this agreement is to gain a better understanding of the history of the development of the local area. The co-organisation of an international symposium entitled: "A World in Motion, the movement of individuals, goods and ideas in the Merovingian period (Vth-VIIIth centuries.)" in Nantes, in partnership with the University of Nantes and the French Association of Medieval Archaeology (AFAM) has also helped to boost the reach of this scientific activity.

Nantes Métropole's involvement was divided between providing advice and expertise to the local authority's project owners and carrying out the operations prescribed by the French Government for public or private development projects. As such, archeological work in Nantes in 2019 was mainly focussed on the archeological survey of the Doulon-Gohards Comprehensive Planning Zone (ZAC) and a second excavation of the Eperonnière manor (Mellinet Barracks). Significant discoveries were made with regard to rural settlements in the Iron Age and elite settlements in the late Middle Ages.

In Rezé, as part of the overall redevelopment of the town centre, two surveys and an excavation have partially uncovered the medieval cemetery of the former Saint-Pierre parish. Finally, surveys and excavations are currently underway in La Chapelle-sur-Erdre, Sainte-Luce-sur-Loire and Bouguenais.

The Nantes Métropole archaeological research centre has been involved in more than 60 digs or surveys carried out in the area since 2010, with an increase in operations over the last 4 years (8 to 10 per year since 2015). This momentum must be consolidated both technically and scientifically, in conjunction with the Chronographe.

National recognition and new audiences for the Chronographe

2019 saw the Chronographe (Metropolitan Archaeological Interpretation Centre) become a firm fixture in the landscape of metropolitan cultural facilities. It enjoys a growing reputation both in scientific and cultural terms, and saw a steady level of attendance with **23,600 visitors**. **Easily identified by its target audiences, i.e. schools and families, the Chronographe is highly active in welcoming groups and offering workshops during school holidays (always full): 5,605 schoolchildren visited in 2019 and a high percentage of under-18s in visits by the general public (30.5%).** On this subject, it's also worth noting that the Chronographe held 4 artistic and cultural education courses (EAC) for schools in Nantes and Rezé: 94 classes from nursery and primary schools in the metropolitan area were welcomed to the Chronographe in 2019 (compared to 85 in 2018), i.e. more than 2,200 metropolitan pupils (31% of which were from Nantes).

Two major exhibitions were held in partnership:

- "Comme un boomerang" (Like a boomerang) from 9 February to 12 May 2019, based on a dialogue between contemporary art and archaeology was created in partnership with the Regional Fund For Contemporary Art (FRAC) and in conjunction with a residency by young artist Blanche Daramir. This brought in a diverse audience and involved new approaches, particularly towards younger audiences;
- "Prenez soin de vous! Archéologie du soin et de la santé" ((Take care of yourself! The archaeology of health and fitness), displayed from 15 June to 5 January 2020, marked a partnership with INRAP (National Institute for Preventive Archaeological Research). This unique theme was accompanied by coverage in the national press (Science et vie, Sciences & Avenir, Archéologia, Le Monde, etc.). New partnerships have been established with the health sector (University Hospital, Red Cross, etc.) and links with the University of Nantes have been strengthened (funerary archaeology seminar in November, archaeology student study trip, etc.).
- The Chronographe has also strengthened its local presence in 2019 by offering activities:
 - In partnership with the Soufflerie, Rezé's publicly funded theatre space;
 - A dual collaboration with the neighbouring site of Transfert through involvement in the "Fanfaronnades";
 - Contribution to the metropolitan cluster of scientific, technical and industrial culture (CSTI) during the "Fête de la science" Science Festival;
 - During the Utopiales and "Nantes en sciences" (Nantes in Science).

Finally, the Chronographe continues to provide a testing ground for schools and higher education courses (ExpéNantes, Ecole de Design, Ecole Centrale, Polytech, Cultural Masters of the University of Nantes, ISEFAC) and continues to develop its ties with the digital ecosystem (Cultural Cluster of the Creative Factory-Samoa, RFI-OIC, Digital Week).

Document management and archives: 24 of 24 municipalities have signed up!

The Nantes Archives department is tasked with collecting, conserving, filing, publicising and promoting the public archives of the City of Nantes and Nantes Métropole, as well as private archives that are purchased or donated. In the context of the increase in digital production and the digitisation of administrative procedures, and in response to the difficulty for local authorities to manage and conserve mixed paper and digital information, the role of document and archive management is now carried out by the Nantes Archives joint service as part of the metropolitan pooling plan.

In 2019, the joint service worked with the 17 member municipalities according to 3 levels of intervention (pooling agreement). On 1 January 2020, the 7 remaining municipalities decided to join this cooperative scheme for the benefit of all local authority services.

Members sign up to the scheme on an à la carte basis by level of involvement (levels 1, 2 or 3), depending on the need for coordination of their document and archive management function, the monitoring of archiving procedures or the management of backlogs.

In addition to individual support for each municipality, specific working groups ("Mapping of business applications and data", digitisation of land-rights permits (ADS), public procurement, etc.) are organized to standardised and pool available tools.

Finally, a project to develop a shared electronic archiving system, which is intended for use by municipalities, is now in the study and programming phase.

Long-term Installation of Royal de Luxe in the Grand Bellevue district

In 2019, the Royal de Luxe Company began work on an ambitious multi-year artistic project entitled "Grand Bellevue". The project dovetails with the urban renewal plan for this district, which covers parts of Nantes and Saint-Herblain. Its aim is to establish an artistic presence in Bellevue, taking inspiration from popular theatre to support residents by bringing a sense of poetry to the district. This will involve uncovering an identity that transcends differences and a complete transformation of the relationship between residents and their district, as well as the image it presents to the outside world.

In practical terms, the project consists of proposing "imaginary situations" that tell various stories through installations in public spaces or on buildings, each of which is accompanied by an event-driven aspect. Mediation actions are carried out in parallel with the display of the various images, primarily aimed at schools in Nantes and the Greater Bellevue district.

The "imaginary situations" implemented in 2019:

- First act: the permanent work "le réverbère à nœud" (The Knotted Lampost) installed in Place Mendès-France at the end of January 2019;
- Second act: "la Fiat de Monsieur Bourgogne" (Mr Bourgogne's Fiat) from 12 to 28 April 2019 and "la tente de Mr Bourgogne" (Mr Bourgogne's Tent) from 23 to 28 April;
- Third act: the revival of the "Miniatures" show, presented from 23 July to 17 August 2019. The show attracted nearly 16,000 spectators;
- Fourth act: "l'arbre dans la voiture" (The Tree in The Car), installed overnight from 17 to 18 November 2019, and "Madame Rodéo", presented at the Bellevue Market on 19 and 22 November 2019.

"Charlie Chaplin Through the Eyes of the Avant-Garde", the Arts Museum's most popular exhibition since its foundation!

As soon as the museum's project was approved in 2016, it was decided that the museum would hold large-scale exhibitions every three years. This was the aim behind "Charlie Chaplin Through the Eyes of the Avant-Garde": a multidisciplinary, ambitious and popular exhibition.

The large-scale project "Charlie Chaplin Through the Eyes of the Avant-Garde" showcases the museum's chosen theme of the Americas. The work of the world's leading film star (Charlot) explores the challenges of modernity. In this exhibition, Charlie Chaplin and his by turns funny, touching and engaging filmmaking act as our guides in discovering and understanding the works and artists of the avant-garde. By doing this, the exhibition's aim is to engage visitors in an educational, open, immersive and playful way. This approach helped to draw a wide range of visitors.

Thanks to scenography by Martin Michel, an entirely redesigned atrium showed paintings, photography, drawings, sculptures, documents and of course film extracts that highlighted Charlie Chaplin's influence on many artists. The complete transformation of the atrium was hailed as the entrance to a new world, a way of reinventing this emblematic space of the museum.

The Dream Factory, a mediation device designed with a "table of contents" and located at the physical heart of the exhibition, was highlighted both as part of the scenographic work, and in communications as an integral part of the exhibition route.

The associated programme of events was a great success. These were presented both inside the museum (workshops, concerts, performances) and out, particularly through a film cycle shown by the Cinématographe during the first weeks of the exhibition. Other organisations associated with the exhibition included the Conservatory, the Katorza and Angers Nantes Opéra.

The public conference, held on 5 and 6 December with the University of Paris 1, was a great success (despite the strikes). The proceedings will be published in early 2021.

With **147,000 visitors**, the *Charlie Chaplin through the Eye of the Avant Garde* exhibition delighted a massive audience, becoming the most popular exhibition in the Museum's history.

Additionally, and despite a disrupted calendar due to the Covid-19 epidemic, visitors to the **Louvre Abu Dhabi** will be able to discover a version of the exhibition designed by the museum, the first time it has hosted a project created by a French regional museum.

This type of mediatized event significantly increases the museum's reputation. The museum asserts itself both as a local venue (with a large percentage of visitors from the Pays de la Loire region) and as a driver of international appeal (visitors from outside the area drawn by an original exhibition).

Designed in Nantes, the "Chaplin" exhibition demonstrates the quality of the museum's scientific research. The exhibition's curator has been working on the subject since 2014. Her approach was based on cross-referenced research and a number of collaborations (experts on the history of Charlie Chaplin, the history of cinema, the avant-garde, the French, American, German, Russian and Czech modernist schools, etc.). The exhibition received particular praise from the press for its originality, thanks to the richness of the exhibition and the selection of works. In order to gather the 220 or so works and documents, the museum borrowed works from public and private collections around the world, including Canada, the United States, Germany, Netherlands and Russia.

By adding to the appeal of the local area and attracting sponsors, the museum also contributes to economic development.

The Planetarium continues to innovate in the context of high attendance

The **7-day opening** of the Planetarium, which was initially adopted in July 2017, has been made permanent. In 5 years, the number of visitors has increased from 43,000 to 57,000. It has been a victim of its own success, as it is unable to meet demand, although reservations and online ticket sales have made it possible to manage the flow of visits.

Its attractiveness as a venue can be attributed to the wealth of programming for public audiences (live sessions on various themes, some for children from 3-4 years and up, memberships, astrotheme evenings for adults, children's workshops, etc.). A new programme for **schoolchildren** also offers educational projects that are designed with teaching in mind. NB: work planned for the start of the 2020 school year will increase capacity to 59 seats (currently 51), making it possible to host 2 classes at the same time.

The Planetarium welcomes a wide variety of students and supports them throughout their schooling. In the 2018/2019 school year, it hosted 32 nursery classes, 219 primary school classes, 169 middle school classes and 13 sixth-form classes, as well as students or specialised groups as part of school astronomy programs.

The Planetarium is also popular with leisure centres and other cultural centres, with around 200 centres hosted throughout the year during school holidays. Due to the overwhelming demand, quotas have been introduced for hosting of these groups.

Over the last three years, a **wide variety of partnerships** have made it possible to offer the public new further-reaching activities, such as sessions combining astronomy with dance, classical or modern music, classical literature or comics, theatre and even improvisation, poetry and digital art.

The **recurring initiatives** implemented over the past four or five years continue to be as successful as ever. The "Sciences noctambules" (a sky and fauna watching evening) are beginning to go mobile in Nantes and the metropolitan area (287 visitors in 2019). The **Astronomy Village** continues to welcome the same number of onlookers and partners for the Science Festival on the butte Sainte-Anne (1,002 visitors in 2019). NB: the Planetarium has benefitted from greater visibility thanks to the district's development, with its Jardin Extraordinaire (Extraordinary Garden) and the promenade des belvédères.

The Nantes Planetarium is the only establishment that offers such a variety of programming and attractions in the Pays de la Loire region. The venue's influence outside the local area is clear to see in its visitor base: currently, 55% of visitors are from the metropolitan area (of which 30% are Nantes residents and 25% are residents of other metropolitan municipalities), while 45% of other visitors are from outside the area.

The proportion of school visits are also testament to its **significant local impact**. In the 2018/2019 school year, 41% of the schoolchildren hosted were from Nantes Métropole, 34% from the rest of Loire-Atlantique and 25% came from other departments in France to access this educational tool. NB: the educational programme is currently limited to its single projection room which is not large enough to accommodate everyone.

As part of its activities beyond its walls, the Planetarium is also active outside the metropolitan area (in 2019, 6 days held in Nantes, 10 days in the other municipalities of Nantes Métropole, and 16 days in the rest of the department) although it is unable to satisfy all demands.

Since 2019, the Nantes Planetarium has established itself as a **regional leader** in two ways. Firstly, it is a certified **School of Astronomy**, and as such, it is building partnerships with the French Astronomy Association, the ACCOORD, the Francas and the Astronomical Society of Nantes to offer the public of all ages a learning path dedicated to astronomy. Secondly, the Nantes Métropole Planetarium has also made a name for itself through "Vigie-Ciel" (Sky-Watch), a national participatory science project on the subject of meteorites. The first training courses for volunteers are currently underway. These will continue alongside a general rollout in secondary schools, sixth form colleges and amateur astronomy associations in the department.

At **national and international level**, the Planetarium continues to work with the network of French and foreign planetariums. In 2019, a **co-production with the Paris planetarium** made it possible to offer the people of Nantes and Paris a summer session on the current status of Apollo missions. This was a hugely rewarding collaboration, both in human and technological terms and will no doubt open up the possibility for other similar experiences. In addition to the Award received in 2018 for the Nantes team's international involvement, a special relationship is beginning to emerge with the Montreal Planetarium, as well as an artist residency project as part of a digital art project with the Société des arts technologiques montréalaise, Stereolux, the planetariums of Paris and Vaulx en Velin and the Assemblée Artistique des Diversités Numériques (AADN).

The "Imaginary City", an ambitious project

After six months of consultation and collaborative work to imagine the **future of the Cap 44 building** (the great mills of the Loire in Bas Chantenay), the decision was made in October 2018 to preserve and transform the site while respecting its history. The goal is to reveal the aesthetic and heritage value of the building (currently hidden by cladding installed in the 1970s) through 6 key intentions:

- maintain a high point to the west to offer a new panorama;

- lower the eastern section to encourage the discovery of the landscape and the brightness of the site while creating a real link between the Loire and its environment;
- open up the ground floor to allow views between the Loire River and the quarry;
- reveal the historical construction method "Hennebique", the only of its kind used in the world when the building was constructed in 1895, and a witness to Nantes' industrial, port, maritime and river history.
- give particular importance to the theme of the imagination (Jules Verne being one of its most illustrious representatives), in interaction with the forthcoming Heron Tree and its Extraordinary Garden;
- create a one-of-a-kind place on a metropolitan scale along the Belvédères route.

In order to fine-tune these intentions, a conceptual design study was carried out by the Directorates-General for Culture and delegated to Territorial Consistency Scheme.

The plan is to allocate the building to a **cultural and tourist experience centred around Jules Verne and his literary worlds** in a specific and unique place that is able to transport its visitors into more contemporary imaginations. The aim is to create a unit that links in with the Extraordinary Garden and the Heron Tree to create a coherent cultural and tourist ecosystem.

The concept envisions several playful, immersive devices and programming in which each event (exhibition, meeting, festival of ideas, etc.) opens up a new dream or a new imagination, challenges visitors and questions our uses.

There will be a strong emphasis on multidisciplinary, experimental approaches and forward-looking or utopian visions. Creators hosted in residence will contribute to the programming of the site and the dynamics of the local area.

As part of the project, the following spaces are planned:

- - a permanent exhibition space to replace the current Jules Verne Museum on the "Hennebique" plateau. Consistent with the essential concept of the building, the purpose of this installation is to bridge the gap that currently exists between the "great" image and universal fame of Jules Verne and the limited resources that are currently devoted to showcasing the writer and his work, by creating a complete and innovative experience ("from writing to images and the imaginary"), that meets the expectations of diverse audiences;
 - a **temporary exhibition space**, offering a programme (on the bases outlined above) in conjunction with Les Utopiales, the Lieu Unique, the CSTI Cluster (Scientific, Technical and Industrial Culture) and other partners;
 - a **"third place"-type library** dedicated to the theme of the imaginary and encouraging the involvement of users;
 - a **performance space**, operated in affiliation with the exhibition spaces and the library.

In addition to the universally accessible panoramic terrace, there are also plans for a restaurant area and a shop.

This place will be aimed at **people of all ages** who have come to discover or help others discover the universe of Jules Verne and his imaginary worlds. A specific programme will be offered to school audiences.

Angers Nantes Opéra: an opera in the public space!

Angers Nantes Opéra (ANO) is a key player in the conurbation and the Région, a driving factor in the cultural influence and appeal of the Nantes metropolitan area.

The ANO's activity recorded a particularly significant increase in attendance during its last season, with a 35% increase in spectators this year (a total of 60,527 spectators in 2018/2019, including 45,040 in Nantes). The number of performances staged has also seen a sharp increase, from 50 to 80. The

2018/2019 opera season featured one production (Le Vaisseau Fantôme - The Flying Dutchman), 6 co-productions and a royalty contract.

2019 saw the implementation of an exceptional project to multicast Wagner's romantic opera "The Flying Dutchman" on Thursday 13 June. In addition to the performances planned at the Graslin Opera, two simultaneous open air screenings with a strong participatory dimension involving local residents' choirs were held in two squares in Nantes city centre, as well as in Rennes, Angers and many other towns in the west of France.

This dynamic is typical of the new artistic and cultural project currently being led by this institution, whose aim is to reach a wider audience, primarily by bringing opera to the heart of the public domain.

Angers Nantes Opéra helps to spread the influence of Opera through its performances and cultural projects, particularly in the field of art education. It reaches an audience from all the municipalities in Nantes (around 1 in 3) and the wider region.

The association "Opéra en Grand Ouest", created jointly by Nantes Métropole and the cities of Angers and Rennes to share opera programming between the two opera houses, was created in 2019. Under this cooperative scheme, Angers Nantes Opéra and Opéra de Rennes will continue to work together through joint opera programming, as they have done since the 2018-2019 season (6 productions of joint shows planned for the 2019-2020 season).

The ANO also maintains an openness to other disciplines, especially dance, through its involvement in the "Trajectories" festival, but also cinema with the hosting of the Spanish Film Festival and the 3 Continents Festival.

This openness will also continue in 2020 for the benefit of all audiences with a consolidation of the actions undertaken last season to welcome people of all ages, especially families and schoolchildren during the series of participatory concerts "ça va mieux en le chantant" (things are better when we sing them).

Key figures in 2019

- **Nantes History Museum (at the château) : 356,468 visitors**, not including artistic events and reception activities. A slow year in comparison to an exceptional 2018, but a 2.5% increase in attendance on the previous year for the museum's permanent exhibitions.
- **Musée d'Arts: 298 556 visitors**. 4th most visited regional art museum, after the Musée des Beaux-arts de Lyon, Louvre Lens and the Centre Pompidou Metz;
- **Natural History Museum: 127,000 visitors**; down 12% on 2018 but an increase compared to 2018 (with 118,000 visitors).
- **Planetarium: 56,837 spectators**; an increase of 8% compared to 2018 and 9,913 more visitors than in 2016;
- **Chronographe** (archaeological interpretation centre): **23,600 visitors**, higher than the initial estimates of 20,000 visitors per year.
- **Jules Verne Museum: 38,983 visitors**, or 3,544 visitors per month (museum closed for works in January), an increase of 11% on 2018 and 28% compared to 2017.
- **221,083 visitors to the Memorial to the Abolition of Slavery** and **36,229** to the Cathedral crypts.

SUPPORTING ELITE SPORT

Elite sport is an essential driving factor behind the appeal of the local area. With this in mind, Nantes Métropole manages the local area's sports facilities and supports local sporting events and activities.

Promoting and developing the sporting elite

Professional sport in Nantes Métropole accounted for nearly 140 matches between professional teams and 800,000 spectators in 2019. It is only natural, then, that team sport clubs competing at European level are given support.

7 professional teams were supported in the 2019/2020 season: 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 the teams will be playing in the European Cup in 2019/2020: HBC Nantes, Nantes Atlantique Handball and Volley Ball Nantes.

Also worth mentioning is the outstanding performance of Volley Ball Nantes during the 2018/2019 season, who came second in France and a place in the finals of the French Cup.

Alongside these clubs, Nantes boasts two "amateur" clubs with a strong local identity competing at the highest levels of their disciplines, namely Nantes Métropole futsal and Nantes Métropole Athlétisme.

Nantes Métropole provides support in the form of subsidies and the purchase of communication services for a total of €5.5 million

Nantes Métropole also provides specific support for elite athletes (30 elite athletes as at 1 November 2019). These sportspeople, who feature on the register 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 (€90,000) was used to purchase specific equipment or towards international travel expenses.

1) Sporting facilities in Nantes Métropole

The area's main sporting facilities are:

the Beaulieu Sports Centre (PSB)

After delivery of the second phase of works (lasting one year), the extension hall of the Palais des Sports reopened to accommodate schools and HBC Nantes amateur sports. The renovation of this former gym provided a fall-back for the users of the four specialised rooms (boxing, judo dojo, karate dojo, weightlifting), allowing the final phase of the work to begin.

The Palais des Sports hosted several major events, with an international handball match between the French team and Romania, the Henri Michel tribute tournament with the involvement of Didier Drogba and Zinedine Zidane, and a boxing event featuring a fight by Tony Yoka in front of a crowd of 6,000 spectators.

The Pierre Quinon Stadium

This specialised facility, equipped with a 200 m ring track, a central track, jump areas and 18 badminton courts, hosted numerous athletics events in 2019: 6 departmental championships, 5 regional championships, 4 athletics meets, the pre-French championship and the French Masters

championship. The stadium also hosted events dedicated to people with disabilities, in particular the French championship for the disabled and two French fencing championships.

The Trocardière Metropolitan Sports Hall

This sports hall specialising in basketball hosted meets by Nantes Rezé Basket (women's club) and Nantes Basket Hermine (men's club).

Other events included a qualifying match between the French men's national basketball team and the Czech Republic (with a well-won third place for the French team) as well as the European table tennis team championships (24 women's and men's national teams).

The Petit Port Ice Rink

The only ice rink in the department, the skating rink forms part of the Petit Port sports complex and welcomes a diverse audience, including associations, schools and the general public.

2019 has been an excellent year in terms of attendance, with more than 100,000 public admissions.

The ice rink also hosts the matches of the Corsaires de Nantes (who compete in Division 1), which are frequently sold out. More than 20,000 spectators attended these matches, with highlights including the Hellfest! evening event which featured a match followed by a concert.

Supporting major sporting events

Nantes Métropole has also supported the following:

- the Nantes marathon in April;
- The solitaire Urgo le Figaro solo sailing race in May;
- The French Road Cycling Championship in June;
- The European Volleyball Championship in September;
- The European Table Tennis Championship in September;
- The France vs Romania handball match at the Beaulieu Sports Centre;
- The France vs Czech Republic basketball match at the Metropolitan Sports Hall;
- The general assemblies of the French athletics and rugby federations.

As well as a number of "multiple-edition" events:

- The Open International de Squash de Nantes in September;
- The Gaz de France Open (women's tennis) at the Laporte Stadium in Nantes;
- The Odysséa race in March, les Foulées du Tram in October;
- The Tournoi International de Futsal de l'Erdre;
- The Trophée des Sprinters in Couëron.

DEVELOPING HIGHER EDUCATION AND RESEARCH

Higher education and research, the cornerstone of any city with a focus on learning, have been the driving factor behind a host of local innovations, in sectors such as health, materials and human sciences. By supporting the Université de Nantes, higher education institutions and numerous research centres in the region, Nantes Métropole plays an active role in harnessing local expertise and extending its influence at European and international level.

Campus Nantes: 5 sites registered

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, addressing overall issues such as site development, the road system and services, along with issues more specific to the establishments and students (housing and catering arrangements, timetables, etc.).

Of the five sites registered with Campus Nantes, committees are in place for:

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

The coordination process continued throughout 2019, with site committees held on the sectors of the Jules Verne innovation centre in Bouguenais and on the Chantrerie Fleuriaye site. Led by the travel department, the points raised by educational and research institutions during the committees were largely related to accessibility and traffic on the site. For the Géaudière site, the committee has been put on hold at the request of the institutions involved (INRAE and ONIRIS), as they are currently working on the reorganisation of the site internally.

Campus Nantes: the continuation of site agreements

Site agreements are one of the tools implemented as part of the Campus Nantes initiative set up by Nantes Métropole. Signed for a three-year term, they are designed to establish contractual relationships with virtually all of the higher education and research institutions in the Nantes conurbation. In doing this, the aim is to both maintain and ramp-up Nantes Métropole's support by funding initiatives in strategic areas based on the common priorities set out in the framework of 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. 3-year site agreements were signed with the university, Audencia and the Nantes Atlantique School of Design. A new agreement was also to be concluded with the central school, but was ultimately postponed in the light of developments in the NEXt (Nantes excellence trajectory) dossier and the New University of Nantes (NUN).

NB: Health is one of the main fields of research excellence in the Nantes metropolitan area. It benefits from a close partnership between basic and clinical research, but also between hospitals and patients. Under the CPER planning agreement between the national and regional governments, Nantes Métropole is involved 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, providing funding of €2.95 million to match the Region's contribution.

Higher education in the metropolitan area and the NExT project

In 2019, the NexT project encountered a few difficulties:

- the suspension of the NExT and NUN project following the rejection by the Board of Directors, in October 2019, of the Nantes Central School's involvement in the NUN project, which had been under negotiation for 2 years with the University of Nantes.

This hiatus in the NExT project has left all the local players in limbo while awaiting clarification of the action to be taken by the French Government, the international jury and the partner and associated institutions.

As a result, the French Government has suspended all funding except for actions already initiated.

For its part, Nantes Métropole has maintained its commitments under the NExT agreement between the University of Nantes and the National Research Agency in 2018. Nantes Métropole is supporting the university under the Campus Nantes agreement, which was renewed in 2018 with specific additional funding of €800,000, bringing its total support to €1.1 million. The bulk of these funds are awarded for the purposes of attracting new skills, employing tools to develop innovation and a sense of belonging in past and present students of Nantes educational institutions.

