



EpaMarne EpaFrance
l'âme dans l'aménagement



ÉTUDE DE CAS N°2 : CŒUR AGRO-URBAIN DE MONTÉVRAIN

ISO/AFNOR 37101

1. Project presentation.....	2
2. Situation analysis.....	3
3. Use of the ISO 37101 method.....	4
3.1. Project management 5-step review.....	4
3.2. Use of the ISO 37101 matrix.....	6
4. Conclusion and perspectives.....	9

1. PROJECT PRESENTATION

The agro-urban heart is an organic market gardening urban agriculture project, integrated in sustainable land development program near the Montévrain station district, in the East of Paris region. Its purpose is to install about 20 acres of market farming, carried by 2 to 3 agricultural project developers, within a 153-acre new urban area. The pre-operational studies have been launched in 2012, in order to sign the rural leases in 2019, and for an 18-year duration. Since 2018, EPAMARNE (Marne-la-Vallée public urban development corporation, a public land development company based in the East of Paris) negotiates the contracting with the farmers, in concertation with local stakeholders like the City of Montévrain, the regional Chamber of Agriculture, and so on. Concertation workshops are organized on a monthly basis to facilitate the alignment of the agricultural and urban components of the global program.

The urban design makes space for its agricultural core, by for instance, clearing the view on the rural landscape, easing soft mobility through rural trails between the future neighborhoods and their environment, or creating synergies between the market farming activities and the future urban amenities (public equipment, shops, etc.). In exchange, some priorities are imposed to the agricultural project developers, among which:

- ▶ Local employment
- ▶ 100% organic agriculture
- ▶ Orchards and market gardening (better suited to the soils and the landscape preservation)
- ▶ Autonomy and economic viability of the projects
- ▶ Pedagogical dimension (for the inhabitants and as an experimentation for EPAMARNE)
- ▶ Direct and local sale of the products

For clarity, the "agro-urban heart" refers, in this case study, to the 20 acres dedicated to urban agriculture, to the projects they will host, and to their interactions with the surrounding land development project (which is designated separately).

2. SITUATION ANALYSIS

The Montévrain urban development program consists in 4 joint development zones conducted by EPAMARNE, in collaboration with the municipal authority. Within EPAMARNE, the agro-urban heart project (i.e. pre-operational studies, agricultural projects selection and supervision) is the responsibility of the Operations Division, with the assistance of the Innovation Service (Strategy Division).

The project's co-construction takes place through a series of workshops (every one or two months) and strategic committees (twice a year), from 2012 to 2019. On the political level, the project is regularly reviewed and oriented by the City of Montévrain. Public meeting and concertation events are organized at the House of the Project (an on-site space built by EPAMARNE and dedicated to the urban development project) and allow the inhabitants to get to know the agro-urban heart and express their expectations and ideas. EPAMARNE also installed a committee room, once a week, to inform the inhabitants.

Beyond these initiatives to associate the inhabitants and elected representatives, EPAMARNE enlarged the circle of concertation to essential institutional actors to the project's success:

- ▶ Regional Chamber of Agriculture
- ▶ La Foncière – Terre de Liens, a social business on agricultural land investment
- ▶ Ministry of Land Development (Housing, Urban planning and Landscape Division)
- ▶ CEREMA (a national research institute on sustainable land development)
- ▶ Regional Green Space Authority (AEV)

These stakeholders do not only bring their expertise to the project; EPAMARNE wished to give them a deliberative voice on the agricultural projects' selection. The selected projects almost obtained their unanimity.

In addition, EPAMARNE animated a series of events to prefigure the agricultural component of the land development project. Several experimentations have been conducted: eco-pasture on the land development site (a sheep herd and two goat), animation of the children of the nearby Eugène Isabey elementary school, implementation of organic fertilizer to deck the site with flowers and improve the quality of its soil (in the perspective of the agro-urban heart implementation).

Within the framework of the project co-construction in 2018-2019 with the selected agricultural project developers, EPAMARNE's objective is to ensure an optimal contribution to the global program sustainability. In order to reach this goal, additional objectives in terms of synergy between the urban and agricultural components of the program are integrated in the agro-urban heart. This transfer of objectives requires an important project structuration effort, to ensure their endorsement by the stakeholders (agricultural project developers, municipality, landscapers, etc.) and to guarantee their operational and legal feasibility (since the agricultural project developers are selected by the call for projects and not a public contract).

