



Leading the way and sharing inspiration

Summary application file 2019

GRENOBLE
ville gagnante
2022



CAPITALE VERTE DE
L'EUROPE

Une initiative de la
Commission européenne



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READING DISCLAIMER

This document is a summary of the main information contained in the application file submitted to the European Commission in October 2019 and structured around twelve indicators. It is therefore a selective digest of obviously much denser material. Please note that the indicators have been grouped in pairs to highlight the main lines of action devised to support the metropolitan area's transition.

For Grenoble, a territory which already supports many initiatives in favour of the transition and ecological innovation, applying for the title of European Green Capital 2022 marks a new phase in its history. The award and application process are a unique opportunity to raise stakeholders' awareness and accelerate the transitions already under way. And once elected, the European Green Capital can support promotional and experience-sharing actions with positive knock-on effects for the economy and tourism, which justify a commitment of this kind.

This summary document highlights the main points of Grenoble's application dossier, a much denser technical document submitted in October 2019 which led the panel of EU experts to select Grenoble on the basis of twelve indicators and place it in pole position alongside 3 other finalists.

OUR PARTNERS



CREDITS PAGE

Coordination, structuring and editing:

City of Grenoble
Structuring and editing with the assistance of the Grenoble Area Urban Planning Agency, co-writer of the application file

Layout:

Valérie Lassablière, ça crée val

Graphic display:

Terra Publica

Translation:

Nathalie Fauchadour

Photo Credits:

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CONTACT

City of Grenoble

Perrine Flouret and Julia Lopez
Project managers Grenoble 2022 - European green capital
capitale-verte-europeenne@grenoble.fr
+33 (0)4 76 76 36 36

THE GRENOBLE AREA A PIONEER BY NATURE



“At the end of every street, a mountain” is how Stendhal described his hometown. Surrounded by three majestic massifs, Grenoble has all the attributes of a mountain city. But paradoxically, the largest city in the Alpine arc is also France’s flattest! This favourable feature and a strong promotion policy explain why cycling is steadily increasing, placing Grenoble at the head of the pack of French bike-friendly cities.

Hollowed out by the Rivers Isère and Drac, the valleys have gradually absorbed the urban growth. The formerly extensive land reserves available were used to deal with the population growth and urban development fever that followed the 1968 Winter Olympic Games.

The resources and constraints of its natural environment have moulded the Grenoble area. Not only has the water flowing from the mountains shaped contours and landscapes, it has also fashioned the city and its economy. Grenoble owes its industrial development to the driving

force of water and to the installation, on its territory, of the very first hydropower facilities in France. Grenoble’s pioneering spirit originated from there and has led to great achievements. The presence of a university and research centres, combined with this increasing industrial and technical power, helped establish Grenoble’s myth in the post-war period.

If Grenoble is now the most densely populated city in France after Paris and Lyon, it is because it has reached the limits imposed by its terrain. But this constraint is also an asset as it has led to reduced land use, close links between urban and public transport planning and the creation of new urban forms. A pioneer in France, the de Bonne district built on former military land was awarded the first Eco-neighbourhood Grand Prize in 2009. Today, all new neighbourhoods are built within the city limits and must meet requirements in terms of soft mobility, mixed uses and energy efficiency.

If Grenoble is a dense city, its metropolitan area is mainly preserved. Nature is on its doorstep on all sides with the foothills of the Vercors and Chartreuse Regional Nature Parks extending as far as the metropolitan area. Of course, air quality is not always optimal in the Grenoble “basin” but the implementation of the 1st Climate Plan in France in 2005 and an aggressive mobility strategy has helped reduce the concentration of airborne fine particles by 25%.

Solid as a rock, Grenoble? Of course, the mountains and the presence of water involve risks. The metropolitan area is exposed to harsh weather conditions in both winter and summer and the last 30 years have seen high temperature records being repeatedly broken. More vulnerable than others, it needs to be ever more responsive and ensure its actions are well coordinated. Indeed, everything is related.

Forged in the 1970s but still very much alive, Grenoble’s myth is about opening up new possibilities and being free to experiment, discuss and share. Faced with today’s challenges, this eternal pioneer has found in the inclusive, collaborative transition a new hobbyhorse and is striving to build a new city model, with new lifestyles. Grenoble’s application for the European Green Capital award has the support of the scientific and economic community and epitomises this desire for communal meaning. It is a first, founding step towards a new world.

By making the transition the centrepiece of its action, Grenoble wants to accelerate the construction of a resilient metropolitan area with and for all citizens.

A few milestones

1788-1946

The early stirrings of a mobilisation for greater social justice

June 1788: “Journée des Tuiles” riots in Grenoble, which led to the summoning of the Estates-General, and then to the French Revolution
1803: 1st benefit society in France
1822: 1st mutual benefit insurance companies for women
1925: International Exhibition of Hydropower and Tourism
1942: 1st resistance committee created in France
1946: Adoption of the Grenoble Charter, which renewed student unionism



1950 - 1973

Start of an era of major transformations

1950: Inauguration of CENG, a nuclear research centre, which later became the CEA (French Atomic Energy Commission)
1960: Creation of SDCVG, a public district heating company
1961: 1st family planning clinic in France
1968: Winter Olympic Games / Inauguration of the cultural centre
1969: Pedestrianization of the Grenette square



