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QUESTIONNAIRE ON GREEN CITIES – AVOSETTA MEETING ON MAY 12TH/13TH 2023 IN BERN

FRANCE REPORT¹

Prelude to the EU context

100 climate-neutral and smart cities by 2030 !. This European ambition is one of the 5 EU missions initiatives² of the Horizon Europe research & innovation programme (2021-2027). 100 cities from all Member States and 12 cities from countries associated to Horizon Europe are selected in 2022. They have to sign a Climate City contract (objectives & action plan) with the Commission. The objective is also to promote such experimentation and innovation hubs as an example for the other EU cities. In 2023 research & innovation calls are launched to support the implementation of the climate-neutral and smart cities Mission (such as smart systems and services for user-centred shared zero emissions mobility in urban areas). 359,29 million are devoted to this EU mission in the period 2021-2023.



This EU Mission is clearly linked to the Green Deal and the recognition of the main role of the cities and local authorities for the ecological transition process. The Green Deal thus underlines the importance of the urban dimension of EU policies (environment, transport, energy, cohesion (...)) and European structural and investment funds. The EU's sectoral environmental strategies (climate, biodiversity, soils) also recognize the importance of the contribution of sub-state authorities, in particular the cities. The 8th environmental program (2022) reiterates the necessity to ensure a "full participation" of regional and local authorities "through a collaborative and multi-level approach" by recalling that the environmental policy "is highly decentralised". In several opinions, the European Committee of the Regions and the European Economic and Social Committee do not fail to recall the importance of the role of cities and local authorities while also insisting on the specific characteristics (ecological, socio-economic and territorial) of those public authorities³.



The EU is therefore far from ignoring the local and regional authorities, including cities and territorial dimension (urban/rural/peripheral), in the environmental legislation (water, climate, air, noise, waste). However, but the principle of institutional autonomy of Member States frames the normative EU actions without forgetting the principle of attribution of competence and the principle of subsidiarity. It is

therefore up to the Member States to designate the authorities responsible for implementing EU Law in accordance with their own internal division of competencies and powers. Furthermore, the adoption of measures "affecting town and country planning" is based on the derogation procedure of article 192 FTEU (unanimity Council, consultation EP and opinion ESC and CR). And finally, in the case of non-compliance with EU Law, only Member States can be brought before the EU Court of Justice (for example recent litigation concerning ambient air directive 2008/50/CE⁴, urban waste water directive 91/271/CEE), even if its local authorities are responsible for such non-compliance with EU obligations. Similarly, while Member States are considered as privileged claimants in EU legality litigation, this is not the case for sub-state authorities. In recent cases brought before the EU Court of Justice by Cities (Paris,

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² COM (2021) 609 final.

³ Opinion EESC on Sustainable and Smart mobility Strategy (2021); opinion of the ECR on Smart cities: new challenges for a just transition toward climate neutrality (2020); opinion of ECR on Biodiverse cities and regions (2020).

⁴ Case C-636/18, Commission/France (2019, NO₂, 12 agglomerations : Marseille, Toulon, Paris, Auvergne Clermont-Ferrand, Montpellier, Toulouse, Reims Champagne Ardennes, Grenoble Rhône Alpes, Lyon Rhône Alpes, Vallée de l'Arve Rhône-Alpes, Nice). Case C-286/21, Commission/France (2022, PM₁₀, agglomérations de Paris & Fort-de-France)

Bruxelles, Madrid T-339/16, T-352/16 et T-391/16 & C-177/19 P à C-179/19 P), it is thus recalled that local authorities are obliged to demonstrate their legal interest in acting for seeking the annulment of an EU act that would affect the exercise of their competences in the field of environmental issues.

The local level appears to be one of the emblematic scales where decisions are taken as close as possible to the citizen. In France, following the different waves of decentralization of power and reforms such the Law 2015/991 on the new territorial organisation of the French Republic, the essential role of territorial authorities in the ecological and energy transition is systematically emphasized. The Law 2019/1147 on energy & climate, the Law 2019/1428 on mobility, the Law 2017/1388 on aquatic environment and flood prevention, the Law 2016/1087 on the reconquest of biodiversity demonstrate this territorial dynamic. The recognition of the Region as pivotal level but also the key role of intermunicipalities authorities characterise these legal recent developments. Such new territorial organisation and transfers of competence have not been accompanied by sufficient financial transfers from the State to the territorial authorities to meet the ecological challenges. Moreover, the need to ensure a certain normative coherence of action between the different territorial levels (State, regions, metropolises, agglomerations, intercommunalities, cities) results in a complex tree structure of planning and programming documents. In addition, several special environmental competencies still fall under the jurisdiction of the State or under the authority representing the State in region or department (such as IPPC). The inaction of state authorities (such as wrongful climate inaction) or the inadequacy of their actions to fully meet environmental legislation (in particular EU & international commitments) are thus likely to affect the interests of local authorities.

Local authorities do not have hesitated **to bring the State before the Court for non-compliance with environmental legislation** (including EU legislation). For example,⁵ the municipality of Grande-Synthe (near Dunkerque) and Damien Carême (major in 2018)⁶ brought an appeal against the State before the Council of State, following the refusal of the Government to accept their request in 2018 for additional measures to comply with the objectives of Paris agreement. The Court considered that the action of this coastal municipality which is particularly exposed to the effects of climate change is admissible. The Council of State concludes that the municipality of Grande-Synthe (highly exposed to climate change) is entitled to request the annulment of the government's implicit refusal to take any useful measure to curb the curve of greenhouse gas emissions produced on the national territory. In July 2021, the Council of State enjoined the Prime Minister to take all necessary measures to curb the curve of greenhouse gas emissions produced on national territory in order to ensure its compatibility with the greenhouse gas emission reduction targets. The administrative judge also admitted the interventions of the City of Paris and the City of Grenoble in this case. **Some municipalities have not hesitated to adopt municipal order** restricting or even prohibiting the use of plant protection products (such glyphosate) on their territory **even though they do not have the general competence to do so**⁷. However, different decisions of administrative courts have concluded that local authorities cannot legally exercise such competence to issue regulations on the general conditions for the use of plant protection products, which are the *“sole responsibility of the State authorities”*, in particular to implement the EU regulation 1107/2009 (Council of State, 31/12/2020, n°440923).



⁵ In several judgements, administrative courts have recognised the responsibility of the State for its failure to comply with environmental legislation and have accepted requests for financial compensation from local authorities (department of the Côtes d'Armor and communes) faced with exorbitant costs related to the collection of green algae washed up on the beaches.

⁶ <https://www.youtube.com/watch?v=cjEpFxeAWCs>

⁷ Some municipalities have done the same for other environmental issues (GMOs, relay antennas, linky meters) for which only the State' authorities are competent.

