

HQE SUSTAINABLE URBAN PLANNING

For the creation of sustainable
 territories



FRAMEWORK OF REFERENCE



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INTRODUCTION

Creating sustainable territories requires the emergence of a common culture and the mobilisation of all the urban planning actors: elected officials, decision-makers, technicians, designers and residents.

Published in 2010, the guide to HQE Sustainable Urban Planning already offered to help them with an operational approach based on a quality system at the heart of which is the “Planner + Community” pair.

A generic method that can be adapted to any type of project and be appropriated by any type of actor, it offers a common language, an operations management structure and permanent evaluation.

This new edition of the reference framework proposes to (re) discover a structuring approach to support project leaders in their desire to conduct sustainable development projects.



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THE PRINCIPLES OF THE HQE-SUSTAINABLE URBAN PLANNING APPROACH

The HQE–Sustainable Urban Planning approach aims to carry out projects integrated into their territories, whose impacts on the environment, assessed over the entire life cycle, are as controlled as possible and promote economic and social development and quality of life.

It is made up of two inseparable components:

- a Project Management System (PMS) which notably provides for the organisation of steering, participation and evaluation throughout the project;
- a thematic approach to analyse the site and define the objectives of the sustainable urban planning project.

■ A quality and multi-criteria approach

HQE-Sustainable Urban Planning is a quality approach based on ISO 14001 and ISO 9001 management standards. A multi-criteria approach from a sustainable development perspective, it requires systemic and multidisciplinary work adapted to the context. The singularity of the situations therefore makes it necessary to seek personalised solutions and in fact excludes the transposition of models or “recipes”.



CONCERNS

The HQE-Sustainable Urban Planning approach seeks to combine the economic, social and environmental pillars of sustainable development within the limits of the attributions and skills specific to each type of actor, while maintaining a capacity for questioning. It offers a thematic grid across 19 sustainable development themes to help define the project according to a global and transversal approach.

In line with the reference framework for Sustainable Building for published in 2015, they are grouped into four major commitments:

Quality of life	Economic performance
Respect for the environment	and Responsible management

■ A voluntary approach for all types of projects

This approach can be applied to any urban planning project without distinction of size, procedure, territorial context or destination: renewal or extension, urban or rural, housing or activities. The HQE-Sustainable Urban Planning approach is therefore aimed at all urban planning actors, whether public or private. Its generic nature allows it to be implemented for both mixed development zones and planning permits, on a large-scale or small-scale project.

HQE-Sustainable Urban Planning is intended to the contracting authorities for urban planning projects: communities and public or private urban planners. It is voluntary but requires, in addition to the contracting authority's commitment, a willingness shared by the planner and the community. Their involvement is indeed essential.

■ An operational and spatially integrated approach

Any urban planning project is part of a larger territory which is already:

- support for economic, social, environmental or sustainable development policies
- covered by regulatory planning documents.

The HQE-Sustainable Urban Planning approach must therefore be constructed at the interface of the two upstream and downstream scales (see Figure 2) which are:

- the territory in which the project must be integrated consistent with local policies, in particular taking into account urban development rules. By establishing a privileged dialogue, the methodology nevertheless gives the contracting authority the opportunity of alerting the

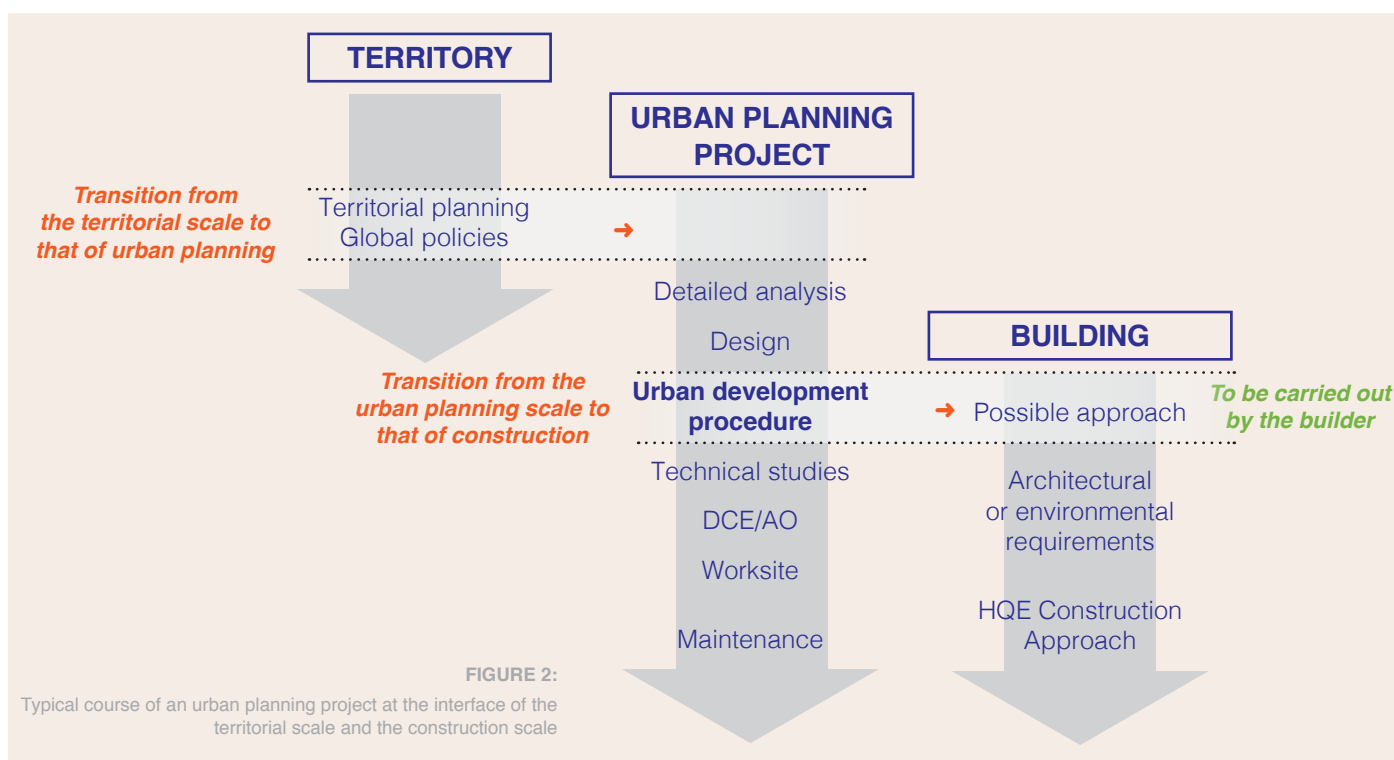
community to the incompatibility of its document with the aims of sustainable development (e.g. search for diversity, economical management of space, reduction in waterproofing, etc.). In addition, the implementation of sustainable urban planning projects must leverage the territory by contributing to sustainable urban development;

- the building, facilitating the HQE-Sustainable Building approach in the form of recommendations. Downstream, the methodology also focuses on raising the awareness of project owners and future builders, and highlights the need to better coordinate the work between the planner and them.

The HQE-Sustainable Urban Planning approach has been taken from the classic course of a project. It thus supports the contracting authority and the community throughout the project from commitment until completion, emphasising certain points, in particular:

- reflection and «upstream» choices, in a logic of coherence
- during the question period for the choice of site and the appropriateness of the project
- maintaining momentum throughout the project so as not to lose in ambition and in performance
- lastly, the downstream operating phase (maintenance, management and uses) to achieve performance.

Compared to a "classic" project, this approach requires in particular more work on the upstream phases of the project while ensuring that the deadlines specific to the project are kept under control.



PROJECT MANAGEMENT SYSTEM (PMS)

- Structure
- Objectives



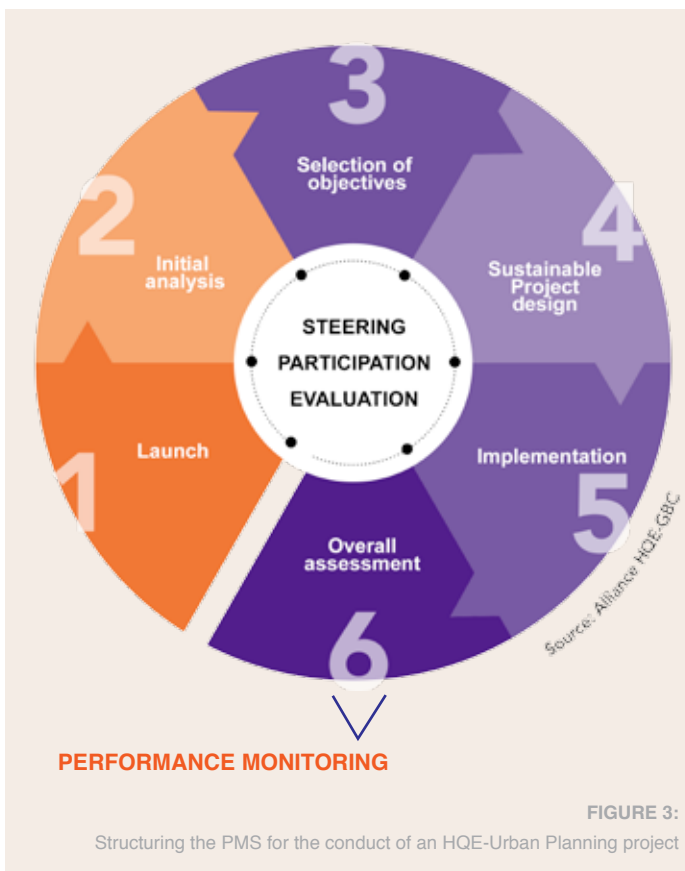
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The PMS is the backbone of the process that structures the effective conduct of a project. It is presented as an organisation and decision-making system composed of:

- organisational arrangements for steering, participation and evaluation to be implemented throughout the project
- six key phases that mark the course of the project
- a post-operational monitoring phase, outside the scope of the methodology.



■ Optimisation, transparency and traceability for the efficient conduct of an operation

The implementation of a sustainable development approach for an urban planning project is as much a question of organisation as of urban development, architecture, economics, social and environmental issues, etc. A sustainable urban planning project is defined as a project integrated into its context and whose project management ensures over time good governance, the feasibility of the programme and the sustainability of the project.

As a governance tool, the PMS helps to organise the conduct of the project, by controlling the programming, design, implementation and handover processes, in order to optimise the efforts of the actors for sustainable urban planning.

By making it possible to ask the right questions at the right times, and with the right people, the PMS aims at:

- the optimisation of the sustainable development project and the anticipation of performance monitoring,
- transparency and traceability,
- organisation and dialogue among stakeholders.

