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► To cite this version:

Jennifer Buyck, Jean-Pierre Chéry, Françoise Jarrige. Analysis of regional spatial planning and decision making strategies and their impact on land use in the urban fringe. Montpellier case study. [Contract] 036921. Module 3, D3.3.2, 2008. hal-02823027

HAL Id: hal-02823027

<https://hal.inrae.fr/hal-02823027>

Submitted on 6 Jun 2020

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PLUREL



Governance and
Planning Scenarios

Module 3

December 2008

PERI-URBAN LAND USE RELATIONSHIPS –
STRATEGIES AND SUSTAINABILITY ASSESSMENT
TOOLS FOR URBAN-RURAL LINKAGES,
INTEGRATED PROJECT,
CONTRACT NO. 036921

D3.3.2

Analysis of regional spatial planning and decision making strategies and their impact on land use in the urban fringe

Montpellier case study

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Document status:

Draft:	completed
Submitted for internal review:	completed
Revised based on comments given by internal reviewers:	completed
Final, submitted to EC:	completed



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Abstract

Objectives/aims

This deliverable report deals with the spatial planning context for the Montpellier case study

Methodology

The report gives an introduction to the history of Montpellier and presents the role of and reviews tools for national, regional and local governments in land policy and territorial administration in France and the Montpellier region. In particular, the report explores the development and implications of the SCOT (Schéma de COhérence Territoriale) planning tool for the Montpellier Agglomération.

Findings

Six strategic issues strongly affect land management in periurban fringes of Montpellier, i.e. land pressure due to housing, agriculture, tourism, traffic, water management and flood prevention, and high value nature at risk.

A lot of objectives of public policies generate ambivalent or divided points of views because stakeholders categories are in fact related to stakeholders with different interests and different located impacts of some policies which generates contrasted positions among the population and its representatives.

Farmers are key stakeholders in the rural-urban system of Montpellier because they are major land owners in urban fringes. It should be noted that farmers land strategy is strongly influenced by land developers who also put pressure on local elected to increase areas for future urbanization in local planning documents. This speculative pressure, anticipating future developments, causes severe distortions on farmland market in urban fringes.

The SCOT imposes spatial planning at the inter-communal level with the scheme of territorial coherence and sets the main planning orientations in the Montpellier Agglomération for the next 10 years. The three key points of SCoT are the ideas of 1) a natural city, 2) a shared city, and 3) a thrifty city. The natural city highlights the consideration of natural spaces as a real partnership to urban development. The shared city aims to promote social relationships. The thrifty city presents the necessity to preserve resources.

Montpellier's SCoT is a planning tool from the urban to the rural scale including the urban fringe, with a sight inversion: in spite of regarding Montpellier agglomeration as victim of urban pressure, the idea was to begin with site qualities. The logic of territorial coherence has led local representatives to reason at an unusual inter-communal scale. Considering this fact, a new balance between rural and urban spaces has appeared giving more power to rural communes.



Classification of results/outputs:

For the purpose of integrating the results of this deliverable into the PLUREL Explorer dissemination platform as fact sheets and associated documentation please classify the results in relation to spatial scale; DPSIR framework; land use issues; output indicators and knowledge type.

<p>Spatial scale for results: Regional, national, European</p>	<p>Regional</p>
<p>DPSIR framework: Driver, Pressure, State, Impact, Response</p>	<p>Driver/Pressure/State</p>
<p>Land use issues covered: Housing, Traffic, Agriculture, Natural area, Water, Tourism/recreation</p>	<p>housing, agriculture, tourism, traffic, natural area</p>
<p>Scenario sensitivity: Are the products/outputs sensitive to Module 1 scenarios?</p>	<p>No</p>
<p>Output indicators: Socio-economic & environmental external constraints; Land Use structure; RUR Metabolism; ECO-system integrity; Ecosystem Services; Socio-economic assessment Criteria; Decisions</p>	<p>None</p>
<p>Knowledge type: Narrative storylines; Response functions; GIS-based maps; Tables or charts; Handbooks</p>	<p>GIS-based maps; tables and charts</p>
<p>How many fact sheets will be derived from this deliverable:</p>	<p>1</p>



Summary

Developments

Montpellier appears in History in year 985. A.D., and was a specialized place for medicine (University) and trade linen. At the end of the 18th century, this Mediterranean city in the south of France counted 32,000 inhabitants with surrounding characterised by a great extension of vineyard. After the revolutionary and Napoleonic eras, Montpellier made more and more investments in agricultural land, to export wine (arrival of the railway in 1839) in other regions in a more and more industrial France. Some crises were heavy for this area, with this specialisation, like phylloxera made a relative decline of vine or competition of wine from French Algeria. The local society was in a relative quiet demographic and economic growth.

During the first part of 20th century, Montpellier was a quiet capital of vineyard and knew few urban changes. The population rose from 76,000 in 1901 to 91,000 in 1936 but stagnated until 1954 with 96,000 inhabitants at this last date. That period reinforced service sector for Montpellier (University, High Schools) and some equipment were made (monumental place, Theatre, harmonisation of facades in many streets in the urban centre). After the World War I, first low-cost housing appeared, and some public facilities were reinforced (more schools, university equipment, a big hospital). At the same time, army land use was given to civil use, and built up areas rose.

With creation of administrative regions in France, under départements, in 1956, Montpellier was promoted capital of Languedoc-Roussillon, and the 1960' were years of demographic, economic and spatial growths: public and private investments, news roads and new periphery's districts (with a sudden immigration of repatriates from Algeria, independent in 1962). With 120,000 inhabitants in 1962, Montpellier rose to 200,000 inhabitants in 1982. During this period, changes were not only demographic: Montpellier was opened to a great economic space with implantation of "new economy" actors (like IBM in 1965), tourism equipment in neighbourhood (seaside new places), transport equipment (airport, 1965 and motorway from the north, 1967).

With economic changes (a technopole project since the 1980'), social evolution (white collars who search quiet housing in periurban area (little villages surrounding Montpellier, "all-car" way of life), Montpellier area became a place characterized by a young population (students, young adults who work in new industry), a great demographic growth and a great pressure on housing, with a extension of urban area, as response. In 1999, the agglomeration of Montpellier had 290,000 inhabitants and the urban area (with rural neighbourhoods) had 460,000 inhabitants.

Issues

France was characterized by an historically highly centralized power, which has during last decades turned to a decentralized territorial administration. In the process of urban planning, state officers play a role of advice: they give the state position regarding environmental issues in the diagnosis of urban plan. The other role of state officers is to control (ex post) the decisions made by local elected. Except concerning some issues of national interest (protection of the seaside, management of the region Ile de France), all decisions on urban planning, management of urban fringes, etc... are made locally, in respect of the national law. In 1981-82, the first decentralization laws implemented the devolution of administrative competences, and the corresponding human means and fiscal resources, to the local authorities (that administrative system has changed a lot in France since Napoleon and his centralized state): (i) municipalities with the power assigned to communal council to grant the legal agreement to development applications (land development and urbanization planning); (ii) inter-communal cooperation (EPCI) where one commune could belong to several inter-communal associations, with various objects and memberships knowing that in 1999, a new law has been enforced to promote and simplify inter-communal cooperation with 3 main types of EPCI (Communauté

urbaine, Communauté d'agglomération and Communauté de communes with financial subsidies given by national government to promote the creation of these new EPCI); (iii) the Conseil Général of the Département which plays a major role in the field of social support, solidarity, most of local transport infrastructures, rural development and land policy (like perimeters of protection of natural and agricultural periurban areas); (iv) The Conseil Régional, which mostly plays a role of prospective and coordination of public policies and develops contractual policies with other local governments.

In 2000, the national "urban solidarity and renewal law" set up new urbanism rules with the local urbanism plan PLU (*Plan Local d'Urbanisme*). This law now also imposes spatial planning at the inter-communal level with the scheme of territorial coherence, SCOT (*Schéma de COhérence Territoriale*). Planning policies at both communal and inter-communal levels must now be formulated in a project report and drawn in corresponding maps zoning the different status of land induced by this project. Consistently, SCOT and PLU should be compatible and participative methods are also supposed to be implemented in local planning process.

The main planning tools and strategic issues for public policies are (i) an "Urbanism code" (national urbanism bill) at the national level; (ii) the Regional Scheme for Sustainable Territorial Development (SRADDT) is a global document indicating general objectives for regional planning at the regional level; (iii) the central document SCoT (Scheme of Territorial Coherence) with other documents as PDU (Plan of Urban Mobility) and PLH (Local Housing Plan) at the sub-regional level which is the most important level in the French planning system as it deals with the scale of functional urban regions; (iv) PLU (Local Urbanism Plan) and ZAC (Area of Concerted Planning) at the commune level.

The recent striking facts regarding territorial governance in Montpellier city region are the creation of Montpellier Agglomération -associating 38 communes at the end of 2001- and the drawing up of its territorial coherence scheme SCOT (it should be noticed that other inter-communal associations have been established in this urban area around Montpellier and that their planning schemes are on). The city-region of Montpellier has one of the highest demographic growth rates in France for the last decades but this growth was only - hardly - managed at the commune level, with no planning scheme at the scale of the functional urban area (*aire urbaine de Montpellier*). *Montpellier Agglomération* was created in 2001 (38 communes with more than 400,000 inhabitants). But a difficulty lay in the sharing of power of decision in the communautary council: with nearly 250,000 inhabitants, Montpellier city representatives have a 50 % vote power. It ended in local political conflict: 7 surrounding communes went out of *Montpellier Agglomération*, which remained with 31 communes left in 2005. Some economical issues of the creation of Montpellier Agglomération regarded tax sharing and new forms of competition among communes, according to other gains and costs of economic activities and infrastructures: what will be the territorial solidarity among members of Montpellier Agglomération? Main environmental issues are quality of life, housing and transportation, water and waste management, preservation of open spaces (cropland and natural patches), management of natural risks (flood, fire).

The Scot has been drawn up from 2002 to the end of 2005 and different experts contributed to the diagnosis and to the final planning scheme. Different state officers were also associated, with an advisory role. After the legal "public utility enquiry", the Scot was approved by the Communautary council in february 2006. It sets the main planning orientations in Montpellier Agglomération for the next 10 years. As Montpellier Agglomération only associates 31 communes now, it doesn't control the whole territory of the functional urban area (93 communes in the east of *Département de l'Hérault*).

Strategies

Even if strategic issues had to be prioritised, the six of them strongly affect land management in periurban fringes of Montpellier: land pressure due to housing, agriculture under pressure, tourism integration, traffic pressure, water management and flood prevention and high value nature at risk. Stakeholders have been distributed in 4

categories: (i) Public stakeholders, (ii) private companies, (iii) non profit organisations and (iv) individual stakeholders.

Some figures can be given to evaluate Montpellier Agglomération support to farming, as sustainable use of periurban land: the global cost of the SCOT (2.5 millions €), Montpellier Agglomération support to belonging communes for their “urban with 50% of the cost (which represents an annual budget of 200,000€), some specific supports attributed to periurban farming sector which mostly concern wine production (creation of the “Montpellier Agglomération patrimony and vineyard road”, and a “*Pôle d'excellence viticole*”). But a lot of objectives of public policies generate ambivalent or divided points of views because stakeholders categories are in fact related to stakeholders with different interests and different located impacts of some policies which generates contrasted positions among the population and its representatives (NIMBY effect).

Farmers are key stakeholders in the rural-urban system of Montpellier because they are major land owners in urban fringes. Farming and farmers play an important role in land and natural resources management. All periurban farmers are submitted to the same market pressure, either land market or agricultural products market, in a context of urbanization and globalization. As far as land use is concerned, farmers' situation and strategy differ according to individual criteria: family asset, farming system and position in life cycle. It should also be noted that farmers' productive strategy may differ face to urban proximity. Farmers might set up different kinds of strategies face to the proximity of the city, either in the management of their asset and professional trajectory. It should be underlined that farmers land strategy is strongly influenced by land developers who also put pressure on local elected to increase areas for future urbanization in local planning document (PLU). This speculative pressure, anticipating future developments, causes severe distortions on farmland market in urban fringes (huge price increases). So land developers also appear as important stakeholders regarding periurban land use management. Montpellier city is known to have settled strict but stable rules for developers, thanks to its urban policy served by the longevity of the same political team at the head of the city for more than 30 years. The problem is that farmers organisations are not able to defend strong positions on periurban issues, because of the huge divergence of interests among farmers between productive strategies and patrimonial strategies.

The strategy of the main stakeholder, Montpellier Agglomeration, can be explained through its SCoT which gives the main substantive issues for this urban region:

- Land pressure due to housing development in the urban fringe. Montpellier city and this region are very attractive in France. A lot of people really want to live there due to pleasant climate, remarkable geographical situation and region dynamism, challenging a real “sun immigration”. As there is a change of housing preferences, urban fringe are now more attractive than the central city area. This situation is synonym of space consumption as large places are devoted to transports framework. Finally, land price is growing up that leads to land discrimination.
- Agricultural land in the urban fringe under pressure. Always due to land price growth, pressure is made on farmers to lead them to sell their lands as the farming system is no longer economically competitive in a context of globalization and urbanization. In order to speak about troubles on urban fringe inducted by the two issues presented, it is useful to make an urban diagnostic using the five terms: urbanity (about a high probability to make social linkages), centrality (centrality scheme is replaced by a scheme composed of different islands as work, school, leisure...), density (decreasing and does density make urbanity?), mix (spatial segregation due to high land price) and ecology (landscape quality is decreasing and pollution is creasing).

The main orientations of public policies regarding urban planning follow the three basic principles defined in the urbanism bill: Balance principle, principle of urban diversity and social mix in housing, principle of thrifty spaces use. The main objectives for sustainable development in Montpellier Agglomeration are (i) a lot of mono-functional area and

housing use domination, (ii) segregation of urban population, (iii) decrease of patrimony value, (iv) sprawled city, decreasing density level, agriculture under pressure and (v) pollution created by daily transports.

SCoT is a long-term planning exercise with a dynamic diagnostic. The presentation's report has to present territorial dynamics under four axes: urbanism, environment, social and economy. Just after the diagnostic, the Planning and Sustainable Development Project (PADD) of the SCoT has to define what the main strategic choices are in term of territorial organisation and development: it translates purposes in spatial prescriptions. The most important fact concerning SCoT results is the real awareness of local representatives in term of territory. The logic of territorial coherence has led local representatives to reason at an unusual inter-communal scale. Considering this fact, a new balance between rural and urban spaces has appeared giving more power to rural communes. Montpellier's SCoT is a planning tool from the urban to the rural scale including the urban fringe, with a sight inversion: in spite of regarding Montpellier agglomeration as victim of urban pressure, the idea was to begin with site qualities. Considering landscape quality as an objective for the SCoT don't only want to say that landscape have to be protected but also that landscape qualities have to be reinforced. It is necessary to talk about how green spaces around cities are considered usually. They are regarded as spaces free for housing and the "sight inversion" proposes to consider green spaces as great city's quality. In the SCoT proposal, three axes have been considered as the most important: (i) consideration of natural spaces as a real partnership to urban development, (ii) "a shared city", deals with urbanity's idea, proposing to promote social relationships and (iii) "a thrifty city", presents the necessity to preserve resources. SCoT also proposed some emblematic projects in strategic areas to give dynamism to urban development. In term of circulations, priority is made to soft circulations at the local scale but also at the agglomeration scale (with a moving framework and tramway priority).

To create a "thrifty city", an important work on housing has been made defining urban densities in different areas opened to urbanisation. Three different intensities have been promoted from the densest to the least dense (A intensity level to C intensity level). This way of defining densities without to impose a strict regulation allows well applying this concept to local areas. Maps in SCoT document present some areas that are open to urbanization whereas others are really protected from urban constructions. By example, the SCoT proposes extensions for surrounding villages of Montpellier offering spaces to urbanization, but it also develops some landscape dynamics to maintain and reinforce life setting quality. SCoT deals with peri-urban areas too and proposes some reference maps which are not made to be strictly applied to a given site: some peri-urban cases are village's extensions (diagnostic determines landscape values and a landscape limit with the idea to using it to create a real "natural façade") or rehabilitation dealing with an urban rehabilitation due to public transports' service like tramway.

Introduction

Objectives of PLUREL case studies

This report is one of the PLUREL case study reports on 'Governance and Spatial Planning Strategies' in six European urban regions: Warsaw, Montpellier, Manchester, Leipzig, Koper and Haaglanden. An outside comparison is also made to Hangzhou, China. Each of the research teams in cooperation with regional authorities have studied the unique governance and planning strategies in their region. As well as the official policies, their results and outcomes, and the influence of a wider range of actors have been analyzed.

This analysis forms the basis for an assessment of the different regional strategies in terms of their physical, political, social and economic structures and dynamics. The case studies are being used by other Modules of the PLUREL project, to inform the modeling and policy analysis. Finally the different strategies and their assessment will be disseminated through good practice guidance handbooks and workshops in 2010.

Urban fringe land use issues

In order to bring in real-world experience to the Module 3 research, the regional stakeholders in each of the case studies identified four major issues related to land use:

- land pressure due to housing and business development in the urban fringe
- agriculture in the urban fringe under pressure
- high value nature areas in the urban fringe at risk
- integration of leisure and tourism activity in the urban fringe

Strategies: about actors and their means of influence

The many actors - policy makers and other stakeholders – respond to these issues not only through formal policies but through coalitions, resources, rules and discourses. The focus on 'strategies' includes this wider view of 'a deliberate course of actions that an actor has made/makes, comprising a succession of decisions and actions to achieve goals, objectives'. The strategies identified in the case study reports concern governance and spatial planning – including for instance the patrimonial structure of farming in France, the experiments in partnerships in the UK, or the re-invention of Warsaw as a global city.

Methodology and content based on a Joint Analytical Framework

The case study work follows a common 'Joint Analytical Framework' (JAF) that was developed on the basis of research proposals from the national research teams and consultations. The report first describes the urban region, following the boundaries of the administrative unit concerned. (Stadsgewest, Agglomération, etc) It summarizes the land use history, the actual land use situation and major strategic issues for each of the case study regions. Second, the official government and spatial planning system is described. A third chapter describes a number of planning and governance strategies in more detail, uncovering the interactions between the different actors involved, what matters to them, and how they influence the urban rural interactions and the fringe. For some strategies this might be done ex-ante, for other ex-post. The effects in terms of sustainable development of the urban fringe is the subject of the second round of case study reports and developed in cooperation with the other PLUREL modules.

Definition of the urban fringe

A central notion to the concept of 'urban fringe' is the location in the periphery of the built-up urban area. The wording 'peri-urban area', of French origin (peri-urbain) can also be used. It can be either an area that at the outer limits (seen from the urban perspective, motivating the word 'fringe') extends into larger (open land) arable or green areas, as in Warsaw, Koper and Hangzhou; or it can also expand into the urban fabric of a

new city or agglomeration, such as in Haaglanden, Manchester or Leipzig. This definition of the urban fringe is a spatial physical definition that is workable for all case study areas. The functional definition of a 'rural-urban region' can be based on employment patterns or a one-hour journey time from urban centers. For more densely populated areas of Europe the fringe territory can then extend right across larger agglomerations.

There are several dynamics, i.e. developments resulting from the urban influence that especially characterize the urban fringe in economic, social terms but also environmental terms:

- recreational initiatives and land uses by urban dwellers;
- increased traffic flows to and from the urban area;
- overflow of urban uses and infrastructure that are incompatible with high density residence because of air pollution, noise, safety risks, or planned outside the urban area because of lower land prices, such as water storage, car dumpsites, waste disposal, residence of urban workers or urban rich, motor cross sites.

A distinctive feature is that the urban fringe is not considered by its own intrinsic values but merely as a solution to urban problems and as a cheap source of land. At times it is seen as a location of great contrasts, housing both very wealthy and very deprived communities. PLUREL was financed by the European Commission because several FP5 research projects requested attention for the urban fringe as an area with specific qualities and issues and often divided over several administrative areas. The case studies research the attempts of 6 European regions in the sustainable development of their urban fringes and they identify a new kind of policy agenda.

Responses to the urban fringe agenda

Ideally the urban fringe should become an area of high quality with a more independent role than only that of a spill over area. Past attempts to draw a juridical line between the urban areas and their green surroundings - like by the former Dutch Minister for Housing and Spatial Development, Jan Pronk - can be seen as an effort to realize this and to contain for instance the financial pressure of urban land markets. There are various possible approaches: to assign the fringe and green infrastructure the status of a municipality, or to assign land ownership and stewardship to a community land trust.

More sustainable development of the urban fringe into an area of high quality environment that serves the residents of both urban, fringe and rural areas is a concern of all regional authorities involved in PLUREL - the governance forms and spatial planning strategies contributing to this are in the focus of the following case study.

Ch. 1 Land use and spatial development in the region and turning points

Ch. 1.1 History of land use

Montpellier appears in the 10th century: the first citation of Montpellier (*Mons Pestelarium*) is in year 985 AD. Between ponds and scrubland, it's an agricultural property on a hill near the Lez River, acquired by a small lord of the region, Guilhem. This position allows to control the paths of the plain: the one as the ancient roman "Via Domitia" which passes north, away from flood-prone areas, and the road south of Salt which connects the coastal saline, and the path of Pilgrimage of St. James of Compostela, used by Provençal, Italian and Oriental people for centuries. The function of Montpellier appears as medical care for many travellers: hospitals, leprosy. The town makes its development on trade. In the 13th century, it became property of the Kings of Aragon by marriage, and joined the network of major trade places with a political system closer to the Italian Republics ("Consuls") and hosted a medical school in 1220 and a Right school in 1242, which were quickly internationally recognized as university, by the Pope in 1289. Since this date, it's the oldest medical university of the world still used.

While the surrounding rural areas experiencing economic classic crises of 14th and 15th centuries (irregular armies destructions, fiscal pressure), the city of Montpellier, direct possession of the King of France since 1349, through its purchase, became the capitale of the "Province du Bas Languedoc". While the city recovers in 1536 the Episcopal seat historically placed on an island ponds, Maguelone, the Reformation was welcomed by the elites. Becoming place of safety of Protestants in the early 17th century, it was besieged by royal army and a severe repression has culminated at the end of the 17th century, after the revocation of the "Edit de Nantes" (War of the "Camisard", focused on the Cevennes, northeast of Montpellier). A great citadel was built to control the city (1623-1626), and adjustments to the glory of the King were being made (monumental door and esplanade of Peyrou, 1691). The religious institutions are developing periphery of the city on large estates. The *bourgeoisie* (high middle class) is growing rich (trade linen, wine) and mansions change the urban fabric of Montpellier. In the 18th century, the local nobility, which also invested in agricultural production, built several "follies" according to the fashion of the time: prestigious houses in the countryside around Montpellier. The landscape becomes a high value: an urban settlement of 1752, still being implemented, forbids the construction of buildings which would obscure the view from the lookout of Peyrou.

In the mid-18th century, the Montpellier area - if it is taken in its boundaries of its diocese - has more than a hundred villages and about 65,000 people. Land ownership is distributed in such a way contrasts between the plain areas and scrubland north.