I. INNER-CITY MOBILITY AND TRANSPORT

Road traffic plays a key role in supplying urban areas with goods and ensuring the mobility of city dwellers. At the same time, road traffic is a significant source of pollutants and CO₂ emissions, is more dangerous than other modes of transport, and takes up considerable space in terms of infrastructure. For these reasons, transport policy in the urban context is often geared towards the achievement of a shift to non-motorized and public transport.

In France, the transport sector is responsible of 24% of greenhouse gas emissions. The Law 2019/1428 on the mobilities aims to make land transport carbon-neutral by 2050. This Law sets out the strategy and the programming of investments in transport systems for the period 2019-2037. The choice of the term «*mobilities*» instead of «*transports*» is emblematic. It'll remain to verify whether a real ecological transition will be translated into reality "*without leaving anyone behind*". The development of least polluting mobility modes and of shared mobility and others alternatives to individual car is one of the five priority of the investment' programme. The Law 2019/1428 confirms the essential contribution of territorial collectivities and reinforce le pivotal role of the region (mobility basin) and of the intermunicipal authorities (communities of agglomerations, urban communities, metropolises such Lyon metropolis). Such normative process can be observed in other environmental sectors.

According to the Law on Mobilities (2019), in all the agglomerations with more than 100 000 inhabitants the competent local authorities (known as "mobility organising authorities") have now the obligation to establish a **mobility plan**. In Ile de France region, such mobility plan covers the entire region and is completed by local mobility plans. The mobility plan must be compatible with other territorial planning instruments such as regional intermodality plan and the territorial air-energy climate plan. Local urban plans and other municipal plans (cartes communales) must be compatibles with mobility plans. Finally, the mobility plans aim to contribute to the reduction of greenhouse gas emissions in line with France 's international and european commitments, the fight against air and noise pollution and the protection of biodiversity. For the other "mobility organising authorities" in territories (urban & rural) with less than 100 000 inhabitants, a **simplified mobility plan** is adopted but it has no binding legal effect and is enforceable (non opposable) against urban planning documents.

1. On the basis of which strategies and (predominantly) with which instruments is **the shift to public transport promoted in cities** (on the public transport side: expansion of services, investment in infrastructure, reduced fares, etc.; on the private transport side: reduction of space for private transport, implementation of the EU ban of combustion vehicles, speed reductions, road pricing, reduction of parking zones, etc.)? Are there (binding) targets for the modal shift?

Mobility Plans: The reduction of car traffic and the development of shared use of motor vehicles as well as the development of public transport are among the objectives of the mobility plans. The mobility plans define the perimeter and the conditions of public transport services and determines the organisation of the traffic and parking zones (art. 1214-1 & al. Transport Code). They also could serve as a plan for the development of charging infrastructure for electric and/or plug-in hybrid vehicles.

Restrictions/ban of individual vehicles: The Law 2019/1428 on the mobilities reinforces the powers of police of the Mayor related to organisation of the traffic and the parking zones.

The mayor may impose a maximum authorised **speed** lower that provided by the road code (code de la route) for environmental reasons for all or part of the area open to traffic (L 2213-1-1 Code of territorial collectivities). The Mayor could also impose **permanent access ban** for the transport of good over 3.5 tonnes. Similarly, he can **reserve parking zones** for vehicules with a label (low-emission, carpooling, car-sharing). Since the Law on energy transition (2015), the mayor of the president of inter-communal authority (with traffic police powers) may **ban the most polluting vehicles**.

The Mobilities Law reinforce the system of restricted traffic zones renamed “**Low emission mobility zone**” and the Law 2021/1104 climate change & resilience impose the establishment of such zone in all agglomerations of more than 150 000 inhabitants before December 2024. 43 agglomeration will be concerned by such compulsory low-emission mobility zone and 11 metropolises have set up a low-emission mobility zone (Grand Paris, Lyon, Aix-Marseille, Toulouse, Nice, Montpellier, Strasbourg, Grenoble, Rouen, Reims et Saint-Étienne). However, exemptions are provided, for example when it is demonstrated, at least three years out of the last five that the average annual concentration of nitrogen dioxide (NO₂) are less than or equal to 10 ug/m³ at all fixed air quality measurement stations in the agglomeration or for at least 95% of the agglomeration of each municipality in the agglomeration.



DÉPLOIEMENT DES ZONES À FAIBLES ÉMISSIONS MOBILITÉ (ZFE-M)

Une mobilisation des agglomérations pour faire baisser de 40 % la pollution de l'air en ville dès 2025



The **Crit'air quality certificate system** identifies the vehicles according to their polluting emissions and such system is operational since July 2016. Such system (6 classes of certificate, depending of the type of vehicle, its engine and EU standard pollutant emission) is used during ambient air pollution episodes imposing differentiated traffic (prefect decision). Such air quality certificate is also mandatory for driving in Low-emission mobility zones. In the 11 metropolises: bans for Crit'air 5 (diesel over 22 years) in 2023, Crit'Air 4 (diesel over 18 years) in 2024, Crit'Air 3 (diesel over 12 years and petrol over 18 years) in 2025. In 2021, only 25% of vehicles fall into the Crit'Air 1 class (petrol less than 12 years) and 36% (Crit'Air 2 petrol 12 to 18 years old).

The Environmental Law (Grenelle 2010/788) introduced the possibility for agglomeration of more than 300 000 inhabitants with an approved urban transport plan, of introducing, on an experimental basis, a **road pricing** for a period of three years (art. 1609 code des impôts). Such experimentation authorised by a decree (State Council) may only be introduced only after the establishment of public transport infrastructure and services capable of supporting the traffic shift resulting from the introduction of such road pricing. An experiment road pricing project had been envisaged (by the Court of auditors, report 2022) to finance public transports in Paris for example but such experimental system was removed by the Law 2021/1900 (Finance Act for 2022), in particular due to strong opposition and too short period for such experimentation.

Public transport: The major has the power to **reserve special lanes for public transport**. Prior to the **establishment of** low-emission mobility zone, an information campaign also informs the public about all the alternatives to individual vehicles, in particular public transports services.

In July 2022, the National Assembly has created a “flash mission” to promote the social acceptability of Low-emission mobility zone and to support people impacted by such restrictions and bans. They unsurprisingly call for faster development of public transport. If the Mayor of Paris considered the project of **free public transport**, such idea (2018) was abandoned in view of the low environmental benefit and the saturated state of the Parisian transport network. Dunkerque has experimented free bus travel for all in 2014 and implemented 100% free bus travel in 2018⁸; but the environmental and health's benefits are more uncertain and such system does not solve the problem of urban congestion or air pollution.