The use of the ISO 37101 allowed to identify the margins of improvement of these addition objectives, to be discussed in the concertation process. These potential contributions of the agro-urban heart to the overall sustainable development of Montévrain were, as we will see, reviewed through the ISO 37101 matrix in order to be more easily incorporated into the stakeholders' action plans.

3. USE OF THE ISO 37101 METHOD

In the case of the Montévrain agro-urban heart, the system management 5-step review revealed a rather classical structure: an ambition prior to the political commitment, a baseline review supported by solid thematic pre-operational studies, and a strategy definition restricted to the core objectives of the project. The implementation and evaluation phases are defined over the course of the project, considering the length of the agricultural projects' life (about 18 years). This exercise mostly allowed EPAMARNE to set a level of ambition in its use of the ISO 37101 matrix, which is the enrichment of the project with addition objectives and their translation into action plans on 4 specific domains and into output or performance indicators.

3.1. PROJECT MANAGEMENT 5-STEP REVIEW

■ AMBITION AND COMMITMENT

EPAMARNE acquired the agricultural land (now the land development program area) on the periphery of Montévrain in the 1980s. However, the will to integrate urban and agricultural development projects in this city was first expressed in 2010. It comes from the joint brainstorming of EPAMARNE, the municipality and an urban planning and landscaping team (the Philippe Madec and Folléa-Gautier agencies), in which urban agriculture was identified as the best solution to integrate the land development project in its landscape and suburban environment. It is to be noted that the land development project is also labelled by the ÉcoQuartier national program, that supports the best realizations in terms of sustainable urban development districts. From this point, the focus of project has been the alignment of the agricultural and urban components of the global program.

Preliminary studies were launched shortly after, under EPAMARNE's supervision, and the ÉcoQuartier charter was signed in 2017.

■ BASELINE REVIEW

The initial diagnostic of the project's territory and its potential take the form of a crossed perspective between landscape design and technical and economic feasibility studies. The landscape design considers to 4 land development sectors and includes recommendations for the agricultural project developers: preservation of the old rural trains, priority given to orchard and market farming, etc. Reciprocally, the agronomic, hydraulic and economic preliminary studies take the needs of the urban development program into account, in terms of water consumption, soil quality, and future demand for agricultural goods.

The whole area can be considered as rural-suburban. It hosted agriculture (via temporary land use agreements, renewed each year) before the launch of the land development project, in order to maintain the land's condition and generate revenues. However, in the context of urban expansion, conventional cereal agriculture, which needs hundreds of acres to be profitable, is less and less adapted. On the contrary, market gardening fosters the local economy and interactions with the inhabitants, and contributes to the quality of urban life with garden-like landscape.

STRATEGY DEFINITION

The management of both agricultural and urban development projects is handed to the EPAMARNE by the City of Montévrain. After the preliminary studies, a call for agricultural projects is launched on the 20 acres of the agro-urban heart, and two project developers are finally selected on the following criteria (corresponding the program's initial objectives):

- ▶ Economic and technical viability of the projects
- ▶ 100% organic and orchard or marking farming
- ▶ Interest for the EPAMARNE in terms of replicability and skill improvement on urban agriculture
- ▶ Public access and pedagogical dimension
- ▶ Collaboration with the land development project (trails, water management, etc.)

Then begins the definition of detailed objectives, in concertation with all the stakeholders, to get to the contracting of the rural leases and the launch of the agricultural projects in 2019. This step of alignment of the EPAMARNE's and the agricultural project developers' objectives is crucial in the global land development program. The City of Montévrain and EPAMARNE identified a series of additional objectives that were expressed in the call for agricultural projects and are quite common to most urban agriculture initiatives. Nevertheless, it appeared that the existing objectives could be better structured and that complementary positive outcomes of the agro-urban heart could be activated. This ISO 37101 method was therefore used to challenge the initial objectives and to anticipate on the future evaluation of the project's contribution to global sustainable development.

IMPLEMENTATION

Today, the project implementation mostly consists in an iterative process of concertation, with the agricultural project developers and stakeholders, on the detailed content of the agro-urban heart. One must keep in mind that the experimentation of the ISO 37101 method was conducted in a very dense contracting period for most stakeholders, which did not leave room for a complete integration of this tool by the elected representatives for instance. This work was therefore limited to EPAMARNE's strategic thinking on the project's objectives and their translation into a complementary action plan and its performance indicators.