Compared to a classic project, this approach requires:

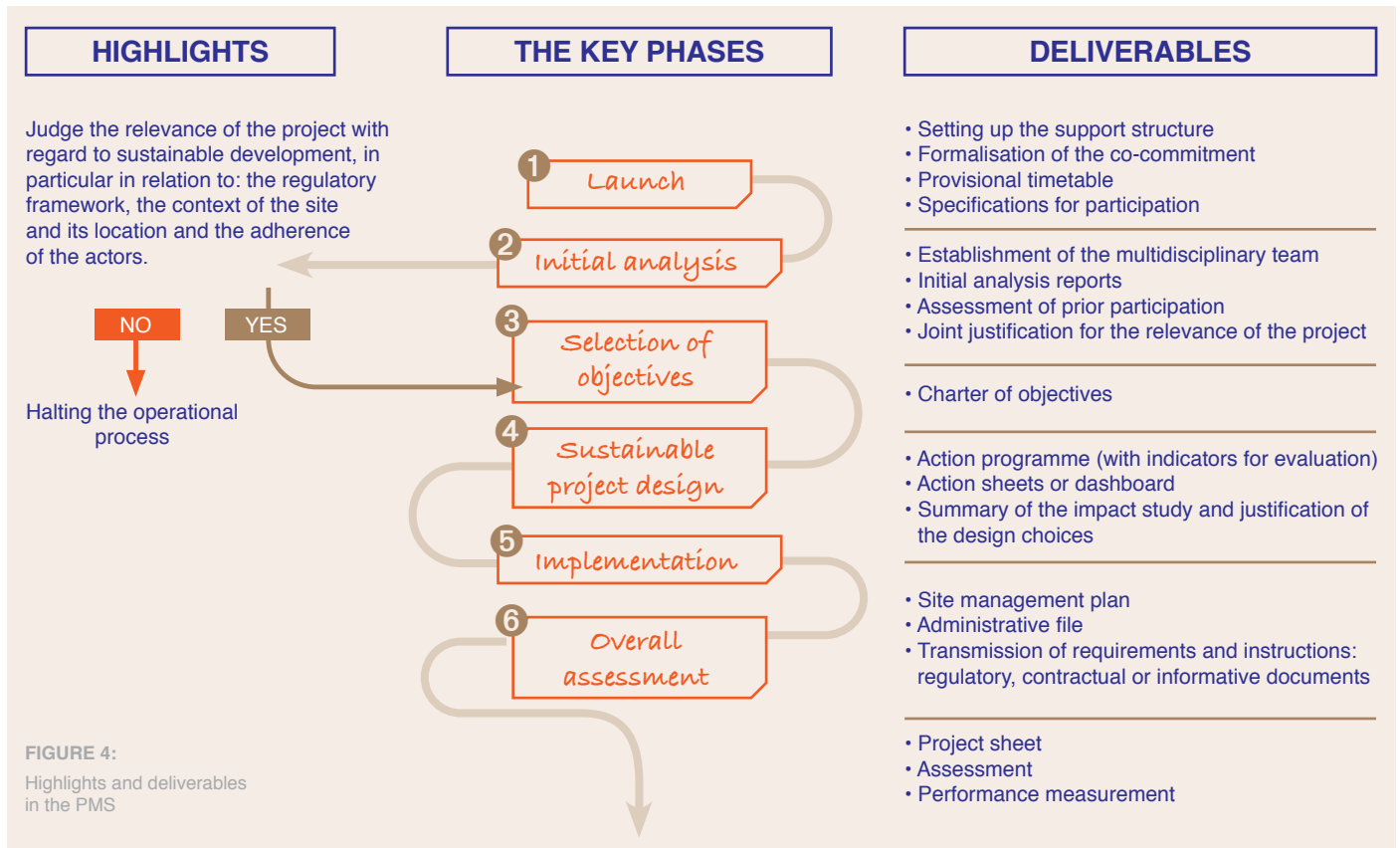
- a reflection shared between the planner and the community from the start
- significant work on the «upstream» phases of the project, especially during the initial analysis
- extensive reflections to feed into the project and sketches produced as a result of these reflections.
- involvement of all the stakeholders (including citizens) to also focus on people - living in a sustainable territory...

Another specific characteristic of this method is that it offers a period to «question» the project, after the initial analysis. It is therefore about judging the relevance of the project with regard to sustainable development, in particular on the regulatory framework, the context and the location of the site (e.g. its impact on nearby natural areas, its accessibility, etc.), or the non-adherence of one of the actors.

As shown in the figure, if the result of this questioning leads to a negative answer, it is advisable to stop the operational process and, depending on the situation, either:

- to initiate additional studies,
- to modify the initial objectives and/or the predefined orientations,
- to review the wishes of the planner and/or the community
- to initiate the modification of urban planning documents
- to review the terms of participation
- to think about another site for the project.

PROJECT MANAGEMENT SYSTEM (PMS)



A second aspect ensures the optimisation of the project; this is the evaluation* (developed in Part III), which must be carried out in all phases of the PMS. It is essential because:

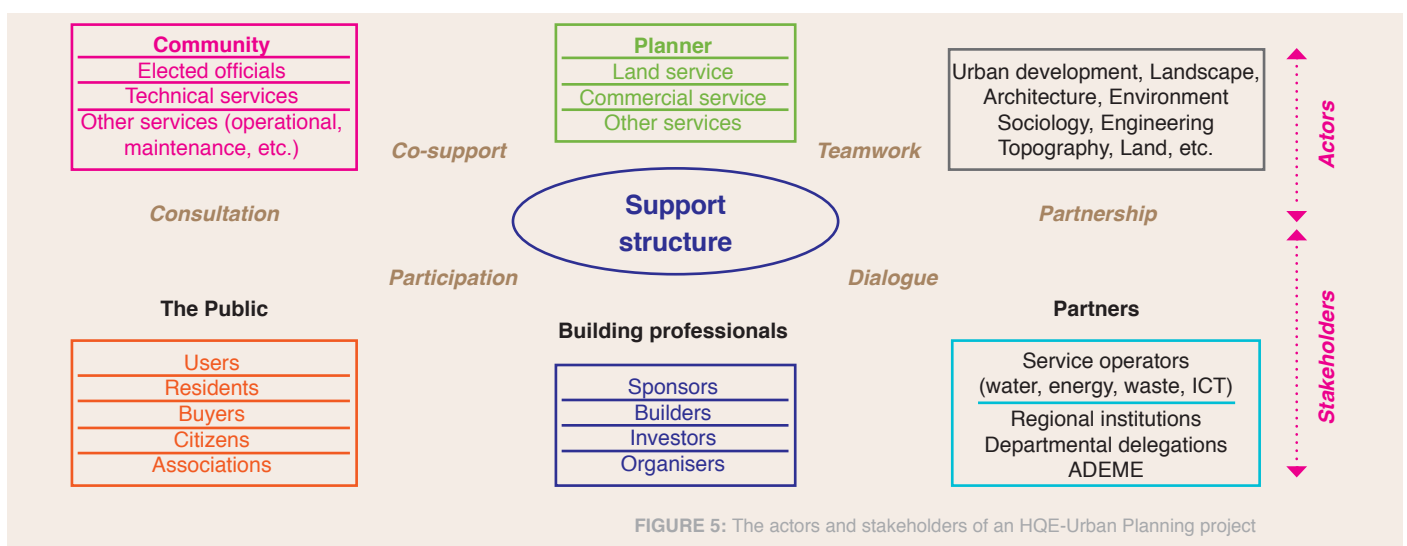
- it is inherent in the concept of sustainable development;
- it constitutes a decision-making tool by objectifying the choices;
- it allows you to correct and reframe as you go;
- it should limit the negative impacts on the environment;
- it is carried out with a view to improving and advancing.

The PMS guarantees transparency and traceability in the monitoring of the operation. For each key phase, deliverables must be produced; these are documents to be formalised to validate each step. The deliverables selected correspond to what is needed. This formalisation is all the more useful in exchanges between multiple actors and over periods that can be long, as is the case in urban planning projects.

DIALOGUE AND INVOLVEMENT FOR THE ORGANISATION OF A COMPLEX SYSTEM OF ACTORS

Sustainable development requires the involvement of more stakeholders, and we observe a growing complexity of the system of actors (multidisciplinary stakeholders, diverse

operators, citizen participation, etc.) which reveals the need for new functions and modes of intervention.





Consequently, the circle of actors of an HQE – Sustainable Urban Planning project is widened to all stakeholders. The relationships to be managed by the planner thus become more numerous and diversified. This participation is an essential component which must be considered according to the context and have an educational dimension. The support structure, set up from the launch of the operation, is at the heart of this organisation.

Insofar as the system becomes more complex, the PMS provides a response to the proper organisation of the various actors and stakeholders. The project is understood here as a form of collective and participatory action, the success of which depends on the capacity of the organi-

sation to enable all the actors and stakeholders work together. Their involvement guarantees: the completeness of the diagnosis, the consistency of the choices or even the best acceptance of the project. Depending on the progress of the project, their investments are not the same and may be of different types.

The PMS should help the implementation of shared governance within a systemic vision, while ensuring that deadlines are kept under control. While care must be taken that time does not interfere with mobilisation, the analysis and design stages should not be underestimated because the upstream phases require particular attention here.



- Commitment to the approach
- Planner/Community dialogue
- Steering structure
- Decision-making process
- Project management
- First orientations of the project
- Identification of the stakeholders
- Choice of skills
- Planning



PROGRESSION

Initiate the dialogue between the planner and the community (in the case where the community is the planner, this discussion may involve elected officials and technical services, for example). This discussion should:

- allow the planners to express their wishes and constraints and the community to formulate their expectations and motivations;
- lead to the commitment of the parties. It is preferable to formalise it with an agreement in principle or a letter of intent.

Organise the steering structure of the project

- Define the terms of the decision-making process and therefore the functioning of the steering structure
- Specify in writing the tasks and responsibilities of each as well as the planning with the provisional schedule and define the document management methods.

Define a priori the terms of participation through a discussion between the planner and the community.

- Identify the stakeholders
- Analyse the set of actors.

Define the studies and skills needed

- skills will be broadened, multidisciplinary and flexible, depending on the project and the challenges
- existing documents will be identified in order to prepare the initial analysis and to define the needs for studies.

ADVICE TO...

• The Planner

Upstream work with the community is a prerequisite for the implementation of the HQE-Urban Planning approach. A sustainable urban planning project requires more in-depth, more global and more shared thought work during the upstream phases of the project, which impacts the study budget, the organisation of teams, deadlines, etc. It should be taken into account.

• The Community

The community should seek to make the project consistent with its policies, development projects and territorial challenges. Adherence to the HQE-Urban Planning approach is a guarantee for the community that its expectations will be taken into account in the context of the project. It is also a means of exercising control over the sustainable development of its territory.