Table 1: land ownership in Montpellier's diocese, mid-18th century

	Diocese of Montpellier	lands owned in plain	lands owned in scrubland
Peasantry	40 %	23,5 %	57,3 %
'Bourgeoisie' (middle class)	18,5 %	23,5 %	5,7 %
Nobility	16 %	13,5 %	16,5 %
Clergy	3,5 %	8,7 %	4 %
Communal property	22 %	30,8 %	16,5 %

The scrubland is valued by the peasantry, while the plain is invested by the bourgeoisie, with the system of sharecropping. The clergy and nobility, through a hundred owners (institutions such as the bishop or the Order of Malta, or individuals as the noble sword or dress), and have about 20% of the soil.

Raising cattle is rare, for the benefit of sheep. The wine had experienced a large increase in the 18th century. The village of Saint Drezeroy, with a renowned wine, from 12 ha with vineyard in 1678 to 255 hectares in 1783. At the end of the 18th century, the vineyard grew on the plains. The olive and plowing are the majority in large properties. The vineyard is more in smaller properties, especially in some of Montpellier (shopkeepers, craftsmen, etc., which make their wine). But the nobility, especially “de robe”, Montpellier, extend the vineyard to the plain, as culture report.

Table 2: farming land use in Montpellier’s diocese, mid-18th century

	Part of the lands in the plains	Part of the lands in scrubland
Labours	42 %	28,5 %
Vineyard	22 %	25 %
Oliviers	2 %	6 %
Natural Pastures	3,5 %	1,5 %
Pastures and rangelands	25,5 %	30 %
Woods	2 %	6 %
Other	3 %	3 %

Wine prices have increased throughout the 18th century, except in a crisis between 1778 and 1787. Near 1750, in the city of Montpellier, it is mainly the working class who own land: 61.2% of the land is farmed by artisans, shopkeepers, but mainly to improve daily and the ordinary, especially by the wine.

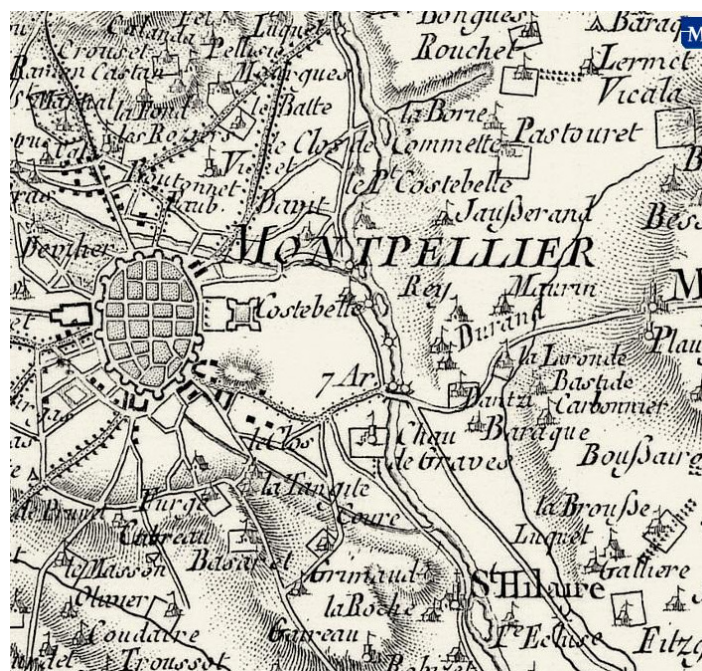


Figure 1: Map of Cassini, 1776 (source: www.montpellier.fr)

In 1778, the diocese is in deficit of cereals. The population rose from 65,000 people in 1750 to over 80,000 in 1788, with 32,000 inhabitants in Montpellier. In rural areas, the population density increases from 22 to 28 inhabitants by square km: communal property

in scrublands is cleared and appropriate individually. The agrarian crisis is strong at the end of the century, and weighed on the implementation of collective rights. The owners affluent majority ownership of these public spaces.

After the Revolutionary and Napoleonic wars, when defense walls disappear from Montpellier, industry decline by increasing competition nationally and internationally. Investments must be out in the agricultural land. The arrival of the railway in 1839 allows to export the wine of Midi in the major urban centres of the industrial north of France and the Languedoc vineyards grows sharply. The bourgeoisie of Montpellier is growing rich on this annuity, using an urban and rural population strongly oriented towards this virtual monoculture. The Mediterranean coast remains neglected while also begin practice of sea baths: pond area is full of mosquitoes.

In the second half of the 19th century, Montpellier is arranged according to the urban model of the era: functionalism and Haussmann's aesthetics, like in Paris. The city centre is redeveloped in part (islets dilapidated razed to the ground, drilled through streets lined with modern buildings and monuments, *Préfecture*, station, the scene is concentrated in downtown). The economy is growing Vineyard. The School of Agriculture, founded in 1872, represents this interest in the business of production of land. 10% of the assets of the city work for viticulture and other agricultural activities. The chemical industry, which accompanies this development, moves in the port of Sète. In the years 1880, the phylloxera crisis shows the strong dependence of Montpellier to the vine: the annuity and activities decline. Competition makes by wines of Algerian colony, now under control, has aggravated the situation. Montpellier is at the end of the 19th century as a provincial town in touch with its wine region: in 1907, the biggest event of the 3rd Republic was a manifestation of 500,000 protesters to denounce the social and economic situation of the regional viticulture peasantry.

Ch. 1.2 Recent land use developments

- *First part of the 20th century: a quiet capital of vineyard with few urban modifications*

At the end of the 19th century, Montpellier was a rich provincial capital, supported by its wine economy. At that time, vineyard gave prosperity to its shareholders, land squires, the trade upper middle-class. Vineyard also provided most of the incomes of the lower classes (workers and farmers). Until mid-1970, Montpellier was the capital of the vineyard.

During the XX^o century, Montpellier gradually loosed its last industrial activities. The First World War gave a temporarily dynamic of the wine economy, but the combination of deindustrialization, remoteness of decision-making centres (mainly Paris), economic crises (overproduction, low sales) led the city to the background. Since the 1920', a low population growth, a young people migration to Paris or main cities of the country, several trading and banking bankruptcies are some important features that explain this relative decline. As the rural area was the most concerned by the crisis, cities like Montpellier knew a temporary positive growth of inhabitants: the population rose from 76,000 in 1901 to 91,000 in 1936. But, after the Second World War, its population stagnated with 98,000 inhabitants in 1954. Indeed, there was a worsening of the economic situation.

That period reinforced the Montpellier profile as city of service sector. For example, the University and the High Schools were marked by an increase in student enrolment: 1,500 students in 1901, 2,600 in 1920 and 5,300 in 1950. That educational feature was supported by several new institutions: School of Agriculture (funded in 1873), School of Trade (since 1897) and School of Chemistry (since 1908).

Last decades before XX^o century, some urban equipments or town-planning realisations in Montpellier were made and reinforced some locations in the city. The main one was the

Place de la Comédie, which became the focal point of urban transit. Since this period, it provided interface between the historic centre and the new station's district and other new districts which have grown up in its neighbourhood. Place de la Comédie became a monumental place: rebuilding of the theatre (1881-1888), followed by other big modifications like new buildings according to the Haussmann urban model that made harmonisation of all the facades on the place. The first department store settled there. Near this monumental place, a garden was laid out in the English style.

Montpellier received some public facilities and infrastructures: schools and infant schools in outlying districts, which just began to be urbanized. Since early 1930', some projects concerned water capture from the Lez river vauclusian spring, for new distribution in the city. After 1919, first low-cost housings ("*Habitations à Bon Marché*" - HBM) appeared, because of a law which gave tax exemptions (loi Siegfried, 1894): garden city of Portalière des Masques, HBM of Figuerolles, housing estates in district of Les Abattoirs (near slaughterhouses), and near a mean road in west part of the city (Lodève road). A public office was created to manage these housing equipments (*Office public d'habitations à bon marché*, 1921). During the 1930', some major university equipments were built: first student hall of residence (1930-1935), Faculty of Arts relocation (1935-1939). As the Montpellier reputation rose for its medical university, a big hospital was built too: Saint-Charles Hospital (1934).



Figure 2: aerial photography of Montpellier, early 1920' (source: Lacave, Volle, 1996)

After the First World War and important destructions of urban areas in the north-east part of France, near the war front, a law (of march 14, 1919) was enacted for cities more than 10,000 inhabitants: it was required to draw up plans for facelift of town and urban development. In Montpellier, the town council made reflexions about some new qualifications of places and equipments (artillery training area of Polygone close to city centre, or choise between preservation of historic buildings and urban renewal for unsanitary districts).

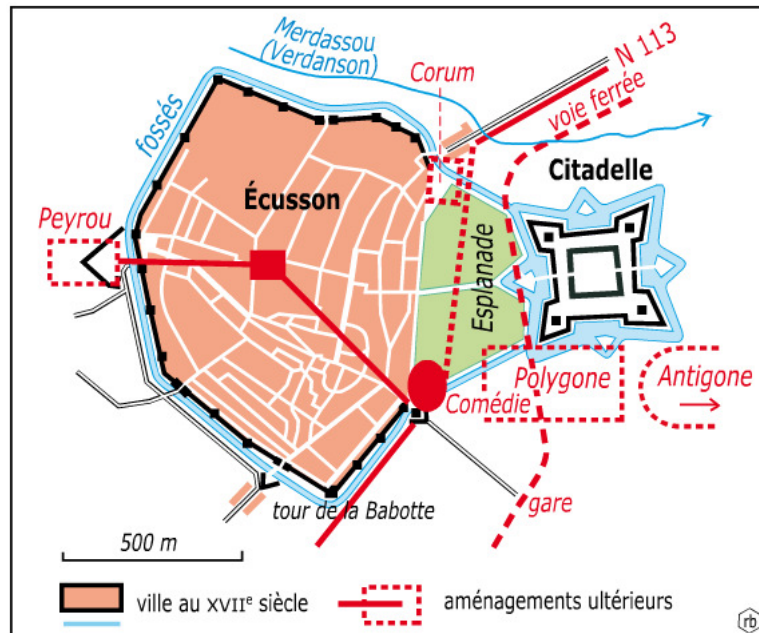


Figure 3: Montpellier historic centre and main equipments (source: Brunet, 2006)

- 1950'-1960': Montpellier becomes a regional capital

In 1956, Montpellier is promoted capital of the administrative region of Languedoc-Roussillon. Until 1982 with the decentralizing laws, administrative regions in France were only a state level for sectorial administrations and regional planning. As the demographic evolution was not strong, the city has not experienced a significant spatial expansion during the 1950'. The habitat was dense with tight buildings, but flats were often unhealthy.

The 1960' are years of demographic, economic and spatial growths. Montpellier borrowed features of modernity. As administrative capital of the region Languedoc-Roussillon, the city received major public and private investments. Its spatial extension was supported by the diffusion, more and more, of the car in households at this period: new roads and new peripheral districts were built. An other main reason of its expansion was the great arrival of repatriates from Algeria, which was independent in 1962: this sudden migration was a very important fact in the city's dynamic. In 1962, Montpellier rose above 120,000 inhabitants, after fifty years of stagnation. This demographic contribution was 'mechanical' cause of the demographic growth until the early 1980' with nearly 200,000 inhabitants in 1982. In 25 years, population doubled in Montpellier. During the 1960', urban modernity and demographic explosion were brought by important urban planning, like the ZUP planning; ZUP ('Zones à Urbaniser en priorité') were priority areas to urbanise, a national tool for housing needs, according to consequences of baby boom and the poor state of the housing system in France. In Montpellier, the ZUP was built in a west limit of the commune, far to the city centre: the district of la Paillade, main project of 1960'. At this period, urban periphery remained limited in its extensions.

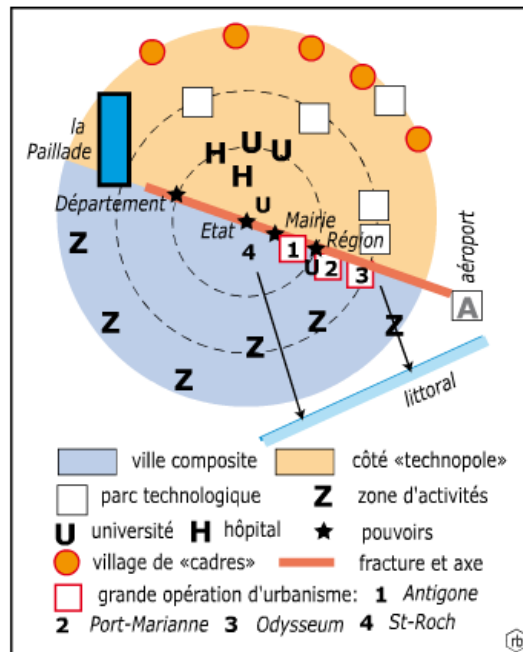


Figure 4: Montpellier urban structure during 1980' (source: Brunet, 2006)

With the ZUP project, other ones changed the city morphology and some urban functions: new university campus in the north part of the city, some industrial areas mainly in the south part ('Prés d'Arènes' in Montpellier area, 'La Lauze' in Saint-Jean de Vedas or 'La Biste' in Vendargues, close communes), private housing estates and urban estates. In 1965 was funded the "District de Montpellier", with 12 communes for an coordination of urban planning, very constrained by demographic growth. The east part of the agglomeration was, in 1960', opened to transport infrastructures (airport of Frejorgues near the lagoon in the southeast side, motorway in 1967) and the symbolic implantation (1965) of an international company which had wagered on Montpellier for its urban and regional services: IBM.

The city centre knew some important changes. As a law gave a direction for conservation and protection of historic heritage ('Malraux' law, 1962), a new equipment modified the eastside of city centre: a big shopping center, named 'Polygone' as the military field which it has replaced, with a covered parking (1975).

Indeed, the spatial planning organized two main areas: south with industries and urban residential districts, north with main public equipments (university between 1963 and 1967, and regional university hospital). Montpellier had fewer than 10,000 students in 1960, nearly 40,000 in 1980. At that date, the hospital complex accounted for at least 40% of the economic life of the city. Between 1960 and 1980, Montpellier became a real important agglomeration with urban extension near main road axes, the coast with Palavas-les-Flots and Carnon as seaside place for massive tourism. In the northside, into scrubland areas, some villages grew strongly as periurban places (Clapiers, Grabels, Montferrier, Saint-Clément-de-Rivière, Saint-Gély-du-Fesc), connected to employment for university and hospital. In 1970', the direct functional area of Montpellier is composed by more than forty communes with almost 300,000 inhabitants.

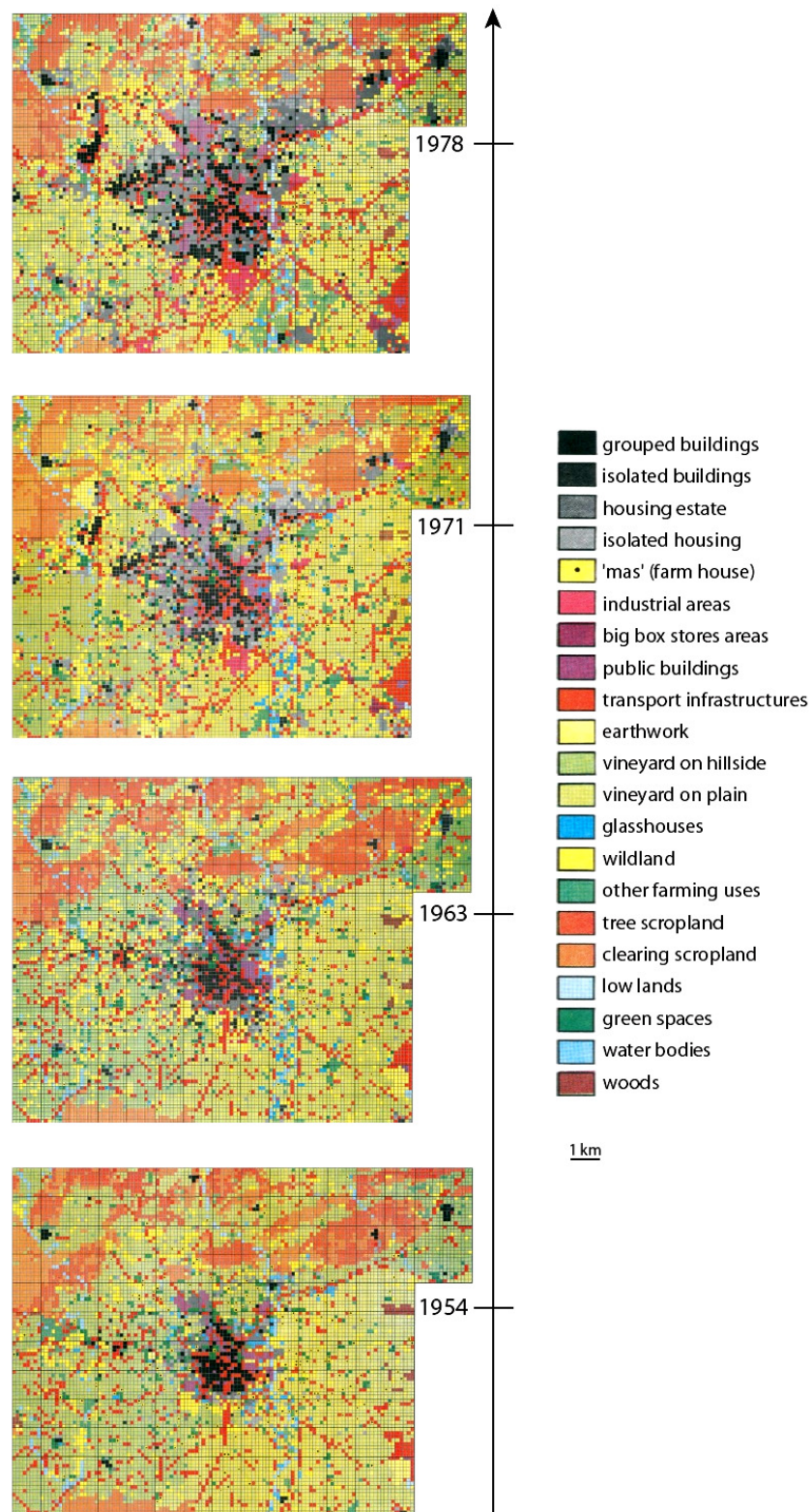
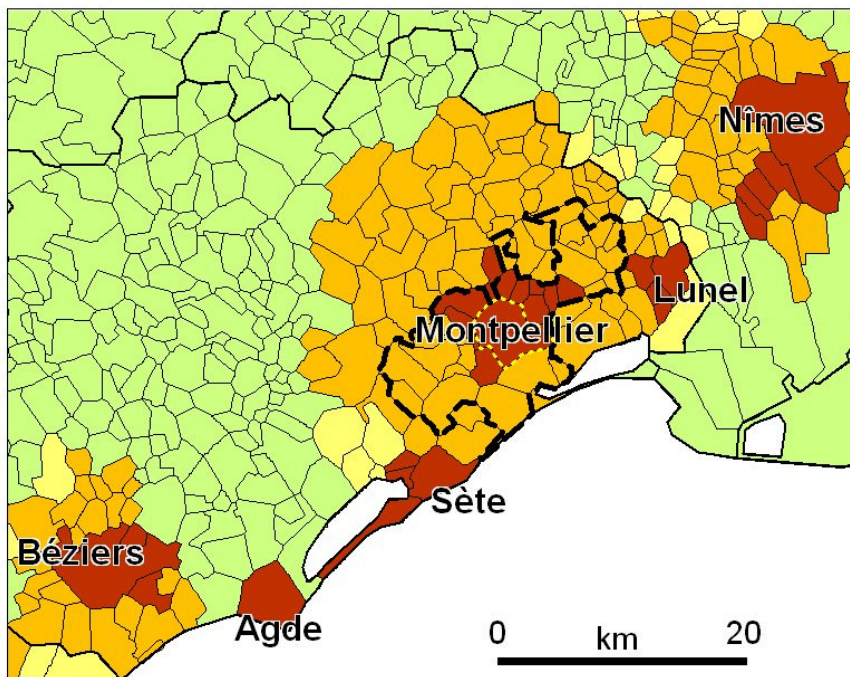


Figure 5: Map of landcover changes between 1954 and 1978 (source: Chesnais M., 1980)

- *During the age of urban and territorial marketing: 'Montpellier, the super-gifted'*

A local governance main change appeared in 1977, after local elections. Montpellier city slid to the left and that corresponded to some important changes in urban planning of that city. As the agglomeration grew like a wild process, municipality fixed then the priority of land ownership control and new developments of urban districts. A new project became the symbol of that new political choice: Antigone project, launched in 1978, gave an connection of the close *Polygone* shopping centre and historic centre with the Lez river banks, and future urban land reserve for city extension. The resident population was roughly stable in quantity 210,000 inhabitants in 1990, but was extremely mobile: those who lived in 1982 in another commune (77,000 inhabitants) were as numerous as those who did not moved since that date, and if the city grew still about 10,000 inhabitants in ten years, its suburbs won some 70,000 and formed a metropolitan area of nearly 400,000 people.



Urban rural typology

NUTS 5 - source : INSEE, 1999

- Light green: rural areas with or without insulated little towns
- Orange: mono-polarized peri-urban areas (>40% employment in one urban area)
- Yellow: multi-polarized peri-urban areas (>40% employment in several urban areas)
- Dark red: urban poles (urban units with > 5,000 jobs)

Black dashed line: Border of Communauté d'Agglomération de Montpellier

Orange dashed line: Border of Commune de Montpellier

*Figure 6: Montpellier area in 1999-2006
(Source: INSEE- Delimitation of functional areas are from 1999)*

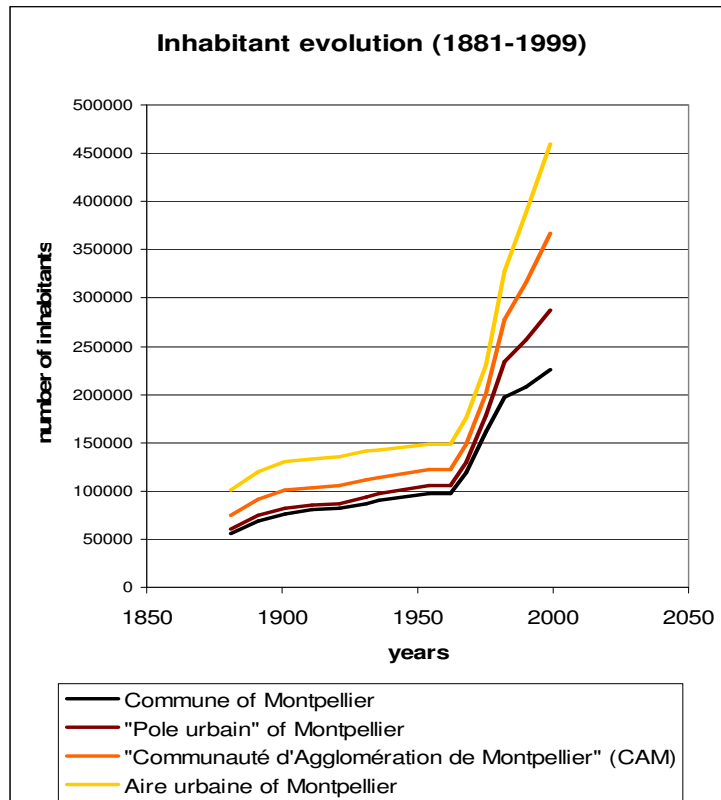


Figure 7: Inhabitant evolution in Montpellier area between 1881 and-1999
(Source: INSEE- Delimitation of areas are from 1999)

In France, the laws of decentralizing state (1982-1983) were enacted at the same period than the growth of the urban and local marketing and promotion. Then Montpellier, as regional capital, was considered by its officials, as the door for international and national exchanges with the entire Languedoc-Roussillon region. The development of the 'technopole' project (as a urban concept for industrial and technologic activities, now named '*Montpellier Méditerranée Technopole*') was an occasion to reallocate some work places, in the north and east of the agglomeration, and to connect districts hitherto separated: Euromedecine technologic district was located between the ZUP of La Paillade (became poor during the 1970' and 1980') and the districts of the university and the hospital. These last places created more than 100,000 daily commuting. In the eastside of the agglomeration, a big district received a urban planning for future technologic parks (*Eurékâ* and *Millenaire*), near the IBM place, and some buildings like the '*Hôtel de Région*' (regional Hall), which close the Antigone area towards east.