EVALUATION

The agro-urban heart is associated, as early as its design phase, with some elementary indicators, adaptable to most urban agriculture projects, and assorted with levels of ambition:

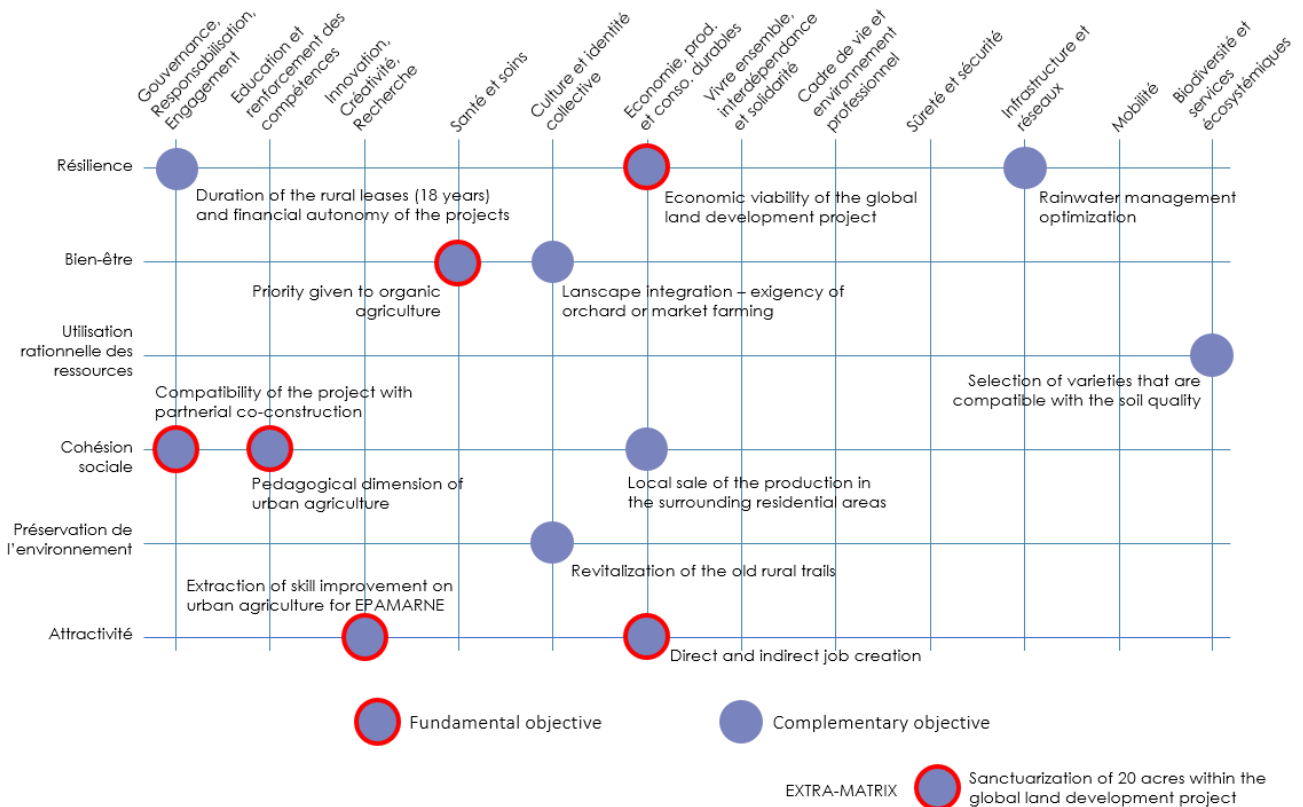
- ▶ Jobs created (objective set at 2 to 3 full-time equivalents)
- ▶ Cultivated surface (20 acres are dedicated within the global land development project)
- ▶ Production in terms of plants or kilograms (to be determined depending on the selected projects)
- ▶ Economic viability of the projects (taken into account into the project selection, especially considering that EPAMARNE is not bound to keep the ownership of the agricultural surfaces)

Given the evolutive nature of the agro-urban heart's objectives over the course of the concertation and over the life of the projects (the rural leases last 18 years), a complete performance evaluation is very difficult to set in advance. Yet, EPAMARNE wishes to measure, at the end of the concertation, how each contribution of the agro-urban heart to the sustainability of the future district is launched. Therefore, for each complementary objective that were added to the concertation process on the go, EPAMARNE's action plan is documented, whenever relevant, by an expected production or benefit, whose level of ambition is to be determined in the last concertation instances and once the nature of the agricultural projects is set.