⁸ The agglomeration of Niort, Aubagne & Calais have also opted for free public transport. <http://www.obs-transport-gratuit.fr/l-observatoire-161/>

2. Does a policy exist to **promote non-motorized transport in cities** (pedestrians, cycling, e-bikes etc.)? If yes, can you give a few instruments or examples?

The Law on mobilities (2019) introduces provisions on « *active mobility* » defined as « *all modes of travel for which human power is required with or without motorized assistance* ». It provides for the adoption of a national schema for cycle-routes (updated every ten years) which will be implemented in regional scheme with a fund of 350 million Euros. The objectives are to increase the modal share of cycling from 9% in 2024 (only 3% in 2019) to 12% in 2030. The State is committed to supporting local authorities in the creation of cycling infrastructure. The Law on mobilities reaffirms the obligation to provide cycles routes when creating or renovating urban roads. It no longer allows exemptions due to traffic needs and its constraints (these elements can only be taken into account to determine the type of cycling facilities to be put in place -L 228-2 Environmental code). The Law on air and rational use of energy (1996) has already introduced an obligation to develop cycle routes in case road works but in ambiguous terms (“*according to the needs and constraints of traffic*”).

Following the first national cycling and active mobility plan in 2018 (350 million + 150 million from the recovery plan, call projects), a second plan 2023-2027 has been adopted (250 millions for 2023; 1,5 billion will be invested to develop cycling infrastructure and double the network by 2030). Since 2018: 22 000 km of cycling facilities have been built and 16 000 cycle paths and greenways: more than 40% since 2017 !

For agglomerations of more than 100 000 inhabitants, the mobility plan must ensure the development of less-energy consuming and less polluting modes of transport, particularly cycling and walking. The plan includes a section related to the continuity and the safety of cycle and pedestrian routes, including the location of cycle parks near stations, city entrances and multimodal hubs (...).

The total investment budget of local authorities on cycling policies has increased by 40% in the last ten years (Ademe data) but the main daily use of bicycles (5%) is still three times lower than the European average. According to Ademe study on cycling (2020), cycling increased by 30% in Paris from 2010-2018, 50% in Bordeaux (2015-2019). The city of Paris’ cycling plan (2015-2020) has devoted 150 million euros to doubling the length of cycle paths: 1095 km (compared to 200 km in 2001). Among the measures introduced by the city of Paris: a self-service bicycle system, a map of the bicycle network and of bicycle parking facilities, subsidy 33% of the purchase price of electrically assisted bicycles (...).

While there has been a strong increase in the center of large cities, which concerns 20% of the population, there has been a decrease in the suburbs and the cities of the second ring. At the beginning of 2023, the “*alliance pour le vélo*” (which brings together different associations, including the club of cities and cyclable and pedestrian territories) called on the State to invest a minimum of 2.5 billion over 5 years in the development of the cycling sector. Since 2017, the State has been granting aids for the purchase of bicycles; and this year it has renewed the grant to cover 50% of the most modest households and increased aids for the most precarious people (tax income per unit less than EUR 6358)⁹. Concerning urban pedestrian routes, there are also pedestrian plans or director plans for pedestrian routes in cities such as Rennes, Brest, Lyon, Bordeaux, Strasbourg or Nantes.

3. What conflicts typically arise between the demands of different transportation modes when it comes to local transport policy? How are they resolved?

According to the Law on Mobilities (2019), public authorities (both national and territorial) must take into account the « *plurality of mobility needs and the diversity of territories in order to provide appropriate, sustainable and equitable responses* » (art. L 1211-4 code des transports). This Law states that the organisation of mobility throughout the territory have to « *make effective the right of every person (...) to move and to freely choose the ways of doing so, including active mobility* ». Such **right to mobility** must allow the user to move under reasonable conditions of access, quality, price and cost for the community. It includes the right to be informed about the means available and how to use them.

Three classic conflicts can be observed: - Lack of safety for soft mobility and space sharing - Social and territorial inequalities - Economic lobbying in favor of “tout voiture/individual car” approach, - social acceptability. Such conflicts illustrate the inadequacy of sectoral approaches, the socio-ecological

⁹ <https://www.economie.gouv.fr/particuliers/prime-velo-electrique#>

inconsistency of public policies and the lack of financial resources allocated to achieve an ecological transition of urban transport modes for all.

- Lack of safety for soft mobility and space sharing:

Despite the improvement of cycling and pedestrian infrastructure, significant safety risks remain regarding the sharing of space between road transport (including public transport) and soft mobility. Conflicts also arrive between users of softer modes of mobility, as shown by the problematic case of the dangerous use of trotinettes/scotters (electric scooter are considered as motorized personal transport devices and subject to the code de la route since 2019) . In April 2023, the city of Paris has organised a referendum “for or against self-service scooters”. 89% of 104 084 Parisians who voted were in favor of ending self-service scooters. The public domain occupation agreement with the private operators will end in the end of august 2023. Several cities have already banned self-service scooters for safety or public order reasons due to accidents or failure to respect the code de la route (Nice, Toulouse...).



- Social and territorial inequalities: the emblematic case of low-emission zone

From January 2025, vehicles with Crit’Air 5, 4 and 3 certificates (which account for 40% of the current car fleet) will not be allowed to access in the low-emission zones. According to a study of Fondation pour la nature et l’Homme and Wimoov, nearly 30% of total population (13, 3 million) over the age of 18 would be in a situation of mobility insecurity in 2021. 4,3 million are thus affected by mobility vulnerability, in particular for low-income households, in particular due to the absence of an alternative to the car or ageing vehicles. Two bills (from the Senate 2023 and the national Assembly 2022¹⁰), presented by members of national rally party, aims to abolish low-emission zones because of their social exclusionary character. In October 2022, the association “40 millions d’automobilistes” denounces in a petition “an anti-social project”. Together with the Fédération de la distribution automobile, it has started a “great loop of the excluded” in order to meet motorists affected by the introduction of the emission-low zones. Several cities have announced the postponement of the exclusion of Crit’Air 2 (Metropole Lyon), 3 (Reims, Metropole Grand Paris) and 4 cars. The risks of increasing territorial inequalities for peri-urban and rural areas are also highlighted by opponents. These diverse oppositions show the high problematic of social acceptability and the urgency of accelerating the supply of public transport and infrastructure for soft mobilities, including outside city center without forgetting the establishment of efficient intermodalities.

- Economic lobbying in favor of “tout voiture/individual car” approach

The process of ecological transition in transport suffers from a policy that has for too long favored the “all road” approach. The failure of the application of the ecotax for heavy goods vehicles following the so-called “red bonnets” (bonnets rouges) movement in Brittany (2013/2014), the yellow waistcoat (gilets jaunes) movement following the carbon tax project (2018) and the current opposition to low-emission zones illustrate this situation. In addition to the economic weight of the road transport sector, the lack of integrated consideration of the social, health and ecological impacts of transport modes accentuates the difficulties of transition process in the short term.