All these equipments were made with an intensive urban marketing support in national and European Medias. A famous slogan symbolised that voluntarist development strategy of the agglomeration: '*Montpellier la surdouée*' ('Montpellier the super-gifted'). As the name of '*Antigone*' suggests it, the spatial planning was positioned in a 'post-modernist' way: many of new topomyns were chosen to create a link between Montpellier city of the end of XX° century and Greek cities and heritage. Activity buildings have now names of alphabet letters in greek system (Alpha, Delta, Gamma ...), in a city funded in 985 A.D.

At the end of the 1980' and early 1990', few urban realisations put superior services activities in a high level for cultural and tourism: *Corum* (convention centre and Opera

house, opened in 1990) and *Ursulines* Art Centre (1994), which receive each year two great national festivals (music, contemporary dance).

In less than three decades, a new local society took the place of the former one, relatively stable for one century. At the end of 1950', the heritage was still very much alive, and Montpellier was a small provincial capital. Its notables received in their private mansion or in their rural houses, 'follies' in the city neighbourhood. In 1960, 7,000 of high middle-class people had more than 65,000 hectares of land, of which 20,000 hectares for vineyard.

But the growth of the service sector since 1950' changed the deal. Employees of that sector became 'modernity carriers'. Population came younger with extension of university, and arrival of young households which found jobs in public or private administration and new industry as computer services (IBM): in 1990, more than two-thirds of Montpellier inhabitants had less than forty years and the quarter had less than twenty years.

In thirty years (between 1962 and 1990), employments grew from 40,000 to 72,000. But the activity rate didn't growth too significantly. The city attracted students, migrant workers for tourism and unemployed people. The industrial profile of Montpellier put it in a particular sector, of 'high value': in 1990, 35% of the 7,000 industry workers are in electronics, paracheicals and pharmacy sectors. At that date, white collars and salaried professionals represented 14% of the total population.

The strong growth of Montpellier continues since the early 2000'. The last population census results, provided at the end of 2008 by INSEE, indicate that the urban area of Montpellier, in its extension of 1999, now reaches more than 518,000 inhabitants. The municipality of Montpellier, with the largest communal area, has gained nearly 30,000 people in 10 years (from 225,000 to 250,000 inhabitants). The Communauté d'Agglomération de Montpellier earns about 45,000 inhabitants on the same period, including 2/3 located in the central commune.

Finally, the urban area of Montpellier in its perimeter 1999 increases of more than 58,000 people and exceeds 518,000 inhabitants in 2008. We notice that half the population growth of the area is located on the commune of Montpellier. This is due largely in a very important housing supply that has been proposed in this commune, whose reservation land building remained was very important until recent years. Urban planning has led many districts in a short time, ensuring exceptional growth in the city in its environment itself growing. The city of Montpellier reached its municipal boundaries in terms of artificialization. The remaining free building area tends to be kept for some symbolic agricultural activities or for recreational use. Institutional evolutions and changes in local governance which can explain different ways of this territorial dynamic are developed in next chapters.

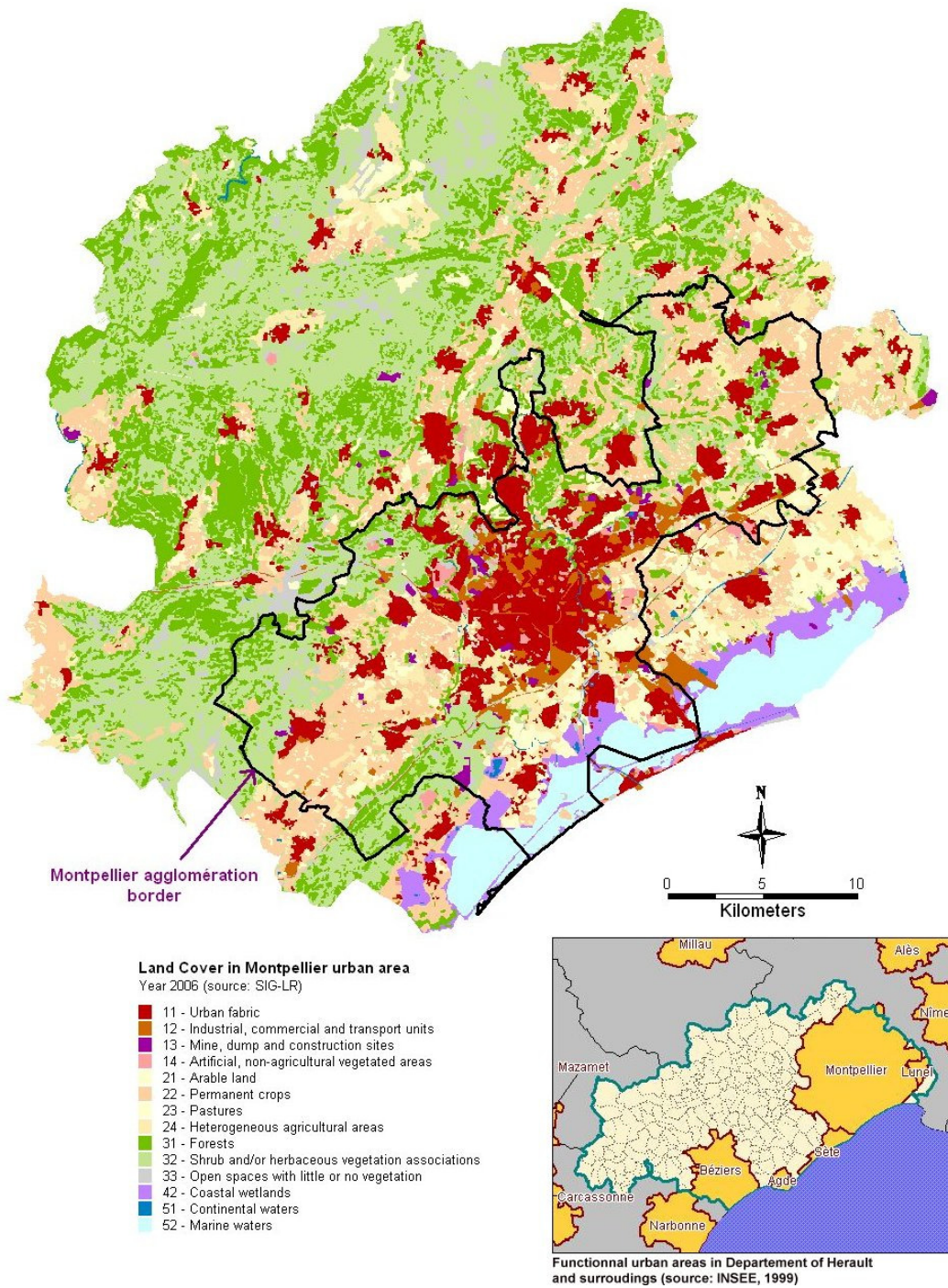


Figure 8: Map of land cover in Montpellier functional urban area, 2006
(Source: INSEE, SIG-LR)

Ch. 2 Governance arena regarding periurban land use in Montpellier Agglomération

In this chapter we first describe the institutional setting of public policy network, and the interactions and strategies regarding main issues for periurban land use. This institutional setting defines the room for other stakeholders to act and influence developments. We then present issues and major stakeholders' strategies concerning periurban land use, with a focus on issues regarding periurban farming systems and farmland.

Ch. 2.1 Relevant government institutions and their policy developments

France was characterized by an historically highly centralized power, which has during last decades turned to a **decentralized territorial administration**. The contemporary territorial administration is composed by a three tier framework of local governments: **région** (nuts 2), **département** (nuts 3), **commune or municipality** (nuts 4).

- 211. *State and national administration: national policies and legal framework*

The **national government**, specially the **Ministry of ecology and sustainable development**, is in charge of the national legal setting regarding urbanization and land use (several codes: urbanism, rural, environmental...). Its official goal is to promote a sustainable development, preserving general and individual interests through different tools. This ministry is represented at the regional level by its regional directions (**DIREN**). The **Ministry of agriculture** is in charge of agricultural policy. It runs the CAP (common agricultural policy) in France and the national rural development plan. This Ministry has delegations in administrative regions (DRAF) and départements (DDAF).

In the process of urban planning, state officers play a role of advice: they give the state position regarding environmental issues in the diagnosis of urban plan. Officers of the Ministry of agriculture might play an important role regarding the sustainability of periurban land use, as they are often among the few stakeholders to consider and defend agriculture as an activity of general interest in urban fringes.

The other role of state officers is to control (ex post) the decisions made by local elected. Except concerning some issues of national interest (protection of the seaside, management of the region Ile de France), all decisions on urban planning, management of urban fringes, etc... are made locally, in respect of the national law.

The **Conservatoire du littoral** (created in 1975) is a specific French public institution implicated in land management, like the National trust in GB. This national public body, with 10 regional delegations, has financial means and legal power to buy land (natural spaces) on the littoral fringe, in order to protect it. Once bought by the conservatoire du littoral, land becomes inalienable and "non aedificandi" (means that it should never be sold nor builded) and dedicated to environmental preservation or farming.

A new public body, **l'Établissement public foncier régional** (EPF Languedoc Roussillon, *Regional Public Land Trust*) is supposed to be created in 2008. Under the authority of the French ministry of finance, it should be empowered and funded to buy land for public projects in Languedoc-Roussillon, in cooperation with local governments.

- 212. *Local governments: decentralized land and urbanization planning*

In 1981-82, the first **decentralization laws** implemented the devolution of administrative competences, and the corresponding human means and fiscal resources, to the territorial collectivities (*collectivités territoriales*): *Conseils régionaux* (26 *régions*), *Conseils généraux* (100 *départements*), *conseil municipaux* (36,782 *communes*). Of these territorial collectivities (= local governments), only the **Régions** are brand new, but the three of them got higher powers in local governance, with their own budget and fiscal resources¹ (in addition to national or European financial transfers). There should be no hierarchy among territorial collectivities and each of them has specific fields of administrative and technical competences. All representatives of territorial collectivities are directly elected by citizens every 6 years.

- **Municipalities**²: one of the most important changes brought up by the decentralization in France was the power assigned to **communal council** to grant the legal agreement to development applications (*permis de construire*): land development and urbanization planning are now parts of the communes competences... in the respect of the national law (Urbanism code, national urbanism bill). This means that the local decisions are submitted to an ex post control of legality by the state representative (*Préfet*).

- **Inter-communal cooperation**: Several types of inter-communal associations have been set up to fulfil jointly some of the technical missions of the communes. Each commune delegates its representatives to the association (indirect representation) and allocates it a budget contribution. One commune could belong to several inter-communal associations, with various objects and memberships. **In 1999 a new law has been enforced to promote and simplify inter-communal cooperation.** It tends to sum up all inter-communal associations into **3 main types of EPCI (Public Establishment of Intercommunal Cooperation)**. A panel of compulsory competences has to be delegated by the communes to the new EPCI, in order to set up a consistent and powerful territorial governance institution. The creation, membership and perimeter of these new inter-communal associations are decided by local representatives but should follow some administrative rules and be accepted by the State representative (*Préfet*). These new EPCI are :

- Communauté urbaine, for regions with an total population of more than 500,000 inhabitants
- Communauté d'agglomération for city regions with an total population of more than 250,000 inhabitants (ex.: Montpellier Agglomération).
- Communauté de communes in rural areas (or urban regions with an total population of less than 250,000 inhabitants)

Former forms of inter-communal cooperation should disappear and a commune should now belong to only one of these new inter-communal associations (progressive elimination of ancient inter-communal associations). The national Government gives financial subsidies to promote the creation of these new EPCI.

- The **Conseil Général (Département)** plays a major role in the field of social support and solidarity. It is also now in charge of most of local transport infrastructures. This public institution also has competences in the field of rural development and land policy. According to the last **Rural Development Law** (2005), the Département can set up **PPAEN** (Perimeters of protection of natural and agricultural periurban areas).

¹ Our European partners should notice that administrative system has changed a lot in France since Napoleon and his centralized state. Partly thanks to european integration, France has now turned to a decentralized administration. Local governments (= collectivités locales) and local elected do have true power and means to elaborate and implement local public policies.

² More than 36 000 communes represent the smallest administrative level in France. The members of the "communal council" (conseil municipal) are elected every 6 years (direct election) and they designate the mayor among them.

With the agreement of all local stakeholders (land owners, farmers, communes...) these delimited areas are protected and can not be builded: once they are zoned as PPAEN, a legal act would be necessary to urbanize them in the future. The Conseil Général de l'Hérault is currently involved in a national experimentation program to set up four PPAEN. One of them could be located in Montpellier Agglomération. So the two territorial governments are associated in this project, with other local stakeholders.

- The **Conseil Régional (Région)** mostly plays a role of prospective and coordination of public policies through the CPER (Project Contract between the State and the Region). The Conseil Régional develops contractual policies with other local governments. In Languedoc Roussillon, the drawing of a new SRADDT (Regional Scheme for Territorial Sustainable Development) has been launched in 2007. Achieved at the end of 2008, this prospective report - "*Languedoc Roussillon 2030*" - should establish a diagnosis of the main regional development driving forces and draw the guidelines for future territorial policies.

In year **2000**, the **national "urban solidarity and renewal law" set up new urbanism rules**, with a renewed planning process for the commune, the local urbanism plan: **PLU** (*plan local d'urbanisme*). 20 % of annual new building should be dedicated to social housing programs in each commune. This law now also imposes spatial planning at the inter-communal level with the scheme of territorial coherence, **SCOT³** (*schéma de cohérence territoriale*). Planning policies at both communal and inter-communal levels must now be formulated in a project report setting a "Sustainable Development Plan" and drawn in corresponding maps zoning the different status of land induced by this project. Consistently, Scot and PLU should be compatible. New developments should respect a balance between nature protection and urbanization, and new housing programs should be associated with collective transport services. Participative methods are also supposed to be implemented in local planning process, which is quite new in French administrative practices.

Recent administration changes - decentralization, enhancement and simplification of inter-communal cooperation - have led to a new territorial governance framework, specially as far as urban planning is concerned : new political levels of decision have been settled, new scale for political action, new tools to be implemented.

*Regarding PLUREL issues and other European situations, it has to be underlined that **France has now a decentralized administration system, with local governments empowered in development matters.***

Thus, a cautious distinction has to be made between several terms:

- What are called "**city regions**" in English speaking countries are for us a geographical concept for the **functional urban areas** (= aires urbaines for population census of INSEE, French statistical institution);

- **urban local governments** are the **Public Establishments of Intercommunal Cooperation** in charge of running local public policies (either communauté urbaine, communauté d'agglomération or communauté de communes), which perimeters may not be the same as those of the functional urban areas (in between nuts 3 and 4);

- the **French regions**, as local governments (nuts 2), are much larger than city regions and not that much concerned by periurban issues.

- 213. Summary of main planning tools and strategic issues (for public policies)

Urban planning policies are organised at several levels in France. The following presentation summarizes the main urban planning tools (for more legal details on French urban planning, see appendix A).

³ A SCOT can cover a single EPCI (as it is the case in Montpellier Agglomération) or several EPCI associated (for example: SCOT of the Bassin de Thau, around the city region of Sète).

- National level: There is at the national level an “Urbanism code” (national urbanism bill). Local decisions on development applications should respect this national code - and others - and are submitted to an ex-post control of legality by the state representative.
- Regional level: The Regional Scheme for Sustainable Territorial Development (SRADDT) is a global document indicating general objectives for regional planning (this text only provides indicative orientations and has no legal power).
- Sub-regional level: This level is the most important in the French planning system as it deals with the scale of functional urban regions. It is composed by several urban planning documents. The central document is the SCoT (Scheme of Territorial Coherence).
 - o SCoT: Creation of scheme for territorial coherence at the scale of an agglomeration. Thus it is the tool for urban fringe planning in France. It is composed by a diagnostic, a report about agglomeration issues, some planning scenarios and then by a synthesis document.
 - o PDU (Plan of Urban Mobility): This document has to be compatible with the SCoT but the PDU might have been achieved before the SCoT. In this case the PDU is an important tool that helps to plan the SCoT. In other terms, it is the specific SCoT part for mobility in the same or in an other scale.
 - o PLH (Local Housing Plan): This document is the local application of the SCoT in terms of housing. It allows detailing SCoT objectives at a local scale.
- Local level :
 - o PLU (Local Urbanism Plan): This document is the planning tool at the commune level. It should be compatible with the SCoT in terms of urbanisation. It allows detailing (and sometimes remodelling) SCoT objectives at a local scale
 - o ZAC (Area of Concerted Planning): Strategic areas showed by the SCoT, and then by the PLU, are submitted to a special urban planning at the scale of a district or of a block.

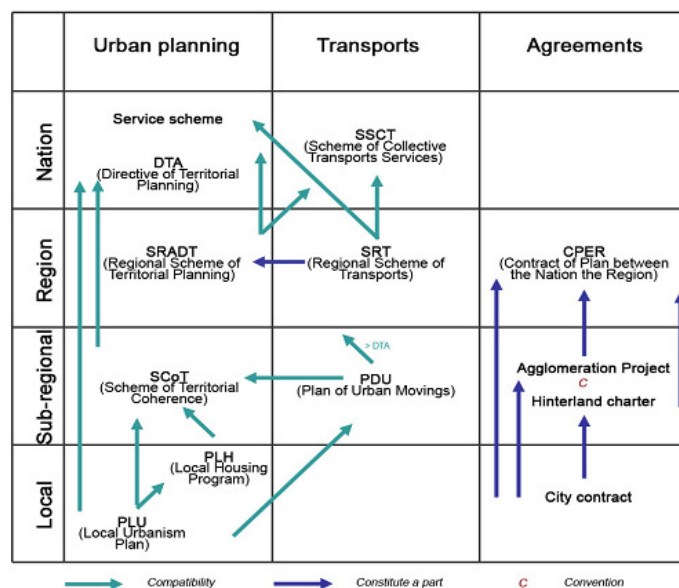


Figure 9: Main planning tools at different levels in French territorial administration

National urbanism rules and other legal codes give the framework for territorial planning in France. Local governments - mostly communes and EPCI - are major levels of decision and implementation of planning policies. So, even if there are national rules and orientations, planning policy is a local matter, under the authority of local governments.

Ch. 2.2 Main strategic issues

The recent striking facts regarding territorial governance in Montpellier city region are the creation of Montpellier Agglomération⁴ -associating 38 communes at the end of 2001- and the drawing up of its territorial coherence scheme: SCOT (approved at the beginning of 2006).

NB : We focus our Plurel contribution on the case of Montpellier Agglomération but it should be noticed that other inter-communal associations have been established in this urban area (around Montpellier) and that their planning schemes are on.

- *221. The creation of a new public establishment of inter-communal cooperation: Montpellier Agglomeration*

The city-region of Montpellier has one of the highest demographic growth rates in France for the last decades but this growth was only - hardly - managed at the commune level, with no planning scheme at the scale of the (functional) urban area (*aire urbaine de Montpellier*). At the end of 2001 (following the 1999 law on the promotion of inter-communal cooperation) the Communauté d'Agglomération de Montpellier or **Montpellier Agglomération** was created. This led from a former urban district of 15 communes to a new EPCI, with wider competences and a more diversified territory (38 communes, more than 400,000 inhabitants).

It was not easy, from a political point of view, to associate 37 communes with the large city of Montpellier and his "strong personality" mayor (since 1977). Preliminary negotiations run quite a long time among local representatives, either mayors or presidents of former peripheric inter-communal associations. Resistance and fear towards the centre city had to be overcome by the need of this new territorial institution... and the help of the State legal and financial incentives.

A difficulty lay in the sharing of power of decision in the communautary council: as Montpellier city with nearly 250,000 inhabitants has the major part of the total population of the *Communauté*, the "by default" rule stated that its representatives have a 50 % vote power. This led some representatives of peripheric communes to fear a lack of balance between the centre city and surrounding communes. It ended in local political conflict: 7 communes went out of Montpellier Agglomération, which remained with 31 communes left in 2005.

In addition, it has to be noticed that this new inter-communal cooperation suffers the problem of indirect representation, which may appear as a weakening of local democracy. Will the gap between citizens and decision makers of the communautary council be balanced by the "social and economic council" (*Conseil économique et Social*: the advising institution supposed to be representing the citizens) and the enforcement of participative process?

Some economical issues of the creation of Montpellier Agglomération regarded tax sharing and new forms of competition among communes, according to other gains and costs of economic activities and infrastructures. It also raised the question of "poverty management": what will be the territorial solidarity among members of Montpellier Agglomération to share the costs and charges of social care according to social inequalities and socio-spatial segregation?

⁴ or Communauté d'Agglomération de Montpellier.

Main environmental issues are: quality of life, housing and transportation, water and waste management, preservation of open spaces (cropland and natural patches), management of natural risks (flood, fire).

*Montpellier Agglomération was established as a powerful local government of the city region of Montpellier at the end of 2001. It first gathered 38 municipalities, only 31 since 2005. After the **communal elections that took place in France in March 2008**, changes are expected in local policies, first of all as far as the inter-communal cooperation is concerned. For example - of primary concern for Plurel project - the perimeter of Montpellier Agglomération might change again, according to the project of new municipal teams to join or not Montpellier Agglomération. Discussions are on but no decision has been made until now on this point.*

- 222. *The SCOT of Montpellier Agglomération : a first inter-communal planning process for Montpellier city-region*

The major stake for Montpellier Agglomération is to succeed in combining the ongoing reception of new residents and activities - as this has been recognised as the wealth source of the territory - with the protection of quality of life.

The new public establishment of inter-communal cooperation has several tools at its disposal to achieve the objectives of the territorial governance:

- a concerted development plan : Sustainable Development Plan (PADD) and Territorial Coherence Scheme (SCOT)
- Local Housing Plan (PLH)
- Urban Transportation Plan (PDU)
- Water and waste management plans
- Economic development...