3.2. USE OF THE ISO 37101 MATRIX

STRUCTURATION AND ENRICHMENT OF THE PROJECT'S POSITIVE OUTCOMES

The first step in using the ISO 37101 matrix on the agro-urban heart project was the integration of the existing objectives. This completed matrix is presented below, with the 6 fundamental ambitions circled in red.

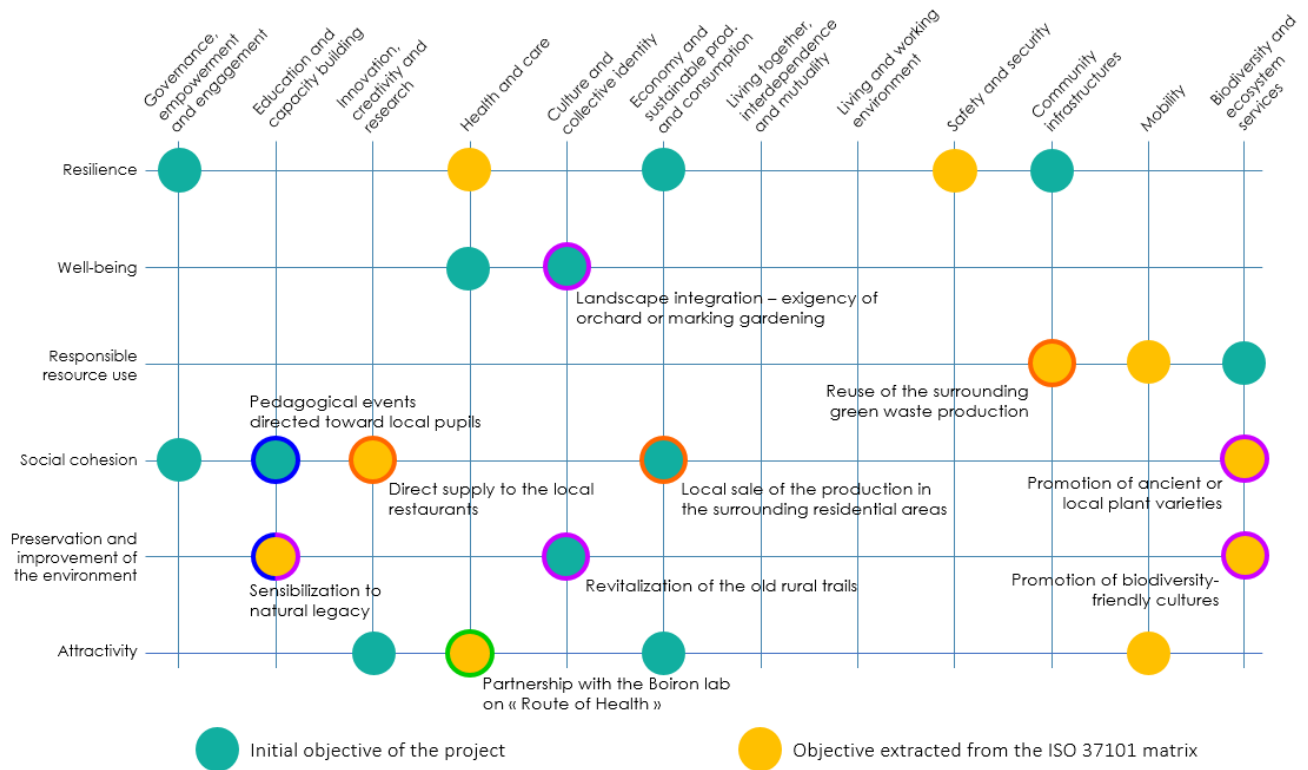


Following this cartography of the project, EPAMARNE focused on the “empty boxes” of the matrix and the potential contributions of the agro-urban heart to sustainable development. Some areas of action are not mobilized even though they can be highly impacted by urban agriculture and constitute an important expectation of the municipality and the inhabitants. For instance, the pedagogical dimension (2nd column) could be reinforced and the presence of nature in the city generally contributes to the quality of life (8th column). Thus, the sensibilization to the local natural and alimentary heritage, the use of medicinal plants, the implementation of direct sale partnerships or the collection of organic waste with the local restaurants were added the EPAMARNE's agenda and proposed to the agricultural project developers.

The interrogation of the matrix facilitated the identification of margins of improvement for the project, and to find synergies with the initial objectives. For sharing purposes, EPAMARNE reformulated these additional contributions into 4 families of actions, to be discussed in the next concertation instances with the stakeholders. These are presented in the following grid, with the intersections of the matrix corresponding to the expected contributions.