For example, the association 40 million d’automobilistes and the Fédération de la distribution automobile are against the implementation of a low-emission zone in the Rouen Metropolis. They asked the Metropolis to repeal the “arrêté” establishing the zone and in February, the Metropolis reject this demand. The two entities therefore lodged an appeal with the administrative tribunal of Rouen in march 2023.

In the report (October 2022) of the national Assembly ‘s “flash mission «related to the measures to accompany the creation of low-emission zone, it is recommended to review the Crit’air system, to set

¹⁰ Rejected by the national Assembly in january 2023.

up a national monitoring committee for such zones, to strengthen and better target national subsidies for purchase a low-emission vehicle and to invest massively in public transport (...).

4. How is noise protection handled when it comes to municipal transport? Are the requirements of EU-law and ECJ-case law respected?

The Law on mobilities (2019) provides that public authorities (national, regional, local) as private persons shall contribute within the limits of their competence to the implementation of the right of everyone to live in a « healthy noise environment ».

According to article L 572-2 of the Environmental Code, *“a noise map and an environmental noise prevention plan are drawn up: 1° For each of the road, motorway and rail infrastructures whose characteristics are set by decree in the Council of State; 2° For agglomerations with more than 100,000 inhabitants, the list of which is set by joint order of the ministers responsible for the environment and the interior. This order is updated at least every five years”*. Within the perimeter of agglomerations with more than 100,000 inhabitants¹¹, the local authorities responsible for fighting noise pollution (municipalities or public establishments for inter-municipal cooperation) draw up noise maps that take into account the noise emitted by road infrastructure as well as by industrial activities and other sources of noise. For motorways and roads of national or European interest that are part of the road public domain (traffic of over 3 million vehicles), as well as for rail infrastructure (annual traffic of more than 30 000 train passages), the prefect (representative of the State authority) is competent. Similarly, the list of airports concerned is listed by a ministerial order (the last one was adopted in 2017).

Environmental noise prevention plans aim to prevent the effects of noise, reduce noise levels where necessary and protect quiet areas. They include an assessment of the number of people exposed to excessive noise and identify the sources of noise whose levels must be reduced. They also list the necessary measures to deal with the situations identified by the noise maps, in particular when limit values set under conditions defined by decree in the Council of State are exceeded or likely to be exceeded (L 572-6). Environmental noise prevention plans for road infrastructures are drawn up by the local authorities competent for these infrastructures.

The directive 2002/49/EC relating to the assessment and management of environmental noise was transposed in France by Order (ordonnance) 2004/1199 & Law 2005/1319. New instruments for mapping and planning management of noise and noise pollution have been adopted and implemented. A Ministerial order (14/4/2017) established the list of agglomerations with more than 100 000 inhabitants concerned by the binding obligations of the directive. France has been the subject of two formal *mise en demeure* relating to the two previous deadlines (2007-2008, 2012-2013) for failure to adopt an environmental noise prevention plan for 58 agglomerations and a large number of major roads, rails and airports (Commission, dec. 2017). Since then, France has not been the subject of judgement of the EU Court of Justice compared to other Member States (Poland C 302/21, Portugal C-687/20, Slovakia C 683/20). French law complies in theory with the obligation to draw up action plans for large agglomerations and for major roads and railway regardless of the ambient noise level.

5. Does the participation of the local population play a role in shaping urban transport policy?

The constitutional principle of public participation applies to a variety of plans, programmes and projects and have to combine several procedures, in particular within the framework of development of urban projects (upstream (public debate, prior concertation) or downstream of projects such as public enquiry). Insufficient public participation is an important risk of failure or strong opposition, especially for people who cannot access to alternatives to the individual car. **The mobility plans** projects of the agglomerations with more than 100 000 inhabitants are subject to public enquiry. The adoption of simplified mobility plans (under 100 000 inhabitants) is subject to only a simple public participation.

Under the Law on mobilities (2019) a **low-emission zone project** covering several local authorities may be subject of a single public participation. The establishment of such low-emission zone is accompanied by a local information campaign (lasting at least three months) that informs the public of the controlled

¹¹ 62 urban units have more than 100,000 inhabitants, of which 36 have more than 200,000 inhabitants. 5 urban units have more than one million inhabitants, including the Paris conurbation with 10.8 million inhabitants (INSEE Data 2021).

perimeter, the traffic restrictions and all alternatives to access to the zone (public transport (...)). The Senate's information mission on the acceptability of low-emission mobility zones (ZFE-m) has opened an online consultation from 17 April 2023 to 14 May 2023¹².

II. URBAN BIODIVERSITY AND HEAT MANAGEMENT

Biodiversity is under considerable pressure also in the urban context, as the impacts of settlements, industry and commerce, as well as the circumstances of modern life are often diametrically opposed to the interests of diverse and rich habitats for fauna and flora. This development correlates with an accentuation of the heat island effect in cities, which is caused by the lack of green spaces, absorption of solar radiation by the many sealed surfaces, restricted wind circulation due to dense development, as well as by excess heat from industry and traffic. Due to the interdependence of green spaces and heat, measures oriented at promoting biodiversity are likely to also result in the reduction of the heat island effect. Seen from this perspective, biodiversity in agglomerations can constitute an important factor not only when it comes to the interests of nature, but also with regard to the health, the well-being and the quality of life of inhabitants.

6. Are data regarding biodiversity in urban spaces, agglomerations or settlement areas available? If yes, how do they evolve? Is biodiversity in the urban context a relevant factor or rather anecdotal? Is a comparison with other areas possible (e.g. agricultural spaces)?

Biodiversity in the urban context could not be considered as anecdotal in France as nature areas represent on average 40% of the surface of 28 French cities with more than 200,000 inhabitants¹³. So far as we know there are no overall data that deal precisely with biodiversity in urban areas although an assessment of urban ecosystems and their services has been conducted rather recently¹⁴. However, there are data regarding some groups of species. For instance, as far as butterflies are concerned, the most urbanized departments are particularly affected by their decline, with some losing more than 50% of their species¹⁵. Urban specialist birds are strongly and rapidly declining as well. They faced a loss of 27,6 % of individuals between 1989 and 2019. According to the authors of a landmark study, “the reasons are still poorly explained, and certainly multiple: decrease in food resources, especially insects, as in agricultural environments, even if, since a few years, pesticides are no longer used in urban green spaces; reduction of sites suitable for nesting (loss of cavities due to the ravishing of buildings and the felling of old trees, cleaning of facades favorable to swallows); pollution” from transportation and industrial activities also has an impact on their health¹⁶. In comparison, agricultural specialist birds have declined by 29,5 % over the same period, and forest specialist birds by “only” 9,7 % (which is partly due to a strong decline previously achieved).