STEERING

The role of the steering structure is to make the choices relating to the project and to conduct the project and its evaluation.

We can identify two levels of responsibility:

- the level of decisions and steering structure, arbitration on the orientation and ambitions for the project, maintaining the course over time on sustainable urban planning goals and evaluation => Steering committee
- the level of project management, synergy between actors and management of the PMS => Technical committee ensuring coordination between the decision-making level and the operators of the implementation, translating the adopted strategy into operational requirements.

The places for discussion and decision-making are not necessarily ad hoc training sessions exclusively created for the project. In addition, there is no single organisational response, the only imperative for the process being that the planner and the community have thought together about support and steering.

At this stage, it is also necessary to ensure the adequacy between the financial means and the stated ambitions in order to achieve the desired quality. The skills, depending on the challenges and degree of expertise expected, may change as the project progresses. Steering the process also requires the designation of a steering committee or focal point(s) in charge of ensuring the overall vision of the project and the organisation of the actors.

PARTICIPATION

At start-up, the priority is **dialogue between the planner and the community**, which must be the basis of a privileged relationship for the benefit of the proper conduct of the process and the quality of the project. Together, they define the procedures for **the continuous identification of stakeholders, their expectations** and their participation (who, when, how?) with regard to the procedure initiated, and the practices of the community but also the conditions of context-related acceptance.

For more formalisation, it would be useful to define **specifications for participation**, which can be implemented at different levels ranging from information to co-production. Likewise, the mode of communication can be adapted, which may at this stage take the form of information relating to the process undertaken with a view to future involvement of stakeholders.

EVALUATION

From the outset, it is necessary to think about what should or can be evaluated according to the priorities defined jointly, to prefigure **the process of continuous evaluation and improvement** and its organisational modalities (e.g. an evaluation referent can be appointed) in order to deploy the appropriate means for an efficient evaluation that remains consistent with operational processes.

“Joint commitment to the process is a prerequisite. The adherence of actors in the field, in particular decision-makers, is essential for the proper conduct of the process for the benefit of the project.”

Deliverables

Documents to validate each step of the PMS, to update when necessary

- Supporting document for the commitment to the HQE-Sustainable Urban Planning approach by each of the parties
- Planning of the project
- Composition and functioning of the support structure*
- Specifications for participation: consultation procedures
- Composition and functioning of the team
- Document Management methods

* political, technical, financial and operational management methods.

INITIAL ANALYSIS

- **Diagnosis**
- **Site limitations and potential**
- **Specific issues**
- **Coordination of studies**
- **Stakeholder involvement**
- **Question on the relevance of the project with regard to sustainable development**

Undertake the diagnosis with appropriate studies that go beyond the operational and thematic scope

The reflection must take into account the different levels of geographic scales. Different types of studies are possible, depending on the context and the challenges: economic, environmental, land, landscape, ecological, regulatory, sociological, technical, topographical, urban, etc.

Coordinate and manage studies

The cross-referencing of the components of the diagnosis must guarantee a global approach.

PROGRESSION

Check and ensure the compatibility of the project with the planning documents. The planner must be able to alert the community if an incompatibility is observed between urban development documents with the challenges of sustainable development.

Share the results of the initial analysis to identify the specific issues of the project.

Judge the adequacy of the project with regard to sustainable development on the basis of the diagnosis

- Check its appropriateness
- Provide written reasons for the relevance of the project in relation to the regulatory framework, the context of the site and its location, the needs to which it meets and the support of stakeholders.

This stage is a key moment when the project can be called into question.



ADVICE TO...

• The Planner

The more upstream the reflections are, the more the concessionaires and other stakeholders will be involved early in the planning cycle and the more the design and especially the implementation periods will be shortened and as a result, risks of all kinds will be better framed. The importance given here to the duration of the studies is therefore not time wasted.

• The Community

The HQE-Sustainable Urban Planning approach can be an opportunity to question urban development or planning documents and their adequacy with the principles of sustainable urban planning, or even bring about improvements. If the community is already pursuing proactive policies in terms of sustainable development, the project may be the occasion for their implementation.

Sustainable urban planning requires a global, cross-referenced and shared diagnosis, in particular for the identification of specific issues as well as the definition and prioritisation of objectives. This particularly decisive analysis is too often limited to impact studies (regulatory) and suffers from a lack of sharing, synthesis and formalisation.

During the initial analysis, the **coordination of skills** is essential to ensure the comprehensive scan of social, economic and environmental issues through a holistic, global approach. In order to promote the coordination of service providers sometimes having different cultures and organisations, it may be useful to:

- Define the operating methods of the team and its relationship with the support structure
- remind everyone of their roles (in particular, plan more meetings to participate in monitoring committees, etc.)
- plan time for discussion to ensure a global approach (the technical monitoring committee, for example).

The **shared analysis** should be disseminated and discussed to lead to a **joint decision to initiate** the operational process. The planner and the community must imperatively take the time to share this analysis and to **judge the relevance of the project with regard to sustainable urban planning** in order to consider the advisability of the project.

The outcome of the analysis may thus lead to the decision to continue certain studies, not to initiate the operational phase of the project or to reorient it.

For a **complete and shared diagnosis**, the results of the prior consultation must reflect the expectations and needs of the stakeholders. Their association can take different forms depending on the target:

- Residents and associations can be invited to express themselves through exhibitions, public meetings, thematic workshops, etc.
- Partners may be invited to technical committee meetings or other discussion periods.

It is necessary to reflect on all the themes of sustainable development and to look more closely at those which contain significant issues in the context considered. However, this is “relative exhaustiveness” because first of all, the assessment allows the objectification of the issues for which the diagnosis could be further developed. It is about being able to calibrate the diagnosis according to expectations and needs and to make sure that the questioning has not been oriented a priori and restricted in an unjustified manner.

Secondly, the evaluation consists of:

- comparing the choice of the site (its strengths and weaknesses) with the territorial needs and objectives of sustainable development,
- qualifying or justifying the suitability of the site, with regard to the project programme and its operational scope to ensure its consistency and relevance.

Although at this phase, it is not possible to assess its impacts or its effectiveness, strictly speaking, it provides the project sponsors with a sort of «zero state» of the site or initial state, useful for the various assessments to be undertaken in the project.

“The conclusion of the initial analysis should include a period of questioning as to the appropriateness of the project with regard to its context, location, services and programming. It must therefore respond to a problem or specific needs of the territory. This questioning is all the more necessary in a situation of artificial soils.”

Deliverables

Documents to validate each step of the PMS, to update when necessary

- Assessment of prior participation
- Regulatory framework analysis note
- Initial status (graphic document)
- Report(s) and summary of the initial analysis
- Joint justification of the relevance of the project with regard to sustainable development

SELECTION OF OBJECTIVES

- Justification of the themes
- Orientations of the urban planning
- Programming
- Economic feasibility
- Formalisation of the objectives
- Consultation of professionals
- Launch of the consultation at the end of the phase (if applicable)



PROGRESSION

Cross-reference the conclusions of the initial analysis with the thematic approach to ensure an exhaustive scan of sustainable urban planning themes and to support project leaders in defining project-specific objectives.

Prioritise the issues according to a prior prioritisation that can be developed in the following phase of the PMS.

Choose specific objectives and targeted performance levels for the project in order to respond to these challenges. To be included in the charter, an objective must be justified and assessable from a quantitative or qualitative point of view. The evaluation methods must also be informed.

Associate and educate professionals (sponsors, donors, builders and managers) in the definition of these objectives in order to

- Make potential operators aware of the process
- Know market expectations
- Measure the capacities of local professionals to respond
- Ensure the adequacy of objectives with the regulatory context and economic feasibility.

Formalise the charter of objectives that translates the joint commitment of the planner and the community and presents the justification of the objectives selected. The charter of sustainable urban planning objectives, signed by both parties, must fuel the project and best respond to the challenges identified.

ADVICE TO...

• The Planner

There is a great temptation to give shape to the project through plans and sketches. Nevertheless, the upstream phases of projects are essential for a global reflection. Also, no sketch should be produced at this stage (programmatic dimension of the charter). It is a question of exercising caution in proposing reference images because their implications in the thinking of elected officials during the consultation process can prove detrimental to the project.

• The Community

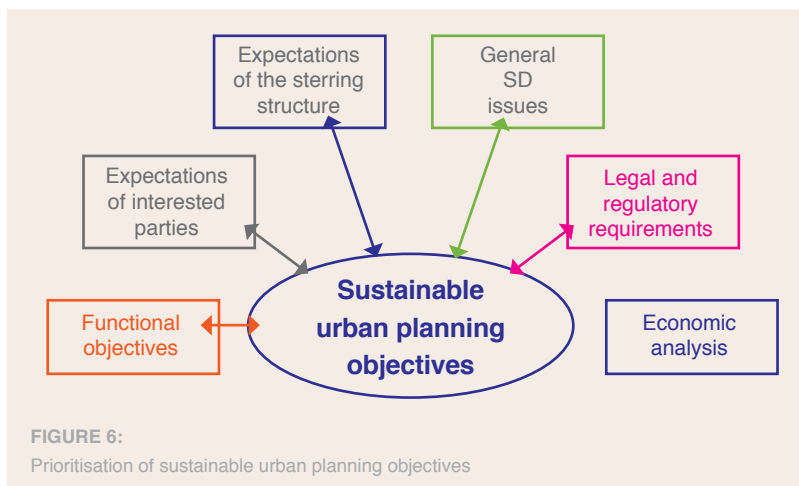
This phase requires the attention of elected officials, as the charter has strong political implications. The co-signing of the charter of sustainable development objectives is a concrete expression of the dialogue between the planner and the community. This is a highlight of the PMS. The definition of the levels of requirements is the role of the politician. The involvement of professionals, beyond the planner, is necessary since they are able to provide an insight into the economic feasibility of projects and are close to the end customer.

It is at this stage that the cursor will be placed on a certain level of ambition through the objectives which participate in the construction of sustainable urban planning. If the design team is a force for proposals in defining relevant objectives, it is the support structure, in conjunction with elected officials and decision-makers, which will be in charge of the necessary arbitrations, particularly on the **levels of requirements**.

The **prioritisation of themes and objectives** should take into account various aspects to lead to the definition of a sustainable urban planning, in particular the assurance of economic feasibility, formalised in a charter whose binding character will be all the stronger when it is signed by both parties or even deliberated on within the community.

“The choice of the levels of requirements assigned to the objectives, because it will determine the ambition of the project is a strong political moment and the same goes for the joint signing of the charter of objectives to make these commitments sustainable.”