The Scot has been drawn up from 2002 to the end of 2005 in order to achieve global objectives of sustainable development and to solve urban troubles. Different experts contributed to the diagnosis and to the final planning scheme⁵, in interaction with the urbanism staff of Montpellier Agglomération and under the authority of the first vice-president, in charge of planning. The process included a phasis of concertation with local politicians, representatives of professional sectors (property developpers, architects, entrepreneurs, farmers...) and representatives of civil society... Different state officers were also associated, with an advisory role (and legal ex post control on the final document). After the legal "public utility enquiry" (*enquête d'utilité publique*) the Scot was approved by the Communautary council in february 2006. It sets the main planning orientations in Montpellier Agglomération for the next 10 years.

As Montpellier Agglomération only associates 31 communes now, it doesn't control the whole territory of the functional urban area (93 communes in the east of Hérault, according to INSEE). Other inter-communal associations have started to draw up their Scot, only another one has been completed yet, by the Communauté de Communes du Pays de Lunel (in 2006). The different planning policies of these territorial authorities located in the same urban area may have diffenciated impact on land uses.

The establishment of Montpellier Agglomération (end 2001) and the achievement of its Scot (2006) can be considered as major steps towards an improved territorial governance. At least a regional planning policy can be elaborated and implemented at intercommunal level in the faster growing French city region. Still, not all problems are solved at once.

⁵ The Scot team was composed by Reichen & Robert Company (for urban planners) and by Alfred Peter agency (for landscape design).

Ch. 2.3 Governance arena in Montpellier city-region

- 231. Main substantive issues for Montpellier city-region

The following table summarizes the key rural-urban issues in Montpellier city-region and identifies the main stakeholders.

This table has been collectively elaborated by the members of Plurel Montpellier team, adding their personal knowledge of the local context and stakeholders (Jean-Paul Gambier, as Plurel stakeholder representing Montpellier Agglomeration, Françoise Jarrige, Jean Pierre Chery and Jennifer Buyck).

Even if strategic issues had to be prioritised, the six of them strongly affect land management in periurban fringes of Montpellier.

Stakeholders have been distributed in 4 categories, relevant regarding the French society and socio-political action:

- Public stakeholders : local governments at different levels, highly concerned by all the issues, and national state offices;
- private companies, of different types (from farms to industrial firms and property developers);
- non profit organisations : stakeholders organized in the field of collective action, either in the long term (with precise and long term objectives, for example environmental associations) or on an ad hoc basis (NIMBY type actions);
- Individual stakeholders: their lack of collective organisation might be a difficulty to solve the problem they are concerned by (or might cause) in periurban fringes. Horse keepers, illegal dwellers... scattered in natural spaces or farmland around Montpellier tend to grow more and more numerous, with growing impacts but few socio-political representation, which does not facilitate concertation process.

Table 3: Key rural-urban issues and stakeholders in Montpellier city-region

Actors ⇒	Local governments and State representants	Private companies	Non-profit formal / collective actions (NGO, associations)	Civil initiatives informal / individual
Land Use Issues ↓				
1. land pressure due to housing	Local governments (multi tiers)	Developers	Non au béton (Concrete No) (NIMBY association)	Land owners Cabaniars (illegal housing in natural areas)
2. agriculture under pressure	Local governments (multi tiers)	Agriculture firms (farmers)	Jardins de Villeneuve (social integration association) Farmers organisations SAFER ⁶ (farmland market regulation)	Horses keepers

⁶ SAFER (Société d'Aménagement foncier et d'Établissement Rural) was established in 1962. It is a "parapublic" body, managed by representatives of the farmers under the control of representatives of the state and of local governments. This institution has a mission of public

3. tourism integration	Local governments (multi tiers)	Tourism sector firms		Cabaniers (illegal housing in natural areas)
4. traffic pressure	Local governments State (DDE)	ASF (motorways) RFF (railways) Airport logistics firms		
5. water management & flood prevention	Local governments (multi tiers)	BRL (agricultural irrigation)	Fédération de pêche (fishing association)	
6. high value nature at risk	Local governments DIREN (Ministry of Ecology) Conservatoire Littoral	Sita Sud (waste treatment company) Areva (local plant, Suez)	Ecologistes del'Euzières (environmental association) Gardiens de la Gardiole (NIMBY association)	Cabaniers (illegal housing in natural areas)

The main strategic issues identified for Montpellier city region are: land pressure due to housing and agriculture under pressure⁷. They concern diverse types of stakeholders, mostly local governments, land owners, developers and farmers.

- *232. Rural-urban system in Montpellier city-region: major stakeholders, their goals and respective positions (cf substantive issue n°2: agriculture under pressure)*

One of the major issues in Montpellier city-region urban fringes is agriculture under pressure. We are going to detail now stakeholders' strategies and interactions regarding this issue, mostly as farmland and farming are concerned.

(In chapter 3, the urban planning strategy and tools implemented by Montpellier Agglomération will be analysed regarding the objectives of both providing new housing developments *and* saving land).

As the central and most powerful local government in Montpellier city-region, Montpellier Agglomération plays a leading role in local governance. It is a major stakeholder and we are going to analyse its strategy. First of all, these are its main policy goals.

interest - cropland market regulation - but also runs private business, as consultant in land matters for municipalities or other local governments.

⁷ According to our lack of competences in this field, the issue of tourism integration won't be treated in this Plurel study.

Table 4: Montpellier Agglomération's strategy

Overall goals	Objectives for the peri-urban
1. responding to / managing population growth 2. supporting economic growth (sustainable development) 3. saving land (reducing areas to be builded in order to reduce land consumption, but this tends to increase price) <i>and</i> controlling property speculation preserving the long term attractivity by protecting the environment (natural areas, urban transport)	1. higher density housing 2. improving urban transport network 3. managing spatial limits 4. preserving agricultural land and natural areas 5. support to periurban farming 6. waste management (recycling, ultimate waste) 7. flood prevention

Some figures can be given to evaluate Montpellier Agglomération support to farming, as sustainable use of periurban land:

- the global cost of the SCOT, that establishes the sustainable development plan for the Communauté d'Agglomération, is estimated at 2.5 millions of euro (on 4 years, for intellectual production, publications and other communication costs)
- Montpellier Agglomération support to belonging communes for their "urban studies" (prior to their PLU, in respect of the SCOTs objectives) is 50% of the cost and represents an annual budget of 200,000 euro. A new budget line will be open to support communes in the realization of their PLU.
- Some specific supports have been attributed to periurban farming sector by Montpellier Agglomération. They mostly concern wine production with :
 - o the creation of the "Montpellier Agglomération patrimony and vineyard road" and the annual "foire aux vins" in december in Montpellier (budget not communicated) ;
 - o the creation of a "Pole d'excellence viticole" with 8 innovative firms in wine sector in Villeneuve-les-Maguelone (budget not communicated) ;
 - o 200,000 euro support to the building of a farming hamlet in Saint Genies des Mourgues⁸ ;
 - o support to the building of a new wine cooperative for "l'Union des Terroirs de la Domitienne" in Cournonsec (Montpellier Agglomération support not communicated; 500,000 euro from the Région Languedoc Roussillon)

Face to the objectives of Montpellier Agglomération in the field of rural-urban policy, we can summarize other stakeholders position as support or counter.

These stakeholders and their positions have been identified by F. Jarrige during the concertation process for the elaboration of Montpellier Agglomération's Scot (meetings in 2004-05) and several research studies and interviews conducted since then.

⁸ Other public supports: 100,000 euro from the Département de l'Hérault, 80,000 euro from the Région Languedoc Roussillon, 15,000 from the Agence de l'Eau and 805,000 euro from the communes and the benefit of the operation.)

Table 5: Stakeholders position face to Montpellier Agglomeration's strategy
(Support [+] / counter [-])

	1 density	2 transport	3 limits	4 farmland	5 farming	6 waste	7 flood
Developpers	+	+	-	-			
Land owners	+ -	+	-	---		-	+ -
Farmers			+ -	+ -	++	+ -	+ -
Farmers organisations			+	+	++		
Ecolo. de l'Euzières	+	+	+	+		+	
Gardiens de la Gardiole				---		---	
Municipalities	+ -	+ -	+ -	+	+ -	+	+
State representants	+	+ -	+	+	+	+	+
Cabaniers (illegal dwellers)	-	+	-	- +		-	-

This table shows that not all stakeholders are concerned by all issues. Some positions are clearly in agreement or in disagreement with Montpellier Agglomération's policy.

But a lot of objectives of public policies generate ambivalent or divided points of views, even among a same category of stakeholders. This is because these categories, homogeneous according to an institutional or socio-professional point of view, are in fact related to stakeholders with different interests (for example young and hold farmers...). Another explanation is the located impact of some policies (waste management, transport infrastructures...) which generates contrasted positions among the population and its representatives (NIMBY effect). Costs and benefits of Montpellier Agglomération's policy might not always be equally shared by everybody everywhere... Here appears a difficulty we'll have to cope with in the evaluation process to follow.

Farmers are key stakeholders in the rural-urban system of Montpellier:

- they are major land owners in urban fringes;
- Farming and farmers play an important role in land and natural resources management, and as amenities providers: landscape, natural products, cultural patrimony, etc...;
- The threat on farms and farmland's future caused by urban sprawl in urban fringes is unanimously recognised.

That explains why we decided to deepen the analysis of farmers' strategies. All periurban farmers are submitted to the same market pressure, either land market or agricultural products market, in a context of urbanization and globalization. Even though (apart from these common driving forces), it is important to understand that farmers don't form a homogeneous social group. As far as land use is concerned, farmers' situation and strategy differ according to individual criteria: family asset, farming system and position in life cycle.

Table 6: Different possible land strategies for periurban farmers in Montpellier region according to their: family asset, farming system and position in life cycle
(source: Jarrige, 2004)

<p>Land owning farmers (mainly grape growers, either smallholders, members of a wine cooperative, or individual producers, in middle or large estates with own cellars)</p>	<ul style="list-style-type: none"> ◆ carry on farming and reinforce their estate (buying farmland) ◆ farmland partially sold to be developed and <ul style="list-style-type: none"> - capital reinvested in periurban agricultural production - or capital expatriated towards other economic sectors ◆ total liquidation of periurban farmland and <ul style="list-style-type: none"> - exit out of farming - or (centrifugal) shifting to farming in rural area (or eastwards - Roumania., or southwards - Morocco...) ◆ waiting strategies, “land freezing” and <ul style="list-style-type: none"> - no farming ⇒ fallows or “leisure land” (recreative place for week ends) - or land leased in precarious tenancy ⇒ short cycle crops, cereals
<p>Non owning land (tenant?) farmers (mostly cereal growers or market gardeners, horticulture)</p>	<ul style="list-style-type: none"> ◆ maintaining / increasing agricultural activity either by tenant farming or precarious land tenancy or land exchange systems ◆ centrifugal shifting of farming
<p>Would be farmers (New comers or young farmers, all kind of productions)</p>	<ul style="list-style-type: none"> ◆ heirs or investors (outside capital) : no problem ◆ for others : difficult access to farmland (high buying cost, growing scarcity of tenant farming, increasing precarity of tenancies leading to exclusion of public subsidies) and to housing ; possible installation in farming through progressive and / or innovating strategies

It should also be noted that farmers’ productive strategy may differ face to urban proximity. Urbanization brings along constraints and opportunities for farming in urban fringes. Farmers might set up different kinds of strategies face to the proximity of the city, either in the management of their asset, farming system, commercial plan and professional trajectory.

Table 7: Farmers strategies face to constraints and opportunities of urban proximity in Montpellier city-region (source: Jarrige, 2004)

Constraints and opportunities of urban proximity	Farmers strategies
<p>Production constraints</p> <ul style="list-style-type: none"> - growing scarcity and price increase of farmland - traffic problems for agricultural engines (accidents) - neighbourhood problems (mutual nuisances) : noise or chemical pollution, sanitary risks / robbery, vandalism in agricultural estates 	<p>Asset management (cf. previous table)</p> <ul style="list-style-type: none"> - Land owning farmers - Non owning land farmers - Would be farmers <p>Farming systems evolution</p> <ul style="list-style-type: none"> - switching from perennial to annual crops - giving up some productions, specializing in few competitive agricultural productions
<p>Commercial opportunities</p> <p>proximity of urban markets may help promoting direct selling of agricultural products</p>	<p>Commercial strategies</p> <ul style="list-style-type: none"> - direct selling and short selling chains - innovating « basket of goods and services »
<p>Socio-professional opportunities</p> <p>Skill tank in the city / possibility to develop combined activities (farming / non farming)</p>	<p>Professional activities and life trajectory</p> <p>Possibility of part time farming in multi activities system, and/or evolutive professional trajectory</p>

It should be underlined that farmers land strategy is strongly influenced by land developers who regularly put pressure on those who own farmland near built up areas to obtain formal “selling intention”. Land developers also put pressure on local elected to increase areas for future urbanization in local planning document (PLU). This speculative pressure, anticipating future developments, causes severe distortions on farmland market in urban fringes: huge price increases are observed, even if land is not allowed to be developed yet. So **land developers also appear as important stakeholders regarding periurban land use management**, even if they act with discretion. Their position is that they have to face huge housing demand and need land to be open to new developments. Historically, municipalities around Montpellier had contrasted strategies facing this demand: farmland has been more or less preserved, and urban extension less or more sprawled (Montfraix, Delay, 2008). Montpellier city is known to have settled strict but stable rules for developers, thanks to its urban policy served by the longevity of the same political team at the head of the city for more than 30 years⁹. We'll see in chapter 3 how the ScOT aims at giving clear rules on this point, in order to contain and densify urban extension in the 31 municipalities of Montpellier Agglomération.

The following scheme sums up the results of the interactions of the two major kinds of stakeholders in urban fringes, Montpellier Agglomération and the farmers. We have to keep in mind that Montpellier Agglomération can be considered as a strategic actor as local government directed by an elected president¹⁰. Farmers are individual actors, forming an heterogeneous group, even if they have collective organisations supposed to represent their interests. **The problem is that farmers organisations are not able**

⁹ *Montpellier la ville inventée*. Barone, et al. 2008.

¹⁰ Designated by an assembly of representatives, even if the members of the communautary council are not directly elected by citizens to this inter-communal council but delegated by the communal councils of municipalities members of Montpellier Agglomération.

to defend strong positions on periurban issues, because of the huge divergence of interests among farmers between productive strategies (those who want to carry on farming) and patrimonial strategies (those who want to earn building added value by selling their farmland to be developed).

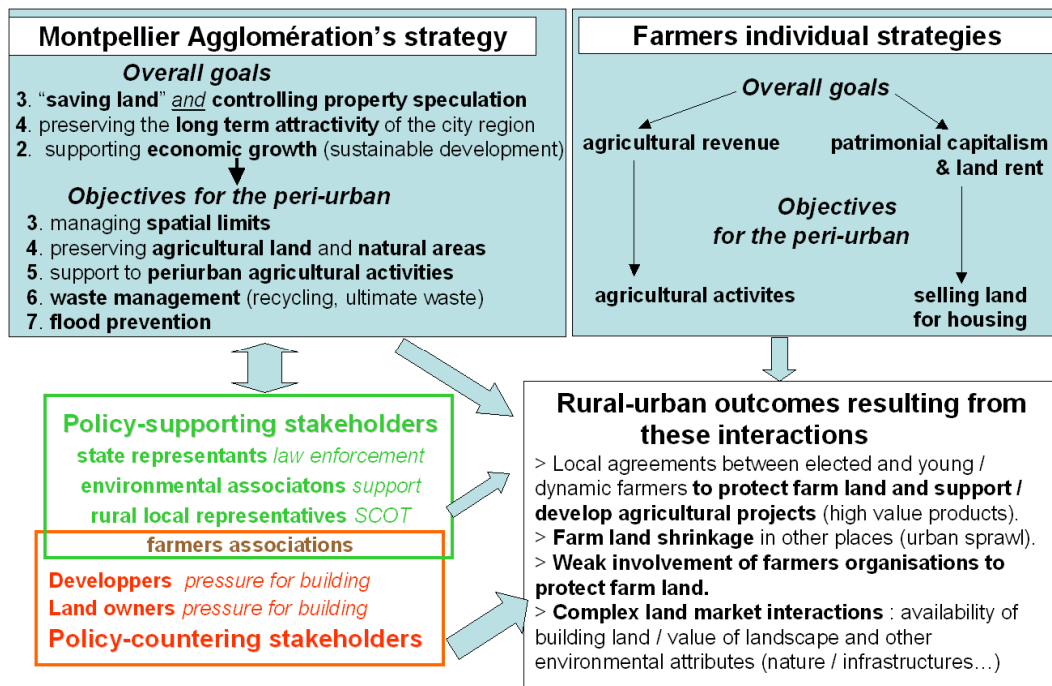


Figure 10: Rural-urban effects of interactions with farmers

- 234. Discourses, representations and practices related to a "sustainable management of periurban farmland" in Montpellier Agglomeration

During summer 2008, enquiries were conducted in 3 communes of Montpellier Agglomération (Castrie, Fabrègues, Pérols), in order to describe the current state of periurban farming systems in urban fringes and to assess their sustainability (Delay, 2008. Montfraix, 2008). Different types of stakeholders have been interviewed and this allows to give a more detailed description of positions and discourses about what could be a sustainable management of farmland in urban fringes... well, for those who care! Which is not always the case? Precisely, people were asked: "According to you, what is a sustainable management of periurban farmland (/farming)?". As discourses are not enough to characterize social reality, we tried to cross people's discourses with their actual practices related to the management of periurban spaces. The following table gives a synthesis of the results of these interviews.

Table8: Stakeholders discourses and practices regarding sustainable management of periurban farmland of Montpellier Agglomération (source: Delay, Montfraix, 2008)

Stakeholder's Function	Stakeholder's definition of sustainable periurban land use	Stakeholder's own practices regarding periurban land
1. Mayor of Pérols Retired dentist	Sustainable development means sparing energy in buildings, housing with HQE (high environmental quality)	No real control of urban sprawl during all his mandates. But aware of the necessity to translate into acts the issue of sustainable development (efforts in public infrastructures)
2. Local elected of Fabrègues, mayor's deputy in charge of urbanism	<i>It is a development project to which everybody is associated. The issue is to protect life quality and agricultural landscapes as they are parts of local tradition. They have to be preserved for our children.</i>	(historically) Weak limitation of urban sprawl. (recently) Building of a tourist resort authorized in the very heart of the agricultural area. Has no clear knowledge of farmers and farming in the periurban area.
3. Former mayor of Castries (1977 -1995) co-founder of the association Jardins de l'espoir (hope's gardens)	<i>They are the areas where leisure activities, tourism and farming can take place and develop together.</i>	Leader of Castries landscape protection association. Has limited and concentrated urban extension to non farming land during his mandates as mayor.
4. Local elected of Castries, mayor's deputy in charge of sustainable development Farmer	Avoiding fallows and land speculation, maintaining the traditional agricultural character of the village. Preserving the image of green lung of the agglomeration.	Urbanization controlled and limited on agricultural areas (visible in the PLU). Setting of a policy to support farmers.
5. Farmer (market gardening) in Castries, former grape grower	<i>Urbanization should not consume all available farmland and current landscape should be preserved</i>	Still... she sells her own farmland (former vineyard). [To whom?] Took care of the landscape integration of her greenhouses. Underlines the necessity of economical viability of farming for the farms to be sustainable.
6. Grape grower A in Castries	<i>Only the diversification in market gardening and fruit production seems a viable solution to maintain farming in urban fringes.</i>	Will leave his land to fallows when he will retire, except if farm business starts again.
7. Grape grower B in Castries	<i>It would require to find a higher value production in order to maintain farming.</i>	Will sell his wines after he will retire if he finds a buyer, or else he will pull them out.
8. Vice president of the Association Terres vivantes (« living land »)	Freezing land status, support to farming business, helping new farmers to become true entrepreneurs... all should be done in concertation with the population.	Implied in several non governmental actions: creation of a collective society (SCI) to buy and preserve farmland, creation of farmers markets, and support to people in social difficulty who want to become farmers...

<p>9. Urbani st, Montpellier Agglomération</p>	<p>To ensure its sustainability, it is necessary to combine the different functions of a territory: economic, social, landscape, ecology, patrimony, etc... (= multi - functionality concept). Citizens have to become aware of the cost of public spaces.</p>	<p>“Green zones” are drawn in the Scot – “urbanistic” vision or conception of farming (“it is <i>landscape in the city</i>”). Pedagogical issue of showing to local representatives the importance of agriculture.</p>
<p>10. Land service Director, Montpellier Agglomération</p>	<p><i>Maintaining the quality of everyday life environment becomes an essential objective.</i> <i>It is necessary to combine housing and natural spaces.</i></p>	<p>In favor of strong public action, but underlines its limits : weakness of financial means, lack of political will of elected, deficiency of agricultural stakeholders</p>
<p>11. Land service, Montpellier Agglomération, in charge of land transactions Former farmer in Mauguio</p>	<p><i>A sustainable management implies the will to maintain productive farmland.</i></p>	<p>In charge of land acquisitions for Montpellier Agglomération, price negotiations to obtain agricultural price (NB: for housing or other public projects). Montpellier Agglomération has no land preemption right or expropriation power to protect farmland.</p>
<p>12. Land service, Montpellier Agglomération, in charge of instructing building permits</p>	<p>Farming needs a foreseeable and secured environment to be perpetuated. And this depends on 3 factors: land status, a clear political will and the age of the farmers.</p>	<p>?</p>

Ch. 2.4 Conclusion of chapter 2

As conclusions of this chapter we can sum up the main informations:

- *in France, the national urbanism code and other national laws give the framework for spatial planning, which is conceived and implemented by local governments, at communal (PLU) and inter-communal (ScOT) levels;*
- *the local government in charge of the ScOT can thus be considered as the most powerful stakeholder regarding the management of periurban land use of a city region, which is Montpellier Agglomération in our case study;*
- *the main objective of Montpellier Agglomération is to carry on feeding the local economic growth on the basis of growing population, which supposes new housing and infrastructures development ; but contrary to what happened during the last decades, these new developments have to be coordinated between municipalities and realized with higher density in order to preserve the long term attractivity of the city region;*
- *the preservation of farmland and farming in urban fringes then appears as a challenge for Montpellier Agglomération, even if it seems unusual as an urban policy at first sight;*
- *farmers are major stakeholders for land use in periurban areas (also as land owners) ; though, they don't defend a strong position face to Montpellier Agglomération and generally in the territorial governance arena on this issue, because of inner divergence of interests, between patrimonial and productive strategies ; another reason may be that farmers effective collective actions take place at a more local scale than the city region;*
- *the territorial governance apparatus born with Montpellier Agglomération and the ScOT is quite recent : stakeholders are searching for / experiencing new positions and interactions, the elaboration of new collective rules is on.*

After this presentation of institutionnal setting, main issues and main stakeholders' positions on periurban land use, the following chapter will detail the strategy of the main stakeholder, Montpellier Agglomération, through its SCOT.

Ch. 3 Regional spatial planning- and decision making strategies and their impact on the urban fringe

In this part, the idea is first to present the main issues for periurban areas in order to establish a link with the PLUREL' problematic. Then, the strategy of the main stakeholder, Montpellier Agglomeration, will be explained through its SCoT. Linkages with other strategies or scales will be made before to focus on the SCoT and its spatial implementation.