7. Is biodiversity in urban spaces addressed as a *specific topic* with regard to public policy or the legal framework? Are there specific objectives formulated when it comes to urban biodiversity? Do *separate (legal) instruments* exist? If not, is the *general framework* of protection adequate?

Traditionally, biodiversity in urban spaces has not been addressed as a specific topic neither with regard to public policy nor to the legal framework in France. This refers to the broader issue of “ordinary nature” and its lack of consideration in policy and law¹⁷. It means that nature conservation policy and laws tend to focus on outstanding nature areas and wild species in France. As far as we know there are no specific objectives when it comes to urban biodiversity, but this is not very surprising as French law

¹² <https://senat.limequery.org/721983?lang=fr>

¹³ <https://biodiversite.gouv.fr/les-ecosystemes-urbains> These data come from an evaluation conducted as part of the Efese program (the French assessment of ecosystems and ecosystem services), 2012-2018.

¹⁴ EFESE, L'évaluation française des écosystèmes et des services écosystémiques. Les écosystèmes urbains, Commissariat général au développement durable, 2018, 889 p.

¹⁵ Inventaire national du patrimoine naturel, La biodiversité en France – 100 chiffres expliqués sur les espèces, 2021, 52 p., p. 28 (<https://professionnels.ofb.fr/fr/doc/biodiversite-en-france-100-chiffres-expliques-especes-2021>)

¹⁶ B. Fontaine, C. Moussy, J. Chiffard Carricaburu et al. 2020. Suivi des oiseaux communs en France 1989-2019 : 30 ans de suivis participatifs. MNHN- Centre d'Ecologie et des Sciences de la Conservation, LPO BirdLife France - Service Connaissance, Ministère de la Transition écologique et solidaire. 46 p., p. 20.

¹⁷ A. Treillard, L'appréhension juridique de la nature ordinaire, PhD thesis in Law, University of Limoges, 2019, 589 p.

is generally reluctant to set binding targets. For instance, the aim to maintain or restore at favourable conservation status natural habitats and species of wild fauna and flora of Community interest (Habitats Directive, art. 2) does not appear at least explicitly in French Law¹⁸.

However, the situation has begun to evolve quite significantly when the Grenelle 1 (2009)¹⁹ and 2 (2010)²⁰ laws decided to set up the “green and blue infrastructure” – *trame verte et bleue*²¹. Actually, it is the name given to the French ecological network. The real novelty of the green and blue infrastructure is the consideration of “ecological continuities” (a concept preferred to that of “corridors” in French law), since for the rest it is based on existing tools (such as national and regional parks or nature reserves). Although the green and blue infrastructure is not exclusively designed for urban spaces, the main part of its implementation is actually based on local urban planning documents. This is how biodiversity conservation and urban policies have started to meet up²². Indeed, local urban planning documents must be compatible with the regional planning scheme of the green and blue infrastructure (*Schéma régional d’aménagement et de développement durable des territoires* - Regional plan for land use and sustainable development). In order to meet this requirement, the initial choice of the French legislator in 2009-2010 is not to create new instruments but rather to use existing ones. Two of the “classical” urban zonings seem to be particularly relevant to implement the green and blue infrastructure in local urban planning documents. These are classifications in natural and forest zones, known as “N zones” (Urban code, art. R. 151-24), and in “classified wooded areas” (Urban code, art. L. 113-1 and following). These zonings can basically forbid constructions, with possible derogations. However, the law on biodiversity of August 8, 2016 creates a new specific instrument. It allows the regulations of local urban plans to classify as “ecological continuity spaces” (*espaces de continuités écologiques*) elements of the green and blue infrastructure that are necessary for the preservation or restoration of ecological continuities, and to accompany this classification with specific prescriptions (Urban code, art. L. 113-29 and L. 113-30). This possibility is especially interesting in urban zones, known as “U zones”. For example, the intercommunal local urban plan of the Eurometropole of Strasbourg delimits a “Space contributing to ecological continuity”. In the sectors delimited as such, new constructions and installations are forbidden, as well as the extension of existing constructions, with the exception of operations planned in “reserved locations” (*emplacements réservés*), restoration or renaturation work on the natural environment, and paths and developments linked to the accessibility of the banks of watercourses²³.

Nevertheless, the protection of urban biodiversity is still far from being adequate in France. Among many obstacles to improve the situation, we can list the principle of independence of legislations between environmental law and urban law that basically prevents the administration from applying environmental requirements to urban authorizations except if they are incorporated in urban law. This results notably in the relatively weak legal scope of the green and blue infrastructure towards urban law.

Things may change for the better in the future: in the national strategy for biodiversity 2020-2030 – which is meant to implement the European one but is a non-binding document – one can note several objectives relevant albeit non-specific to the conservation of urban biodiversity²⁴. For instance, by 2030 50% of the priority “black spots”²⁵ identified by each region are eliminated (measure 2.2). Furthermore,

¹⁸ S. Jolivet, « De la survie des espèces menacées d’extinction à la lutte contre le déclin des populations. Réflexions sur l’efficacité du statut d’espèce protégée à partir du cas de la faune sauvage », *Revue juridique de l’environnement*, n° 1/2020, p. 101 (<https://hal.archives-ouvertes.fr/hal-03154399>).

¹⁹ Loi n° 2009-967 du 3 août 2009 de programmation relative à la mise en œuvre du Grenelle de l’environnement, JORF 5 août 2009, p. 13031.

²⁰ Loi n° 2010-788 du 12 juillet 2010 portant engagement national pour l’environnement, JORF 13 juillet 2010, p. 12905.

²¹ Environmental code, art. L. 371-1 and following.

²² See Ph. Clergeau et N. Blanc (dir.), *Trames vertes urbaines. De la recherche scientifique au projet urbain*, Le Moniteur, 2013.

²³ D. Gillig, « Le PLU : un outil de préservation et de reconquête de la nature en ville », *Construction – Urbanisme* n° 3, mars 2021, Etude 3, § 40.