STEERING



PARTICIPATION

It is up to the steering structure to define the methods of organising the debate on the performance levels of the objectives. This is a good time to bring together professionals and operators to check the consistency with their technical capacities, the reality of the market, or even the economic feasibility to better ensure overall financial balance. The evaluation methods should also be consultative to favour their subsequent implementation.

Deliverables

Documents to validate each step of the PMS, to update when necessary

- Sustainable urban planning objectives with target performance levels and evaluation criteria.
- Co-signed charter of objectives
- Evaluation process and corrective action

EVALUATION

It is at this stage that we identify the who, what, how ... of the evaluation to be carried out in the phases of planning, design, implementation, assessment and the life of the neighbourhood. It is all the more essential since it is in relation to the objectives chosen that the evaluations in the successive phases will have to be carried out. The charter also aims to ensure a continuum among diagnosis -> issues -> objectives -> evaluation criteria -> and indicators.

It therefore seems essential at this stage to:

- ensure, in the development of the charter, a clear and precise formulation of the objectives so that they can be broken down into criteria, indicators or elements of assessment;
- ensure the political will underlying the technical and financial steering capacities of the evaluation (skills, budget and collection of necessary data).

DESIGN OF THE PROJECT AND ACTIONS

- Urban planning section
- Action plan
- Design
- Evaluation of environmental, economic and social impacts
- Reflection on the uses, project and performance monitoring



PROGRESSION

Define the project programme, the urban planning section and the action plan using a global and systemic approach, while also considering the potential for pooling or optimisation. Indeed, an action can have several objectives, just as it can have a negative impact for the achievement of other objectives. A systemic approach makes it possible to take into account the interactions or feedback involved.

Anticipate uses to make the right choices and initiate reflections on monitoring and its methods

- Define maintenance constraints by associating community services
- Take into account the concept of overall cost for the choice of processes and techniques.
- Involving professionals and future managers of equipment and networks makes it possible to think about technical solutions, to refine costs, etc.
- Launch technical studies: in addition to conventional studies (sanitation, etc.) specific studies may be necessary (heating network, etc.).

At the same time assess the impact of the project on the environment

A true assessment of environmental impacts such as an impact study process is strongly recommended and should help in the choice of variants. The impacts of the project at different scales will also be analysed as well as the social and economic impacts of the project.

ADVICE TO...

• The Planner

While the environmental impact study is not always a regulatory obligation, the methodology emphasises the need to set up a continuous environmental assessment process during the design and implementation of the project. This requirement should allow good planning choices with a view to limiting the negative impacts of the project on the environment.

• The Community

Operators can be longer-term partners, until the construction is completed, or may even manage them after completion. At this stage, it is also necessary to involve the community services which will be affected by the project. At the end of this phase, the design of the project is completed and the project will lead to its execution phase.

— STEERING —

The **choice of actions** is carried out in iteration with the definition of the **urban planning project** and the **environmental assessment** to ensure the overall consistency of the project. In order to take into account the interplay of feedback and interactions, a global and systemic approach is essential.

The definition of the associated indicators to verify the achievement of objectives must also be carried out at this stage.

The design team implements an environmental assessment process to estimate, as the project progresses, the impacts of the choices made. It reports to the steering structure, for whom this environmental assessment must be a decision-making tool. It reports on the impact of the choices made and recommends avoidance in the first place, followed by the reduction of these impacts and, as a last resort, corrective or compensatory actions.

— PARTICIPATION —

To define the actions, the structure relies on the participation of users to the degree that will be deemed necessary and ensured throughout the project, but it is nevertheless the guarantee of a better acceptability of the project. The participation of professionals makes it possible to think about technical solutions and to refine the concepts of costs, but also to explain the requirements that will be formulated in the calls for bids or the specifications. This step is conducive to involving future users and managers of equipment, networks and public areas (communities, concessionaires, etc.) for optimal management beyond the operational phase.

— EVALUATION —

At this stage, the evaluation aims to clarify the choices and to know their impacts before starting the operation, sometimes in terms of solutions or systems that are partly irreversible. It should make it possible to verify the effectiveness and efficiency of the choices and actions also on the social and economic aspects with regard to the objectives.

“The design of the project must serve the objectives set beforehand and take into account the question of uses.

The approach recommends that the sketches and drawings be a translation of the actions themselves defined in response to the objectives.”

Deliverables

Documents to validate each step of the PMS, to update when necessary

- Operation programme
- Action sheets or completed dashboard
- Evaluation of the development programme and project
- Justification of the planning section and the action programme
- Graphic documents (ground plan, insertion plan, etc.)

IMPLEMENTATION

- Transcription of actions into requirements
- Selection of companies
- Execution of the work
- Site management
- Marketing
- Delivery - Handover
- Project
- Traceability



PROGRESSION

Transcribe the objectives into requirements at different levels: public spaces, private spaces and buildings.

The translation of requirements into documents with regulatory or contractual value guarantees the means necessary to carry out the actions, and therefore to achieve the objectives.

The buildings are built in accordance with the reference framework for Sustainable Building to combine quality of life, respect for the environment, economic performance and responsible management. HQE certification may be necessary.

Clauses in favour of social dynamics and local economic development can also be included.

Set up control methods during the execution and management of the work-sites.

In order to limit the environmental impacts of the works phase (pollution, risks, waste, etc.), companies will have to comply with a management plan (inclusion in the specifications relating to the conditions of performance of the contracts). A site management report should be carried out with a view to continuous improvement and transparency. Particular attention will be paid to occupied sites or to rehabilitation or renewal projects.

Raise awareness among future users during marketing

for a better understanding of the choices made and to encourage them to make optimal use of the equipment. These explanations must be included in the user guide.

Prepare the use phase and transmit maintenance instructions during delivery, in order to ensure the sustainability of performance over time and the monitoring. At the time of delivery, designers and planners must send appropriate management and maintenance booklets.

ADVICE TO...

• The Planner

Make your sales representatives aware of the principles of sustainable urban planning so that they understand the challenges of the approach. The inclusion of real estate projects in quality procedures is also a gauge for buyers.

• The Community

If including requirements concerning urban development or architecture in the specifications may pose a problem from the point of view of their scalability over time, rules can be included in the documents with regulatory scope.

At the end of the design phase, to ensure compliance with the ambitions during implementation, instructions should be formulated and broken down according to different levels of **environmental requirements**: obligation, incentive or recommendation, in:

- regulatory documents (), for example with a systematic mission to monitor construction projects before filing the building permit.
- contractual documents (pledges to sell, special technical clauses (CCTP), etc.) which may contain numerous environmental requirements, elements of traceability can be inserted in the promises to sell.
- consultative documents intended for companies (calls for bids, etc.) which ensure the transmission to them of recommendations in terms of site monitoring.

The implementation of a **site management plan** requires efficient organisation and raising the awareness of the companies. It involves:

- Ensuring companies' commitment and identifying an «environment» contact for each
- Defining the methods of control and surveillance
- Planning and setting up a general organisation to coordinate the work and minimise the problems and risks of pollution and organise waste management
- Carrying out a site assessment.

Monitoring may require assigning a mission for supervision (reinforced mission for the contracting authority or a special mission)

The steering structure must define the methods for raising awareness among buyers (who, when, how?). The animation of the awareness-raising period may be provided by the planner, by the community or may be delegated. The organisation of meetings or the production of an awareness booklet makes it possible to draw their attention to the instructions for use that guarantee optimal performance, for educational purposes. More broadly, this awareness may encourage individual and collective approaches in favour of sustainable development (contacts with associations, subsidy organizations, etc.).

For urban planning as for buildings, it is a question of evaluating the consistency of the requirements with the objectives, and the compliance of their implementation during the work. Providing information to the community and throughout the project of the results of the assessment, or of the readjustments made is also essential.

“The transcription of objectives into requirements must be considered and broken down at different levels. The specifications of the expected performance levels are a major issue with a view to their achievement.”

Deliverables

Documents to validate each step of the PMS, to update when necessary

- Contractual document, specifications, etc.
- Administrative file of the project
- Instructions for use of equipment and plans
- User booklet(s) (and other means of raising awareness)
- Identification of managers for common areas and maintenance service booklets
- Contract for monitoring building permits
- Site management plans
- Documentation of checks, evaluations and any corrective actions

ASSESSMENT - LESSONS LEARNED

- Assessment
- Lessons learned
- Feedback
- Continuous improvement process
- Traceability
- Performance monitoring



PROGRESSION

The assessment phase, which takes place after the handover and the end of the operational process, is a phase in its own right in the methodology. It is about taking the time for a shared assessment, to learn lessons and capitalise on experiences both **on the implementation of the HQE-Sustainable Urban Planning approach and on the operation.**

Assessment of the project:

- take stock of the project with regard to SD by considering its specific characteristics and:
- assess the level of acceptance and ownership by residents and users of the project;
- measure and achieve the performance achieved in terms of actions and previously set objectives
- and carry out a financial assessment and an “overall cost” evaluation;

Assessment of the approach: take stock of the process with a view to continuous improvement and by examining the organisational aspects, in particular on:

- project management and the organisation of the actors
- the contributions of participation
- the contributions of continuous evaluation
- time management
- success points
- difficulties encountered.

Post-operational monitoring: propose to the future manager(s) of the project post-operational monitoring methods in order to improve its design or management.

Lessons learned may be undertaken by the production of projects sheets that can be inserted into existing project databases (for example: www.construction21.fr) and thus contribute to spreading good practices. They can also be useful in prospecting for new markets.

ADVICE TO...**• The Planner**

At the end of the operational process, the planner will take stock of the implementation of the HQE-Sustainable Urban Planning approach and its project. The question arises of the lessons to be learned from this experience with a view to continuous improvement. Depending on the conclusions, the planner may have to think about the internalisation of new skills within it or the possibility of generalising the approach to all of its projects.

• The Community

The community is also taking stock of its involvement in the process and the project. With a view to continuous improvement, it may have to think about restructuring its services or a more general application of certain aspects of the methodology. The project can also be used as a pretext for educational actions on sustainable development aimed at different audiences.

The assessment phase, which takes place after the handover and the end of the operational process, is a phase in its own right in the methodology. It is a question of taking the time for a shared assessment, to learn from it and capitalise on experiences both on the **implementation of the HQE – Sustainable Urban Planning approach and on the project.**

Assessment of the project: take stock of the project with regard to SD by considering its own characteristics and: assess the level of acceptance and appropriation by residents and users of the project; measure and take stock of the performance achieved with regard to the actions and objectives previously set and carry out a financial report and a “total cost” assessment;

Assessment of the approach: take stock of the process with a view to continuous improvement and by examining the organisational aspects, in particular on:

- project management and the organisation of the actors
- the contributions of participation
- the contributions of continuous evaluation
- time management
- success points
- difficulties encountered.