- NB: The UBL (Université Bretagne Loire), which brought together the 9 universities of Brittany and Pays de la Loire was dissolved at the end of 2019.

Targeted studies into future facilities

2019 saw the continuation of studies related to various projects:

- Studies related to the construction of the new Faculty of Health on the Île de Nantes are currently being carried out under the project management of the Region but with equal funding from the State, the region and Nantes Métropole. In addition to overseeing the facility's pre-programming, Nantes Métropole has also launched a student social restaurant project as part of this work, which will accommodate more than 7,000 students, as well as the construction of an underground public car park for future users of the site: Faculty of Health and the future University Hospital (delivery expected in 2027/2028);
- the Region has approved the pre-programming studies for the new Faculty of Health project (at a cost of €130M ex. VAT). The funding, which was awarded as part of the Future Contract, includes a contribution of €36 million (excluding VAT) from Nantes Métropole, not including the student restaurant which is valued at €14 million;
- Studies in connection with the IRS 2020 under the project ownership of the University Hospital, which was the subject of a financial agreement in 2018 (delivery expected in 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 (BU) at the Le Tertre site (delivery expected in 2021);
- the launch of the ENSM's rapprochement project in the Salorges district of Nantes on the site of the central school at a cost of €11.5 million, with a €2.5 million contribution from Nantes Métropole.

Additionally, digital equipment and research programmes are ongoing, with funding to continue until 2022 depending on the progress of the various acquisitions by the institutions.

The Research-Training-Innovation initiative

Research-Training-Innovation (RFI) 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.

Agreements continued in 2019 with 6 RFIs, mainly covering research equipment and demonstrators, communications and international events.

The regional scheme also underwent an assessment process during the year. This marks the end of RFIs in their current format by the end of 2020.

Supporting the hosting of international researchers ("Connect Talent")

"Connect Talent" is an international call for projects launched by the Pays-de-la-Loire Region in 2013, in partnership with higher education and research institutions and local authorities, with the aim of supporting the hosting of talent, international scientific leaders arriving alone or with a team, in order to give impetus to a new research theme or to accelerate the development of an existing theme.

In 2019, Nantes Métropole continued to support three projects that have been underway since 2017, 2018 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 "Multimodality Imaging In Cardiovascular Disease" project**, led by Romain Capoulade and hosted by the Institut du Thorax (Inserm UMR 1087 / CNRS UMR 6291), aims to establish a centre of excellence in multimodal translational imaging, with a focus on cardiovascular diseases. This will make it possible to offer comprehensive, on-site expertise for analysis and interpretation of imaging data in order to identify 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, which combines data science and health science focusses specifically on the application of machine learning to the analysis of multimodal medical images, in order 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 has also supported 1 new project:

- **The cEEV (Controlling Extreme Events) project**, led by Ioannis Stefanou at the Civil and Mechanical Engineering Research Institute (GEM) (UMR 6183 - Centrale Nantes - University of Nantes - CNRS). This project will make it possible to develop regional and national skills in numerical simulation. It aims to achieve significant economic benefits by re-examining the basic sciences (fault geophysics, mechanics and dynamics) from an engineering/simulation perspective. The project also aims to protect historical heritage. It should be noted that the project benefits from world-class regional equipment (supercomputers and ultra-fast cameras) and close collaboration with regional experts in simulation and experimentation.

Support for the University of Nantes Foundation as a founding member

The University of Nantes Foundation is currently working to transform and develop the University of Nantes. It supports teacher-researchers' projects to stimulate change in the university and in our society. An effective strategic tool for the promotion and development of the University, the foundation supports projects that respond to the major challenges of the future.

The scheme in numbers:

- 3 founding members (University, Nantes Métropole, Pays de la Loire Region);
- 43 active projects;
- 4 research chairs;
- 330 donors;
- 12 ambassadors;
- €8 million raised.

Nantes Métropole, a popular partner for international events

The conurbation hosts a number of academic conferences and symposia. Some 30 events have received support from Nantes Métropole for the benefit of the university and the main higher-education and research institutions of the metropolitan area, including the following international scientific meetings:

- the 8th annual international conference "Fundamentals and Development of Fuel Cells" from 4 to 12 February, hosted by the University of Nantes;
- the International Flower Symbiose Seminar from April 24 to 26, organised by INRA;
- the 6th Symposium "on Enhanced Electrochemical Capacitors ISEECAP 2019" from 6 to 10 May 2019, organized by the Materials Institute of the University of Nantes;
- the NRCE Research and Innovation international congress from 20 to 23 May, hosted by the CEA;
- the Children's World international seminar on 19 and 20 June at the University of Nantes;
- the European Constitutive Models for Rubber Conference from 25 to 27 June, hosted by the Central School of Nantes;
- 55th International Therapeutic Chemistry Meeting (ICTM) 2019 from 3 to 5 July 2019, organized by the University of Nantes;

- the IASP 2019 "World Conference on Science Parks and Areas of Innovation" from September 24 to 27, hosted by Atlanpole.

Key figures

Number of students (years 2016/2017) (source: DEPP/BCP - April 2019)

- 61,151 students in the Nantes metropolitan area, broken down as follows:
 - 38,083 students at the university's sites in Nantes;
 - 7,360 students in the Certified Technician Programme preparing for the BTS (Advanced Technician Certificate) and in preparatory classes for the grandes écoles;
 - 10,368 students at the grandes écoles;
 - 5,340 students in other specialist schools (medico-social, artistic and cultural, business and management, etc.).

ENCOURAGING CREATION, INNOVATION AND THE GROWTH OF DIGITAL TECHNOLOGY

Nantes Métropole aims to feature at the forefront of innovation and digital technology in Europe. To this end, it safeguards industrial activities, promotes competitiveness clusters and supports niche technology as well as emerging sectors (digital technology, health, cultural and creative industries, the environment).

As such, Nantes Métropole is continuing in its strategic approach to economic and technological innovation. This approach is based on:

- two priority areas: health and the industry of the future; and six fields of excellence in innovation: digital technology, healthcare, cultural and creative industries (ICC), sea, manufacturing and agri-food, all of which are underpinned by structural projects;
- upsizing 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);
- optimising the public innovation ecosystem (governance and interconnected support structures);
- strengthening cohesion in the local area through collaborations and shared strategies (Region, Chamber of Commerce and Industry (CCI), CARENE, University of Nantes, University Hospital, etc.).
- affirming European (with the CEI prize) and international ambitions .

This approach is in line with that adopted by the French Government and its goals in terms of innovation.

Nantes, 2019 European Capital of Innovation

On 25 September 2019, Nantes Métropole was awarded the European Capital of Innovation prize for its ability to develop innovative solutions through a collective approach involving citizens, private players, associations, etc.

After an initial selection phase following the submission of applications, 12 cities (Antwerp, Bilbao, Bologna, Bristol, Dortmund, Espoo, Glasgow, Hamburg, Leiden, Lyon, Nantes Métropole and Rotterdam) were shortlisted to give a presentation before a panel of independent experts. At the end of this interview, **Nantes Métropole was awarded the title of European Capital of Innovation, as well as a grant of €1 million**. The 5 other finalists (Antwerp, Bristol, Espoo, Glasgow and Dortmund) received a grant of €100,000.

When submitting its application, Nantes Métropole made three commitments in the event of receiving the prize:

- to support the development of citizen dialogue in the 24 municipalities of the metropolitan area;
- to develop the Nantes City Lab XXL;
- to organise an event with a European reach in Nantes, with the involvement of various networks such as Eurocities, iKEN, or the 27th region.

Digital sector - French Tech Nantes

The Nantes metropolitan area aims to become a major digital marketplace in Europe, by bringing all the digital players in the local area (and particularly innovative companies and start-ups) together under the banner of French Tech Nantes.

Launched at the initiative of the French Ministry for the Economy, Industry and Digital Affairs in early 2014, French Tech refers to both the community of players and entrepreneurs working in or for French start-ups in France or abroad, and the innovative public policy designed to promote this community, as well as the growth and international reach of its startups. French Tech entered a new phase in 2019 with 4 priorities: hyper-growth companies, deeptech (breakthrough innovations), skills and diversity/mixing, and Tech for Good (technology with a positive impact).

Highlights in 2019 included:

- Nantes being awarded the title of French Tech Capital for a period of 3 years (2019-2021);
- the confirmation of new impetus in the area: NaonedIA (collective for ethical, responsible and popular Artificial Intelligence), the PropTech movement (technology and real estate) and technology with positive social/societal and environmental impact (forum in September 2019 as part of Nantes Digital Week);
- support for moves to promote gender balance in digital professions with the backing of initiatives led by Femmes Digital Ouest and ADN Ouest;
- initiatives by local organisations (FDOuest on female entrepreneurship in the digital sector, Atlangames on video games) with an international scope (two programmes in Montreal);
- renewed actions to promote diversity of talent in the digital sector, with the 3rd annual Safari des Métiers (Safari of Professions) event, spearheaded by local digital services companies and aimed at people undergoing retraining;
- the stability/maturity of the digital ecosystem with booster schemes (1Kubator, ADN'Booster, NovaPuls, VillagebyCA...) / startup studio (Imagination Machine) in place and offering new programmes to support startups in their development;
- investments in digital startups (€99 million in 2019 for all startups) and 2 noteworthy scaleups in Nantes (Akeneo and iAdvize appearing in the national top 120 "remarkable" French Tech start-ups);
- the organisation of the 4th Plug IN event by the EMC2 cluster, a scheme aimed at generating cross-fertilisation between industry and tech, and more generally at supporting manufacturers in their digital transformation, in partnership with CARENE;
- the presence of local start-ups and innovative companies on the international market (Web à MTL Connecte, Web Summit, etc.);
- a strong event-driven dynamic supported by Nantes Métropole around 4 major highlights: Web2day, Nantes Digital Week, DevFest and Digital Change as well as Motion Motion and Nantes Maker Faire;
- the merger between the Images & Réseaux and TES (Normandy) competitiveness clusters, now postponed until 2020;
- the opening of Halle 6 West (see ESR section), the first section of the iconic French Tech Nantes building (Halles 6 East and West).

Key figures:

- 27,000 jobs in the digital industry (up 1800% in one year);
- More than 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

Nantes Métropole's ambition is to develop a European centre of excellence in Cultural and Creative Industries (CCI), located on the Ile de Nantes and its Creative Quarter. Located on a 15-hectare site that once housed the operations of the shipbuilding industry, this area is a unique focal point for creative talent, with a mix of companies, cultural establishments, training and research institutions, collectives and start-ups. Nantes Métropole invested a total of €938,875 in the ICC PSD in 2019.

Highlights in 2019 included:

- **a press conference on the Halles construction project in March 2019:** the redevelopment of the former industrial building represents a core project for the Nantes metropolitan area. As the nerve centre of the Creative District, Les 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;
- **the delivery of Halle 6 West on 19 September 2019:** one of the former Alstom halls, where boat propellers were once manufactured, has been converted to house part of the **first multidisciplinary cluster dedicated to digital cultures in France (redeveloped at a cost of €13.4 million)**, financed entirely by Nantes Métropole, as part of the Promising Campus label). 200 students, 50 researchers and entrepreneurs work together on a daily basis; the creation of a new Master's degree in Digital Cultures and 6 professional licenses enabling access to specific equipment, ie. userlab, manufacturinglab, learninglab;
- **the laying of the foundation stone of the future Nantes Atlantique School of Design on the Ile de Nantes (11 December 2019):** the École de design Nantes Atlantique will be moving into this building in the heart of the creative district in the second half of 2022. This new location should enable the school to accommodate its growing number of students, which has increased from around 60 when it was founded in 1988 to almost 1500 today. The school forms part of an ambitious development strategy that aims to offer its students a truly international experience;
- **the approval by the Metropolitan Council in December 2019 of a future Delegation of Public Service contract for 2020-2024 with the SAMOA for:**
 - the development, coordination and promotion of cultural and creative industries in the metropolitan area;
 - the operation, management and coordination of Halles 1 and 2, the iconic CCI building in the creative district, a new unifying citizen meeting place (shared and collaborative work space) dedicated to creativity and innovation, planned for completion in 2021.

“Future Health Care” Sector

Working in partnership with the Nantes Saint-Nazaire Chamber of Commerce and Industry, Nantes Métropole has launched an initiative to define a strategy for the development and structuring of the health sector at metropolitan level and beyond, taking into account the different segments of the sector: the pharmaceutical industry, medical devices, medical analysis, supplemental health insurance, the silver economy, biotech, e-health, medical transport, prevention, cleaning and sterilisation services, funeral services, etc.).

The health sector also overlaps with 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.

Consequently, the strategic positioning chosen for the development of the health sector (which represents a combined 31,000 direct jobs in the metropolitan area) consists of consolidating its

current strengths, particularly in translational research with the Nantes University Hospital, the biotech sector and the silver economy. The aim is also to develop two new priority areas:

- **Health & Digital** (short and medium term): a rapidly growing market at national and international level in several areas (e-health, AI, connected objects, 3D printing, big data, etc.) by promoting the "French Tech Capital" label and Nantes' substantial pool of digital start-ups;
- **Health & Food** (medium and long term): to promote local "foodtech" in particular and eventually involve food manufacturers to compensate for the lack of large health food manufacturers in the region. The idea is to work with these manufacturers to build partnerships with research laboratories and innovation centres in the local area, with the aim of developing new development opportunities, particularly in connection with research work on preventive and therapeutic nutrition or on intestinal microbiota.

These guidelines are reinforced by the new expanded roadmap of the Atlanpole Biotherapies competitiveness cluster, which foresees a strengthened partnership with the Images et Réseaux cluster (health & tech) and with the Valorial cluster on clinical nutrition (health & food). For the local area, the goal is to support the development of local businesses and attract new talent and skills, with the aim of doubling the number of "health" companies with more than 50 employees and attracting two to three world-leading businesses within 10 years. In terms of a roadmap, the programme plans for some twenty actions divided into five objectives:

- coordinate the local ecosystem by relying on existing organisations;
- develop the national and international appeal of the local area;
- implement a "multi-site" land use and property strategy;
- attract new talent and facilitate business development;
- involve the food industry in the "health/nutrition" aspect.

Creation and coordination of a "cluster" of health companies: as part of the process of structuring the health sector in partnership with the CCI of Nantes, several meetings were organised with a panel of around fifty health companies, bringing together startups, SMEs, mid-caps and large groups. These "Health Cluster" meetings enabled the companies involved to get to know each other better, to raise their expectations and to contribute to the creation of a development strategy for the Health sector for the next 10 years.

A meeting to formalise the strategy for the health sector, attended by Johanna Rolland and Yann Trichard, held at the Harmonie Mutuelle premises in Nantes on 7 November 2019. Bringing together more than 100 people (from the health cluster and other players in the sector), this was an opportunity to remind those present of the Nantes metropolitan area's ambition to make the health sector a strategic lever for economic development. With this in mind, and in addition to structural projects such as the Health district, the construction of the new Nantes University Hospital and the new health faculties, the local area plans to equip itself with a new iconic building to bring together the various players in the sector around the theme of future health care, and provide itself with innovation, research and development capabilities.

"Factory of the Future" sector

Created in 2012 at the initiative of the EMC2 competitiveness cluster, the IRT Jules Verne technological research institute, with the support of the French Government (Programme d'Investissement d'Avenir - Future Investment Programme), local authorities, manufacturers and academic players in the region, has continued in its drive for new growth.

Against this backdrop, in 2019 the IRT Jules Verne launched a project to build a new 6,500 m² building for mixed industrial and tertiary use to house both its head office and its various collaborative R&D activities, with delivery scheduled for the end of 2021.

The IRT Jules Verne will provide the ideal environment to enable employees to work in world-class conditions, to host national and foreign delegations and to attract new talent. In addition, the architectural challenges will be taken care of as well as the urban planning aspect of the project to make it an “iconic location” within the Jules Verne industrial innovation cluster in Bouguenais, which should house some 15,000 jobs, 2,000 researchers and 4,000 students by the year 2030.

Additionally, in 2017 the IRT Jules Verne launched the "PERFORM" thesis cluster program on the theme of "the factory of the **future**", **bringing together** manufacturers, mid-caps, SMEs and academics. The aim of this ambitious and unique scheme is to accelerate innovation and technology transfer between research laboratories and companies. In 2019, Nantes Métropole is committed to supporting the 3rd campaign of this programme over the 2019/2022 period, alongside the Pays de la Loire Region and manufacturers.

Finally, Nantes Métropole took part in the various working groups of the "local area of industry" plan. Launched by the French Government with the aim of strengthening the industrial ecosystem of the Loire estuary (around Saint-Nazaire), the plan focuses on four key areas: attractiveness, skills, innovation and regulatory simplification. This government plan also proposes tax breaks for SMEs that commit to a "factory of the future" approach (tax deduction of a portion of investments made in robotics and digital technology).

The IRT Jules Verne continues to grow, with a target workforce of 200 employees by 2025. As for the Jules Verne Industrial Innovation Cluster (PIIJV), by 2020-2025 it plans to accommodate: 7,000 jobs, 700 researchers and 1,500 students.

"FOODTECH" sector

Nantes Métropole continues to provide guidance and support for the establishment of a metropolitan Foodtech community, in collaboration with the Region, and particularly through:

- support for the **NutrEvent** event, which features players in innovation, research and the manufacturing community working at the intersection of the food and health industries. 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. The first event held in this format in Rennes in October 2019 was a success, with a further Nantes event scheduled for 2021;
- involvement in the drafting of the action plan for the Metropolitan Territorial Food Project;
- networking and inclusion of foodtech actors from the ESR research school in the governance of the Local Area Food Project, officially launched in December 2019;
- support for the first "digital vine" transition event (promoting the digital transition of the local area's winegrowers).

Maritime sector

The rise of the maritime sector, which began two years ago, has continued, with:

- In the sailing sector:

A strategic study of sailing, carried out with the Saint-Nazaire conurbation and Cap Atlantique culminated in the approval of the action plan by representatives of the sector in April 2019.

The plan took further shape with the involvement of Nantes Métropole, as confirmed in several press conferences:

- during the Urgo Figaro solo racing event, appearing with the other players involved in the scheme (Centrale Nantes, University, Pôle Mer Bretagne Atlantique/Atlanpole, CCI Nantes St Nazaire, Néoline, Zephyr&Borée, Nextflow, cluster NINA, Armel Tripon) to promote actions by Nantes Métropole in the sector;
- on the topic of the XXL Sea Region stand for the official signing of the regional charter for the promotion of the nautical sector with all the signatories.

Another structural initiative of the nautical action plan is the Nantes Sailing Lab. By incorporating the operating principles of Citylab, the idea is to make sailing areas and their infrastructure available to project leaders in the maritime sector to test their products, services, etc. The idea is to turn them into a laboratory for the study of problem areas associated with sailing uses in the 21st century. The scheme relies on a steering committee of 30 players from the sector (representing clubs, port managers, SMEs, start-ups, key accounts, Governmental departments, clusters, competitiveness clusters, champions/skippers, etc.).

- In the naval sector:

Against the backdrop of an emerging wind-powered cargo/shipping sector, Nantes Métropole has co-financed a study to promote carbon-neutral cargo transport (IWSA association's French hub). The local area already boasts a rich source of promising projects and startups that have made the news in 2019:

- NEOLINE (partnerships with EDF and SOGESTRAN, contracts with Renault, Manitou and Bénéteau);
- Zephyr & Borée with its Canopée project, the first modern wind-powered freighter, in partnership with Jifmar Offshore Service and VPLP design (designed to transport the Ariane 6 launcher).

- Renewable Marine Energy:

The Franco-American Innovation Day (FAID) was jointly financed with the University of Nantes and WEAMEC (West Atlantic Marine Energy Community), and co-organized with the French Consulate in Boston, Northeastern University, the University of Nantes and POWER-US. This was the first in a series of International Floating Wind Turbine Workshops (I-FOWT).

Also worth noting was the launch of a consultation process for the study on the potential Loire estuary tidal turbine with, carried out with CARENE, Atlantic Sea cluster, the Loire Estuary Public Interest Group (GIP) and the major port of Nantes Saint-Nazaire, as well as the Brittany Atlantic Sea and EMC2 competitiveness clusters. Contract awarded to Valorem (an Innosea affiliate) in December 2019.

- Some events:

Three major nautical and maritime events took place between May and July 2019:

- The inaugural Débord de Loire estuary event;
- the Solitaire Urgo Figaro solo racing event (for its 50th year and the first to feature the Nantes-made Figaro 3 yachts);
- la MER XXL, the first XXL exhibition dedicated to the sea and its various aspects (sports, science, food, environment, leisure etc.), offered an opportunity to showcase Nantes' maritime identity.

NB:

- Nantes has been selected to host Seanergy, an international event on marine renewable energies, in 2020; Launch of the Steering Committee on the Region, Solutions&Co and CARENE;
- involvement in regional meetings to establish a regional nautical cluster for the promotion of the sector in the Region.

Support provided by Nantes Métropole to competitive hubs and clusters

2019 saw the approval of phase 4 of the competitiveness clusters and the launch of the regionalisation process by the French Government.

EMC2 competitiveness cluster

In 2019, the EMC2 cluster received unreserved Government approval for phase 4 of the competitiveness clusters (2019-2022), based on its demand for excellence and a strong European ambition, in line with the strategic guidelines of the Investment Master Plan (GPI) for innovation ecosystems in France.

Along with the French Government and the Pays de la Loire Region, Nantes Métropole has supported the activities of the EMC2 cluster in 2019, and in particular the following key initiatives:

- the development of its strategic roadmap SPIRIT 2025, which sets ambitious goals: 900 members (currently 400), 800 R&D projects (currently 520) including 200 European projects, partnership with the Images and Networks cluster on the digital side and the Auvergne-Rhône-Alpes ViaMéca mechanical cluster on the factory of the future;
- the creation of a permanent office in Brussels: the aim of this presence in Europe is to better identify opportunities for European funding, projects and new contracts for the members of the EMC2 cluster. The chargé d'affaires position in Brussels created by the EMC2 cluster is pooled with 10 other members: Airbus, Chantiers de l'Atlantique, EDF, Europe Technologies, IRT Jules Verne, Meca, Naval Group, Socomore, Tronico and the University of Nantes;
- organisation of the World Titanium Symposium in Nantes at the Cité des Congrès. After Beijing (China) in 2011 and San Diego (USA) in 2015, Nantes hosted this event, held every four years, which gathers experts in the field around the theme of titanium research and its potential applications in tackling the major industrial challenges facing the aeronautics and automotive industries or the health sector (e.g. prosthetics).

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

I&R is a cluster with a worldwide reach, bringing together a number of players in new imaging and networking technologies in Brittany and the Pays de la Loire. Its aim is to develop research and innovation in these six technological sectors: Digital Confidence & Security - Data & Intelligence - Networks & Infrastructures - Hardware & Software - Photonics - Interactivity & Immersivity. To do this, the goal is to form closer ties between the business and academic communities, and provide support for marketing the technologies derived from their R&D. As they enter their fourth phase, the two digital competitiveness clusters of the West of France, Images & Réseaux and TES, have decided to merge operations in order to position the Brittany, Normandy and Pays de la Loire Regions at the forefront of digital innovation in France and Europe by 2022.

This merger, involving more than 400 members, including large groups, mid-caps, VSE/SMEs, academics and local authorities, is ongoing.

NB: in 2019, the cluster's teams were strengthened, and in July, the Open Innovation Camp was held in Nantes on the theme of digital and environmental transitions.

"Atlanpole Biothérapies" competitiveness cluster

In 2019, the Atlanpole Biothérapies cluster was awarded the "phase 4" certification for competitiveness clusters by the French State, on the condition of achieving a target of more than 150 members in 2020 and benefitting from balanced 50/50 funding in terms of public and private revenues.

To this end, Nantes Métropole has joined the Pays de la Loire Region and Angers Loire Métropole in increasing its support to the Atlanpole Biotherapies cluster for the hiring of two additional employees: one located in Nantes, the other in Angers. The aim is to increase the number of members in the short term, and to boost the number of R&D projects in the medium and long term.

In addition, the Atlanpole Biotherapies cluster has redrawn its strategic roadmap to cover the following main areas of expertise: immunotherapies, regenerative medicine, radiopharmaceuticals (in conjunction with the Nucléopolis cluster in Normandy), clinical nutrition & microbiota (in conjunction with the Valorial cluster in Brittany), animal and digital health (in conjunction with the Images et Réseaux cluster in Brittany).

The Mer Bretagne Atlantique cluster

This cluster with an international reach was formed to encourage 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 2019, the cluster strengthened its local presence through:

- a collaborative partnership with the other clusters in the area: I&R, ABT, EMC2;
- involvement in the programmes and projects that are helping to structure the maritime sector (RFI WEAMEC, ENSM development committee, nautical sector working group SteerCo, working group on the potential Nantes Saint-Nazaire estuary tidal turbine, etc.);
- appearance at trade shows and major events in collaboration with local actors (Seanergy, AFHYPAC national conference, FWP, NAUTIC show in Paris, etc.);
- 25 certified R&D projects since 2014 involving actors 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, more than 300 outstanding skills and 45 markets. Together, these companies account for more than 30,000 jobs, bringing together 208 industrial companies in the region. Neopolia plays a particularly active role in the local area through projects or its involvement in structuring bodies for 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 and structures its support for student entrepreneurship. In addition 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 2019:

- the "MAIA MATER" Summer Camp run by La Cantine (Nantes/Saint-Nazaire), an intensive residential "earlystage" support programme run at an unusual venue, which was launched in 2017 in cooperation with Saint-Nazaire. The programme 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;

- 2019 marked the completion of the programme's initial 3-year phase in this format. A study is now underway on its potential continuation;
- launched in 2015, "Odyssée" is a shared training and incubation support platform supported by two higher education incubators: the Institut Mines Télécom Atlantique (formerly École des Mines) and the alliance (shared by 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 brings added value to the scheme by coordinating with the various players involved in setting up innovative start-ups, such as Atlanpole, and networking them with the innovation ecosystem and other programmes, such as Mash up, thus helping to create a well-rounded range of effective support services in the local area.