²⁴ <https://www.ecologie.gouv.fr/strategie-nationale-biodiversite>

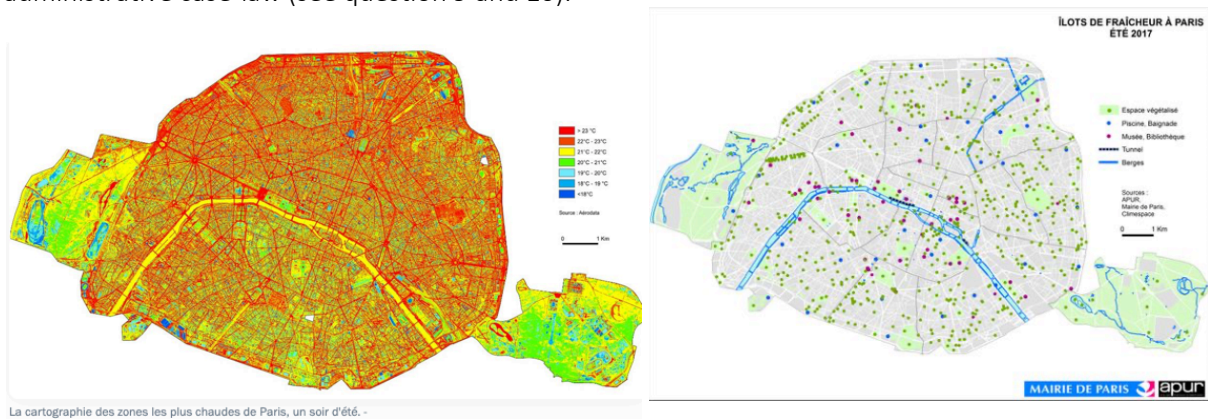
²⁵ A black spot is basically an obstacle to an ecological continuity.

a new “black infrastructure” is to be introduced in addition to the green and blue ones. It is designed to protect especially nocturnal species against light pollution and its effects on their health and behavior (measure 2.5).

8. How is the phenomenon of heat development in cities addressed in public policy and law in your jurisdiction? Is there any *analysis* of this problem by local, regional or national authorities?

The phenomenon of heat development in cities does not seem to have been fully addressed in national policies and law yet. For instance, the very phrase of “heat island” is absent in the Construction and housing code, the Urban code, the Environmental code as well as the Energy code²⁶. Yet, the law “climate and resilience” of August 22, 2021 has started to adopt provisions aiming at mitigate the impact of the phenomenon (without naming it specifically) at the national level. Among them, one can mention article L. 171-4 of the Construction and housing code and article L. 111-19-1 of the Urban code. The former states that some buildings designed for commercial, industrial or office activities must include a vegetation system based on a cultivation method (that uses drinking water only as a supplement to recuperated water), guaranteeing a high degree of thermal efficiency and insulation and promoting the preservation and recovery of biodiversity. The latter provides that parking lots over 500 square meters must integrate over at least half of their surface area surface coverings, hydraulic arrangements or vegetated devices promoting the permeability and infiltration of rainwater or its evaporation. These same parks must also integrate vegetated devices or shades contributing to the shading of said parks on at least half of their surface.

As a consequence of this only emergent national legal framework, the way in which the phenomenon of heat development is managed in urban areas is especially to be found at a local level but also in the administrative case-law (see question 9 and 10).



9. What *instruments* are in place in order to adequately handle heat management?

As there are almost no specific instruments to handle heat management, municipalities and intermunicipal associations may use general instruments provided by the Urban code. They are especially related to local urban plans and building permits. For instance, the local urban plan of Saint-Jacques-de-la-Lande – a municipality that belongs to Rennes metropolis – refers to the heat island effect in order to motivate the inconstructibility of a parcel within a “U zone” (urban zone where the principle is the possibility to construct new buildings)²⁷.

At the level of building permit issuing, the mayor or the president of the intermunicipal association may use a general provision that allows him / her to accept a project only subject to the observation of special prescriptions if, by its importance, its situation or its destination, it is likely to have “harmful

²⁶ See R. Vandermeeren, « Quand le juge administratif s’intéresse aux îlots de chaleur urbains », La semaine juridique administration et collectivités territoriales, 2022, commentaire 2280.

²⁷ See CAA (Administrative court of appeal) Nantes, June 21, 2022, n° 21NT02560, Rennes Métropole.

consequences for the environment” (Urban code, art. R. 151-26). The urban heat island effect seems to be part of the concept of harmful consequences for the environment²⁸.

10. Do the enhancement of biodiversity and/or issues of heat management legally have to be taken into account when it comes to (*infrastructure*) planning in the urban context? How are *conflicts of interest* (e.g. between densification or economic considerations and biodiversity or heat development) tackled?

As far as biodiversity issues have legally to be taken into account, see question 7 and our developments on the legal scope of the green and blue infrastructure. We may just add that beyond the question of hierarchical relationship between local urban plans and the ecological network planning, the preservation of ecological continuities is in any case an objective assigned as such to local urban planning documents (Urban code, art. L. 141-10 and L. 151-5). On the contrary, issues of heat management only have to be taken into account as part of general environmental issues, but not specifically so far.

Conflicts of interest are tackled by the administrative judge whenever there is a case-law. There are not many case-laws on these topics so far and it seems that the judge approach is very factual. The way in which he will conciliate biodiversity protection or heat management with other interests such as property right is rather unpredictable. Yet he is supposed to be guided by the proportionality principle and to be able to balance all the interests at stake. For instance, the administrative court of appeal of Bordeaux considers it possible to challenge the opening up to urbanization of a sector during the revision of a local urban plan for infringement of the preservation of a green infrastructure identified by a higher-level plan²⁹. By contrast, in a rare case regarding heat management, the administrative court of appeal of Nantes judges that is vitiated by a “manifest error of assessment” (*erreur manifeste d’appréciation*) a local urban plan that partially classifies a parcel as a non-constructible space in order to avoid the “urban canyon effect” likely to be caused by the densification of the surroundings of a traffic axis. It has not been established by the intermunicipal association that the constructibility of the parcel would favor the constitution of an “urban heat island”. The owner of the relevant parcel that challenged the local urban plan before the judge obtained its partial annulment³⁰.

11. Are there any best practices or interesting cases (lighthouse examples) to learn from available?

In the assessment of urban ecosystems ordered by the French government, the Lyon Metropolis is quoted as an example of best practice for heat management: “to help cool Garibaldi Street, which is subject to the heat island, winter rainwater is stored until the heat wave period to water the planted walkways and allow the large trees to act as a “natural urban air conditioner” (our translation)³¹. See also question 7 about the example of the Eurometropole of Strasbourg as far as biodiversity conservation is concerned.

III. URBAN DENSIFICATION

In order to reduce land-use for settlements, to provide for sufficient living space, to render transport systems more efficient, to reduce commuting distances, etc. urban densification aims at more compact settlement structures. This may often have positive effects on the functioning and organization of cities and communities and free space for conflicting uses of the soil (agriculture, nature protection zones, etc.). On the other hand, densification may further enhance the heat island effect in cities, it may have adverse consequences on the quality of life, reduce biodiversity and green spaces, etc. Thus, the balancing of the interests at stake as well as a skillful design of densification is of crucial importance for quality of life in cities.