Post-operational monitoring: propose to the future manager(s) of the project, post-operational monitoring methods for the project in order to improve its design or management

Lessons learned may be undertaken by the production of projects sheets that can be inserted into existing project databases (for example: www.construction21.fr) and thus contribute to spreading good practices. They can also be useful in prospecting for new markets.

“The assessment phase, which comes at the end of the operational process, is a phase in its own right in the methodology. It is about taking the time for a shared assessment, to learn lessons and capitalise on experiences both in the process of the project to be part of a logic of continuous improvement.”

In a logic and a desire for transparency and education, all stakeholders can be invited to express themselves on their feelings and their involvement in the process and construction of the project. All the players can be involved in defining methods for investigating and monitoring user satisfaction and performance in the life phase of the neighbourhood. A satisfaction survey could be considered among buyers, new residents and users of the newly upgraded urban area to measure the degree of acceptance and appropriation of equipment and amenities. This also makes it possible to verify that the educational messages have passed and to see how the project may have had an influence on behaviour.

To advance the knowledge and practices of all the stakeholders, it is essential to provide for the dissemination of feedback and acquired knowledge.

Deliverables
Documents to validate each step of the PMS, to update when necessary

- Project sheet
- Review of the project and the approach
- Performance measurements achieved
- Means of conservation and communication of aspects of the assessment

To carry out assessments of the living environment, uses, technical performance and operating costs in order to provide for the necessary adjustments to the project’s management and maintenance procedures.

The measurement of the performance and impact of the project with regard to the objectives and the evaluation of its contribution to the sustainable development of its territory can be defined according to different timelines and scales, depending on the themes and concerns:

- On handover: Project performance, achievement of objectives and impacts as well as the means put in place to remedy the observed discrepancies.
- After x years of project: Maintenance of performance over time, leverage effect and contribution of the project to the development of the territory (impact on image and attractiveness, acceptance and use of public spaces, etc.).

THEMATIC APPROACH

■ Structure

■ Objectives



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The 19 sustainable development themes were chosen because they are appropriate for carrying out development projects but also because they are compatible with other approaches at European or national level (EcoQuartier, ISO 37101, ODD, RFSC, etc.). This grid does not in any way constitute a rigid framework and may be subject to reworking to best adapt to the usual vocabulary of the planner or the community.

■ A multi-criteria definition framework for a systemic approach

The challenge is to manage to reconcile all the imperatives of sustainable development: from quality of life, to respect for the environment, through economic performance and responsible management, as part of an urban planning project. This by considering the interactions, to draw a coherent project as a whole. The thematic approach should help the steering structure, from the initial analysis to the definition of the sustainable urban planning action programme, to the development of the project, according to a multi-criteria and comprehensive approach.

■ Thematic analysis for an exhaustive diagnosis of the site

In the course of the PMS, the thematic approach will be used from the initial analysis with the launch of the most comprehensive diagnostic studies possible. The choice and contracting phase of sustainable urban planning objectives, which results in the achievement of the Charter of sustainable urban planning objectives, requires cross-referencing the specific issues arising from the diagnosis with the aspects to be taken into account.

The thematic analysis with the diagnostic points will bring out objectives that will be at the interface of several themes, this global analysis will deploy a field of

study that is broader than the initial state of an impact study. It must fuel the project and the debates between the various stakeholders and lead to the identification of issues specific to the site, as well as the resulting sustainable development objectives. Analysis is an essential step in the project design process. More than just reading the site, the analysis is also a tool for negotiation between the different actors. The proposed grid makes it possible to ensure that you have scanned all the points of analysis of the existing state and its potential. Of course, the specific diagnostic needs must be specified in the context of each project.

Territorial analysis	Environmental and technical analysis	Socio-economic analysis
Urban dimension Historical and geographic dimensions Landscape dimension Morphological dimension Heritage dimension Land policy Studies on accessibility and travel	Water Energy: local availability Climatology Soil and sub-soil topography Biodiversity Waste Local resources Roads and various networks Studies of natural, technological and health risks	Sociological dimension Social dimension Uses and expectations Cultural dimension Economic dynamics Demography Local industries and know-how Market studies Project economics

■ Search for consistency for the overall quality of the project

While the initial analysis must be exhaustive, the HQE–Urban Planning approach does not prioritise sustainable urban planning themes. It seems relevant to deal with more ambition and as a priority the themes whose issues were identified by the diagnosis. This involves defining ambitious performance levels on priority themes in view of the context, or judged as such by the contracting authority. Finally, we must underline the importance of interactions between sustainable development themes and the resulting trade-offs. The analysis of these interactions is possible through an integrated approach. Also, improving the performance of one goal or action can affect the performance of other goals. This will be taken into account in the evaluation system.

The thematic part developed here is intended to be a non-exhaustive questioning tool, designed to assist in designing the project. The cross-referencing of the specific challenges of the site with planning guidelines for sustainable development leads to the definition of relevant objectives, which will be included in the Charter of Sustainable Urban Planning Objectives. This document offers examples of sustainable urban planning requirements or actions, which are neither exhaustive nor mandatory, as the actions to be specified within the framework of each project depend on the context, the challenges and the potential of the site and also stakeholder expectations, etc.



QUALITY OF LIFE

1 - Living well together

- Public areas and facilities for all, promoting social interactions without discrimination
- Access to culture
- Social and generational diversity/Social cohesion
- Animation of common areas

2 - Mobility and accessibility

- Connections to centres and structuring services
- Accessibility to the site, buildings and public areas
- Soft and shared modes
- Management of travel and parking

3 - Health and comfort

- Health issues and air and soil quality
- Comfort and ambience of areas, including summer comfort (thermal, aeraulics, island of freshness), acoustic and visual comfort (noise, vibration and olfactory pollution),
- Biophilia

4 - Landscape, heritage and identity

- Landscape integration
- Promotion of the identity of the territory and heritage aspects, both architectural or natural
- Educational vocation of development and environmental awareness

5 - Resilience, Safety, Security

- Adaptation to climate change
- Vulnerability to all types of risks
- Control to ensure citizen integrity (roads, intrusions, attacks, ...) and management when in danger
- Functioning in degraded mode
- Information for prevention and risk education



RESPECT FOR THE ENVIRONMENT

6 - Energy and climate

- Production and storage of energy
- Energy efficiency and sobriety
- Development of renewable and recovered energies
- Avoiding, reducing and offsetting greenhouse gases

7 - Nature and Biodiversity

- Protection or even restoration of local ecosystems (biotopes)
- Continuities and connectivity of green, blue, brown and black backgrounds Fauna/flora (species)
- Nature in the city (green spaces, access to nature, etc.)

8 - Water

- Water cycle management: rainwater, river water and groundwater
- Drinking water conservation and reuse
- Waste water and sanitation management
- Protection of catchment areas and groundwater

9 - Resources and waste

- Prevention of site waste: deconstruction, reuse, recycling, reprocessing industries, etc.
- Land management and enhancement (including polluted land)

- Environmental choice of products, equipment and services (consumption of raw materials and production of waste, reprocessing industries)
- Management of domestic and activity waste: prevention, collection, recycling, recovery

10 - Pollution

- Decrease in air pollution
- Control of water and soil pollution and health risks
- Control of light pollution



ECONOMIC PERFORMANCE

11 - Long-term savings and cost

- Overall cost and optimisation of costs - on sectoral aspects e.g. green spaces, lighting, etc.
- Pooling
- Handover and partnerships
- Uses and operation

12 - Dynamism and the development of the territory

- Use value
- Attractiveness of the territory
- Job creation
- Creation or strengthening of local industries and know-how

13 - Productive services and functions

- Urban agriculture
- Service offer/Functional mix
- Functional economy
- Urban supply and logistics

14 - Adaptability and scalability

- Anticipation and evolution of uses and needs
- Modularity and mutability of spaces
- Scalability of building



RESPONSIBLE MANAGEMENT

15 - Project management

- Monitoring and continuous evaluation
- Site management and nuisance reduction
- Appropriation by users
- Dissemination of good practices

16 - Governance

- Listening to the needs and expectations and involvement of interested parties/Co-construction of the project
- Acceptability and reduction of blockages
- Anticipation and facilitation of uses

17 - Synergy and coherence with the territory (ies)

- Interactions and complementarities
- Integration and interfaces with the existing fabric
- Urban metabolism

18 - Control over land

- Urban renewal
- Optimisation and density for efficient use of space
- Compactness of urban forms and balance between built and open areas
- Limiting artificial soils

19 - Innovation and digital technology

- Digital tools for project design / evaluation
- Connectivity
- Governance and openness of data

QUALITY OF LIFE

An urban planning project can have distinct objectives (urban project, housing policy, renewal, etc.) and must contribute to the cohesion of the territory and act for access to services and amenities, the mobility offer, and the quality of the social links, of public areas and of the living environment.



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THEME 1. Living well together

THEME 2. Mobility and accessibility

THEME 3. Health and comfort

THEME 4. Landscape, heritage and identity

THEME 5. Resilience, Safety, Security

THEME 1. LIVING WELL TOGETHER

General challenges for sustainable urban planning

Urban planning must take care to preserve and develop harmonious social functioning and uses (existing and future), meeting the expectations of stakeholders, within and outside the operational perimeter. From this perspective, the articulations between urban and architectural design are crucial.

Public areas in particular are essential elements of the living environment; they constitute places for daily life and use and are bearers of cultural, urban and social values. Urban development should therefore be considered, **from a design point of view**, in its most qualitative and experienced dimension that allows for the harmonious co-presence of uses within public areas.

This objective consists of meeting the social expectations of the citizens, inhabitants and users of the neighbourhood by offering quality public areas promoting exchange but also by improving living conditions within the perimeter of the project and more broadly at the level of neighbouring district and the city.

It is about designing a built environment that allows mixed use of space for all and living well together.

4 themes can be broken down as part of an operational urban planning project:

- Public areas and facilities for all, promoting social interactions without discrimination
- Access to culture
- Social and generational diversity/Social cohesion
- Animation of common areas

Examples of possible actions or requirements for urban planning:

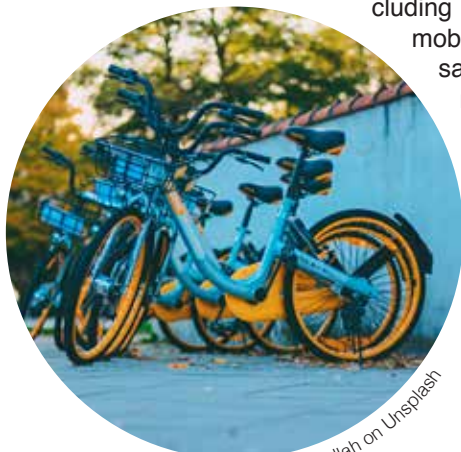
- Presence of local equipment and services necessary for social life
- Coherent overall design that articulates the different types of buildings and areas (public, private; status/uses & management, etc.)
- Quality of public areas
- Diversification of uses
- Urban planning programming & functions responding to the challenges of the territory
- Design: social functioning and harmonious uses (planning & territory)
- Social, generational and functional diversity
- Development of a collective/shared offer of gardens and awareness of organic gardening (social link, etc.)
- Prohibition of anti-homeless devices
- Design of inclusive public areas (non-gendered, accessible, etc.)

