



*Liberté
Égalité
Fraternité*

Sustainable Planning Guide



The first part of the paper discusses the importance of understanding the cultural context of the research. It highlights the need for researchers to be sensitive to the values and beliefs of the communities they are studying. This is particularly important in the field of education, where cultural differences can significantly impact learning outcomes.

The second part of the paper focuses on the methodology used in the study. It describes the process of selecting participants, collecting data, and analyzing the results. The authors emphasize the importance of using a mixed-methods approach to gain a comprehensive understanding of the research topic.

The third part of the paper presents the findings of the study. It discusses the results of the quantitative data analysis and the insights gained from the qualitative interviews. The authors conclude that there are significant differences in learning outcomes between the two groups, and these differences can be attributed to cultural factors.

The final part of the paper offers recommendations for future research and practice. It suggests that educators should be aware of the cultural context of their students and tailor their teaching methods accordingly. Additionally, it calls for further research to explore the underlying reasons for the observed differences.

Sustainable planning guide, for regions that are energy- efficient, resilient, inclusive and creators of value

The goal of this guide is to support players from all regions in rolling out their urban planning projects in line with the great challenges related to the sustainable city: sobriety in the use of resources and energy, resilience particularly in the face of climate change, inclusion and creating value in the regions.

This guide is in keeping with the principles of the new Leipzig Charter that was adopted in 2020 by the European ministries involved in urban development, to provide a better response to global challenges such as climate change, the loss of biodiversity, pandemics and the scarcity of resources, and make suggestions for operational action to take on a local level.

It serves as both a reference framework and methodological guide to adopting an integrated approach to sustainable planning, by guiding the choices of policy-makers so that solutions can be found in keeping with the specific context of each region.

It provides practical information to assist in designing sustainable territories and taking concrete measures to improve the quality of life for inhabitants and users.

It has been designed in keeping with the Eco-District initiative frame of reference - which has been providing the guidelines in terms of design, manufacture and sustainable development of districts since 2009 - and the sustainable development goals of Agenda 2030. In this guide, there are four main sections (approach and procedure, living conditions and uses, territorial development, environment and climate) and 20 commitments which incorporate new public policy priorities, including the 'zero net land take' goal from the 'Climate & Resilience Act', the 'RE 2020' environmental regulation, and changes in the social diversity goals under the 'Urban Solidarity and Renewal' law.

This guide has been drawn up with consistency in mind regarding other existing standards, certifications and labels, to ensure they are fostering the same values.

To facilitate the effective implementation of the United Nations (UN) Sustainable Development Goals (SDG), a comparative analysis has been made between these goals and the 20 commitments in this guide.

This guide is intended for all sustainable planning project leaders, whether they are involved in the Eco-District initiative or not. It is the result of a collective effort from historic partners of the Eco-District initiative, all directorates of the ministry, and representatives from decentralised services, local authorities and planning agencies. It will be updated regularly by a scientific committee working with the 'France Ville Durable' (Sustainable City by France) association.

We hope that this guide will serve as a source of inspiration to accompany you in rolling out an urban planning project that addresses the challenges of the sustainable city!

Jean-Baptiste Butlen

Deputy Director for Sustainable Planning - AD
Directorate of Housing, Urban Planning
and Landscape - DHUP
Directorate-General for Planning,
Housing and Nature - DGALN

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Guidelines

This sustainable planning guide provides the recommendations and questions to consider for each notion addressed within the 20 commitments. It also explains how these commitments coordinate with the 17 sustainable development goals introduced by the United Nations. Each section has been designed to be as instructive as possible.

COMMITMENT

Each dimension comprises 5 commitments.

NOTION

This details the commitment via several sub-topics.

RECOMMENDATIONS

The main recommendations are highlighted.

DETAILS

The details help to better understand the issues at stake for each notion, and set out the related recommendations.

DEFINITIONS

Terms in bold can be found in the definitions section at the end of the document.

QUESTIONS

Their purpose is to guide you in implementing the recommendations.

Commitment 2

Implement adapted governance and guidance

Notion 2.1 Guide the project over the long-term

RECOMMENDATIONS

- Identify a key representative and a project manager.
- Encourage the continuity of the project by setting milestones (while remaining flexible) in the event of changes in management, to avoid creating any doubt.
- Create one or more steering bodies and cross-sectoral and multidisciplinary governing bodies that include the **stakeholders**, particularly local authorities, civil society, social players and economic players.

The guidance and governance of a project require the coordination of actors and expertises, whether they are professionals or citizens, and they are consulted in the decision-making process. Local authorities are responsible for establishing a system of stakeholders for a project, bearing in mind that they are subject to change and could differ in configuration depending on the various phases. An official steering and governing body allows the project leader to put all stakeholders into contact with one another, respond to all the needs they have expressed, and make the decision-making process a more reactive one. Organising this system of stakeholders requires:

- the different stakeholders (people, groups, organisations that are/will be directly or likely to be concerned by the project) to be identified: technical services assigned to the project and from different local authorities, partner institutions, economic players (planners, developers, companies, service providers, etc.), civil society (citizens and associations), etc.;
- the way in which they will be involved in the process of setting up the project (who they are representing, which roles they will take on, when, in which fields, how, etc.) to be defined;
- the continuity of the project to be encouraged by setting milestones in the event of changes in management to avoid any doubts.

It is essential to appoint a key representative to take on any political engagements, as well as an operational project manager, to be able to ensure the political and technical governance and guidance of a project. This can be implemented in various ways depending on the local financial and human resources available: a project team, organisation between services, the use of a support team for the project owner, ensuring the different services cooperate effectively, organisation and delegation between the town and the **Public Intercommunal Cooperation Establishment (EPIC)**, organisation of decision-making bodies, technical monitoring bodies, etc.

Using different working means with various stakeholders can make it easier to adopt a cross-sectoral approach, ensure project coherence, and involve the various stakeholders throughout the project: comprehensive schedule for citizen participation, multiannual investment schedule, procedure for monitoring deadlines, setting up workshops, meetings on specific topics, brainstorming, etc.

Formalising all the steps involved in drawing up the programme schedule means the stakeholders will be made aware of the various management methods and different steps of project decision-making.

QUESTIONS TO CONSIDER

How is the governance and political and technical guidance for the project organised? How is this formalised (using what means and with whom)?

How is the continuity of the project ensured in the event of a change in governance?

Which working means (methods and tools) are made available for all those concerned, to encourage a cross-sectoral approach and overall coherence of the project, and to ensure the monitoring thereof?

Does the governance used allow for the identification of all interested parties, of the talent required for the project, their roles and responsibilities, as well as the organisation of their involvement and the development of their skills (awareness, training, etc.)?

What resources (financial, human, technological and operational) have been identified for the implementation, monitoring and improvement of the management system?



SUSTAINABLE DEVELOPMENT GOALS

This section indicates which SDGs are related to the notion. A summary table at the end of the document compares the commitments with the SDGs, for each notion.

Dimension 1

APPROACH AND PROCEDURE



1 Design a project that takes into consideration the needs of everyone and the defining features of the region



2 Implement adapted governance and guidance



3 Involve inhabitants and users



4 Develop an overall cost approach



5 Evaluate, assess the impact and always seek improvement

Dimension 2

LIVING CONDITIONS AND USES



6 (Re)design the district with existing features



7 Encourage community spirit, solidarity and inclusion



8 Ensure living conditions are favourable for health and well-being



9 Design a quality project in urban, landscape and architectural terms



10 Showcase heritage, history and identity for a site and its population

Dimension 3

TERRITORIAL DEVELOPMENT



11 Contribute to an economic transition that is regenerative, social and solidarity-based



12 Encourage proximity and diversity of functions



13 Optimise the use of resources and develop local sectors and short cycles



14 Encourage sustainable and active mobility solutions



15 Ensure a responsible digital transition in keeping with sustainable planning

Dimension 4

ENVIRONMENT AND CLIMATE



16 Strengthen resilience in the face of climate change and hazards



17 Contribution to climate change mitigation, encourage energy sobriety and the use of renewable energy



18 Avoid, reduce, recycle, reuse waste



19 Safeguard, manage and restore water supplies



20 Safeguard and restore soils, biodiversity, and natural habitats

APPROACH AND PROCEDURE

- 1** Design a project that takes into consideration the needs of everyone and the defining features of the region
- 2** Implement adapted governance and guidance
- 3** Involve inhabitants and users
- 4** Develop an overall cost approach
- 5** Evaluate, assess the impact and always seek improvement



Sustainable planning is a major challenge for our society as it has a direct impact on the quality of life for the population, on the environment and on economic and social development. To satisfy everyone's needs in keeping with the resources and constraints of the region, it is necessary to set up a mutual system of governance. This involves mobilising a diverse range of players and stakeholders to make informed and responsible decisions regarding sustainable planning.

It involves public authorities, economic players, associations and citizens all working closely together. This guarantees that the interests of everyone are taken into account in equal measure and ensures the longevity of the project.

That is why a participatory approach is implemented, getting inhabitants and users involved in the decision-making process.

This process also needs to develop an overall cost approach to be able to assess the financial feasibility of the project and take into consideration the social, economic and environmental impacts, with continuous improvement in mind as well as adapting to the needs of the various stakeholders.



Commitment 1

Design a project that takes into consideration the needs of everyone and the defining features of the region

Notion 1.1 Know one's region

✓ RECOMMENDATIONS

- Carry out a **territorial assessment** (including a vulnerability assessment) to ensure the project satisfies the needs of everyone and takes into consideration the resources and constraints of the region: strengths and weaknesses, opportunities, social, economic, environmental issues, expectations and needs of the population, etc.
- Identify the player/resources of a territory, the project **stakeholders**: inhabitants, users, civil society (associations, community organisations, etc.), economic, social and cultural players and public authorities, networks of players from territorial planning, landscape, urban planning, architecture, safeguarding natural heritage, etc.
- Assess the scalability and reversibility possibilities of certain developments/buildings included in the project.

First step of a sustainable planning project prior to launching the project is to carry out a specific assessment of the region to identify the resources and constraints of the area and the needs of its users (current and/or future). As part of this assessment, it is necessary to consider factors from outside the area concerned by the planning project, and also to cross-reference all possible social, economic and environmental factors. This involves analysing territorial characteristics, using a **systemic approach** based on **urban metabolism** by producing a model of the flows, **hazards** and distinguishing the phenomena.

The territorial assessment is a chance to study the scalability and reversibility possibilities of certain developments and buildings.

From the assessment phase, it is recommended to identify all stakeholders so that the information from this assessment can be shared with them. This course of action will make it easier to get them involved throughout the duration of the project.

Specific support initiatives can be used to introduce local authorities, technicians, administrators, inhabitants and users to the approach used for consultation and participatory dialogue.

The initial assessment will also be used as the baseline status and will be useful for the project evaluation.

QUESTIONS TO CONSIDER

For assessment purposes, how does the project take into consideration the complementarity and dynamics of the various scales and components that make up the region?

Which project stakeholders should be called upon? Inhabitants, socio-economic players, administrators, etc.?

What means will be made available for sharing information with stakeholders and collecting information about them and their expectations?





Notion 1.2 Identify and rank the issues and set strategic goals

✓ RECOMMENDATIONS

• Define the issues that should take priority for the project, in keeping with territorial strategy beyond the local scale, to identify territorial complementarity and solidarity (including what the project brings to the territory).

• With the **territorial assessment**, it is then possible to set the goals of the project in line with sustainable development, and establish qualitative and quantitative strategic goals to deal with the issues that have been identified as priorities.

Carrying out a territorial assessment determines the needs and issues a territory has to face and then sort into order of priority before defining the project's primary goals. These goals must be in keeping with the territorial strategy, particularly policy related to limiting **land take**. They should also address the strategic challenges shared with **stakeholders** and include the political goals of the project.

Two perimeters should be clearly defined: the area of consideration (wider) and the area concerned with the action to be taken in line with the project. A wider area of consideration means that the project's territorial complementarity and solidarity can be identified. At project level, it is necessary to keep a close eye on maintaining a balance with neighbouring districts in terms of available units for housing, businesses, facilities and services.

The project can also support the territorial strategy via strong sustainable development ambitions and can therefore act as a driver to transform the expanded territory.

Once these steps have been accomplished, the goals for the proposed planning can be clearly defined, as can the objectives and issues to tackle as a priority.

QUESTIONS TO CONSIDER

What are the key issues to consider in the project in view of the constraints and resources of the territory (especially in terms of landscape)?

What are the primary goals of the project? Can they be organised in order of priority? How do stakeholders play a part in defining these goals?

How do the project's primary goals fit in with the territorial strategy?

How can we analyse the potential for functional and residential diversity within the district? How can this be associated with the territorial project?





Notion 1.3 Establish an adapted and shared programme

✓ RECOMMENDATIONS

- In operational terms, organise the primary strategic goals of the project, including the needs in terms of housing, facilities, infrastructure, commercial units, transport and preservation of land.
- Involve **stakeholders** and call upon the skills and expertise needed at each step of the programming procedure.

Drawing up the programme schedule is based on the assessment and the definition of primary goals which identified the needs of inhabitants and users and organised the responses required in order of priority. This requires an integrated and evolving approach to the project so that it can be adjusted in accordance with the social, economic, political, regulatory or environmental context.

The appropriate urban programming in line with the goals defined based on the initial assessment and after consulting with everyone involved in the project should allow the following:

- to determine scheduling needs;
- to prepare the operational (economy, phasing, financial arrangements, etc.) and spatial elements of the project;
- to ensure coherence between the needs of the territory and the response provided in terms of residential and functional diversity;
- to include and programme participation/involvement initiatives for stakeholders in the overall schedule for the project.

Contrasted scenarios could be useful when drawing up the programme schedule. Project leaders will therefore find it easier to make informed choices.

QUESTIONS TO CONSIDER

How does the programme help organise - in operational terms - (schedule, people responsible for each action, resources - procedures, tools, skills, financing) the primary goals of the project for each field of action to be addressed?

How are the needs and expectations of users, inhabitants, administrators and socio-economic players identified in the initial assessment integrated into the programme?

How can the collaboration phases for inhabitants and users be included in the overall programme schedule?

What are the available means to identify and adjust the programme schedule in accordance with the evolution of the social, economic, political, regulatory or environmental context?



Les Noés Eco-Village

Val-de-Reuil, Eure, Normandy



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Les Noés Eco-Village is on the edge of the Eure river, very close to the train station. It is a programme of 98 social housing units (60 collective accommodation units and 38 individual houses), public services and facilities (municipal daycare centre, indoor market, shared allotments, orchard and chicken coops), spread across three hamlets in a 4.6-hectare district, including 1.5 hectares of protected green spaces (flood expansion zone). The environmental element is highly developed in this project and value is added to both the constraints and assets of the site: passive buildings, wood-fired heating system with annual assessment per housing unit, annual monitoring of wildlife, traffic report, etc. The flood and rainwater management system was proven effective in 2018 and the project was given a number of awards. There have been numerous initiatives to encourage social integration and local channels, especially with regards organic market gardening and the local provision of wood to be used for heating.

The town had two key courses of action: to finalise the construction of the Les Noés district as planning had been suspended when the PPRi (Flood Risk Prevention Plan) was being drawn up, and to replace intensive farming present on the outskirts of the town, with methods that are more respectful of the environment (farming, leisure, pathways). This operation was based on multiple assessments (urban and social, needs of the town and its population, means of transport and becoming less dependent on cars), and it became the driver of a new means of development in the various towns and villages in this French department, and increased awareness with the public. The Eco-District offers a new way of living, one that draws from past experience of community life and is accessible to young households and modest incomes, therefore eradicating the demographic deficit. The outcome is a district that is environmentally friendly, blends into its surroundings, and creates peaceful and adapted urban developments that can accommodate floods from the banks of the river Eure. Finally, the programme also managed to adapt to the evolving context, by taking into consideration all the comments and feedback from those concerned.

Local context **District**

Type of project **Controlled extension**

Surface area (ha) **4.6**

Surface area of green spaces (ha) **3.1 including 1.5 landscaped park**

Number of inhabitants capacity **311**

Number of housing units **98**

Of these housing units, number of social housing units **98**

Date work began / Year of completion **2007-2016**

EQ label **Step 4**

Year label was awarded **2022**

THOSE INVOLVED IN THE PROJECT

Project Owner **Town of Val-de-Reuil, SILOGE**

Project Manager **Philippe Madec, S'pace Environnement, Arc en Terre**

Partners **ADEME, Caisse des Dépôts et Consignations (Deposits and Consignments Fund), CAUE, DDTM (Department for Land and Coastal Management), ERDF, Habitat Coopératif de Normandie, Habitat et Territoires Conseil, LPO, YSOS-Les Jardins de Neustrie, WWF**

Commitment 2

Implement adapted governance and guidance

Notion 2.1 Guide the project over the long-term

✓ RECOMMENDATIONS

- Identify a key representative and a project manager.
- Encourage the continuity of the project by setting milestones (while remaining flexible) in the event of changes in management, to avoid creating any doubt.
- Create one or more steering bodies and cross-sectoral and multidisciplinary governing bodies that include the **stakeholders**, particularly local authorities, civil society, social players and economic players.

The guidance and governance of a project require the coordination of actors and expertises, whether they are professionals or citizens, and they are consulted in the decision-making process. Local authorities are responsible for establishing a system of stakeholders for a project, bearing in mind that they are subject to change and could differ in configuration depending on the various phases. An official steering and governing body allows the project leader to put all stakeholders into contact with one another, respond to all the needs they have expressed, and make the decision-making process a more reactive one. Organising this system of stakeholders requires:

- the different stakeholders (people, groups, organisations that are/will be directly or likely to be concerned by the project) to be identified: technical services assigned to the project and from different local authorities, partner institutions, economic players (planners, developers, companies, service providers, etc.), civil society (citizens and associations), etc.;
- the way in which they will be involved in the process of setting up the project (who they are representing, which roles they will take on, when, in which fields, how, etc.) to be defined;
- the continuity of the project to be encouraged by setting milestones in the event of changes in management to avoid any doubts.

It is essential to appoint a key representative to take on any political engagements, as well as an operational project manager, to be able to ensure the political and technical governance and guidance of a project. This can be implemented in various ways depending on the local financial and human resources available: a project team, organisation between services, the use of a support team for the project owner, ensuring the different services cooperate effectively, organisation and delegation between the town and the Public Intercommunal Cooperation Establishment (EPCI), organisation of decision-making bodies, technical monitoring bodies, etc.

Using different working means with various stakeholders can make it easier to adopt a cross-sectoral approach, ensure project coherence, and involve the various stakeholders throughout the project: comprehensive schedule for citizen participation, multiannual investment schedule, procedure for monitoring deadlines, setting up workshops, meetings on specific topics, brainstorming, etc.

Formalising all the steps involved in drawing up the programme schedule means the stakeholders will be made aware of the various management methods and different steps of project decision-making.

QUESTIONS TO CONSIDER

How is the governance and political and technical guidance for the project organised? How is this formalised (using what means and with whom)?

How is the continuity of the project ensured in the event of a change in governance?

Which working means (methods and tools) are made available for all those concerned, to encourage a cross-sectoral approach and overall coherence of the project, and to ensure the monitoring thereof?

Does the governance used allow for the identification of all interested parties, of the talent required for the project, their roles and responsibilities, as well as the organisation of their involvement and the development of their skills (awareness, training, etc.)?

What resources (financial, human, technological and operational) have been identified for the implementation, monitoring and improvement of the management system?





Notion 2.2 Anticipate project management during each phase and after delivery

✓ RECOMMENDATIONS

- In the earliest phase, identify the managing parties (public services, companies, partners, etc.).
- Decide on the level of participation and interaction of these parties, for each phase.
- Propose project monitoring and improvement tools.
- Anticipate the project management completed by the different stakeholders involved by defining the role of each player, for each phase.
- Anticipate minimal nuisances during the course of the project.

To ensure an adapted response with regards uses, both in terms of management practices and suitability of the areas for inhabitants and users, it is necessary to anticipate project management during all phases and after delivery.

This involves the identification of managing parties (public services, companies, partners, etc.) in the earliest phase, and the definition of the level of participation and interaction of these parties, for each phase.

Once the project has been defined, introducing a management plan allows to identify and structure the conditions for maintenance and management to ensure the durability of the project over the long-term. Participatory and motivational initiatives could be proposed for users and future residents.

The implementation phase may take place over a long period and could affect everyday use by generating nuisances (suspended routes, noise, dust, unavailable public areas, etc.). This period not only requires inhabitants, users and managers of the future project to be fully informed, but it is also necessary to be aware of their requests so that temporary solutions can be provided.

Proposing and encouraging temporary projects on unused land (**temporary use urbanism**) is a way to support the changes in practices and to manage transitions in the local areas. Temporary actions such as pre-greening also help to prepare for the project phases.

There are various ways to ensure management over the long-term, such as implementing a management plan that is adapted to the context of the district, or a General Urban Plan (GUP). It is possible to ask the project owners to draw up management plans for outdoor spaces in the design phase, to adapt the project to the maintenance methods of local authorities or property owners. Inhabitants and users of the project perimeter can be given opportunities to participate in support measures for change after delivery, in partnership with neighbouring districts, to ensure the suitability of the facilities and collect feedback from inhabitants, users and managers.

QUESTIONS TO CONSIDER

To what extent is the project capable of satisfying the intended uses and adapting to any new uses that could arise?

How does the project take into consideration the practices and constraints of inhabitants, users and managers, in the design of public spaces, buildings and services?

What has been implemented in the earliest phase to ensure the management of the planning project over the long-term?

How have the management and limitation of nuisances in the construction phase been anticipated?

In the construction phase, after delivery and over the long-term, what support measures for change have been provided, and how is feedback collected from inhabitants, users and managers?



Vidailhan

Balma, Haute-Garonne, Occitanie

Local context **Suburbs**

Type of project **Controlled extension**

Surface area (ha) **31**

Surface area of green spaces (ha) **10**

Number of inhabitants capacity **2,900**

Number of housing units **1,294**

Of these housing units, number of social housing units **405**

Date work began / Year of completion **2004-2010**

EQ label **Step 3**

Year label was awarded **2014**

THOSE INVOLVED IN THE PROJECT

Project Owner **Toulouse Métropole**
(appointed project owner: **SEM Oppidea**), town of Balma

Project Manager **A&P DUMONS**
(urban planner) **Groupe KAP Architects & Planners, Droit de Cité, Mutabilis Paysage, Tisséo**

Partners **ADEME, ARPE, AUAT, HLM**
(organisation), private developers

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The Vidailhan Eco-District is in the urban periphery of Toulouse, on the east side, next to a metro stop and other public transport networks. The programme for this district is led by the urban community, in partnership with the commune. The district is of reasonable density and is pleasantly dotted with widely spread public spaces and smaller, more intimate areas. It is a mixed-use housing district, that provides both functional and social diversity. There is a park at the centre of the district which plays the role of green lung and also helps encourage social interaction.

The comitology procedure set up for this Eco-District is a strength for the project, from the design phase to implementation, and it ensures the involvement of all stakeholders: a decision-making steering committee, a technical committee including the various services of the urban community, a coordination committee between the town and the urban community, and a working group of residents, associations and local authorities to set the goals of the Eco-District and monitor the project throughout the whole duration. In 2011, the 'Maison de Balma Gramont' was opened to provide a community venue for various events, film and documentary screenings. In 2012, the future inhabitants created the 'Vivir à Vidailhan' association, firstly to organise events, discussion groups and set up a website, and also to act as the new official body to make proposals for the urban project in terms of the proposed solutions or changes in direction, that are then submitted to the monitoring committee. The partners and developers have also been involved so that they are fully aware of the values embodied in the project.

Commitment 3

Involve inhabitants and users



Notion 3.1 Encourage citizen involvement

✓ RECOMMENDATIONS

- Raise awareness, encourage involvement and empower all **stakeholders** including inhabitants and users, by defining a strategy for their involvement in the earliest stage: who is involved, when and in which parts of the project.

- Aim for diversity among the citizens involved.