²⁸ See CAA Paris, October 1, 2020, n° 19PA03846, Assoc. Atelier local d'urbanisme et développement de L'Hay-les-Roses et Patrimoine environnement.

²⁹ CAA Bordeaux, January 21, 2017, n° 14BX03698 : Revue juridique de l'environnement 2018, p. 377, chronicle J. Makowiak and I. Michallet.

³⁰ CAA Nantes, June 21, 2022, n° 21NT02560, Rennes Métropole.

³¹ EFESE, L'évaluation française des écosystèmes et des services écosystémiques. Les écosystèmes urbains, op.cit., p. 11.

12. Does urban densification represent a (legally established) goal of spatial planning in your jurisdiction? Are there any quantitative objectives when it comes to the standards of densification?

For quite a long time, notably since the law on solidarity and urban renewal of December 13, 2000, French law has been fighting against the phenomenon of urban sprawl. More recently, this fight has been included in a more comprehensive approach of the artificialisation of soils. It refers basically to “the process of transforming land from agricultural, natural or forestry use to allow urban development”³². To this respect, the law “climate and resilience” of August 22, 2021 could be considered as a landmark one. It introduces among the general objectives of urban law “The fight against soil artificialisation, with the objective of no net artificialisation in the long term” – *zéro artificialisation nette* (Urban code, art. L. 101-2 6° bis). Artificialisation is defined by the law as “the lasting alteration of all or part of the ecological functions of a soil, in particular its biological, hydric and climatic functions, as well as its agronomic potential by its occupation or use”; and no net artificialisation as “the balance of artificialisation and renaturation recorded over a given area and period” (Urban code, art. L. 101-2-1). Besides, the article 191 of the law provides that “In order to achieve the national objective of no net artificial land use by 2050, the rate of artificial land use in the ten years following the promulgation of this law must be such that, over this period, the total consumption of space observed on a national scale is less than half that observed over the ten years preceding this date. These objectives shall be applied in a differentiated and territorial manner, under the conditions set by the law.”

13. Through which means (urban planning; construction law, etc.) is densification fostered? Can these instruments be considered to be successful?

The first instrument to be targeted by the no net artificialisation loss objectives are local urban plans. They must include and specify at the territorial level the objectives of no net artificialisation loss set by the law at the national level. In practical terms, these documents “will have to set a trajectory to achieve the absence of any net artificialisation of the land, and a ten-year objective for reducing the rate of artificialization”³³. If local urban plans are not modified by 2027 to set these objectives, openness to the urbanization will be forbidden on relevant territories. In any case, the opening up of new areas for urbanization is limited. The local urban plan can only provide for the opening up to urbanization of natural, agricultural or forest areas by justifying, “by means of a study of the densification of already urbanized areas, that the capacity to develop and build is already mobilized in the urbanized areas” (C. urb., art. L. 151-5).

The existing instruments could hardly be considered to be successful even if it is still too early to assess the effects of the law “climate and resilience” of August 22, 2021. According to the impact assessment of this law, between 20,000 and 30,000 hectares of natural and agricultural areas disappear each year in France due to artificialisation. It is roughly the equivalence of one French department every ten years.

14. How are the potentially negative effects of densification (heat, noise, reduction of green spaces, etc.) addressed and balanced with regard to other interests in order to overcome the antithesis between greening and densification (“double inner development”)?

As urban law does not impose to achieve incompatible objectives in a same area, apparent contradictions may be classically overcome in a broader framework by using zoning techniques³⁴. They can be up to four in a local urban plan: urban zone (“zone U”), zone to be urbanized (“zone AU”), natural and forest zone (“zone N”), agricultural zone (“zone A”). Building permits must respect local urban plans and their zoning. Moreover, the law “climate and resilience” of August 22, 2021 introduces a new

³² H. Jacquot, F. Priet, M. Soazic, *Droit de l'urbanisme*, Précis Dalloz, 9^{ème} éd., 2022, § 2.

³³ L. Santoni, « Extension du domaine de la lutte : l'avènement de l'objectif ZAN », *Construction-Urbanisme*, October 2021, Etude 10, § 17. See also R. Noguellou, « La loi climat et résilience et le droit de l'urbanisme : le zéro artificialisation nette », *Actualité juridique droit administratif* 2022, p. 160.

³⁴ See H. Jacquot, F. Priet, M. Soazic, *Droit de l'urbanisme*, op.cit., § 50.

approach in balancing conflicting interests. Basically, it allows to compensate artificialisation of new soils by the renaturation of artificialised or degraded soils.

15. Do you have any *other thoughts* on densification and its implementation?

No

IV. CLIMATE PROTECTION

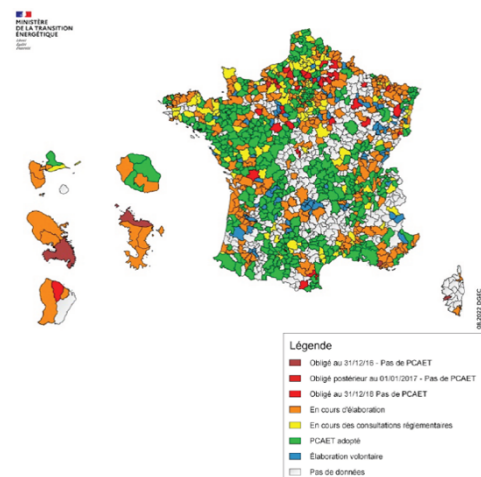
The 2010 Environmental Law (Grenelle 2) requires the adoption of a regional climate, air and energy plan. The regional prefect and the president of the regional council jointly draw up a draft regional climate, air and energy plan and then approved by the regional prefect. The Law 2015/991 related to a new territorial organisation of the Republic provide for the integration of such regional plan into a regional planning, sustainable development and territorial equality scheme (which merges several existing sectoral plans such the regional plan for land use planning and sustainable development, the regional waste prevention and management plan the regional intermodality scheme, the regional ecological consistency scheme).

The Grenelle environmental Laws also required for local authorities with more than 50 000 inhabitants to adopt a territorial climate-energy plan. The Law on energy transition (2015) created the territorial climat-air energy plan which succeed the territorial climate energy plan and refocused their governance on the intermunicipal level. Now, public authorities of intermunicipal cooperation (with their own tax status) with more 20 000 inhabitants also must adopt a **territorial climat-air energy plan** no later than 31/12/2018 (decree 2016/849).

16. Are there any overarching goals with regard to the reduction of CO₂ emissions (climate neutrality) to be found on the local (or regional) level? If yes, how have they been implemented and how do they relate to national objectives?