1973 - 1995

Management tools for improving quality of life in the city

1973: Creation of SMTC (public authority responsible for organising public transport in the Grenoble area)
1976: Launch of a trailblazing cycling development scheme
1978: SDCVG changes its name to Compagnie de chauffage intercommunale / 1st regional district heating network in France
1981: Inauguration of the 1st tram line
1994: Commissioning of the Athanor waste processing plant



From 1995 onwards

Integrating environmental concerns into the urban fabric

2004: Launch of Métrovélo, a bike-renting scheme
2005: 1st Climate Plan in France
2009: The Eco-neighbourhood Grand Prize is awarded to the de Bonne district (1st certified eco-neighbourhood in France)
2016: Grenoble is designated “City of Art and Culture” / Establishment of low-emission zones
2017 and 2019: Cities in Transition Biennial Festivals
2019: Launch of a food waste composting programme



EUROPEAN GREEN CAPITAL: A SPRINGBOARD TO ACCELERATE THE TRANSITIONS



INAUGURATION OF THE SCIENTIFIC COMMITTEE AT THE URBAN PLANNING AGENCY ON 16TH SEPTEMBER 2019: beyond the application, the City of Grenoble and GAM aim to involve researchers in contributing their expertise and a shared vision of the territory.



The next edition of the Cities in transition Biennial Festival will take place from 1 to 4 April 2021, an important step in the preparation of the European Green Capital 2022.

Grenoble: the next European Green Capital? Meeting the tremendous challenges of complying with the COP21 commitments and turning Grenoble into a model transition area in Europe is the task the City of Grenoble and the metropolitan authority Grenoble-Alpes Métropole (GAM) have resolved to take on together. This decision has led to the submission of an application file praised by EU experts.

What is the European Green Capital approach about?

Launched in 2008 by the European Commission with the slogan “Green cities - fit for life”, the European Green Capital (EGC) title is awarded to cities which have achieved ambitious environmental objectives and can be held up as inspiring role models to other cities. The winning city is awarded the EGC title for a year, thus becoming an EU ambassador at both the European and national levels.

Why a Grenoble application?

The City of Grenoble and GAM have developed many initiatives promoting the transition and ecological innovation. Both the award and the application process are a unique opportunity to raise stakeholders’ awareness and accelerate the transitions already initiated. Once elected, the European Green Capital can support experience-sharing and promotional actions with positive knock-on effects for the economy and tourism.

What’s next?

A panel of European experts examined the applications of 18 cities and 4 short-listed finalists were announced in May 2020. The European Commission ranked Grenoble 1st or 2nd on all 12 indicators but one. Competing against Dijon, Tallinn and Turin, Grenoble was awarded the EGC title following a grand oral presentation on-line on 8th October 2020.

The jury was impressed by the “pioneering approach to climate management” and the “innovative approach to urban governance” from Grenoble.

The adventure is continuing! In this new phase we will jointly build an inspiring programme for 2022 and meet the climate change challenges of tomorrow and beyond.

BEHIND THE APPLICATION, A COMPREHENSIVE TRANSITION STRATEGY

The application dossier is divided into twelve indicators. For each of them, the current situation of the territory is described as objectively as possible, as well as the measures already implemented to promote the transitions, the strategy devised and the long- and short-term roadmaps.

As the present document is only a selective digest of the dossier’s main information, it has been decided to pair up the 12 indicators into six main areas of action to illustrate the general and cross-cutting dynamic of the approach.



ACTING FOR THE CLIMATE

Climate change is particularly affecting the Alps. This is why Grenoble is taking strong action in the fields of transport and housing energy performance to drastically reduce its greenhouse gas (GHG) emissions.

An early commitment

A climate policy pioneer, Grenoble signed the Aalborg Charter and joined the Covenant of Mayors as early as 2009, thus demonstrating a clear commitment to tackling climate change.

The first city to adopt a Climate Plan in France in 2005 and a Climate, Air and Energy Plan in 2016, Grenoble obtained the European Cit'ergie certification in 2017 for the quality of its commitments and results.

A comprehensive approach based on partnerships

GAM's long-standing strategy based on partnerships was reinforced by the adoption, in early 2020, of its PCAEM (Metropolitan Climate, Air and Energy Plan). It complements the Urban Mobility Plan (PDU, 2019) which sets out mobility guidelines for 2030. The PCEAM strategy focuses on two main actions: reducing GHG emitted by private cars and improving energy performance in the residential sector, notably through thermal insulation programmes.

Transport and housing: the main* GHG emitters

Increasingly ambitious objectives for the future: -50% GHG emissions by 2030 (compared to 2005) leading to a 75% reduction by 2050.

> 60% of GHG emissions (2/3 of total emissions) are due to motor traffic between the city centre and the rest of the metropolitan area

> 38% of GHG emissions are generated by the residential sector

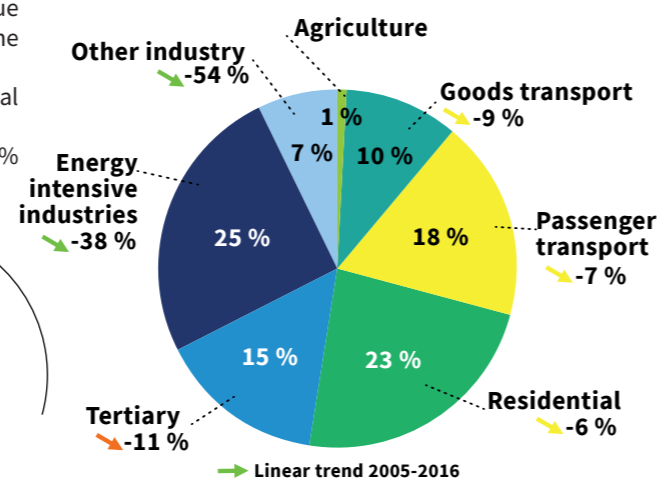
> GHG emissions are already steadily decreasing: -23% between 2005 and 2018, all sectors combined