Citizen involvement throughout the duration of the project helps to anticipate management and makes it more effective. It ensures appropriation of the urban developments and ensures they are adapted to uses, while giving local democracy a boost. The stakeholders involved include residents, current or future inhabitants of the district, the commune, inter-municipal organisations, members of local councils, citizen advisory boards, associations, students, users, economic players, shop owners, mediation professionals, change management, workers, the retired, youth, etc.

There is no set way to encourage citizen involvement, this has to be adapted to each context. To encourage this involvement, the following should be prepared beforehand:

- a clear framework for citizen participation and ensure its continuity: object, governance, role of citizens in the procedure, room for manoeuvre, rendering of accounts;
- a set of common guidelines to share intentions and the participatory procedure.

The Ministry's charter for public participation sets out the moral values and principles that should all be taken into consideration to ensure a well-calibrated participatory system:

- adapt to the public being addressed: vocabulary and posture of the project leader;
- ensure the right means are available: time, structure of the participation, adapted tools, childcare solutions, compensation if needed;
- aim for diversity by integrating different people, to represent the reality of the territory: if no specific effort is made, it's always the same people who step up. Go and meet the inhabitants at popular public places such as train stations, schools, markets, etc.;
- having access to a guarantee mechanism ensures better quality dialogue and encourages trust between participants (Local Development Council for example);
- make sure viewpoints are all dealt with equally;
- giving inhabitants, users and civil society feedback is also crucial to ensure they continue to stay involved.

QUESTIONS TO CONSIDER

How does the project intend on identifying the future beneficiaries and users in the early stage? Then how will they be informed, consulted and involved in the planning choices in the project design phase?

What are the expected outcomes from this involvement of inhabitants, users and civil society? How will these be identified and shared?

Which official bodies are the inhabitants, users and civil society involved in? What means are implemented for civil society and citizens? Workshops, public meetings, cultural events, festive events, online forums?

How can the inhabitants who are not used to using participatory tools be included in the process?

How will citizens' contributions in the early dialogue stages and then later feedback for citizens be formalised?





Notion 3.2 Take into consideration the propositions from participatory structures

✓ RECOMMENDATIONS

- Design the project with those who live there, work there, have a role to play there.
- Create a project narrative with inhabitants and users, focused on the site's landscape features, its history and its representations.

There are numerous **positive externalities** of citizen participation: project legitimacy and resistance, involvement of inhabitants and users, increased trust between parties.

However, the project leader will need to create the optimal conditions for citizen involvement (see notion 3.1) and demonstrate the sincerity behind this by taking concrete action to include the propositions from participatory structures. These structures must be diverse, numerous and the propositions must be put forward with a clear rendering of accounts detailing what has been selected and what has not. The project leader must also implement the selected propositions together with the project owner, provide the financial means to roll out these propositions and allow citizens to play a role within governing bodies.

Creating a project narrative can be an effective way to boost the link between the project leader and its beneficiaries, and a call for tender could be a perfect way to call upon the creativity of citizens to take charge of this project narrative (exhibition, street art, creation of a visual identity that would then be seen in public areas used for getting around, bearings, etc.). All of this can strengthen the feeling of belonging and therefore create the feeling that this is a project shared by all.

QUESTIONS TO CONSIDER

Does the proposed framework for citizen participation comply with the charter for public participation (guidelines)?

What sort of formalising procedure will be used to clarify which of the citizen propositions have been selected?

How are spontaneous initiatives from civil society taken into account and supported?

What systems/means are made available to create a project narrative as a partnership with inhabitants and users?





Notion 3.3 Support efforts over the long term

✓ RECOMMENDATIONS

• Implement tools, initiatives, workshops, support for inhabitants and users to ensure their involvement over the long term (project participatory site, online

surveys in addition to workshops, booklets for inhabitants, educational schemes and training, etc.).

The available tools cannot be the only way to ensure citizens remain involved over the long term. They will help of course but they are not enough. Ensuring long-term involvement could be determined by the following:

- Giving citizens the power to act:
 - in terms of governance, with a mirror committee that will tackle the same questions as the project owner, at the same time;
 - in the form of citizen initiatives, to encourage a more committed role.
- Encouraging and supporting the exercise of citizenship by:
 - training citizens: possibilities of taking on roles in the district; how to create a project, lead it, make a speech, the different types of citizen engagement (worker cooperative, etc.);
 - a project owner that always includes participation and values the contributions;
- Allow for areas to create a project narrative and display the evolution of the project: exhibitions or other initiatives that encourage inhabitants to be creative (wall paintings, street art, etc.):
 - set up regular communication in the form of newsletters;
 - alongside the project owner, provide adapted means for a participatory structure that is dedicated to its implementation and monitoring. This can take place within the project management team or be appointed to a community organisation (ambassadors or citizens council).

QUESTIONS TO CONSIDER

How can beneficiaries and users get involved as early as possible to ensure they have a role at the core of the project, are involved in the key issues and stages and really feel that they are **stakeholders**?

How can beneficiaries and users (present or future) be supported during the work and delivery phases, to guarantee appropriation of the district, the effective use of new services and uses and that the expected behaviour is adopted to reach the performance goals of the district?

What sort of governance is implemented at local level to guarantee the involvement of the interested parties throughout the duration of the project (a service devoted to citizen participation that is in constant dialogue with other services for example)?

What is proposed in terms of an evaluation process, to collect feedback from inhabitants, users and administrators during the work phase, after delivery and over the long term?



La Courrouze

Rennes/Saint-Jacques de la Lande, Ille-et-Vilaine, Brittany

Local context **Reconversion - Wasteland**

Type of project **Urban renewal**

Surface area (ha) **115**

Surface area of green spaces (ha) **40**

Number of inhabitants capacity **11,000**

Number of housing units **5,300**

Of these housing units, number of social housing units **1,600**

Date work began / Year of completion **2003-2028**

EQ label **Step 3**

Year label was awarded **2022**

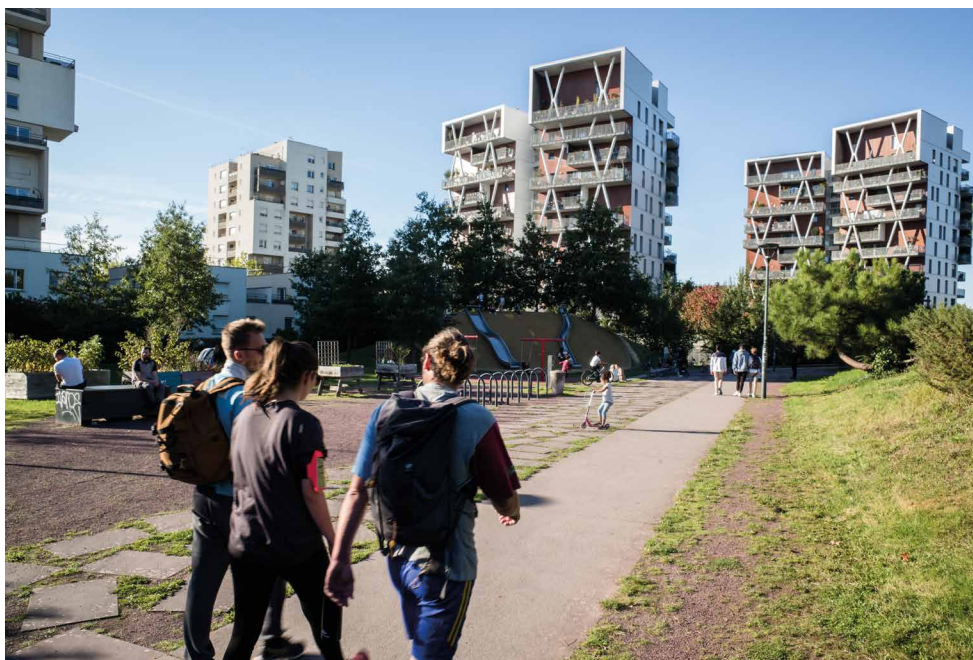
THOSE INVOLVED IN THE PROJECT

Project Owner **SEM Territoires & Développement**

Project Manager **Studio Paola Vigano (urban planner), Charles Dard (landscaper), ORA (technical design office)**

Partners **AUDIAR, IAUR, Collectif Courrouze AA (Antipode, Courrouz'if, Aire Libre, A l'Envers), Teenage Kicks, Ilta Studio, Cuesta, Gogle, Les Animé.e.s, Théâtre à l'envers (remembrance trail: Adrien Lecoursonnais and Jacques Ligot), Collectif Tempête, Unis-Cité, Vert le Jardin, Lost & Find, Terlieux, Université de Rennes 2, Asso des Cartoucheries, Electroni[K], Bruit du Frigo**

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The La Courrouze Eco-District is a vast 115-hectare site with a very favourable geographic location (intra-rocade) close to the town centre of Rennes and to Saint-Jacques-de-la-Lande. It is the last large-scale opportunity for these two towns. The ZAC (designated development zone) has been designed to combine a diverse range of urban shapes, to create social diversity and provide for a diverse range of functions, while respecting and safeguarding the natural environment (green belt, inhabited woods) and local heritage (preserved historic traces and buildings) thanks to the meticulously designed project layout. This long-term and ambitious project began in 2003 and will be completed in 2028. It has been created in line with sustainable development and urban renewal by rebuilding the town on itself. The urban planning is perfectly in keeping with the Rennes Métropole land cover policy, and contributes to limiting urban sprawling by reusing a site that was once occupied by activities that could sometimes be harmful to the environment and meant significant work had to be done to restore the soil. The goal of the new district is to breathe life back into a 'piece of the town' by creating a programme that combines both housing and business (encouraging active mobility), while still allocating space for certain administrations of the national defence sector.

Throughout the duration of the project, various means were used to involve inhabitants and users: creation of a 'fabrique de quartier' community initiative from the beginning of the project, in collaboration with local partners, 'win land' situational phases with challenges, videos and time for collective building for all, or creation of the position of mediator at the reception building, a place for all the inhabitants of the district to get together. This cooperation helped create a permanent dialogue with future inhabitants, as well as with the users and administrators of the site. The goal was to gain an understanding of everyone's needs, to anticipate how the district needed to operate, taking satisfaction indicators into account. This collaborative approach therefore helped to create sustainable urban developments, adapted to the needs of everyone concerned and in compliance with the issues faced by the metropolitan area.

Commitment 4

Develop an overall cost approach



Notion 4.1 Assess the financial feasibility

✓ RECOMMENDATIONS

- At all stages of the project, the associated costs should be estimated so that an overall cost can be determined and expenses can be anticipated.

- Share these estimations with project partners (economic players, inhabitants and users) and adapt the project in accordance with their financial means.

The viability of the project depends on the financial feasibility and the ability to anticipate costs and risks, to identify the possible room for manoeuvre with all stakeholders, without changing the initial goals and quality of the project. The project schedule should be defined for the short, medium and long term, including possible variations within the overall project budget.

It is important to take into account the compatibility of the project programming with the financial ability of economic players and local authorities, anticipating prices and the constraints of the market.

With regards programming housing, the needs and financial means of households in the local area should be identified, as well as checking the new housing has a place in the existing housing market (private and public).

Likewise, the programming in terms of facilities should consider current and future needs of users, adapting and optimising existing facilities as a priority.

Programming in terms of commercial units and activities should be based on market studies (catchment area, competition, etc.).

QUESTIONS TO CONSIDER

How are financial feasibility goals reconciled with sustainable development goals?

How can an overall view of the consequences in terms of cost/profits be integrated in the early stage of programming and investment choices? How can this then be adapted for steering and the ways of monitoring the district in operation?

How are all aspects of project partners (local authorities, planners, developers, partners, inhabitants, homeowner unions, land owners, etc.) taken into consideration to ensure the financial feasibility of the project?

What technical feasibility studies should be done to verify beforehand whether the project is financially viable?

How can value be created for the land throughout the project, and how can the cost of the land be limited?

How can an operating deficit for the project be anticipated?





Notion 4.2 Reduce costs through project optimisation

✓ RECOMMENDATIONS

- Work with existing resources of the project and neighbouring areas.
- Make economical choices and pool resources to limit costs and environmental impact.

Project optimisation is based on alternative, low-energy solutions that take into account the complementary nature of territories, make use of existing resources and identify potential.

The following examples play a role in project optimisation: investing in energy efficiency, pooling services or infrastructures such as car parks, limiting the use of **rainwater** management facilities, encouraging the use of alternative modes of transport to reduce the need for road infrastructure, optimising soil management (use of excavated materials/backfill), etc.

In optimising the project process, there are **externalities** to consider. These factors can play a role in operational decision-making.

Evaluating the costs generated by the impacts of climate change can influence investment choices towards infrastructure that will be resilient over the long term.

QUESTIONS TO CONSIDER

How can the project be optimised in accordance with the local context, local resources (economy, features of the site, sectors, etc.) and the stakeholders involved?

How can a long-term approach be implemented, from the design to the management phase?

How can estimations of the costs generated by the impacts of climate change be taken into account?





Notion 4.3 Calculate the social, economic and environmental impacts of the project

✓ RECOMMENDATIONS

- Estimate and take into consideration the **positive and negative externalities** in the overall cost of the project.

To ensure the overall financial optimisation of a project, it is necessary to generate simulations of different scenarios in the earliest phase, as well as carry out economic, social and environmental studies such as assessments comparing renovation and new construction, sizing of public spaces, creation or pooling of spaces, choice of materials in accordance with management constraints, durability, environmental impact and the choice of plant species, volumetry, **density**, etc.

These studies all mean that choices can be made objectively, taking into consideration all these factors. This means that informed decisions can be made and financial management is optimal for the project.

QUESTIONS TO CONSIDER

Which investment and technical decisions should be considered to optimise the **overall cost approach**?

How are positive and negative externalities on the economy, the environment or society taken into consideration in establishing the overall cost of the project?



Les Akènes

Lormont, Gironde, Nouvelle-Aquitaine

Local context **Suburbs - Bordeaux urban area — 'intra-rocade'**

Type of project **Renewal - Existing district Reconversion - Wasteland**

Surface area (ha) **13**

Surface area of green spaces (ha) **4.7**

Number of inhabitants capacity **2,800**

Number of housing units **1,198**

Of these housing units, number of social housing units **472 (395 rental units + 77 housing units under social ownership schemes)**

Date work began / Year of completion **2006-2018**

EQ label **Step 3**

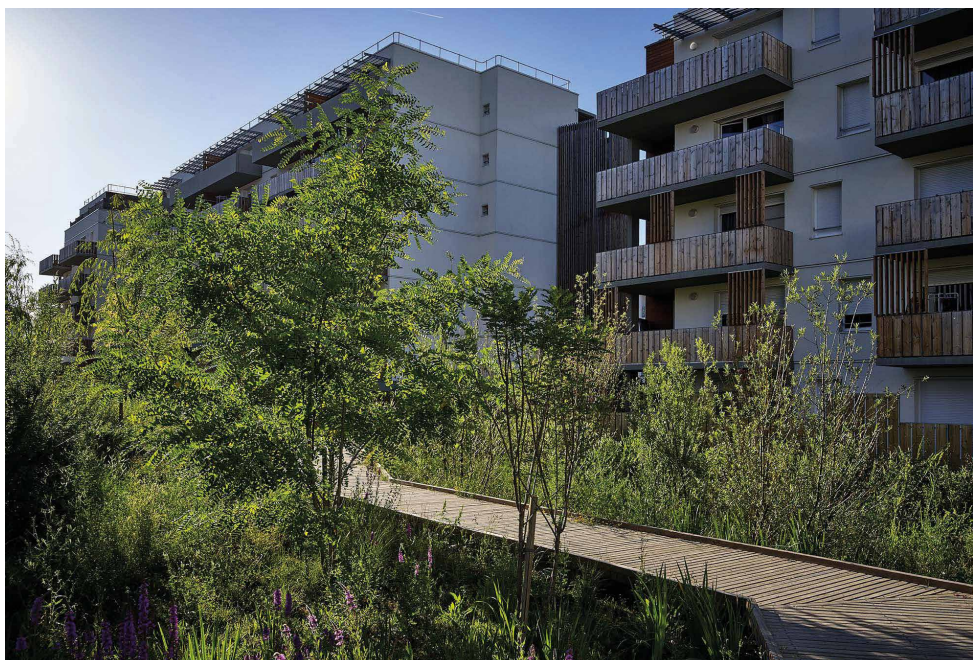
Year label was awarded **2018**

THOSE INVOLVED IN THE PROJECT

Project Owner **Clairsienne**

Project Manager **Atelier Bouriette & Vaconsin (urban planning and public spaces), CETAB Ingénierie (road networks), TERE0 (AMO environment and remediation), design and implementation association in the Eco-District: GTM, Teisseire & Touton (architects) and Freddy Charrier (landscaper)**

Partners **Bordeaux Métropole, town of Lormont**



This district has a population of 2,800 and 1,198 housing units, 39% of which are social housing units. It was built on a 13-hectare plot of land in the town of Lormont, next to the Bordeaux ring-road and the Lormont Génicart urban renewal scheme. It is part of a bigger scheme, repurposing an industrial area in the city centre. The land was acquired from the electronic components production company, SIEMENS-EPCOS, in 2006. Clairsienne led a mixed development project with a significant focus on the environment, and social and functional diversity. The so-called Les Akènes project is part of a bigger urban development scheme with a design directive plan, and is a part of the creation of an innovative district.

The Clairsienne ESH (Social Housing Company) proposed an overall cost approach to the design and implementation phases, to reach the environmental goals set by local authorities (minimal use of land, pollution management, recycling demolition rubble, etc.). As an example, economies of scale were achieved thanks to the consortium made up of the four ESH subsidiaries of 'Action Logement' (Domofrance, Clairsienne, Alliance Patrimoine and Logévie) in charge of design, implementation and maintenance of the 305 housing units and the one-hectare park at the centre of the Eco-District. The consortium used a procedure of competitive dialogue with four main goals in mind:

- To allow for dialogue throughout the design phase with the selected multidisciplinary team (including a company from the construction industry, urban planners, architects, landscapers, specialised design offices, heating engineer, acoustics expert, etc.): a framework agreement for all project managers (and the possibility to break this down into subsequent contracts that can be adapted),
- Organise a specific steering process for operational efficiency,
- Allow innovative solutions to be considered,
- Encourage project scalability (business premises, housing, etc.),
- Establish a real socially oriented project in terms of training and integration (10,000 hours).

Commitment 5

Evaluate, assess the impact and always seek improvement



Notion 5.1 Set up assessment schemes for continuous improvement

✓ RECOMMENDATIONS

- Set up an assessment scheme in the earliest phase and base this on indicators to assess the potential for reaching objectives and goals.
- Carry out assessments with the **stakeholders** (including citizens) and beneficiaries.
- Search for continuous project optimisation to ensure goals are met.
- Carry out an operational report and provide managers with this information for performance monitoring.

An assessment scheme involves observing what has been achieved, the outcomes and impacts of the project on the territory (on policies and practices, on the behaviour of partners, etc.) and determining whether objectives have been reached so that the overall goal of the project remains feasible, with continuous improvement in mind at all times.

In the earliest phase, an assessment scheme needs to be defined and included in the management of the project so that it is effective, to encourage the involvement of partners and help urban development practices to evolve.

An action plan and the procedure for assessing performance and continuous improvement are drawn up based on the study of a reference situation and the strategy that has already been established. The latter is focused on local priorities, sustainable development goals, long-term targets and the associated key performance indicators.

All stakeholders must take part in the assessment procedure. The assessment provides local political authorities with a basis upon which decisions are made with regards objectives and what will be done in the next phase. It provides stakeholders (including citizens) with a report on what the town has done over the year and describes how objectives were reached. Consequently, the report is also a key resource in increasing awareness with the public.

Periodic project assessments can be carried out by using a range of adapted indicators, as well as surveys, using a prior assessment of the reference situation and any consultation work as a basis. The decision-makers, organisations, third parties and the public should play their part by getting involved in the improvement of project processes, therefore guaranteeing long-term monitoring of the project, including management practices and project uses.

QUESTIONS TO CONSIDER

Is there an overall project assessment?

Are documented and adapted (implementation, results and impacts) indicators set for each of the defined primary objectives, to ensure the project goal is met?

Are all project stakeholders (planners, associations, property developers, partners, managers, inhabitants, etc.) encouraged to carry out their own evaluation?

Is the assessment scheme adapted to the local context, to the availability of information, available means and engineering to guarantee project management over the long term? How is this formalised (leading organisation, deadlines, allocated means) and documented?

Does the assessment scheme allow evolutions in the context to be considered throughout the project life cycle (design, implementation, etc.), so that scope for improvement can be identified and then if necessary, the strategy and targets can be modified?

Are the concerns and specific expectations of inhabitants, users and civil society players taken into consideration?



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



Notion 5.2 Assess the project in terms of sustainable development goals

✓ RECOMMENDATIONS

- Use the initial assessment of the territory as the baseline status for continuous project evaluation.
- Anticipate and optimise impacts during the project design phase, in accordance with the **Avoid, Reduce, Compensate (ERC)** practices.
- Schedule an assessment of the suitability of uses after the implementation phase.

Assessments are carried out throughout the course of a project. In the earliest stage, this is a way to predict impacts and optimise the design phase. During the implementation phase, assessments help to reduce nuisances for inhabitants and users, the project can also be modified if necessary and they enable better control of the quality, costs and implementation deadlines. After delivery, assessments are a way to verify the operational status of the urban developments, to ascertain whether objectives have been reached, and to get feedback from inhabitants, users and managers.

Assessing the baseline status is the first stage in project design and is an opportunity to specify the initial starting point, via an understanding of the local context and to then establish the expected or effective contribution of the project.

The goal of the 'avoid, reduce, compensate' principles is to establish the measures that can help avoid environmental impacts, reduce those that cannot be completely avoided, and compensate for impacts that cannot be avoided or reduced enough. These principles are addressed in the earliest project phase, and they help ensure the project is accepted on a social level by demonstrating that the project design takes even the smallest of environmental impacts into consideration.

Citizen involvement in assessments is essential to ensure that any proposed solutions are in line with the needs of inhabitants and users, throughout the course of the project. This helps with the appropriation of these solutions and to implement them in everyday life in the district.

As well as ensuring continuous improvement of the project, assessments should also allow for feedback to be given, from internal and external parties. Sharing the outcome of assessments with all those involved in the project (local authorities, planners, developers, builders, co-ownership unions, managers, partners, etc.) is also essential to ensure everyone can benefit from the results and make improvements that could be used for other projects in the local area. For example, the outcome of an assessment can be used to set and justify the definition of new objectives included in urban planning documentation.

QUESTIONS TO CONSIDER

Are the ERC practices used by project leaders to guarantee their project is correctly implemented?

Is the baseline status documented and shared with all interested parties, including inhabitants and civil society partners?

How is the **territorial assessment** used to specific the reference situation for each indicator?

How can the project assessment be used in the definition and improvement of other projects, on a district or territory level, so that good practices can be copied and shared on a wider scale?

How will feedback be given to **stakeholders**? Using what sort of communication, added value?



La Duchère urban renewal project

Lyon, Rhône, Auvergne-Rhône-Alpes



La Duchère social housing district in the west of Lyon has a population of 12,000. It is being transformed as part of an urban renovation project whereby 1,700 housing units are being demolished and rebuilt over a period of 15 years to then offer a more balanced housing mix (55% social - 45% private). The attractiveness of the district is improved thanks to a regular bus route to Lyon and to the business sectors in the west of the city, as well as the creation of an ambitious programme in terms of public facilities, shops and businesses. Priority was given to the quality of public and natural spaces. Vallon park is one of the project's remarkable features.