Ch. 3.1 Introduction

- *What are the main substantive issues for the region?*

Today Montpellier region is the theatre of housing development. This development is caused by population growth in the region and leads to an important change of urban morphology. It is in the urban fringe that this change is the most visible.

Actually, numerous agricultural estates are now sold and thus converted into housing estate. This example results from several facts. It is what we will show in this introduction.

- *Issue 1: land pressure due to housing development in the urban fringe*

First, Montpellier city and this region are very attractive in France. A lot of people really want to live there due to pleasant climate, remarkable geographical situation, region dynamism... It leads to an important population growth, a real "sun immigration".

Secondly, as there is a change of housing preferences, urban fringe are now more attractive than the central city area. It seems to be the right place for families wanting a new life setting. These families continue to work in the city centres but prefer to live in urban fringe where they like the landscape setting. This situation is synonym of space consumption as large places are devoted to transports framework. In other terms, Montpellier region is not only more and more populated but also larger and larger with a decreasing density (*sch: Space evolution from 1960 to 2004*).

Finally, land price is growing up that leads to land discrimination. Families and higher income groups live in housing estate with private gardens whereas the others don't have the choice and sometimes have to live in hold buildings in city suburb without any way to escape.

- *Issue 2: Agricultural land in the urban fringe under pressure*

Always due to land price growth, pressure is made on farmers to lead them to sell their lands as the farming system is no longer economically competitive in a context of globalization and urbanization. Simultaneously it implies the deterioration of social and physical quality of life with pollution due to traffic flows, landscape changed caused by land pressure, the end of agricultural lands, time passed travelling to and from work and time not-passed for social relations...

It is also the beginning of the biodiversity end. Now, European commission gives a lot of money to farmer in order to maintain agricultural activities. Perhaps it is the moment to think about a new form of agriculture linked to urban world?

The region of Montpellier presents two main issues in urban fringes represented by “land pressure due to housing” and “agricultural land under pressure”.

- *Is there any link with the PLUREL project?*

These issues are the most important for all regions, except maybe for Leipzig. So, effects building development, that are detrimental to spatial cohesion, and farmland abandonment due to rising land prices and uneconomic farming, even though farming can contribute to spatial quality and quality of life for men and wildlife, are an important parts of PLUREL analysis. There are the main issues for PLUREL.

In order to speak about troubles on urban fringe inducted by the two issues presented, it is useful to make an urban diagnostic using the five terms that Thomas Sieverts¹¹ in *L'entre-ville, une lecture de la Zwischenstadt*, presents to describe peri-urban area.

To conclude, what about global urban ideas?

- *Urbanity*

Urbanity, that is not a definition of an urban typology that leads to a city form, speaks about a high probability to make social linkages. Thus, it is possible to use this term for urban fringe where people are spending a lot of time in their car, where they cultivate their own private gardens, where there is a real lake of urban spaces where we can establish social relations?

- *Centrality*

It is impossible to speak about centrality for urban fringe even if first idea that we have about urban fringe is represented by concentric circles with the city core at the centre. In fact, urban fringe inhabitants use urban facilities but not specially the centre's ones. A man can work in Montpellier, his second child can go to the village's school and his eldest child can go to a technical school in a close little city. For their activities they can go to a local swimming-pool or in an important cinema complex in urban fringe. That's why we can see this way to live as an insular way. In other terms, centrality¹² scheme is replaced by a scheme composed of different islands (work, school, leisure ...) and some links between. This links are very important. (*sch: Insular way of life*)

- *Density*

As it was already said, the urban density is decreasing. But there is a question left. Which density are we speaking about? And, does density make urbanity?

- *Mix*

Spatial segregation due to high land price. Families and higher income groups avoid the urban residential areas on the one hand and lower density housing in a context of shrinkage on the other. This fact doesn't establish sustainable social relations.

- *Ecology*

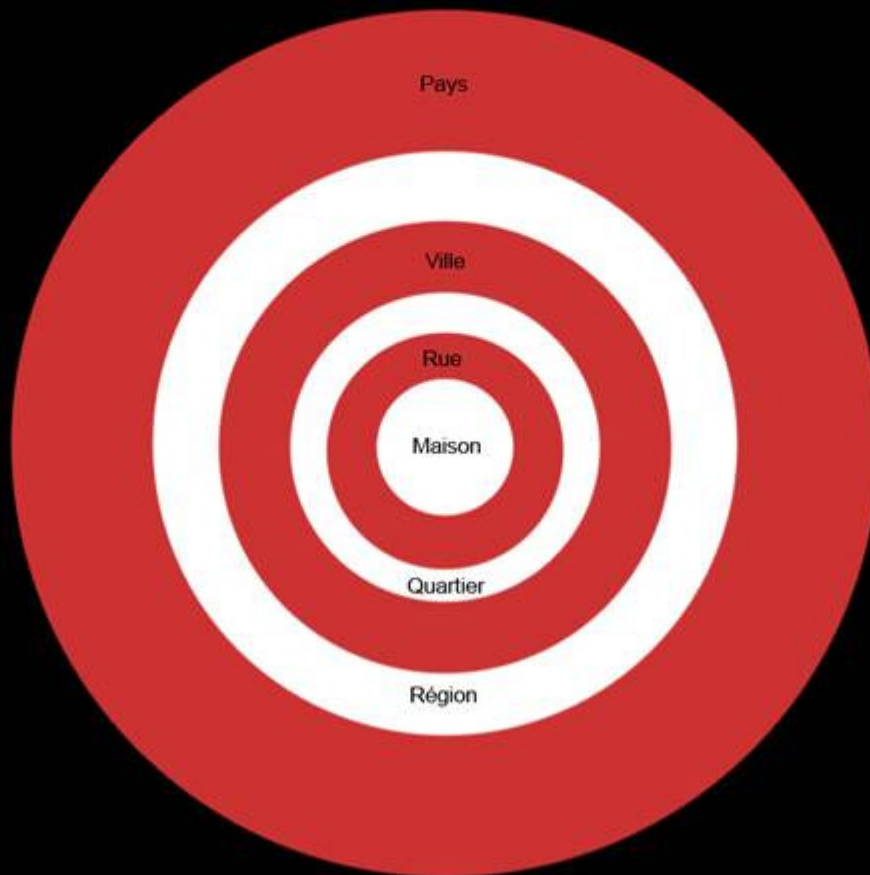
What can we say about environment? It's obvious that the landscape quality is decreasing and the pollution increasing. But, it is important to say that landscape and environment are always considered as things to protect and not as important components of the way of life. Does this protectionism really help environment? Can environment use as a tool of urban planning assure a high and sustainable quality of life?

The case study of Montpellier agglomeration presents issues in relation with the PLUREL approach. This approach leads to question some key-words or urban concept like urbanity, centrality, density, mix or ecology.

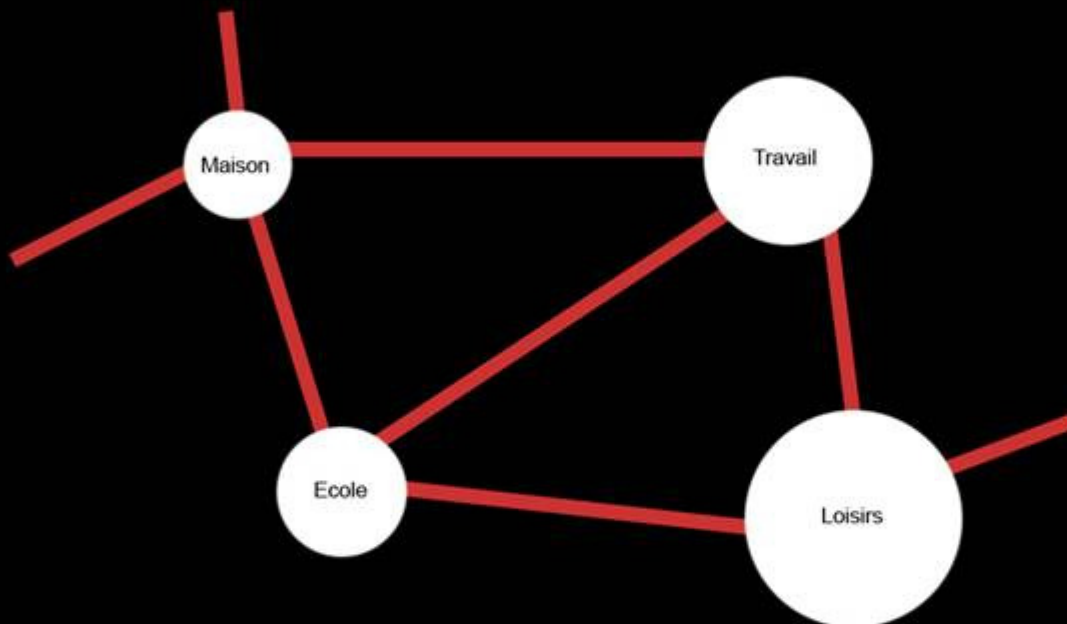
11 - Sieverts (Thomas), *Entre-ville, une lecture de la Zwischenstadt*, Marseille, Parenthèses, coll. « eupalinos », 2004, 188p.

12 - Alexander (Christopher), *A city is not a tree*, New York: Architectural forum, 1965, 210 p.

Insular way of life



Dependance of peri-urban areas from centres: an out-moded model



Intependance of peri-urban areas and cities: an insular way of life

Ch. 3.2 Strategies to counter the termination of agricultural land use in the urban fringe

- *The SCoT and other tools for urban planning in France*
 - *Complex linkages between urban tools*

As presented in chapter 2, there are several different tools for urban planning in France. Coherence between these tools is a challenge. This table represents how an objective from a SCoT may be represented in the other documents.

Table 9:

Example of a SCoT objective	In the PDU	In the PLU	In the PLH
Priority to urbanisation along collective transports (CT) lines	<ul style="list-style-type: none"> - Intensify the CT offer - Create a hierarchy in the street - Inter-modality CT / bikes - Limitation of parking for city centre workers, creation of an exchange pole 	<ul style="list-style-type: none"> - Parking rules in relation with localisation / CT - Prospect for urban projects to dynamism - Define density levels, quality of pedestrians paths, bikes parking rules 	<ul style="list-style-type: none"> - Rehabilitation policy for housing in a strip of 300 metres centred on CT - Define type of housing (area, social or not...)

- *The same purposes for agglomeration's planning*

The **main orientations of public policies regarding urban planning** – that all these planning tools are supposed to implement – follow the three basic principles defined in the urbanism bill (L. 121-1) that assure the global coherence :

- **Balance principle:** This principle has to be applied at two scales; first, between urban territories and territories of rehabilitation or extension and then between urbanisation and natural spaces protection.
- **Principle of urban diversity and of social mix in housing:** For satisfaction of actual and future needs, in relation with the balance employment/housing and the different means of transports for example.
- **Principle of thrifty spaces use:** Mastery of moving needs and of car uses, quality protection of air, water, land, ecosystems, green spaces, natural or urban landscape, ...

- *Main objectives for sustainable development*

These principles have been detailed seven objectives that composed the concept of **sustainable development**. This concept is the core of global policies of territorial planning. That's why SCoT aims have to deal with these objectives, as also the other urban tools.

Objective 1: To assure diversity of territorial use

Objective 2: To facilitate integration of urban population

Objective 3: To enhance patrimony value

Objective 4: To be watchful to a thrifty use of resources

Objective 5: To assure public health

Objective 6: To organise territorial management

Objective 7: To favour local democracy

- *Main objectives for sustainable development in Montpellier Agglomeration*

At the scale of the agglomeration, means to achieve these purposes have to be visible in spatial terms. In the case of Montpellier urban fringe, these objectives are not achieved as there is:

For objective 1: A lot of mono-functional area and housing use domination

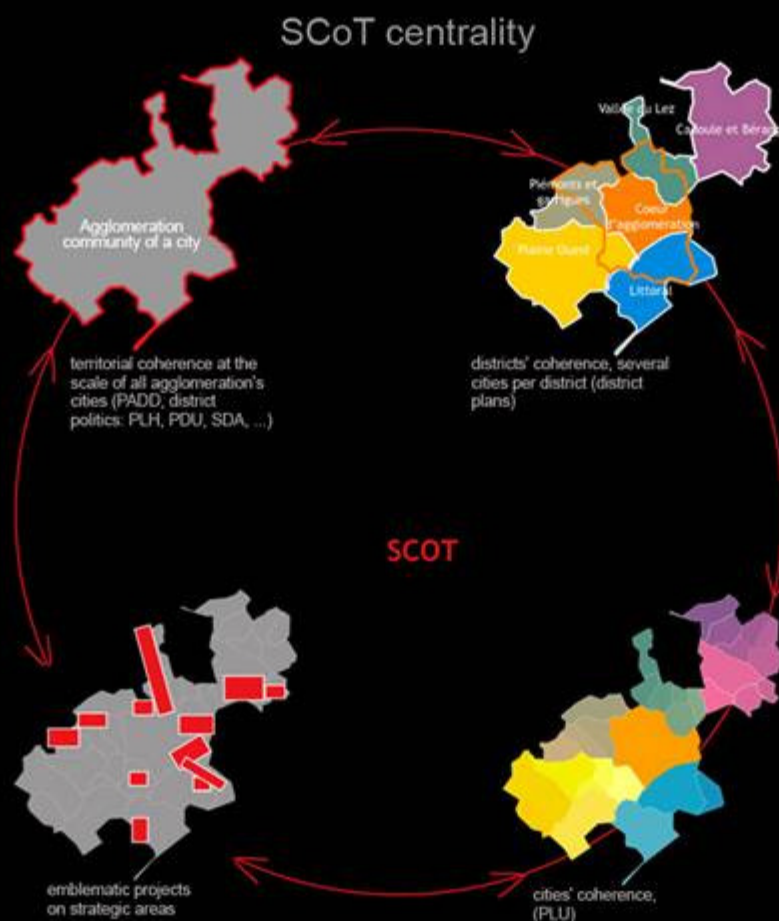
For objective 2: Segregation of urban population

For objective 3: Decrease of patrimony value

For objective 4: Sprawled city, decreasing density level, agriculture under pressure

For objective 5: pollution created by daily transports

To conclude we can say that a SCoT has the hard task to combine two important issues: urban planning and sustainable development. Other documents are linked to the SCoT and common objectives assure the coherence between them. For Montpellier case, in 2001, agglomeration representatives decided to realise a SCoT for their territory in order to achieve global objectives of sustainable development and to solve urban troubles. The team composed by Reichen & Robert Company (for urban planners) and by Alfred Peter agency (for landscape design) have made the proposal approved by agglomeration. This SCoT is very famous in France even if it is very difficult to have an evaluation of the results as time scale is very large.



- *The SCoT (Scheme of Territorial Coherence), the right tool for the right scale?*

As it was already said, SCoT seems to be in France our main tool to manage urban planning for urban fringe. It is important to say that it is not only a spatial proposal; it is a real urban process with different phases. SCoT is a long-term planning exercise.

- *3.2.2.1 The Presentation's report (PR), a dynamic diagnostic*

As base of SCoT orientations, the diagnostic is an important phase. It has to underline mechanisms composing territorial development and to clearly show project issues. His elaboration offer also precious exchange time between different actors, where it may be possible to build a real, concrete and prospective territorial image.

This image has to be a dynamic one. It is impossible to content with a simple photography of present situation; it is fundamental to make the assessment of passed evolutions and future potentialities.

The presentation's report has to present territorial dynamics under four axes: urbanism, environment, social and economy. With this complete presentation, it has to be possible to determine what the main strategic territorial issues are.

Four inter-dependent issues (pr):

- Urbanism
- Environment
- Social
- economy

- *From the Planning and Sustainable Development Project (PADD) to the Orientation's Document (OD): from purposes to spatial prescription*

Just after the diagnostic that speaks about territorial assessment and strategic territorial issues, the Planning and Sustainable Development Project (PADD) of the SCoT has to define what the main strategic choices are in term of territorial organisation and development. These choices have to be presented in concrete and prospective way in the Orientation Document (OD).

The Planning and Sustainable Development Project (PADD) has to elaborate prospective scenarios where urbanism, environment, social and economy have to be linked. As it allows making a real choice, prospective and alternative scenarios elaboration seems to be an interesting process to build a development strategy. The scenarios construction has to include in a dynamic and interactive process. Then, urbanism, environment, social and economy impacts of each scenario have be clearly presented to throw light on the choices to make.

Staying always at the orientation level that is to say at principle level, the Orientation Document (DO) has to describe spatial orientations, to give project phases, to quantify and to qualify principles and then to identify structuring projects.

To describe spatial PADD objectives, without making a strict delimitation: To identify in a schematic way strategic spaces, to describe linkage principles...

To give project phases (in short and long term) identifying priorities

To quantify some objectives, giving size order (maximal areas of spaces to urbanize ...)

To qualify the urbanisation nature of different sectors: To give more details about principal functions of exchange poles or of an equipment, to define urban principles for a pole (constructions in continuity with existing, priority to urbanisation of empty plots in existing urban area) ...

To identify structuring projects to realize (transports infrastructures, important equipments...), giving possibilities to inferior level documents to precise architectural characteristics.

- *The SCoT, a step of a large process*

Actually, SCoT elaboration is not the process finalisation. It is only a step of a large process including implementation, animation, and evaluation. In order to do this it is important to:

Maintain partnerships, in order to mobilize and to give responsibilities, in long term, to actors implicated into SCoT elaboration and to maintain coherence between all urban policies on territory, notably the PDU, the PLH and the PLU.

Set evaluation tools up to better understand mutations, notably in terms of mobility, to evaluate policies effects in relation with SCoT objectives, and to constitute a help to decisions.

Anticipate accompaniment devices

- *Seven years after the SCoT's creation: what the result?*

The most important fact concerning SCoT results is the real awareness of local representatives in term of territory. Now, more than seven years after the SCoT creation, around 60 SCoT have been approved and 251 SCoT are in hand in different elaboration levels.

The logic of territorial coherence has led local representatives to reason at an unusual inter-communal scale. Considering this fact, a new balance between rural and urban spaces has appeared giving more power to rural communes. But, one of the SCoT difficulties is to maintain a good relation with local representative as the SCoT role may appear as a judge one. However it is important to maintain an adviser role for communes. Then, the unusual scale of space and time proposed by the SCoT elaboration requires a real capacity ok working on varied subjects.

The SCoT is divided into three documents in order to:

- present a dynamic diagnostic of the area
- propose a project for the zone
- give some orientation for prospective.

Actually the SCoT is a step of a large process of urban planning. Now, seven years after his creation, first results are available.

Before presenting the Montpellier SCoT, others SCoT have to be shown in order to have a real comparison base.

LORIENT SCoT

How to deal with urban sprawl?

24 communes,
200 000 inhabitants



No recommended urbanisation:
sprawled houses in the plot middle

Recommended urbanisation:
grouped houses along streets and
densification



In Lorient, the SCoT try to limit housing sprawl, notably along the coast

RENNES SCoT

"Urban fields" to protect landscape

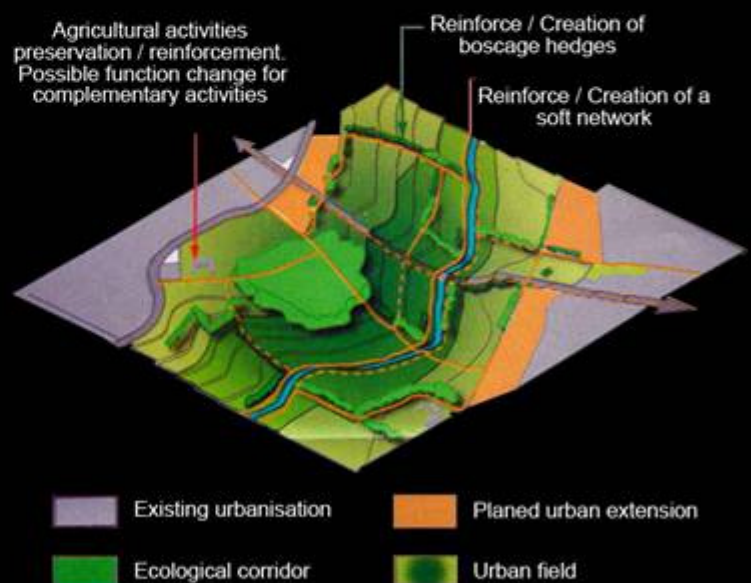
64 communes,
460 000 inhabitants



-  Main natural and touristic areas
-  (1 to 11) Main touristic leisure areas and touristic development project
-  Main natural sites
-  Main urban and architectural sites
-  "Urban fields" to protect in each commune



Between urbanised areas, "urban fields", natural or agricultural areas, are persevered or reinforced



- *The case of the Montpellier's SCoT, a planning tool from the urban to the rural scale including the urban fringe.*
 - *"Sight inversion"*

In order to make a proposal for the Montpellier SCOT, Reichen & Robert and Alfred Peter agencies decided to inverse their site sight. Actually, as the SCoT elaboration is a work at an unusual scale requiring a lot of capacities, agencies continued in the unusual way proposing a new understanding for the SCoT site.

In spite of regarding Montpellier agglomeration as victim of urban pressure, the idea was to begin with site qualities. It appears that the most important quality was landscape.

Considering landscape quality as an objective for the SCoT don't only want to say that landscape have to be protected but also that landscape qualities have to be reinforced. The SCoT concept was to present landscape and natural and agricultural spaces as bases of territorial planning. It is a very unusual way to plan territories since usually it is the city design that makes the rural design. But, there, priority was given to landscape to let "the green" draws the territory.

"Sight inversion", name of the proposal made by the two agencies, has been a real innovation. Reichen and Robert agency has received the French urban price for the work. This fact really shows that priority is made to global coherence and that landscape interest become bigger and bigger. With SCoT activities, balance between urban and rural spaces is at stake. For urban fringe it is a real challenge not to consider only their landscape as a space to protect but also as an asset.

In order to explain a little bit more what does "sight inversion" mean, it is necessary to talk about how green spaces around cities are considered usually. They are regarded as spaces free for housing. This fact leads not only to cities' dissemination but also to a lack of landscapes' senses. The "sight inversion"¹³ proposes to consider green spaces as great city's quality. Nowadays it appears that this work on landscapes is a way to create a synergy between different actors in the project. It also allows building together a geographical base for the projection. Actually it is the only way to create a relationship between all different parts of the urban and complex area.

Dynamic diagnostic, taking "sight inversion" into account, describes the SCoT territory characteristics. Notably, a large part is made to landscape analysis. Next schemes explain main analysis results (*Scheme: Project's bases*)

The first one presents the different hydraulic typology on the territory. The site geology defines three different areas from the sea to hills. This fact is a very important data to urban development as it is impossible to urbanize in the same way coast and hill spaces.