THEME 2. MOBILITY AND ACCESSIBILITY

General challenges for sustainable urban planning

An urban planning project must be the occasion for a global reflection on the management of travel with both environmental and urban coherence. One of the main difficulties lies in the heterogeneity of the territory: it is necessary to take into account the organisation of travel, at the risk of calling into question existing balances or shifting the problem elsewhere.

This objective consists of optimising connections and access to existing centres, structuring services and amenities for all types of users, including those with reduced mobility, in complete safety and in order to meet the needs of all and promoting a modal shift to the detriment of the vehicle.



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4 themes can be broken down as part of an operational urban planning project:

- Connections to centres and structuring services
- Accessibility to the site, buildings and public areas
- Soft and shared modes
- Management of travel and parking

Examples of possible actions or requirements for urban planning :

- Urban composition reducing travel needs (short distances, measures promoting teleworking, etc.)
- Prioritisation and sizing of lanes according to uses and speeds
- Access by public transport
- Pooling of vehicles
- Favouring short distances
- Opening up and providing accessibility for all to the site, buildings and public and/or outdoor areas
- Management of travel, parking and deliveries
- Development of adapted and secure infrastructures for soft modes

THEME 3. HEALTH AND COMFORT

General challenges for sustainable urban planning

Sustainable urban planning should seek to minimise the negative impacts of planning projects at all levels, by improving ecological conditions in order to make cities healthier places.

The quality of the air we breathe, outside and inside buildings, is a real public health issue. The health risks associated with the issue of polluted soil or electromagnetic fields are also significant.

The quality of open areas is also a mental health issue and as such, biophilia can provide some answers to improve the living environment.

This objective consists of limiting the effects on the health of populations by anticipating and controlling harmful pollution and health risks (atmospheric, sound or olfactory) and in ensuring comfortable open areas and zones in terms of thermal, acoustic and visuals for a diversity of uses.

THEME 4. LANDSCAPE, HERITAGE AND IDENTITY

General challenges for sustainable urban planning

The challenges are to both sustainably preserve the diversity of landscapes and also to avoid the standardisation of cities, to protect and enhance heritage elements.

The landscape is also an important element of the quality of life which constitutes an essential element of individual and social well-being.

This objective is to guarantee good integration of the project in the territory(ies) by taking into account its identity and the local context.

It is therefore a matter of designing an urban planning project based on the uniqueness of the geography, history, climate and culture of the areas concerned, while respecting and highlighting the urban and architectural heritage, natural and cultural, and taking into account the built environment.

3 themes can be broken down as part of an operational urban planning project:

- Landscape integration
- Promotion of the identity of the territory and heritage aspects, both architectural or natural
- Educational vocation of development and environmental awareness

4 themes can be broken down as part of an operational urban planning project:

- Health issues and air and soil quality
- Comfort of areas and summer comfort (island of freshness)
- Ambience of areas: acoustic and visual comfort (noise, vibration and olfactory pollution)
- Biophilia

Examples of possible urban planning actions or requirements :

- Consideration of local and climatic data during the design (soil, wind, rain, sun, etc.) to improve the atmosphere and comfort of open areas.
- Choice of design, prioritisation and treatment of traffic lanes to reduce the impact of traffic noise
- Improved outdoor air quality (LEZ)
- Limitation of the impact of sources of electromagnetic emissions
- Choice of products with known sanitary characteristics.



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Examples of possible urban planning actions or requirements:

- Use of plants and water as landscape elements
- Preservation of landscape entities and continuities and enhancement of the Grand Landscape
- Treatment of interfaces and intermediate areas
- Design of empty and occupied areas, common areas and private areas
- Optimisation of view quality
- Participation of residents and users in building the image of the place
- Promotion of the urban, architectural, natural and cultural heritage
- Architectures adapted against standardisation

THEME 5. RESILIENCE SECURITY AND SAFETY

General challenges for sustainable urban planning

We are experiencing a series of changes, some of which have already started: technological transition, ecological transition, ageing of the population, multiplication of network communications, etc. Urban planning must adapt to these changes, anticipate the needs linked to demographic changes, anticipate and limit the consequences of climate change, think about the modularity of areas and the evolution of fabrics and shapes, promote and allow different uses over time.

Public spaces must promote a feeling of safety for all users, including at night. With the rise in various risks (terrorism, climate change, rising water levels, extreme events, heat waves, etc.), actions should be taken to ensure the safety of public places and areas, beginning at the design stage.

The optimisation and improvement of warning systems, crisis management, emergency response and assistance in the event of an attack or hazard should have been the subject of reflection. However, there is no infallible technical solution to all the risks and the protection of the occupants of a place depends above all on good behavioural reflexes, preventive information partly responding to the need for education and preparation for the actions to be taken. All the measures in favour of greater solidarity and social cohesion should also be promoted in this regard.

This objective consists of guaranteeing the feeling of security and integrity of people in the face of natural or technological risks or malicious acts.

This involves designing a built environment based on a reflection on the vulnerability of people and facilities to various risks, impacts and functioning in the event of a hazard (including chain reactions), the preparation of populations and recovery.

5 themes can be broken down as part of an operational urban planning project:

- Adaptation to climate change
- Vulnerability to all types of risks
- Control to ensure the integrity of people (roads, intrusions, attacks, ...) and management in dangerous situations
- Functioning in degraded mode
- Information for prevention and risk education

Examples of possible urban planning actions or requirements:

- Taking into account in the design of risks (floods, storms, submersions for coastal areas, earthquakes, etc.)
- Adaptation of buildings for climatic risks
- Design of "refuge" areas and buildings
- Knowledge of exposure levels and potential impacts to reduce vulnerability
- Location and robustness of networks and functioning in degraded mode (continuity of access to services)
- Public lighting system to promote a feeling of security
- Implementation of effective alarm and warning systems (including connected)
- Promotion of social interactions and solidarity through public spaces



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RESPECT FOR THE ENVIRONMENT

An urban planning project has an impact on the environment. The challenge of this commitment is to limit this impact and to make programming/design choices allowing for better consideration of the environment.



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THEME 6. Energy and climate

THEME 7. Nature and Biodiversity

THEME 8. Water

THEME 9. Resources and waste

THEME 10. Pollution

THEME 6. ENERGY AND CLIMATE

General challenges for sustainable urban planning

The reference to the bioclimatic environment for the design of urban forms goes in the direction of better control of energy in buildings: active or passive recovery of solar energy, management of thermal comfort in winter and summer. It is also an important factor in improving the living environment; this involves in particular providing a favourable climatic atmosphere for pedestrian travel or outdoor living areas by ensuring a good match between their uses and their conditions of sunshine or protection from the winds, for example. Thus, it is estimated that around 75% of energy costs are decided during the design phase, hence the need for upstream knowledge.

This objective consists of limiting energy consumption and reducing greenhouse gases throughout the life cycle by being part of a real energy efficiency strategy thought out upstream of the project and based on a detailed analysis of the bioclimatic context.

4 themes can be broken down as part of an operational urban planning project:

- Production and storage of energy
- Energy efficiency and sobriety
- Development of renewable and recovered energies
- Avoiding, reducing and offsetting greenhouse gases

Examples of possible urban planning actions or requirements:

- Diversification of the energy supply
- Reflection at the territory level
- Bioclimatic approach for urban forms and building design
- Promotion of renewable energies, self-consumption and pooling of the energy supply
- Energy performance of buildings and urban forms
- Actions on housing design (orientation, spans, exterior devices, etc. ventilation and natural lighting)
- De-carbonisation of mobility

THEME 7. NATURE AND BIODIVERSITY

General challenges for sustainable urban planning

Human activities, profoundly modifying ecosystems, would have caused between 50 and 1 000 times more extinctions over the last 100 years than the processes would have resulted in the natural ones, leading to a considerable and irreversible loss of the diversity of life on the Earth. Habitat destruction and fragmentation are the two main factors in the loss of a top level of biological richness.

Today's urban planning must not only no longer contribute to this erosion of the biotopes but try to restore them when possible. As such it's all along the operation, from the ecological diagnostics, in through design with the choice of species or during the construction phase, which is often very impactful and until the reflection on the maintenance of green spaces that the challenge must be considered as priority.

This objective consists of ensuring that the impact on biodiversity is avoided, both on the species present on the site than on their habitats. The preservation, respect and even restoration of natural environments, ecosystems and ecological continuities (the method Avoid Reduce and Compensate to be applied systematically) is a crucial issue.

4 themes can be broken down as part of an operational urban planning project:

- Protection and local ecosystems (biotopes)
- Continuities and connectivity of green, blue, brown and black backgrounds
- Fauna/flora (species)
- Nature in the city (green spaces, access to nature, etc.)

Examples of possible urban planning actions or requirements:

- Respect and restoration of ecological habitats
- Continuity of ecological corridors
- Application of the concepts of plant town planning
- Protection and enhancement of biodiversity
- Preservation of local flora and fauna
- Promotion of the function of plants for water management, thermal comfort, etc. in an urban composition
- Access to nature



THEME 8. WATER

General challenges for sustainable urban planning

It is estimated that by 2030, demand for water could exceed supply. Thus, at the scale of projects, the preservation of water resources and the limitation of its consumption must be achieved as much through the design and planning of outdoor areas as through the installation of efficient equipment. All of these challenges require thinking very early on.

Guaranteeing the quality and quantity of water resources, in particular by controlling consumption, also makes it possible to reduce expenditure and thus stabilise the operating costs of future buildings by raising awareness and empowering users.

This objective consists of the economical and responsible management of water by optimising water resource in a global way: waste water management by promoting high-performance equipment, conservation of drinking water for the maintenance of public areas as well as during the construction phase, infiltration and recovery of rainwater by management on the plot and the use of alternative techniques.

THEME 9. RESOURCES AND WASTE

General challenges for sustainable urban planning

Some of the challenges of the circular economy lie in the necessary savings in raw materials and the optimisation of resources and waste management. Taking into account the contribution of the construction sector to the production of waste, the margins for improvement and the reduction in related costs are considerable in the context of development projects.

In this perspective, land management is an important lever and we can also mention the optimisation of the choice of products and equipment by evaluating their impact on the environment, over the entire life cycle (consumption of energy, raw materials, etc.)