FIL Innov': Academic innovation with the University

This scheme, led by the universities of Nantes, Angers and Le Mans, proposes to structure the supply of university skills in innovation (on the basis of 8 major sectors identified), so as to bring companies and public research players closer together by spreading a culture of innovation in both academia and the world of business.

Providing a genuine tool for interface between laboratories and businesses and the players of the value-creation ecosystem (TTOs, incubators, science parks, competitiveness clusters, etc.), the system has now been built and deployed, with the creation of a new 'sector engineer' job profile. With scientific expertise in managing innovative projects, these professionals enable optimized handling of requests for support.

Nantes Métropole funds the project as part of Campus Nantes. The system will also be available as part of the NEXT programme backed by the I Site label.

Innovation through demonstration: the European mySMARTLife project

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 Nantes City Lab

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

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

This scheme, which is unique not only in the way it operates but also in its governance, is based around 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 enrich the projects, which must meet criteria established by the members of the committee.

In 2019, eight additional projects were identified by the scheme, bringing the number of new projects certified since the creation of the Nantes City Lab to 20. The projects focus on new uses for the city and the challenges of the energy transition, such as public lighting (two projects), urban logistics (two projects), urban agriculture (two projects), access to public space for vulnerable people (two projects), housing (two projects), energy data (two projects), urban furniture and spaces (six projects) and mobility (two projects).

These first two years have confirmed that test-driven innovation is a truly successful way of doing things. The Nantes City Lab is known as a place where eco-system's players can meet and exchange ideas, which in turn accelerates projects. By playing an active role in the testing field, the local authority is broadening the existing range of innovation support systems.

High-speed broadband is being rolled-out across the metropolitan area

Nantes Métropole aims to expand high-speed broadband coverage to the entire area by 2022. In keeping with the French High-speed Broadband Plan, the authority is working to ensure complementarity between public intervention and private initiatives.

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

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

The operators continued their rollout operations in 2019:

- SFR continues to work in the 14 municipalities it has been assigned: Bouaye, Bouguenais, Brains, Couëron, Indre, La Montagne, Le Pellerin, Saint-Herblain, Rezé, Saint-Jean de Boiseau, Sautron, Les Sorinières, St Aignan de Grand Lieu and St Léger les Vignes.

As of 1 January 2019, 90% of the SFR zone had access to the fibre optic broadband network (based on 2014 INSEE survey).

- Orange is also continuing its installation work in its nine assigned municipalities: Basse-Goulaine, Carquefou, La Chapelle-sur-Erdre, Orvault, Sainte-Luce-sur-Loire, Saint-Sébastien-sur-Loire, Vertou, Thouaré-sur-Loire and Mauves sur Loire.

As of 1 January 2019, 75% of the Orange zone had access to the fibre optic broadband network (based on 2014 INSEE survey).

At the same time, the fibre roll-out continues at a steady pace throughout the municipality of Nantes, which is open to all of the operators in direct competition (70% of homes are now served by fibre broadband).

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 providing 100% of homes with access to fibre broadband by 2022. In July 2018, the French government issued a resolution approving the commitments made by operators Orange and SFR to provide a target of 92% of homes with fibre access by end-2020 and 100% by 2022. As such, these commitments are now legally binding and punishable by law in the event of failure to honour them.

Quarterly meetings continue to be held to follow up on their rollout operations, and particularly the yearly meetings with mayors organised under the aegis of the First Vice-President of Nantes Métropole and the Deputy Mayor of the City of Nantes for digital technology.

In connection with the website set up by the ARCEP (cartefibre) to inform users on the progress of fibre roll-outs, the consumer communication plan launched in 2016 once again proved its effectiveness this year, with a significant drop in requests from individuals.

The public initiative network "Nantes Networks" continued to show strong growth in 2019.

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

This High-Speed Network is a key asset in developing the local area and enhancing its appeal, and will be transferred back to Nantes Métropole when the contract ends in 2037.

Key figures for 2019 - Nantes Networks

- 3,000 sites connected;
- 114 business zones covered by fibre broadband;
- 11 mobile phone antennas;
- Average speed ordered: 59 Mbps;
- Combined length of the network: 1,000 km;
- 70 operators.

Key figures in 2019: ATLANPOLE

- A network of 480 companies and 259,991 jobs;
- 288 diagnostic surveys, of which 83 were in-depth assessments;
- 31 new projects supported, of which 18 were being set up, 1 was in development and 12 were being accelerated).
- 15 projects stemming from public research;
- 9 incubated directly by Atlanpole.
- 114 companies supported by Atlanpole, of which: 46% were in digital and Cultural & Creative Industries, 17% in healthcare, 15% in sea, energy and the environment and 22% were in cleantech.
- 75 collaborative research and innovation projects set up by Atlanpole and certified by three 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 must assert the unique nature that sets it apart from the major business hubs of Europe. It does this by relying in particular on its priority sectors and the buoyancy of its tourism.

This local economy with a global perspective is at its best when it allows companies already established in the area to develop by taking part in increasingly sustainable projects that preserve the working environment for employees.

The development of companies is reliant on the development of business districts

In 2019, Nantes Métropole's services monitored 532 new business projects (development, transfer, creation, new locations).

In the same year, 196 projects were completed, roughly equal to 3,200 jobs retained and the creation of an estimated 682 jobs within one year, rising to 1,800 jobs within three years.

In addition, nearly 1,300 actions were provided to metropolitan companies in response to requests for local services to support their establishment and development in the local area, including regulatory information, recruitment needs, public services available, signage, development work, networking and regional activities, etc.

The year 2019 also saw the continuation of land marketing initiatives for metropolitan business parks (8.5 ha). All these actions form part of a support system for business projects and regional economic development.

A few examples:

- In the Bas Chantenay Comprehensive Planning Zone (ZAC), AIRSEAS has chosen to set up operations in the forthcoming converted electric plant;
- In the Parc de la Chantrerie, (Nantes), the "L'ESCARGO" project was set up to provide catering for the site's employees (capacity of 110 covers per day) and offer quality cuisine in line with new environmental, social and health markers; delivery of the IMA building and gradual arrival of its 1,000 employees by the end of 2019; a project to support the establishment of the GENERALI Group (delivery scheduled for the end of 2020). 200 jobs transferred + 50 jobs created;
- in the Hauts de Couëron 3 Comprehensive Development Zone (ZAC), (Couëron), the Le Saint Group has taken possession of the premises of its new 12,000 m² fruit and vegetable distribution hub. This 183-employee hub will be responsible for handling all flows from Italy, Spain, Africa and French Overseas Territories; work on the La FRATERNE restaurant, a 150-seat bar-restaurant-self-service-canteen and business seminar space, run by TiTi Floris and ADAPEI, has now been completed. This 5,500 m² SP facility (€1.4 million investment) will complement the range of services available to employees and companies in the Haut de Couëron area;
- At the AR MOR services business park (Saint-Herblain), work has started on the Novawest project (led by GALEO). It consists of three office buildings and a company restaurant with a surface area of 15,600 m², to be delivered at the end of 2021, two of which have already found takers (ARTELIA and RCA); unveiling of the artwork "Les pensées de Jacques Brel" (The Thoughts of Jacques Brel), a mural installation by Pierre Doucin at the GALEO company headquarters at 1, rue Jacques Brel. The fresco is the first work of outdoor art to be displayed in the services business park;

- Marketing of the Clouet Comprehensive Planning Zone (ZAC) concluded with a project to extend operator Concept-Ty's business village;
- At the Jules Verne industrial innovation cluster (Bouguenais), construction work has begun on the UIMM Training Centre (13,500 m² of floor space for 500 work-study students);
- At Nantes Agropolia (Rezé) marketing continued with the Ruffault Traiteur, Chlorophylle hub and API Restauration projects (in conjunction with NSD).

Support for the development of corporate crèches

A particular focus has been placed on the development of employee services, such as the expansion of the range of food services available, as well as corporate crèches. In this area, Nantes Métropole's action in economic sectors with high employee numbers has made it possible to:

- engage companies and explain how the system works and its potential benefits;
- help crèche operators gauge the size of their project, in keeping with the economic development strategies of the Metropolitan area;
- facilitate the search for suitable premises or available land.

In 2019, three new corporate crèches were opened in the metropolitan area:

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

Enhancing the appeal and commercial reach of the Nantes city centre

The 2019 survey of commercial premises in Nantes points to a strong commercial appeal, based on both a low vacancy rate (2%), which has been stable since 2014 (fluctuating 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 operated in the city centre is based on its differentiation from the city's outskirts. In commercial terms, differentiation initially involves the emergence of smaller concept stores by independents and name brands, whose spatial concentration creates a distinctive identity and sets Nantes' city centre apart from the outskirts, followed by a second phase in which national brands or international market leaders are brought in as one-off stores in the metropolitan area. The average turnover rate of commercial premises currently stands at 7%. This figure has gathered pace since 2016, passing the mark of 130 businesses created per year in the city's commercial centre. Outlets have largely been replaced by retail outlets (between 60 and 70 businesses per year) and restaurants (around 30 to 50 outlets turned over per year). These new outlets are distributed throughout the city centre, with a greater concentration in some streets (Contrescarpe, Mercoeur, Rubens, Fosse, Franklin and Copernic). The new concepts and brands are fully in line with consumer expectations (organic, fair trade, Made in France, bespoke, sustainable, etc.).

Nantes Métropole, nurturing the development of the circular economy

Following the adoption of the "Circular Economy" metropolitan roadmap in October 2018, the momentum of the local area's drive to develop the circular economy accelerated in 2019 in three key cycles identified as priorities, namely the organic food and bio-waste cycle, sustainable and circular construction and the reuse and repair of everyday objects. Several structural projects have moved into operational phase: the launch of studies on the structuring of the Kiosque Paysan (logistics

pooling and distribution of local food products) and Groupe 3R (logistics hub for reuse players) projects, the construction waste collection and recovery hub in Cheviré, the launch of the circular development process in the Pirmil les Isles Comprehensive Development Zone (ZAC), the selective deconstruction of buildings such as the former MIN, and the development of a repair action plan for the metropolitan area. 2019 also brought opportunities to provide technical and financial support to project leaders such as La Tricyclerie (biowaste collection by bicycle), SupporTerre (sports resource centre), the Océan neighbourhood authority (selective deconstruction) and the Ruptur association (zero waste construction site). Nantes Métropole's commitment as a pioneering territory for the ADEME's circular economy reference system was also acknowledged.

Making one of the commitments of the Energy Transition Roadmap an operational reality

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, who will be tasked with enlisting city-centre retailers and offering them guidance on the energy transition, and more specifically how they can reduce energy consumption, manage and reduce waste, etc. The action plan will be rolled out over a three-year period.

The local authority is also supporting a trial in the Vertonne business park (Vertou) on the themes of energy, waste and travel. A first phase of the action plan has now been launched in conjunction with the municipality, the business club (REV), ADEME and the CCI. The aim is to carry out a pooled collection of waste electrical and electronic equipment.

Nantes Métropole's Commercial Property Assets (PIEM)

To ensure that all businesses benefit from suitable premises, Nantes Métropole offers a range of public commercial property. The local authority's strategy mainly involves providing support for business creation or development and backing specific strategic sectors, such as the 10 business incubators and company premises offering shared services for start-ups (Nantes Créatic, Rezé Créatic, Couëron Créatic, Hub Créatic, Mallève Bureaux, Mallève II, Les Granits, Bio Ouest Île de Nantes 1, Nantes Biotech). In figures, that's:

- 30,000 m² of rental space;
- 252 tenants, 918 jobs;
- 92 new tenants in 2019 including 22 entrepreneurs;
- a 94% occupancy rate.

Supporting entrepreneurship

Nantes Métropole supports stakeholders engaged in providing start-up guidance and support (BGE, L'Ouvre-Boîtes 44, Bâticréateurs, 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 2019 more than 1,000 projects were supported and some 500 start-ups/take-overs received funding).

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 12th Salon des Entrepreneurs, which drew 11,200 visitors in 2019, 48% of whom were women;

- 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 in collaboration with BPIFrance. Around 220 business owners were given pre- and post-startup support in 2019;
- launch of the district business centre "coworking" trials. These venues offer a business hosting solution and services at special rates for businesses, primarily from the city's districts.

The appeal of the local area

The Nantes Saint-Nazaire Développement agency has 4 missions:

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

In 2019, with 85 companies settling in the area, the Nantes Saint-Nazaire Développement agency is coordinating the creation of 1,060 jobs within the next three years.

Key figures in 2019

- 65,450 establishments (including sole traders, or one-person businesses): an increase of 2,093 establishments.
- 278,214 jobs (private employees): up 2.8% on 2017 (compared to 1.3% nationally in France).
- 8,645 new establishments as of 1 January 2019.
- 7,501 businesses created. 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 vibrant in France, with more than 1,200 commercial businesses, 500 bars and restaurants 200 service businesses and an exceptionally low vacancy rate (2.4%).

MAJOR PUBLIC FACILITY PROJECTS

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.

The new Nantes train station

In 2019, redevelopment work continued on Nantes' train station, the sixth largest regional station in France.

Some 11 million passengers currently pass through the station each year, with this number expected to reach 25 million by 2030. In response to this increasing burden on facilities, the station is undergoing major refurbishment and expansion to improve user-friendliness and offer passengers a much higher level of comfort and service. The work will be completed in mid-2020.

Additionally, 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 French Government, SNCF-Réseau, the Pays de la Loire Region and the Loire-Atlantique Department).

As part of this project, and in coordination with the SNCF's ongoing work on the station building itself (having completed the enclosure and roofing at the end of the year), in 2019 Nantes Métropole completed the redevelopment of the public spaces at the north station, in the area around the tramway station, which itself underwent renovation in 2018, and the area connecting directly to the Jardin des Plantes. The brand new forecourt of Nantes' botanical gardens was opened in October.

In the south, Nantes Métropole has supported the preliminary studies and work carried out by the SNCF needed to obtain the necessary rights-of-way for the Southern Exchange Hub and the completion of the Pré-Gauchet Comprehensive Planning Zone. The building for the new SNCF telecom centre has now been delivered, and work has begun on installing digital equipment.

Beaulieu Sports Centre

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 undergoing refurbishment and modernisation work 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)

Launched in 2016 in the La Brosse comprehensive planning zone (ZAC) in Rezé, construction work on the new wholesale agricultural produce market continued throughout 2017 and 2018. The first areas were handed over to the operators in December, before completion of the overall project 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 its 16-hectare surface area. An agrifood cluster has also been set up immediately next to the market.

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

In line with 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 summer 2020. The new car park will offer approximately 1,000 parking spaces, including 749 spaces in a multi-storey car park, compared to the 516 currently available. Calls for tenders for the Neustrie P+R were issued in 2018 and work began in spring 2019 for delivery in summer 2020. 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.

At a total cost of approximately €108m, funded jointly by the French Government, SNCF Réseau, the Region and Nantes Métropole, the transfer is scheduled for late 2021, with work to clear rights-of-way to begin in early 2022.

Aéroport du Grand Ouest

To support the buoyancy of the local area and cater for a steadily increasing number of travellers using the Nantes-Atlantique Airport, Nantes Métropole and its partners joined forces to step in as intermediaries in the potential transfer of the airport.

The aim was to defend the interests of Western France and the metropolitan area and the need for a long-lasting, quality international airport, ensuring that the local area remains accessible and that its people and development are protected.

The University Hospital (CHU) and health district

The aim of the University Hospital and the health district is to provide the metropolitan area with a 21st century public hospital, as part of a major site dedicated to healthcare, which will house patient care, higher education and research all in one highly accessible zone.

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

- the development of the project for the future University Hospital on the Ile de Nantes (planning permission obtained mid-2019 for start of construction in September 2020);
- the preparation of the land base (dismantling of the port hangars and the MIN transferred to Rezé, provisional access road, etc.);
- the definition of the urban project for the south-west of the Île de Nantes, thanks to the work of the new project management team (Jacqueline Osty and Claire Schorter) who have come on board to integrate the future University Hospital in the natural landscape of the Île (natural restoration);
- the launch of the related accessibility projects that the project will require (tram line, widening of the Anne de Bretagne bridge, car parks, etc.).

DEVELOPING A SUSTAINABLE CITY, ACCESSIBLE TO ALL

Nantes Métropole is working to shape the city of the future by ensuring balanced local development, boosting urban centres and curbing urban sprawl. To do this, the authority is developing the conurbation as part of a larger development area.

Entry in force of the Metropolitan Urban Planning Scheme (PLUm)

After a five-year process of co-construction with the mayors of the 24 municipalities and consultation with the residents and partners of the Metropolitan area, the PLUm was approved by overwhelming majority at the Metropolitan Council meeting of 5 April 2019.

It finally entered into force on 23 April 2019 after completion of the required formalities. Since then, all land use permits for the 24 municipalities have been issued in accordance with the PLUm regulations.

Since March 2019, Nantes Métropole has implemented a PLUm training plan, with varying focuses, (from taking ownership of the scheme's objectives to the in-depth understanding of the new rules) tailored to the diverse requirements of the employees of Nantes Métropole and the municipalities, but also those of the partners who will be implementing the scheme.

In addition to these training sessions provided by the employees in charge of urban planning and the PLUm officers of thematic departments, the dedicated PLUm website offers educational sheets outlining the main new rules. The rules themselves primarily focus on the "Natural Metropolis" the prevention of natural risks, and functional and social diversity.

The general guidelines of the PLUm's Sustainable Planning and Development Project (PADD) and their legal transposition through the Planning and Programming Guidelines (OAP) and written and graphic regulations, are structured around three key challenges to ensure the transition to a different development model:

- develop a harmonious city that boasts a good quality of life and solidarity between residents;
- make Nantes Métropole a standard-setter for the green and energy transition;
- work to create an innovative, creative, attractive and influential city.

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

- lay the foundations for the creation of 60,000 jobs, including 25,000-30,000 in Nantes;
- accommodate more than 75,000 new residents;
- build at least 6,000 new homes per year, including 3,000-3,100 per year in Nantes;
- achieve 72% of journeys made by alternative means of transport to the private car;
- reduce per-capita greenhouse gas emissions by 50%;
- increase the share of locally-sourced renewable energies to 20% of the overall energy mix in the local area;
- cut average annual agricultural, natural and forest land use by at least 50%;
- provide sustainable protection for more than 16,000 hectares of land designated for agricultural use.

The aim is to enable all those currently living in the local area or those wishing to settle there to have access to:

- a home that meets their requirements at every stage of their life and 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 through basic schooling to higher education;
- areas for leisure activities and relaxation;
- natural spaces, big and small.

Coordinating urban development programmes in comprehensive planning areas making up 40% of new homes

Programmes in comprehensive planning zones (ZAC), which fall under the responsibility 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 PLH 3 Local Housing Programme. The ZAC scheme 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.

Over the course of 2019, dialogue with citizens in public-initiative development operations and urban studies was stepped up considerably. A study on dialogue-driven city-making offered an opportunity to diagnose the practices implemented in the projects and to identify areas for improvement, such as the drafting of a basic document to serve as a guideline for project managers, development of the metropolitan programme for dialogue-driven city-making, organization of seminars and a training plan for project managers.

In support of the green transition roadmap, Nantes Métropole aims to develop the use of wood and bio-sourced materials in order to reach a target of 20% of wooden buildings in the metropolitan area by 2025 and to increase this target to 30% in public development zones (ZAC). A call for expressions of interest in wood and bio-sourced materials has been launched in partnership with Atlanbois to support a number of innovative projects and promote the development of the sector.

Major undertakings in 2019 included:

- the Chantrerie in Nantes: redefinition of the master plan to transform this "technopolitan" site into an active district, in consultation with the site's users; continuation of the district's urban renewal;
- Doulon-Gohards Comprehensive Development Zone (ZAC) in Nantes, involving the design of the global draft proposal for public spaces and the Water Act dossier, initiation of preliminary studies for the Louetrie school, allocation of 3 urban farms to operators and design of the operational headquarters, launch of the first consultation with developers on the Gohards Nord site (200 housing units);
- Mellinet Comprehensive Development Zone in Nantes: start of work to redevelop the site, the school and 3 building sites comprising 250 housing units, with a strong focus on the buildings' low-carbon credentials;
- Boulevard de la Baule Comprehensive Development Zone in Saint-Herblain: The new urban and traffic-calmed Boulevard Charles Gautier is unveiled; Completion of the development of public and green spaces, with the opening of the Square des Bigourettes. As for the

regional health centre, the site has housed all operations, including the Sourdille ophthalmological institute, since the end of 2019. The first 160 housing units have been delivered and the first inhabitants moved in this summer, near the Abel Durand roundabout (block 9);

- Coeur de Ville Comprehensive Planning Zone in Les Sorinières: sited on nearly 2 ha of market garden brownfield in the heart of the town centre, this project involves the construction of 185 housing units, the creation of a new retail spaces and a local supermarket and the creation of a new public square. Start of construction on the south block for delivery of 106 housing units at the beginning of 2021;
- Continued marketing for all operations: Western city 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), Moulin;
- the Halvêque-Beaujoire-Ranzay urban renewal zone: a major metropolitan economic development site along the Route de Paris, the zone has been positioned as a major business hub as part of a strategy of rebalancing the expansion of the tertiary sector towards the East. The project will include the much-needed transformation of the two major shopping centres Paridis and Beaujoire into mixed urban districts around the Route de Paris, which will become the main focus of urban renewal in the zone. The industrial activities of the Haluchère-Batignolles district will remain as they are;
- The launch of several urban studies: the urban, economic and mobility planning study for the Route from Vannes to Nantes, Saint-Herblain and Orvault will define the urban renewal strategy for the artery from Beauséjour to Cholière-Marcel Paul. This urban planning study will need to approach the renewal of the route from a global perspective and avoid taking the path of least resistance while affirming and consolidating urban quality on both sides of the route. The study will dovetail with other public policies (especially travel);
- an urban strategy and planning study is being carried out in the district around the Atlantis shopping centre with the aim of defining the conditions needed to establish an urban centrality in the area. As such, it involves a thought process on the future of this district in order to determine an urban development strategy and enable urban renewal in the medium and long term.

In 2019, new agreements with the ANRU (National Agency for Urban Renewal) also came into effect in the metropolitan area.

- Bottière Pin-Sec Comprehensive Planning Zone in Nantes: approval of the construction dossier and public facilities programme. Design of the global draft proposal for public spaces, pre-operational studies for the demolition of the shopping centre and the reuse supermarket, allocation of the core block of the district (80 housing units and shops), pre-operational studies for the renovation of 270 housing units in Souillarderie;
- Grand Bellevue Comprehensive Planning Zone in Nantes and Saint-Herblain: this urban renewal project extends over 61 ha and should enable the creation of approximately 1,000 housing units. Plans for the site include a health centre, a sports facility and possibly a small-business cluster. Devillers et Associés have been appointed to manage the project. Preparation work is currently underway on the draft proposal;
- Nantes Nord global project: preparation of the impact assessment and preliminary studies for the rehabilitation of the Champlain and Québec towers (500 housing units), design of the global draft proposal for public spaces, allocation of the nursing home block and 70 housing units, and preliminary studies for the creation of a small-business cluster on Bout des Landes-Bruyères;

- Dervallières in Nantes: approval of a development concession to redevelop the Place des Dervallières (reconstruction of the local shopping centre, housing and redevelopment of public spaces)

Nantes Métropole is also working on other city policy priority districts in cooperation with the relevant municipalities:

- Pleasure boating in Orvault: approval of a master plan as part of a dialogue-driven process with the district's residents and stakeholders;
- Breil in Nantes: launch of urban studies and a public consultation process on the future of the Breil square;
- Château Rezé in Rezé: creation of the Comprehensive Planning Zone in October 2019. Extending over a perimeter of just under 10 ha, the zone will lay the groundwork for the urban renewal of this city policy priority district. As such, plans for the zone include the renovation of social rental housing, the redevelopment of public spaces, the construction of 300 new diversified housing units, new public facilities and services for residents and a medical centre.

Key figures in 2019

- 42 scopes of operations defined for metropolitan housing development projects.
- 18 scopes of operations defined for economic development projects.

URBAN CENTRALITY IN THE METROPOLITAN AREA

The heart of the metropolitan area continues to grow. Nantes Métropole has set out to imagine a new centre for the conurbation, to build a European city that is natural, vibrant, human-scale, convivial, compact and influential in both cultural and economic terms.

This renewed ambition has been the driving force behind a growing number of major projects to make the river and nature a central focus of the city: It's a commitment that now systematically informs and shapes the plans of the local authority, developers and contractors. Centrality as a policy is applied across the board, while taking care to cultivate the distinctive features of each space and district; The aim is to build a pleasant everyday living and working environment for the city's residents and employees, to be enjoyed by the residents of the conurbation and discovered by its visitors.

Eventually, 300 hectares of Nantes' urban centre are to be reinvented. To achieve this, the area has many advantages, starting with an ambitious mobility policy currently under consideration that includes three tramway lines, and a project to widen the Anne de Bretagne Bridge by 2026.

The Île de Nantes:

The Île de Nantes is undergoing a major urban development project to create a vibrant centre featuring a host of urban amenities, including housing, businesses, shops and public facilities. Led by Nantes Métropole and implemented by SAMOA, work to develop of the Île de Nantes is currently focussed on its south-western area. As part of this move, the wholesale agricultural produce market (MIN) was relocated in March 2019, to be followed by the railway goods sidings in 2022. Eventually this zone will be the site of an authentic city district that will house the future University Hospital (CHU).

A team organized around Jacqueline Osty and Claire Schorter has set out the agenda that will govern the broad guidelines of the urban project for the next 20 years, including the deployment of a system of parks and landscape features, a new structure for travel, and diversity in ways people are able to live, work, study, entertain and cultivate themselves. This development is based on the manifesto for a sustainable island: one of shared interests, mobility, resilience (green transition), and well-being (promoting health and well-being through nature, rest and solidarity).

After completion of the consultation process in 2019, the new République district, which includes the urban development of 20 hectares, will form the cornerstone of a new urban mission: to provide a natural environment that offers future residents and employees a unique and gentle quality of life.