*excluding energy intensive industries

All sectors included
-23 %

Excluding energy intensive industries
-15 %

DISTRIBUTION AND EVOLUTION OF GHG EMISSIONS PER SECTOR BETWEEN 2005 AND 2019 (SOURCE ALEC/GAM)
Source ALEC



A successful local ecosystem based on partnerships

SMMAG, the authority in charge of mobility in the Grenoble area offers a comprehensive range of services

An action plan based on partnerships for sustainable urban logistics

70 organisations have signed the PCAEM commitment charter

The Climate Plan Observatory was created in 2005, with Alec and Atmo Aura

Ademe, partner of the Zero Waste Zero Wastage programme, Breathable Cities, MurMur...

Solvay and Compagnie de chauffage (innovative heat recovery systems); Atos and GEG (Métro-Energie system); Bouygues (ABC demonstrator)

A promising hydrogen sector combining research centres, start-ups and industry players

OUR TERRITORY IN ACTIONS

A few examples



MurMur: 10,000 energy retrofitted homes by 2023

Launched in 2005 and targeting condominiums built between 1945 and 1975, the scheme was extended to all types of housing, flats and houses, in 2016.

2030 objective: 5,000 privately-owned flats, 7,000 social flats and 9,000 houses



Métrovélo

The largest bike-renting service in France (7,000 bikes and 100,000 rental agreements in 15 years)



Citiz Alpes autopartage

One of the first community car-sharing initiatives in France (135 vehicles in Grenoble, including 20 electric cars)



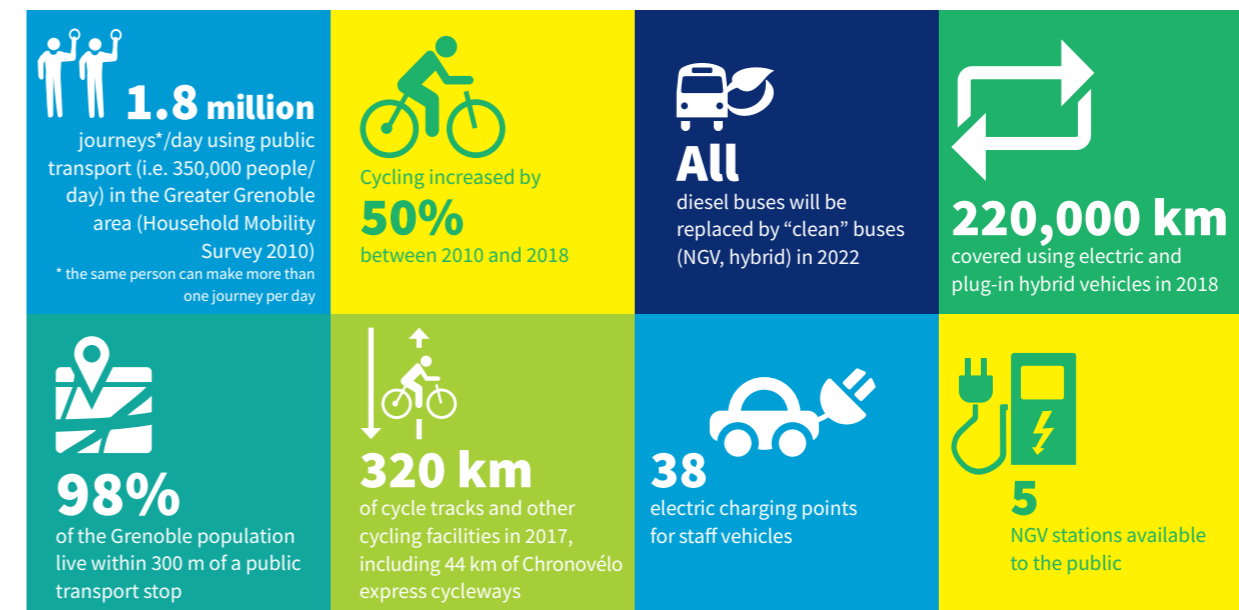
An exemplary city

a 49% reduction in GHG emitted by the municipality since 2005 (municipal buildings, public lighting; a new fleet of vehicles and staff bikes for the various departments)/ Target of - 65% by 2030

€15m invested in 2019 in air, energy and climate actions, i.e. 30 % of Grenoble's total investment budget

79% of RES in municipal energy use by 2030, against 48% currently

100% of Grenoble households' needs covered by renewable energy by 2022



ACTING FOR THE COMFORT OF ALL

Grenoble is implementing a new, more pleasant way of living in the city, enabling citizens to adapt to climate change, live together more tranquilly and have access to quality healthcare and food supply whilst preserving agricultural, forest and natural areas within the metropolitan area.

In a context of steadily increasing temperatures, the population's health and well-being are two major sources of concern, today and even more for the future.

Solid climate change adaptation and public area cooling policies

The City of Grenoble and GAM have developed a strategy aimed at massively greening the city, tackling urban heat islands and reintroducing water into the city to create cool areas easily accessible during heat waves (the Heat Wave Plan includes a map of available cool areas).