This ambitious momentum for change led by the Métropole du Grand Lyon was driven from the outset by an effort for continuous improvement and quality dialogue with the inhabitants. The local authority's strategic goals are based on solidarity between generations, social diversity, a systemic approach to the cultural, environmental, economic and social elements, and participation of the civil society in developing the project. With this in mind, a design office was entrusted to carry out an assessment which included support for partners (partners, developers, planners and inhabitants) and a regular project evaluation every 3 years. The La Duchère Eco-District succeeded in getting users involved, thanks to a structured information system and participation in the project governance via a participatory monitoring committee. Urban managers also played their part to guarantee this worked on a daily basis at all project phases. Finally, in terms of drivers, La Duchère developed know-how (dialogue, marketing, business management, temporary uses, etc.) and good practices in terms of urban planning, which can be used as inspiration for other operations.

Local context **Suburbs**

Type of project **Renewal - priority district**

Surface area (ha) **120**

Surface area of green spaces (ha) **48**

Number of inhabitants capacity **12,500**

Number of housing units **5,450**

Of these housing units, number of social housing units **3,000**

Date work began / Year of completion **2001-2020**

EQ label **Step 4 (phase 1)**

Year label was awarded **2018**

THOSE INVOLVED IN THE PROJECT

Project Owner **Mission GPV Lyon-La Duchère, SERL**

Project Manager **Alain Marguerite, Bernard Paris, Pascal Gontier, Bernard Martelet**

Partners **ADEME, ANAH, ANRU, providers of social housing, Foncière Logement, HLM (organisation), private developers, Tribu**

LIVING CONDITIONS AND USES

- 6 (Re)design the district with existing features
- 7 Encourage community spirit, solidarity and inclusion
- 8 Ensure living conditions are favourable for health and well-being
- 9 Design a quality project in urban, landscape and architectural terms
- 10 Showcase heritage, history and identity for the site and its population



The goal of sustainable planning is to create harmonious living conditions while taking into account the needs and desires of all inhabitants, with the safeguarding of natural resources in mind.

To do this, it is important to use existing facilities to create the planning project, limiting land take and the use of resources.

Living conditions play a vital role because this can influence the quality of life for inhabitants and impact the environment. To create a district that is adapted to everyone, the project encourages community spirit, solidarity and inclusion. It ensures favourable living conditions for health and well-being by limiting nuisances and pollution.

Finally, it is important to design projects that combine urban, landscape and architectural quality, while adding value to the heritage, history and identity of the site and its inhabitants.



Commitment 6

(Re)design the district with existing features

Notion 6.1 **Encourage urban renewal, use existing features to limit land take and the use of resources**

✓ RECOMMENDATIONS

- Use **land sparingly** by identifying and using areas of land that are available in spaces that have already been built on, particularly via urban renewal and **restoration of wasteland**, and build in keeping with **blue-green infrastructure** schemes.
- Choose restoration and renovation over new builds.
- For projects in a sector where the housing market is in difficulty or in an urban area with strong demographic growth: propose a controlled extension only after having studied the possibilities of using land that has already been built on in urban areas, through urban densification for example.

To safeguard natural, farming and forest areas and reduce **land take**, it is better to encourage urban renewal by pinpointing projects in the existing urban network, on land that has already been built on (industrial and commercial wasteland, military or healthcare buildings), in town centres.

With regards construction, this is concerned with considering restoration and/or extension possibilities of existing buildings as a priority, and encouraging new construction in the existing urban network (by using wasteland for example, or increasing the density of housing districts).

Implementing a strategy of orientation and optimisation of land may involve identifying land areas for urban renewal (already built on or not), adding value to existing buildings, consolidation of land holdings, the acquisition-improvement of old housing, establishing a real-estate development programme, or a partnership with a public real-estate organisation in keeping with the local strategy.

Using existing facilities is a way to avoid having unused housing units, housing in unsanitary, disgraceful, informal and damaged conditions, closing of shops in the town centre and urban sprawl that can lead to constructions in urban extensions or urban discontinuity.

In addition, the reduction of surface area to build on in the **PLU** (Local Urban Plan) helps to safeguard farming zones and natural areas. Making use of wasteland in town centres and renovating existing buildings contribute to the revitalisation of town centres.

QUESTIONS TO CONSIDER

How can the project contribute to limiting the use of space and urban sprawl in the area?

When using existing buildings, how can we study the reuse and restoration possibilities?

Is the choice of location a feasible one bearing in mind the efforts required to reduce land take?

In an 'urban policy' project, how do schemes to recreate social housing units for rent contribute to limiting land take?

Before going ahead with extension projects, have urban renewal possibilities been identified and considered? What are the housing needs that justify an extension project?

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS





Notion 6.2 Implement a density that is both desirable and in keeping with the context

✓ RECOMMENDATIONS

- Propose a project **density and intensity** that is adapted and in keeping with identified needs and local characteristics: geography, topography, climate, landscape, urban network, access to transport, services, facilities, etc.
- Ensure density is desirable by offering good quality for the project and ensuring pleasant **living conditions**, by considering the volumes and heights of buildings for example, looking for balance between built areas and nature, views and sun exposure, etc.
- Demonstrate the added value of increased uses: facilities, shops, community services, cultural venues, transport, green spaces, etc.
- Increase awareness and organise opportunities for dialogue over the long term with current and future users and inhabitants, to ensure the density is accepted by the public.

QUESTIONS TO CONSIDER

How are proposed urban shapes and density shown to be in keeping with the local context today, and do they offer good quality of living conditions for the local population?

Does the proposed density comply with the planning documents and the urban context?

Which services (especially in terms of recreational green spaces) will be provided to ensure this density is acceptable?

How was the population included to encourage acceptance of the project?

The density of a project must be in keeping with the specific local context in terms of geography, topography, climate, landscape, urban network, **existing polarities**, shops, access to transport, services and facilities, etc. Depending on the local context, it may be more appropriate to opt for an increase in urban intensity or de-densification to contribute to improving living conditions. This is particularly concerned with identifying the areas most suited to densification, to create density that reconciles issues related to **using land sparingly** and the preservation of urban quality.

The architectural and urban design must be in line with urban morphology and spatial practices to ensure suitable solutions that are adapted to the local context. This involves taking into consideration the various factors included in the perception of density to preserve intimacy and social connections, and also to meet the expectations of inhabitants in terms of living conditions: the ratio of built spaces and natural areas, public and private domains, shape, volume, height of buildings, views and sun exposure, and also the quality of public areas, the quality of **urban shapes**, the distance between constructions and public areas (especially in terms of design and planting).

The project must associate current and future users and inhabitants to get them involved in the question of density, and develop creativity by focusing on the advantages of increased intensity with regards uses. For example, project intensity that focuses on close-by services and shops, adapted to identified needs, limits car journeys and therefore limits pollution and noise. Here, densification contributes to creating pleasant living conditions for inhabitants and users.



ZAC de Bonne

Grenoble, Isère, Auvergne-Rhône-Alpes

Local context **Centre of the metropolitan area**

Type of project **Renewal - priority district**

Surface area (ha) **15.5**

Surface area of green spaces (ha) **5**

Number of inhabitants capacity **2,400**

Number of housing units **1,100**

Of these housing units, number of social housing units **450**

Date work began / Year of completion **2000-2013**

EQ label **Step 4**

Year label was awarded **2019**

THOSE INVOLVED IN THE PROJECT

Project Owner **SAGES**

Project Manager **Christian Devillers, Aktis Architecture, AMO: Énertech, Terre-Éco, Local Energy Agency**

Partners **BBC, HQE**

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The Bonne Eco-District is located in barracks bearing the same name that were liberated by the army and acquired in 1994 by the city council of Grenoble, to respond to the high demand for housing in a context where there was not enough land available for real-estate schemes. This purchase meant that the council could expand the city centre and create an urban continuity as far as Grenoble's main boulevards. This 15.5-hectare plot of land is on the edge of a 19th-century district, a sector designed in the 1950s and a social district from the 1980s, close to the centre of Grenoble. This ambitious project involved converting the barracks into an Eco-District and building 1,100 new housing units, while improving the commercial offer of the town centre and creating a new urban park. This scheme was supported by the European CONCERTO initiative, the goal of which is to promote innovation in the renewable energy sector and the thermal performance of buildings.

The Bonne Eco-District is a remarkable example of urban renewal that respects existing facilities. The council rolled out awareness campaigns with inhabitants, to inform them of the issues related to urban density. These informative campaigns focused on the notions of actual and perceived density, as well as on the different urban shapes, with comparisons between districts with different typology. The whole project was designed by renewing existing structures and did not include any extensions.

The urban planning behind the Bonne district was centred on compact urban typologies that use land sparingly, while reconciling the production of quality urban areas with the expectations of inhabitants in terms of housing. This innovative approach to urban renewal illustrates the importance of an overall, sustainable approach to urban development that takes into consideration the town's social, economic and environmental factors.

Commitment 7

Encourage community spirit, solidarity and inclusion



Notion 7.1 Create a district for everyone

✓ RECOMMENDATIONS

- Draw up a programme schedule that takes into account **social and generational diversity**, and offers affordable housing, as well as offering alternative shapes and layouts (**BRS** (Bail Réel Solidaire) leasehold agreement, **participatory**, cooperative housing, etc.).

- Propose a project that is inclusive and fair: adapted developments to ensure accessibility for vulnerable people, the **disabled** or those considered to be dependent, consideration of gender in developments, especially for public areas.

Creating a district for everyone raises the question of equal access to its resources, including the different public areas and facilities, shops, employment, housing, natural areas, etc.

The project will provide a diverse range of housing units that satisfy the needs of the district, while ensuring balance on a wider scale.

It will particularly address the question of **social diversity** by taking into consideration the regulatory objectives and factors defined in the planning documents (**PLU**, **PLH**, **SCoT**), while providing affordable housing that satisfies the needs of households: social housing to rent, housing units under social ownership schemes or offering alternative shapes and layouts (PSLA (affordable housing loan), BRS leasehold agreement, participatory, cooperative housing, etc.), specific housing (student residence, inclusive housing for people who are in need of daily assistance, etc.).

The programming procedure will also ensure that all people will be considered to ensure **generational diversity** in particular, and will encourage diversified ways of living to meet the needs of households much better: flexibility of housing, adaptability for people with reduced mobility (PRM), etc.

Ensuring a project is inclusive and fair also involves developments that are adapted so that they are accessible to all (age, gender and background), especially the most fragile such as vulnerable people with a disability (substantial, long-lasting or definitive - motor, sensory or cognitive disability) or those who are dependent.

The layout of public areas could take into account uses and frequencies, to encourage the design of areas that allow for generational and social diversity, as well as gender equality.

QUESTIONS TO CONSIDER

How does the project consider the diversity of households, ways of living and residential layout, for the district itself and the surrounding area?

How does the project comply with the housing objectives set by local policy, for both the private and public housing units?

Does the recreation of available housing play a role in rebalancing the level of social housing to rent in the overall housing market (especially with regards social diversity frameworks)?

How are the factors related to inclusion taken into account in planning and design choices and in support provided for uses? Is the project inclusive in terms of accessibility, services and uses?

How has the project tackled the question of gender?





Notion 7.2 Encourage solidarity-based initiatives, social interaction and community spirit in the district via good quality public facilities

✓ RECOMMENDATIONS

- Use public areas and facilities to encourage social interaction, meeting others and bringing the district to life, in partnership with neighbouring districts.
- Integrate the notion of collective features in the project design phase: develop communal, shared areas to encourage people to get together, encourage dialogue and sharing.
- Use **tactical urbanism** and **temporary use urbanism** to test initiatives related to community life.

Providing communal areas that are devoted to social interaction and encourage people to get together, talk and share can help to strengthen social connections and improve community life. Developing initiatives that encourage interactions and urban entertainment in the district and surrounding area (cultural, sports, associative, etc.) require the development of good quality public areas and the creation of facilities.

Encouraging experiments in the public domain also helps support changes in practice towards inclusive and **frugal urbanism** via pop-up, temporary facilities to test initiatives concerned with social interactions: temporary projects on wasteland, projects concerned with organising different transport solutions on the road or the role and occupation of car parking areas, a programme of pop-up events to bring the area to life, proposals of new uses for real-estate units that are only temporarily occupied, etc.

These experimental initiatives develop transformation possibilities for the town that are more flexible and reactive than projects that follow the usual procedure, and they also encourage greater citizen involvement.

It is also beneficial to encourage inhabitants to volunteer their services by boosting, supporting and fostering solidarity-based initiatives that improve their effectiveness and broaden their interest.

QUESTIONS TO CONSIDER

What places are there to encourage social interaction, group activities and community projects?

Do the developments and management tools encourage the maintenance and/or creation of social interaction?

How are inhabitants encouraged to get involved in creating places for social interaction?

With regards the chosen **density**, does the transition between public and private areas protect the privacy of inhabitants and community life?



Monconseil Eco-District

Tours, Indre-et-Loire, Centre-Val de Loire



Monconseil Eco-District is a new central district in the north of Tours, with a park covering more than a hectare of land, community facilities and pedestrian areas. The new district has good connections into the city centre thanks to a network of cycle paths, trams and buses. There are more than 1,500 housing units, offices and services, as well as numerous facilities that encourage dialogue, meeting others and social and generational diversity including residential housing for disabled adults, the 'maison des solidarités' (centre providing assistance for the community), children's daycare centre, shops on the ground floor of buildings, gymnasium, EHPAD (retirement home), Tours diocese church. Living conditions in Monconseil district have been improved thanks to an iterative approach over the years, with new shops, the creation of a local association and participatory housing, all brought about with an input from all users and inhabitants.

Thanks to its energy-efficient housing units, the Monconseil Eco-District places great importance on social and generational diversity. Participatory housing has also been developed here, with the creation of a housing complex with around twenty inhabitants in passive housing. There are several facilities that ensure good accessibility for the elderly or those with a disability. To jointly develop more inclusive areas that encourage a community spirit, associations and committees from several districts chose to strengthen their cooperation. The involvement of these partners from significant social, associative and citizen initiatives is helping Monconseil come up with new ways of organising the roads and public areas today. Of these new schemes, the speed limit for vehicles has been reduced for the safety of the most fragile, and inclusion and social interaction in the district has been improved. The latest schemes that are currently being rolled out make way for shared areas such as the Lot K near the tram and the indoor market hall (little islands designed with biodiversity in mind, collective, associative and artisanal areas on the ground floor).

Local context **District**

Type of project **Renewal - Existing district - Reconversion - Wasteland**

Surface area (ha) **20**

Surface area of green spaces (ha) **1.8**

Number of inhabitants capacity **between 3,000 and 4,500**

Number of housing units **1,832**

Of these housing units, number of social housing units **500**

Date work began / Year of completion **2007-2026**

EQ label **Step 4**

Year label was awarded **2022**

THOSE INVOLVED IN THE PROJECT

Project Owner **Tours Habitat (Monconseil branch)**

Project Manager **From 2006 to 2016: SAROAM (Éva Samel) Architect-Urban planner. Since 2016: RVA Architect-Urban planner, Tours city council, general contractors for public areas**

Partners **Urban planning agency, Bouygues Immobilier, Bouwfonds Marignan, CCAS, CERQUAL, École Polytechnique de Tours, EHPAD and nursing home for disabled adults, GOTHAM, ICADE, La Tourangelle S.A from HLM, private developers, SNI Organisme HLM: Tours Habitat (public housing office), Touraine Logement, Tours Métropole, VALLOIRE, Tours city council**

Commitment 8

Ensure living conditions that are favourable for health and well-being

Notion 8.1 Promote urban planning that is favourable to health and well-being

✓ RECOMMENDATIONS

- Involve **relevant healthcare partners/users** from the local area in the project design phase.
- Identify how the project aims to improve and adapt the healthcare and prevention facilities, especially for the most fragile.
- Develop public areas that encourage physical, recreational and cultural activities, adapted to all and suitable for all ages.
- Develop or restore natural areas, quiet/relaxing areas in the public domain.

Health and well-being are largely determined by environmental factors. These issues are therefore related to the protection of ecosystems and the environment. They must be addressed in a systemic way, through planning choices that contribute to urbanism that is favourable for health.

To do this, all healthcare partners in the local area need to be mobilised and made aware of the factors that link urban planning and health. A 'health' board can be introduced into the expanded project governance structure to build a global strategy for the district in terms of healthcare.

Noted territorial disparity and **social inequalities** when it comes to access to healthcare, and the vulnerability of citizens in the light of climate change, mean that the healthcare needs of citizens, especially the most fragile, need to be considered, and access to healthcare and prevention facilities needs to be improved, from the project programming stage.

The way public areas are laid out also has an impact on users' physical, recreational and cultural activities, which in turn then impact their health and well-being. In urban planning, there are several factors that can encourage physical activity and an active lifestyle: reducing facilities for cars in the public domain and instead providing facilities for pedestrians and cyclists, the creation of recreational, outdoor sports areas, etc. Implementing awareness and cultural adaptation campaigns on the evolution of environmentally responsible uses and behaviour with the **ARS** (Regional Health Authorities) for example, can also contribute to the development of good practices for citizens.

Finally, by giving nature more space in the town, the project is contributing to protecting and improving the health and well-being of citizens, and also to safeguarding or restoring biodiversity with the creation of cool areas and relaxing places, initiatives to remove impermeable surfaces and planting in public areas, etc.

QUESTIONS TO CONSIDER

How are healthcare partners involved in the project?

How does the project improve access to healthcare and prevention facilities?

How does the project encourage physical activity and an active lifestyle for all?

How does the project promote nature in the town?





Notion 8.2 Prevent and combat nuisances and pollution

✓ RECOMMENDATIONS

- Identify the hazards in the district and then establish the impacts on the health of populations and ecosystems so the project can be adapted accordingly.
- Reduce and prevent nuisances and pollution in the environment that can affect human health and that of the local ecosystems (air, light, noise pollution).
- Opt for construction principles that are favourable for health and well-being: natural materials, taking indoor and outdoor air quality into consideration when designing housing units, appropriate dimensions and light for housing units, natural ventilation in housing units, unobstructed views, etc.

It is important to identify and map out the areas that are most exposed to nuisances in a district (close to roads, industry, etc.) to carry out an assessment and adapt the project accordingly. The goal is to be able to identify all types of nuisances: indoor/outdoor air pollution, noise pollution, pollution of soils, water pollution, odour nuisances, visual and/or light nuisances, electromagnetic fields, unsanitary existing housing units, etc. A comparative analysis of data can be carried out to ensure facilities and residential facilities for fragile people (schools, EHPAD retirement homes, etc.) are far from areas of pollution.

To take all the nuisances involved into consideration in the programme schedule, the ground plan and architectural guidelines, 'health clauses' need to be drawn up for all project specifications. The project should encourage construction principles that are favourable for health such as the use of natural materials, taking indoor and outdoor air quality into consideration when designing housing units, appropriate dimensions and light for housing units, natural ventilation in housing units, unobstructed views, etc.

Boosting the presence of nature in the town also helps reduce air pollution and combat **heat islands**.

QUESTIONS TO CONSIDER

What sorts of nuisances and pollution are inhabitants and users exposed to?

How does the project take into consideration the sanitary condition of the site and the identified hazards?

How does the project reduce exposure to nuisances and pollution for inhabitants and users?





Notion 8.3 Propose developments that boost safety and security in the public domain

✓ RECOMMENDATIONS

- Get the population and prevention and security partners involved.
- Encourage the creation of clear, unobstructed spaces that are accessible to all and provide adapted, regulated lighting.

With the contribution of inhabitants and users, the project must take into account modes of appropriation of areas and the security of urban developments by applying the principles of **situational prevention**: create clear, unobstructed areas that are accessible to all and provide adapted, regulated lighting.

This also includes boosting joint visibility, ensuring the presence of local organisations and plan for community centres or areas where the organisation of activities is encouraged. The project also needs to consider the positioning of buildings, that it is easy to get around the district, roads can be shared in complete safety, speed limits, sizing of roads and pavements, etc.

Prior work with prevention and security partners (police, SDIS fire and emergency service, SAMU emergency medical aid, social workers, etc.) could be useful in ensuring better integration of the constraints in providing urgent and vital aid.

QUESTIONS TO CONSIDER

How do the planning and management choices reinforce the feeling of security?

Is the project subject to a regulatory public safety and security study or security assessment? If such a study or assessment is to be carried out, how does the project take the resulting recommendations and conclusions into account?

Which specific partners can be called upon to work on these security issues?



Volonne town centre

Volonne, Alpes-de-Haute-Provence, Provence-Alpes-Côte d'Azur



© Xavier Emery

On the banks of the Durance river, 45 kilometres north of Manosque, the town of Volonne launched the construction of an Eco-District in 2013 to counter a loss in attractiveness that the town was experiencing at the time. To reverse the trend, the town centre Eco-District project was launched, based on urban renewal and the development of wasteland. The goal was to give local employment and services a boost and improve the community spirit in the centre of the village, while improving financial autonomy and rounding off the towns ecological, social and digital transition. The Volonne Eco-District was completed in 2019 and meets the goals that were set. The district blends perfectly with the historic and natural environment, both for the town and surrounding area. Repurposing public areas with the community spirit and a calming atmosphere in mind is of great benefit to users, as is giving priority to soft mobility solutions and developing facilities for children. New healthcare services are also provided, as well as housing units that are adapted to all, with social and generational diversity in mind.

The Volonne town centre Eco-District has been sure to take into account the health and well-being of its inhabitants. It was essential to create an accessible, resilient and comfortable 'maison de santé' (medical centre), both for patients and healthcare professionals, as part of the effort to improve healthcare and prevention facilities for citizens. It makes it easier for each inhabitant to access healthcare and encourages new professionals to come and work in the district. On a wider scale, the Volonne Eco-District showcases the possibility for a project to give priority to health and well-being in the public domain. Renovating communal areas where people can meet and engage in dialogue, reducing facilities for cars and encouraging an active lifestyle are just some of the initiatives that boost social cohesion and allow everyone to flourish in the outdoors.

Local context **Town centre**

Type of project **Urban renewal**

Surface area (ha) **1.4**

Surface area of green spaces (ha) **0.42**

Number of inhabitants capacity **300**

Number of housing units **135**

Of these housing units, number of social housing units **47**

Date work began/ Year of completion **2013-2019**

EQ label **Step 4**

Year label was awarded **2022**

THOSE INVOLVED IN THE PROJECT

Project Owner **Town of Volonne (medical centre, children's daycare centre, canteen, public areas), H2P social housing (2 social housing buildings)**

Project Manager **Same multi-disciplinary team for the 2 project owners: R + 4, Vert d'Eau, Adret, M.G. Concept**

Partners **H2P (consortium for the 2 project owners)**

Commitment 9

Design a quality project in urban, landscape and architectural terms

Notion 9.1 Ensure the district blends into its environment in terms of urban and landscape features

✓ RECOMMENDATIONS

- Work on the continuity, transitions and connections between the project and the rest of the local area.
- Use multi-disciplinary teams to design the urban and landscape layout with solutions that are adapted and in line with the local context regarding **permeability of the district, the road network, gradation of building heights, morphology, adaptation to local characteristics, etc.**
- Encourage the integration of the project in the surrounding urban fabric by taking into account existing features and possible future evolutions.
- Design an urban project that is based on the natural features of the site, particularly the **green, blue, brown and black infrastructure** and the landscape features.

Integrating the project into the existing urban fabric requires paying attention to urban continuities, connections and transitions with the natural and built features in the surrounding area:

- take into account the existing urban fabric, road network and the specific features of the urban composition;
- ensure the quality of the project development in connection with existing features, emphasising interaction with built volumes (existing, renovated or new) and empty spaces (outdoor areas, plantations, etc.);
- combine the project with existing natural features, particularly ecological corridors (green and blue, brown and black infrastructure), views, water, etc.

The involvement of multi-disciplinary teams will ensure the successful urban insertion of a quality project.

QUESTIONS TO CONSIDER

How is the project blended into the existing landscape and the urban context?

What is done at the project boundaries (network, transitions and urban fringes)?

How does the project composition, the **urban shapes** and development of outdoor spaces (private and public) take into account the urban fabric, built elements and vegetation present on the site, while enhancing the natural or urban landscape? How does this add to the enhancement or creation of pleasant **living conditions** in the district?

How are users involved in the design and layout of outdoor areas?