The State, local authorities and their respective public establishments (metropole, intercommunalités) take into account the low-carbon strategy in their planning and programming documents that have a significant impact on greenhouse gas emissions. The **regional climate, air and energy plan** is a strategic document which defines the main objectives and orientations in terms of reducing greenhouse gas emissions, controlling energy demand, renewable energies development, air quality and adaptation to climate change. Such regional plan sets the following targets for 2020 and 2050 and sets the guidelines for mitigating and adapting the effects of climate change in accordance with the commitment made by France to divide its greenhouse gas emissions by four between 1990 and 2050 and in accordance with the commitments made in the EU framework.

The **territorial climat-air energy plans** include a diagnosis, a territorial strategy, an action programme and a monitoring and assessment system. Since 2018, just over 70% of intercommunal public authorities with more than 50 000 inhabitants have adopted a **territorial climat-air energy plan** (Ademe)³⁵. The French Environment and Energy Management Agency (ADEME) is responsible for certifying territorial climate-energy plans based on a methodology defined at the European level. In its territorial climate-energy plan, the Grenoble metropole has planned to reduce greenhouse gas emissions by 50% and reduce energy consumption by 40% by 2030 (compared to 2005). The urban community of Dunkerque has planned (in its territorial climate-energy plan) to reduce green gas emissions by 40 % (1990) in 2030, increase the part of renewable energy by 30% in 2030, and to reduce the fossil energy



³⁵ No precise date related to intercommunal public authorities with more than 20 000 inhabitants which are obliged to have such territorial plan.

consumption by 40% (compared to 2012) in 2030 and the objective of industrial climate neutrality in 2050.

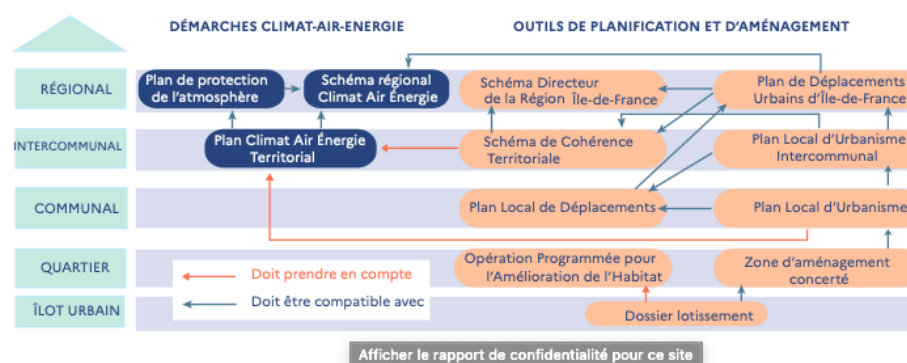
17. Is there a (binding) program/plan in order to implement the goal of climate neutrality?

Public authorities of intermunicipal cooperation (with their own tax status) with more 20 000 inhabitants also must adopt a **territorial climat-air energy plan** no later than 31/12/2018 (decree 2016/849). Below 20 000 inhabitants, voluntary territorial climat-air energy plan can be adopted (in this case, the inter-municipal local urban plans (PLUi) do not have any obligation to take such voluntary plan into account). Such plans must be subjected to an environmental assessment (Article R122-17 environmental code). They include a diagnosis, a territorial strategy, an action programme and a monitoring and assessment system. The diagnosis provides an estimate of the territory's emissions of greenhouse gases and atmospheric pollutants as well as an analysis of their potential reduction, an estimate of the net sequestration of carbon dioxide and its potential development; an analysis of the territory's final energy consumption and the potential for reduction, a statement of the production of renewable energies in the territory and an analysis of the territory's vulnerability to the effects of climate change (art. R 229-51 environmental code). They are updated every six years.

The territorial coherence scheme (SCoT) can take the place of a territorial climate air energy plan (ordonnance 2020/744). Local town planning plans and equivalent document have to be compatible with the territorial climate air energy plan.

The **regional climate, air and energy plans** analyse the situation and policies in the fields of climate, air and energy and prospect for their development by 2020 and 2050. They include : **an inventory of direct greenhouse gas emissions** for the residential, tertiary, industrial, agricultural, transport and waste sectors, an **analysis of the region's vulnerability to the effects of climate change**, which identifies the most vulnerable territories and sectors of activity and defines the adaptation challenges they will have to face; an **inventory of the main emissions of atmospheric pollutants**, distinguishing for each pollutant under consideration the different categories of sources, as well as an estimate of the evolution of these emissions; an **assessment of air quality**; An **energy balance** presenting the final energy consumption of the residential, tertiary, industrial, agricultural, transport and energy sectors and the state of production of terrestrial and recovered renewable energies; an assessment, for the residential, tertiary, industrial, agricultural, transport and waste sectors, of the **potential for energy savings**, improvements in energy efficiency and demand management. The implementation of regional climate air energy plan is evaluated every 6 years.

According to several observers, the consolidation of all these plans is very difficult and does not make it possible to know whether we are on the right trajectory to achieve the UE objective (Fit to 55) in 2030 and the promised carbon neutrality in 2050. Furthermore, the obligation to draw up such territorial plans has not been accompanied by a sufficient financial transfer from the State to local level without forgetting the complex articulation of different levels of decision-making.



18. Can you name some specific measures of local policy (outside the fields of transportation and green spaces) that aim at reducing emissions on the local level (e.g. heat supply for housing, measures for thermal insulation of buildings, incentives for businesses/industry, etc.)?

The building sector is an essential lever for the decarbonization of cities. Building sector accounts for 36% of the EU' emissions and 40% of final energy consumption.

A support service for the energy renovation of private housing is often included in the actions of **territorial climat-air energy plan**.

Among various local initiatives, the Grenoble metropolitan authority is a majority shareholder of the Grenoble local energy and climate agency (constituted in 2020 as a local public company in order to establish contractual relations with the sharing holding local authorities outside the obligations of competitive bidding). Such agency assists citizens in renovating their home with advices and information on financial aids. In Dunkerque agglomeration, the renovation of the housing stocks is a major challenge and a large part of the population is in a situation of energy insecurity. In order to promote energy renovation of housing stock, a fund "concoeurs renovation énergétique" is allocated to the municipalities and an "Eco Habitat plan" is also adopted by the agglomeration. The territorial climate air energy of Lorient agglomeration (Brittany) plans to renovate the entire housing stock by 2050 (3000 housing renovation by year). The energy sobriety was the principle guide of the process of revision of the local housing plan and Lorient agglomeration is committed to providing financial support for the energy renovation of 350 social housing units per year³⁶.

The integration of environmental criteria applicable to construction and renovation in urban planning documents is also a way to act on greenhouse gas emissions from housing.

³⁶ Report Intercommunalités de France, Plan climat air énergie territorial : comment en faire la feuille de route pour une transition énergétique du territoire, 2022.