Specific attention is paid to food, a vector of health and well-being

Many actions encourage better nutrition based on quality local produce and help citizens reclaim public areas for collective farming. Initiatives open to all are many: roof farming projects in partnership with local associations, schemes encouraging new practices like the "Let's transform our streets into gardens" programme, the "3, 2, 1 Plant off" challenge, the "Gardens to be adopted" initiative or the "Let's cultivate Grenoble" web platform.



Local ecosystem:

FOOD IS A MAJOR ISSUE FOR PUBLIC AND VOLUNTARY SECTOR PLAYERS

>The Inter-territorial Food Project (PAIT) unites GAM, the City of Grenoble, neighbouring associations of municipalities and the Vercors and Chartreuse regional nature parks in a unique strategy in France promoting farming and quality food produce for all.

> Supported by public players, a network of dynamic local associations is promoting urban farming.

Preserving and developing our green capital to keep cool at all times!

>Pro-active policies are being led to tackle urban heat islands by planting trees, creating green areas in streets and pedestrian precincts, connecting green areas, combatting land take and multiplying access to water in public areas and along the banks of the River Isère.

OUR TERRITORY IN ACTIONS A few examples



Grenoble schools, a major health policy target

>A School Plan tackles summer heat and air quality
>School canteens provide 100% local organic food



The municipal horticultural centre

2 tons of vegetables are produced on 1.2 ha (covering 10% of the city's institutional catering needs)



23 community gardens

2.4 ha (300 individual and 9 shared plots)



An exemplary city

GRENOBLE ECO-NEIGHBOURHOODS: PIONEERS AND ROLE-MODELS

The City of Grenoble and GAM have joined forces to develop an exemplary urban planning strategy based on controlled land use and the integration of environmental issues in all urban projects. Its many eco-neighbourhoods have turned Grenoble into a national laboratory:

De Bonne: 15 ha, first eco-neighbourhood to win the Eco-neighbourhood Grand Prize in 2009, certified in 2013

Bouchayer-Viallet and Blanche-Monnier: eco-neighbourhood certification obtained in 2013 and 2014 respectively

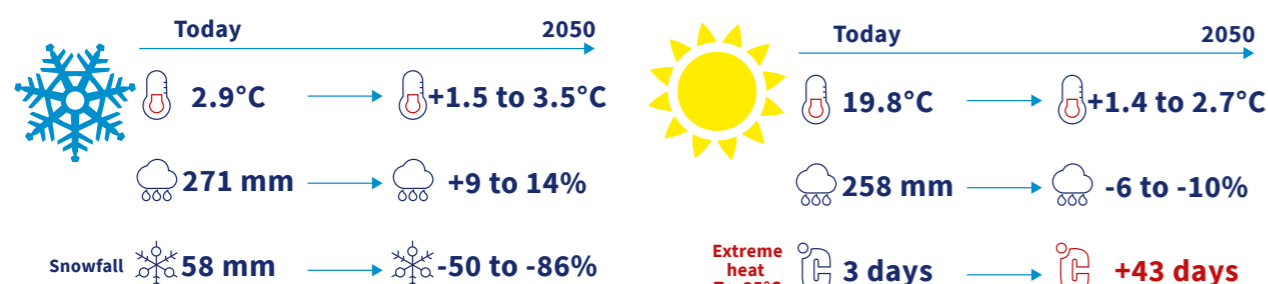
Presqu'île scientifique district, the figurehead of Grenoble's eco-city concept:

250 hectares recently developed showcasing energy performance and self-sufficiency systems

Flaubert: an ambitious 93 ha development project that epitomises the city in transition with a strong focus on greening, reuse, energy sufficiency, bio-sourced materials, user quality and health.

OUR CLIMATE IN 2050: 43 DAYS AT +35°C AND MORE VIOLENT STORMS

Source: City of Grenoble



ACTING FOR THE NATURAL ENVIRONMENT

A rich biodiversity and abundant, high quality drinking water are fundamental to the stability of human societies. The City of Grenoble and GAM have joined forces to preserve these valuable resources now under increased pressure due to marked climate change.

Active mobilisation

The scientific community is raising the alarm about the catastrophic downward trend in biodiversity which is close to collapse globally. Fully aware of their responsibilities, Grenoble stakeholders are mobilised to fight this predictable disaster by taking action at several levels: preserving and harnessing existing resources, restoring degraded areas, improving our knowledge and understanding of the challenges at hand, informing and raising public awareness, especially among young people.

Consistent strategies and tools

Their implementation involves integrating the biodiversity dimension in the Intermunicipal Urban Plan (PLUi), mobilising a number of partners through the Metropolitan Green and Blue Contract (CVB), testing out differentiated management practices for public green areas since 2008 and accelerating the greening of the city.