How are the urban natural areas actually included in the project and what role do these areas play in the quality of living conditions?





Notion 9.2 (Re)create urban and architectural shapes that boost living conditions

✓ RECOMMENDATIONS

- Propose architectural and **urban shapes** that are adapted to the context and blend with the territory.
- Integrate quality public areas, establish a coherent distribution according to identified needs, deal with interfaces between public and private areas, communal spaces in an effective way.
- Guarantee the quality of housing: position, dual-aspect, outdoor extensions and private areas, protection of privacy by working on views, perspectives and how buildings face one another, acoustic and thermal comfort, etc.
- Encourage the reversibility of buildings and scalability of housing units in response to evolutions in lifestyle, family circumstances, etc.

Urban and architectural design projects should encourage the quality of **living conditions** on all levels (constructions, **clusters** and development operations):

- by integrating and drawing from existing natural features such as vegetation, soil water, etc.;
- by encouraging the repurposing of existing built features;
- by proposing quality renovation and construction projects that encourage the scalability of housing units in terms of architectural design, materials, etc.;
- by integrating outdoor areas, communal areas, and public areas that are spacious and comfortable in all seasons;
- by dealing with interfaces between public and private areas, communal spaces in an effective way to encourage social interaction.

QUESTIONS TO CONSIDER

What are the qualities of the district in terms of landscape, urban and architectural features (for housing units for example), from the urban planner and professional point of view, for local authorities, and also from the viewpoint of the inhabitants, users, local residents?

How do the islands and built elements of the project participate to the overall architectural and landscape quality of the district and neighbouring areas?

How does the project encourage creation and architectural quality with regards the identity of the site and the architectural context and existing urban features?

Is there a specific procedure in the project design phase for renovation, restoration or enhancement of existing buildings to encourage architectural creation and diversity?



Clichy-Batignolles

Paris, Paris, Île-de-France

Local context **Abandoned railway site**

Type of project **Urban renewal**

Surface area (ha) **54**

Surface area of green spaces (ha) **10**

Number of inhabitants capacity **7,500**

Number of housing units **3,400**

Of these housing units, number of social housing units **1,700**

Date work began / Year of completion **2005-2020**

EQ label **Step 4**

Year label was awarded **2020**

THOSE INVOLVED IN THE PROJECT

Project Owner **Paris city council, Paris & Métropole Aménagement**

Project Manager **Atelier François Grether, Agence Jacqueline Osty, Omnium Général Ingénierie (road networks), Inddigo/TRIBU, Une Autre Ville (AMO environmental issues)**

Partners **APUR, Bouygues Immobilier, Bouwfonds Marignan, COGEDIM, DRPJ, EMERIGE, EPPJP, RATP, SAEMES, SNCF/RFF, STIF**

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The Clichy-Batignolles Eco-District is a 54-hectare project in the 17th arrondissement of Paris. This site was formerly occupied by railway infrastructure. It is a mixed-use project with housing, service and production businesses, commercial premises and leisure facilities. This is an innovative project that serves as a sustainable development laboratory, combining experimentations in terms of governance and implementation. In terms of public green spaces, the project includes a vast 10-hectare urban park with a creative and contemporary design. The new Palais de Justice de Paris and the Direction Régionale de la Police Judiciaire at the Porte de Clichy can be reached via the extended tram route 14, giving the project a regional scope, and taking inspiration from the new squares of the Grand Paris initiative.

The creation of a 10-hectare urban park at the centre of the project was a highlight of the urban planning. This offers access to the town and serves as a place for people from nearby districts to meet up, as well as a cool area within an environment where areas of greenery are particularly scarce. There is a network of cycle paths and footpaths through the park, as an extension to existing roads, offering simple and direct routes between districts. The completed developments boast great quality and architectural creativity, combining density and pleasant living conditions, and a great number of inhabitants benefit from a view. A collaborative workshop has also been set up where all the project managers and architects can meet up and work together. The objective is to establish a global approach to project design (create links between unoccupied, private and public areas, uses, morphological organisation of islands, etc.).

Commitment 10

Showcase heritage, history and identity for a site and its population



Notion 10.1 Identify local heritage

✓ RECOMMENDATIONS

- Mobilise partners responsible for protecting and enhancing local **heritage** (cultural partners, socio-economic partners, public services, residents' association, etc.) in the initial assessment and design phases of the project.
- Take into account and draw on local features such as cultural heritage, living heritage, arts, traditions, know-how.

When designing a project, it is essential to identify local heritage. Every site bears evidence of the way it is occupied, so understanding the different adaptations and dynamics of a town over time provides information about how needs and uses evolve, to be able to offer continuity without losing the local identity of a place.

From the earliest stage of the project, it is important to mobilise the network of partners who can play a role in identifying heritage features: government agencies such as ABF, CAUE, architects, landscapers (including ACEs and PCEs), local associations, local authorities, inhabitants and users of the local area, economic players, etc. Input from multi-disciplinary teams of designers or artists could also be useful.

Looking beyond regulatory documents, into local archives (maps, photographs, paintings and representations), or written documents (press, literature, etc.), stories and films can also provide information about local culture and play a role in gathering knowledge.

Carrying out a land survey and visiting the site help to gain a real understanding of the future district, be aware of visual elements and noises with regards the various features of natural or built heritage, therefore confirming or putting the theory about the site into perspective.

Social practices, economic activity, rituals and leisure activities are also features of local heritage (cultural heritage, living heritage, art, traditions, know-how) that can be used to encourage a dynamic urban area.

QUESTIONS TO CONSIDER

Which partners should be mobilised locally to identify and support evolutions in terms of heritage?

How can they be mobilised prior to the design phases to be able to deal with the issues to face in a more collaborative way?

What was the outcome of the land survey, what information about local heritage did this provide?

What are the outcomes of cultural practices in society in terms of operational impacts, **short cycle** practices (shops, services, activities, facilities, housing) and construction processes (know-how, building materials, plantations)?



Notion 10.2 Safeguard and add value to the site's heritage, identity and collective memory

✓ RECOMMENDATIONS

- Highlight architectural and landscape **heritage** (on different scales and of different kinds, from the most ordinary to the most iconic) features of the site in the project.
- Draw on the history and collective memory of the site and its inhabitants, to build the project together.
- Showcase the heritage and values, including cultural, intangible heritage, people, places and historic events, adopting a bottom-up approach.

Showcasing features of heritage and identity as public property is a way to bring the population together and creates a shared vision of a territory they recognise and can identify with. It encourages the reappropriation of these places and supports a **collective memory** that is accessible to all, based on knowledge, remembrance of a place and its inhabitants, the arts and know-how.

Whether it is remarkable or ordinary heritage, it is a case of analysing its potential, taking care of what is already there, maintaining or updating its use, looking for possible adaptations and transformations to add value to it in its context.

Showcasing intangible cultural heritage is also a lever for action that can breathe life into a project. It allows an urban project to be transformed into the creation of a vibrant, dynamic place with a cultural scene that the local people can enjoy.

Boosting the cultural scene is a powerful tool for social cohesion, improving **living conditions** and economic development, and helps create a shared, positive local identity, which in turn improves the attractiveness of the local area. In encouraging social interaction between inhabitants, a vibrant cultural scene also helps ensure the population remains in the local area by offering them added value.

QUESTIONS TO CONSIDER

What elements of existing heritage are integrated into the project (natural and plant heritage, urban and architectural heritage), and how (restored, transformed, etc.) is this done?

How are inhabitants and users encouraged to get involved in safeguarding and showcasing heritage?

How does the urban planning project take into account local culture and collective memory, both past and present? How does it contribute to this?

Which resources and skills should be mobilised to develop the cultural scene?

What support schemes are used to showcase intangible cultural heritage in the local area?



La Brasserie Eco-District

Strasbourg, Bas-Rhin, Grand Est



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The La Brasserie Eco-District project started with the reconversion of an industrial wasteland that was once home to the production and packaging factories for the Kronenbourg breweries. When these breweries closed down, 3.5 hectares of land became available and made way for an exemplary reconversion project on this industrial wasteland. The Eco-District project is at the heart of the site and multiple objectives were set from the very beginning: urban and social diversity, sophisticated and integrated architecture, regulation of car traffic, quality of public and private areas, etc. The cavities from the former bottling plants were utilised and a shared underground parking area was built. On the top platform of the car park there are apartment buildings, clearing space for public green spaces in open ground at the centre of the islands and therefore leaving the public domain free for pedestrians and cyclists.

The La Brasserie Eco-District was an opportunity to carry out some significant work on showcasing the history and identity of the site. A wall painting portraying the history of the site was created by a local artist and the landscaper commissioned for the project, along with the inhabitants who were also asked for their input. The buildings were positioned so that residents would have views of the ancient church and wooded park. The central park is connected to the hop gardens of the neighbouring project and accentuates the historic building that has been conserved from the breweries. The shared entrances to the underground car park are decorated with sheets of weathering steel bearing hop leaf designs. The stairwells leading to the shared car park exits have been named to reflect the historic past of the site: malt; houblon (hop), brassin (brew).

Local context **District**

Type of project **Reconversion - Wasteland**

Surface area (ha) **3.6**

Surface area of green spaces (ha) **0.8**

Number of inhabitants capacity **1,000**

Number of housing units **450**

Of these housing units, number of social housing units **135**

Date work began / Year of completion **2017-2018**

EQ label **Step 3**

Year label was awarded **2017**

THOSE INVOLVED IN THE PROJECT

Project Owner **Eurométropole de Strasbourg, SERS**

Project Manager **Urbanetic (architecture and urban planning), SERUE (road networks), Acte2Paysage**

Partners **Providers of social housing, private developers**

TERRITORIAL DEVELOPMENT

- 11** Contribute to an economic transition that is regenerative, social and solidarity-based
- 12** Encourage proximity and diversity of functions
- 13** Optimise the use of resources and develop local sectors and short cycles
- 14** Encourage sustainable and active mobility solutions
- 15** Ensure responsible digital transition in keeping with sustainable planning

Territorial development is a key part of territorial planning, to ensure a balanced, solidarity-based local economy, while addressing the issues of ecological and digital transition.

It aims to play a role in an economic transition that is regenerative, social and solidarity-based, by encouraging proximity and diversity of functions, and creating employment across the local area, capitalising on its assets and specific features.

Local partners in particular can contribute to strengthening territorial cohesion by developing innovative projects and encouraging citizens to get involved.

It is also about optimising the use of resources and developing local sectors and short cycles, while encouraging sustainable and active mobility solutions.

Finally, the digital transition needs to be addressed in a responsible way, and act as a driver for the sustainable planning project.

Commitment 11

Contribute to an economic transition that is regenerative, social and solidarity-based

Notion 11.1 Consolidate, boost and diversify the existing economic fabric

✓ RECOMMENDATIONS

- Anticipate impacts of the project on the economic activity of the existing territory, on the territorial balance.
- Contemplate an additional economic programme, in line with the specific features of the territory.

To contribute to an economic transition that is local, social and solidarity-based, it is necessary to carry out an initial assessment of the existing economic fabric, and consider issues related to territorial competition as well as the impact of new activities and new services across different communities. Various initiatives can be rolled out, such as:

- mapping the expertise and economic sectors of the territory;
- involving the site's economic players to determine their needs, and identify the positive and negative impacts of the project (during the construction phase and in day-to-day use).

At the same time as the assessment, several actions can be taken to consolidate and boost the local economy:

- assist in the temporary or definitive relocation of activities impacted by the project;
- adapt calls for tender to encourage applications from local companies and SOHO/SMEs (environmental clauses in procurement contracts, constructive choices, specific label, etc.);
- provide direct assistance in revitalising existing activities (financing) or indirect assistance (taking needs into account in the planning project);
- create displays or points of sale for local production (farm shop, **AMAP**, indoor market hall, market, etc.).

QUESTIONS TO CONSIDER

How does the project mobilise the region's expertise, economic sectors and companies?

How does the additional programme complement existing economic activities and not compete with them?

How does the programme boost the existing economic fabric?



Notion 11.2 Support and encourage the creation of local employment and the reconversion of employment from sectors that cannot be supported

✓ RECOMMENDATIONS

- Make employment related to the project more accessible, through training and insertion clauses for example.
- Help people set up businesses, especially in the **Social and Solidarity-based Economy**.
- Consider the sustainable planning project as a place of experimentation and a laboratory for innovation.

There are several ways to support and generate a local, social and solidarity-based economy:

- generalise insertion clauses in contracts for construction work or services;
- develop training courses related to the construction industry, other sectors linked to planning or even future businesses that will be present to reduce the number of employment vacancies in the local area;
- implement training courses or assistance for companies working on the project (green building for example);
- provide support for the creation of companies and/or commercial units, particularly related to the Social and Solidarity-based Economy (**ressourcerie**, **Repair Café**, etc.);
- encourage citizen initiatives that are both solidarity-based and in keeping with the ecological transition;
- make premises or developed plots of land available for entrepreneurs or associations and neighbourhood associations, craftspeople, personal services, for local farming, etc.;
- encourage local economic activity (**short cycle**, local companies, producers, convenience stores).

The project can also be an opportunity to set up an innovation laboratory for local companies, or a place of experimentation to test new products and services, encouraging low-tech.

QUESTIONS TO CONSIDER

How can the planning project support or develop the local, social and solidarity-based economy throughout the project duration?

How does the project contribute to the insertion of people who are far from employment?

How does the project provide for the development of green construction sectors?

How does the project support the reconversion of employment from sectors that cannot be supported?



Langouët Eco-District

Langouët, Ille-et-Vilaine, Brittany

Local context **Village**

Type of project **Renewal - Existing district**

Surface area (ha) **0.9**

Surface area of green spaces (ha) —

Number of inhabitants capacity **80**

Number of housing units **35**

Of these housing units, number of social housing units **6**

Date work began/ Year of completion **2017 / 2018**

EQ label **Step 2**

Year label was awarded **2017**

THOSE INVOLVED IN THE PROJECT

Project Owner **Town of Langouët**

Project Manager **EPEA France, Menguy Architectes, ERIGER, CYBEL, Dervenn**

Partners **EPF, BRUDED**

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Langouët is a small rural town with a population of 600 in Ille-et-Vilaine, between Rennes and Saint-Malo. The town has been committed to ecology for around fifteen years and is today considered as a laboratory for environmental transition and local experimentation. Langouët Eco-District was built using recyclable, biosourced and local materials and so is engaged in a more global approach to transforming all the activities in the local area, in ecological and social terms. This approach includes a school with the High Quality Environmental standard and a canteen that offers only organic products. The inhabitants of the Eco-District and the village are involved in public decision-making and play an active role in ensuring the local area is protected, energy-efficient and committed, steering it progressively towards social and environmental resilience.

Langouët and its Eco-District serve as a reference in the way they support the economic, social and solidarity-based transition of their region. The planning projects in this village of Brittany have been designed and supported by the inhabitants, to revitalise the existing town centre and encourage local economic activity in keeping with circular urban planning that has a positive impact. Designing the Eco-District called upon the expertise of regional economic sectors and local companies, particularly those using recyclable, biosourced and short cycle materials. To lead economic activity towards a more social and solidarity-based approach, the town and its citizens set up a community café, a shared electric car and created community allotments. The solidarity-based projects at the service of the ecological transition, such as a permaculture training garden, were financed by several citizen loans. An incubator for the **Social and Solidarity-based Economy** is home to several projects of local interest.

Commitment 12

Encourage proximity and diversity of functions

Notion 12.1 Boost functional diversity

✓ RECOMMENDATIONS

- In keeping with the territorial development strategy, propose several urban functions to satisfy the needs of inhabitants and users.

- Integrate complementary functions to create a balance in the district, the surrounding area and the whole territory: mobility, housing, shops, facilities, services, cultural and leisure activities.

Contribute to the balance of urban functions in the district, surrounding area and the whole territory, encourage **urban intensity**, satisfy the daily needs of current and future inhabitants or users, and contribute to creating a **short distance** town. In-depth knowledge of existing functions and needs is necessary for project programming. **Prospective** studies can be carried out:

- a study on the needs for educational, cultural and sporting facilities;
- inhabitants and users can be questioned about their expectations in terms of services, especially healthcare services.

The project is an opportunity to encourage local economic attractiveness with various initiatives:

- leaseback arrangements can be provided for business premises (shops, workshops, etc.) by the local authorities or a third-party investor;
- support the provision of alternative shops (farm shop, solidarity-based, cooperative, associative shops);
- encourage the creation of a market in the planning project (square, market hall, etc.);
- support the creation of third places;
- create multi-purpose facilities;
- propose projects to repurpose commercial wasteland to contribute to urban renewal and combat **land take**.

QUESTIONS TO CONSIDER

How does the project encourage a programme with diverse functions and the facilities necessary for the district to operate correctly (activities, shops, services, school facilities, sports and cultural facilities, etc.)?

How does the project offer complementary functions that ensure a balance in the district, the surrounding area and the whole region (housing, facilities, services, shops, activities, etc.)?

In the programming phase, how does the project take into account the existing commercial and/or business premises and centres with a view to repurpose and/or renew them?

Is the housing offer in line with the available employment in the local area (revenue, number, etc.)?



Notion 12.2 Facilitate access to different functions

✓ RECOMMENDATIONS

- Create a **short distance** territory, particularly by making it easier for businesses to be created and/or for mobile shops and services to get around.
- Facilitate connections between the different functions of the territory.
- Work on the accessibility of **amenities** in the district (leisure activities and services), as well as employment hubs.

To implement the principle of a **short distance** town, while adapting to the territorial context and minimising the exposure of the population to pollution and nuisances related to **functional diversity**, several actions can be implemented for the project:

- propose solutions for public transport, demand-responsive transport or carpooling, and footpaths and cycle paths to access services, leisure activities and employment;
- facilitate the creation of businesses and/or for mobile shops and services to get around;
- propose solutions to encourage working remotely (shared work space, development of broadband, adapted housing units, etc.);
- carry out a sociological study to adapt the conditions of access (opening hours, prices, criteria, etc.) to services, shops and facilities, to the needs of inhabitants and users of the district;
- consider the needs and financial capabilities of inhabitants by carrying out a programming study to optimise accessibility to shops.

QUESTIONS TO CONSIDER

How does the project play a role in the short distance territory?

Are the various urban functions accessible to everyone in the district and on the outskirts?

Are the locations of new businesses involved in the project adapted to the public transport network and **existing or future polarities**?

How does the project plan to match supply with demand?



Les Lavandières Eco-District

Changé, Mayenne, Pays de la Loire



The first step of repurposing the centre of Changé Eco-District was carried out in a severely degraded old building. Residential buildings have been built alongside a town square and the churchyard, near a redeveloped stream. Thanks to this project, the busy traffic at this intersection with shops and services has been controlled, a town centre has been created and the commercial activity and services in this central area have been given a boost. The project also features attractive housing units in a good location. The public areas are part of a network of environmentally friendly transport solutions and the urban planning in these areas offers pleasant and accessible living conditions. The next phases of the project will even further diversify the housing offer and public areas will continue to be developed.

The repurposing of Changé town centre was an opportunity for the local authorities to work together with local shopowners. The objective was to strengthen the offer of local shops and ensure they complement the existing facilities, while managing the project timeline for shops already in place or wishing to set up their business there. This approach required considerable involvement from local authorities, including financial authorities, to ensure the leaseback arrangements for commercial premises, propose temporary or transitional relocation solutions and pursue active market development activities. To complement the shops and services, a square has been created in the town centre for a weekly market and mobile commercial businesses. The public works call for tender was divided into units, an ironworks unit for example, and local companies were given the opportunity to offer their services.

Local context **Town centre**

Type of project **Renewal - Existing district**

Surface area (ha) **0.33**

Surface area of green spaces (ha) —

Number of inhabitants capacity **200**

Number of housing units **49**

Of these housing units, number of social housing units **28**

Date work began / Year of completion **2014-2016**

EQ label **Step 3**

Year label was awarded **2016**

THOSE INVOLVED IN THE PROJECT

Project Owner **Town of Changé and Méduane Habitat**

Project Manager **Agence Rhizome architects, Cabinet Guillemot (landscaping), Ouest Structures, technical design office, IcoFluides**

Partners **CAUE 53, ADEME**

Commitment 13

Optimise the use of resources and develop local sectors and short cycles

Notion 13.1 Save resources

✓ RECOMMENDATIONS

- The potential for changing the destination of and repurposing existing buildings should be considered as a priority over demolition.
- Encourage the reversibility, renovation or repurposing of existing buildings, lightweight structures and a reduction in earthwork.
- Make use of local, **biosourced**, **geosourced** and/or reused materials for construction and planning projects.

Using an **eco-design** approach helps to reduce costs thanks to savings made in materials (more lightweight) or consuming less energy, optimisation of the supply chain (truck loading capacity, cold chain), and less waste to deal with.

Eco-design involves taking the environment into consideration from the design phase of a product or service, and then at every stage in its life cycle, from manufacturing to recycling.

The goal of this approach is to save on the territory's various resources, such as materials, water and energy. To do so, there are various possibilities such as safeguarding natural **heritage**, considering the reversibility of structures, changing the destination of existing structures, renovating and repurposing existing buildings or structures, reusing materials on-site as well as excavated materials/backfill and opting for more simple construction processes, using recycled, geosourced and/or biosourced materials, **bioclimatic design** of buildings, reusing materials from selective demolition, enhancing the environmental value of soils, using techniques that do not use too much water and simple technology that does not require complicated maintenance, is easily repaired and recycled, as well as the pooling of materials and services.

QUESTIONS TO CONSIDER

How does the project design (planning and buildings) help to limit the use of resources?

What implementation choices should be made to optimise the use of biosourced, local geosourced materials or those that have been reused (scrapping)?

How is the architectural, natural and built heritage included in the project?



Notion 13.2 Implement the circular economy

✓ RECOMMENDATIONS

- Identify local expertise and local sectors to reduce the impacts of transport and add value.
- Keep in mind **Industrial and Territorial Ecology (ITE)**: pooling of resources with other local players (other worksites for example, construction companies nearby, etc.).
- Contribute to boosting local sectors concerned with reuse, **biosourced**, and **geosourced** materials, as well as **short cycles** and/or local businesses.

The **circular economy** and industrial ecology are based on **systemic** approaches to economical and responsible consumption of natural resources.

For a sustainable planning project, a circular economy approach determines the land as the first resource to be safeguarded.

This approach is based on methods of organisation involving several economic players from the same territory, and aims to improve the attractiveness of this area.

The circular economy approach can identify, encourage and support the development of biosourced and locally geosourced sectors, the use of local plant species, materials that do not consume much **grey (or intrinsic) energy** from the district and further afield.

These factors contribute to the economic development of the territory and local expertise, while reducing transport needs and focusing on the short cycle approach.

It is important to encourage synergies, the pooling of spaces or buildings with future users and managers, the creation of areas in the district for business incubators, shared work spaces or for varied uses such as third places, organic canteens, etc.

Pooling the uses or installations within a project can help limit the use of resources, such as heating networks or shared spaces.

QUESTIONS TO CONSIDER

How does the project encourage short cycles, local production, transformation and maybe even local consumption?

How do employment and training support schemes take into account local sectors and their potential for development?

What synergies are set up between players from the territory's public and private sectors to develop the use of local resources in the project?



Cœur de Bourg

La Rivière, Isère, Auvergne-Rhône-Alpes

Local context **Village**

Type of project **New district**

Surface area (ha) **0.77**

Surface area of green spaces (ha) —

Number of inhabitants capacity **50**

Number of housing units **12 + 1 commercial unit**

Of these housing units, number of social housing units **7**

Date work began/ Year of completion **2000-2009**

EQ label **Step 4**

Year label was awarded **2017**

THOSE INVOLVED IN THE PROJECT

Project Owner **Town of La Rivière**

Project Manager **Mr. Yves Perret (project manager), Atelier F4 & Verdance (prior studies)**

Partners **ADEME, AGEDEN, AMO sustainable development, CAUE, Chamber of Commerce and Industry, DDE (maintenance department), PNR**

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The goal of the Cœur de Bourg Eco-District was to create a coherent and quality urban development in the centre of the rural town of La Rivière, in an effort to boost business there and improve the attractiveness of the area. The project involves creating services, public areas and housing, as well as creating additional tourism accommodation and outdoor activities in the region. It was developed with the quality of the environment and the use of local resources in mind, and managing the risk of flooding was also a key concern. The project created a new community square and two tourism accommodation establishments. The project highlights the importance of sustainable building practices and comfortable living spaces, as well as the use of resilient materials and effective energy systems.