In France, the volume of waste doubled between 1980 and 2005. The question arises of its recovery, storage and treatment, actions which have significant economic and environmental impacts.

All actions in favour of better management of natural resources and waste reduction must therefore be encouraged: rationalisation of collection, organisation of sorting, recovery and selective collection from the design of the project, development of new recovery channels, etc.

This objective consists of optimising the management of resources and waste, by limiting to the maximum the environmental impact, in a logic of short trips and the circular economy. This involves reducing the environmental impact of products and equipment, but also anticipating the management of site waste, and managing any polluted soil.

4 themes can be broken down as part of an operational urban planning project:

- Water cycle management: rainwater, river water and groundwater
- Drinking water conservation and reuse
- Waste water and sanitation management
- Protection of catchment areas and groundwater

Examples of possible urban planning actions or requirements:

- Protection of water resources (aquifers, rivers, etc.)
- Enhancement of surface water as part of the landscape
- Limiting soil waterproofing and runoff
- Uses of water: Use of rainwater for all purposes that do not require drinking water
- Control of consumption at the community level (choice of species, maintenance of green spaces, recovery, etc.)
- Control of consumption by users (awareness-raising, economical equipment, maintenance of drinking water networks, etc.)
- Alternative water management (phytosanitary treatment, lagooning, etc.).

4 themes can be broken down as part of an operational urban planning project:

- Prevention of site waste: deconstruction, reuse, recycling, reprocessing industries, etc.
- Land management and enhancement (including polluted land)
- Environmental choice of products, equipment and services (consumption of raw materials and production of waste, reprocessing industries)
- Management of domestic and activity waste: prevention, collection, recycling, recovery

Examples of possible urban planning actions or requirements:

- Choice of products whose life cycle requires fewer resources and generates less waste
- Optimised management of overburden and fill
- Reuse of materials on site,
- Recycling of outgoing materials, choice of incoming materials,
- Reuse
- Rehabilitation of buildings
- Local industries
- Urban furniture
- Site management
- Reduction at source
- Treatment of construction waste
- Implementation of sorting and composting systems for efficient collection (household waste)
- Development of innovative solutions (underground collection, pneumatic, etc.)
- Improvement of collection circuits and reduction of costs
- Location of voluntary deposit points for glass, paper, etc.
- Implementation of preventive planning for waste management

THEME 10. POLLUTION

General challenges for sustainable urban planning

Reduce pollutant emissions and human exposure while ensuring consistency and synergy with other themes, environmental or otherwise.

Urban planning projects, in accordance with the principles of sustainable development, must set, among other things, objectives of preserving air quality and preventing pollution and nuisances of all kinds. Indeed, they give the possibility of designing a built environment that makes it possible to limit:

- the exposure of populations by choosing, in view of the context, the location of certain activities (establishments hosting people sensitive to atmospheric pollution, sites generating traffic, such as shopping centres, polluted soils or sites hosting polluting activities, etc.);
- new sources of soil and water pollution (protection of groundwater and catchment areas, impacts linked to the establishment of new activities, etc.)
- pollutant emissions linked to motorised travel:
 - by promoting a compact city with functional diversity in the neighbourhoods (housing/jobs/services/facilities), the urban shape directly influencing travel practices and vice versa.
 - by limiting or reducing not only motorised travel (the number of kilometres travelled and travel in private vehicles) but also the place of the car in the city (parking), or by facilitating the use of active modes of travel (cycling, walking) and public transport
- sources of light pollution vis-à-vis wildlife (commercial signs, public lighting, etc.).



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This objective consists of avoiding any new sources of pollution as much as possible and limiting the exposure of people and living species.

3 themes can be broken down within the framework of an operational urban planning project:

- Decrease in air pollution
- Control of water and soil pollution and health risks
- Control of light pollution

Examples of possible urban planning actions or requirements:

- Public lighting systems and management that promote biodiversity
- Protection of catchment areas
- Low Emission Zones

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ECONOMIC PERFORMANCE

An urban planning project has an economic impact on the territory: use of local sectors, creation of activities, etc. The economic control of the project, the reliance on the overall cost, the reflection on productive functions and their contribution to the local economic dynamism are all subjects which contribute to the economic performance of the project.



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THEME 11. Long-term savings and cost

THEME 12. Dynamism and the development of the territory

THEME 13. Productive services and functions

THEME 14. Adaptability and scalability

THEME 11. LONG-TERM SAVINGS AND COST

General challenges for sustainable urban planning

The economics of the project cannot be envisaged without the cost issues, which define its feasibility.

This objective deals with the economic aspect of the project, both in terms of anticipation of charges and operating costs, in particular for the maintenance of public areas, and in terms of optimising the method of financing, as well as promoting innovation. Taking long-term costs into account is envisaged for this purpose, and may go as far as a basic overall cost calculation of the entire project.

This involves designing a quality built environment by reasoning in terms of overall cost in order to integrate the economic benefits linked to the urban planning project into the project: costs avoided, savings made in the functioning of habitats and services, etc. and ensuring financial balance.



Have the investment choices and technical choices been the subject of arbitration in a global cost approach? Examples: rehabilitation versus new construction, choice of materials according to management constraints, choice of plant species, etc.

4 themes can be broken down within the framework of an operational urban planning project:

- Overall cost and optimisation of expenses-on sectoral aspects ex. green spaces, lighting, etc.
- Pooling
- Handover and partnerships
- Uses and in operation

Examples of possible urban planning actions or requirements:

- Including the project in the dynamics of local development
- Results objectives in terms of reduction/control of costs
- Control of land through the constitution of land reserves
- Synergies to limit expenses
- Overall quality of the project as a source of land valuation for buyers.
- Mobilisation of private investors and banking tools
- Anticipation of the economic impact of the project
- Relevance of the project's financial package
- Taking into account the cost of multiple studies, consultations and diagnoses carried out upstream of the projects
- Overall cost to assess the returns on investment of the project and the benefits obtained on the maintenance of the facilities
- Prevention of financial risks linked to the project.

THEME 12. DYNAMISM AND THE DEVELOPMENT OF THE TERRITORY

General challenges for sustainable urban planning

Technological and social innovation needs lead to sustainable sectors and jobs, which must be promoted and developed.

This objective consists of evaluating the impact of the operation on the economic dynamism of the territory(ies), both in terms of attractiveness (impact on employment) and the use of local industries.

It is about designing a built environment that creates the conditions for a dynamic, balanced, inclusive and equitable economy and promotes urban regeneration.

4 themes can be broken down as part of an operational urban planning project:

- Use value
- Attractiveness of the territory
- Job creation
- Creation or strengthening of local industries and know-how

Examples of possible urban planning actions or requirements:

- Programming equipment to promote the attractiveness of the area for companies
- Enhancement and promotion of local businesses
- Development of the offer of floorspace for businesses.
- Favourable conditions for hosting companies
- Use of locally available materials or skills
- Development of economic initiatives serving users
- Improving the accessibility of the site
- Providing access for residents and users to local products that respect the environment
- Eco-activity industries
- Installation and maintenance of diversified economic activities

THEME 13. PRODUCTIVE SERVICES AND FUNCTIONS

General challenges for sustainable urban planning

Sustainable development requires renewed thinking in terms of programming to avoid zoning logic. Depending on its size and context, the project must develop or promote a range of services, businesses and public facilities to meet the daily needs of residents or workers.

It is about designing a built environment that:

- facilitates the diversification of uses
- ensures the diversity of the functions present in the project in line with the needs of the territory
- offers services to the economic fabric (nursery, sport, meeting places, mobility, workspaces, etc.)
- integrates the needs of urban logistics

It is about designing a built environment that allows mixed use of space, in order to make the most of the benefits of proximity (and thus to limit polluting transport as much as possible).

4 themes can be broken down as part of an operational urban planning project:

- Urban agriculture
- Service offer/Functional mix
- Functional economy
- Urban supplies/logistics

Exemples d'actions ou d'exigences d'aménagement possibles :

- Diversity of functions present in the operation in relation to the needs of the territory
- Gender diversity at the relevant scales (operation, plots, lots, buildings, etc.)
- Offer of mobility services or workspaces (uses rather than goods)
- Reflection on supplies and logistics, in particular last mile management



THEME 14. ADAPTABILITY AND SCALABILITY

General challenges for sustainable urban planning

Urban planning, like buildings, is carried out for a long lifespan and will considerably mark the territory of which it forms a part for many years. However, the changes in cities and in the needs of residents are increasingly rapid, without forgetting that today's projects must take into account an uncertain future given both current climate change and changes in lifestyles.

The concept of urban mutability understood as the capacity of cities to welcome changes and promote possibilities emerges, often described in contrast to the period of planning, associated with growth, impervious to the expectations of inhabitants and to the environment.

It is about designing a built environment that promotes the flexibility of open spaces and buildings, so as to allow their transformation and reassignment according to new needs and thus extend their lifespan.

Experiences with temporary urban planning or participatory housing are examples of this, as are modular car parks or adaptable/upgradeable housing.

4 themes can be broken down as part of an operational urban planning project:

- Anticipation and evolution of uses and needs
- Mutability and modularity of open spaces
- Scalability/adaptability of the frame
- Transitional urban development/Place of transition

Examples of possible urban planning actions or requirements:

- Diversity of functions present in the operation in relation to the needs of the territory
- Reversibility of facilities (e.g. parking lots and parking)
- Flexibility of open spaces and buildings and their use
- Scalable habitat solutions
- Modularity of support spaces for multiple uses
- Design of buildings so as to allow for multiple uses
- Facilitate changes (densification, reconversion, change in purpose) of buildings, fabrics and public areas
- Mutability of buildings and private areas
- Avoid the isolation of the project, which will complicate its possible evolution
- Adaptation of housing to different uses in life
- Transitional solutions



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RESPONSIBLE MANAGEMENT

Responsible management deals with the management of the project vis-à-vis interested parties external to the project team. The challenge is for the contracting authority to address the relationship with all interested parties by maximising participation in all phases of the project. At the heart of the HQE Sustainable Urban Planning approach, the PMS describes the management requirements specific to each stage of an project. The themes discussed here are already largely integrated into the PMS files.



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THEME 15. Project management

THEME 16. Governance

THEME 17. Synergy and coherence with the territory (ies)

THEME 18. Control over land

THEME 19. Innovation and digital technology

THEME 15. PROJECT MANAGEMENT

General challenges for sustainable urban planning

A sustainable urban planning project is also a privileged place to experiment with new innovative techniques. It can be seen as an opportunity to make all audiences aware of the challenges of sustainable development through information, education and training or to initiate, within the framework of the project and awareness-raising initiatives for more sustainable behaviours, lifestyles and consumption.

Implementing evaluation and continuous improvement procedures at all stages of the project and during use.