Protecting and ensuring the long-term availability of abundant, high-quality drinking water resources

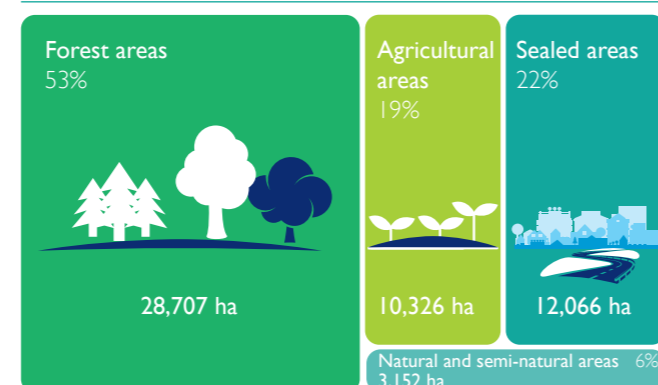
It is a huge challenge at the metropolitan level. Most of the water used by residents comes from two major well fields that produce untreated, naturally pure water covering 84% of the population's needs. Thanks to the protection policy implemented over the last 50 years, 95% of GAM residents drink tap water (thus avoiding tons of plastic waste). Now responsible for the water cycle on its territory, GAM has two main objectives: ensuring affordable water prices for all and reinforcing drinking water protection (€105m invested over 10 years to secure the well fields).



A metropolitan biodiversity observatory
Providing information on the state and health of the natural environment, assessing the effectiveness of public policies and sharing knowledge are the objectives of this observatory which was recently set up to help with urban development projects.

Aquapole, the metropolitan wastewater treatment plant
Aquapole treats 220,000 m³/day of wastewater from 55 communes, of which 41 are located in the metropolitan area.
100% of wastewater is collected by Aquapole: the depollution rate attains 90% with the biogas production unit which reduces the volume of sludge to be treated by 52%.
the Wastewater Management Plan (SDA) has committed €50m to its upgrade. Aquapole is now carbon-neutral thanks to the on-site production of biogas and biomethane that are used by the industry or injected into the district heating network.

A NATURE-CONNECTED CITY: 78% OF THE METROPOLITAN AREA IS COMPOSED OF NATURAL, AGRICULTURAL AND FOREST AREAS



Sealed areas cover 22% of the metropolitan territory, of which 2/3 are built-up areas. Less than 1 % of farmland and nature areas were taken between 2005 and 2015.

Source: Spot thema 2015, Grenoble area Urban Planning Agency

OUR TERRITORY IN ACTIONS A few examples



The Rochefort abstraction site

Pumping water from the River Drac aquifer, it is one of the largest protected abstraction sites in Europe. It covers 2,330 ha, including 500 ha under absolute protection.



Animal crossings on metropolitan roads


This action of the metropolitan Green and Blue Contract aims to eliminate obstacles and reduce collisions between animals and vehicles on heavy-traffic metropolitan roads.



Bastille

At the city's gate, the Bastille hill is an exceptional local site for biodiversity and to restore body and soul.

THE BLUE AND GREEN OPEN-SPACE SYSTEM, AN URBAN DEVELOPMENT TOOL IN FAVOUR OF BIODIVERSITY


12,000
hectares classified as biodiversity reservoirs (i.e. 25% of the metropolitan area)

Over **2,200** 
hectares of wetlands larger than 1 ha

 **1961**
Lake Luitel: creation of the first national nature reserve in France


110
hectares classified as ecological land corridors


805
species identified in the metropolitan area in 2019

Two additional regional nature reserves have been under the responsibility of GAM since 2019: Isles du Drac, classified in 2009 and the Haute-Jarrie wetland, classified in 2008



WATER RESOURCES


150
litres per capita and per day are used in the metropolitan area (all uses included)

 **A 37%**
decrease in the municipality's water use in 12 years



An exemplary city

THE MUNICIPAL DEPARTMENT IN CHARGE OF GREEN AREAS, A FORERUNNER OF THE "WE WANT POPPIES" CAMPAIGN

>Increased use of differentiated management practices for green areas since 2006 and a ban on pesticides as early as 2008 (10 years before it became a legal requirement)
>Increase in the variety of planted tree species: 509 species in 2019
>Municipal staff trained in beekeeping (13 staff trained, 7 apiaries) and in establishing fauna and flora inventories (butterflies, birds and plants)

ACTING FOR HEALTH

Good air quality at home and outside and acceptable noise levels contribute to the quality of life of those living or working in the city. These major political concerns are the key focus of local public action.

Reducing car traffic to reduce noise and air pollution

The areas most affected by noise and poor air quality are those located close to trunk roads and city thoroughfares which suffer from their combined effects. It is therefore necessary to tackle the root problem by reducing car traffic emissions. Cross-cutting public action has been put in place to address these issues with local structuring measures: the introduction of 30 kph zones as early as 2016 ("Calm city" programme), the creation of a low-emission zone (LEZ) targeting goods transport, a city-centre development scheme with the "Cœurs de ville - Cœurs de Métropole" project to reduce road traffic and to extend the pedestrian precinct, and the development of public transport.


Noise abatement plans and measures

GAM's environmental noise prevention plan aims to mitigate noise emissions related to transport infrastructure (roads, railways and tramways) and identifies 12 priority zones, most of them in the city centre and along the A480 motorway. Grenoble's Municipal Health Plan focuses on noise pollution caused by urban activities. As such, it is implementing proactive measures to reduce urban life noise.

Focus on air quality

The main health-impacting air pollutants are nitrogen dioxide (NO₂), fine airborne particulate matter (PM) and ozone (O₃). Despite a continuous decrease in nitrogen oxide and PM emissions over the last ten years, chronic exposure to air pollution causes about 114 deaths* per year. Ozone pollution is expected to increase in the coming years due to the increase in summer temperatures as a result of climate change. The Air Wood bonus is a specific measure aimed at improving air quality. Launched in 2016, it helps households renew inefficient wood-heating appliances, a major source of noxious fine particle emissions.