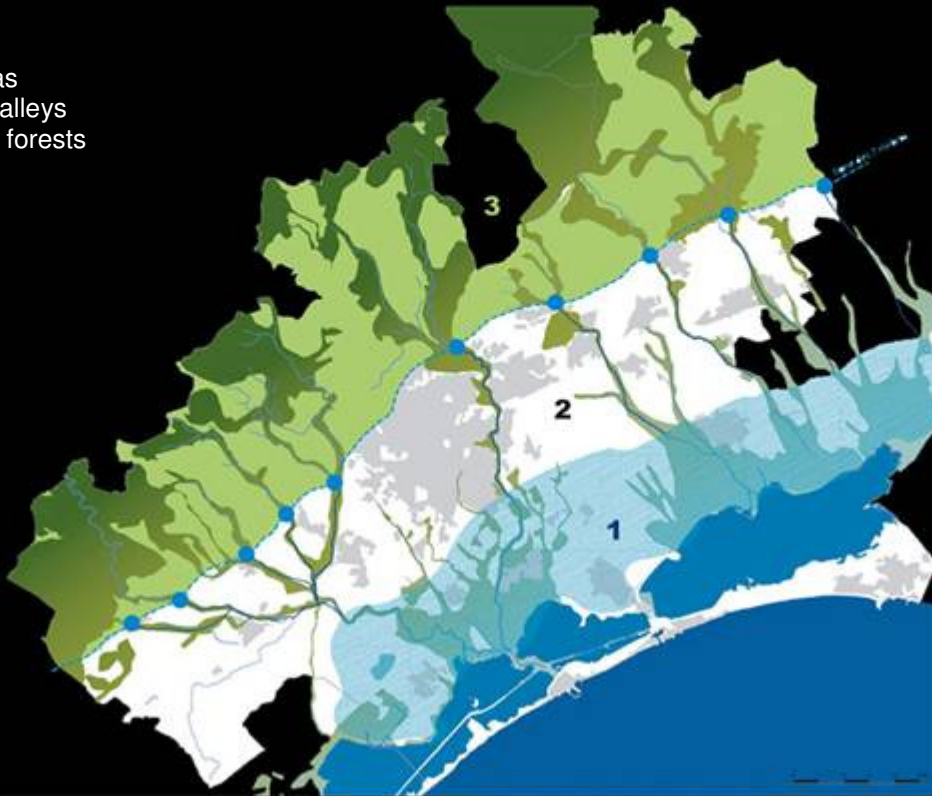
The second one shows the large panel of agro-physiognomic typologies. Their varieties have to be protected and developed by project's orientations.

The SCoT of Montpellier developed an innovative point of view, the "Sight inversion". The first step to this work is to show the existence, the quality and the structure of the rural lands in the perimeter.

¹³ Masbounji (Ariella), *Penser la ville par le paysage*, Paris, Ed. de La Villette, Coll. « Projet urbain », 2002, 97 p.

Hydraulic : The project's base

1. Sea areas
2. Rivers' valleys
3. Hills and forests



Agro-physiognomic unites : The project's base

Due to map's scale, it is quite impossible to locate here the different agro-physiognomic unites. But the main idea is to show the complexity of spaces.

Some unites presented:

- Urban spaces
- Recreation spaces
- Quarries
- Moor lands
- Olive grove
- Different types of vineyard
- Different types of agriculture
- Marsh lands
- Ponds



- *Three axes for one project*

In the SCoT proposal three axes have been considered as the most important ones. It is the complex combination of these three main axes that creates the project. (*Scheme: the three values of the project*)

The first one is the consideration of natural spaces as a real partnership to urban development, as it has been already said.

The second, “a shared city”, deals with urbanity’s idea, proposing to promote social relationships.

The third, “a thrifty city”, presents the necessity to preserve resources.

The SCoT is composed by these three priorities and, as the SCoT role is central, these three axes are also in the others types of urban planning such as PLU, PDU, PLH and ZAC.

The key points of SCoT are the ideas of:

- a natural city
- a shared city
- a thrifty city

The three values of the project

A "NATURAL" CITY
Consider natural spaces as the urban development partner

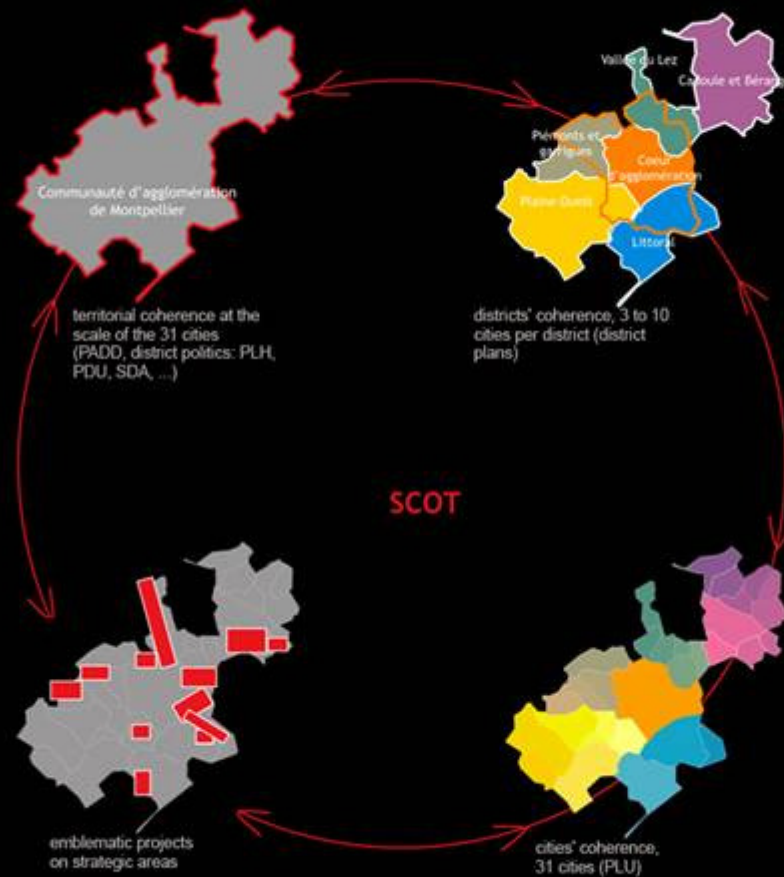


A SHARED CITY
Promote a city of proximities at the metropolitan scale



A THRIFTY CITY
Intensify economic development, save space





- *The coherence at different scales*

These three axes have to assure the SCoT coherence at the different scales. Territorial coherence is a real hard task of the SCoT elaboration because it is important not only to promote global interest of the agglomeration but also to maintain local balance at the communes and sectors scale.

(Scheme: the project's spirit)

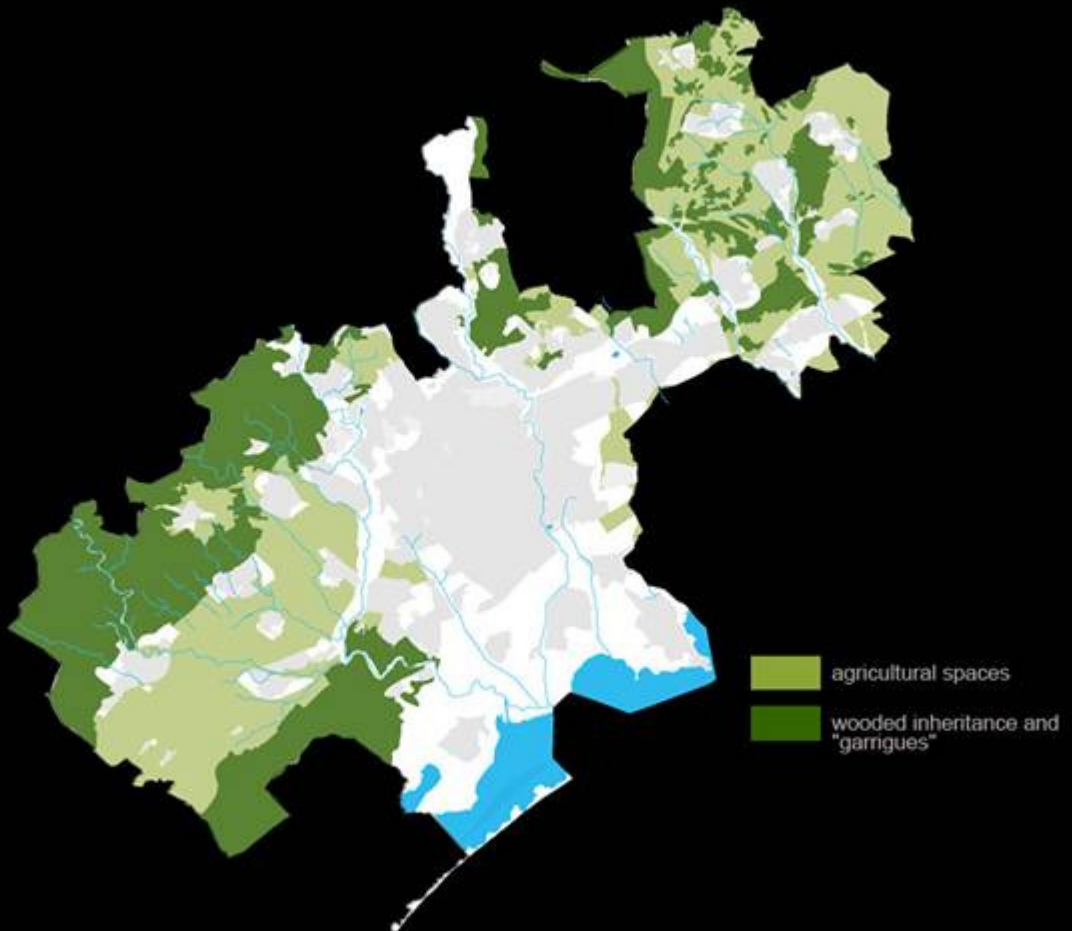
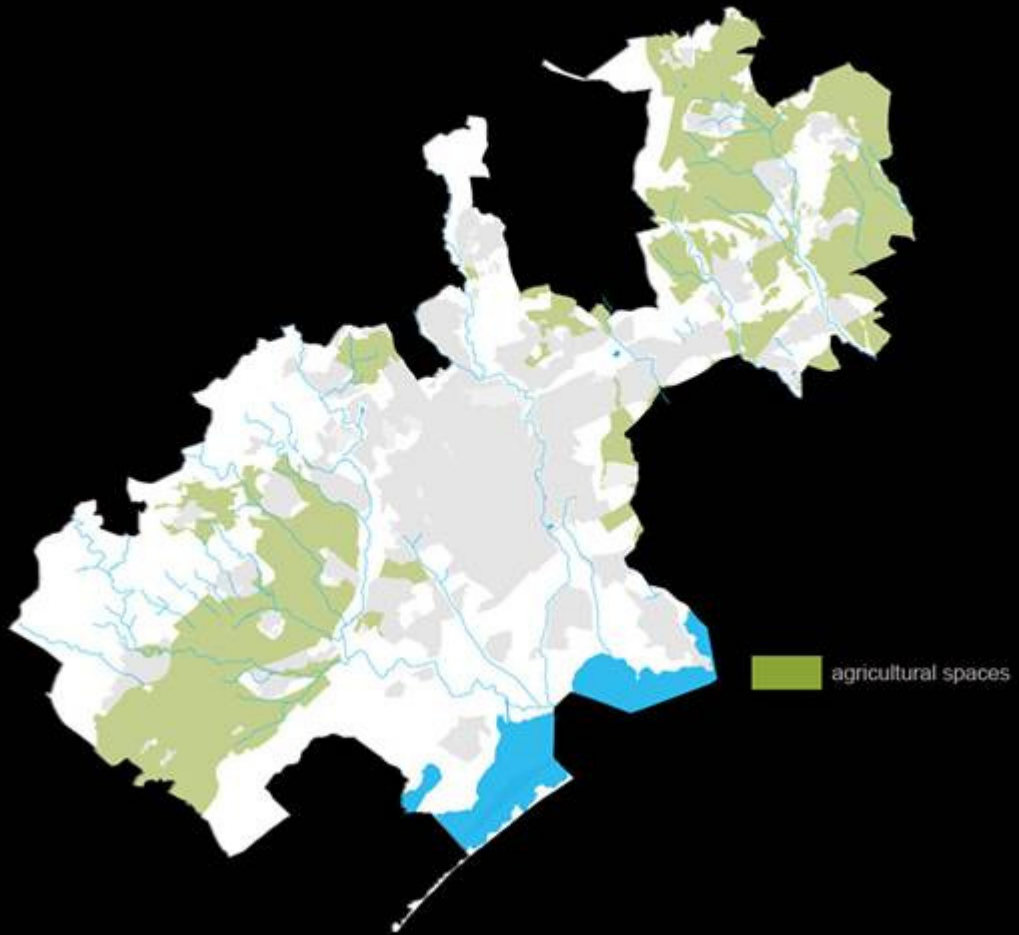
SCoT also proposed some emblematic projects in strategic areas to give dynamism to urban development.

- *The landscape's construction*

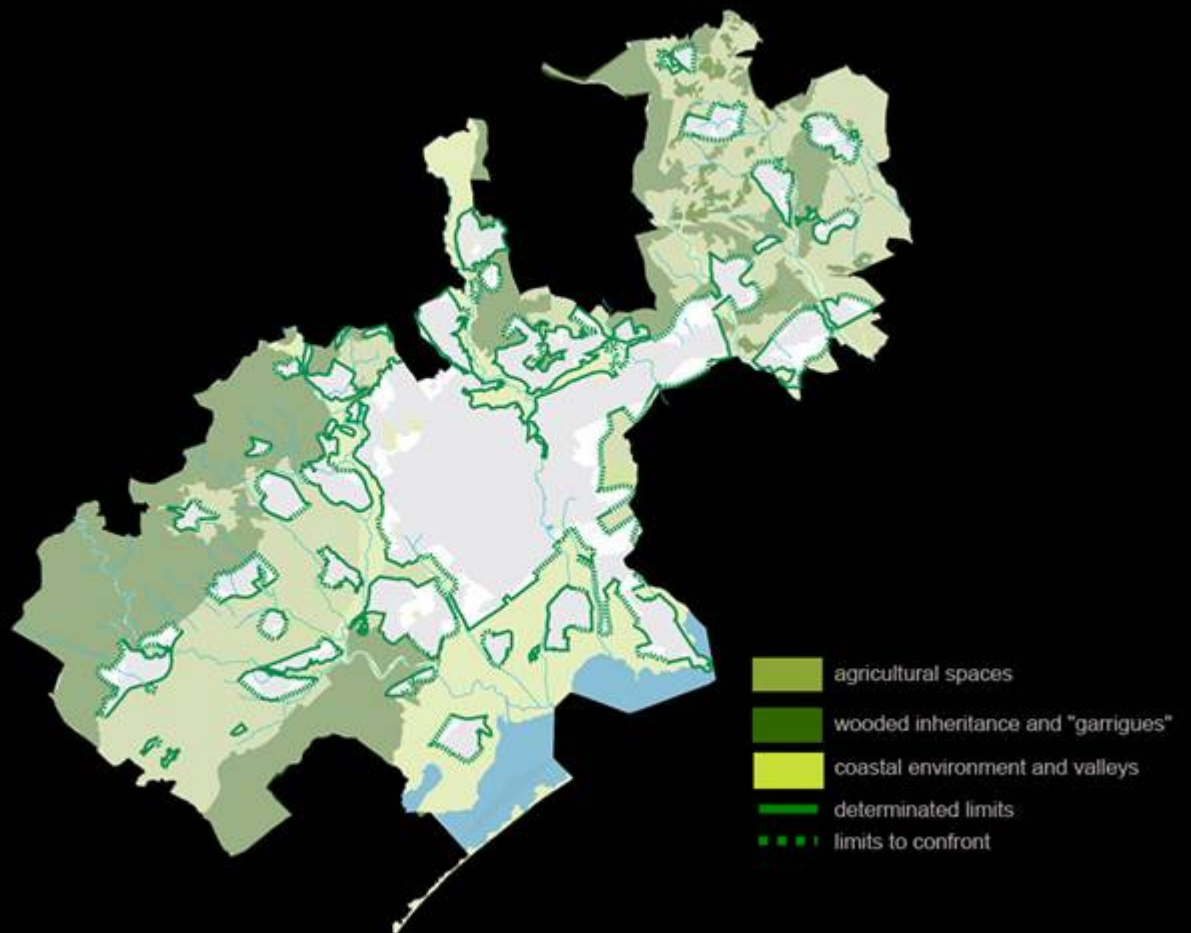
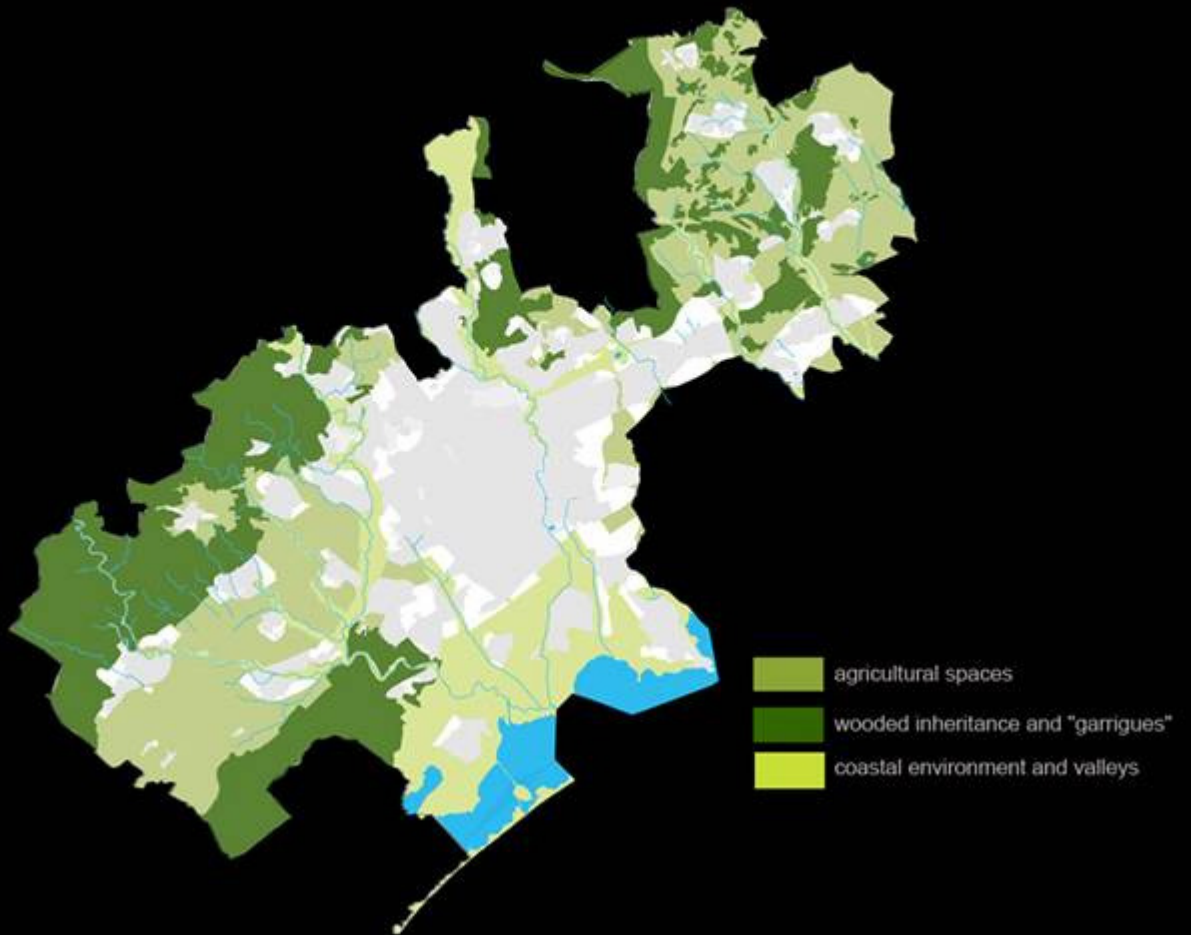
SCoT elaboration replies on the analysis of these values not only for the present situation but also for prospective. The four next schemes present natural and agricultural framework of "the natural city". The fourth explains SCoT orientations in term of landscape. A special importance is given to limits. These are shown as a key-point of the linkage between urban and rural spaces.

(Schemes: Natural and agricultural space' framework)

Natural and agricultural spaces' framework



Natural and agricultural spaces' framework



- *The link between landscape and transportation*

In term of circulations, priority is made to soft circulations at the local scale but also at the agglomeration scale. These circulations establish a real link between the different landscape typologies.

(Scheme: Continuous landscape, the soft circulations)

Traffic network have also to be rehabilitated with the valorisation of the streetcar impact. Influence area of public transports such as streetcar is essential in term of traffic and of urbanisation. Actually, influence area of streetcar implies many space consequences such as high density level, few car parking possibilities, some important exchange poles in the peri-urban areas.

(Scheme: Framework of moving networks)

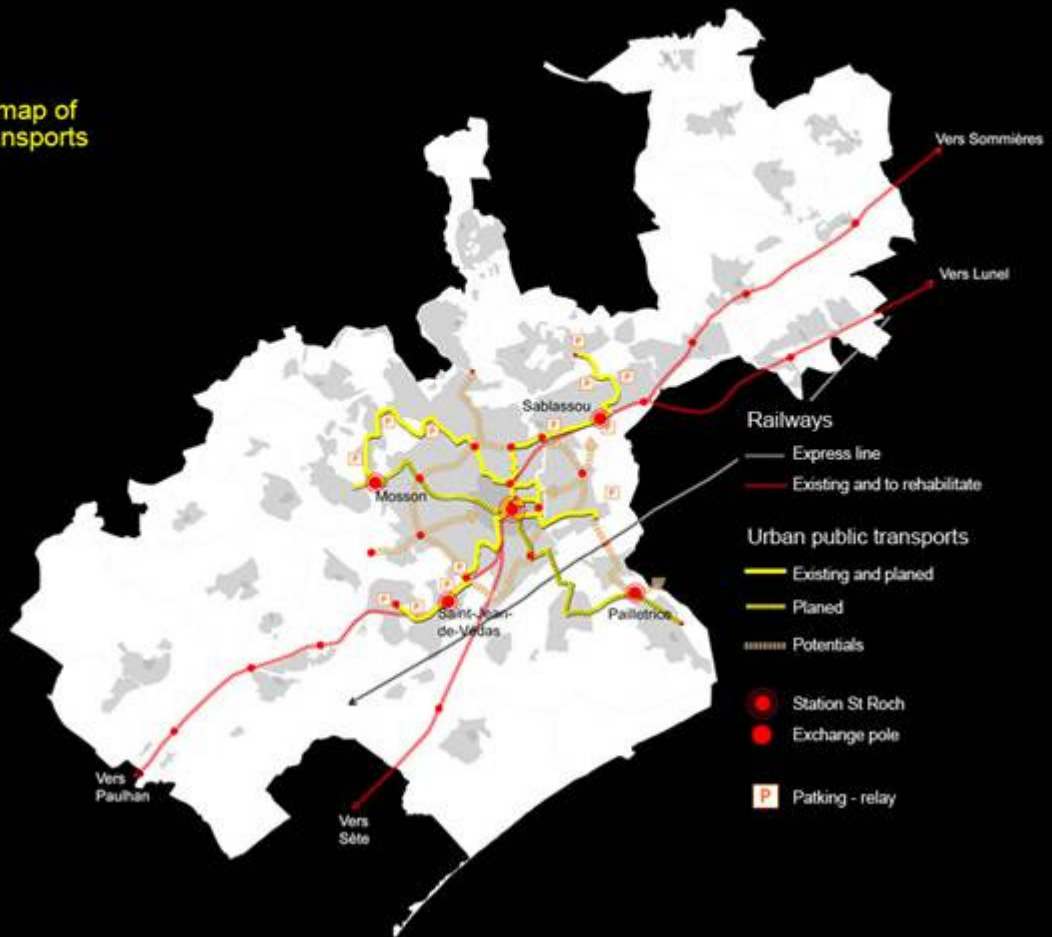
Issue of moving framework is related to the second project value, “the shared city” where it is question to promote urbanity with proximity. The soft circulations make the link between the two first values of the project, a natural and a shared city.