This objective consists of optimising the progress of the site as much as possible, by limiting its impact (pollution, nuisances, etc.), so that it is best accepted by the interested parties (residents, traders, professionals, etc.). This subject is approached through the angle of Responsible Management given that the smooth running of the site will result from appropriate listening to the needs and expectations of interested parties during this particularly sensitive phase.

THEME 16. GOVERNANCE

General challenges for sustainable urban planning

The challenges of sustainable urban development call for shared responsibilities and the development of a project in line with the needs of the territory. In other words, all individuals or groups having a link with a development project, from upstream (residents or landowners, for example) to downstream (operators and future users), are to be considered as “stakeholders” of a project. This involves identifying the different people, groups and organisations to be involved in the project from the start or at certain stages of the project and defining the terms for integrating them into the project. Different levels of involvement can be defined, from information to the co-construction of the project, consistent with the wishes and practice of the community.

Take into account the practices of users and the constraints of managers throughout the project. Define the methods of support for change.

4 themes can be broken down as part of an operational urban planning project:

- Monitoring and continuous evaluation
- Site management and nuisance reduction
- Appropriation by users
- Dissemination of good practices

Examples of possible urban planning actions or requirements:

- Provisions for the training and skills development of actors: use the sites as training supports and contribute to the dissemination of new know-how or prepare the professions of tomorrow, on-site training
- Occupational integration. For example, provide for: insertion clauses in calls for tenders and in construction, rehabilitation and maintenance contracts, integration actions in conjunction with employment actors (National Association for the Promotion of Employment, Local Plan for Integration through Employment, associations, etc.)
- Promote the creation of associations and local initiatives
- Programming areas and premises to host collective activities
- Dissemination of sustainable approaches to the city
- Implementation of measures promoting the exchange and development of skills
- Training of stakeholders in the building sector.

This objective consists of deploying a process of listening and identifying the needs and expectations of all the parties involved in the project, then taking them into account in a reasoned manner in order to guarantee the completion of a project that best meets their needs. Beyond the regulatory obligation, the terms for associating the actors must have been considered.

3 themes can be broken down as part of an operational urban planning project:

- Listening to the needs and expectations and involvement of interested parties
- Acceptability and reduction of blockages
- Anticipation and facilitation of uses

Exemples d'actions ou d'exigences d'aménagement possibles :

- Involvement of residents and future operators
- Raising awareness among operators of the initiative
- Knowledge of market expectations
- Measuring the capacity of local professionals to meet objectives
- Management/steering of participation in the project



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THEME 17. SYNERGY AND COHERENCE WITH THE TERRITORY(IES)

General challenges for sustainable urban planning

One of the first concerns, on the advisability of the project, is to ensure its consistency with the city and the territory. Defining a project that responds to its context requires a good understanding of the concepts of diagnosis and programming, by providing adjustment possibilities according to the evolution of the economic, political, regulatory, social or climatic context, particularly in the long periods of urban planning projects.

The integration of functional, environmental and qualitative considerations is a specific issue in urban planning projects in order to design and plan a built environment which takes into account the relationship between the perimeter of the project and the neighbouring districts / territories, the city, its greater urban area and beyond.

This objective consists of ensuring that the project is integrated in a coherent way, and is articulated with the other projects of the territory(ies) to meet the needs of all by relying on the resources and constraints of the territory, that is to say, by also taking into account the complementarity with the characteristics of neighbouring territories, local resources, the expectations of inhabitants, users and socio-economic actors.

Include the project in global policies and planning strategies, ensure its urban integration and interfaces with the existing fabric, ensure the transition spaces between the development project and its environment.

3 themes can be broken down as part of an operational urban planning project:

- Interactions and complementarities
- Integration and interfaces with the existing fabric
- Urban metabolism

Examples of possible urban planning actions or requirements:

- Inter-district connections and travel
- Impacts of the development project on the surrounding fabric
- Social and cultural links between the inhabitants of the neighbourhood/district territory and the rest of the city.
- Readability of connections to the existing ones to ensure permeability with the rest of the territory (shared facilities with neighbouring districts, etc.)
- Material flow analysis

THEME 18. CONTROL OVER LAND

General challenges for sustainable urban planning

Sustainable development and its challenges require working as a priority on the existing city and proposing suitable urban forms to combat urban sprawl and the artificial soils. In some projects, the idea of soil removal must also be considered.

Optimising the use of space means consuming as little land as possible to construct buildings or infrastructures, while taking care to consider the negative effects of excessive compactness that could in particular affect the quality of the atmosphere, participate in an energy increase by reducing solar energy and influencing the social life of the neighbourhood.

This objective consists of optimising land resources and promoting the reclamation of brownfields and under-occupied sites, but also planned extensions of urban areas rather than piecemeal sprawl.

And reduce artificial soils. This subject is approached from the angle of Responsible Management, given the strong interactions with the expectations of interested parties (in the case of land acquisitions in particular, but also concerning the choice of site, the location and the extent of the rights-of-way necessary project, etc.).

It is a question of designing a built environment that uses space rationally and has sufficient density and intensity of activity in view of the context, while respecting a quality living environment consistent with the existing one.

4 themes can be broken down within the framework of an operational urban planning project:

- Urban renewal
- Optimisation and density for efficient use of space
- Compactness of urban forms and balance between built and open spaces
- Limiting artificial soils

Examples of possible urban planning actions or requirements :

- Choice of site
- Typology of urban forms
- Urban renewal
- Compactness and density for efficient use of space
- Balance between built areas and open areas
- Social acceptance of density
- Right-of-way management
- Develop site-specific density
- Diversification of building forms and typologies
- Dense layout with multiple functions
- Promoting the compactness of buildings
- Maintaining or returning to open ground.



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THEME 19. INNOVATION AND DIGITAL TECHNOLOGY

General challenges for sustainable urban planning

In the midst of the acceleration of transitions (digital, ecological, climatic, societal), new technologies and data management systems, the development of digital technologies is impacting both project management methods and the uses of the city and its neighbourhoods.

Managing increasingly complex urban projects remains a real challenge, where it is a question of combining rigour, dialogue, consultation, safety, etc. with increasingly more numerous and demanding stakeholders. The collective dynamic that is created around these approaches is not negligible in creating a federating movement towards a common objective and bringing better cohesion around the project concerned.

This proliferation of innovative solutions can respond to environmental and societal challenges, subject to virtuous implementation. Digital technology is not inherently good or bad for the environment; it is what we make it and putting it at the service of the ecological transition remains a challenge for all actors, private and public, whatever their field of activity.

With the development of digital technology and connected objects, an issue for communities is emerging, that of managing the data of their territories.

Broken down on all themes and used as a means, not as an end, digital technology can be a major asset in sustainable development.

This objective consists of taking advantage of the development of digital technology to optimise the design and project of territories with the aim of greater sobriety and efficiency.

3 themes can be broken down as part of an operational urban planning project:

- Digital tools for project design / evaluation
- Connectivity
- Governance and openness of data

Examples of possible urban planning actions or requirements:

- Use of sensors to optimise watering in public areas
- Digital solutions for the management of parking
- Optimised use of digital technology in the management of lighting, water or waste
- Demonstrators,
- Creation of new tools or working methods,
- City Information Modelling
- etc.

FROM THE REFERENCE FRAMEWORK TO THE TERRITORIAL CERTIFICATIONS DELIVERED BY CERTIVEA AND CERWAY

HQE Sustainable Urban Planning as a structuring approach helps actors to overcome the challenges of the city of tomorrow, through a global and systemic approach. As part of their urban planning projects, stakeholders who so wish can, beyond the process, optimise their project management through certification.

In the midst of the acceleration of transitions at work in the territories, the concept of governance is becoming a key success factor in piloting increasingly complex urban planning projects, which call on a wide variety of ecosystems. This effort to reinvent project management methods, aimed at meeting the challenges of the 21st century and at integrating all information, is essential.



Certification makes it possible to attest to the application of the requirements required in the HQE™ Sustainable Urban Planning standard. This certification is issued by Certivéa in France and by Cerway internationally.

■ **The optimisation of project management thanks to the Project Management System (PMS) structuring the project, without weighing it down, which secures and records its history over its entire duration. Actors have in fact:**

- a roadmap framing all the needs and highlighting the roles of everyone;
- continuous monitoring of projects via annual on-site audits;
- recommendations of good practice;
- a history of the project;
- support made possible by an advisor, a professional trained and recognised by Certivéa and Cerway.

■ **The only fully contextualised tools for managing sustainable urban planning or infrastructure projects at the service of all stakeholders. The requirements are indeed adapted to the territory concerned, taking into account its organisation, its sensitivity, its history, its ambitions, its users, etc.**

FOR WHOM?

It is the contracting authority (the community or the private or public planner) who bears the certification

Possible for any type of project, regardless of size, procedure, territorial context or destination: renewal or extension, urban or rural, housing and / or activities, mixed development zone or planning permission.

WHY?

Benefits for all

- For planners and their teams: support and security of projects
- For elected officials and communities: quality and enhancement of projects
- For residents: improved quality of life and social cohesion

To further promote these transitions, action must also be taken at all levels, from the building scale to that of the district, by way of infrastructures, to act effectively, the actors need a coherent roadmap, taking into account the pillars of sustainable development. This roadmap exists and is offered to you through the HQE reference framework, comprising 4 commitments. This reference framework is now common to HQE Sustainable Building, HQE Sustainable Urban Planning™ and HQE Sustainable Infrastructures™.



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The reference framework of the
HQE Sustainable Urban Planning



**QUALITY
OF LIFE**

1. Living well together
2. Mobility and accessibility
3. Health and comfort
4. Landscape, heritage and identity
5. Resilience, safety, security



**ECONOMIC
PERFORMANCE**

11. Savings and long-term costs
12. Dynamism and the development of the territory
13. Productive services and functions
14. Adaptability and scalability



**RESPECT FOR THE
ENVIRONMENT**

6. Energy and climate
7. Nature and biodiversity
8. Water
9. Resources and waste
10. Pollution



**RESPONSIBLE
MANAGEMENT**

15. Project management
16. Governance
17. Synergy and coherence with the territory (ies)
18. Control over land
19. Innovation and digital technology

The HQE-GBC Alliance is the alliance of professionals for a sustainable living environment. It brings together unions, professional federations, companies, communities and professionals on an individual basis. Buildings, urban planning and infrastructure at all stages of their life cycle - construction, project, renovation - are at the heart of its DNA in a transversal vision combining quality of life, respect for the environment, economic performance and responsible management. Through the pro-active initiatives it generates in France and internationally, the association acts in the general interest to innovate, improve knowledge, disseminate good practices and represent the sustainable living environment sector. It is the French member of the World Green Building Council (World GBC), a global association bringing together professionals committed to sustainable construction in more than 74 countries.