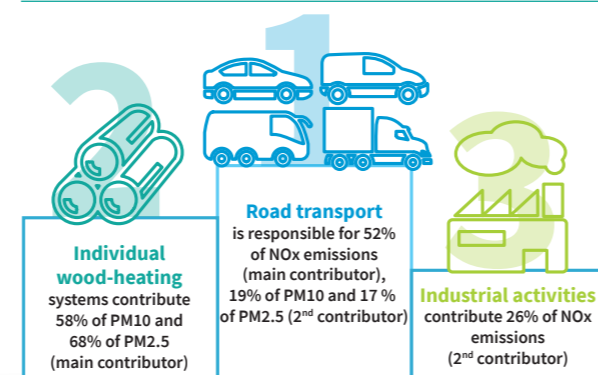
*(source Morelli et al. 2016)



The observatory: an Atmo Auvergne Rhône-Alpes measurement network
Responsible for monitoring air quality at regional level, Atmo has 6 monitoring stations within the metropolitan area (3 in the City of Grenoble). This network provides information about the population's level of exposure and the pollution trends and origins. It also helps design and implement public policies.

Exemplary schools
The municipality has developed an ambitious indoor air quality plan which involves 5 municipal departments. Strict "air quality" criteria have been introduced for the procurement of construction materials. Innovative experiments have also been conducted at the Simone Lagrange (2018) and Hoche (2020) schools.

TOP AIR POLLUTERS



PM₁₀: particulate matter with a diameter of 10 µm or less
PM_{2.5}: fine particulate matter with a diameter of 2.5 µm or less
NO_x: nitrogen oxides
NO₂: nitrogen dioxide

OUR TERRITORY IN ACTIONS

A few examples



Air quality sniffing buses
After the tram campaign in 2017, 20 city buses equipped with micro-sensors providing real-time, geo-located air quality data complement the air quality measurements (GreenZenTAG 2)



Calm City: a 15 % reduction in noise levels
Introduced in January 2016 in Grenoble, the Calm City initiative has reduced noise emissions by reducing the speed limit to 30 kph.



A boulevard before/after introduction of the tram
The redeveloped boulevard has reduced car numbers. Cycle lanes and ways were created and pavements widened (resulting in a 50% fall in the number of vehicles/day on Cours Jean Jaurès)



An exemplary city and metropolitan authority

AN URBAN DESIGN THAT INTEGRATES AIR QUALITY ISSUES

The urban planning guidelines (OAP) of the Inter-municipal Urban Plan (PLUi) are a major local innovation. They target areas with high exposure levels where urban development and constructions will have to facilitate the dispersion of air pollutants.

THE CREATION OF TRAM LINES RESULTED IN REDUCED ROAD TRAFFIC	NOISE	AIR	LEZ
Line C (commissioned in 2006) a 25% drop in road traffic (30,000 vehicles/day)	€140m / year estimated health care cost of the impact of noise in the metropolitan area	Major air pollutants have decreased over the last ten years:	In early 2020, the Low-Emission Zone (LEZ) was extended to 27 metropolitan municipalities representing 65% of the population and 72% of the jobs; it is the largest in France
Line E (commissioned in 2014) a 50% drop in road traffic (11,000 vehicles/day)	About 3,000 people living close to trunk roads are exposed to road traffic noise levels considered to have adverse effects on health	-49% NO ₂ , -25% PM ₁₀ and -56% PM _{2.5}	45% of the particulate matter (PM ₁₀ and PM _{2.5}) residents are exposed to come from outside the metropolitan area
Extension of line B to the Presqu'île district a 30% drop in road traffic (14,500 vehicles/day)	The number of people exposed to noise dropped by 15% between 2014 and 2019	2030 target -45% PM ₁₀ -46% NO ₂ compared to 2016	

ACTING TO OPTIMISE OUR RESOURCES

Composed of major historical players, SMEs and start-ups, the energy sector in Grenoble is particularly diversified and dynamic and is mobilised to respond to the climate emergency. At the same time, the waste sector is optimising its practices to guarantee an even more efficient and ecologically sustainable public service.

Ambitious energy objectives by 2050

The metropolitan Energy Master Plan sets clear commitments by 2050: halving energy use and increasing the share of renewable and recovered energy in final energy use to 50%.

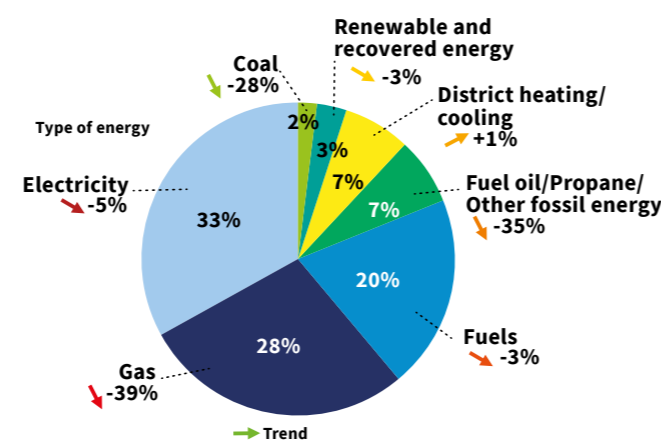
The action plan focuses on the introduction of an energy performance public service, the densification and extension of the District Heating Network (DHN), the creation of a Biomax wood-fuelled station, the connection of the main network to the Pont-de-Claix chemical platform (heat recovery) and the construction of small autonomous wood-fuelled networks (in Gières, Meylan, etc.). The richness of the local stakeholders' ecosystem and cooperation between local authorities, scientific partners and start-ups are the key to success, as shown by the demonstration building based on the ABC (Autonomous Building for Citizens) concept.