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.);
- 360,000 m² of housing (at a rate of 6,000 housing units for 12,000 new inhabitants);
- 230,000 m² of offices, businesses, services and shops.

New University Hospital (CHU): After a year-long planning application process, the building permit was signed by the prefect in July 2019. The demolition of the former wholesale agricultural produce market (MIN) has started on schedule and the installation of new temporary roadways to bypass the construction works is now under way.

The facilities: work continues on two flagship projects in 2019: the combination of the Pierre Landais social restaurant and the public baths in the Creative District and the 5 Ponts (an unusual venue consisting of a public-access reception area for homeless people). Elsewhere, plans have been approved to build the first "2020" school to the west of the Maison des Syndicats trade union headquarters (work currently in progress - Joséphine Baker school). A school complex with 16 classrooms and a gymnasium have already been planned for the République district.

The Creative District: now well underway, the redevelopment of the site of the Alstom halls continued in 2019. In 2020, the site will also house a university centre dedicated to digital culture, business premises and shared services for innovative start-ups and a food court.

La Prairie-au-Duc: this district to the west of the Île de Nantes is continuing work on a development project for the south of the Boulevard de la Prairie-au-Duc.

New flagship operations: continue to be developed in this fragmented area following the example of work carried out at the exit of the Senghor bridge. In all, more than 500 housing units will be built and new free spaces created, opening up new access routes to the Loire for the Beaulieu district.

New public spaces: development work on the northern banks has been fully completed. The guinguette-belvédère opened in the spring of 2019. The other public spaces, including temporary developments, are currently being considered to accompany the University Hospital project and the development of the south-west.

The historic city centre

The Feydeau-Commerce zone is taking shape

An emblematic site in the historic centre of Nantes, the Feydeau-Commerce sector is undergoing a major makeover as part of a massive project to restructure the route from the station to the Loire. The redevelopment of this 27,000 m² area will provide generous pedestrian spaces and enhance the presence of nature in the city. Work has been underway since 2018. The first major results will be visible in 2020.

The ongoing transformation of the historic centre

After delivery of the 120 housing units (including 48 social rental units) and the association centre created through the renovation of the former Bourse du Travail, spring 2019 saw a number of openings, such as the Mauduit lounge, a daycare centre and the landscaping of the Jardin Say, completing what is an emblematic project for Nantes city centre.

- Transformation of the site of the former prison

Construction work on Operation Revelations continued in 2019. Eventually, the site will be entirely transformed into a new micro-district with access to the city and nature. It will consist of 157 housing units, including 75 social rental units and 12 inclusive housing units, a 40-seat multi-purpose childcare centre, and a restaurant with an auditorium. A 250-space public car park will provide new parking options in the immediate vicinity of the shopping centre.

- La Tour Bretagne

This ageing high-rise building has suffered a number of malfunctions and a level of obsolescence. However, its emblematic character and central location have prompted strong interest from developers and investors wanting to carry out a full regeneration and major restructuring project on the building.

Before embarking on a project of this size, the trade union council, made up of the main owners of the Tower, including Nantes Métropole, agreed to launch an exploratory technical feasibility study for the development of the building. This first exploratory approach in 2019 is to be followed by more in-depth technical studies and supplemented by a property survey.

- Other projects

- The Cité des Congrès

In 2019, the Metropolitan Council approved the plans and funding allocation for the Cité des Congrès extension project and authorized the launch of a competitive call for project management tenders. The project will be carried out as part of the wider urban redevelopment of the Fleurus site. The urban and landscape guidelines are in line with those of the "Loire au Cœur" project master plan and the Canal Saint-Félix zone plan.

- The transformation "Notre dame du Bon Conseil" site

Located in the immediate vicinity of rue du Calvaire, the project aims to develop a new commercial offering in the city centre by creating new retail spaces, and to reinforce the shopping circuit between rue du Calvaire and place Graslin. The project also currently includes plans for a supply of private housing. In 2019, the local authority continued to support the project owner in bringing the project to fruition.

- The renovation of the Dobrée Museum

Work began in March 2019 with the removal of asbestos and archaeological excavations. Nantes Métropole is closely involved in this project, led by the Departmental Council, specifically on the issue of the interface between the museum site and the surrounding public spaces.

- Boosting a new commercial offering in the heart of the city

Construction work continued in 2019 on a vast commercial unit of more than 1,300 m² in a contemporary building that will also house a number of residential units in the Fleuriot de Langle zone. Plans were approved for a major retail brand to move into the building in 2020.

Other potential sites have been identified and are now undergoing economic, urban and property research by Nantes Métropole, aided by Assistant to the Contracting Authority (AMO), with a view to developing or improving their current commercial offering.

Petite-Hollande - Bords de Loire: the "Loire au Cœur" project

Architects agence TER have been tasked with creating a vision for the transformation of Nantes' city centre on the northern bank of the Loire, to be completed by 2030, between the Saint-Félix canal and Bas-Chantenay.

Two processes are underway: a "consistency plan" covering the entire project scope, and a specific plan for the Petite Hollande zone. These documents lay the groundwork for the actions planned on these two areas, by proposing works on the public spaces on the banks of the Loire and the quays and the transformation of the Hôtel Dieu block.

In 2019, a complete and diversified citizen dialogue process was launched on both the scope of the Gloriette-Petite-Hollande development and the consistency plan.

In terms of the scope of the Gloriette - Petite Hollande project, this citizen participation has made it possible to identify the current and projected uses of this public space, thereby enhancing agence TER's initial proposal.

Following this consultation period, the consolidated guidelines of the local authority were presented at a public meeting, proposing an ambitious project (vegetation, active mobility, water management, parking, security, uses, etc.). The project took a step forward when the Metropolitan Council approved the public spaces plan and the funding allocation on October 4, 2019.

In 2020, consultation will continue on the Gloriette Petite-Hollande zone as well as on the current Square Daviais, which will be the subject of a specific consultation process in order to specify its future planning.

Other major urban centrality projects

The new Nantes train station

- Extension work on Nantes station is due to be completed in the summer of 2020.
- The redevelopment of public spaces in the north of the city is almost complete: after renovation of the tramway platform, the redevelopment of the forecourt was completed and delivered, incorporating the new entrance to the Jardin des Plantes. In 2020, the Place des Mobilités will be open to bicycle traffic.
- In the south of Nantes, operations to free up the rights-of-way required for the future multimodal transport hub (PEM) have been completed, meaning that work can begin in 2020 on the demolition to demolish the old buildings in preparation for the development of public spaces and construction of the PEM as of spring 2021.

Pré Gauchet / EuroNantes - Station Comprehensive Planning Zone

Progress on the project continued at a steady pace in 2019 as part of the ongoing implementation of Phase 3, with:

- the delivery of block 1F (8,000 m² of office space);
- the continued construction of blocks 1G (102 housing units and 4,500 m² of business premises), 5B (public car park with 500 spaces, 2,500 m² of business premises and 61 housing units) and the development of the public spaces on Boulevard de Berlin and Rue Marcel Paul;
- studies continued for blocks 3D (6,000 m² of businesses), 4B (5,000 m² of housing units and 16,000 m² of businesses, including premises for UCPA) and 8F (61 housing units);
- the selection of developers Giboire for the Saupin Ouest islet as part of a call for expressions of interest: the selected proposal involves the construction of an outdoor swimming pool, 1,000 m² of activities and 5,000 m² of housing with a strong reliance on wood as a building material. An international architectural design competition was launched in the summer of 2019 to select the project manager for this project;
- the launch of the operator consultation for the ABC block of the multimodal exchange hub (bus station, taxi rank, bicycle parking, car park and rental services and 11,000 m² of business premises).

Bas Chantenay

This urban project led by Nantes Métropole stretches over an area of 162 hectares, which currently consists of port sites, active industrial facilities, brownfield sites, a railway complex and mixed business and residential zones. The dossier for the creation of the Comprehensive Planning Zone was approved in June 2019 by the Metropolitan Council, and will drive the development of economic activities over an area of around 90,000 m², the creation of 3,000 jobs and 1,500 housing units.

This year saw the delivery of the Tadashi Kawamata Belvedere, followed by the Promenade des 7 Belvederes overlooking the Miséry quarry and finally the West wing of the Extraordinary Garden in September.

2019 also marked the start of transformation work on the site of the former power station (demolition of a building) to accommodate the forthcoming maritime nautical and river centre. As for the "Cale Dubigeon" zone, work on the LAB brewery was completed at the end of the year. The Bois Hardy zone will be subject to a second phase of consultation in the course of 2020.

Finally, in the Miséry zone, the demolition of the Renault garage has now been completed in order to clear the view of the Loire. At the same time, the future of the CAP44 building has become much clearer. The facility will be divided into several spaces for various uses: it will incorporate the future Jules Verne Museum, a temporary multidisciplinary and international exhibition space, a library of imaginary worlds, a creation and performance space for the use of the district and beyond and an overlook offering a panoramic view of the Loire and the extraordinary garden.

Pirmil-les-Isles

Created in June 2018, the Pirmil Les Isles Comprehensive Development Zone (ZAC) has been awarded to Nantes Métropole Aménagement, which will be supported by a project management team led by OBRAS representative Frédéric Bonnet. This operation will act as a laboratory for the green transition in the metropolitan area by developing new approaches to city-making on a large scale, such as a greater concern for water and biodiversity, the extensive use of climate-regulating trees, energy-efficient (low carbon) development and construction, design phases taking into account the circular economy and alternatives to concrete, etc.

The development objectives include the enhancement of the landscape qualities of this site on the banks of the Loire, the enhancement of the green belt based on the presence of water, the safeguarding of the existing residential fabric and vibrant business zones with a high concentration of jobs. The overarching goal is to offer new districts dedicated to work and housing, that offer a good quality of life with access to the Loire and a central location. In practical terms, this will involve providing a good level of urban services that are designed in keeping with the concept of the "suburb", combining a mix of functions and a diversity of architectural and urban forms. Ensuring that the new districts are served by structural travel networks will be key to the project's success.

The two operational zones are Pirmil in Nantes and Basse Île in Rezé. The plans submitted as part of the schedule of work approved by the Metropolitan Council on 13 December 2019 include:

- approximately 240,000 m² of public spaces redeveloped or created, including the confluence park in Pirmil and the creation of a riverside park in Basse Île (4.2 ha of green spaces in Rezé and approximately 1.8 ha of green spaces in Nantes);
- 1,000 housing units created in Nantes "Pirmil" and 2,300 units in Rezé "Basse Île", of which 30% are social rental units and 25% are affordable housing;
- approximately 92,000 m² of floor space for businesses, offices and shops;
- approximately 8,000 m² of floor space for local public facilities in Rezé, including a school complex and sports, community and social facilities for young children;
- a location has been identified for a potential supra-municipal public facility.

Finally, 2019 saw the completion of the public "Water Act" survey for this operation and the launch of preliminary technical and operational design studies for the Comprehensive Planning Zone. Extensive work has been carried out to source the actors and associations from the development and construction industries. The aim is to encourage innovative processes in the consideration of environmental, social and economic issues. More than 50 organisations attended meetings on issues such as materials, services, mobility, soils and landscapes and operational facilities. Collaborative workshops were launched at the end of 2019.

CITY POLICY PROJECTS

City policy projects are structured around four cross-cutting issues:

- **social cohesion;**
- **economic development, employment and training;**
- **urban renewal and quality of life;**
- **new forms of governance constructed and implemented in collaboration with residents**

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

2019 saw the culmination of preparatory work begun several years ago for the districts of Grand Bellevue, Nantes-Nord, Bottière-Pin sec and Dervallières:

- firstly, with the signing of the 2019-2024 agreement with the ANRU, which formalizes co-funding of €158.5 million by the ANRU and Action Logement (€103.8 million in ANRU subsidies and €54.7 million in Action Logement loans) for a total investment of €533 million by donors, local authorities and developers;
- and secondly, with the start of operations on a number of worksites.

Grand Bellevue

The Grand Bellevue comprehensive social and urban renewal project is now underway. Launched in the two municipalities of Nantes and Saint-Herblain, it aims to provide a response to the various challenges related to urban planning, the economy, social cohesion and quality of life in order to make Grand Bellevue a sustainable, active and popular district.

Highlights in 2019 included:

- the start of preliminary studies for the public spaces draft proposal;
- the launch of renovation work by CDC Habitat Social for the rehabilitation of 265 social housing units on avenue Winston Churchill;
- the start of preliminary talks with the retailers of the Place Mendès-France with a view to their relocation or departure;
- the organization of a highlight event, around a documentary on memories of the Place des Lauriers, in November 2019 by Café Prod. The Royal de Luxe company also carried out a number of works in the district, with the temporary installation "M. Bourgogne" on the buildings in the district, which enlisted the help of more than 2,300 school children; the show Miniatures in the summer, the installation of the knotted lamp post and the tree in the car on the Place Mendès-France;
- the ongoing effort to rehouse families in the sectors of La Bernardière in Saint-Herblain and Lauriers-Bois Hardy in Nantes and the start of rehousing in the Moulins zone;
- the deconstruction of the Doubs block and the concrete paving of the place des Lauriers;
- the delivery of the Bel&co programme of 41 affordable housing units for first-time ownership including 3 ground-floor businesses;

- the delivery of the Parc de la Méta in the Les Lauriers sector, designed in collaboration with the local secondary school students and residents;
- the continuation of work on the installation of a new sports complex, along with a multiprofessional health centre in consultation with self-employed health professionals.
- the development of the "NEVEA Programme" led by CIF-Coop Logis, on rue d'Aquitaine;
- the delivery of the housing programme at Les Bourderies by Nantes Métropole Habitat.

From the outset, the Grand Bellevue project was conceived as a collaborative effort. In this capacity, 2019 saw the opening of the "Maison du projet" on the Place Mendès-France and the set-up of the Standing Conference. The Conference is tasked with monitoring the Grand Bellevue project, with an initial focus on the place of teenagers in the district.

As part of the ANRU+ "Bellevue in Transition" initiative, the year was devoted to the development of projects led by associations: small urban farms, organic waste recovery hubs, circular management of materials resulting from deconstruction, energy consumption control, etc.

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 pleasant place to live that is attractive and accessible to all; to diversify the housing stock to meet each household's needs; to develop economic activity and boost employment.

Work continued on urban studies in 2019. In order to prepare the groundwork for the project's operational phase, these efforts were focused on drafting feasibility studies and lot sheets. In addition, the consultation process on the overall project continues with project open days, an in-house project workshop, launch of the support group for the renovation of Nantes Métropole Habitat's property assets, etc.

Following the creation of the Comprehensive Planning Zone in December 2018, the Metropolitan Council approved the project in June 2019. A scheme has been launched to rehome households whose homes have been marked for demolition. The first phase affects 85 housing units.

Several property projects were under study in 2019, including the restructuring of premises that will eventually house Centrakor, an operation in the heart of the district led by CIF, 3 real estate operations in the Route de Sainte-Luce sector and the extension of the Urbain le Verrier school.

Finally, discussions were underway with the "Grand Place" collective and the citizen council on the potential creation of a citizen meeting place for the district, which would be located at its centre. Its role will focus on the key themes of food, reuse, culture and health.

The overall project's social cohesion and economic development component is structured around 2 main public policies. Firstly, culture, in particular through the partnership between the district and Le Grand T, and secondly, the social and solidarity economy, through a study carried out by the Ecosolies and the trial of a district resource centre to coincide with the opening of the Department Store.

North Nantes

Launched in 2016, the overall Nantes-Nord project was pre-planned through an integrated approach that combines actions on quality of living, economic development, employment and community life. Alongside this overarching requirement for social cohesion, there is a general aim for dialogue at all levels.

The project's quality of living component aims to enhance the landscape by reinforcing the area's green infrastructure, facilitate travel within the district and its blocks, restore the balance between the urban centres of this large patchwork district and coordinate the urban development of the zone as a whole.

After completion of the first study phase in 2018, the overall Nantes-Nord project entered a second phase in 2019 with the start of pre-operational studies for the creation of the Comprehensive Planning Zone. At the same time, a concession agreement was signed with LOMA, allowing the start of construction on the Multiprofessional Health Centre, the renovation of the La Boissière shopping centre and the construction of a small-business centre at the Bout des Landes.

Work has also restarted on formalising the overall project's social cohesion component.

A new Citizen Dialogue team has been appointed, and the design and development phase of the "Project Mobile Home" has been launched.

The European URBiNAT project continued in the local area with the hosting of the project's various partners in Nantes in June 2019. A diagnostic was carried out, as well as the launch of initial trials and a partnership project on health walks, which involved various partners from the local authority including the Public Health Department.

Dervallières:

The Dervallières priority district continues to undergo sweeping changes with the introduction of a new ANRU regional contracting process (urban renewal programme of regional interest - PRIR). The project's master plan is structured around the following objectives: getting around and finding one's way in the district, gathering and occupying open spaces, diversifying and improving the quality of the housing and services offered.

The project to rebuild the place des Dervallières was the subject of a workshop with the residents held by "la Luna" at the beginning of the year. Starting in the summer, Nantes Métropole Aménagement began negotiations with shopkeepers with a view to demolishing the burnt-out shopping centre.

2019 also saw a process carried out to find solutions for the relocation of the Atelier Bricolage des Dervallières boutique to its original premises on boulevard Jean Ingres, which was then implemented in early 2020.

Work to relocate households in the Lorrain sector of the Tower has been started in anticipation of the combined renovation and demolition project planned for 2021.

Rue renoir and the area surrounding the Fabrique were redeveloped at the end of the year. It is worth highlighting the sheer scale of the actions undertaken in the Dervallières district in terms of local urban and social management, which cover cleanliness, parking, installation of seating and flower boxes, road-marked bicycle paths, etc.

Two other urban renewal projects

Château in Rezé

2019 saw the creation of a Comprehensive Development Zone in the northern part of the Château-Mahaudières district, with the aim of making it:

- a pleasant and attractive place to live by strengthening the role of the Place François Mitterrand as an urban centre, diversifying the housing supply, increasing opportunities for socialisation to build community spirit and supporting citizen initiatives;
- a sustainable district as part of the green transition: the challenge is to enhance the green belt, promote soft mobility, renovate social rental housing to improve energy efficiency, improve waste management and support the stakeholders involved in the reuse sector;
- a welcoming and supportive district that offers public spaces and services while promoting social inclusion and access to rights for its most vulnerable residents and assisting in the process of urban transformation in dialogue with the inhabitants;

- a district that is accessible by all and for the benefit of all, that opens onto the city and offers uses that cater for all needs and ages.

As an example, provisional plans for the Comprehensive Planning Zone anticipate the creation of some 300 housing units, the renovation and residential conversion of 260 social rental housing units, as well as the renovation of around 2.6 ha of public spaces.

Plaisance district in Orvault

The overall project for the Plaisance district brings together three actors: Nantes Métropole, Orvault Council and Atlantique Habitations, with the aim of improving the living environment of the inhabitants, the quality and range of the housing stock available to ensure greater social diversity, renovating public spaces and increasing the supply of public facilities and shops.

In 2019, two major actions were implemented:

- an urban study and consultation process on the Plaisance district, launched by Nantes Métropole in conjunction with Orvault Council and the landlord, and entrusted to architects Passagers des Villes and SENNSE. Four consultation workshops were held in public spaces and indoors from June to September, and a feedback workshop was held in November to present the citizens' recommendations on the master plan. Some 50 residents took part in the workshops;
- the relocation of approximately 100 households from the Trieux building, which will be dismantled in 2020.

TAKING ACTION FOR EMPLOYMENT AND INTEGRATION

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

Over the past five years, salaried employment has been progressing in the Nantes Métropole area. In 2019, almost all industry segments had benefited from the upturn. Nantes Métropole has one of the lowest employment rates of any major 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 benefit from this improvement, with special attention given to those facing the greatest difficulty in finding employment, but also to work closely with businesses to match the job supply with the demand.

Nantes Métropole mainly supports the activities of organisations dedicated to employment, such as the Local Area Association for Development of Employment and Skills (ATDEC - which combines the activities of the Maison de l'Emploi, the Local Plan for Integration through the Economy - PLIE - and the Mission Locale) and the École de la Deuxième Chance (E2C).

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 of information on employment and skills.

In 2019 work on the implementation of the operational roadmap continued in line with the two priorities established with partners: youth employment and the anticipation of the major economic changes in the digital industry in terms of the energy and digital transition, and the agri-food sector with the businesses of the wholesale agricultural produce market (MIN).

The objectives remain unchanged:

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

An assessment of the measures and services offered and the Metropolitan Employment Pact's approach has highlighted the following results:

- nearly 850 participants in actions across the various areas of activity and sectors (discovery, awareness, training, pre-recruitment) with:
 - 344 from digital professions;
 - 93 from recycling, reuse;
 - more than 360 from the professions of the wholesale agricultural produce market (MIN) and the agri-food hub;
 - nearly 50 employment professionals.
- nearly 2,350 young people reached by the schemes implemented with them in mind;
- nearly 580 people who have brought their project to fruition;
- 385 companies who have been involved in and/or benefitted from the measures and services introduced.

1) 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 2019 and provided input for the Metropolitan Employment Pact's work on the digital sector (in partnership with ADN Ouest and the Regional Council).

The Nantes Métropole CSR platform: co-constructing with companies committed to employment and responsible economic development

In 2019, Nantes Métropole continued its dialogue with businesses to promote employment. It is currently implementing the roadmap for development of CSR (Corporate Social Responsibility), which was drawn up in 2014 within the framework of the Nantes Métropole CSR platform. The roadmap itself coordinates the various actors involved in the economic development of the local area to engage SMEs and VSEs in coherent CSR approaches. The aim is to improve their social, environmental, economic and territorial impact within the framework of transparent and participatory governance.

The roadmap addresses five complementary objectives:

1) Assist VSEs and SMEs in the area in developing their economic, social and environmental performance

Key figures for the CSR platform since the website's creation in June 2013 (<https://rse.metropole.nantes.fr/>):

- 311,901 visits since the launch of the site and a new version will be brought online in November 2019, offering improved readability and responsiveness;
- more than 120 initiatives by local players involved in CSR and 75 corporate best practice sheets produced.

Highlights in 2019 included:

- a major survey of the local area's service offering for businesses interested in joining a **Parcou'RSE** (more than 120 offers registered in partnership with the Region and the consular chambers) or, more specifically, in committing to being a "**Host Company**" (nearly 70 offers registered in cooperation with the Maison de l'emploi);
- the **Social Change** event held on 15 November at the Cité des Congrès. This major event aims to raise awareness of CSR among local VSEs and SMEs who are committed or have not yet committed to CSR. The first Social Change event drew 1,000 visitors, 25% of them from VSEs, and a further 25% from SMEs. More than 100 players and experts were enlisted from the local area.

2) Encourage very small to medium-sized businesses 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. Some 100 businesses have been audited since its creation.

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 awarded since launch. In cooperation with the Region, the Loire-Atlantique department and several banks, Nantes Métropole is co-financing the scheme run by France Active Pays de la Loire.

4) Enlist economic stakeholders' support for the strategy and policies set out by Nantes Métropole

In 2019, three priority themes were selected by the members of the CSR platform:

- **remote working**, with the contribution to the "Remote Working Challenge" launched by Nantes Métropole to support volunteer companies in the region (to date, more than 40 companies have registered);

- the **subjects of responsible tech and the responsible employer brand**, which included the development of a "NumériqueTraining" awareness module in partnership with the CSR Chair of the Audencia Business School and local experts in responsible tech (Institut du Numérique responsable, etc.) and a teaching aid "Responsible Employer Brand", based on a survey conducted among more than 600 employees, job seekers and students between May and October 2019;

- **the simplification of CSR criteria in public procurement.**

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

A highlight of 2019 was the **spin-off of the #NégoTraining programme**, the first initiative of its kind in France, which was launched and steered by the CSR Chair of the Audencia Business School, which is expanding in Nantes but also in Cherbourg, Angers, Paris, Rennes, Cholet, Lille and even Munich. The aim is for the system to be deployed throughout France and even internationally.

The Nantes Metropole CSR Platform is active at European level through the Eurocities network, but also, since 2019, through the **European URBACT programme "Cities4CSR"** carried out jointly with 10 other European cities. Under this programme, the CSR Platform will be joining a multinational platform for the exchange of best practices and mutual assistance for the next 2 years, essentially serving as a CSR observatory for the local area with a view to achieving the 17 Sustainable Development Goals for 2030.

Local outreach through the Local Area Association for the Development of Employment and Skills - ATDEC

2019 was the first year in operation for the Local Area Association for the Development of Employment and Skills (ATDEC). It was also the year that saw all the operations of the Territorial Employment Operators (ATDEC and E2C) become part of a shared project aimed at strengthening the consistency of their actions and relationships with the various partners.

1) Services to young people in the metropolitan area through the activities of the Mission Locale

The Mission Locale offers personalised support for young people under the age of 26. It helps them in searching for a job, but also in finding solutions to everyday hurdles such as accommodation, mobility, health, etc. Mindful of the need for a locally-accessible service, it has ten sites open to the public in Nantes and 18 information points outside Nantes.

2019 in figures:

- 8,739 young people supported on their journey, including 3,992 at first-line reception centres;
- 1,052 young people started a training course;

- 4,400 young people given job placements, including 378 in work-study programmes and 833 in corporate immersion programmes;
- the ongoing Garantie Jeunes scheme helped 505 young people in the metropolitan area (+25% compared to 2018) who took a dynamic and intensive 12-month course to prepare for the job market. 21% of these young people were from City Policy priority areas. 61% of them benefitted from work experience and/or training or a period of immersion in a company (+55% compared to 2018);
- the 8th edition of the Forum de l'Alternance, which was created to facilitate meetings between businesses, training centres and young people interested in doing a sandwich course;
- a particular focus on young people living in priority districts through targeted actions:
 - access to the B driving license for 39 young people hired in 2019;
 - support for a cohort of young women in single-parent households: 51 young women received support - 47% are in employment and 14% in training;
 - the support of a specific sandwich course cohort for young people from City Policy priority districts: 84 young people advised and 63% in sandwich courses, conventional employment or training;
 - integration through employment: 406 young people supported by the Local Mission benefited from an IAE course, 30% of whom were from City Policy priority districts.