Cœur de Bourg is a reference in terms of the way it has provided a boost for local economic sectors. Workers were trained on eco-construction techniques and a large share of the materials used for the Eco-District buildings was sourced from the local wood sector. The worksite was also used as a place for local businesses to experiment with the use of materials that bear environmental labels (hempcrete, cellulose wadding for insulation, wooden slabs, etc.). The project won the Grenoble sustainable housing prize in 2008 and the national arturbain.fr prize for 2009.

Commitment 14

Encourage sustainable and active mobility solutions

Notion 14.1 Develop the public domain with sustainable and active mobility solutions in mind

✓ RECOMMENDATIONS

- Plan for the minimum space for roads designed for the use of automobiles (this might require changing the traffic directions), impose a lower speed limit with certain developments so that the area can be better adapted to combined uses and provide security for vulnerable users.
- Plan for safe and easy-to-use footpaths and cycle paths that are accessible to all and blend in with existing or future networks.

- Regulate motorised and non-motorised parking (bikes, personal mobility devices (EDPM IN FRENCH)) and share private parking facilities to clear public areas, limit sealing and ensure the mutability of parking spaces.

For local authorities, encouraging the use of alternative modes of transport to the car is not only a means of improving the **quality of life** for inhabitants, but it is also a way to address political concerns with regards the environment, public health, the economy and social interaction.

Footpaths and cycle paths in particular should be safe, comfortable, well marked-out, accessible to all and blend in with existing or future networks. All these initiatives need to involve local authorities, transport organisation authorities, transport operators, administrators of public road networks, users and residents.

There are several ways to reduce the space devoted to cars in the town and therefore encourage sustainable, active ways of getting around, such as planning for the minimum space for roads devoted to motorised use or imposing a lower speed limit with certain developments so that the area can be better adapted to combined uses. Some other possible measures include providing lanes that are open to automobiles so that different modes of transport can share the same areas, such as 30 km/hr zones or pedestrian-priority zones which promote shared, peaceful use of the roads in areas where motor traffic isn't too dense. In other cases, it would be more beneficial to develop separate areas.

The space taken up by cars can also be controlled by changing the dimensions of or ensuring the mutability/diversity of use of parking areas (e.g. to temporarily transform the space into an events venue).

QUESTIONS TO CONSIDER

How does the project planning encourage active means of getting around (pedestrians, bikes, scooters, etc.) within the district and in the surrounding area? How are citizens and users involved in these choices?

What should be done to reduce motorised traffic and control speed limits?

What parking facilities can be implemented to reduce the space allocated for cars and encourage the use of bikes in the project?

How do public areas encourage regulated speeds and traffic, combined means of transport and accessibility for all?



Notion 14.2 Provide the necessary facilities for a change in practices

✓ RECOMMENDATIONS

- Provide safe bicycle parking areas and ensure they are close to facilities, activities and shops, and provide enough bicycle parking areas for housing developments and establishments open to the public.
- Facilitate access to carpooling services, **carsharing or bicycle sharing** by providing adapted facilities.
- Anticipate the needs for charging stations and infrastructures for the use of electric vehicles.

Other than developments on the road network and in public areas, other facilities need to be provided to ensure the development of alternatives to the individual car. It is essential to anticipate the needs of everyone, at every phase of the project. To do so, transport solutions for people with reduced mobility (PRM), active transport solutions, public transport and shared mobility must be addressed as cross-thematic matters. At the same time, it is necessary to minimise transport time and distance, by ensuring the **permeability of the district** in terms of footpaths.

Encouraging the use of electric or hybrid vehicles requires the installation of enough charging stations that are accessible to all (including for PRM), with effective devices and in places that have been identified for users.

Adapted facilities allow easier access to carpooling services, carsharing or bicycle sharing services. Arranging for parking spaces reserved for carpooling, carsharing or eco-friendly vehicles is a way of promoting these uses (pooling by grouping together or abundance).

Likewise, creating bicycle parking areas, adapted for different models (e.g. Cargo bikes, etc.) that are secure and close to facilities, activities and shops, is a means of encouraging active modes of transport.

QUESTIONS TO CONSIDER

What are the alternatives, what transport services should be provided?

How were the transport needs of the citizens and users of the district identified? What developments are needed to meet these needs, particularly in terms of electric mobility?

How does the project integrate shared transport services to encourage alternatives to individual cars?



Notion 14.3 Link the district to public transport to improve intermodal passenger transport

✓ RECOMMENDATIONS

- Provide pedestrian and cycle paths between the closest and/or more attractive public transport solutions (e.g. train station).
- Anticipate the best internal and external public transport cover (facilitate traffic and adapt the timetable to needs).

The goal of intermodal passenger transport is to provide an overall offer of alternative transport solutions to the individual car, by combining different services. This practice is in keeping with the transport decarbonising targets on a national and local scale, especially with the development of **Low Emission Zones (LEZs)**.

In this range of complementary services, public transport has a key role to play, to ensure the right to mobility for all.

Users who have alternative possibilities to the individual car expect a good level of service from public transport, otherwise they will not tend to use it. The quality of this service depends on the network, reliability, frequency, timetable, comfort, safety and security. To anticipate the best public transport cover, stakeholders, infrastructure and road network administrators and users all need to be involved in dialogue to determine the expected organisation of service.

Access should be made easier thanks to accessible footpaths and cycle paths (including bicycle parking areas) that lead to the closest, most attractive or busiest public transport stations.

More generally, a specific place devoted to transport services could be provided within or on the outskirts of the project, where all the different transport services can be brought together.

QUESTIONS TO CONSIDER

What developments are required to improve intermodal passenger transport solutions?

How does the project integrate public transport solutions?

What services are provided for users to make it easier to get around using public transport?



Notion 14.4 Organise urban logistics

✓ RECOMMENDATIONS

- Identify storage and B to B delivery needs for economic activities (shops, local crafts-people), as well as B to C (home deliveries), and offer pooling solutions such as urban logistics areas, shared warehouses or warehouses that allow out-of-hours deliveries (provide a vestibule in shops), shared commercial vehicles, etc.
- Draw up traffic, parking and delivery zone regulations, encouraging means that consume less energy,

produce less carbon per tonne transported (heavy goods vehicles and cargo bikes); plan for delivery zones that encourage these uses.

- Set up pick-up points for B to B and B to C that are easy for carriers to access - especially those using cargo bikes - and customers, which will in turn boost the **circular economy** (returnable materials, collection of standardised pallets, reverse logistics).

Urban logistics is essential in the day-to-day operations of a town and it should allow for optimised deliveries which involves effectively managing customer delivery services by limiting nuisances for residents and environmental impacts.

With this in mind, initiatives are needed to encourage the use and parking of delivery vehicles that produce less carbon via a network of cycle paths, an urban logistics network and an adapted strategy for possible delivery zones. Likewise, depending on the type of activity offered, it could be beneficial to address needs by using warehouse storage space in the district, to then be able to carry out customer deliveries using active mobility solutions. For certain specific activities, the integration of a privately-owned area needed for delivery will be considered.

Likewise, offering pick-up points, or even returnable items, that can be easily accessed by carriers (cargo bikes as a priority) and accessible for all users (including PRM) is a way to ensure a good level of service.

QUESTIONS TO CONSIDER

What can be done to facilitate more sustainable urban logistics?

What sort of urban planning developments can make deliveries easier and reduce their impact on traffic?

What sort of urban services and/or travelling means can decarbonise the first and last stages in the logistics chain?



Notion 14.5 Promote the use of alternative modes to solo driving

✓ RECOMMENDATIONS

- Highlight alternative modes by using signs (e.g. display the walking time or direction to public transport stations).
- Increase awareness and encourage users and inhabitants to get around using virtuous means of transport.

One of the obstacles to intermodal passenger transport and using alternatives to the individual car is that users are not fully aware of the possibilities in the local area.

Adapted signage is a way to encourage walking, cycling, using public transport and shared mobility solutions. This highlights the walking time or direction to public transport stations for example.

As well as these urban developments, it is also essential to provide support on the field to users and inhabitants. This involves local activities and events to encourage inhabitants and users to use more virtuous mobility solutions.

To ensure people take action, awareness campaigns need to be set up, on the actual cost and impact of the individual car for example, and on the savings people can make. This might also involve specific training for changes in practice such as learning to ride a bike, using public transport, **car-sharing** services, self-service bikes or scooters. These initiatives can also help draw up a collective charter for inhabitants and their commitments to ensuring more virtuous mobility solutions.

QUESTIONS TO CONSIDER

What support and informative initiatives can make it easier to understand the district and get around?

What developments can be implemented to provide support and/or awareness of alternative means?

What awareness campaigns can encourage changes in behaviour to more virtuous mobility practices?



Cannes Maria

Cannes, Alpes-Maritimes, Provence-Alpes-Côte d'Azur

Local context **Centre**

Type of project **Reconversion - Wasteland**

Surface area (ha) **1.6**

Surface area of green spaces (ha) **0.5**

Number of inhabitants capacity **550**

Number of housing units **270**

Of these housing units, number of social housing units **84**

Date work began/ Year of completion **2008-2016**

EQ label **Step 3**

Year label was awarded **2017**

THOSE INVOLVED IN THE PROJECT

Project Owner **Town of Cannes**

Project Manager **Vinci Immobilier & Société Batim, AMO Pastorello, EURECA, Cabinet Fournet, CITADIA, IOSIS**

Partners **AMIREAN, local association, Conseil Départemental des Alpes-Maritimes, RTE & ERDF (moving the electrical transformer), SIAUBC (rainwater networks and collection reservoir)**



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The Cannes Maria Eco-District is on the industrial wasteland of a former GDF plant, and acts as a barrier between the working-class districts of Prado-République and the Californie residential area. The main goal for the town was to recreate the urban nature of this area and produce a barrier between these two strategic districts. The project included housing (a third of social rental housing units), the creation of services and shops and public facilities for all generations. Parking spaces were also created underground, some of which are available for public use to compensate for the loss of parking on the surface when the public areas of the district were redeveloped. This urban planning project highlights social diversity and cultural life, for a district with a strong identity.

Before developing mobility solutions that are specific to this district, the Cannes Maria project is addressing transport needs with urban design. Firstly, the initial condition of the wasteland cut this area off from the town, and so developing the area has created a connection between districts. Secondly, there was already a public transport network nearby, and the urban planning project simply optimised this use. The creation of services within the district has enhanced the local possibilities for the district and surrounding area, according to the '15-minute city' urban planning concept. Finally, the Cannes Maria island itself is exclusively devoted to active means of getting around, with an avenue and promenade of greenery crossing through. To be able to do this, parking needs were concentrated on underground solutions, and a bus stop was placed at the entrance to the district, at the new Place Commandant Maria.

Commitment 15

Ensure responsible digital transition in keeping with sustainable planning

Notion 15.1 Use digital technology to create a more sustainable territory

✓ RECOMMENDATIONS

- Measure the social and environmental impacts of digital services in order to control and organise the deployment of these services.

- Aim for useful, accessible solutions that do not use too many resources, are proportionate in terms of technology, sustainable and respect the privacy of citizens.

The social and environmental impacts of digital services need to be measured in order to control and organise the deployment of these services.

Responsible and energy-efficient digital solutions have more limited negative impacts, and are more in keeping with climate and environmental goals.

When using digital solutions, it is important to consider useful, accessible solutions that do not use too many resources, are proportionate in terms of technology, sustainable and respect the privacy of citizens.

The environmental impact of digital solutions must be considered throughout the whole life-cycle, to minimise impacts while maximising potential.

The territory must be protected from any possible vulnerabilities related to digital technology and the needs should be identified before looking for the adapted solutions.

It is essential to reduce energy, resources, materials, soils, and water consumption, to ensure a better quality of life while respecting the biophysical boundaries.

QUESTIONS TO CONSIDER

How does the project consider the issue of digital sobriety in providing the expected digital services?

Do the identified solutions satisfy the specific needs of inhabitants to improve their quality of life?

How does the project consider public health and integration into the urban landscape and natural surroundings when rolling out digital networks?

Was a global life-cycle assessment carried out of the identified solutions?

What is the level of coverage across the district for mobile networks? With regards the roll-out of networks, does the project guarantee an output that will satisfy the identified needs?



Notion 15.2 Use digital networks for the benefit of the project

✓ RECOMMENDATIONS

- Develop digital solutions to increase awareness of the environmental issues in the area, and spread knowledge.
- Take advantage of digital technology to encourage access to urban services, social interaction, and to provide information about cultural and leisure activities.
- Provide communication about how citizens can get involved and ensure diverse participation channels to take into consideration those who do not use digital devices.

The progression in digital technology is an opportunity for sustainable cities. Digital tools can help territories stay resilient in their transformation to improve environmental quality, develop knowledge, make services easier to access, encourage social interaction and citizen involvement.

When developing digital networks, public health needs to be considered, as well as integration into the urban landscape and natural surroundings. It is also important to ensure responsible digital solutions and the resilience of the project/territory.

Digital solutions also need to be adapted to plan for better knowledge of the territory's specific characteristics and evolutions, and to ensure a sustainable project, particularly to be able to address environmental changes and the **systemic** effects of such changes. These solutions should be used to boost knowledge of natural, geological, biophysical features and evolutions in the climate of the local area so that the project is adapted accordingly.

Digital solutions should be used as support tools for the territorial project:

- encourage digital tools for citizen involvement and dialogue;
- take into account those who do not have access to digital tools by ensuring diverse participation channels, and provide support for these people if needed.

QUESTIONS TO CONSIDER

How can digital technology be used in the project to spread knowledge across the local area? How can it be used to encourage solidarity between inhabitants, improve their access to urban services, and boost dialogue?

How can knowledge of digital practices and expectations of inhabitants and users be developed?

How can the design of accessible and open places be included in the project, to encourage digital technology for everyone? How can these places be operated?

How can we ensure the digital solutions are robust and sustainable when faced with hazards and vulnerabilities (energy and shortage of supply, cyberattacks, etc.)?



Notion 15.3 Satisfy the needs that have been expressed or identified

✓ RECOMMENDATIONS

- Provide support for inhabitants and users in the digital transition.
- Implement remote working solutions and make it easier for innovative companies to set up

business here, as well as **fab labs** and places where the public can come for assistance in digital solutions.

Innovation and the development of digital services can be encouraged in a useful, fair manner by offering the following:

- digital concierge services;
- providing coworking spaces;
- encouraging working from home;
- IT solutions to exchange services, skills and know-how;
- carsharing scheme managed by a digital application, etc.

Synergies with **short cycles**, transport networks and personal services are always a good idea.

Services that satisfy the specific needs and digital knowledge of inhabitants and improve their quality of life could be developed.

The idea is to use digital solutions to assist with professional integration, inclusion and citizen involvement, to improve and encourage access to urban services, social interaction, and providing information about cultural and leisure activities.

Innovation that has been tried and tested should be supported and optimised before considering the development of new ideas.

QUESTIONS TO CONSIDER

How does the project encourage access for everyone to digital solutions (awareness, training)?

How can new methods of working with less need for travelling be taken into account in the project?

What places devoted to the use of digital solutions are already available in the local area (third places, fab labs, coworking spaces, etc.)? How can the project get involved in and possibly help develop the creation of links and access to social, cultural and administrative services?



Bel Air - Grands Pêcheurs

Montreuil, Seine-Saint-Denis, Île-de-France

Local context **Suburbs**

Type of project **Renewal - priority district**

Surface area (ha) **41**

Surface area of green spaces (ha) —

Number of inhabitants capacity **7,000**

Number of housing units **2,500**

Of these housing units, number of social housing units **1,500**

Date work began / Year of completion **2003-2017**

EQ label **Step 3**

Year label was awarded **2015**

THOSE INVOLVED IN THE PROJECT

Project Owner **Town of Montreuil locally**

Project Manager—

Partners **ANRU, providers of social housing, EPARECA, AFL, private developers**

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The Bel Air-Grands Pêcheurs Eco-District in the town of Montreuil is in a social housing district made up of large housing complexes from the 1950s and 1970s. This site is relatively far from the town centre and the ANRU provided support for the project to demolish 300 social housing units and renovate 1,000 others, as well as redevelop outdoor areas. The project was designed to be able to accommodate the future public transport network, and a Local Strategic Plan was rolled out to carry on with the work started by the ANRU. The Bel Air-Grands Pêcheurs project serves as a reference in terms of local involvement, the work done on public and private areas, dialogue with the locals, social and functional diversity, alternative rainwater management and safeguarding biodiversity.

The Eco-District is also a reference in its use of digital technology. First of all, a Facebook group was created to make communication and dialogue on the urban and social renovation project easier, which also meant that young people who are often excluded from these procedures could get involved. The town's official website had a page devoted to the project and several open data documents were posted to the page so that inhabitants and users could access this information more easily. The association 'Permis de Vivre la Ville' offered training courses on videos and digital communication and digital training workshops were organised by the Maison de Quartier. Finally, the Sesam application was created so that inhabitants and users could notify of any incidents in public areas, and then monitor the resolution of these incidents carried out by Montreuil technical services.

Camille-Claudel Eco-District

Palaiseau, Essonne, Île-de-France



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The Camille-Claudel Eco-District is close to the international science and technology cluster on the Saclay Plateau and the Palaiseau state-owned forest. It was designed to serve as a link between the farming areas and the existing and future districts. This project has created a new central location and a new train station for a connection between Massy and the Ecole Polytechnique. It also combats urban sprawling by offering urban shapes with dense housing. Close to 1,500 housing units were built, and 35% of the surface area in m² is devoted to assisted housing. Inhabitants have access to a great number of services and public facilities, including a community hall, shops, schools, a gymnasium with wooden framework and quality public areas such as the central square, the paved square in front of the pool complex and the small square at the entrance to the district. There are also convenience stores, a children's daycare centre, a medical centre and a concierge service. The project includes an alternative management approach to rainwater, footpaths and cycle paths were developed and the district uses a biomass heating plant for heating and domestic hot water.

The Camille-Claudel Eco-District participates in the DiVD programme to experiment with Li-Fi, communication technology which uses light. It utilises light signals via LEDs to transmit data between devices, without the emission of harmful wavelengths. The goal is to create a quick, secure and unlimited network by making use of the public lighting system. There are multiple advantages of Li-Fi, creating possibilities for innovative services. In the Camille-Claudel district, 77 street lamps were equipped with this technology to transmit geo-referenced data to citizens via their mobile phone. The project aims to serve as a model for industrialising this technology and in developing applications in France and abroad.

Local context **Suburbs**

Type of project **Controlled extension**

Surface area (ha) **12**

Surface area of green spaces (ha) **0.67**

Number of inhabitants capacity **Around 3,500**

Number of housing units **1,456**

Of these housing units, number of social housing units **396**

Date work began / Year of completion **2010-2015**

EQ label **Step 4**

Year label was awarded **2021**

THOSE INVOLVED IN THE PROJECT

Project Owner **SEM Paris Saclay Aménagement**

Project Manager **Coordinating**

architect: **François Leclercq**

Architects / Landscaper:

Phytostore / design office for road works: AVR / AMO for HQE and sustainable development: AI Environnement

Partners **Bouygues Immobilier, Eiffage Immobilier, Kaufman & Broad, Nexity Appolonia, CDU**

ENVIRONMENT AND CLIMATE

16 Strengthen resilience in the face of climate change and hazards

17 Contribution to climate change mitigation, encourage energy sobriety and the use of renewable energy

18 Avoid, reduce, recycle, reuse waste

19 Safeguard, manage and restore water supplies

20 Safeguard and restore soils, biodiversity, natural habitats

Environment and climate are major factors in sustainable planning.

The resilience of projects in the face of more intense impacts of climate change and natural and anthropogenic hazards should be included from the earliest project phase, by adopting adaptive measures and opting for nature-based solutions.

Sustainable planning also needs to contribute to mitigating climate change, by encouraging energy sobriety and the development of renewable energy sources and energy recovery.

The issue of waste also needs to be reconsidered in order to reduce, recycle and reuse waste.

Finally, it is crucial to safeguard and restore the function of soils, biodiversity and natural habitats, as well as water resources.

Commitment 16

Strengthen resilience in the face of climate change and hazards

Notion 16.1 Counter the hazards

✓ RECOMMENDATIONS

- Identify and take into consideration natural and anthropogenic **hazards** when choosing a project location. Come up with solutions that are adapted to the context, giving priority to **Nature-Based Solutions (NBS)** over technical solutions, and ensure they do not have any negative impacts when they are implemented.

- Implement a concerted and shared approach to resilience, including a vulnerability assessment that is in keeping with the territorial strategy (**SRADDET**, **SCoT**, **SDAGE**, **PCAET**, **PADD** in particular) and the **PNACC**.

When choosing the location of a project and in designing the project, it is necessary to identify the hazards and vulnerabilities of the local area. Doing this beforehand means that adapted and suitable solutions can be integrated in the earliest stage, to reduce these threats. The following fields could be concerned by hazard prevention:

- environmental (flooding, earthquakes, forest fires, landslides, avalanches, submersion, water stress, etc.);
- industrial and technological hazards (cybercrime, etc.), sanitary hazards (atmospheric and noise pollution, pandemics, psychological and physical consequences of increasing exposure to hazard, etc.) or economic hazards (transfers due to decarbonising or scarce resources, etc.) and social hazards (exclusion, poverty, etc.).

On a broader level, the goal is to take into account the factor of resilience at every stage of the project, as a logical approach to the planning operation. Consequently, the matrix represented by the ground, the water system and biodiversity must be considered at the very beginning of the project for example, as must concerns of social vulnerabilities. The project must be placed within the environmental boundaries of habitability of the planet and within social and societal boundaries.

A more holistic vision of the issues should lead to more **systemic** solutions: each part of the planning operation should involve all resilience goals, which helps to strengthen the economic efficiency of the project for example. There are multiple solutions to regenerate soils, the water cycle, biodiversity of the local economy, and to reconcile uses and day-to-day comfort with solutions to key issues.

QUESTIONS TO CONSIDER

How can the human, material and environmental factors exposed to natural or anthropogenic hazards be identified, and how can their level of vulnerability be assessed?

How can vulnerabilities be taken into account to reduce hazards on a territorial scale, in keeping with the resilience strategy defined locally?

How can Nature-Based Solutions be rolled out at the design stage, as well as low technologies that reduce exposure to hazards and the vulnerability of the district to such hazards, beyond regulations?



Notion 16.2 Adapt to the impacts of climate change

✓ RECOMMENDATIONS

- Anticipate the **hazards** that are specific to climate change within the context of the project.

- Seek out and implement innovative actions and solutions to the local effects of the new challenges, opting for **Nature-Based Solutions (NBS)** wherever possible: removing impermeable surfaces and restoring the natural condition of soils (reducing **heat islands**, management of **rainwater**),

planting for buildings (walls and roofs) and taking into consideration the thermal comfort of buildings and public areas (integrating plant-life, water, choice of materials for the ground, walls, high-albedo roofs, **bioclimatic design**, etc.).

- Design resilient planning solutions and buildings, that take into account hazards related to climate in their design.

To combat the impacts of climate change that are escalating (heatwaves, erosion of biodiversity, disruption of the water cycle, storms and marine submersions, floods, clay swelling and shrinking and earth movements, etc.), the project must be involved in a more widespread territorial strategy (**SRADDET**, **SCoT**, **SDAGE**, **PCAET**, etc.), by creating resilient urban planning that takes into account specific territorial and urban characteristics (climate, topography, hazards, nature of soils, water reserves, existing urban fabric, materials, local vegetation, etc.). The goal is to reduce the vulnerability of the district when faced with the risks and hazards of the territory.