A drastic reduction in waste by 2030

Responsible for waste management since 2005, GAM adopted a Waste Master Plan in 2017. Its main objectives by 2030 are to halve the weight of household waste and to recycle two-thirds of collected waste. This will involve: discarding less, changing collecting processes, sorting more and better and upgrading waste processing. A number of actions have been taken: Re-use Master Plan, deployment of individual composting, door-to-door collection of food waste, testing a pay-as-you-throw system for households, improving civic amenities, seven new recycling depots, actions to reduce food waste in schools.



FOSSIL ENERGY IS STILL USED DESPITE SIGNIFICANT EFFORTS



OUR TERRITORY IN ACTIONS A few examples



Biomax: 100% wood-fuelled

Completed in 2020, Biomax (financed by Athanor) is a wood-fuelled CHP unit that is expected to produce 183 GWh of heat and 37 GWh of electricity per year, delivering district heating to between 15,000 and 20,000 housing units and electricity to 10,000 homes



Athanor: a new revolutionary sorting unit coming soon

Commissioned in 1992, the Athanor waste sorting and processing chain comprises a sorting unit, an incineration plant with energy recovery and a composting unit for residual food and kitchen waste. A new, highly-efficient centre will come on stream in 2023.



Retrofitting of the 50 galerie de l'Arlequin building

Retrofitting work including the installation of prefabricated wood façades aimed at achieving the performances of new buildings was carried out whilst the building was still occupied as part of the ZenN European project.



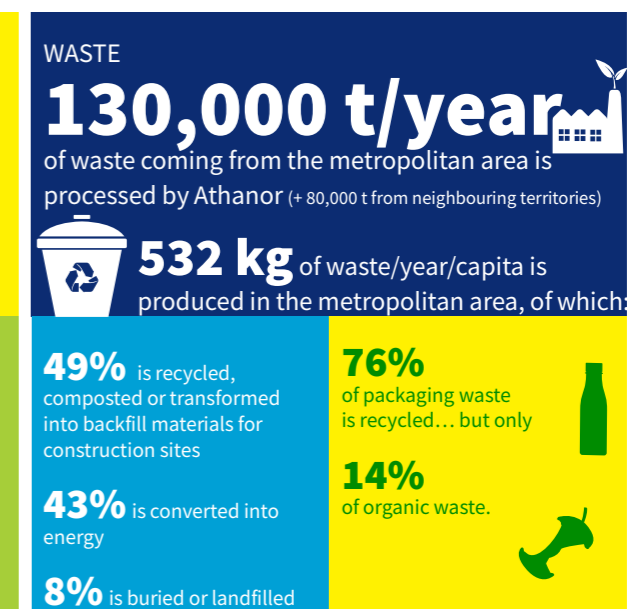
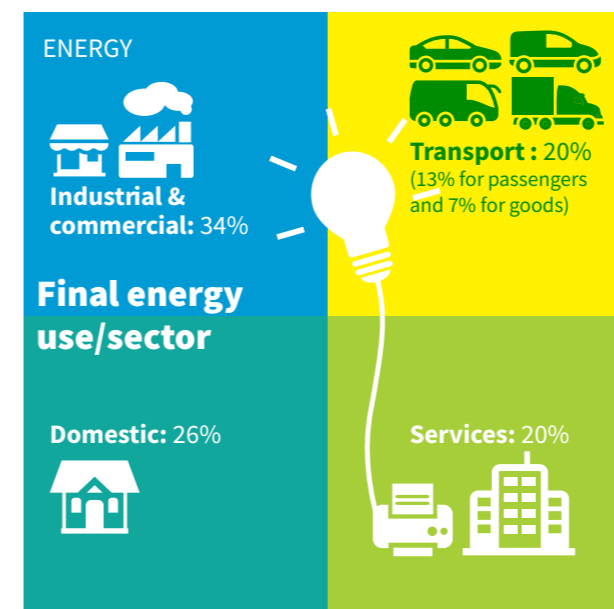
Exemplary local energy operators GAZ ÉLECTRICITÉ DE GRENOBLE (GEG),

For 150 years, GEG and its subsidiaries (GEG ENeR, GNV Alpes, GReenALP) have covered the whole energy value chain of gas and electricity, from production to distribution. Objective: 100% of Grenoble households' needs covered by renewable energy by 2022.

COMPAGNIE DE CHAUFFAGE INTERCOMMUNALE DE L'AGGLOMERATION GRENOBLOISE (CCIAG)

Built in the 1960s and awarded for its environmental performances, fulfilment of social needs and cost-efficiency, the district heating network is operated by the intermunicipal organisation CCIAG. It services 100,000 equivalent dwelling units with a 170 km network and 6 different fuels, including 72% of renewable or recovered energy.

Objective: 100% renewable and recovered energy by 2033



ACTING TOGETHER TO DO BETTER

The local political, academic and economic ecosystem has long understood the strength of joining forces and the importance of citizen participation in delivering the transition. Our best asset is to work collectively to protect an inalienable common good.