Continuous landscape : the soft circulations



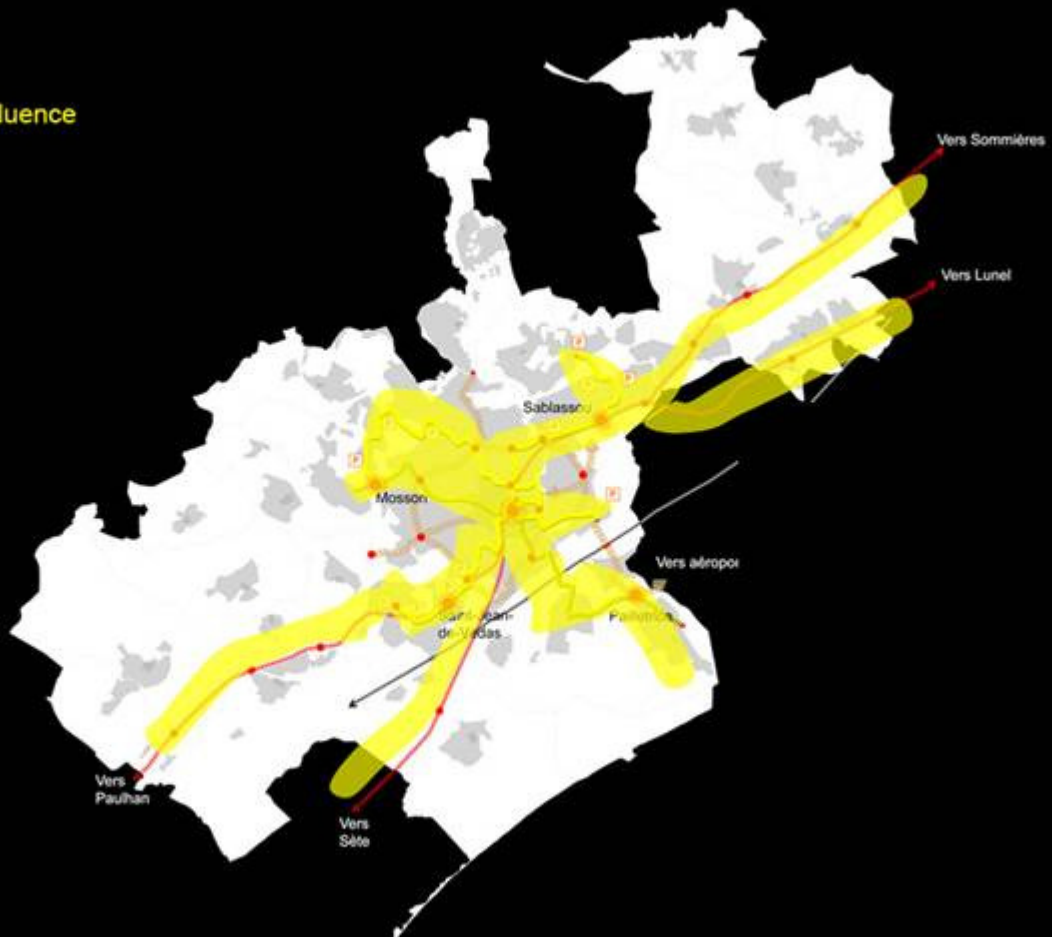
Framework of moving networks

General map of public transports



Framework of moving networks

Tram's influence



- *The definition of the moving network*

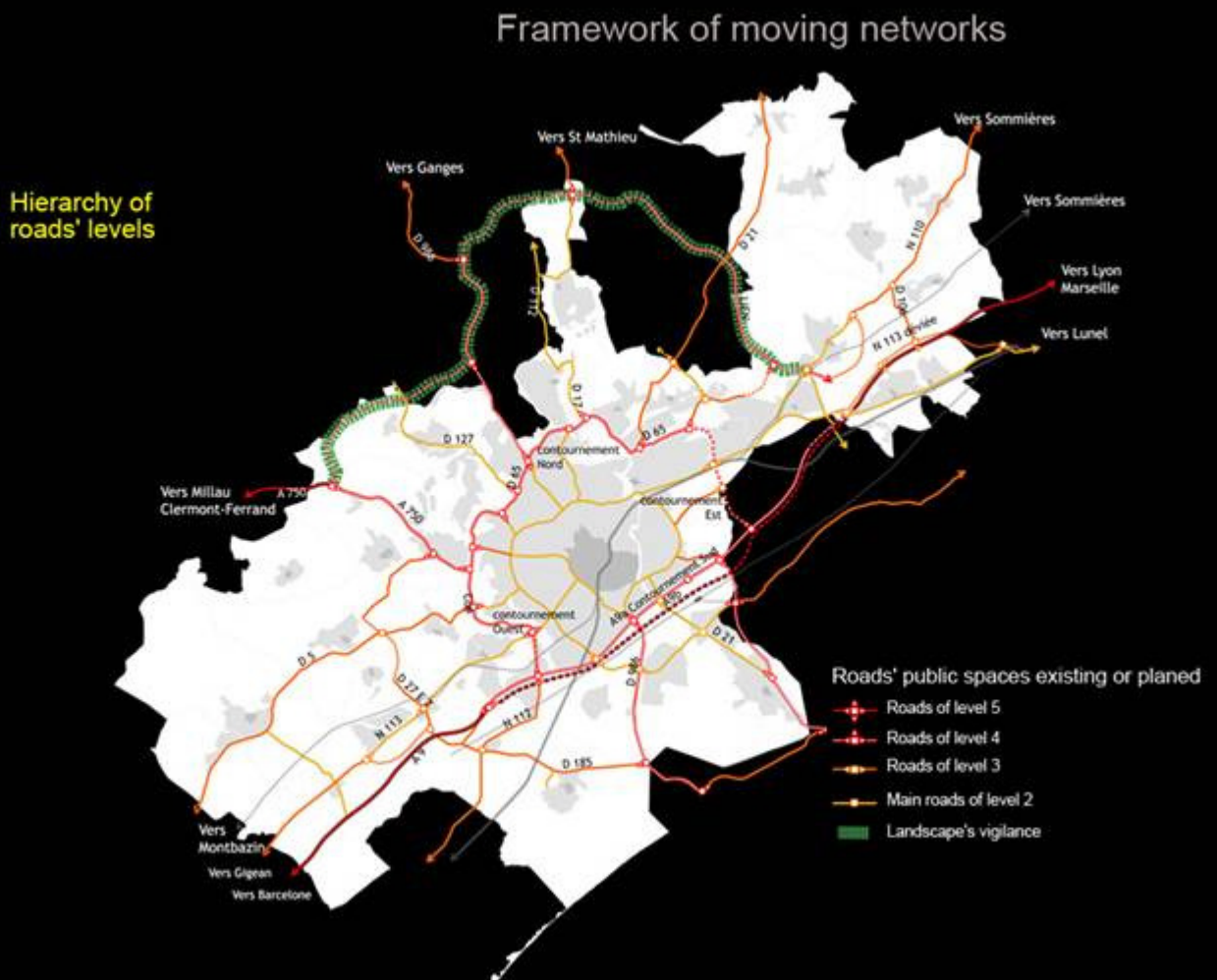
After having presented moving framework and the TRAM priority, it is important to establish a real hierarchy between the different roads. This is very important to create an easy reading of the city that implies an easy urban use.

Different levels of roads are presented on agglomeration map to show territorial coherence at global scale.

(Scheme: Framework of moving network / Hierarchy of road's level)

Then, this coherence is shown at the street scale explaining uses and urban composition. These differences between streets and roads compose the charter of roads and urban spaces.

(Scheme: Charter of roads and urban spaces)



Charter of roads' urban spaces

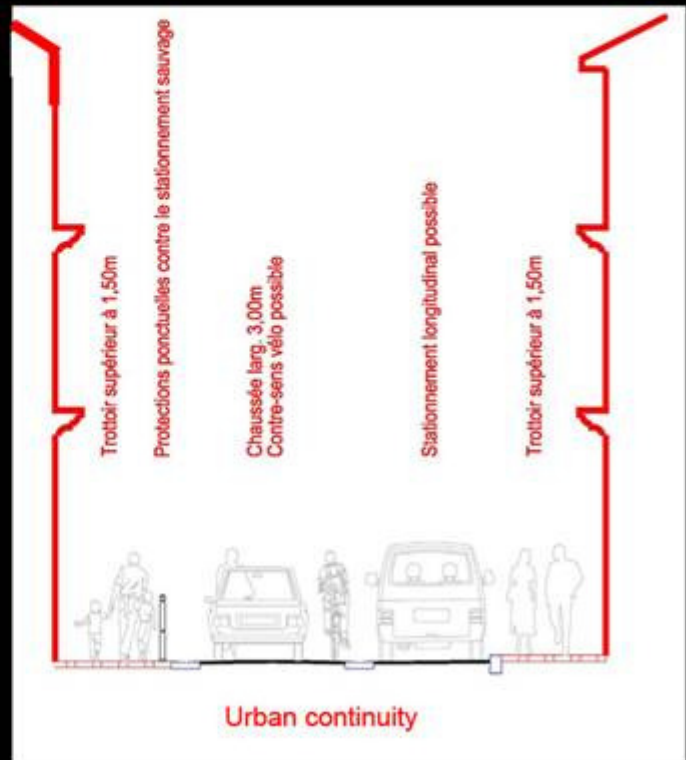
LEVEL 1: SERVICE'S STREETS

30

Speed: <30 km/h

Discript's service

Purposes: priority to comfort and safety



Charter of roads' urban spaces

LEVEL 1: SERVICE'S STREETS



Charter of roads' urban spaces

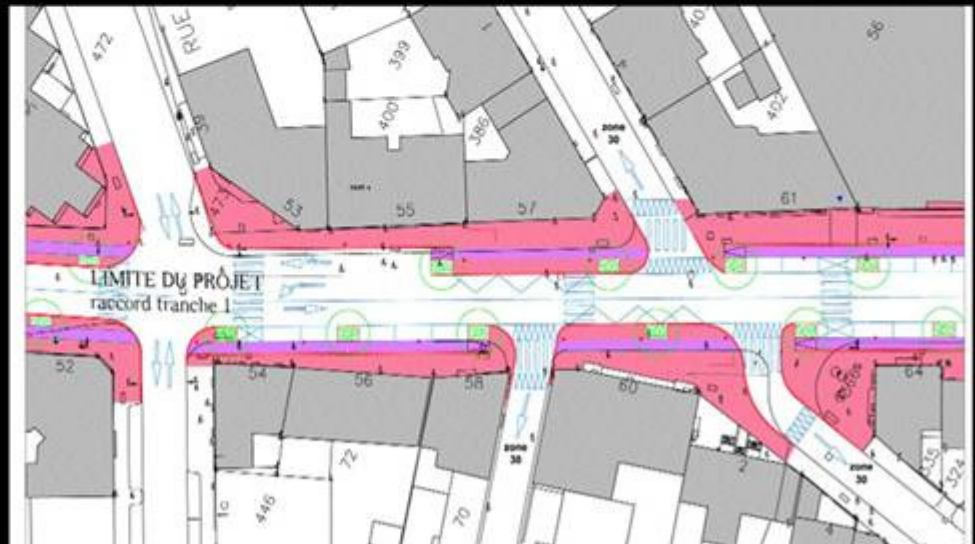
LEVEL 2: URBAN STREETS IN BUILT ENVIRONNEMENT



Speed: <50 km/h

Links between districts and local service

Purposes: priority to public transports and comfort and safety for pedestrians



Charter of roads' urban spaces

LEVEL 2: URBAN STREETS IN BUILT ENVIRONNEMENT



MONTPELLIER Rue Léon Blum - Piste cyclable bidirectionnelle

Charter of roads' urban spaces

LEVEL 2: URBAN STREETS IN NON-BUILT ENVIRONNEMENT

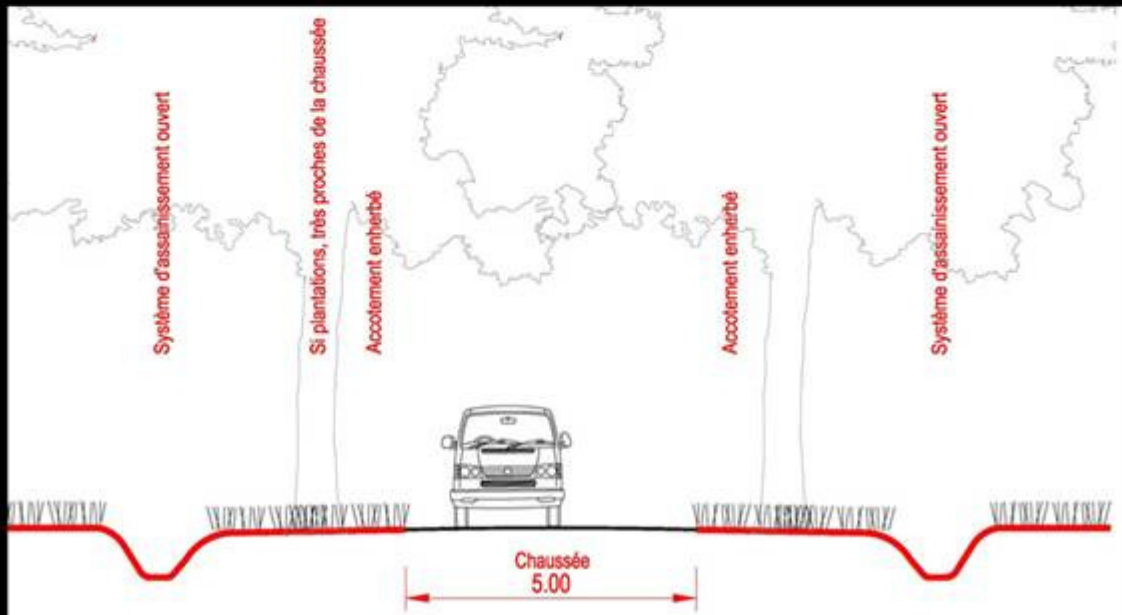
Speed: <50 km/h



Links between districts and local service

Purposes: soft cars traffic, comfort and safety for pedestrians

Circulation in a shared space



Charter of roads' urban spaces

LEVEL 2: URBAN STREETS IN NON-BUILT ENVIRONNEMENT



Voie de liaison en milieu rural

Charter of roads' urban spaces

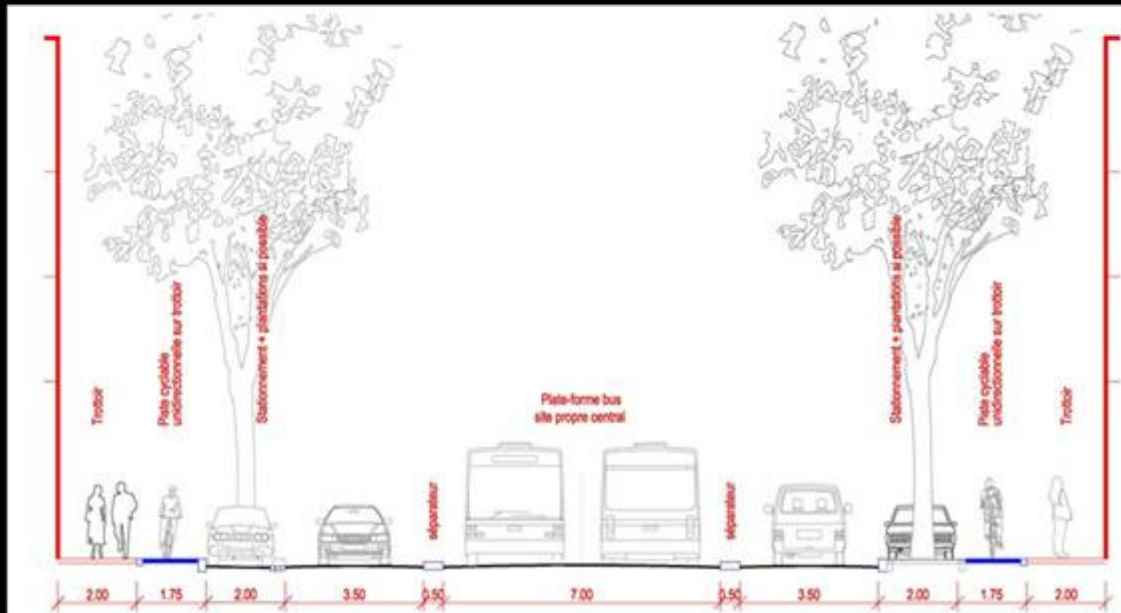
LEVEL 3: URBAN STREETS OR INTERMEDIATE OF CONNECTION



Speed: 50-70 km/h

Local links

Purposes: fluid and safe circulation for all



Charter of roads' urban spaces

LEVEL 3: URBAN STREETS OR INTERMEDIATE OF CONNECTION



MONTPELLIER Détail traversée piétonne rue de la Vieille Poste

Charter of roads' urban spaces

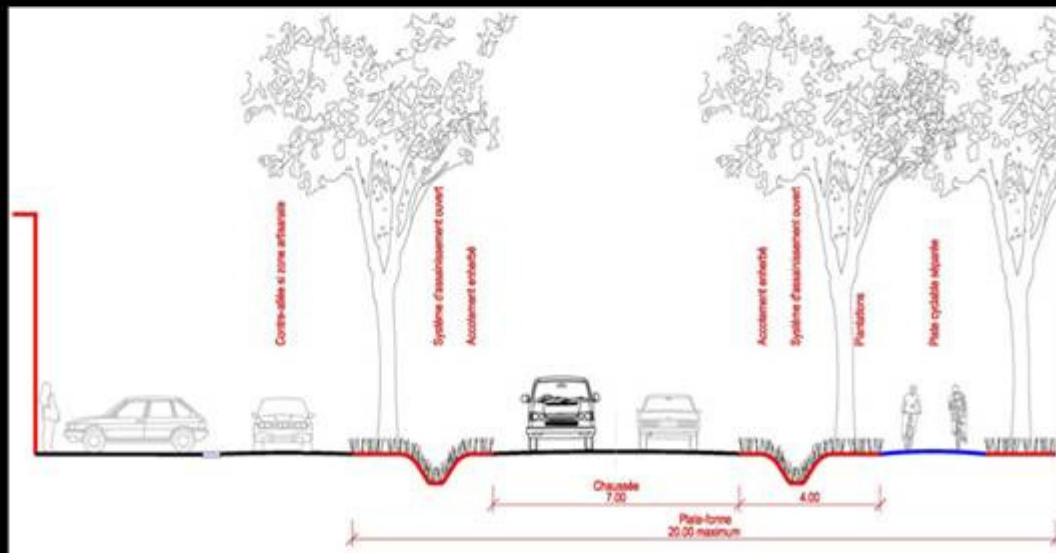
LEVEL 3: INTERMEDIATE STREETS OF CONNECTION IN NON-BUILT ENVIRONNEMENT



Speed: 50-70 km/h

Local links

Purposes: fluid and safe circulation for all



Charter of roads' urban spaces

LEVEL 3: INTERMEDIATE STREETS OF CONNECTION IN NON-BUILT ENVIRONNEMENT



Charter of roads' urban spaces

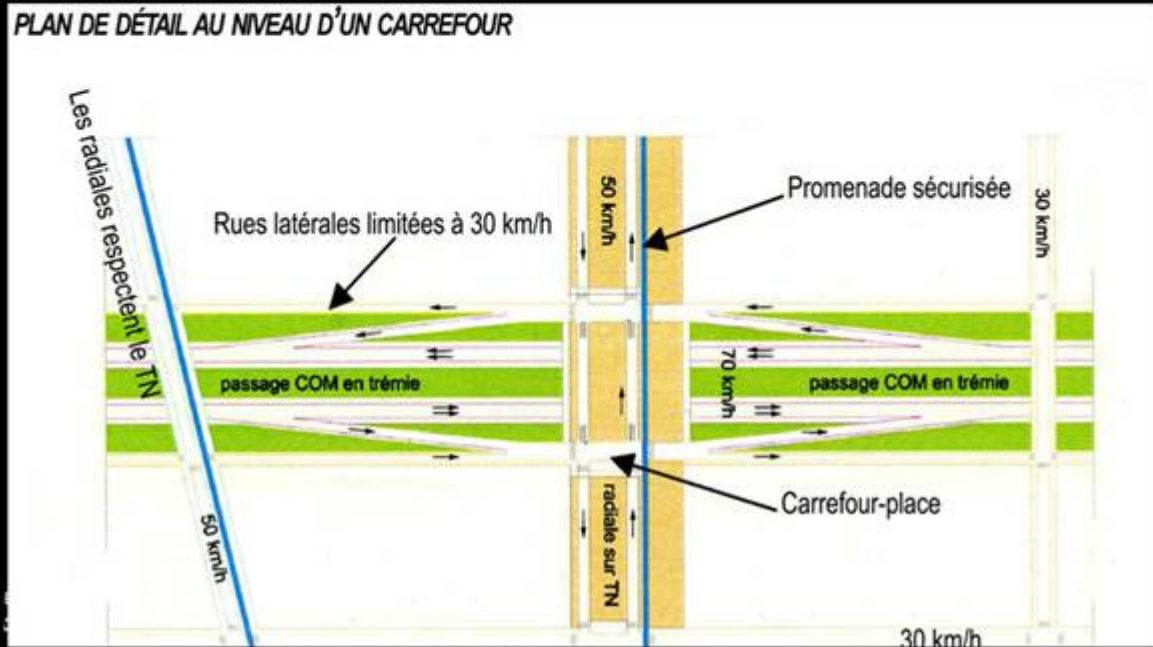
LEVEL 4: EXPRESS ROADS AT THE AGGLOMERATION'S LEVEL

Speed: 70-90 km/h



Links in and out the agglomeration

Purposes: go round the agglomeration, fluid and safe public transports



Charter of roads' urban spaces

LEVEL 4: EXPRESS ROADS AT THE AGGLOMERATION'S LEVEL



Charter of roads' urban spaces

LEVEL 4: EXPRESS ROADS AT THE AGGLOMERATION'S LEVEL IN NON-BUILT ENVIRONNEMENT



Speed: <90 km/h

GEOMETRICAL CRITERIA IN BUILT ENVIRONNEMENT:

- COMPACT INTERSECTION
- NO PARKING, NO PATHS

Charter of roads' urban spaces

LEVEL 5: EXPRESS ROADS AT THE REGIONAL OR NATIONAL LEVEL



Speed: 110-130 km/h

External traffic

Purposes: fluid and safe circulation of cars and trucks

GEOMETRICAL CRITERIA IN BUILT ENVIRONNEMENT:

- COMPACT INTERSECTION
- NO PARKING, NO PATHS

- *Housing possibilities*

Then, to create a “thrifty city”, an important work on housing has been made defining urban densities in different areas opened to urbanisation. As in the other cases, it is important to deal with both global coherence and local expectations. It is the articulation of these different scales that allows making a proposal to urban fringe.