To do this, a project that can adapt to climate evolutions is needed, from the design phase of urban planning: taking into account wind and exposure in the design of spaces, carbon capture and storage, summer comfort, planting of public areas and island centres to combat heat islands, shaded footpaths and cycle paths, removing impermeable surfaces, taking into account the albedo ratio of materials, adapted rainwater management, etc.

The project will opt for Nature-Based Solutions (NBS) to reduce the impacts of climate change, if required for the district and in keeping with local characteristics (type of vegetation, water resources and available land, organic and **geosourced** building materials, etc.).

Depending on the morphology of the district, the public areas and buildings (position of the buildings, shade, vegetation, albedo ratio of materials), different types of NBS are conceivable such as planting trees straight into the ground, creating green spaces, planting on roofs and walls of buildings, safeguarding or restoration of wetlands, etc.

QUESTIONS TO CONSIDER

How can the long-term evolution of the climate (climate regime of the future, likelihood of extreme events), its effects and the vulnerability of the territory and populations to this be anticipated?

How can a planning project be created that is adapted (urban design, public areas, interior comfort, presence of nature) to reducing the vulnerability of the district to climate change?

Which Nature-Based Solutions can the project include to adapt the district to climate change?



Notion 16.3 Raise awareness and train

✓ RECOMMENDATIONS

- Support a coordinated network of local resilience partners. especially environmental and climatic hazards, the **risks** and nuisances in the territory, to get people involved and to be in a position to adapt.
- Raise awareness, train and support inhabitants, users, unions and administrators of the hazards,

The project should systematically take into account the social factor of adapting to the consequences of climate change and anticipating assistance for the most vulnerable.

Citizen empowerment and commitment should be encouraged when developing the resilience of the local area. This requires raising awareness, informing the population about adapting to climate change, to the risks, hazards and nuisances, and involving them in the response with renewed action on risk culture, providing inhabitants with regular information, voluntary schemes ready and willing to intervene and support their neighbours in the case of hazard events, communication and dialogue meetings, materialisation of flood levels, showcasing local know-how and interpersonal skills, etc.

QUESTIONS TO CONSIDER

What role can each player in the local area play in the face of climate change, natural and anthropogenic hazards, and how can an effective response network be set up (anticipation, prevention and crisis management)?

What sort of awareness campaigns on the topic of hazards and adapting to climate change could be rolled out for inhabitants, users and administrators?



Parc Marianne

Montpellier, Hérault, Occitanie



© Arnaud Bouissou

The Parc Marianne Eco-District is part of the eight ZAC (designated development zones) that make up Port Marianne, a huge planning programme covering 400 hectares in south-east Montpellier, an area experiencing significant urban growth. The La Lironde stream flows through the area and the Eco-District was created around Georges-Charpak park and alongside Avenue Raymond-Dugrand. Its distinguishing features are the harmonious morphology of the buildings, tiered and facing the central park, with apartment buildings at the centre of the district that blend in with the Ernest-Granier and Pablo-Picasso squares. The district boasts recreational public areas (water mirror, play area, landscaped avenues, etc.) and puts a strong focus on social and functional diversity.

The 6-hectare Georges-Charpak park is a way to create a significant share of green spaces in this relatively dense urban area. The main features of the district are the two collective housing sectors in the north and south. There are two tram routes crossing through the district, and from 2025, two of the Montpellier Express Vélo cycle routes will pass through the area, placing the Eco-District just a few minutes from the city centre, the coast, from the Odysseum commercial and recreational complex, and from the service sector district of the TGV Sud de France train station.

The Parc Marianne ZAC in Montpellier was designed to be able to face the region's climatic challenges. With 34.67% of planted surfaces, the district is bringing nature into the city. Georges-Charpak park has a hydraulic retention pond that is blended into the landscape and stores floodwater to then slowly release it and therefore delay urban run-off. The public park and landscaped area in and around the Lironde stream provide a cool environment in summer and boost biodiversity. The buildings in the district boast remarkable architecture and overlook Charpak park, and the adjoining urban areas are where the shops, offices and services are located. Parc Marianne also uses a collective heating network powered by a wood-fired plant, and the schools are energy-positive buildings. The architectural folly, Alma Terra, will soon use the soil from its site as a building material, with the goal of being awarded the Passivhaus label.

Local context **New town centre**

Type of project **Controlled extension**

Surface area (ha) **30**

Surface area of green spaces (ha) **7**

Number of inhabitants capacity **5,800**

Number of housing units **2,537**

Of these housing units, number of social housing units **617**

Date work began / Year of completion **2007-2030**

EQ label **Step 3**

Year label was awarded **2015**

THOSE INVOLVED IN THE PROJECT

Project Owner **City of Montpellier, SERM**

Project Manager **Architecture Studio and various general contractors for the construction industry**

Partners **Providers of social housing, SERM**

Commitment 17

Contribution to climate change mitigation, encourage energy sobriety and the use of renewable energy

Notion 17.1 Encourage energy sobriety and energy efficiency

✓ RECOMMENDATIONS

- At the scale of the district, take into consideration nearby existing resources, and then decide upon the positioning of the buildings and external areas with a view to minimising the need for resources and energy sources, from the construction phase to the end use.
- At the scale of the buildings, reduce the carbon footprint of the construction (opt for renovation and repurposing, adapted choice of materials and construction means, etc.) and use (**bioclimatic design**, waste, etc.).
- Set performance goals.
- From as early as the project definition stage, assess the impact of the project in terms of **greenhouse gas** emissions across the entire life cycle, with continuous improvement in mind (questions of perimeter and timeline for possible comparisons) in accordance with **SCOPE 1, 2 and 3** for a period of 50 years.
- Assess the potential for carbon capture and storage in the district and implement adapted solutions.
- Respect the '**Avoid, Reduce, Compensate**' principles with regards **GHG** emissions, using compensatory measures if necessary (low-carbon label initiative, etc.).

In order to reach carbon neutrality by 2050, control energy supply and its cost, it is necessary to drastically reduce energy requirements. Bearing in mind that 50% of the carbon footprint of a French person depends on the urban planning choices in their place of residence, assessing how the project can play a part in reaching this carbon neutrality goal is key.

In the earliest stage, this is about assessing the programming needs, studying the different planning scenarios that could be best suited to the context and measuring the energy/carbon footprint of each scenario on the whole life cycle of the district. Using existing features (such as renovating buildings and infrastructure for example) is a good way to decrease the carbon intensity of the urban planning project. Finally, if it is not possible to completely remove carbon emissions, there are ways to compensate this.

In the design phase, on an urban scale, the location and positioning of buildings and public areas can reduce energy requirements and carbon emissions. Bioclimatic design, local urban planning, mobility solutions and pooling services for example, can all influence day-to-day practices and consumption. For each building, a reduction in the carbon intensity requires taking action on thermal insulation, ventilation and natural lighting, efficient energy and electrical processes, etc. In the construction phase, ways of minimising the district's carbon intensity include worksite logistics, the mobilisation of local sectors, virtuous building materials and processes (bio/geosourced or low carbon, from the **circular economy**, etc.).

In addition to reducing emissions, the potential for carbon capture and storage depends on changes in how the ground is used, and also on the use of products and materials from the **bioeconomy** (wood, straw, etc.). The urban planner could call upon specific expertise prior to the project such as contractors specialised in the environment, design offices specialised in energy, tools to assess the energy/carbon footprints, etc.

QUESTIONS TO CONSIDER

What are the energy requirements generated by the project and what are the goals in terms of energy efficiency and lowering CO₂ emissions, in keeping with regional decarbonising strategies **PCAET**?

How can the district's energy/carbon footprint be assessed for the whole life cycle according to the planning choices that will guide the project towards the optimal scenario?

What means and solutions (technical, financial, organisational, etc.) can be rolled out to guarantee the project is energy efficient?



Notion 17.2 Develop the production of renewable energy sources and energy recovery

✓ RECOMMENDATIONS

- Assess and opt for the production of local, renewable energy sources and energy recovery (industrial and territorial ecology) and examine the possibilities of connecting to a network in the vicinity of the district.
- Consider an energy distribution and storage network that is adapted and optimised to supply the district and surrounding area, in keeping with regional strategy (PCAET in particular).
- Propose shared governance initiatives for local renewable energy sources, to encourage appropriation.

Once the drivers for energy efficiency and lower consumption are in place, decarbonising residual energy needs will enable - besides diversifying the energy mix - the local area to become energy self-sufficient, prevent fuel poverty and support local sectors. On the district level, this requires the development of renewable energy and energy recovery.

Rolling this out across the district is in line with the regional energy strategy (**SRADDET**, PCAET, road map, etc.). To do so, it is necessary to assess needs and resources (local firewood sectors, studying the production of recoverable waste heat and biogas, mapping geothermal, wind and solar potential) and determine the technical nature of existing production, storage and distribution means (heating and cooling networks, renewable energy plants either already in operation or planned close to the urban planning zone).

Then, the choices in terms of **urban shapes, density, and functional diversity** can encourage the installation of facilities for the production and distribution of collective, pooled energy sources (collective self-consumption). For example, optimising heating and cooling networks requires a sufficient level of thermal density, which is why it is necessary to coordinate the timeline for the planning project and that of the network.

QUESTIONS TO CONSIDER

Which **renewable energy sources and energy recovery** are available near the project (not reserved for other regional projects): firewood, heating and cooling network, waste heat, biogas, geothermal, solar, wind power, etc.?

What technical and financial conditions are involved in connecting to the renewable energy sources and energy recovery for electricity and heating in the urban planning sector (electrical grid, pipework, substations, taking into account natural or environmental factors, etc.)?

What level of renewable energy sources and energy recovery is required to keep the project in line with the regional energy strategy goals?

What level of governance is needed to produce, supply and store renewable energy and energy recovery?



Notion 17.3 Roll out a support scheme

✓ RECOMMENDATIONS

- Implement tools to monitor consumption, support and inform stakeholders on their use, with continuous improvement in mind.
- Encourage inhabitants and users to adopt habits whereby they consume resources sparingly inside buildings and for public facilities.
- Increase awareness for inhabitants, users, unions and administrators of changes in practices.

Effective design choices are needed for the district in order to reduce the carbon footprint, but alone, this is not enough. It is the individual practices and uses that will actually make a difference. To achieve this, users and inhabitants need to take ownership of the determinants of their energy/carbon footprint and their ability to act on it.

Awareness campaigns/information/training initiatives based on the issues surrounding energy and carbon can be offered to the general public. Technical solutions to achieve energy efficiency (bioclimatic, electrical systems, etc.) often involve an adaptation period for users. Information leaflets can be distributed to inhabitants and users to help them change their practices.

Monitoring energy consumption is an effective way to increase awareness of using resources sparingly and energy efficiency. This can be done by setting up sensors, separate meters, monitoring individual consumption, etc. This requires specific tools for the district that need to be planned in the earliest stage of the project, and then support needs to be provided in later phases.

QUESTIONS TO CONSIDER

How can energy consumption in the district be monitored and how can solutions to reduce energy consumption be identified?

How can inhabitants and users be made aware of the issues of energy sobriety and using resources sparingly, and of what they could do to achieve this?



The Ferme Forgeronne

Les Forges, Vosges, Grand Est



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The town of Forges took on the restoration of an old farm in the centre of the village covering a surface area of 800 m², to provide a direct point of sale for short cycle farm products. The project also included 4 housing units on the upper floor, a nurse's surgery and a veterinary clinic that was replaced by a 5th housing unit, proof of the adaptability of the project. The goal of the project was to revitalise the centre of the village close to Epinal, by recreating a lively village centre. The project also revitalised the old farmhouse in terms of environmental performance, while ensuring its heritage value remained intact. The new convenience stores would limit travelling distances and create a place for locals to come together. This also encouraged the use of environmentally friendly ways of getting around.

The Ferme Forgeronne Eco-District has recreated services at the heart of the village (shops, healthcare, community areas), that are accessible to all inhabitants and provide access to locally produced products. In the local area, this reduces the need to travel longer distances and therefore reduces energy consumption for the whole region.

Then, by rebuilding an exact copy of the construction (the initial restoration was not possible due to the condition of the walls, because a more rational use of materials and energy was needed), the Eco-District made good use of the bioclimatic advantages of vernacular architecture: bright and dual-flow natural ventilation. Tenants were given a guide book with technical guidelines and information about how to use housing units correctly in terms of energy efficiency, how to use the heating system and ways to save energy. The thermal efficiency of the building was also greatly improved thanks to modifications in the windows, insulation and low-carbon building materials. Finally, any outstanding energy requirements are covered by recovering heat from the cooling units at the point of sale and additionally, a wood burner (pellets) when needed. In the event of absence during the day, the heat retention and insulation are sufficient to limit a drop in temperature to less than 2 degrees, even when outdoor temperatures are extremely low.

Local context **Town centre**

Type of project **Town centre renewal**

Surface area (ha) **0.22**

Surface area of green spaces (ha) **—**

Number of inhabitants capacity **8**

Number of housing units **4**

Of these housing units, number of social housing units **—**

Date work began/ Year of completion **2006-2011**

EQ label **Step 3**

Year label was awarded **2014**

THOSE INVOLVED IN THE PROJECT

Project Owner **Town of Forges**

Project Manager **Cabinets Vitalis Architecture and Environment (architect), ASCENDENSE (associated architects), OPC TRIGO (economist), TERRANERGIE & PERMANERGIE (Thermal and renewable energy studies), KUBLER (landscaper)**

Partners **CAUE, ADEME, Chamber of Agriculture, CRITT Wood**

Commitment 18

Avoid, reduce, recycle, reuse waste

Notion 18.1 Limit or even avoid the production of waste

✓ RECOMMENDATIONS

- Promote a waste reduction policy with regional schemes such as 'Zero Waste Territories'.
- Make individuals, professionals and administrators aware of virtuous initiatives.
- Opt for urban planning that facilitates and encourages the reduction of green waste: local plant species that do not need regular pruning, mulching, etc.

The impact of waste on the environment is a cause for concern on a global level. To address this issue, there are several initiatives that can be rolled out on a regional level: 'Zero Waste Territories', incentive-based approaches to waste management from public services, etc.

To ensure overall consistency with these initiatives, a waste reduction policy needs to be introduced on a district level.

Planning choices that do not produce large amounts of waste should be opted for in the earliest project phase, while encouraging ways to recycle and reuse. This can include choosing local species of perennials that require less pruning, grinding pruning and mowing waste, and using mulching for trees and bushes in the same location.

Households can be made aware of 'zero waste' initiatives thanks to the 5R method: Refuse, Reduce, Reuse, Repair and Recycle.

It would be useful to implement informative and awareness campaigns on reusing materials that are considered as waste.

QUESTIONS TO CONSIDER

What waste streams are there in the local area (green, household and company) and what drivers (design, support, organisation) can the project use to limit the production of this waste?

How are local recycling structures (firms and associations) organised, **ITE**, and how can they be encouraged to follow **circular, social and solidarity-based economy** practices?

How can inhabitants and users be made aware and encouraged to get involved in reducing waste on both the district and regional level?



Notion 18.2 Encourage source sorting, optimise collection and reuse waste

✓ RECOMMENDATIONS

- Consider collection methods that are adapted to each waste stream: returnable items, **recycling centre / ressourcerie**, voluntary waste drop-off points, methanisation, compost, etc.

- Assess the waste management policy and communicate on the outcome.

There are available means to encourage source sorting, such as separate waste collection and systems to reuse waste, installing compost bins in front of buildings, creating a local recycling centre, voluntary waste drop-off points, methanisation, turning residual waste into energy, setting up returnable items initiatives and *ressourceries*.

It is important to inform inhabitants directly about regulations, initiatives already in place and the processing of waste in terms of waste stream and the associated costs. Initiatives can be set up per sector and per type of recycling process, to inform and raise awareness for inhabitants in an effective way.

It is essential to inform, make aware and train inhabitants, companies and schools of the regulatory obligation to **sort the 7 or even 9 waste streams** (cf. notion 18.3), company initiatives to deal with waste and the associated costs.

Processes in place for bulky waste such as furniture, electrical and electronic waste, and **waste from economic activities** should be detailed.

QUESTIONS TO CONSIDER

For administrators and inhabitants, how can the project facilitate source sorting, separate collection, recycling and reusing household waste (design, organisation, awareness)?

What is the potential for developing and improving waste management sectors in the region? How can this be integrated into the project and how can its efficiency be assessed?



Notion 18.3 Reduce, sort and reuse construction site waste

✓ RECOMMENDATIONS

- Encourage the study of inflows and outflows to assess the potential resources from scrapping materials (**PEMD study: 'Products, Equipment, Materials, Waste Diagnosis'**).
- Limit scrapping, or scrap in a selective way. Restore, store materials to then redistribute them (sell to be reused).
- Commit to the compulsory **sorting 7 waste streams** (metal, plastic, paper/cardboard, glass, wood, minerals, plaster), or even go beyond this, via value-added circular sectors (fabric, organic waste).
- Encourage the reuse of construction materials to reduce the need to evacuate them, manage waste reuse on-site.
- Use second-hand materials from reuse channels in building and urban planning projects.

An assessment can be carried out of the resources potential in all phases of construction or renovation to identify the possibilities for reusing the materials from these worksites. Project managers should be encouraged to manage and recycle waste in an appropriate manner, giving priority to reusing and recycling waste wherever possible, then reusing direct materials (backfilling for example), transforming waste into energy and finally the elimination of waste.

Project managers must guarantee their commitment to and anticipation of these topics by systematically including clauses in contracts.

It is important to communicate about possibilities of reusing waste and the second-hand market in the region. It is also beneficial to opt for closed cycles so that on-site construction materials are given a second lease of life, by including the minimum reuse percentage in the specifications, or by making it easier to reuse these materials, preferably locally.

If certain materials cannot be sourced from closed cycles, second-hand materials can be used from nearby construction and urban planning projects.

QUESTIONS TO CONSIDER

Prior to construction, how can the potential for reusing construction site waste be assessed?

What can be done to limit production, sort, collect and reuse construction site waste?

How can reusing materials and/or equipment from selective scrapping be encouraged for urban planning and construction, to limit the evacuation of materials away from the site?

How can the management of hazardous waste (asbestos, lead) be taken into consideration?

What are the existing waste management solutions in the region or nearby regions?



Nouveau Mons

Mons-en-Barœul, Nord, Hauts-de-France



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The Nouveau Mons Eco-District is at the centre of Lille urban area and thanks to this advantageous location, it can be easily accessed via the metro and bus networks. It is an ANRU renovation project in the Sensitive Urban Zone (ZUS) of Mons-en-Barœul: renovation of 990 housing units, converting 625 others into suitable housing units and demolishing 405 housing units to build 330 new ones. New public facilities have also been created and public areas were redesigned to give priority to pedestrians and eco-friendly ways of getting around. The project also included an extension of the heating network, largely generated using biomass, and the creation of shared gardens in partnership with Vieux-Mons. The high quality of the public areas that have been developed give the district a new image while limiting the visual impact of cars. The goal was to create a residential district that is in line with the expectations of inhabitants and blends into the urban environment, thanks to an overall and sustainable approach to urban renovation.

The Nouveau Mons Eco-District is a success story in terms of improving living conditions. With this approach to improving living conditions in the district in mind, the public areas were redesigned and the quality of the landscape was a top priority. Communication and training initiatives were set up to encourage good practices. It was absolutely essential to ensure appropriation and sharing of the communal areas within the district. These areas should be places to safeguard biodiversity and alongside them are shared allotments and meadows for recreational activities. This project was a success because each element of urban planning was designed around the way in which inhabitants would use it, the only way to ensure optimal appropriation and preservation with urban workshops, my perfect district workshops, organised walks for women and classes at the educational gardens.

Mons-en-Barœul therefore uses landscape as a valuable means of bringing people together.

Local context **Town centre**

Type of project **Renewal - Existing district**

Surface area (ha) **100**

Surface area of green spaces (ha) **5.4**

Number of inhabitants capacity **12,000**

Number of housing units **5,250**

Of these housing units, number of social housing units **182**

Date work began / Year of completion **2002-2014**

EQ label **Step 3**

Year label was awarded **2014**

THOSE INVOLVED IN THE PROJECT

Project Owner

Town of Mons-en-Barœul

Project Manager **François-Xavier**

Mousquet (landscaper) + AMO GIP

Lille Métropole urban renovation

+ BET ArcAle, BioTop Conseil,

Empreinte, Lilika TROHA, Egis

Partners **LMCU, SEM Ville**

Renouvelée, investors

Commitment 19

Safeguard, manage and restore water supplies

Notion 19.1 Ensure sustainable management of rainwater

✓ RECOMMENDATIONS

- Consider multi-purpose urban planning features that control urban run-off and preserve water supplies for local use.
- Innovate and reconcile alternative **rainwater** management, removing impermeable surfaces, cool areas, improving **living conditions**, biodiversity, etc.
- Anticipate and ensure integrated rainwater management in keeping with the natural environment of the site, and watershed management policies: water management at the level of the planning project.
- Optimise the watering of planted areas.

Sustainable rainwater management involves ensuring infiltration as close as possible to its point of contact, using **Nature-Based Solutions**, or even **so-called grey solutions**, to get as close as possible to the natural water cycle: drainage channels, floodplains, rain garden, planted roof or wall, etc. This helps to reduce rainwater run-off that could carry pollution into aquatic environments, limit the **risk** of flooding and also encourage local use of water to adapt towns and cities to climate change. When there is no alternative, water retention solutions to slow down water flow should be considered.

These solutions should be designed to ensure they also address other functions or uses such as landscaping, green spaces, cool areas, etc. All necessary measures should also be taken to ensure they remain operational over the long-term, both in terms of design and by keeping them correctly maintained.

For projects that are subject to the 'water law', the project leader is highly recommended, from the project design phase, to get in contact with the local authorities in charge of water regulations and those that deal with rainwater.

QUESTIONS TO CONSIDER

How can **integrated management** of rainwater at the source be implemented, depending on the characteristics of the site (nature of the soils, watershed hydrology, current and future rainfall), while maximising the permeability of soils?

How can rainwater management be used as a tool to adapt to climate change by directing this water to infiltrate green spaces?

How can rainwater management solutions be integrated into project design in a qualitative way, especially for public areas?



Notion 19.2 Reduce water consumption

✓ RECOMMENDATIONS

- Install individual and collective facilities that do not consume much water, as well as leak sensors.
- Encourage people to reuse **rainwater** and **grey water**.
- Design the landscaping features to include native plant species that do not require a lot of water.
- Reduce the water consumption for the whole life cycle of buildings and urban planning.

The project must encourage lower water consumption by providing individual and collective facilities that do not consume much water, leak detection sensors, drinking water supply facilities must be renewed and adapted wherever necessary, individual meters, rainwater and grey water collection and reuse, etc.

The project must constitute an opportunity to provide support and raise awareness with all partners (including administrators and inhabitants) of the importance of reducing water consumption through monitoring initiatives, communication schemes with households and private partners, educational activities at schools, etc.

Choosing plant species that are adapted to the local climate and anticipating the effects of climate change also play a part in reducing water consumption.

QUESTIONS TO CONSIDER

How can the water consumption of inhabitants, facilities and local authorities be reduced (reduce requirements, optimise networks, circular water management)?

How can inhabitants and users be made aware and encouraged to reduce their water consumption?



Notion 19.3 Increase awareness and organise educational initiatives

✓ RECOMMENDATIONS

- Increase awareness with administrators and households of the issues related to water, encourage them to reduce their consumption, and use environmentally responsible and certified products (such as cosmetics, cleaning products, hygiene and cleaning without the use of chemicals), by organising educational initiatives in particular.
- Encourage inhabitants to use native plant species that do not require a lot of water.
- Reduce the release of pollutants and waste into waste water.

Waste water from domestic use could be contaminated by different sources of pollution and in most cases, the water treatment plants will not be effective.