Long-standing links between industry and research

Since the advent of hydropower, these links have forged the local ecosystem, thus making Grenoble a leading place for innovation and a major centre for industrial experimentation and scientific research. Today, this partnership-based ecosystem is mobilised to serve the territory's transition through the experimentation and development of renewable energy, a hydrogen sector and innovations in the field of health and digital technology.

Multiple partnerships and co-operation

Setting aside their traditional role as contracting authorities and to progress more quickly, Grenoble and GAM rely on local stakeholders. Grenoble's history and pioneering spirit have resulted in the creation of infrastructure and facilities to implement ambitious and efficient public policies in the field of water, mobility, energy, waste and urban planning. Citizen participation and involvement is now central to the local governance project, echoing the leading social laboratory that Grenoble was and still is.

Creating local, non-transferable jobs

Although R&D and engineering are still major job providers, the solidarity and social economy also employs many people (for example to promote re-use or tackle fuel poverty). The Re-use/Repair Master Plan and the 2016-2020 Social and Solidarity Economy Development Plan encourage eco-innovation, with special emphasis on the solidarity-based city.



Grenoble Civic Lab: imagining our future together

This citizen-based approach aims to develop digital tools to create new services and promote behavioural change. It brings together citizens, developers, makers and students around challenges proposed by the partners. Launched in 2017, its two editions with their array of creativity and tooling workshops have resulted in 22 prototypes being developed.

An innovation ecosystem linked to the research world

Together with public and private partnerships, local authorities co-finance a number of research and higher-education chairs related to local transition issues: fuel poverty (Institut polytechnique), the territory in transition (GEM), the social and solidarity economy (Sciences Po), peace economics, etc.

CITIZEN PARTICIPATION IS CENTRAL TO THE LOCAL GOVERNANCE PROJECT!



665 community organisations are supported by the City through the House of Associations (€15.9m in subsidies in 2018)



Citizens sit on supervisory and users committees



Creation of innovative ideas and digital services platforms (Métro Soleil, Métro Énergies, Grenoble Civic Lab, Métromobilités, etc.)

OUR TERRITORY IN ACTIONS

A few examples



The Presqu'île district, a concentration of innovation

The Presqu'île hosts Giant (Grenoble Innovation for Advanced New Technologies), a partnership that contributes to creating dynamic bonds between research, higher education and industry to encourage the technological breakthroughs of the future.



The Cities in Transition Biennial Festival

Launched in 2017 and organised by the City of Grenoble, the festival welcomed 40,000 participants in 2019! 96 structures were mobilised (citizens, scientists, economic stakeholders, artists, community organisations) organising 150 events (debates, workshops, exhibitions, visits, games and shows) on issues related to the social, environmental, economic and democratic transition. 50 guests from 19 cities and 13 countries attended the event.



ABC : the first Autonomous Building in France

The result of a partnership between Bouygues construction and Grenoble Habitat, ABC (Autonomous Building for Citizens) is to be found on the Presqu'île site. The 62 flats (including 20 social flats) will have 70% energy and water autonomy and will produce 220 kW of PV electricity.



An exemplary city A PANEL OF TOOLS FOR A DYNAMIC, PARTICIPATIVE DEMOCRACY

The citizen participation guide presents the tools governing the participation of residents of Grenoble itself. A number of participatory bodies are open to residents over 16:

22 district unions,
6 independent citizens' committees, 4 district panels (participatory mechanism in urban regeneration areas) and 1 advisory board of foreign residents.

The participatory budget is the annual rendezvous of citizens' initiatives. Between 20 and 30 projects are submitted every year. Since 2015, the €4m budget allocated has enabled 50 projects to be implemented.

Forum 5i

an international forum supporting the development and financing of innovative companies

Since 1998:

1 billion € raised
131 start-ups created
3,700 jobs

16%

of GAM's R&D investment budget goes to the TEnerrdis / Axelera clusters



Programme MurMur

9 M€ d'aides publiques métropolitaine qui génère **60 M€** investis sur le territoire (1000 emplois)
10 000 logements réhabilités d'ici 2023

5

competitiveness clusters (Minalogic, TEnerrdis, Axelera, Lyonbiopôle, Cimes)



5th

most innovative city in the world (Forbes, 2013)



7%

of metropolitan jobs are directly linked to the production of environmental goods and services

8

national-level research institutes including CEA (the 2nd most innovating research centre worldwide according to Reuters in 2017)



EUROPEAN AWARDS AND COMMITMENTS

2004
Adoption of
the Aalborg
Charter

2008
Signature of the
Covenant of
Mayors for Climate
and Energy

2014
European Capital
of Innovation
runner-up

2014
Access City
Award 2nd prize
winner

2015
Signature of the
Milan Urban Food
Policy Pact

2019
Cit'ergie Gold
Award

2018
Adoption of the
Copenhagen
Consensus of
Mayors

The City of Grenoble and the Grenoble-Alpes Métropole (GAM) metropolitan authority are involved in a number of European and international networks

L'ASSOCIATION NATIONALE DES VILLES
ET TERRITOIRES ACCUEILLANTS

ICLEI
Local
Governments
for Sustainability

OIDP

Villes-Santé
Réseau Français

ENERGYCITIES

**EURO
CITIES**

FEARLESS CITIES

CGLU
Cités et Gouvernements
Locaux Unis

Grenoble has a Europe-Direct centre and active twinning programmes with 19 cities. Since 2015, it has been developing an international city transition network for sharing good practices on transition issues with more than 80 cities.