The 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 2019, 933 young people from the local area received support to the total value of €294,525, corresponding to 1,662 aid requests. This aid is mostly to cover basic living costs (85%), training (3%) or housing (4%). 37% of the beneficiaries are women, 84% of them are under the age of 23 and more than 41% have a level of education lower than the CAP or BEP (secondary-school vocational training certificate/diploma).

2) Services for young people through the activities of the Loire Estuary École de la Deuxième Chance, now the Nantes-Saint-Nazaire E2C

For the E2C, 2019 was marked by a change of premises, a change of name and the takeover of the Saint-Nazaire branch.

In the same year, 160 young people were welcomed at the Nantes branch, 40% of whom were from City Policy priority districts in the metropolitan area. The positive outcome rate (employment, skills training) is on the rise and currently stands at 69%. This result was made possible in part by the school's strong network of host companies.

3) The services offered by the Maison de l'Emploi

Based in 8 premises shared with the Mission Locale, the Maison de l'Emploi employment service caters for all sections of the population, helping them in their search for or return to work in partnership with the Pôle Emploi (French job centre), business networks and associations. To do this, it co-develops projects and initiatives with business networks in order to bring the supply of jobs in line with demand for employment. It also carries out strategic workforce planning (Provisional

Employment and Skills Management - GPEC) initiatives in high-growth industries and sectors in order to anticipate and adapt to changes in the labour market.

2019 in figures:

- 21,409 visits to the eight employment cyberhubs by 13,887 users;
- 341 workshops (on job search techniques, e-inclusion, etc.) for 1316 people.

The range of services offered 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 and Pôle Emploi), in personal services, or for businesses at the MIN wholesale agricultural produce market. Some events are run in close partnership with the municipalities, such as: "Les Rencontres de l'Emploi" in La Chapelle-sur-Erdre and a Job Dating event in Rezé Château in close partnership with Pôle Emploi;
- an increase in recruitment drives, totalling almost 200 dedicated recruitment initiatives, of which 180 took place in a city policy priority district. The initiatives reached 7,400 participants; 1,850 people took part in 190 pre-recruitment initiatives (in "tailored" format) which resulted in 52% of them being hired;
- 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 energy transition and logistics transport. In 2019, 125 actions were carried out to improve the appeal of professions. Most of the recruitment drives involved sectors currently under stress (mainly industry and agri-food). Innovative courses were offered to acquire entry-level skills (i.e. digital technology, SAP resource planning software, logistics and cleanliness): 7 programmes with 88 events, for 176 participants.

Specific support for residents struggling to find employment

Within the framework of the **Local Plan for Integration and Employment (PLIE)**, a scheme co-financed by the European Social Fund (ESF), ADTEC coordinates workforce integration programmes and offers guidance and support to those facing the greatest difficulty in finding work until they are in lasting employment. The PLIE's priority is to provide the best possible response to the needs of the general public in order to ensure their successful integration into the world of work.

In 2019:

- 1,859 people received support (of whom 78% were educated to CAP/BEP-level or lower, 27% were senior citizens aged 50 and over and 36% were residents of priority districts);
- 566 people gained access to an employment contract through an integration via employment organisation and 1,155 people benefitted from an employment contract in ordinary work settings.

With the support of the ESF and Nantes Métropole, innovative initiatives have been carried out to prepare the public for employment, particularly through simultaneous measures to remove the obstacles linked to poor mobility and lack of French language skills. In association with the association AGIRabcd, a proposal was made to teach the highway code to audiences not fluent in the French language. 24 sessions of 2.5 hours were held twice a week, allowing participants to learn the basic language of the highway code and to prepare them for the exam.

In 2019, Nantes Métropole also continued to support 39 **integration via employment organisations**. Every year, these bodies help to 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:

- as a financier (with an earmarked budget that has remained constant for over 10 years);
- as a principal (by carrying out workforce integration hours on public contracts);
- and as a 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 used its public procurement contracts to encourage companies to create jobs and foster integration through work. It includes 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.

The initiative has a dedicated 6-person team and provides support to purchasers and companies. More specifically, this 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, more than 4,400 people have been given an employment contract on nearly 3,100 contracts, thanks to the workforce integration clause. Of these, 57% have gone on to obtain employment and professional development. This has been made possible thanks to the use of 2.1 million workforce integration hours by 60 principals, carried out by more than 700 companies.

The fight against discrimination and the removal of barriers to employment

Nantes Métropole is committed to combatting discrimination and promoting diversity and equality. It is dedicated to facilitating pathways to employment for residents facing the most difficulty in finding work, primarily through initiatives to remove language barriers and obstacles to mobility.

The "language pathways" scheme implemented in conjunction with the City of Nantes' Mission for Equality took shape in 2019 with:

- the introduction of language assessment and guidance centres within Maison de l'Emploi sites. 312 jobseekers were guided towards a training programme;
- support for language workshops for professional purposes, gateways to support and professional qualification schemes, for the residents of priority districts;
- the trial of a workshop "French as a Foreign Language - Highway Code" for women receiving support through the PLIE.

Also in 2019, actions aimed at removing obstacles to mobility have been continued within the framework of the Platform for Mobility and Employment, through support for local association operators, including a social driving school, solidarity garage, low-cost vehicle rental and training in independent mobility.

Finally, Nantes Metropole is involved in combatting discrimination through its support for the "resources" group, led by the Maison de l'Emploi, which provides training for intermediary employment professionals, raises awareness in companies about discrimination in hiring processes and provides support for groups that are likely to experience discrimination.

DEVELOPING A SOCIAL AND SOLIDARITY-BASED ECONOMY

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

As part of its action plan to support the social and solidarity economy, and through a new seed fund, Nantes Métropole is supporting research and development in innovation and the development of projects, which in turn inform public policy.

Implementation of the ESS 2020 Roadmap

Implementation of the roadmap, initially co-constructed with local stakeholders in 2015, continued throughout 2019. 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.

5 priority sectors have been identified: services to individuals 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 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 allocated funding of more than €900,000 and plans to finance 14 new projects per year.

An initial assessment of the system was carried out in November 2019 with the partners involved. 51 projects have been supported and financed, already creating 160 jobs. Nantes Métropole's grants (to the tune of €340,000) have made it possible to raise more than €3 million in funding from partners to finance the start-up of these young companies.

The third **Social Innovation Prize** was awarded in 2019, on the theme of "*Let's Consume Responsibly! Working for local, sustainable and solidarity-based food*", in partnership with Terrena. With a budget of €25,000, the project aims to promote collective social or environmental innovation projects, with a positive impact on the residents of the metropolitan area through innovation in services, usage and/or products. The prize was awarded to a project for a shared logistics hub to facilitate the supply of organic and local products, supported by the Kiosque Paysan.

A hub for social cooperation and innovation: The Ecosolies Solilab, a symbol of the area's economic diversity

Constructed 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.

The hub 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 hub 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 social enterprises, and support to develop the skills of SSE organisations in the metropolitan area;
- a place for initiative, experimentation and innovation. 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 2019:

- 158 tenant businesses and cooperative partners housed in Solilab;
- 168 SSE organisations, all members of Ecosolies, enlisted during the 3 main business events;
- 17 business ideas tested collectively in Pop Corn workshops;
- 8 startups went into the incubator; 23 projects supported;
- 1 collective entrepreneurial event held for a second time: "Demain Mode d'Emploi", which drew more than 200 participants around the theme of "Upscaling", involving identification and analysis of the conditions for ramp-up of 9 SSE projects;
- 29 events held at the Solilab, including 5 with more than 200 people and 22 visits by delegations, i.e. 350 external people.

Key figures in 2019

- 16 projects were financed through ESS Nantes Factory.
- 12 solidarity-based jobs (under two schemes: Contrats d'Accompagnement vers l'Emploi and Emplois d'avenir).

BUILDING HOUSING FOR ALL

With 646,522 inhabitants (as of 2017), Nantes Métropole has consolidated its position as the French city with the sixth-highest rate of population growth. In order to house its new inhabitants, Nantes Métropole is implementing a proactive policy which originates 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' access to housing; balance in the local area; equal treatment of all households and equal access to social rental housing. 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 merges the Inter-municipal Collective Agreement, the Territorial Balance Agreement and the Metropolitan Rehousing Charter, and 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 Prefect;
- 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 Prefect.

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). Although the documents that make up the Nantes Métropole CIL are in keeping with the spirit of the Equality and Citizenship Act, certain details have been added, mainly in relation to the objectives of restoring balance in social occupancy.

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

Following the CIL of March 2019, working groups now need to look into solutions for housing of priority groups and rebalancing occupancy in priority districts (along with the development of specific allocation strategies adjusted to reflect the changes in each of these districts).

Also noteworthy in 2019 was the launch of an active rental trial, which raises the visibility of social housing (ESH, OPH) available in 8 of the City Policy priority districts. By doing this, the aim is to make it easier for housing seekers to apply for one or more housing units. To encourage households to settle in these districts, the trial is based on the concept of "choice", meaning that households settle there by preference and no longer by default.

The strategic priorities of the Local Housing Programme (PLH) for 2019-2025

Following the Metropolitan Council meeting of December 2016, the years 2017 and 2018 were devoted to drawing up the Draft PLH for 2019-2025, including assessment and challenges and strategic priorities. More specifically, these two phases involved:

- 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 for more disadvantaged residents, housing for people with disabilities);
- meetings with housing partners over a series of 10 round tables;
- meetings with the municipalities of the metropolitan area.

The Draft PLH was finalised in a Metropolitan Council meeting of June 2018, after favourable opinions from the 24 municipalities and the French Government. It was then definitively approved by the Metropolitan Council in December 2018.

This third PLH confirms the quantitative targets set by the housing policy and seeks to respond to the new challenges facing the metropolitan area, through qualitative solutions that reflect 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 unmet needs. The programme sets an annual housing production target of at least 6,000 new 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 access to housing, including accessible social rental housing and help-to-buy housing (250 per year);
- in order to meet the housing needs of elderly and disabled people, a range of solutions are needed, from adaptation of the existing housing stock to the production of suitable dispersed or grouped housing units;
- a housing policy prioritising the most vulnerable households must be put in place. Priority given to "housing above all".

Sustained production has exceeded the targets of the Local Housing Programme

The Local Housing Programme (PLH) set a target for construction of 4,500-5,000 homes per year between 2010 and 2016. Construction has now exceeded this target, with an average of 7,500 housing units approved for construction in 2010-2015, accelerating to 7,900 per year between 2010 and 2012 and slowing to 6,800 units per year between 2013 and 2014. The amended PLH, approved for the 2014-2018 period, had set a target of 5,500-6,000 new homes per year, which represents a moderate, steady rate of production. NB: between 2014 and 2018, permission was given for an average of 7,300 new homes per year.

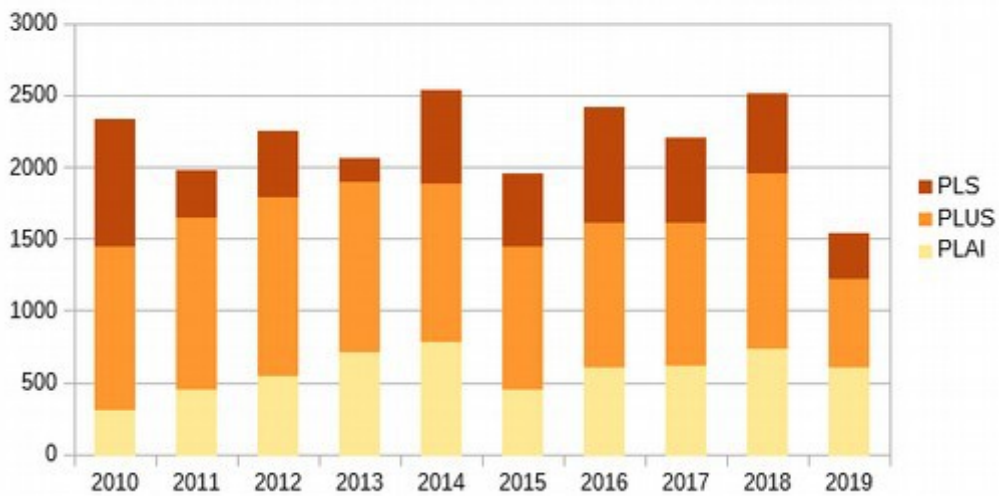
The new PLH confirms a target of 6,000 new homes per year for the period 2019-2025. The new housing developments authorized in 2019 will ensure that this target is met, with more than 6,800 housing units planned for construction.

A strong and sustained supply of social rental housing

In 2019, 1,235 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, 78% were family homes and 6% were in specialised accommodation/integration facilities. This represents a financial volume of €7.11 billion in direct aid for Nantes Métropole.

In all, an average of 1,652 social housing units for rental have been funded per year since 2010 (of a targeted 1,800 to 2,000 homes per year).

Programmation des logements locatifs sociaux et abordables de 2010 à 2019



Source: Housing Department

Affordable accommodation for all

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.

314 PLS homes were funded in 2019 (of which 23% were dedicated housing units and 77% were family homes).

Since 2010, the annual average number of approved PLS rental housing units is 527 homes, compared with an initial target of 500.

PROGRAMMATION 2019 total

Vocations	PLUS	PLAI	PLUS ANRU	PLA I ANRU	PLS	TOTAL	%
Logement familial	500	203	55	114	236	1108	72 %
Logement familial - personnes âgées	46	17	0	0	5	68	4 %
Logement familial - adapté / insertion	0	9	0	0	3	12	1 %
Logement familial - adapté / pers. Hand	0	8	0	0	0	8	1 %
EHPAD - résidence autonomie	20	16	0	0	4	40	3 %
Handicap	0	13	0	0	0	13	1 %
FJT / Jeunes salariés / Apprentis	0	154	0	0	0	154	10 %
Etudiants	0	0	0	0	66	66	4 %
Structure d'accueil (maison relais...)	0	80	0	0	0	80	5 %
TOTAL	566	500	55	114	314	1549	100 %

1235

Source : DH - Parc Social

Affordable home ownership

This scheme allows average-income households (based on PSLA income thresholds) to find affordable accommodation within the Nantes Métropole area, with housing prices of between €2,400 and €2,500/m² compared to free market prices that can exceed €4,000/m². The PLH sets a target of 800 housing units per year.

Since 2010, an average of 734 affordable housing units have been authorised for construction every year. The affordable housing units planned under the current Comprehensive Planning Zone make up the bulk of production of units for affordable homeownership.

These housing units are produced by social actors (social and cooperative backers) thanks to the PSLA loan and reduced VAT in the "City Policy priority districts" and within a 300-metre surrounding perimeter.

In 2019, 17 Rent-to-buy Home-ownership Programs (HROPs) have been accredited, representing a total of 386 units that will be placed on the market in the coming months. At the same time, buyers have placed deposits on 484 affordable housing units, marketed through the PSLA Rent-to-buy scheme or Sale Prior to Completion (SFFC).

This has been bolstered by the sell-off of social housing from the stock available in the metropolitan area, for a total of: 257 units sold in 2019 at affordable prices, primarily to social housing occupants or tenants.

In addition, the Loire-Atlantique land ownership organisation (OFS), Atlantique Accession Solidaire, supported by the department, CARENE, Nantes Métropole and 14 social housing associations and low-rent housing cooperatives, was set up to develop a new, more attractive and sustainable range of affordable housing (with separation of land and buildings).

Meeting specific housing needs

A proportion of the rented social housing and affordable housing financed in 2019 addresses specific needs:

Housing for students/young professionals

- A residential building for students and young professionals located at Trocardière in Rezé, developed by Espacil in collaboration with basketball clubs (l'Hermine and Nantes Rezé Basket), containing: 50 housing units for students, 50 housing units for young professionals and 10 intermediate rental units for young employees on assignment, as well as one staff housing unit.
- A 100-unit residential building for young professionals, developed by Espacil at the Chantrerie in Nantes (former SCE site).

- 16 furnished affordable PLS housing units, primarily for young people under 30, have been approved in Sainte-Luce-sur-Loire on avenue des Cèdres.

Housing for the elderly

- An assisted living residence consisting of 40 supported housing units and 24 family housing units primarily for the elderly has been approved in the La Métairie Comprehensive Planning Zone in Couëron. This project, which was developed by Habitat 44 and managed by Adelis was confirmed through a call for Assisted Living projects issued by the departmental council (CD44) in June 2019.
- Four developments consisting of family housing units intended primarily for the elderly, with a range of services and entertainment provided (known as ASV housing):
 - avenue du Moulin in Bouaye: 24 social housing units;
 - the “Ad Alta” development project in Bouguenais (former Notre Dame school): 6 housing units;
 - the “Symbioz” development project in Nantes on boulevard Lauriol (former RTE site): 8 housing units;
 - the “Opale” development projects on rue du Landas in Saint-Jean-de-Boiseau: 6 housing units.

Housing and accommodation for households with persons with disabilities:

- 13 residential homes for persons with intellectual disabilities were financed in Vertou in conjunction with the association "vie.toit.44" and supported by Nantes Métropole Habitat.
- 8 inclusive housing units approved through the CD44's call for projects in February 2019 have been financed as part of the "Revelations" development project (replacing the former prison in Nantes). The units are intended for people with intellectual disabilities as part of the "ruling families" scheme run by UDAF 44.

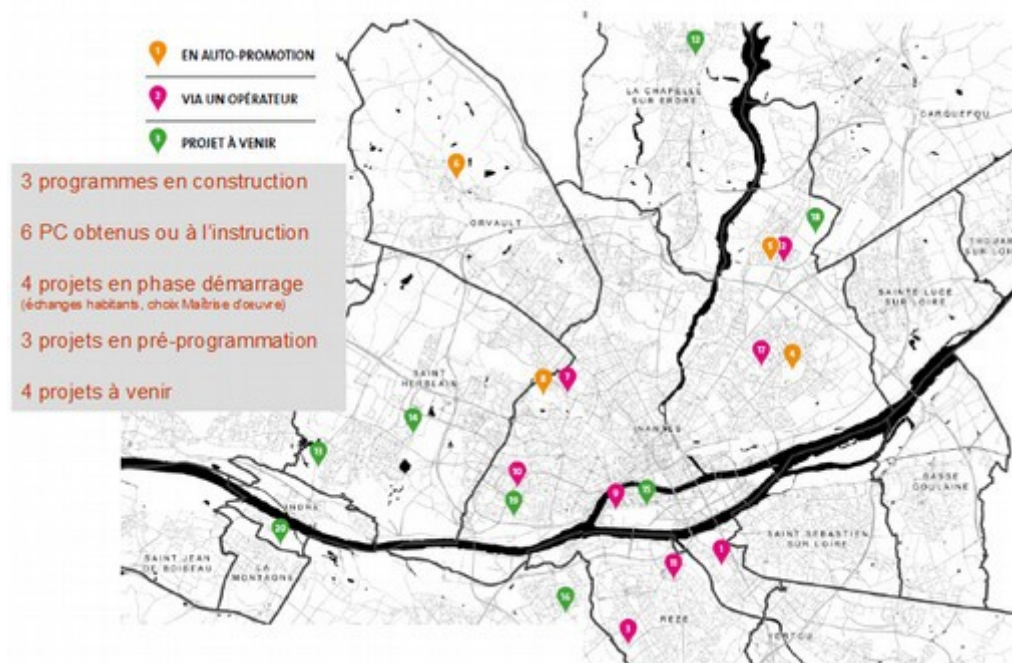
Housing and accommodation for disadvantaged households

- 10 social housing units with social support and/or adapted rental management and 3 PLS housing units were approved in 2019 as part of 5 development projects in Nantes and Bouguenais.

The Metropolitan Participative Housing Initiative

The Metropolitan Participative Housing Initiative was launched in early 2016 and has since identified some 20 sites. Its aim is to develop a new way of living in housing by involving future occupants in the process, from the design of the programme to its commissioning and eventual management of the premises and communal areas.

20 sites have been identified, of which thirteen projects are currently being developed in collaboration with residents' groups, project owners and contractors. The first planning applications were filed in 2018.



Source: Housing Department

Upgrading the existing private housing stock

Since 2010, education and awareness-raising initiatives have been carried out to meet the challenges of improving the energy efficiency of existing buildings and halving greenhouse gas emissions by 2030. As part of this drive, Nantes Métropole has 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.

Nantes Métropole also manages housing improvement operations (OPAH), with the aim of preventing unsanitary living conditions and energy insecurity and ensuring that rent for private housing remains accessible.

Following the adoption of the energy transition roadmap, 2018 saw the launch of a new comprehensive system of financial assistance, "Mon Projet Renov", with an allocated budget of €56m for the 2018-2025 period;

2019 in figures:

- the completion of operations: housing renovation programmes on the Confluence (in October) and Bords de Loire (in July) co-owned building complexes.
- ongoing work on operational prevention and support for co-owned buildings (POPAC) in Grand Bellevue / Nantes / Saint-Herblain. In 2019, this included four collective workshops and a "theatre-debate" workshop. The POPAC ended in late November;
- the creation of the "Atlantique Accession Solidaire" solidarity land agency (OFS).

Key figures in 2019

- 8 districts involved in the "active rental" trial.
- 1,235 housing units financed through PLUS and PLA I loans, of which 78% are family homes.
- 314 housing units financed through PLS low-interest loans.
- 386 housing units financed through PSLA social lease-ownership loans.
- 2,611 requests for financial assistance to carry out surveys or works projects under the policy of upgrading older private housing stock with funding from ANAH and/or Nantes Métropole (+1,127 housing units compared to 2018).
- 27 condominiums approved for support or work in common areas (1,215 units).

HOUSING-RELATED SOCIAL SUPPORT

Nantes Métropole is active in providing housing-related social support. Through the Housing Solidarity Fund (HSF) and the "Housing First" plan, it provides individual assistance to tenant households in social or private housing who are facing difficulties in accessing or staying in housing.

the Housing Solidarity Fund (FSL)

As a result of the Notre Act, metropolitan areas now qualify for the FSL as of 1 January 2017. This new tool of the local housing programme (PLH), which forms part of the "energy transition" roadmap, aims to:

- prevent and address the circumstances of people who are unable to access and stay in housing due to financial difficulties.
- support the most vulnerable households in terms of energy needs and prevent problematic situations;
- become a major tool for solidarity encompassing the residents of all 24 municipalities of the metropolitan area.

A major project was carried out in 2019 to redraft the internal rules of engagement around three main principles: prevention, legibility and accessibility. Adopted by the Metropolitan Council on 13 December 2019 before implementation on 1 January 2020, this regulation provides a response to a number of objectives of the social inclusion policy, namely:

- to fight against non-use of entitlements by ensuring improved legibility and easier referral;
- to reach a wider audience by opening up access to the FSL beyond recipients of social minimum benefits and extending the scheme to homeowners;
- to reinforce action against fuel poverty, particularly through a new scheme allowing energy-intensive appliances to be replaced;
- to take early action at the first sign of difficulties with individualized responses and work in partnership with the stakeholders involved in the process.

The FSL in a few figures

- 4,401 households assisted (+10.37% in 2019).
- A budget of €3.8m (including €1.7m in direct aid and €2.1m in subsidies).

Housing First

Nantes Métropole has committed itself to "Housing First", a national public policy, with the signing of an agreement for accelerated implementation in 2018.

In 2019, two types of measures have been implemented under this policy:

- the structuring of the project and preparation of a roadmap, which was drawn up and approved after a six-month consultation process with more than a hundred partners (local authorities, the French Government, housing developers, associations, etc.);
- specific measures for social support and access to housing for the most vulnerable residents, including:

- the set-up and launch of the "Housing First" platform, a new body providing partner-based, multidisciplinary analysis and guidance for those in complex individual circumstances;
- the opening of the second development of the Igloo project (comprehensive integration through housing and employment);
- the opening of the shelter for homeless women;
- the creation of a "housing first" social monitoring tool with an initial report;
- the coordination of social monitoring actors

ACCOMMODATING ROMA COMMUNITIES

For many years, Nantes Métropole has been working to improve the conditions in which Roma communities are accommodated. Up until 31 December 2016, its efforts relied on an inter-municipal cooperation scheme (Syndicat mixte).

The legal obligations for accommodating Roma communities are included in the departmental plan for accommodation of Roma communities 2010-2016, which was renewed for the 2018-2024 period at the end of 2018. The document also sets out the guidelines for housing of Roma communities who have settled in the local area and helping them to claim their rights.

Improving the range of accommodation options with the creation of new sites

As of late 2019, the metropolitan area had 17 sites with a total capacity of 205 pitches.

As regards the stopping place requirements identified in the departmental plan for accommodation of Roma communities, six sites remain to be built, providing an additional 70 pitches.

Major developments in 2019 included:

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

Accommodating summer peaks

In summer, large groups of travellers (50 to 200 caravans) traditionally travel en masse to attend family or religious events. The French Government manages the area's accommodation facilities by coordinating and authorising stopping places for these large groups. Nantes Métropole contributes to this effort by providing a leased developed site on the Grand Port Maritime estate. It also manages access, waste collection and the mediation necessary to welcome the various groups.

Developing housing for settled Roma communities

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 members of the Roma community. As part of this commitment, 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.

2019 in figures:

- ongoing construction work on an adapted housing development in Nantes (six housing units) and the continuation of a study into adapted housing operations (seven housing units) in Bouguenais;
- the creation of five family plots for rental on rue Robert Schuman in Saint-Herblain (estimated budget of €550,000 ex. VAT);
- the start of work to upgrade the family rental plot at 7 Chemin Moulin des Marais in Nantes (for an estimated budget of €300,000 ex. VAT).

NB: The Act of 2 January 2017 on equal opportunities and citizenship has delegated new powers to metropolitan areas: "The metropolitan area shall exercise, by right and in lieu of the member municipalities, the following powers: "the creation, development, maintenance and management (...) of family rental plots..." (Art. L5217-2 CGCT). Accordingly, Nantes Métropole is now responsible for developing, maintaining and managing the family plots for rental in its local area.