It is therefore important to encourage the administrators of the project communal areas and inhabitants to use environmentally responsible products (cleaning, hygiene, cosmetics, etc.), or even those with an environmental certification.

The project is an opportunity to:

- provide support and raise awareness for users in reducing the use of products that contain micro-pollutants by communicating with households and private partners, educational initiatives in schools, etc.;
- issue a reminder that some substances must be disposed of correctly (leftover paint, unused medication, etc.) and not disposed of via waste water channels (toilets, sinks, etc.);
- encourage inhabitants to use native plant species that do not require a lot of water.

QUESTIONS TO CONSIDER

How can the adaptation period for users of the district in terms of water, water consumption and the impacts of human activity be assessed?

How can the level of micro-pollutants in the waste water of inhabitants, from local authorities and in the environment be reduced, and what sort of awareness campaigns can be organised on the topic?

How can the presence and visibility of water in the public domain be encouraged, as a way to increase awareness?



Camille-Claudel Eco-District

Palaiseau, Essonne, Île-de-France



© SEM Paris Saclay Aménagement

The Camille-Claudel Eco-District project in Palaiseau covers a surface area of 19 hectares and the goal of this planning project is to provide a link between the farmland, existing districts and the Saclay Plateau science hub. The project aims to combat urban sprawling by providing an increased density of housing and vast areas of greenery. The first phase of the project - Eco-District Step 4 - comprises around 1,500 housing units, quality public facilities, convenience stores, an inter-company daycare facility, a medical centre, local concierge service and a biomass heating plant to provide heating and domestic hot water to the whole district. A French technological and ecological innovation known as Li-Fi has also been integrated into the project.

The Camille-Claudel Eco-District is also known for its exemplary alternative approach to water management. All the sanitary facilities for construction work are equipped with economical water systems (3/6-litre dual flush toilet cistern, pressure reducing valve, etc.). Public facilities are equipped with metering systems (maintenance, watering, sanitary facilities, etc.). The gymnasium also has a leak detection system, with generation of alarms. To compensate for ground surface that is not very permeable, a network of drainage channels was set up around the district to restore the ecological continuity of blue-green infrastructure, reduce pollution in and use buffer storage solutions for rainwater, and create green and open spaces. The network has two types of drainage channels:

- road drainage channels help to remove the pollution from road run-off water loaded with hydrocarbons and heavy metals.
- buffer storage channels where water is stored in the event of a fifty-year return period water level, to allow a release of 0.7 l/s/ha, a minimal share of which into the municipal network and the majority into the Rigole Domaniale.

Rainwater from buildings is collected in underground tanks and then reused to water green spaces, therefore reducing maintenance costs, bearing in mind that the chosen plant species need very little watering, or none at all.

Local context **Suburbs**

Type of project **Controlled extension**

Surface area (ha) **12**

Surface area of green spaces (ha) **0.67**

Number of inhabitants capacity **3,000**

Number of housing units **1,456**

Of these housing units, number of social housing units **652**

Date work began / Year of completion **2010-2015**

EQ label **Step 4**

Year label was awarded **2021**

THOSE INVOLVED IN THE PROJECT

Project Owner **SEM Paris Saclay Aménagement (Target area of the Paris-Saclay urban area)**

Project Manager **François LECLERCQ Architects, Phytorestore Landscaper**

Partners **Bouygues Immobilier, CDU, Eiffage Immobilier, Kaufman & Broad, Nexity Appolonia**

Commitment 20

Safeguard and restore soils, biodiversity, natural habitats

Notion 20.1 Safeguard and restore the ecological functions of soils

✓ RECOMMENDATIONS

- Determine the potential for land rehabilitation on the project scale, or even beyond, by carrying out an analysis to identify the possibility that land is used for several purposes.
- Work on land rehabilitation by restoring life to soils, maximising open ground surfaces and guaranteeing ecological functions such as the continuity of **ecological networks, (brown infrastructure in particular), carbon storage, infiltration of water, etc.**

An urban planning project is an opportunity to preserve and restore the ecological significance of soils. Various tools can be used to help in decision-making when implementing a land rehabilitation strategy and to guide decisions in terms of location and priorities.

It is recommended to refer to the preferential zones for land rehabilitation in the **SCoT**. The Climate and Resilience Law states that the SCoT can identify preferential land rehabilitation zones that can be included in the Orientation and Objectives Document for the SCoT, which is an enforceable feature of the scheme that has regulatory value.

Other existing regulatory tools for urban planning can be used, such as a reserved plot, open ground coefficient or biotope area factor (BAF). It is also important to ensure the traceability of imported and excavated soils. The possibility to accommodate living beings in construction elements (planted roofs, nest boxes and shelters, etc.) should also be considered.

QUESTIONS TO CONSIDER

What are the issues in terms of soil quality on-site and nearby and what are the guidelines and/or recommendations to ensure it is preserved?

How can an urban project be designed to limit land take and choose to cover land with a low ecological significance?

What can be done to restore the biodiversity of soils and maximise open ground surfaces?

What can be implemented in the construction phase to guarantee the protection of soils?



Notion 20.2 Safeguard and restore biodiversity

✓ RECOMMENDATIONS

- Identify the specific characteristics and challenges for the region in terms of biodiversity (inventories, local biodiversity atlas, ecological assessment, **green, blue, black infrastructure**).
- Consider these challenges at every stage of the project by calling upon specialised partners (it is particularly important to utilise the services of an ecologist in the earliest phases).
- Showcase, preserve and protect spaces and species during construction work, and throughout the whole project, and organise the project around the plant life and natural **heritage**.
- With in-depth knowledge of the ecological nature of the region, give priority to the preservation of habitats, restore damaged habitats and leave space for spontaneous areas of biodiversity.
- Promote **adapted management** of natural areas.
- Link the areas of greenery within the project to the surrounding areas of greenery to ensure urban ecological continuity.

The urban planning project requires in-depth knowledge of local resources, so that biodiversity and natural habitats can be restored and enhanced.

In the earliest stage of the planning project, this involves identifying the existing natural resources by drawing up an inventory, urban ecological assessment and an impact assessment. To achieve this, the local biodiversity atlas is an effective tool to use. It provides detailed information about local biodiversity and habitats to be able to make more informed decisions regarding planning, preservation and restoration. Call upon a wide range of specialised partners (project management assistance for the environment, ecologists, landscapers, ecological engineering professionals, environmental associations, etc.) and use appropriate tools and systems to ensure these issues are taken into account throughout the project: biodiversity guide, developer consultation specifications, penalties in the event habitats are destroyed.

Encouraging the use of plants when organising the lay-out of areas within the district and region, while preserving plant and animal biodiversity, existing soils and natural environments is key to an ecological approach. It is important to implement this while respecting the ecological continuities identified by local blue-green infrastructure, to ensure a positive impact on biodiversity. This means participating in blue-green infrastructure and strengthening links with sites outside of the project. Preserving or restoring areas of biodiversity that feature plants or water can add to the quality of the urban planning and improved **living conditions**, as well as protecting spaces and species throughout the construction work.

It is essential to consider ecological processes just as much as planting and visual appearance, so that borders, multistrata vegetation, shelters and resources for wildlife can be recreated, there's a coherent range of plants, native species, specific habitats, natural or artificial wetlands, spontaneous urban vegetation, etc. Organising the roll-out of alternative techniques is recommended, while applying differentiated and ecological management of natural areas, and using **Nature-Based Solutions** wherever possible.

QUESTIONS TO CONSIDER

How can we be aware of, understand and pinpoint existing ecosystems (species, habitats, dynamics) to then protect them throughout the project?

How does the project allow for the restoration of biodiversity in all living environments (soils, water, wetlands with high and low-lying vegetation, buildings) to establish a complete ecosystem that is adapted to conditions?



Notion 20.3 Add value and raise awareness

✓ RECOMMENDATIONS

- Boost administrators to implement management practices that respect biodiversity (especially pollinating insects) in public areas (**differentiated management** of plant species, alternatives to pesticides or phytosanitary products, planting permit, etc.).

- Make inhabitants and users of biodiversity aware of the existence of participatory science projects and alternative uses

for private areas such as events, educational workshops, nature walks, signage, participatory preservation initiatives, etc.

- Provide inhabitants and users with spaces and tools for plantation, restoration projects and for community/shared allotments.

- Make inhabitants and local residents aware of the necessity to preserve soils.

Getting users involved requires an adaptation period to empower all those concerned, especially inhabitants.

To ensure the preservation of biodiversity in soils and natural habitats over the long term, raising awareness for respectful practices with inhabitants and administrators is essential. This is concerned with differentiated management of green spaces, zero-phyto, zero pesticides, integrated biological protection, alternative management of green spaces, planting permit, areas devoted to urban farming, etc.

Communication and educational initiatives can be offered by local authorities such as events on specific themes, nature walks, shared allotments with permaculture practices if possible, participatory inventories, participatory construction work, school projects in planted areas, informative signs, etc.

Administrators also need to be involved from the earliest stage of projects, and landscape architects should systematically be asked to draw up management plans.

QUESTIONS TO CONSIDER

How can an ecological approach to the management of public green spaces be adopted for the project?

How can administrators be provided support and informed of the ecological functions of natural areas?

How can the project be coordinated with existing ecological awareness and management approaches?

How can inhabitants and users be called upon, made aware and involved in the preservation, restoration and enhancement of biodiversity and/or nature in urban areas?



Ravine Blanche urban renovation

Saint-Pierre, Reunion Island



© Ville de Saint-Pierre - Reunion Island

The Ravine Blanche Eco-District is located to the west of the historic centre of Saint Pierre and it is one of the districts of the town with the highest density and also one of the first social housing districts of the 1960s. The goal of this urban renovation project was to boost the attractiveness and accessibility of the district. The image of the district was transformed thanks to the restoration of housing, conversion of the social housing complex into more suitable housing units, the repurposing of public areas and the provision of environmentally friendly public transport. Services and economic activities have been positioned at the centre of the district. Finally, the creation of an urban park in partnership with a group of local residents was a symbolic initiative.

An ongoing priority for the project is the preservation and enhancement of biodiversity, the lagoon and natural habitats.

The urban park features indigenous and endemic species and the whole district is set on an area of urban wasteland with a canal crossing through, used to collect rainwater and divided into four retention ponds which also play a part in preserving the lagoon a few hundred metres away.

Added to that are footpaths lined with flowers that are managed by the inhabitants, and small private gardens have been created around 500 housing units. An annual assessment of the environmental impacts of the project has been set up and an Eco-PLU (environmental local urban plan) has been drawn up based on the Eco-District guidelines in terms of rainwater management, biodiversity and plant life, footpaths and parking. One of the public areas in front of an apartment building is maintained by a resident.

Local context **Centre**

Type of project **Renewal - priority district**

Surface area (ha) **60**

Surface area of green spaces (ha) **2**

Number of inhabitants capacity **7,500**

Number of housing units **2,621**

Of these housing units, number of social housing units **1,548**

Date work began / Year of completion **2010-2015**

EQ label **Step 4**

Year label was awarded **2017**









THOSE INVOLVED IN THE PROJECT

Project Owner **Town of St. Pierre - ANRU AMO for sustainable development / HQE: 5 AMOs (project scheduling, urban quality, economic development, communication, local urban management convention)**

Project Manager **Technical design office consortium: FEDT (road networks, hydraul. EU, EP), HELIOS Paysage (landscape and public areas), Concept (building materials, street lamps)**

Partners **Providers of social housing, SEMADER, SIDR, SHLMR, Foncière Logement, ARER, CDC, DEAL, CAUE, CCIR**

Similarities between the SDGs and the commitments

		Dimension 1					Dimension 2					Dimension 3					Dimension 4				
commitments		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		1.1 1.2 1.3	2.1 2.2 2.3	3.1 3.2 3.3	4.1 4.2 4.3	5.1 5.2	6.1 6.2	7.1 7.2	8.1 8.2 8.3	9.1 9.2	10.1 10.2	11.1 11.2	12.1 12.2	13.1 13.2	14.1 14.2 14.3 14.4 14.5	15.1 15.2 15.3	16.1 16.2 16.3	17.1 17.2 17.3	18.1 18.2 18.3	19.1 19.2 19.3	20.1 20.2 20.3
<div>1 NO POVERTY</div> <div></div>	1.1																				
	1.2																				
	1.3																				
	1.4	●	●									●		●	●	●	●			●	
	1.5	●	●	●					●	●		●		●	●	●	●	●	●	●	
	1.a	●	●	●					●	●		●		●	●	●	●	●	●	●	
	1.b	●	●	●					●	●		●		●	●	●	●	●	●	●	
<div>2 ZERO HUNGER</div> <div></div>	2.1										●	●					●				
	2.2											●									
	2.3									●	●	●		●	●			●		●	
	2.4									●	●			●	●				●	●	
	2.5									●	●			●	●		●		●	●	
	2.a											●	●	●	●		●	●		●	
	2.b												●	●			●	●	●	●	
2.c											●	●		●		●	●		●		
<div>3 GOOD HEALTH AND WELL-BEING</div> <div></div>	3.1																				
	3.2																				
	3.3																				
	3.4								●	●	●		●	●			●	●		●	
	3.5									●			●				●	●		●	
	3.6												●		●	●	●		●	●	
	3.7													●	●	●	●		●	●	
	3.8														●	●	●	●		●	
	3.9			●	●	●			●	●	●				●	●	●	●	●	●	
	3.a														●	●	●	●	●	●	
<div>4 QUALITY EDUCATION</div> <div></div>	4.1																				
	4.2																				
	4.3		●	●				●	●			●	●	●		●					
	4.4		●	●				●	●			●	●	●		●	●			●	
	4.5		●	●	●	●						●	●	●		●	●			●	
	4.6		●	●											●	●	●			●	
	4.7		●	●	●	●		●	●		●	●	●		●	●	●	●	●	●	
4.a		●	●				●	●			●	●			●	●	●		●		
4.b		●	●									●	●						●		
4.c											●	●							●		
<div>5 GENDER EQUALITY</div> <div></div>	5.1		●	●	●	●								●							
	5.2		●	●	●	●										●	●				
	5.3																				
	5.4							●	●	●					●	●	●				
	5.5		●	●				●	●			●			●	●					
	5.6		●	●				●	●	●						●	●				
	5.a															●	●				
5.b		●	●											●	●	●	●				
5.c			●	●	●									●	●	●	●				
<div>6 CLEAN WATER AND SANITATION</div> <div></div>	6.1	●			●	●								●	●				●	●	
	6.2	●			●	●	●	●	●					●	●		●	●	●	●	●
	6.3	●	●	●	●	●		●	●	●							●	●	●	●	●
	6.4	●	●	●	●	●		●	●	●				●	●		●	●	●	●	●
	6.5	●	●	●	●	●		●	●	●				●	●		●	●	●	●	●
	6.6	●	●	●	●	●		●	●	●				●	●		●	●	●	●	●
	6.a	●	●	●	●	●		●	●	●				●	●		●	●	●	●	●
6.b		●	●	●	●		●	●					●	●		●	●	●	●	●	
<div>7 AFFORDABLE AND CLEAN ENERGY</div> <div></div>	7.1				●	●															
	7.2	●	●															●	●	●	●
	7.3			●	●													●			
	7.a																				
	7.b														●						
	8.1																				
	8.2				●	●	●				●	●	●	●		●	●	●	●	●	●
8.3				●	●	●				●	●	●	●		●	●	●	●	●	●	
8.4										●	●	●	●		●	●	●	●	●	●	
8.5													●	●	●	●	●	●	●	●	
8.6				●	●	●				●	●	●	●		●	●	●	●	●	●	
8.7															●	●	●	●	●	●	
8.8					●						●				●	●	●				
8.9			●	●	●					●	●	●		●	●	●	●	●	●	●	
8.10															●	●	●	●	●	●	
8.a																					
8.b																					
<div>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</div> <div></div>	9.1	●	●	●			●			●	●	●	●	●	●	●	●	●	●	●	●
	9.2	●	●	●			●			●	●	●	●	●	●	●	●	●	●	●	●
	9.3	●	●	●							●	●	●	●	●	●	●	●	●	●	●
	9.4	●	●	●			●	●		●		●	●	●		●	●	●	●	●	●
	9.5						●									●	●	●	●	●	●
	9.a																●				
	9.b																				
9.c	●	●	●																		

The Eco-District frame of reference in favour of sustainable cities and territories

4 dimensions - 20 commitments - 53 notions

DIMENSION 1 APPROACH AND PROCEDURE

1. **DESIGN A PROJECT THAT TAKES INTO CONSIDERATION THE NEEDS OF EVERYONE AND THE DEFINING FEATURES OF THE REGION**
 - 1.1 Know one's region
 - 1.2 Identify and rank the issues and set strategic goals
 - 1.3 Establish an adapted and shared programme
2. **IMPLEMENT ADAPTED GOVERNANCE AND GUIDANCE**
 - 2.1 Guide the project over the long-term
 - 2.2 Anticipate project management during each phase and after delivery
3. **INVOLVE INHABITANTS AND USERS**
 - 3.1 Encourage citizen involvement
 - 3.2 Take into consideration the propositions from participatory structures
 - 3.3 Support efforts over the long term
4. **DEVELOP AN OVERALL COST APPROACH**
 - 4.1 Assess the financial feasibility
 - 4.2 Reduce costs through project optimisation
 - 4.3 Calculate the social, economic and environmental impacts of the project
5. **EVALUATE, ASSESS THE IMPACT AND ALWAYS SEEK IMPROVEMENT**
 - 5.1 Set up assessment schemes for continuous improvement
 - 5.2 Assess the project in terms of sustainable development goals

DIMENSION 2 LIVING CONDITIONS AND USES

6. **(RE)DESIGN THE DISTRICT WITH EXISTING FEATURES**
 - 6.1 Encourage urban renewal, use existing features to limit land take and the use of resources
 - 6.2 Implement a density that is both desirable and in keeping with the context
7. **ENCOURAGE COMMUNITY SPIRIT, SOLIDARITY AND INCLUSION**
 - 7.1 Create a district for everyone
 - 7.2 Encourage solidarity-based initiatives, social interaction and community spirit in the district via good quality public facilities
8. **ENSURE LIVING CONDITIONS ARE FAVOURABLE FOR HEALTH AND WELL-BEING**
 - 8.1 Promote urban planning that is favourable to health and well-being
 - 8.2 Prevent and combat nuisances and pollution
 - 8.3 Propose developments that boost safety and security in the public domain
9. **DESIGN A QUALITY PROJECT IN URBAN, LANDSCAPE AND ARCHITECTURAL TERMS**
 - 9.1 Ensure the district blends into its environment in terms of urban and landscape features
 - 9.2 Re/create urban and architectural shapes that boost living conditions
10. **SHOWCASE THE HERITAGE, HISTORY AND IDENTITY OF A SITE AND ITS POPULATION**
 - 10.1 Identify local heritage
 - 10.2 Safeguard and add value to the site's heritage, identity and collective memory

DIMENSION 3 TERRITORIAL DEVELOPMENT

11. **CONTRIBUTE TO AN ECONOMIC TRANSITION THAT IS REGENERATIVE, SOCIAL AND SOLIDARITY-BASED**
 - 11.1 Consolidate, boost and diversify the existing economic fabric
 - 11.2 Support and encourage the creation of local employment and the reconversion of employment from sectors that cannot be supported
12. **ENCOURAGE PROXIMITY AND DIVERSITY OF FUNCTIONS**
 - 12.1 Boost functional diversity
 - 12.2 Facilitate access to different functions
13. **OPTIMISE THE USE OF RESOURCES AND DEVELOP LOCAL SECTORS AND SHORT CYCLES**
 - 13.1 Save resources
 - 13.2 Implement the circular economy
14. **ENCOURAGE SUSTAINABLE AND ACTIVE MOBILITY SOLUTIONS**
 - 14.1 Develop the public domain with sustainable and active mobility solutions in mind
 - 14.2 Provide the necessary facilities for a change in practices
 - 14.3 Link the district to public transport to improve intermodal passenger transport
 - 14.4 Organise urban logistics
 - 14.5 Promote the use of alternative modes to solo driving
15. **ENSURE RESPONSIBLE DIGITAL TRANSITION IN KEEPING WITH SUSTAINABLE PLANNING**
 - 15.1 Use digital technology to create a more sustainable territory
 - 15.2 Use digital networks for the benefit of the project
 - 15.3 Satisfy the needs that have been expressed or identified

DIMENSION 4 ENVIRONMENT AND CLIMATE

16. **STRENGTHEN RESILIENCE IN THE FACE OF CLIMATE CHANGE AND HAZARDS**
 - 16.1 Counter the hazards
 - 16.2 Adapt to the impacts of climate change
 - 16.3 Raise awareness and train
17. **CONTRIBUTION TO CLIMATE CHANGE MITIGATION, ENCOURAGE ENERGY SOBRIETY AND THE USE OF RENEWABLE ENERGY**
 - 17.1 Encourage energy sobriety and energy efficiency
 - 17.2 Develop the production of renewable energy sources and energy recovery
 - 17.3 Roll out a support scheme
18. **AVOID, REDUCE, RECYCLE, REUSE WASTE**
 - 18.1 Limit or even avoid the production of waste
 - 18.2 Encourage source sorting, optimise collection and reuse waste
 - 18.3 Reduce, sort and reuse construction site waste
19. **SAFEGUARD, MANAGE AND RESTORE WATER SUPPLIES**
 - 19.1 Ensure sustainable management of rainwater
 - 19.2 Reduce water consumption
 - 19.3 Increase awareness and organise educational initiatives
20. **SAFEGUARD AND RESTORE SOILS, BIODIVERSITY, NATURAL HABITATS**
 - 20.1 Safeguard and restore the ecological functions of soils
 - 20.2 Safeguard and restore biodiversity
 - 20.3 Add value and raise awareness

The Eco-District initiative

national evaluation strategy

The Ministry aims to support stakeholders in making continuous improvements and guaranteeing the performance of Eco-Districts with regards sustainable development goals and government priority matters, so that good practices can be shared through communication and the assessment of the fulfilment of commitments.

The goal of the Eco-District approach is to establish and share a French model for the sustainable and inclusive city created by everyone, for everyone.

National strategic goals are based on the 4 sustainable city challenges (sobriety, resilience, inclusion and value creation) that provide a systemic response to the 20 commitments in the Eco-District approach.

20 national indicators have been defined and documented to assess whether the priority goals have been reached as targets are set locally by each project leader, so that the specific context for each region is taken into consideration.

The 20 national indicators are to be used as a common basis for evaluation, but candidates for the Eco-District certification are also invited to draw up a local evaluation strategy prior to their project, to define the specific local priorities for their project, based on a political ambition, sustainable development goals, long-term goals and the associated key performance indicators (commitment 5 of the sustainable planning guide).