- ▶ Pedagogy (high priority, blue circle) – make the inhabitants, especially the pupils, benefit from a better knowledge of the agricultural world
- ▶ Circular economy (high priority, orange circle) – maximize local distribution of the products, and reuse locally produced green by composting for instance

- ▶ Health (low priority, green circle) – incorporate the agro-urban heart in the “Route of Health”, a nearby industrial sector with clinics, hospital, laboratories, etc.
- ▶ Natural heritage (low priority, purple circle) – promote the rural past, the alimentary savoir-faire and the ancient varieties toward the inhabitants



EPAMARNE plans to discuss these additional objectives with the agricultural project developers and to implement them in 2019, as well as to prefigure their evaluation.

TRANSLATION OF THE OBJECTIVES INTO ACTION PLAN AND EVALUATION

Each of the 4 families of action is assorted with one or several short-term action to activate to corresponding contribution to sustainable development, and with an indicator, as illustrated in the table below:

Family of action	Action plan	Indicator(s)
Pedagogy	Dialog with the farmers on the capacity to ensure public access Capacity building on the reception of visitors and its added value	Number of pedagogical partners of the agricultural project developers Number of school visitors per years
Circular economy	Negotiation with the nearby municipalities on local retail point Contracting with the nearby restaurants and school or office canteens Contracting with the main organic waste producers (schools, parks, companies)	Number of retail points and distance to the agro-urban heart Number of restaurants labeled by the CERVIA (regional institute for local agriculture) Amount of local organic waste reused
Health	Contact with the local pharmaceutical laboratory to discuss a project presentation and a future partnership	Production of medicinal plants (kg) Share of medicinal plants in the farmers' revenues
Natural legacy	Contact with the CERVIA and inventory of the possible (financial, communication or expertise) support	Number of agricultural products labeled by the CERVIA

The short-term actions come directly from the identified families of objectives, and they are easy implementable by EPAMARNE. They should still be debated within the stakeholder concertation process and submitted to the strategic committee of the agro-urban heart project (Spring 2019). Some of them, especially on health or natural legacy, will remain at the choice of the agricultural project developers in terms of cultivated varieties.

The indicators that were proposed in 2018 will possibly be revised to better match the project's life stage and the adjustment of the action plan and level of ambition set during the concertation.

BENEFITS ON THE PROJECT GOVERNANCE

In the end, the reflection of the ISO 37101 provides EPAMARNE with an instrument to foster the political commitment to objectives that were assigned a low priority. This re-mobilization, to be concretized in 2019, is based on four pillars:

- ▶ **Ambition:** The ISO 37101 method enlarged the spectrum of objectives and makes the potential contributions to sustainable development very tangible. Then, the test of their feasibility and the definition of a level of priority is facilitated.
- ▶ **Partnership:** The formulation of additional objectives orients to projects toward new actors. Once they are identified, they can become stakeholders of the project and enrich it, under the supervision of EPAMARNE and the support of the public authority.
- ▶ **Objectives:** This exercise is the re-emergence of contributions that were initially considered but put aside in the day-to-day management of the project and its priorities. In a long-term perspective, they still hold their pertinence.
- ▶ **Communication:** The project structuration is a key benefit from using the method. In this case it helps communicating on all the aspects of the agro-urban heart. It also points the "weaknesses" of the project in a perspective of continual improvement.

4. CONCLUSION AND PERSPECTIVES

The ISO 37101 method improved the ongoing agro-urban heart project by remobilizing on objectives that were initially removed, by facilitating their structuring (and thus their integration by the stakeholders) and imaging easier ways to reach them. This project offers a good example of a "chronological" use of the method, because the reflection on the matrix, which focused on strategy definition, was translated into the further steps of project management: implementation and evaluation.

The specificity of this case study resides in the reformulation of the contribution of the ISO 37101 to the project management. The matrix is not shared with the stakeholders as a tool, but its fruits are integrated into four families of action that are easier to apprehend by the agricultural project developers or elected representatives for instance.

Finally, the crossed reflection on this project and the Parisculteurs case study (an agriculture program carries by the City of Paris) ended being enriching for both in terms of project management comparison. Additional objectives were transferred between the teams, and the ISO 37101 method served as a common referential to quickly get into the substance of the strategy and of the replicability of urban agriculture initiatives.