Trial of temporary 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 also showcases the local timber industry and offers a novel solution to the very real housing needs of people in hardship.

Encouraging access to rights and citizenship

The following initiatives were taken in 2019:

- a project to produce a passbook to help the residents of Roma community sites in claiming their rights;
- the consolidation of the innovative "Economic Interest Group" (EIG) project, consisting of eight metal recovery operators from the Roma community. The EIG recovers metals from the waste collection centre in Rezé as part of an agreement with Nantes Métropole. Based on the recommendations made following an appraisal, Nantes Métropole intends to continue this initiative aimed at the economic inclusion of Roma people, alongside its other social inclusion initiatives;
- Social mediation initiatives are continuing on the City of Nantes' family plots and on the caravan sites of the conurbation, including the Aparthé/friendly café initiative. This type of mediation encourages social ties and helps Roma communities to claim their rights;

Changing public perception of the Roma community

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

One particularly noteworthy project, led by the Departmental Association of Roma Citizens (ADGVC44) and the JetFM association involved the production of an audio documentary, based on testimonials gathered for the commemoration (in April 2019) of the internment of the Romani people during the Second World War.

TAKING DECISIVE AND CONCRETE ACTION FOR UNIVERSAL ACCESSIBILITY

Prompted 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 policy.

These four strategic priorities lay the foundations for factoring disability into public policy, in terms of travel, public spaces, housing, employment, etc.

Supporting the consultation bodies of the Metropolitan area

The 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-president 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.).

The Universal Accessibility Group 24 (GAU 24). Bringing together mayors and elected representatives responsible for disability policy in the conurbation's 24 municipalities, the GAU 24's aim is to discuss and share metropolitan and municipal policies on disability and accessibility.

Improving accessibility in the Metropolitan area

- **Ensuring pedestrian continuity with obstacle-free sidewalks :** in 2016, Nantes Métropole adopted an accessibility master plan (SDA). Over the course of 2016 and 2017, it mapped out 600 km of itineraries throughout the 24 municipalities and assessed their accessibility for pedestrians, before drawing up a multi-year schedule of works to achieve full accessibility. 37% are already accessible to wheelchair users and 48% to people who are blind or visually impaired.
- **Offering universally accessible public and on-demand transport:** Nantes Métropole's public transport accessibility master plan (SDAPTC) was approved in October 2015 by the Metropolitan Council. In addition to investments in the main lines, a total of €250,000 has been invested each year in making the existing stops fully accessible. By the end of 2019, 100% of the TAN's public transport vehicles, 82% of bus stops and 100% of 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, resulting in the drafting of a response with supporting arguments and recommendations. These are now taken into consideration by the concessionary operator as part of the concession of the new public service contract for 2019-2026. NB: 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.
- **Accommodating users in adapted premises:** this forms 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). A total of €5.6 million has now been

invested. 65 public-access buildings have been made accessible, taking the overall accessibility 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.

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 tour, various displays, etc.

Key figures in 2019

- 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.

WORKING TOGETHER FOR EQUALITY BETWEEN DISTRICTS

One of the strategic challenges facing an attractive, growing conurbation such as Nantes Métropole is how to nurture solidarity among the different areas that make up the conurbation. This is the role of city policy: to analyse and rectify discrepancies and divides 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, particularly 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 by carrying out a range of initiatives:

- managing and directing the city contract through participatory and open governance. 2019 offered an opportunity to strengthen the presence and involvement of inter-associative groups, community councils and landlords' committees in the steering committee, all of which had been heavily involved in preparing the amendment to extend the City Contract, but also in monitoring the actions carried out under its framework.
- the "city contract" call for projects, managed jointly by Nantes Métropole and the State, in collaboration with the relevant local authorities. 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. A study carried out in collaboration with inter-associative groups in 2019 made it possible to tailor this call for projects more closely to the needs of associations for the year 2020, specifically by advancing the agenda and payment of grants, the deployment of multi-year target agreements, organisation of collective meetings with associative players in each district in order to promote synergies, etc.;
- The "Habitants & Cadre de Vie" support fund. In 2019, 15 new or renewed district projects were supported through this fund;
- increased support for the launch of projects that respond specifically to the issues identified in the City Contract:
 - Urban's Band, a school orchestra initiative rolled out in Dervallières and Breil;
 - the Les Greeter's association has taken the first steps towards the creation of a tourist and cultural facility in the priority districts of the metropolitan area;
 - "**Guetteurs d'injustices: faire renaître l'espoir**", a program for 500 young people between 11 and 25 years old by the association "Ville simplement", which focuses on raising awareness of injustices and social inequalities;
 - "Les Compagnons bâtisseurs", for their assisted self-rehabilitation scheme for the residents of La Bottière.

The ongoing implementation of urban renewal projects

October 2019 saw the signing of a multi-year funding agreement for the four overall projects for the Grand Bellevue, Nantes-Nord, Bottière-Pin sec and Dervallières districts for the period 2019-2024. Along with Nantes Métropole as the project leader, 8 social housing associations (Nantes Métropole Habitat, CDC Habitat social, Atlantique Habitations, Aiguillon Constructions, Vilogia, Harmonie

Habitat, Cif Coopérative and Habitat 44), the Cities of Nantes and Saint-Herblain, and developers Loire Océan Métropole Aménagement and Nantes Métropole Aménagement are working together to improve the living conditions of the 35,000 residents of these districts, with the financial support of the National Agency for Urban Renewal (ANRU), Action Logement, Caisse des Dépôts and the Departmental Council.

Nantes Métropole is also supporting urban renewal projects, without ANRU support, for the Château district in Rezé and the Plaisance district in Orvault.

Each of these projects seeks to bring development and infrastructure policies into alignment with social cohesion and economic development policies, in keeping with the targets of the city contract. The essential aim in doing this is to contribute to the fundamental transformation of each of the districts, in order to improve their appeal, their integration into the city and the quality of life for their residents. Based on a dedicated community dialogue approach, this new and improved strategy serves as the overall project for each district undergoing urban renewal, leveraging all municipal and metropolitan policies and supporting the initiatives already implemented by institutional and associative partners.

In 2019, the Maison du Projet opened in Bellevue and a Standing Conference was set up to monitor the Grand Bellevue project.

Leveraging public policies

As part of its responsibility for "city policy", and with a view to ensuring social and local cohesion, Nantes Métropole jointly steers the City Contract with the French Government, ensuring that all public policy is fully leveraged and coordinated in local areas that are more vulnerable or have fallen behind. The initiative involves the municipalities affected, Nantes Métropole and the other partners to this 2015/2020 contract.

After carrying out a mid-term review of the City Contract and updating its knowledge of the demographic, social and economic situation of the priority districts, Nantes Métropole launched a collective study with all the partners of the city contract. 50 operational commitments were selected and grouped together in an amendment that was approved by all the partners, after the city contract had been extended to 2022. For the metropolitan area, this mainly involved summarising the action plans developed and implemented by the local authorities in the aftermath of the urban riots of July 2018, such as the City of Nantes' "26 initiatives for priority districts", some of which were steered directly by Nantes Métropole, or the action plan drawn up by Rezé Council for the Château district.

Within this framework, a number of opportunities have been identified to promote the environmental, food, energy and digital transition in priority districts, in conjunction with their associative players. In keeping with the guidelines issued on completion of the 2018 mid-term review of the City Contract, the goal is to implement tangible actions for the benefit of residents in priority districts, in the context of a strengthened relationship of trust with the stakeholders of the local area.

Combating recidivism, preventing delinquency and facilitating access to law

As part of its "delinquency prevention" role, Nantes Métropole supports some 10 associations engaged in supporting people in prison and their families, combating repeat offending and providing assistance to victims of crime. In 2019, this support amounted to a total budget of more than €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.

Finally, access to law - i.e. bridging the divide between residents and the justice system to support them in defending their rights - represents a key area of the "social cohesion" section of the city contract. With Nantes Métropole's recent membership of the GIP CDAD (Departmental Council for Access to Law) and a policy of shared financing of access to law organisations (Maisons de la Justice et du Droit, Point d'accès au droit) in place between the local authority and the 24 municipalities, the goal is now to work within the GIP to ensure a better local coverage of access to law points throughout the metropolitan area.

TAKING ACTION TO ENSURE GENDER EQUALITY

As a driver of social cohesion at metropolitan level, gender equality represents a real challenge for the local area. Nantes Métropole has committed to the issue by signing up to the European Charter for Gender Equality in Local Life, following a decision by the Metropolitan Council on 13 April 2015.

This desire is reflected in the special importance given to the issue of gender equality, with a concerted effort to make tangible progress on the issue in the local area.

Within the framework of the public policies implemented by Nantes Métropole, measures were implemented in 2019 across various fields (employment, economic development, combatting gender-based violence, public procurement, human resource management, etc.). These projects are testament to Nantes Métropole's resolve with regard to achieving gender equality.

Encouraging female entrepreneurship in the local area

Nantes Métropole is committed to supporting female entrepreneurship by giving women the means to act. As it stands, just 32% of businesses in France are started by women. To address this inequality, the City of Nantes' gender equality council organised a community workshop in 2016 in collaboration with Nantes Métropole. This culminated in 2017 with the creation of a roadmap aimed at encouraging female entrepreneurship in the local area. In 2019, a monitoring group was created to track its implementation, further develop the actions and measure their results and impacts. Nantes Métropole's assessment team carried out an assessment in partnership with students from the Audencia business school, to track progress by using targeted indicators.

A number of other initiatives have been strengthened in 2019, including a dedicated communications strategy (covering the website, social networks and Nantes Passion) drawn up in March by the information and community relations department (DGIRC), an events programme with a greater emphasis on "female entrepreneurship" (the Profession'L trade fair, entrepreneurial trade fair), and the expanded "Dare to be entrepreneurial" scheme with a particular focus on women.

Supporting associations working to tackle violence against women

Associations working to combat violence against women benefit from financial support from Nantes Métropole. These organisations help survivors of domestic violence, family violence and incest or sexual abuse. They offer support services that enable women to receive the care they need and escape the cycle of violence, fear and guilt. These associations also develop awareness-raising and information campaigns for the general public, professionals and institutions.

Equal employment a central focus of HR management by the local authority

Issues of gender equality in the workplace are brought to the fore in the workplace equality, diversity and gender balance initiative carried out in municipal and metropolitan departments. The internal charter circulated to all employees sets out its main objectives:

- promote equality for all within the departments;
- strive to reflect population diversity in the departments;
- go over and above the statutory protections, based on equal skills, to ensure effective gender equality in the workplace by promoting a better gender balance in jobs and at all levels of responsibility.

The Diversity - Equality dual certification scheme, which leverages all the relevant players, makes it possible for companies to commit to continuous improvement in order to guarantee and promote real equality for all. Following an on-site audit carried out by AFNOR Certification from 14 to 22 October 2019, Nantes Métropole, the city of Nantes and its Municipal Social Welfare Centre (CCAS) confirmed that they had obtained their diversity certification and had been awarded the Gender Equality in the Workplace mark of approval for the first time.

Some of the flagship initiatives conducted by the City of Nantes and Nantes Métropole with regard to gender equality in the workplace included:

- a recruitment guide: summarising the principles of non-discrimination and promotion of equality and professional diversity (non gender-specific job titles, diversification of recruitment pools, raising the awareness of recruitment panels on combatting stereotypes and prejudices, etc.);
- actions to promote careers in the local civil service (FPT), including job forums, work placements and apprenticeships: 374 people hosted on work placements at Nantes Métropole in 2018, including 150 women, as well as 31 apprentices, of which 9 were women;
- an in-house awareness-training group on gender balance and diversity, which runs sessions in the various departments (a total of 226 men and 77 women received awareness training in 2019);
- internal "equality at work" communication plan that relays the commitments and actions in terms of professional equality between women and men;
- measures to facilitate parenthood and ensure a better work/life balance (PGJE, CESU, special leave, etc.);
- implementation of the PPCR (career and compensation protocol) and the RIFSEEP (public service pay schedule), which help to reduce some of the inherent discrepancies in status. These measures to improve career development and pay have particularly benefitted female employees in categories A, B and C;
- Creation in 2019 of the Equal Pay Observatory, which involves staff representatives in the process of diagnosis and subsequent measures taken to close the gender pay gap;
- establishment of the internal Equality, Diversity and Gender Equality Advisory Board, a forum for dialogue on equality issues that brings together trade unions, employee volunteers (50 members) and local government representatives. The proposals of the working groups (age management, prevention of sexist behaviour and gender-based violence in the workplace, etc.) are used to inform the HR policy;
- New "Equality at Work" training cycle, which trained 163 men and 155 women in 2019. Nearly 6,000 employees have been trained to date.

Selected figures and extracts from the 2019 Comparative Status Report

- 3,838 permanent employees working at Nantes Métropole, including 1,440 women. In the main technical division, the proportion of female employees has grown slightly, up 1 percentage point compared to 2017 (14% of women in 2019 compared to 13% in 2017).
- A total of 10,500 days of training given to 3,154 employees, of which 35.8% were women and 64.2% were men.
- Although pay gaps still persist, women's average monthly net pay has been increasing since 2014, while men's average monthly net pay has remained level since 2017.
- 25.8% of women and 4.3% of men are part-time, with an increase of 2.1 percentage points for women and 0.7 for men, compared to 2017.

ACCOMMODATING MIGRANTS FROM EASTERN EUROPE AND REDUCING 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, largely from Romania. In September 2016, Nantes Métropole decided to undertake a solidarity initiative, in partnership with the French Government, the Department and the 24 municipalities, based on two key principles: humanity and firmness. Accordingly, the following steps were taken:

- a humanitarian approach that seeks to settle migrant families from Eastern Europe in legal housing to help them in building a life in France, autonomy in the regularisation of their status and a comprehensive inclusion programme that gives them access to schooling, training, employment and medical care;
- a firm approach to illegal occupations of both public land (belonging to the municipalities or to Nantes Métropole, by systematically initiating eviction proceedings) and privately-owned land (by giving the owners guidance and support in filing a complaint).

Within this framework, a three-year urban-planning and social planning project (MOUS) was introduced in February 2018. Managed by Nantes Métropole on behalf of the municipalities and delegated to the Association Saint-Benoît Labre through a public contract, the project's aim is to perform an inventory of the illegal camps in the conurbation and identify potential avenues for integration. It will also involve carrying out social assessments (for households at 15 of the area's 40 priority camps) and providing social support 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).

At the same time, Nantes Métropole provides financial support (in the form of a grant fund) to municipalities for the creation of temporary integration sites (TIT), aimed at offering accommodation and social support to the families concerned, after undergoing an assessment and receiving guidance through the MOUS. In 2019, a plot of land in Nantes was opened for this purpose at 380 route de Sainte-Luce.

CLIMATE PLAN AND ENERGY TRANSITION

Nantes Métropole has set a climate target of reducing greenhouse gas emissions by 30% per capita by 2020 compared to 2003 levels. By 2030, it aims to achieve a 50% reduction in GHG emissions. 2019 was marked by the adoption of the energy transition roadmap, which was drawn up in February 2018 following the Big Debate on Energy Transition, as well as the adoption of the Local Climate, Air and Energy Plan at the end of the 2018.

Nantes Métropole plays an active role in securing energy supply and keeping the associated costs under control. The authority is also continuing its efforts to improve its local educational and awareness-raising schemes, develop local renewable energies and improve coordination between its energy networks (electricity, gas and heating).

Translating the new Energy and Climate commitments into action

Nantes Métropole stepped up its "energy and climate" actions in 2019 with the adoption of the energy transition roadmap and the new Local Climate, Air and Energy Plan.

Operational applications of the roadmap

The 3 priorities of the energy transition roadmap have led to tangible achievements in 2019:

- an energy transition that benefits all inhabitants, particularly in terms of housing and mobility, including the continued renovation of houses and condominiums, tackling fuel poverty, intermodal transport systems, urban logistics, car-sharing, traffic-calmed city-centres, promotion of cycling, etc.;
- an energy transition that makes use of 100% of local renewable resources, such as compatible roofs, renewable energy, carbon-free urban planning, green oases, the circular economy, zero waste, bio-waste, sustainable food, etc.;
- a 100% citizen-led energy transition that empowers the city's residents to take action: 100 citizen labs, a range of initiatives in the municipalities, involvement of business stakeholders, open conference on the energy transition, creation of the "Bureau de la Terre" single energy transition laboratory, etc.

In late 2019, around 20 resolutions were approved by the Metropolitan Council as part of the practical application of the roadmap, largely involving the funds allocated to energy renovation, travel and waste prevention.

The thirty or so local stakeholders of the Open Energy Transition Conference continued their work throughout the year, with the aim of producing an follow-up assessment of 10 or more commitments of the roadmap in 2020.

In practical application of the roadmap, the "Bureau de Terre" has led to support for project leaders and put them in contact with resource organisations. Around twenty individual meetings (nearly 400 attendees at the "Energy transition lunches") were held throughout 2019, on issues such as compatible roofs, business travel, "Citizens' Labs" and the fight against food waste.

Adoption of the Local Climate, Air and Energy Plan

Unanimously adopted by the Metropolitan Council in December 2018, the Local Climate, Air and Energy Plan (PCAET) addresses the shared challenges of reducing greenhouse gas emissions and building a city with more greenery while strengthening its resilience to extreme climate events.

The PCAET consists of a "mitigation" phase, taken from the energy transition roadmap and aimed at reducing greenhouse gas emissions, and an "adaptation" phase to respond to the climate changes to come.

Its targets have now been integrated in the PLH and PLUm ("Air, Energy, Climate" Planned

Improvement Guidelines). It should be noted that the planning officers of all the municipalities in the metropolitan area receive training to ensure that the challenges of the "adaptation" phase are translated into operational practice in urban planning projects.

2019 also provided an opportunity to take stock of the different thematic areas of the PCAET (mobility, energy, waste, urban planning, etc.) in preparation for the "Cit'ergie" certification in 2020. This PCAET management and evaluation tool has been used by Nantes Métropole for a number of years. The most recent full Cit'ergie audit, which was conducted independently based on a European reference system, dates from 2015 and will need to be repeated in 2020 to assess the progress made.

Ongoing initiatives to coordinate, advise and support citizens:

- providing information and advice to private individuals via the Energy Information Point run by the Association Ligérienne d'Information et de Sensibilisation à l'Énergie et à l'Environnement (ALISÉE) with 2 521 enquiries in 2019 (compared to 1,556 in 2018): 174 half-days at guidance centres with 98% attendance;
- 4 "energy and housing" forums held in Sainte-Luce sur Loire, Bouaye and Saint-Sébastien, and 7 workshops at the Eco-appart (Nantes);
- continuation of the "Families with Positive Energy" challenge led by the Alisée association, with 147 families in 20 teams managing to reduce their energy and water consumption by an average of 11% between 2018 and 2019;
- operational launch of the "Mon Projet Renov" comprehensive aid package to meet the "zero energy leakage area" target set in the energy transition roadmap. As a reminder, 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;
- expansion of campaigns to advertise and inform households about the new support measures, in connection with the website www.monprojetrenov.fr. New communication tools produced and distributed; poster campaigns in the city, briefings with professional stakeholders and press conferences have all helped to spread information on the subsidies that are available. Interested citizens were able to talk to independent advisors and/or companies to finalise their renovation projects.

Supporting energy-renovation projects in houses and co-owned buildings

Nantes Métropole has continued in its support for energy renovation in line with the roadmap. For example, standout events in 2018 and 2019 included:

- the decision to carry out energy renovation work on 1,073 housing units with the financial support of Nantes Métropole;
- €1.54 million in grants awarded for low-consumption renovation work;
- for houses: 74 audits and 6 low-consumption renovations carried out;
- for condominiums: 15 audits (800 homes) approved and 306 homes renovated to low-consumption standards.

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

- homes with added value and comfort (insulated roofing can increase the indoor temperature in winter by +1,5°C);
- energy savings and lower CO₂ emissions;
- more business for building contractors.

Highlights in 2019 included the system's ramp-up with the local aid "Mon Projet Renov" and the communication campaigns.

The energy renovation of social housing and tertiary sector housing stock

With regard to social housing, an initial aid scheme for renovation was adopted in June 2019, which includes a target performance on completion equivalent to the new official low-consumption level where possible (at least the improved low-consumption renovation level of 20%).

For tertiary buildings, an assessment to identify the consumption of tertiary buildings and target consumer typologies was carried out in 2019 by AURAN (Nantes Region Urban Planning Agency) as part of the Energy Master Plan. The goal is to mobilise the biggest consumers in order to build a strategy and the associated tools for 2020.

A voluntary public energy policy

Over and above the objectives of reducing greenhouse gas emissions, Nantes Métropole must ensure a sustainable supply of energy for its local stakeholders in the context of an energy sector in major upheaval. Its public energy policy focuses on two strategic priorities designed to bring about the energy transition.

Develop and optimise public energy services to best suit the needs of users, which will involve:

- strengthening energy transition goals;
- optimising the management of public electricity and gas supply services;
- continuing to develop affordable renewable heating;
- guaranteeing public services that meet user needs as closely as possible.

Reduce the energy footprint of the local area, consume less energy and produce more energy by:

- managing the technical and financial aspects of energy use in local government assets (leading by example);
- making existing housing more energy efficient;
- achieving the targets of the PCAET, including a local energy consumption mix consisting of 50% locally produced renewable energy by 2050 (20% by 2030) and halving final per capita energy consumption between 2003 and 2030.

To implement these two strategic priorities, the following steps were taken in 2019:

- the initiation of a collaborative study with AURAN, the departments of urban planning, transport, housing, economic development and logistics for the development of an Energy Master Plan, to identify scenarios for the production of renewable energy (RE) and the reduction of local energy consumption that are needed to achieve the objectives of the PCAET;
- In 2014, Nantes Métropole continued its efforts at national level to call for the creation of an energy organising authority, as a necessary first step to ensuring the success of the energy transition.

- **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. Awarded to Enedis (formerly ERDF) by Nantes Métropole, this concession contract represents 3,231 GWh of electricity distributed for consumption, 209 GWh in production, a grid of 5,873 km, 380,937 supply points and more than 3,185 production points, of which 3,146 are photovoltaic;

- **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. Awarded to GRDF by Nantes Métropole, the concession represents 3,703 GWh of gas distributed, a network of 2,337 km and 188,353 active supply points connected;

District heating networks are expanding

Three objectives:

- To provide access to safe energy for as many residents as possible at controlled rates: 2020, more than 30,000 homes will be connected to district heating networks; half of these will be in 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 overall target of the Local Energy and Climate Plan).

Developments underway:

- **The Centre-Loire heating network:** under a public service delegation contract, renovation and extension work on the Centre-Loire district heating network has passed a milestone. At end-2019, the network stretched over a combined length of 85 km, an additional 60 km since 2012. The network is mainly fuelled 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 option. 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 was brought online in spring 2019. The network currently serves 17,900 homes and a number of facilities, with an energy mix consisting of 71% renewable and recoverable energy. Work to extend the network and its access will continue in the coming years, eventually meeting a targeted 84% of the district's needs.
- **The Bellevue heating network:** operated by the Nadic company (DALKIA), this network served 9,600 homes in the west of Nantes and in Saint-Herblain as of late 2019, and covered a total distance of 23 km. The heat is produced by a 13 MW wood-fired plant which came online in March 2013. More than 51% of the energy it supplies to the grid is generated from renewable fuels;
- **The heating network in the La Noë Comprehensive Planning Zone in Saint-Jean-de-Boiseau:** operated by NOVAE (IDEX), the network is supplied by a wood-fired heating plant that covers an average of 70% of heating needs and serves 140 housing units. Since 2018, its management has been integrated into the new Nord Chézine public service delegation contract;
- **The heating network supplying the La Minais Comprehensive Planning Zone in Sainte-Luce-sur-Loire:** operated by IBEM (IDEX), the network is fed by a wood-fired plant which covers 60% of heating needs and serves 250 homes. A users' committee allows regular communication between users and operators with a view to continuously improving the service;
- **the Nord Chézine network:** work is still in progress on this major new heating network. This new public service delegation for the development of the Nord Chézine heating network was awarded to NOVAE (IDEX) in January 2017. 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, etc.), Orvault, Saint-Herblain and possibly Couëron, providing heating for nearly 10,000 homes. By the end of 2019, 22.5 km of network had been laid and 4,908 homes supplied with heat, including 1,580 homes connected to the Couëron heating plant.

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 has set itself the target of meeting 50% of the local area's consumption needs with local renewable energies by 2050.

2019 was marked by the continued development of a "Sun" plan, which reinforces the solar power initiatives already undertaken in recent years:

- ongoing work on the online solar land registry platform developed by In Sun We Trust;
- delivery of solar photovoltaic power plants to the MIN. The Legendre Energie company (formerly Armorgreen) was selected to develop this 31,000 m² project, which is the largest rooftop solar power plant in the West of France. This plant, which will make the building energy self-sufficient, was financed through a dedicated crowdfunding scheme. NB: Nantes Métropole is now a joint shareholder in the operating company, MIN à Watt;
- delivery of the photovoltaic shade structures in the P2 and P3 car parks at the Zénith venue (15 600m²);
- completion of work on the ground-mounted solar photovoltaic park at the former Tougas waste collection site, managed by VSB Energies (45,000m²).

Nantes Métropole has also focused its action on other renewable energy sectors:

- methanisation: - including the signing of an agreement to sell land to VoV Biomasse for the construction of a methanisation unit;
- renewable heat: continuation of the COTER target contract started in 2018 and financed by ADEME (French Environment and Energy Management Agency) for the development of renewable heat in the private and public sectors (wood energy, waste heat, solar thermal, geothermal), with an ambitious target of 18 projects to produce 573 toe (tonnes of oil equivalent) of renewable energy over 3 years.