Challenges	Strategic goal	Operational goal	Number	Indicators
Sobriety	1 – Encourage sobriety in the consumption of natural resources and energy	Minimise land take by optimising available land	S1	Total consumption of natural, farming and forest areas of the district (in Ha) and compared with the number of housing units and employment created
			S2	Share of buildings conserved (%)
		Guarantee energy performance	S3	Share of new buildings in anticipation of existing thermal regulations (%)
			S4	Share of existing buildings that underwent energy retrofiting (%)
			S5	Consumption of buildings in the district (only for 'ÉcoQuartiers vécus' (three years after delivery))
		Develop local renewable energy sources	S6	Production of renewable energy compared to total consumption for the district (%) (only for 'ÉcoQuartiers vécus' (three years after delivery))
		Minimise the consumption of materials and encourage eco-design	S7	Share of buildings that use biosourced materials (%)
Inclusion	2 - Provide quality (in terms of energy, environment and function) housing for everyone that is adapted, diversified and affordable, and public areas that encourage social interaction (and physical activity)	Encourage diversity of backgrounds and residential layout for residents of the district	I1	Share of social housing units (%)
			I2	Share of affordable housing units (%) (only for 'ÉcoQuartiers vécus' (three years after delivery))
		Guarantee quality in terms of function and architecture of housing units for all	I3	Functional quality of housing units (%)
			I4	Satisfaction of inhabitants with regards their district and their housing (only for 'ÉcoQuartiers vécus' (three years after delivery))
Value creation	3 - Diversify the range of services and facilities and establish more functions for the town	Ensure all urban functions necessary for all district users are accessible	C1	Proximity of basic services (%)
		Encourage urban intensity	C2	Building density
		Develop carbon-free mobility solutions and intermodal passenger transport in line with regional needs	C3	Cycle lanes in the road network (%)
			C4	Alternative mobility solutions to the individual car (%)
			C5	Share of households using an alternative means of transport to the car to travel between home and the workplace (%) (only for 'ÉcoQuartiers vécus' (three years after delivery))
Resilience	4 - Consider the well-being of inhabitants and the quality of living conditions as drivers for the resilience of the district	Provide a safe and healthy place to live and encourage a healthy way of life	R1	Share of built areas affected by nuisances (%)
			R2	Exposure to natural and technological hazards (%)
		Develop urban natural areas that present environmental and social benefits	R3	Biotope area factor (including the share of open ground surface)
			R4	Public green space surface per inhabitant

Calculation methods	Corresponding commitments
Number of hectares of natural, farming or forest areas used to create the district AND Number of hectares of natural, farming or forest areas used to create the district / (housing units + employment created within the district)	1 6 20
Floor area of existing buildings used (m ²) / Surface area of new buildings created (m ²) + Surface area of existing buildings used (m ²)	10 13 18
Floor area (m ²) of new buildings awaiting current regulations (RT (thermal regulations) prior to RE2020 (environmental regulation)) or the next step of the RE2020 / Total floor area (m ²) of the project	17
Floor area (m ²) of existing buildings with improved energy performance / Floor area (m ²) of existing buildings in the project. *Effective energy retrofit: EPC moved to B, except for F and G categories (EPC moved to C)	17
Average energy consumption {all energy sources} in kWh net/m ² /year	17
Sum of the heat and electricity from renewable energy sources produced near the project [kWh/year] / Sum of electricity, gas and heating consumption near the project [kWh/year]	17
Floor area created in each building in the district using a minimum quantity of biosourced materials (depending on the type of construction) / Total floor area. * equivalent biosourced building label level 2	13
(Number of social housing units / Total number of housing units in the project) × 100 Including the number of housing units under schemes: PLAI, PLUS, PLS.	1 7
Number of housing units with a sales price that is accessible to 6th decile households in the region / Total number of housing units sold in the project	7
(Weighted number of housing units depending on the functional quality / Total number of housing units in the project) × 100 Functional quality based on the 3 criteria described in decree no. 2022-384 of 17 March 2022: • living area according to the type of housing; • outdoor areas that are either private or for private use with a minimum surface area depending on the type of housing; • double exposure for housing units with at least 2 bedrooms	9
Survey of inhabitants who expressed their satisfaction Number of Eco-District residents who agree or totally agree with the statement "The public areas and housing units offer a satisfactory level of functional quality" / Total number of residents who responded	8 9
(Number of housing units and business premises close to a service or shop / Total number of housing units and business premises in the project) × 100 Services and maximum distances considered: • basic food items (300 m) • nursery and primary school (300 m) • medical centres, doctors (500 m) • cultural and leisure venues (e.g. Public libraries, museums, cinemas, theatres and others) (500 m) • public green spaces (300 m)	11 12
Number of housing equivalent / Surface area of the project, excluding public green spaces with 1 equivalent housing unit for 70 m ² floor area	6 9
[Cycle lanes (km) + Pedestrian areas (km) + pedestrian-priority zones (km)] / [Road network suitable for bicycles (km)]. Road network suitable for bicycles: the entire road network except for motorways, dual carriageways and sliproads	14
(Number of housing units and business premises close to public transport / Total number of housing units and business premises in the project) × 100 Public transport stations and maximum distances considered: • tram or metro (500 m) • bus or shared car (500 m) • train or bus stations or carsharing parking areas (less than 3 km away in non-urban areas).	14
Inhabitants survey: Number of households using an alternative means of transport to the car to travel between home and the workplace / Total number of households in the district	14
(Impacted built surface area (m ² floor area) / Total surface area in the project (m ² floor area)) × 100 Surface area is impacted by a source of noise pollution depending on the distance from this source and the established baseline sound level of said source.	8
(Built surface area (m ² floor area) exposed to a high or medium level risk / Total surface area of the district (m ² floor area) × 100	16
Surface area (hectare) favourable for biodiversity / Total surface area (hectare) including: Open ground surface area / Total surface area (hectare)	19 20
Total surface area of public green spaces / Number of inhabitants (m ² /inhabitant)	8 16 20

Definitions

Avoid, Reduce, Compensate (ERC)

The goal of the ERC approach is to limit any kind of impact on the environment (biodiversity, air, noise, water, soil, health of populations, etc.). The sequence is in order of hierarchy in that 'avoid' is the preferred solution because it is the only option that guarantees the environment is not impacted. Any impact that cannot be avoided is reduced. Compensation efforts are to be used as a last resort, when impacts cannot be avoided or reduced.

Bioclimatic design

Taking the current and future climate and environment into account when designing a building to reduce energy needs (heating, cooling, lighting for example) and to improve the quality and resistance of the building. In bioclimatic design, the choice of the land, position of the building and the materials used all need to be considered in accordance with sun exposure, dominant winds, water flows, etc.

Bioeconomy

All economic sectors related to the production and enhancement of biological resources. The bioeconomy includes agriculture, forestry, fishing, food industry, biosourced and geosourced products used for materials or chemicals, reusing organic waste and the energy stored in biomass. This means a maximum amount of abundant, renewable and free energy can be used, such as solar energy.

Biosourced or geosourced

Biosourced: materials that partially or completely originate from biomass (wood, hemp, rapeseed, hay, cork, etc.).

Black water

Also known as lavatory water, this is domestic water that contains by-products of digestion (faeces and urine). This water presents a health risk and must be treated before being returned to nature.

Carsharing / Bicycle sharing

Carsharing: A system of shared use of a fleet of vehicles by different users, for short durations (self-service cars).

Bicycle sharing: self-service bicycles made available free-of-charge or not, so that cyclists do not need to worry about where to store their bike at home, bike theft and maintenance.

Community-supported agriculture (AMAP in France)

Association that provides a direct link between the farmer and the consumer, to help producers run their businesses and help consumers access local, fresh and seasonal products.

Customer delivery services

This refers to the transport of goods in a town, the last step in the logistics chain, distributing goods to the end consumers. This can represent a high economic, social and environmental cost if it has not been considered at the design stage of the district.

Density

In the sustainable planning sector, this is the ratio between the population of a geographical area, and the surface area of this same zone. Density is most often expressed in individuals per unit of surface area (for example, inhabitants/km²). Density provides the ratio between a quantitative indicator (demographics, number of housing units, employment, etc.) and a given surface area.

We can speak of residential density (number of housing units / Surface area), population density (Number of inhabitants / Surface area), and also of built density, the density of economic activity, of public facilities, green spaces, etc.

Perceived density is an individual's subjective view of levels of density.

Differentiated management

Reasonable approach to the management of green spaces, which is more respectful of the environment, without a loss in quality. This brings into question horticultural practices, without writing them off completely.

Disability

When a person experiences limited activity or restrictive participation to life in their social surroundings due to a substantial, long-lasting or definitive impairment of one or more physical, sensory, mental, cognitive or psychological functions, multiple disabilities or any incapacitating disorder.

Eco-citizenship

Concept whereby day-to-day individual or collective behaviour must take into account the rules and principles of environmental protection.

Eco-design

Integrating the protection of the environment in the design phase for goods or services. The goal is to reduce the environmental impacts of products throughout their life cycle: extraction of raw materials, production, distribution, use and end of life.

Ecosystem approach

The ecosystem approach is about managing land and water resources, wildlife and biodiversity as a whole, to encourage their protection and sustainable, fair use over the long term. This strategy promotes the protection and sustainable use of land, water and means of subsistence in an equitable way. This is one of the baseline principles of sustainable management.

Existing or future polarities

The notion of urban polarity describes the spatial effects of towns on the surrounding regions, and their interactions with neighbouring towns. Polarity is often combined with a geographic concentration of urban functions (housing, business, facilities, services) and effective lines of external communication. These factors of territorial performance increase the attractiveness of the area vis-à-vis its surroundings (employment, consumption, activity flows, etc.).

Fab-Lab

Short for 'fabrication laboratory', a Fab-Lab is a place that is open to the public and various machines and tools are made available to design and make objects.

Frugal urbanism

An approach to urban planning with the goal of doing better with less to safeguard ecosystems. Local, material and human resources are used to satisfy inhabitants' essential needs. This involves mobilising inhabitants, users, available land, materials, technology that does not require too much energy, etc.

Functional diversity

At all levels of regional organisation, this refers to the provision of a diverse range of functions related to life in the region such as residential, economic activities, leisure activities, mobility solutions, public services, sports facilities, cultural facilities, associations, etc.

Generational diversity

This diversity is concerned with grouping together young students, people of a working age and the elderly in housing units and more generally, in the public domain. The goal is to boost social interaction and links between generations (children, students, the elderly, people of a working age, families). This concept encourages the sharing of experience and knowledge between people of different ages, for mutual benefit.

Geosoured: materials from resources of mineral origin (earth or dry stone).

These materials are often local and barely transformed, or can also come from reuse or recycling, and using them, especially as building materials, reduces the environmental footprint and helps develop the economic sectors in the region.

Graduation of building heights

In architecture, this is concerned with the size and general shape of a building, in keeping with urban planning regulations. It is formerly defined using a graph to illustrate the straight or curved lines that constructions in a given urban area should comply with. It is sometimes simple referred to as the 'outline'.

Green, blue, brown and black infrastructure | Ecological infrastructure

Blue-green infrastructure refers to an initiative that aims to maintain, protect and restore networks of natural habitats where animal and plant species live and interact, to avoid disturbing their life cycle (food, movement, reproduction, rest, etc.).

These networks are comprised of habitats (biodiversity reservoirs) and zones that allow species to move (ecological corridors).

The goal of this initiative is to include the protection of biodiversity in regional planning policies, by integrating the various infrastructures in planning documents.

Green infrastructure: natural land-based environments.

Blue infrastructure: Aquatic and humid environments.

Brown infrastructure: continuity of living soils.

Black infrastructure: network of nocturnal species. This approach is particularly concerned with the issue of light pollution.

Greenhouse gas (GHG)

Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit infrared radiation and contribute to the greenhouse effect. The main GHGs emitted by human activity are carbon dioxide, methane and ozone. These excess emissions in the atmosphere cause the temperature of the atmosphere to increase.

Grey energy (or intrinsic energy)

The total energy consumed over the life cycle of a material or product, including production, extraction, transformation, manufacturing, transport, implementation, maintenance and finally, recycling.

Grey water

Domestic wastewater with low levels of pollution (water from showers or sinks) that can be used for other purposes that do not require water to be perfectly clean (excrement evacuation, washing vehicles, etc.).

Hazards

French policies on hazard prevention, whether they are of natural or technological origin, define a hazard as the probability of damage occurring as a result of interactions between risk factors and vulnerability factors (people and property).

Heritage

There are several categories of heritage: buildings and heritage sites (real estate heritage), documents and heritage objects (movable heritage), intangible heritage (traditional and knowledge), heritage cultural landscapes, late historic figures and historic places and events.

Industrial and Territorial Ecology (ITE)

Industrial and Territorial Ecology (ITE) is a means of mobilising regional players to play a role in the ecological transition. The economic players of a region choose to pool their resources so as to make savings or improve productivity. This can involve sharing infrastructure, facilities, services, and/or materials. Industrial and territorial ecology transforms production and consumption by offering regional, cooperative and innovative solutions in terms of resources management, and encouraging closed-loop systems wherever possible. This is in keeping with the 'reduce, reuse and recycle' circular economy approach.

Land sobriety

Approach that involves optimising the use of already urbanised spaces and considering new extension needs to limit land take wherever possible. This avoids the spreading of housing, employment, services, longer travelling time and preserves biodiversity.

Land take

Sustainable transformation of the ecological functions of soil when it is occupied or used, i.e. when soil that previously served as a natural habitat or to grow crops is allocated an urban function, for buildings or for transport networks (housing, businesses, shops, infrastructure, public facilities, etc.). This change in use involves a transformation of the nature and function of the soils: soil sealing, stabilisation, compaction, etc.

Leasehold Agreement (BRS in France)

The leasehold agreement is a long-term contract between a Community Land Trust (OFS in France) and a buyer. This agreement can be used for old or new property and it is used to separate the land from the building and therefore reduce the cost of housing units so low-income families can buy a housing unit, thanks to a loan and monthly repayments. The leasehold agreement allows households - according to a resources ceiling - to access housing at a lower price than that of the market. In return, these households can only sell the housing unit at a fixed sales price that is lower than the market price, and to a household that meets the same resources criteria that they initially had to respect.

Living conditions

Subjective concept to characterise all the features of an urban or rural area. It concerns everything around us, on a local scale such as the landscape or environment (climate, etc.), urban developments, cultural factors, etc.

Low Emission Zone (LEZ)

A restriction imposed on the most populated cities of France and encouraged in other big towns and cities, implemented and supported by the State. The goal is to reduce emissions from polluting vehicles to improve air quality, so that inhabitants can breathe air that won't be harmful to their health.

Nature-Based Solutions (NBS)

Responding to the challenges faced by our societies with actions based on ecosystems and the services they provide. Nature and ecosystems encourage resilience in the face of climate change, natural hazards and water supply, etc.

Overall cost approach

This involves taking into account all the costs (direct and indirect) linked to the life cycle of a 'system', such as the Eco-District project, the public area, buildings, etc.

PADD (Planning and Sustainable Development Project)

This is a key part of the Local Urban Plan (PLU or PLUi) and presents the goals and general guidelines for urban, economic, social and environmental development of a commune or a community of communes for a given period (10 to 20 years).

Participatory housing

Based on citizen participation, this is a way for groups of people to build their housing and share an ecological, community-based way of life, at a low cost. This approach can provide collaborative solutions to numerous social issues (social interaction, ageing well, environmentally responsible practices and protecting the environment, affordable housing, etc.).

PCAET (Regional Climate-Air-Energy Plans)

Planning document that helps to address the issues of climate, air and energy, and sets out goals to mitigate and adapt to climate change, protect and boost biodiversity, improve energy efficiency and restricted use, and produce more renewable energy and energy recovery. The PCAET is implemented on an intercommunal or metropolitan level, and the PLU(i) must be in keeping with this document.

PEMD (Products, Equipment, Materials, Waste Diagnosis)

An assessment to determine the nature, quantity and location of building materials and products, and to ensure products, facilities and materials from a worksite can be reused to compensate any current or future shortages of raw materials.

Permeability of the district

Refers to the possibility of crossing an island or district in a direct and efficient way, using a diverse range of mobility solutions. Permeability depends upon the network of streets, the hierarchy and shape, and the absence of physical barriers between areas.

PLU (Local Urban Plan)

Urban planning document that defines the key guidelines applicable to a commune or a set of interconnected communities (PLUi).

In concrete terms, this document sets out the general urban planning guidelines fixed in accordance with projects led by the local authority, as well as regulations related to building in the local area (planning goal and strategies, building shapes, urban / future urban / natural / farming zones).

PNACC (National Climate Change Adaptation Plan)

The adaptation plan is followed at the same time as any mitigation policies for climate change, to limit the inevitable impacts and associated damage for socio-economic activities and for nature. The goal of public adaptation policies is to anticipate the expected impacts of climate change, and limit any possible damage by acting on the factors that control the extent, and taking advantage of potential opportunities.

Positive and negative externalities

A positive externality is a situation whereby a player benefits from another's action without a financial cost. This is the case for a beekeeper who, thanks to their bees, plays a role in pollinating the trees and flowers of a nearby arborist and the latter does not have to pay for this service.

A negative externality is a situation whereby a player is disadvantaged by another and does not receive compensation.

Prospective assessment

A prospective assessment presents a collective, systemic vision that highlights possible territorial dynamics. It is established by considering representations, a retrospective and comparisons with other regions and dynamic statistics. It identifies trends that can influence the evolution of the region.

Rainwater

This is rainwater that has touched the ground or a built or natural surface that allows it to be intercepted or collected (roof, terrace, pavement, tree, etc.).

Regional Health Authorities (ARS)

Public institutions under the supervision of the French government, in charge of implementing the health policy in a specific region. The goal of the ARS is to ensure health is managed in a unified manner across the region, that the needs of the population are met and to increase the effectiveness of the system.

Relevant healthcare partners/users

Healthcare authority: governance in charge of supporting and encouraging the consideration of healthcare throughout the planning project. Within this authority, there is at least one player from the urban project contracting authority (technical design office, urban project management team, etc.) and one player from the healthcare sector (representative of a public healthcare authority such as the Regional Health Authority, Regional Health Observatory, etc.).

Renewable energy and energy recovery

Renewable energy sources are energy sources that are considered to be inexhaustible over the very long term, and do not create any (or very few) polluting emissions. These energy sources include solar, biomass, thermal, wind, hydraulic and geothermal.

Renewable energy from energy recovery refers to the collection of renewable energy from facilities that produce this energy, to reuse heat sources. The energy collected from heat generated from burning waste is one example of this.

Repair Café

A workshop to put people looking to have an object repaired into contact with reuse structures and volunteers who have been trained in repair and reuse. A repair café can be set up in a specific place such as a recycling centre, or workshops can be organised from time to time, in different venues.

Ressourcerie / recycling centre

Recycling centre where used or second-hand goods are collected, restored and/or repaired and then sold to the general public.

Restoration of wasteland

Restoration of land that has already been urbanised, to give a new purpose to abandoned areas. Existing constructions will need to be restored or knocked down and rebuilt, to repurpose the area, in business zones or natural spaces for example.

SCOPE 1, 2 and 3

Perimeter in which the project greenhouse gas emissions are studied.

Scope 1: direct greenhouse gas emissions from fossil fuels (petrol, gas, coal, etc.).

Scope 2: indirect emissions linked to the energy from electricity consumption and heating/cooling networks.

Scope 3: other indirect emissions, generally representing the majority of emissions related to activity.

SCoT (Territorial Coherence Scheme)

Territorial planning document over the medium-long term (20 years) that applies to a catchment area, area of employment or a metropolitan area.

This document serves as a reference framework for issues surrounding housing, transport, commercial development, environment (energy, climate and biodiversity in particular).

SDAGE (outline for the organisation of the development and management of water resources)

Planning tool for a period of 6 years for the management of water supplies and aquatic ecosystems. This tool applies at the major river basin level (12 in France) and can be used in conjunction with planning documents (SRADDET, SCoT, PCAET, PLU, etc.).

It sets medium and long-term goals for several topics including territorial equality, energy, biodiversity, waste, housing, transport, air quality.

Short cycle

Method of selling products whereby the number of intermediaries between the producer and consumer is limited to one. The short cycle does not guarantee products are local, for that we speak of local channels. Short cycle and local channels often go hand-in-hand.

There are several ways to sell in short cycles: direct sale between the producers and consumers on farmers' markets for example, or a collective point of sale for several producers known as a producers' shop or community-supported agriculture scheme.

Short distance

The city of short distance (also known as 'compact city') is recommended by the European Commission (green papers) so that all basic everyday services are less than 800 m from housing units, transfer points or park-and-ride. By increasing the density of residential areas in mixed-use districts, the city of short distance encourages public transport and active mobility solutions (cycling, walking) instead of getting around using an individual car.

Situational prevention

Initiative to prevent anyone who may be planning a malicious act from taking action, by acting on the environment as early as possible.

Social and Solidarity-based Economy

The Social and Solidarity-based Economy refers to a group of companies (cooperatives, societies, associations or foundations) that are operated on a solidarity-based principle and serve a social purpose.

These companies abide by democratic and participatory management methods. The profits they make are subject to a strict set of guidelines: individual gain is prohibited and any profit is reinvested. Their financial resources are generally partly public.

Social diversity

People of diverse social and cultural origins and with different levels of income living together in the same area. This is a driver of cohesion and an inclusive society.

Sorting the 7/9 waste streams

Sorting 7 of the 9 waste streams is compulsory as a means of combating waste: paper/cardboard, metal, plastic, glass, wood, minerals and plaster. Sorting textiles and organic waste is not compulsory but recommended.

SRADDET (Regional Schemes for Planning, Sustainable Development and Equality of Territories)

Instructional planning document implemented by the regional council to use in conjunction with local urban planning documents (SCoT, PCAET and PLU in particular) that should be compatible with this document.

It sets medium and long-term goals for several topics including territorial equality, energy, biodiversity, waste, housing, transport, air quality.

SRCE (Regional Ecological Coherence Scheme)

Framework document that is used as a basis for planning documents. It contains an assessment of biodiversity issues, identification of blue-green infrastructure, implementation of mapping tools and a territorial action plan.

It sets medium and long-term goals in relation to several topics such as territorial equality, energy, biodiversity, waste, housing, transport, air quality. Unless otherwise specified, the SRCE is replaced by the SRADDET which is a regional framework document for the definition and implementation of blue-green infrastructure.

Stakeholder

A 'stakeholder' is defined as 'an individual or group that has an interest in any decision or activity of an organisation.' (Source: ISO 26000, ISO 2010).

Systemic approach

A way of analysing a complex system using an overall approach. This method focuses less on a detailed understanding of all the components of a system and more on analysing the way they interact and function together.

Tactical urbanism

Method of simple, temporary, urban development using temporary developments that can demonstrate which functional modifications are possible for a given space. Often this involves using art and event resources provided by the inhabitants and/or community groups.

Temporary use urbanism

Occupation of the private or public domain with developments and activities for a pre-defined duration. 'Temporary use' urbanism is a means of boosting a district with increased social interaction, and these projects generally encourage a change in image, function, use or status of a space.

Territorial assessment

This is like taking a 'photograph' of a region at a given moment, to determine the economic strengths and weaknesses, expectations of the population, entrepreneurship, environmental, social and cultural factors, etc. A territorial assessment can be carried out with government agencies, local authorities, economic players, civil society and citizens.

The road network

All the roads included in a project, from the most significant (urban highways, boulevards, etc.) to the smallest (alleyways, private roads, cul-de-sac).

Urban heat island

An increase in temperature in densely urbanised areas, mainly linked to the materials used and the shape of buildings, to the occupation of soils, circulation of wind, lack of vegetation in the town, and to heat emissions from human activity.

This is of particular concern in areas where land take is high.

Urban intensity

The notion of urban intensity adds a qualitative dimension to the notion of urban density by including the sensitive nature of a town, the environmental quality, diversity of uses, presence of everyday services (convenience stores, schools, social and public services), the possibility of getting around using active mobility solutions or public transport, etc.

Urban metabolism

Model to analyse the flow of energy and materials (inflow and outflow) needed for a region to function. It compares regions to living beings that need materials and energy that are then consumed, transformed and then eliminated.

Urban shapes

At the district level, this refers to the type of organisation of a space, spatial configurations of buildings (way in which the urban features are organised in the area), and specific developments in public areas (built ground versus non-built ground, road network, squares, green spaces, etc.).

Waste from economic activities

This concerns all waste that is not household waste, according to article R. 541-8 of the Environment Code: industrial and construction companies, craftspeople and shopkeepers, public services (schools, administrations, etc.), healthcare professionals (public hospitals and private clinics, doctors, etc.), service industry, individuals when not at home (waste from public establishments, transport, etc.).

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CERQUAL

CERTIVEA

CNOA - National Council of Architects

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CSTB - Scientific and Technical Centre for Building

Eco Maires

Efficacity

Ekopolis

EPASE - Public Establishment for Urban Development of Saint-Etienne

EPFAG - French Guyana Public Land Development Establishment

FNPRF - Federation of Regional Nature Parks of France

FNAU - French network of urban planning agencies

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Florence Drouy

Head of the French bureau for sustainable regions and cities
DGALN/DHUP/AD



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