Local authorities setting standards, regardless of their size

Continuation of the shared energy advisory service (CEP) for local authorities, initially launched on 1 January 2018. The aim of this scheme 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 energy assessments, analyse and track the energy consumption of local authorities' building stock;
- perform energy audits of 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 from its launch in 2018: Basse-Goulaine, Bouaye, Brains, Indre, La Montagne, Les Sorinières, Mauves-sur-Loire, Saint-Aignan-Grandlieu and Sautron. In 2019, 3 new municipalities of less than 10,000 residents have applied to join the scheme: Le Pellerin, Saint-Jean-de-Boiseau, Saint-Léger-les-Vignes.

Optimization of public lighting, illuminated signs and shops

In 2019, Nantes Métropole persisted in its drive towards energy-efficient street lighting by applying the principle of "rational lighting" (energy sobriety). The authority continued in its efforts to adapt lighting to actual requirements. Where appropriate, lighting levels in some areas have been dimmed 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;
- and limiting middle-of-the-night street lighting to roads, town centres and business districts.

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

The Lighting Development Consistency Plan was being finalised at the end of 2019.

NB:

- A study by CEREMA in collaboration with the departments of Nantes Métropole is underway on the effects of illuminated areas on biodiversity, with the eventual aim of putting measures in place to preserve fauna and flora.
- Following the new contract awarded to JCDecaux in 2017 (municipalities of Nantes, Rezé, Saint-Herblain, Saint-Sébastien, Orvault, Sautron and La Chapelle-sur-Erdre), the number of street furniture units in the metropolitan area (of between 2m² and 8m²) has been reduced by 12% (a total of 840 units, compared to 952 previously).
- An awareness campaign on managing energy consumption in shops and businesses is currently being prepared. The aim is to highlight the issue of lighting and illuminated signs, in line with the new regulation on the limitation of light pollution of December 2018.

Key figures in 2019

- 2,031 enquiries made to the Energy Information Point;
- As of end-2018, the metropolitan area has 5,873 km of electricity grids, 2,337 km of gas networks and 110 km of district heating networks.
- More than 36,000 homes are connected to district heating networks and the same amount of heating is supplied to public buildings;
- 63% of the heating distributed by the district heating networks comes from renewable and recoverable sources (wood and waste);
- 230,000 m² of photovoltaic solar panels were installed across the local area by late 2019.
- 1,017 GWh of electricity had been produced from renewable and recoverable energies at end-2018.

URBAN TRAVEL: IMPLEMENTING THE OBJECTIVES OF THE URBAN TRAVEL PLAN

Replacing the 2010-2015 plan, the new 2018-2027 Urban Travel Plan (PDU) "Outlook 2030" was adopted by the Metropolitan Council on 7 December 2018, providing a roadmap for the travel policy currently being implemented. In addition to initiatives driving behavioural change, soft mobility and the development of mobility services, a number of measures have been taken or launched in 2019 with the aim of achieving the objectives of the PDU.

Some examples include:

- the introduction of the e-busway, which marked a further step in the commitment to accelerating the expansion of the clean vehicle fleet in the metropolitan area (in line with the energy transition roadmap adopted in February 2018);
- ongoing studies to develop new tramway lines serving the future university hospital, which were announced in June 2019 and should enter the consultation phase in late 2020;
- the announcement in June 2019 of the winners of a call for sustainable urban logistics projects (FLUX) to deploy new goods transport and storage solutions in the city that are more environmentally friendly and respectful of the living environment;
- the implementation in June 2019 of a first stage of the overhaul of regulations on deliveries in the city centre of Nantes, awarding an environmental bonus to companies providing delivery services with alternative energy vehicles (with extended delivery hours for clean vehicles). A second stage will take place in 2020 with clearer and more readable rules for all delivery actors;
- Initial studies for the cycle route development master plan (in progress);
- a study for the bus facilities master plan (in progress);
- the creation of a travel observatory and geographical information system;
- research into ways of promoting the growth of alternatives to single-occupancy car travel, as part of the metropolitan area's urban development and appeal. Flagship initiatives include:
 - a study of travel in the north-east quadrant (in progress);
 - the study of the master plan for the Nantes Atlantique airport and the airport zone (in progress);
 - a study on improving the use of major metropolitan roads (particularly carpooling lanes);
 - support for two independent shuttle projects: one carried out by a consortium of companies between Neustrie and the airport, the other by the SNCF on the former Doulon-Carquefou railway line;
 - support for various urban studies: route de Vannes (in progress), Atlantis (in progress);
 - the study of the master plan for the Nantes railway junction and the Nantes Angers Sablé axis;
 - a study to improve performance, journey time and capacity on the Nantes-Paris routes.

ORGANISED, COMPLEMENTARY AND ACCESSIBLE TRAVEL NETWORKS

Nantes Métropole benefits from an efficient and coordinated public transport network, consisting of TAN buses and trams, Aleop coaches and TER regional trains, servicing all of the municipalities in the conurbation.

More than 144.8 million journeys were made on the network in 2019, representing an increase of more than 3.4% in public transport usage. The combined coverage of the various networks has increased to 29.6 million km.

Highlights in 2019

- **Implementation of the first full year of the new public service delegation contract** for the operation of public transport, which will extend to the year 2025. This new contract includes the role of mobility coordinator, which is being introduced gradually.

- **A significant increase in public transport provision in September 2019**

To keep pace with the growth in demand, **the overall transport network was expanded by approximately 357,000 km at the start of the 2019 autumn season, specifically through** the reinforcement of several lines to absorb overloads, the overhaul of the LUCIOLE night service in partnership with night-time operators, additional services on line 85 and the South-West lines (lines 78, 68 and E8) and finally the extension of C5 to accompany the arrival of the new Hangar à Bananes to Bas Chantenay Navibus line.

- **Launch in November 2019 of a carpooling service as part of the "covoit'Tan" public transport network.**

This service is free of charge for subscribers and the driver providing the journey is remunerated.

- **The commissioning of the 24 m all-electric e-busways on line 4:** more than €50 million has been invested in this project this year, which went towards the delivery of the 22 e-busways with a unique livery for each vehicle, the creation of the new CETEX in Vertou for the upkeep and maintenance of these new vehicles, and the development work necessary for the commissioning of the line (and specifically the installation of recharging columns at the line's terminals). As well as being the largest transport development undertaken in 2019, this project also represents a world first.

- **Hosting of the "Rencontres nationales du Transport public" national public transport conference:** held from 2 to 4 October 2019 at the Beaujoire Exhibition Centre, this event brought together the entire sector of players in mobility and public urban, rail and road transport. Attendance figures were up for this year's event in Nantes (more than 8,000 participants, +5% visitor attendance and +10% conference delegates), testament to the area's appeal and the momentum of our drive on transport.

- **Regarding projects currently under study:**

- **renovation of tramway trains:** launch of a consultation with manufacturers in 2019. Selection of the manufacturer expected in 2020. At the same time, the start of work to adapt the existing infrastructure and CETEX to allow these new, longer trains to run on the network;

- **extension and connection of lines 1 and 2, Phase 2 / CETEX Babinière:** completion of the public consultation in spring 2019 and decision to launch the operation, including the extension of the tramway line 1 from Ranzay to Babinière, as well as the construction of a

new CETEX tramway maintenance hub to accommodate the new tramway cars currently being acquired;

- **renovation of tramway line 1 Feydeau-Commerce:** continuation of studies and preparatory work for the renovation of the tramway infrastructure planned for summer 2020, in coordination with work to develop public spaces. Selection of new tramway shelters, applying the principles established on the Duchesse Anne Château station in 2018;

- **development of new tramway lines (DNL):** in June 2019 the Metropolitan Council decided to continue coordinated studies on the 3 planned lines with the urban development stakeholders working in Central areas (Île de Nantes, Petite Hollande-Bords de Loire, Pirmilles-Isles, Bellevue), in line with the project to widen the Anne de Bretagne Bridge and the decision to start the consultation process in 2020;

- **transfer of the railway facilities of Nantes État:** since the spring of 2019, work has been underway to clear the Nantes État site, an area of approximately 16 ha on the west of the Île de Nantes, of railway facilities in order to allow the urban development of the Sud Ouest Comprehensive Planning Zone on the Île de Nantes to be carried out, and more specifically the installation of new tramway infrastructure;

- **replacement of rolling stock:** deliveries of articulated buses have enabled their use on lines C3 and C4. NB: apart from a few hybrid electric/diesel buses, the bus purchasing process begun in 2019 will enable the Metropolis to phase out diesel buses entirely from its rolling stock fleet in 2020 (excluding chartered buses);

- **Airport Zone Accessibility Master Plan:** study to be launched in 2019, co-financed by the French Government, the Region and Nantes Métropole. Target completion date: summer 2020.

Key figures in 2019

- Nantes Métropole boasts a tram network covering 45 km and a Busway network of 7 km;
- Chronobus lines cover a total network of 95 km;
- The conurbation is served by a network of 44 bus lines;
- 2 Navibus lines (Erdre et Loire).
- The TAN network recorded 144,8 million journeys, an increase of more than 3.4%.
- The National Public Transport Conference (RNTP) drew more than 8,000 participants and 220 exhibitors.

ENCOURAGING SOFT TRANSPORT

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

In 2020, the French cycling federation (FUB) named éNantes as the second most cyclable city in France (in the category of cities with a population of more than 200,000) based on the results of its national "cyclability" survey.

The survey's results were based on 184,483 responses gathered from across France (including 6,000 from cyclists in Nantes). The award is an acknowledgement of the work undertaken since the first cycling plan in 2010 and clear confirmation that this policy of encouraging travel by bicycle should be continued.

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 2019, 16km of cycle lanes and cycle paths were built in the metropolitan area, bringing the total length of cycling infrastructure to 586 km, including 144 km of cycle paths and 242 km of cycle lanes.

The key points of the bike plan:

1) Actions on parking

In 2019, there were 1,414 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.

In addition, 2 secure collective shelters (each with 48 spaces) and 2 open collective shelters (with 20 spaces) have been installed at Couëron and Saint-Herblain stations.

2) Actions on safety

These developments relate to public spaces. In 2019 cycle routes were enhanced with 16 km of new cycle paths and network upgrades:

- new developments in the area surrounding the north station and in particular the underpass approach on Boulevard de Stalingrad;
- the development of Rue Bretagne in Sautron; Rue André Maurois in Carquefou; Rue de la Loire in Sainte-Luce-sur-Loire; Rue Sauvestre in Rezé; and Route de Gachet in Nantes;
- the entry into service of a dedicated soft mode bridge at the port of Rezé.

3) Actions to develop services

In 2019, of the many initiatives aimed at making cycling easier for citizens, long and short-term bike hire services such as "Bicloo", "Métropole à Vélo" and "Vélocampus" remained very popular.

- the number of subscribers to "Bicloo Plus" stands at 21,700 with a fleet of 1,300 self-hire bikes at 123 stations;
- the number of medium and long-term rentals from "Mon Bicloo" was 1,851 bicycles (electric bikes, cargo, scooter, classic, folding), 40% of which were hired by non-Nantes residents;
- 7,643 subsidies for the purchase of an electric bike have been granted since the scheme was launched in 2010. This includes 562 subsidies (of up to €300) to private individuals for the purchase of a cargo or family bike (since the scheme was launched in 2012);
- since 2016, financial assistance of up to €400 is available for professionals who travel by bike.

By the end of 2019, 162 grants had been paid out for a total of €79,411.

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.

By September 2019, 43 schools had joined the scheme, including 17 schools in Nantes and schools in 20 other 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, Saint-Jean-de-Boiseau, Rezé, Bouguenais, Thouaré-sur-Loire and La Montagne). After a trial phase followed by a review, three temporary pedestrian zones were added to the scheme in the morning at the Bois Saint-Louis (Orvault), Ledru Rollin (Nantes) and Robert Badinter (Saint-Jean-de-Boiseau) schools.

Nantes Métropole ran a stand promoting the various mobility-related services at events in a number of schools, supplemented at the end of March 2019 by 129 activities with an average of 4 or 5 activities per school.

Finally, two "Rues aux Enfants" were organised in collaboration with Rue de l'Avenir Grand Ouest, on 27 April at the Contrie school in Nantes and on 28 September at the Beaugard school in Saint-Herblain.

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

In July 2019, a 2-km extension to the north-south axis from the Morand Bridge to the Tortière Bridge was officially opened. The route passes via the Ceineray, Sully and Barbusse quays, the Motte Rouge bridge and boulevard Van Iseghem. This dedicated soft mode path contains separate areas for pedestrians and bicycles.

6) Ongoing work on the Saint-Herblain-Nantes expressway

In order to bridge a number of gaps in the cyclable network, Boulevard Allende underwent redevelopment in the summer of 2019.

7) Route marking

A number of routes have been marked, including Nantes-Vertou, Nantes-Rezé-Les Sorinières, and the Morand and La Tortière bridges.

8) Events in 2019:

- a Bike parade on 25 May between Couëron and Nantes as part of the Débord de Loire nautical event;
- the 22nd conference of the Club des Villes et Territoires Cyclables in Nantes from 1 to 3 October 2019;
- the first "Feydeau vélo" event to promote cycling was held on 19 October 2019, organised in cooperation with cycling associations, bike shops and JCDecaux.

Key figures in 2019

- 586 km of cycling infrastructure: 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.
- 2,755 off-street parking spaces, including 1,973 secure spaces and 782 self-service spaces.

SUPPORTING BEHAVIOURAL CHANGE IN MOBILITY

Developing more environmentally conscious mobility options means making users aware of the environmental impacts of their travel choices and motivating them to adopt new practices. To do this, Nantes Métropole informs, advises and supports residents according to their needs.

Providing multimodal travel information tools and open data

To facilitate access to alternative means of transport to single-occupancy car use, Nantes Métropole has worked with various regional and national partners to provide travel information tools for the general public:

- [Destineo](#) is a multimodal travel information system managed by the Pays de la Loire Region (including the departments) and 12 mobility authorities such as Nantes Métropole and CARENE. This journey planner is one a number of digital tools offered by EMITAN 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, and receive live information on the go. Version 4 of the tool was launched in December 2018;
- [Geovélo](#) is a route planner specifically for cyclists, using a variety of criteria (speed, safety, points of interest for tourists, etc.). Géovélo gives users information about the location and real-time availability of the bicloo bike hire stations. The tool also allows users to contribute to the maps by correcting or adding information, including cycling infrastructure and cycle parking facilities;
- [Ouestgo.is](#) a new in-house carpooling service, which is free, publicly available, multi-regional, solidarity-based and open-source. Launched by Nantes Métropole in July to replace the website [covoiturage-nantesmetropole.fr](#), the tool was developed and managed in partnership with five other major local authorities in Western France;
- 44 "Mobility" datasets are now 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 encourage wider use of the data and help more users become familiar with the mobility services available in the metropolitan area. The partnership also allows users to add to and check the quality of 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. For example, in 2019, the authority subsidized the purchase of 253 bikes, including 190 family bikes (cargo) and 63 bikes for professional use, amounting to a total of €79,852 in subsidies.

The mobility plan

A quarter of all journeys made in the conurbation are work-related. The commute is also, on average, the longest journey of the day and a deciding factor in the choice of transport used for other daily journeys. Hence the importance of taking action in this area.

With this in mind, Nantes Métropole has been helping employers and their employees find the most suitable mobility solutions since 2004. 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 scheme 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 business guidance and support solution was adopted. It offers a range of tailored systems, based on the company's chosen level of involvement in promoting sustainable mobility to its staff. Three levels are available:

- pack 1: information and benefits;
- pack 2: event marketing;
- pack 3: mobility guidance.

All told, at end-2019, 533 employers with a combined workforce of more than 137,000 employees had signed up to a mobility pack scheme (67% 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, with the ultimate goal of bringing mobility behaviour in line with the energy transition.

Ecomobility for students: "transport and travel" events and guided tour of the Restricted Traffic Zone (ZTL)

In 2019, Nantes Métropole once again entrusted the running of a series of eco-mobility awareness events for students of primary school age and upwards to Écopôle, an association working to improve environmental education and sustainable development. These eco-mobility discovery tours are part of the roadmap towards the ecology and energy transitions.

In 2019, 19 "transport and travel" modules were taught and 17 tours of the ZTL in the centre of Nantes were organised for 36 classes from 19 schools from 8 municipalities in the metropolitan area. A total of 533 students attended the events.

Travis the Travelling Snake

To encourage parents and their children to do the school run using alternative modes to the car, Nantes Métropole organises a fun, European eco-mobility challenge called "Travis the travelling snake". In 2019, five schools in Bouaye, Couëron, Carquefou and Nantes took part in the challenge, with 1,089 pupils in 41 classes.

SécuriTan: classroom activities run by TAN

SécuriTan is an educational event that teaches safety and citizenship to CM2 classes in schools that are on the school transport runs. 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 consist of two parts:

- The first is theory-based, in which the students are shown a film focusing on the different modes of transport available to CM2 students in the Nantes area, i.e. public transport (how to behave at a stop, when approaching the vehicle and inside, rules of use, etc.), cycling or walking;

- the second is practical, involving a Q&A session exploring the public transport network, its use and safety.
- in 2019: 1,609 students received training in 65 classes.

These tools and events are available for all public and private schools in the metropolitan area, but priority is given to institutions that are signed up to 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 2019, 12 schools had signed up to the scheme for bike-riding lessons or other learning events.

Key figures in 2019

- 533 employers were involved in a mobility pack scheme, reaching a total of 137,000 employees;
- 253 bike purchases were subsidised for a total of €80k.
- 44 "Mobility" data sets made available through the data.nantesmetropole.fr platform;
- 36 classes (533 pupils) from the conurbation took part in a transport and travel learning event and/or a ZTL tour;

CALMING TRAFFIC

In order to enhance the appeal and vibrancy of its urban hubs, Nantes Métropole is seeking to calm traffic throughout the conurbation.

The authority continues to place a particular focus on initiatives to improve road safety and help prevent accidents involving schoolchildren. As part of this drive, Nantes Métropole's municipalities have increased the number of traffic-calmed areas with a 30 km/h speed limit.

Motorised traffic giving way to soft modes of transport

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).

Following on from a series of developments carried out since 2012, in 2019 the municipalities of the Metropolitan area continued to develop traffic-calmed zones limited to 30 km/h and meeting zones with a speed limit of 20 km/h.

As a reminder, the metropolitan Urban Travel Plan (PDU) sets a target of converting 70% of roads in the conurbation (excluding main roads) to "traffic-calmed" roads by 2027.

Traffic in the conurbation

In 2019, average total traffic in the conurbation had decreased 1% compared to 2018. However, there was an increase in average journey time of 4% in the morning and 1% in the evening.

Pooled operating system tools

Since February 2014, the national department responsible for managing the ring road around Nantes has benefitted from 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 has 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 has chosen to step up 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. Its purpose is to provide a new forum for discussion, sharing and the pooling of initiatives.

Nantes Métropole has introduced an accident-monitoring system for 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 (ecomobility), and regularly addresses the population in cooperation with its partners (National Education authorities, police, road safety organisations, etc.).

Key figures in 2019

- 3,772 km of roads (all categories combined), including 501 km on private land and 41 km managed by the Department.
- Traffic on the Senghor bridge: 14,014 vehicles a day.
- Traffic on the Tabarly bridge: 15,559 vehicles a day.
- Traffic on the Cours des 50 Otages: 5,308 vehicles a day.
- Other pedestrian zones: 22 km, or 22 ha.
- Combined length of cycle lanes and paths: 552 km (excluding zones with a 30 km/h speed limit).
- 30 km/h zones: 717 km (based on traffic orders) and 142 km of roads limited to 30 km/h. These areas include: west town-centre district in Couëron, Garenne, Chaume and Briandière districts in La Montagne, and the Châtaigniers and Convention districts in Nantes.
- Mixed-traffic zone (pedestrian priority roads): 18 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: 3,983 vehicles per day (before redevelopment: 25,000 vehicles per day at Place Graslin).
- 269 personal injury accidents (provisional figure), 22 fatalities.

A GROWING RANGE OF PARKING SOLUTIONS

Parking is one of the key levers of Nantes Métropole's travel policy, providing a tool to regulate the use of private cars in the conurbation. Over a number of years, a range of measures have been deployed to regulate supply and demand for parking in various areas, specifically the city centre, the vicinity of the train station and the ring road around Nantes.

Park & Ride: a growing supply of car parks have been created around the public transport network.

With a choice of outdoor or multi-storey car parks, with open or controlled access, Park & 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.

After a full year in operation, the management scheme for controlled-access P+Rs (19 P+Rs, 3,394 spaces) has achieved its goal of freeing up parking spaces for the benefit of public transport users. The scheme gives preferential access to public transport users (free access maintained for Libertan cardholders), making it possible to regulate access to P+R for motorists wanting to travel in the city by tram, bus, train, Chronobus or Navibus.

The impacts of these P+Rs, which are already particularly visible in those north of the Loire, will be heightened on the southern side of the Loire in 2020 with the delivery of the new Porte de Vertou and Neustrie P+Rs (summer 2020). Started in 2019, this extension work will provide an additional 1,000 parking spaces for public transport users.

As for railway parking, new spaces are also now available at the Couëon train station (120 P+R spaces reserved for TER passengers). In April 2019 a P+R was opened to users at the northern station (83 spaces), followed by another P+R at the southern station (37 spaces) in August. In addition, the extension of the P+R de Bouaye is scheduled for 2020, providing an additional 190 parking spaces for rail passengers.

Finally, work to extend the Duguay Trouin P+R on boulevard Charles Gautier in Saint-Herblain on the C3 chronobus line is due to start in 2020. The 180-space P+R will be available on the ground floor of a building complex allocated to the tertiary sector (delivery expected in 2022).

End-2019: a total of 60 P+Rs are distributed across the metropolitan area, providing 6,939 car parking spaces and 1,187 bicycle spaces for a total of 8,126 parking spaces.

Car parks in the city centre and at the train station

Work on the Descartes car park, which began at the end of 2018, was extended in 2019 to allow it to open to the public in mid-2020. This 250-space car park is part of a plan to redevelop and renovate the former prison site. It will compensate for the closure of the Commerce car park during development work on the Place du Commerce.

As part of the Feydeau-Commerce works, the Commerce car park will be modernised and equipped with a lift to make it accessible to people of reduced mobility. Project management studies began in 2019, and the work will require the total shutdown of the Place du Commerce.

On the Île de Nantes, work is now underway on the construction of the École du Design car park. From 2022, this new public car park will offer 500 parking spaces in the heart of the creative district.

The new Gare Sud 2 car park will enter service in 2020. This 500-space facility located at the heart of the Euronantes urban project will supplement the district's range of parking options and free up the parking lot of the Malakoff slipway (currently the South Station 2 car park) for uses offering high tourist, cultural and recreational value.

Between 2018 and 2019, the use of multi-storey and outdoor car parks remained stable, even declining very slightly (by 1.1%). In 2019, 3,918 965 visitors used the car parks in the city centre and at the station.

Key figures in 2019

- 60 P+R car parks providing 6,939 parking spaces, including 1,187 spaces for bicycles;
- 15 multi-storey car parks and 14 open-air car parks, totalling 10,285 parking spaces in Nantes city centre, including 1,337 bicycle spaces.

REDUCING, SORTING, COLLECTING AND RECOVERING WASTE

Nantes Métropole ensures the prevention and management of household and similar waste (DMA) for the 24 municipalities in the area.

By definition, household and similar waste is waste generated by residents, as well as any waste from the private and public sector that can be classified as household waste in terms of the quantity and type of waste produced.

The 2014-2020 Action Plan and the Energy Transition Road Map

The user and local areas are a core focus of the projects implemented by Nantes Métropole, leading it to develop an action plan with 3 strategic priorities, namely:

- to turn citizen-users into enlightened stakeholders and facilitate access to services;
- to align public waste management policy with the energy and green transition;
- to offer an effective service that is tailored to the challenges of the local area.

The public "Waste" policy is at the confluence of several environmental and societal challenges. It sets ambitious targets in terms of waste prevention and recovery:

- to reduce household and similar waste by 20% by 2030 as compared to 2010 (in kg/capita/year, excluding rubble). This objective is in line with the target trajectory of the national reduction programme, which aims to achieve a 10% reduction in household and similar waste (excluding rubble) by 2020 compared to 2010;
- to achieve 65% material recovery of household and similar waste by 2025 (excluding rubble and hazardous waste).

Between 2010 and 2019, the production of DMA (excluding inerts) dropped from 444 kg/capita/year to 419 kg/capita/year, a reduction of 5.6%. (The recovery rate is unavailable at the date of publication of this report, as our service providers are not currently able to provide us with the information. These figures will be included in the Price and Quality of Service Report available in the autumn.

In continuation of the "zero waste local area" scheme, and to achieve these objectives, Nantes Métropole is expanding its waste prevention and recovery initiatives, specifically through the 5 commitments to the circular economy outlined in the Nantes Métropole energy transition roadmap, which are:

- to step up efforts to combat food waste;
- to encourage local reuse and repair;
- to develop solutions for the sorting and organic recovery of bio-waste;
- to make sorting a natural reflex;
- to optimise recycling and the energy recovery of waste.

The waste management department also contributes to the following commitments of the roadmap for a 100% community-led transition:

- to provide a local educational service in terms of energy transition;
- to coordinate 100 "citizen labs" in order to network initiatives and continue the communities and challenges committed to as part of the Big Debate;
- to give a new impetus to the support measures offered to small and medium-sized enterprises and local traders in terms of mobility, energy and waste;
- to support 1,001 eco-events by 2025.

Commitment at all levels

The waste management department has been ISO 9001 certified since May 2015. This certification, awarded by the French Organisation for Standardisation (AFNOR), sets out the requirements for the establishment of a quality management system. In particular, they must form 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 2019.

The Waste Department has set itself the objective of becoming triple-certified in Quality, Safety and the Environment by 2021.

Implementing the 2019 action plan

With a view to implementing the action plan and meeting its objectives, 2019 saw renewed initiatives in the following areas:

To raise public awareness of the importance of reducing and sorting waste, events were held to allow waste coordinators to meet the public where they live and consume, including:

- The "Grandes tables de l'Agglo": an event involving 3 anti-food-waste villages in Vertou (with a highlight "let's farm" on local and responsible consumption), la Montagne (association forum) and Orvault (the "days of our lives" forum on wellbeing), to make around 900 people aware of the challenges of food and the reduction of waste;
- activities were held to raise public awareness of waste reduction and sorting, over the course of 21 events, including "Sainte-Luce en fête in June, the zero-waste village during the "Journée citoyenne de la propreté" on 21 September and the Débord de Loire cultural event, held in Nantes in May;
- coordination of the fourth annual "zero-waste families" challenge to coincide with the Energy Challenge. The number of citizens taking part increased from 150 households in 2018 to 180 in 2019, i.e. more than 500 additional residents who took on the challenge of reducing their waste by 35% in 3 months;
- the European Week for Waste Reduction: a programme of events organised in conjunction with Ecopôle and its collective of 20 associations, with practical workshops, visits, forums and information stands on responsible consumption, waste reduction and repairing objects throughout the metropolitan area. Pop-up zero-waste villages were also set up in the Atlantis and Beaulieu galleries, reaching more than 600 people. A total of 1,800 people took part in the week;
- the initiatives led by the team of waste ambassadors in the districts (2,800 people reached), in schools (1953 pupils) and going door-to-door (56,000 people).

Nantes Métropole also supports businesses in taking an eco-friendly approach by:

- guiding event organisers towards more eco-responsible solutions: for a 7th year running, one of the main focuses of the metropolitan Eco-Events programme is to support 40 organisers in implementing "zero waste events" by training organisers, assessing their practices and supporting their actions in the field (donation of unsold food, non-disposable cups, composting, sorting, public awareness, etc.). NB: the support initiative has a dedicated website at www.reseau-eco-evenement.net/;
- the 8th annual "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, in partnership with the CCI, the Chamber of Trades and ADEME. The initiative provided continued support in 2019 for companies wanting to reduce and manage their waste, for example through the organisation of a professional meeting on food loss,

and the development of bulk distribution in the retail sector, with the involvement of major food retailers, as part of the International Day for the Elimination of Food Waste on 16 October 2019;

- supporting municipalities in their initiatives to reduce food waste in mass and school catering: 2 seminars with field visits and experience-sharing sessions held in 2019.

Nantes Métropole is stepping up its actions to encourage local composting of food and vegetable waste:

- support for individual composting and vermicomposting: since 2010, nearly 18,350 households have been provided with composting equipment with the help of Nantes Métropole subsidies. In 2019, 1,026 new households have benefited from this support scheme. As of 1 November 2018, these subsidies have increased from €20 to €30 for an individual composter, and doubled from €20 to €40 for a vermicomposter;
- support for the Compostri association, which helps residents with collective, community composting: 39 new sites opened across the various districts in 2019 (i.e. 234 composters accessible to nearly 4,000 households throughout the local area, including 33 educational composters installed in schools);
- 109 events organised;
- 14 tree shredding operations carried out in 8 municipalities in the local area;
- in 2019, for a second year running, the Waste Management Department coordinated the collection and shredding of Christmas trees in Nantes' 11 districts (3 times more trees collected than in 2018). Other tree-shredding operations were also organised in the other municipalities, at their initiative.

In addition to the development of local composting, in December 2019, the Waste department trialed the separate collection of food waste:

- the trial affected some 1,700 households in the Nantes Nord district, which were provided with compostable kraft bags and bio-buckets for the daily sorting of waste. Brown bins were distributed to residents then emptied by doorstep collection. 13 collection points have also been set up for voluntary drop-off;
- food waste is collected every week and sent to Compost'in Situ, a cooperative that recycles food waste by composting, in partnership with farmers from La Chapelle sur Erdre. In this way, food waste is given a new life and contributes to the development of a local organic recycling industry;
- the aim of this experiment is to identify suitable solutions with a view to rolling them out across the metropolitan area by 2025.

Initiatives to increase the re-use of objects left at waste collection centres and in the districts have also been continued:

- reuse spaces have been created at 9 waste centres/ecopoints, in partnership with 3 associations and integration organisations. Bins for collection of textiles are now available at nine waste collection centres and ecopoints;
- projects led by associations (district 'Ressourcerie®' re-use and recycling workshops, repair workshops, etc.) and a comprehensive study led by the Ecosolies network, financially supported by Nantes Métropole and France Active Pays de la Loire, to encourage the development of a reuse and repair sector in the region;
- the mobilisation of social housing associations, who provide premises for pre-sorting, the collection of objects and bulky items, the establishment of partnerships and the

involvement of resident ambassadors. With their help, 2 of these waste collection areas were opened by Nantes Métropole Habitat in the La Bottière district in 2019.

Key figures for waste collection in 2019:

- 5,516,280 see-through yellow plastic bags and 16,688,831 Tri'sac bags were distributed in 2019;
- for "TRI'SAC": 156 district events, 60,395 visits to the Comptoir du tri, around 60 "breakdown service" relay points and 3 bag sales outlets;
- See-through bags were distributed door-to-door and at 24 municipal and metropolitan relay points;
- 1,261 underground waste bins (including 91 installed in 2019), 1,155 waste drop-off points (PAV) located throughout the metropolitan area, including 911 for glass recycling.

Focus on the expansion of sorting instructions for plastic packaging:

- implementation in the second half of 2019 of a first phase of expansion of sorting instructions (all plastic packaging now sorted in the yellow bag/bin). The expansion was rolled out in the municipalities of Nantes, la Montagne, le Pellerin and Saint-Jean-de-Boiseau (municipalities where collections are made by public authorities), i.e. approximately 150,000 households;
- to prepare for the rollout in January 2021 of expanded sorting instructions across all municipalities in the metropolitan area in collaboration with the various service providers, a trial was carried out in July 2019 in a number of districts of the municipalities of Orvault and Carquefou. For the local authority, the goal of this trial was to gather technical data on the impact of expanding sorting instructions (additional collection times, impact on the number of yellow bags or bins collected, etc.);
- to provide support for these changes, some thirty employees from waste contractors "Trait d'Union" carried out a door-to-door awareness campaign in the zones affected to explain the new instructions to residents.

Optimised treatment facilities

Nantes Métropole continues to optimise its waste treatment and recovery facilities.

As part of a 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 2034 and ALCEA plants (through delegation of public service contracts).

- **Arc-en-ciel (AEC) 2034:** energy recovery unit, sorting centre and solid recovered fuel plant in Couëron;

The Couëron delegation of public service contract will end on 28 February 2019. A new delegation of public service contract has been signed with Veolia subsidiary Geval, after six months of negotiations and fine-tuning. This 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 concessionary consortium. 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.

- 229,358 Mwh of steam produced and 13,581 Mwh of electricity produced.
- 69,151 t of steam sold to Arcelor and 6,017 Mwh of electricity sold to EDF.
- 18,590 Mwh of energy consumed by the metropolitan area.
- Energy efficiency achieved in 2019: 69.5%

In October 2019, AEC 2034 started up the new sorting centre. Among other benefits, the facility allows the sorting of all packaging, producing 11 separate streams of recyclable materials. The new line is being phased in gradually.

- **ALCEA:** an incineration plant, Tri'Sac separation centre and transfer point at La Prairie des Mauves.

Negotiations conducted in 2017 with ALCEA and ERENA (operator of the district heating network) have resulted in the optimisation of ALCEA's energy recovery from 2019 onwards: 184 MWh of heat sold to the heating network (178 GWh in 2018) and 5,665 MWh of electricity produced in 2019 compared to 6,421 MWh in 2018 (with priority given to the heating network).

- Energy efficiency achieved in 2019: 74.6%

- **Saint-Herblain green waste hub:** a new contract to operate the Saint-Herblain composting hub for the treatment of green waste has been signed with VEOLIA for a start date of 1 March 2019.

The hub primarily collects two waste streams:

- vegetable waste (green waste) from Nantes Métropole's waste collection centres and eco-points: 28,588 tonnes dropped off in 2019;

- green waste from third party suppliers, produced by various businesses (landscapers, pruning, public works sites, etc.): 8,115 tonnes dropped off in 2019;

In terms of recovery, the composting hub produces three types of products:

- a Stabilised Plant Amendment (AVS), which is sent to farmers for use as a soil fertiliser; 25,861 tonnes produced in 2019;

- biomass, used to fire the various heating plants in the metropolitan area: 18,878 tonnes produced in 2019;

- compost, to be used by landscaping businesses and individuals, etc.: 4,037 tonnes produced in 2019;

Other streams, from collection centres among other sources (asbestos, rubble, wood, paper, etc.), are handled through public contracts.

Key figures in 2019

Between 2010 and 2019:

- The quantity of household waste collected dropped by 15.8% (from 249.7 kg/capita/year in 2010 to 210.22 kg/capita/year in 2019);
- The quantity of packaging and paper collected dropped by 5.2% (from 53.2 kg/capita/year in 2010 to 50.55 kg/capita/year in 2019);
- There was a 19.6% increase in the amount of glass recycled (from 28 kg/capita/year in 2010 to 33.49 kg/capita/year in 2019);
- There was an increase in furniture collected (3,448 tonnes collected in 2019, compared to 3,142 tonnes in 2018).
- 234 collective composting facilities monitored by the association Compos'tri.
- 18,350 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 acted as the organising authority for the mains drinking water supply and waste water treatment for more than 640,000 residents. It has opted for a combination of water management systems across the local area, making it possible to provide certified high-grade water and a single tariff for all users.

Social pricing of water: extension of initial trials

Nantes Métropole guarantees access to water for everyone, through:

- a single water rate across all 24 municipalities since 2006;
- controlled pricing, thanks to its combination of management systems.

To strengthen solidarity, since 2016 Nantes Métropole has implemented a social pricing system aimed at facilitating universal access to water, in line with the Brottes Act of 15 April 2013.

This new law guarantees that no more than 3% of residents' income will be spent on paying their water bill, at a reasonable consumption rate of 30 m³ per person, per year. This amount is calculated after factoring in the household income and the composition of the family.

In 2019, more than 6,500 households were entitled to subsidised water rates, for a total amount of €415,000 in subsidies paid. This trial scheme has been extended nationally up until April 2021, after which the scheme will undergo a review.

Upgrades continue on the La Roche Plant

Built in the 1970s, this water treatment plant produces roughly 40 million m³ of water per year (representing 85% of consumption in the metropolitan area and 45% of consumption in the Loire-Atlantique region). To maintain the quality of the water and guarantee its supply over the next 40 years, Nantes Métropole has embarked on a massive upgrade programme to the tune of €83m (ex. VAT) that will continue until 2022.

After the first structures were brought online at the end of 2017, demolition work began in late 2019 to prepare for construction of the of the last two elements, namely the new sand filters, an ultraviolet lamp process that will provide additional protection against parasites, and the pumping of treated water. These will be brought online in late 2022.

Alongside the construction work, Nantes Métropole is working in partnership with the CSTB (the building industry's scientific and technical centre) to continually monitor the organoleptic quality of the water through its water taste monitoring centre.

Every quarter, 11 volunteer residents from the metropolitan area taste samples of the 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. Initial results indicate that the metropolitan participants are generally happy with the drinking water. At the same time, work began in 2019 on establishing a quality indicator for the taste of the water.

Listening to users: survey on the construction of water and sewerage connections

With a view to improving the service provided to users, at the end of 2019 Nantes Métropole conducted a satisfaction survey of 307 households that had benefitted from new water or sewerage connections over the course of the year, in order to assess the service provided and the steps to be

take to improve it. The telephone survey covered information campaigns, the preparation of the connection application file, the implementation of the work and the billing of the service. Learning points:

- 81% of users felt that it was easy to obtain information on the how to proceed;
- for 91% of those surveyed, the preparation of the application file did not pose any major difficulties;
- 93% of users were satisfied with the work carried out;
- However: 33% of users were not informed of the completion of work, despite having requested to be informed, and on the invoicing side, for 37% of users, the estimate was higher than they had envisaged.

In 2020, these results will make it possible to improve the service provided, by simplifying the procedure for non-professionals and improving communication during the work phase and invoicing of the service.

Barbin Wastewater Storage and Restoration Facility: community dialogue in action

After the construction of the Maquis de Saffré storage and restoration facility (BSR), work began on construction of a new facility. Located in the Hauts-Pavés Saint-Félix district, the Barbin facility will also ultimately improve the quality of the Erdre's water by limiting wastewater discharges into the river during rainy weather and safeguarding the intake of drinking water from the emergency intake on the Saint-Félix canal. Prior to the work phase planned between 2021 and 2024, a community consultation was set up to enable the district's residents to take greater ownership of the project and offer their contribution. Workshops were organised around two main themes: the identification of recommendations for site monitoring and the definition of proposals for the surface development of the future plot.

Fully equipped self-monitoring of wastewater treatment

Also in the spirit of limiting human impact on the natural environment, since 2018, self-monitoring devices have been installed on 57 stormwater discharge stations and spillways and 4 wastewater treatment plants. The aim is to gain a better understanding of malfunctions in sewerage networks and facilities. In 2019, the deployment of METR'EAU, the software used to manage and bank the data collected, will make it possible to monitor the operation of the networks in real time, anticipate malfunctions and make better use of the water quality monitoring already in place in the local area.

Wastewater treatment: review of the master plans

Since the beginning of 2019, a review of the wastewater master plan has been launched, along with the development of a master plan for management of sludge from wastewater treatment plants. The structural studies carried out will make it possible to gain an overview of the current situation and operation of wastewater treatment and sludge management systems, identify the challenges to be met in the medium to long term and, finally, determine the priority work needed in order to meet those challenges by the year 2035. Managing sludge from the waste treatment process is a key issue for Nantes Métropole in terms of the various existing recovery methods, taking into account the potential impact on the environment.

New restoration works planned for water courses

Built around a network of green and blue belts, Nantes Métropole boasts a diversity of natural environments that are often little known to local residents. For this reason, a coherent, concerted effort is being made to protect, restore and promote these aquatic environments. This drive has benefitted from new impetus since 1 January 2018, when responsibility for managing aquatic environments and averting flood risk was transferred to Nantes Métropole.

Still with a view to improving the quality of aquatic environments (in line with the objectives of the Water Framework Directive (WFD)), studies on the Charbonneau, Cens and Gesvres watersheds were carried out in 2019 to determine the quality of these environments and the actions to be taken to improve their features. These 6-year restoration programmes were approved by the Metropolitan Council in February 2020, and include operations for the hydromorphological restoration of watercourses, the restoration of ecological continuity and the elimination of water bodies, which will begin at the end of 2020 after the regulatory applications have been submitted.

Supporting integrated stormwater management at the plot level

Will future constructions be connected to the collective sewerage system or managed under a system of private sewage disposal? What measures must be taken to limit soil sealing on my plot? The wastewater and rainwater zoning defining these rules were annexed to the Local Metropolitan Urban Plan (PLUm) and adopted in April 2019.

In the context of climate change in which episodes of heavy rain are possible, rainwater management, based on rainwater zoning rules, aims to reduce the amount of sealed surfaces. This results in the use of permeable surfacings and the collection of rainwater where it falls, so that it can be returned to the natural environment, if possible by soaking into the ground. To encourage application of these rules, technical support, training and information tools for professionals and users have been in place since 2019.

Key figures in 2019

- €3.49 incl. tax: the fixed rate as of 1st January 2020 per m^3 of water consumed (for a standard 120 m^3 bill) including drinking water, sewerage and taxes from the Loire-Brittany Water Agency.
- 111,432 m^3 of water/day was produced by the La Roche drinking water plant on average in 2019.
- 2 major intermunicipal water treatment plants were found to be compliant for 2019: 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 diversity of natural areas and farmland in the conurbation is a major contributing factor to the quality of life of its residents. The design phase of this "Natural city" project was outlined within the framework of the PLUm, with the aim of protecting and improving the natural and agricultural heritage while meeting regulatory obligations and development needs. This also requires an effort to reconcile urban and economic development at the local level (particularly agricultural) with the protection of biodiversity.

To ensure these spaces are protected and enhanced, Nantes Métropole's environmental policy is structured around the following priorities:

- the protection of biodiversity;
- the development of trees and forests;
- maintaining agriculture;
- the implementation of a food roadmap.

Protecting and restoring the biodiversity of the local area

One of Nantes Métropole's priorities is to provide a structural, cross-cutting and shared framework for the protection and restoration of biodiversity in the area, in line with the PLUm.

2019 in figures:

- the approval of the PLUm, which incorporates data from nature associations, and particularly information on "wetlands and hedgerows" as well as the green and blue belt, into dedicated tools for protection;
- preliminary work on the creation of a strategic framework, through an internal process, which consisted of workshops involving all the relevant departments;
- an ongoing partnership with nature associations (LPO, Bretagne Vivante, Groupe Mammalogique Breton, Groupe d'Étude des Invertébrés Armoricens), the Centre Vétérinaire de la Faune Sauvage et des Écosystèmes, the Conservatoire Botanique National de Brest and Fédération de Pêche 44) to facilitate the exchange 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. The initiative will culminate in a list of area-based challenges for 2020, under the framework of the "Natural City" project;
- the adoption of an area-based metropolitan strategy entitled "avoid - reduce - compensate" (ERC) by a Metropolitan Council decision of 13 December 2019. The aim is to commit the metropolitan area to an innovative strategy that sets out a global, shared vision as opposed to a project-by-project approach. It is integrated into each stage of the ERC process and aims to bring a "net environmental gain" for the metropolitan area. The expectation is that compensation will be made on a larger scale than that offered by projects, thanks to the prospective restoration of degraded natural sites in the green and blue belt, the creation of a dedicated steering body and strict criteria for compensation. These criteria will be based on careful consideration of ecological issues from the outset of the project. This will also make it possible to go beyond the regulatory obligation for ecological neutrality, in line with public policies;

The coordination of a network of "reservoir stations" for *Angelica heterocarpa* and *Scirpus triquetus*, with conservation action plans already in place.

Expanding tree coverage and protecting urban forests.

Since 2006, Nantes Métropole has been developing an urban forest project, which is currently being rolled out on 1,400 ha of natural spaces and farmland at three sites in eight municipalities of the Nantes conurbation.

This projects aims to:

- encourage the growth of vegetation of all kinds in these areas (reforestation, hedgerows, orchards, etc.) in liaison with public and private landowners and a number of institutional stakeholders;
- develop "carbon sink" sites and cool islands in the local area, which are in keeping with the energy transition roadmap and feed into the Climate, Air and Energy Plan for the Local Area;
- provide recreation areas close to urban centres where residents can discover nature.

Highlights in 2019 included:

- the approval of the master plan "The trees and forests of tomorrow", a document that sets out a framework for expanding tree coverage in the local area, both on the three urban forest trial sites and in other zones of the metropolitan area by 2030-2050. This master plan, which is the result of a consultation process with the various stakeholders in the project (landowners, farmers, user representatives, forestry and agricultural professionals, etc.), is structured around 4 strategic directions (developing and enhancing wooded areas, discovering forests, innovating from trees, doing things together);
- the continuation of a forest management plan on a site of around 50 ha, and planting and maintenance work on the other metropolitan and municipal plots;
- ongoing educational activities and taster sessions on the "Tree-Wood-Forest" cycle with nine classes from eight municipalities involved in the project.

Supporting and developing agriculture

Since its creation, Nantes Métropole has always viewed agriculture as a key economic activity for the balanced development of the conurbation. With this in mind, it has joined forces with the relevant partners to define and implement a shared action plan, before consolidating peri-urban agriculture in town planning documents.

In 2019, Nantes Métropole worked alongside the Chamber of Agriculture, CAP44, GAB44, Terre de Liens and SAFER to continue its action in several areas:

- the hosting of project leaders, which saw support provided to some 50 project leaders via a call for expressions of interest in studying a potential move to the local area, as well as the materialisation of 9 new facilities;
- contribution to the Local Food Project (PAT), particularly with regard to the first commitment "to develop food production system that contribute to the ecological transition", and consideration of the other commitments contributing to the "production of local, sustainable and accessible food for all".

Setting out and implementing the operational objectives of the food roadmap

As a priority, 2019 has been a year dedicated to defining the operational objectives of the PAT, in a collective and concerted manner.

Thanks to a total of 9 themed workshops, 28 group meetings and 450 participants, it was possible to translate the collective commitments of the roadmap into 71 quantified objectives. A few concrete examples of the objectives set for the next 10 years: 50% organic production by 2025, 10 urban farms in 2030, 400 households committed to the "Food Challenges" between 2019 and 2021, 100% of schools

given food sustainability awareness sessions, edible spaces in all parks and gardens, 1001 "PAT-compatible" eco-events, etc. All of these objectives were approved unanimously at the Metropolitan Council of 4 October 2019.

NB: The Metropolitan Council of Food Stakeholders was formally established on 12 December 2019. Its 22 members are particularly representative of the diversity of the local food system. Coming from professional and associative networks, they have each committed themselves for a 3-year period. Their main task is to independently monitor and assess the implementation of the roadmap.

With 8 collective commitments, 71 quantified objectives and dedicated governance, the PAT is highly operational, highlighting the local area's ability to trial new solutions and practices with the aim of finding a new food model, shrinking our environmental footprint and supporting the green and energy transition, which is essential for the well-being of all residents. All of these factors paint a promising picture for the future in terms of strengthening resilience and food security in the metropolitan area.

Key figures in 2019

- 16,427 hectares of natural areas, i.e. 30.7% of the local area, including 9,250 hectares of wetlands (resulting from the PLUm)
- 16,772 hectares of farmed agricultural land, i.e. 31.4% of the local area (resulting from the PLUm).
- 241-farms generating 1,400 direct jobs;
- 5 EU-protected "Natura 2000" zones, 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 combatting pollution". To this end, since 2001 it has been developing a comprehensive and concerted approach to risks, pollution and nuisances, based on partnerships with all local players: the 24 municipalities, the Departmental Fire and Rescue Service (SDIS), State services, network managers and economic players, civil society and researchers. Since December 2014, Nantes Métropole is also responsible for special police matters regarding law and order in eight municipalities of the metropolitan area, including Nantes.

With a view to keeping its inhabitants safe, 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 pollution.

Working towards a more resilient local area

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:

- assistance provided by Nantes Métropole to the 24 municipalities in drawing up Local Contingency Plans (PCS): 22 municipalities adopted their PCS at the end of 2018 and the 2 remaining plans are underway;
- Local Area Emergency Response Plan (PIC): this 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 emergency drills, training for elected representatives and metropolitan employees, and knowledge building from feedback in order to strengthen emergency preparedness.

Risk management initiatives

Nantes Métropole has three specialised departments to organise its action on the ground:

- CRAIOL: a call centre with a dedicated telephone number to contact Nantes Métropole, available to all local institutional stakeholders 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.). They also manage spikes in calls in the event of major incidents and provides support in the event of an emergency;
- The Operational Risk Prevention Unit (COPR): an operational team of technicians tasked with combating pollution (of water, air or ground) and preventing industrial risks across the local area;
- The Prevention and Risk Management Unit: an operational team that responds to disasters occurring in the Nantes area. Usually working alongside the emergency services, this team takes all emergency measures to safeguard the victims of disaster. In the event of a major

incident affecting another municipality of Nantes Métropole, the unit is tasked with lending assistance, where necessary, to the relevant municipal organisation.

Additionally, in fire prevention matters, Nantes Métropole works alongside fire-fighters and mayors to adequately address the risk and maintain the network of 7,030 public and 788 private fire hydrants installed across the conurbation in good working order.

NB: Since 1 January 2015 the metropolitan and city of Nantes' dedicated risk management and civil security resources have been pooled with the Risk Prevention and Management Unit, which steers 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". With this in mind, a local flood risk management strategy (SLGRI) was adopted in 2018. As part of this strategy, a 29-point Flood Prevention Programme (PAPI) for the lower Loire River 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 and pollution: contributing to the health of inhabitants

To combat emerging risks and air pollution, Nantes Métropole has adopted overarching strategies to improve the quality of the living environment, namely

- the Health, Safety and Environment Regional Plan "3", and the Local Health, Safety and Environment Action Plan for the Nantes area;
- The Atmosphere Protection Plan, playing an active part in the studies and work being carried out by Air Pays de la Loire, which is responsible for the monitoring of 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 consists of a series of initiatives that aim to avert, reduce and rectify the effects of noise pollution.

Regarding the installation 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.

To protect people and property, and in view of the complexity and need for dynamic control of current networks, it became necessary to act collectively, pool 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.

The aim of this scheme is to develop a carefully thought-out, coherent, compatible and scalable system of video protection, while ensuring the installation of cameras in the local areas of the affected municipalities. 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 opted 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. Additionally, participating municipalities can also opt to 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 the purpose of public spaces that tend to experience significant levels of crime and heavy user traffic (urban core areas, transport hubs and shopping districts). Specific sites deemed to be at-risk due to 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.

Providing comprehensive, continuous, shared handling of public order issues

The urban surveillance centre is tasked with:

- receiving video feeds from the cameras in municipalities: 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;
- extracting images in response to request by legal authorities (kept for 15 days) and forwarding images continuously to the police headquarters in Nantes.

A complementary scheme: the video protection of public buildings

At the municipalities' request, Nantes Métropole launched a call for tenders via a purchasing consortium to equip public buildings with video protection. Notice of the contract was published in December 2018.

16 municipalities joined the consortium, namely Basse-Goulaine, Bouguenais, Brains, Couëron, 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 in 2019

- 22 Local Contingency Plans;
- 18,130 calls handled by the CRAIOL call centre (9,510 incoming calls requiring 8,620 outgoing calls);
- 142 COPR operations to deal with environmental pollution, 151 on-site preventive inspections and files, and activities performed;
- 1567 flow rate/pressure checks;
- 45 hydrants installed, 141 hydrants replaced, 70 hydrants repaired or moved;
- 68 hazard procedures initiated, 8 of which were followed by public 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 sitings of installations in the metropolitan area;
- 695 RF radio stations (antennae for radio infrastructure operators).

Urban Supervision Centre (CSU):

- 3,644 cases handled by the CSU in 2019.
- 848 video viewings carried out by CSU operators at the request of law enforcement;
- 624 image extractions performed in response to a court order.