(Scheme: Intensities of potential urban extension's spaces)

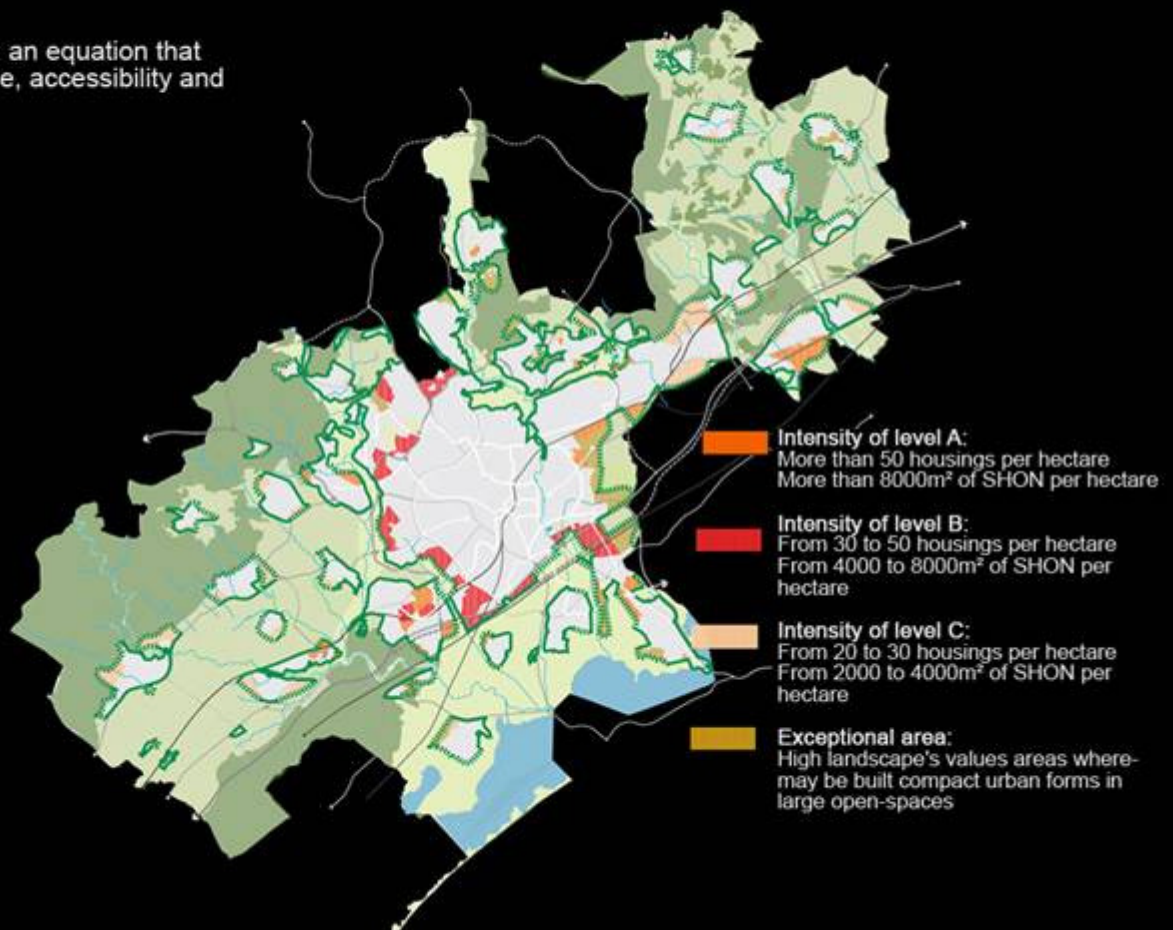
Three different intensities have been promoted from the densest to the least dense (A intensity level to C intensity level). This way of defining densities without to impose a strict regulation allows well applying this concept to local areas. It also doesn't impose architectural typologies but offers a real panel of houses forms.

A special attention has been created to areas with exceptional landscape in order not to limit urban implementation at an intensity level.

(Schemes: Intensity levels)

Intensities of potential urban extension's spaces

Urban intensity: an equation that links ways of live, accessibility and density.



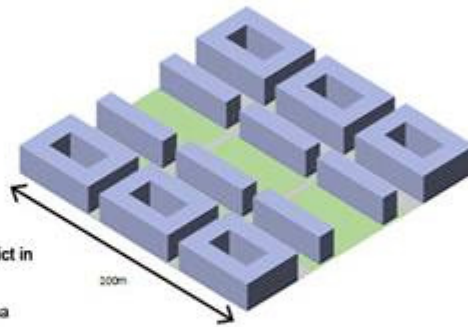
**Intensity level A : more than 50 housings per hectare
ou + 10 000 m²/ha**

Compact urban forms associating buildings with a dense urban spaces' framework at the scale of pedestrians' paths

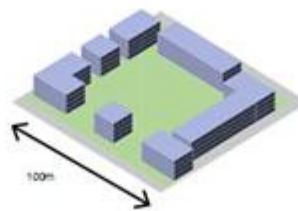
Areas essentially in the agglomeration's core and/or directly served by the tramway



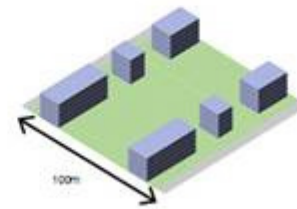
Architecte : A. Falissot



The Richter district in Montpellier
Around 150 hou/ha



Burg's core of Clapiers



**Intensity level A : more than 50 housings per hectare
ou + 10 000 m²/ha**

Compact urban forms associating buildings with a dense urban spaces' framework at the scale of pedestrians' paths

Traditional burgs



Core's burg of Saussan



Pignan burg



Intensity level B : around 30 to 50 housings per hectare

Urban forms type "villager" associating, at the scale of the burg or of the district, small buildings or grouped houses and an urban spaces' framework at the scale of pedestrians'

Extensions near public transports' framework or in the local poles

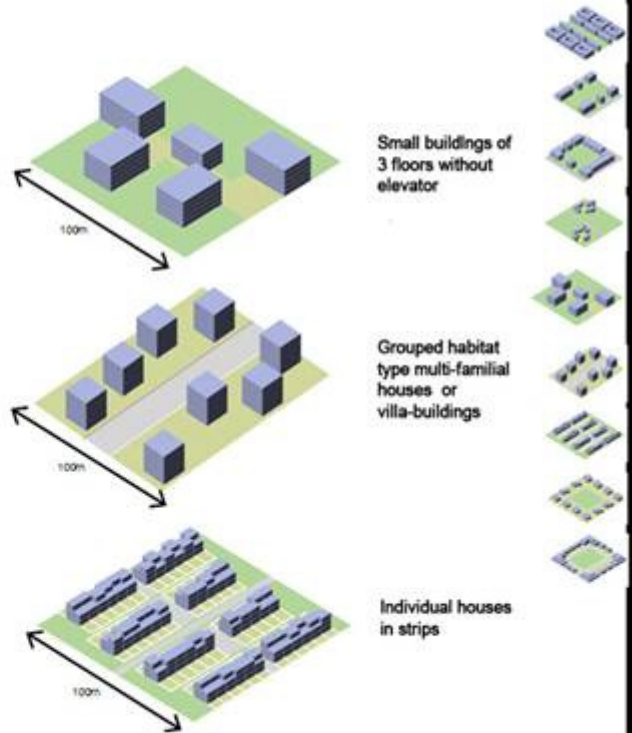


Architecte : F. Kern

Malbosc district in Montpellier
Around 50 houha



Jacou district



Intensity level C : around 20 to 30 housings per hectare

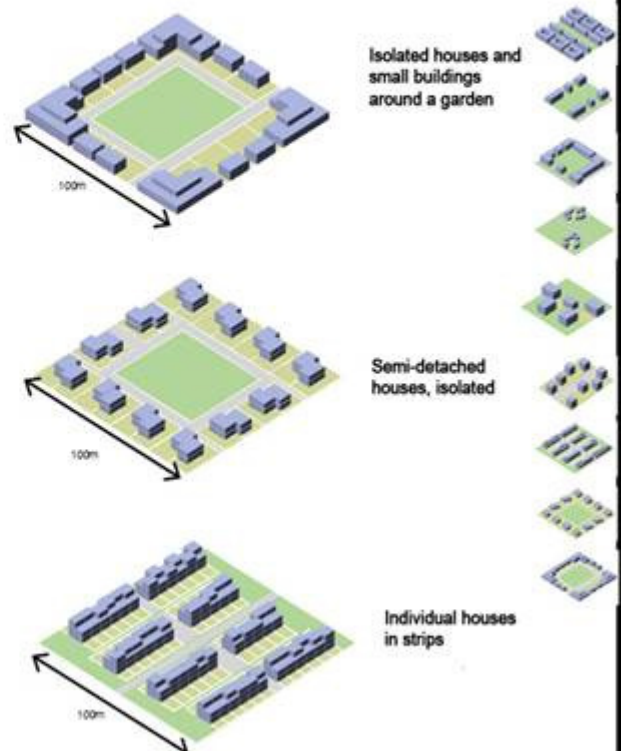
Little compact urban forms associating grouped or isolated houses, in a public space's framework largely open towards landscape

Burgs' extensions at the limit with landscape



Maurin, in Lattes burg

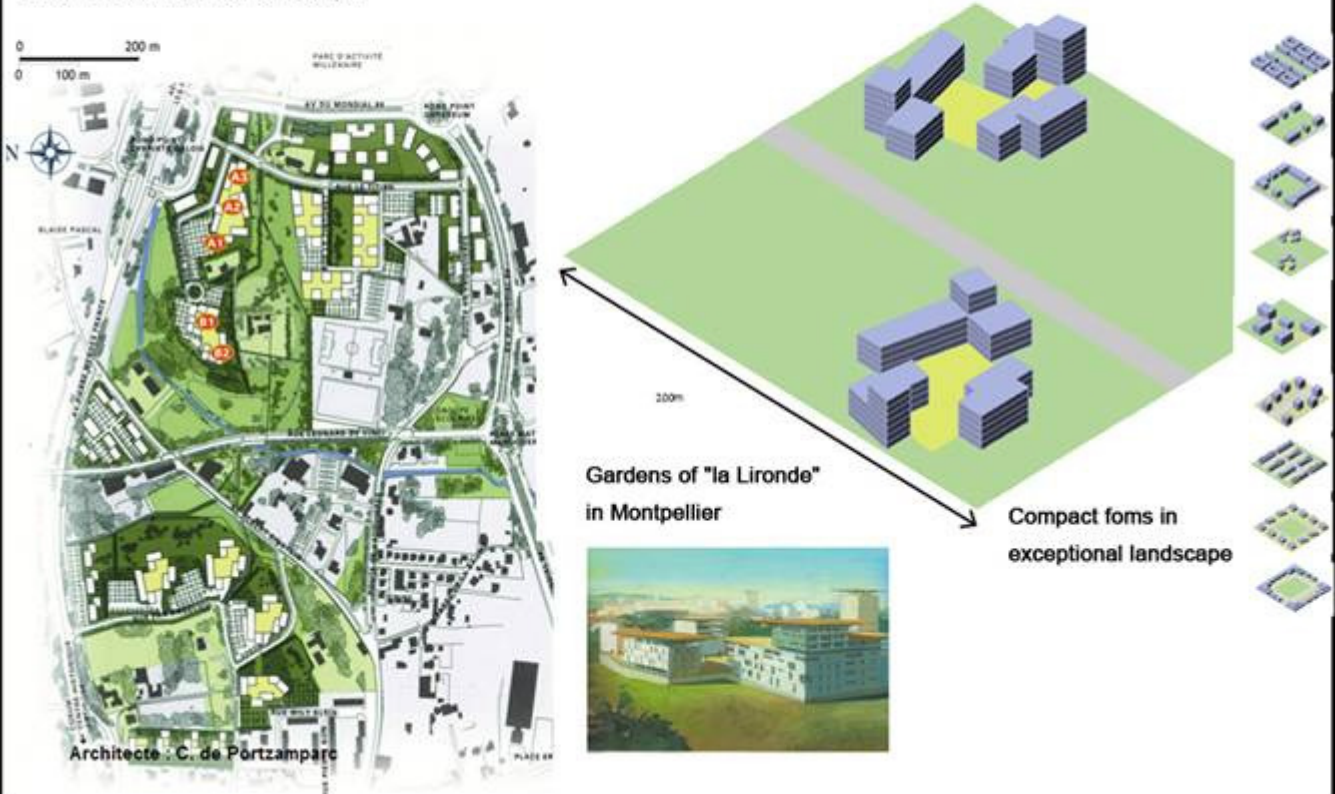
around 24 houha



Intensity level P : around 50 housings per hectare

Specific urban forms in an environnement mainly free from construction

Areas with exceptional landscape



▪ *The synthesis*

The combination of these three territorial planning values gives SCoT proposal. The important attention to local scales brings global coherence. A global scheme resumes all these territorial orientations and districts map are available for more details.

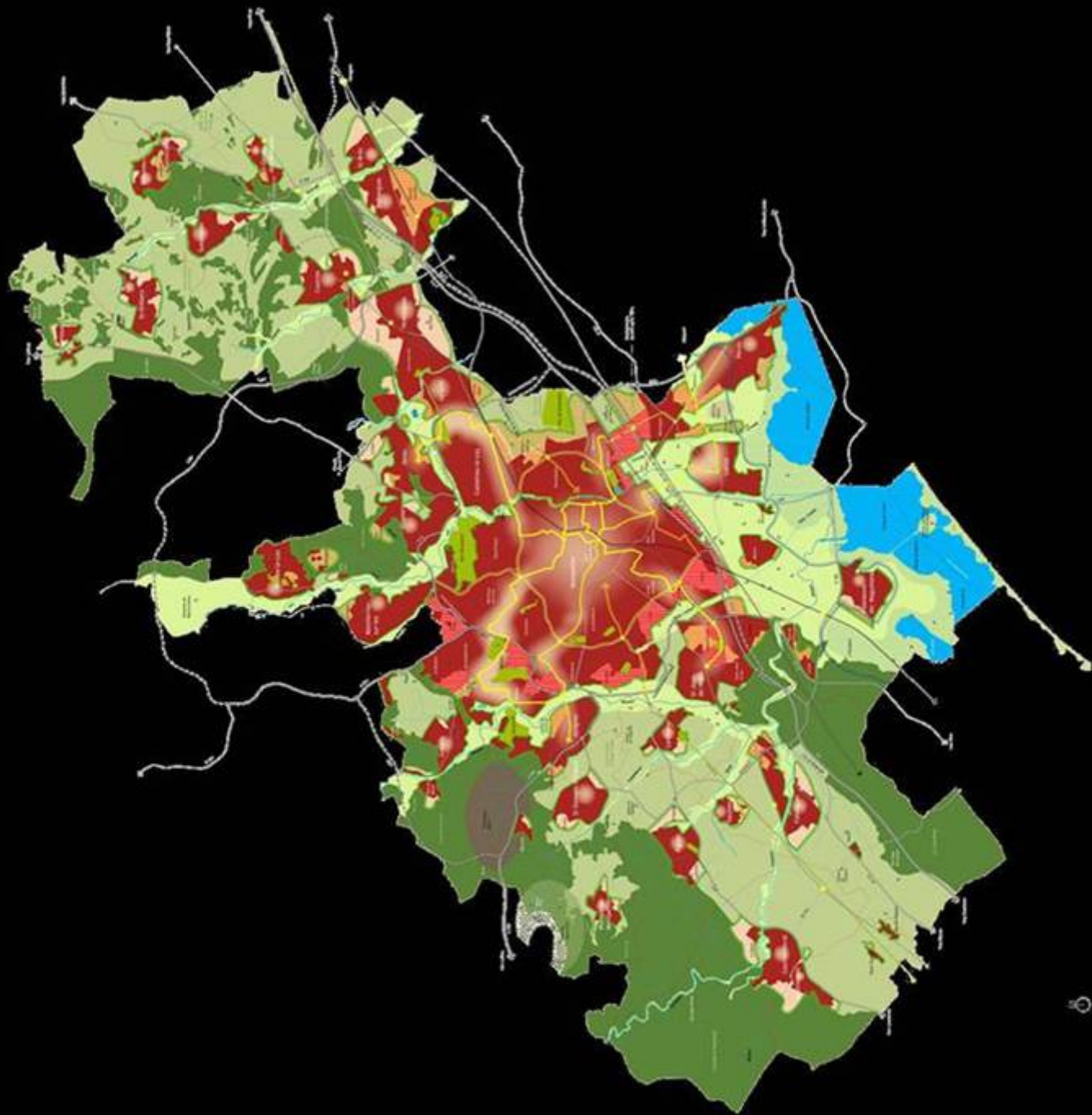
In this synthesis map we can see the three levels of territorial understanding:

- green for landscape
- yellow for transports
- red for urban spaces

It is the graphic representation of the three SCoT values.

(Scheme: Synthesis map)

Synthesis's map



- *Local urban planning's scenarios*
 - *Urban areas*

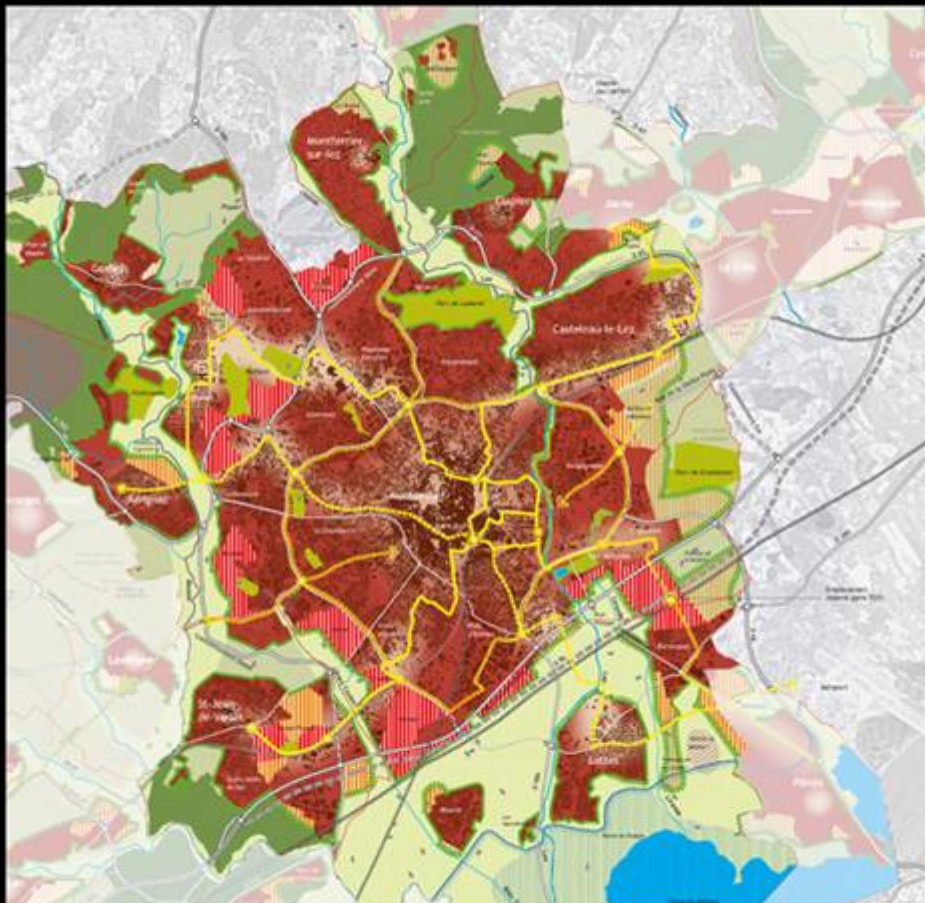
SCoT elaboration results lead to a global map but also to sectors' maps. These sectors are very different since their scale varies a lot. Some are urban areas whereas others are more rural.

In this part, objective is to present these two opposite types of sector's map.

The first one deals with the central area where orientations want to maintain city centrality in term of density, public transports and coherence. We can see some areas that are open to urbanization whereas others are really protected from urban constructions.

(Scheme: Map of the agglomeration core's district)

Map of the agglomeration core's district



- *Rural areas*

This second sector's map deals with a rural area with small existing village such as Montferrier sur Lez, Clapiers, Castelnau le Lez, Crès ... The SCoT proposes extensions for these villages offering spaces to urbanization. But, it also develops some landscape dynamics to maintain and reinforce life setting quality.

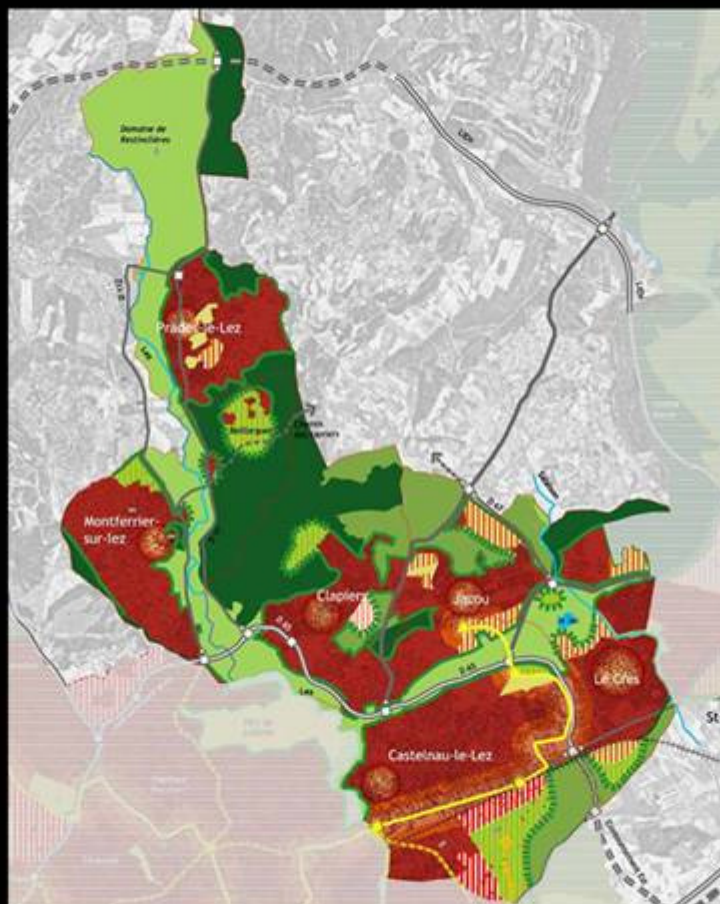
An important intention is made to limits and how they have to be changed or created. Urban connexions are also a key-point. Idea is to promote soft circulate and to tranquilize existing important roads such as the D112 and the D17.

(Scheme: Map of Lez valley's district)

An example is given to show landscape change in Lez valley. We can see that it leads to another type of landscape identity. Others uses are promoted and allowed by landscape rehabilitation. The result is the creation of an agro-park that joins different uses such agriculture, leisure...

(Scheme: Agri-park proposal in the North Lez)

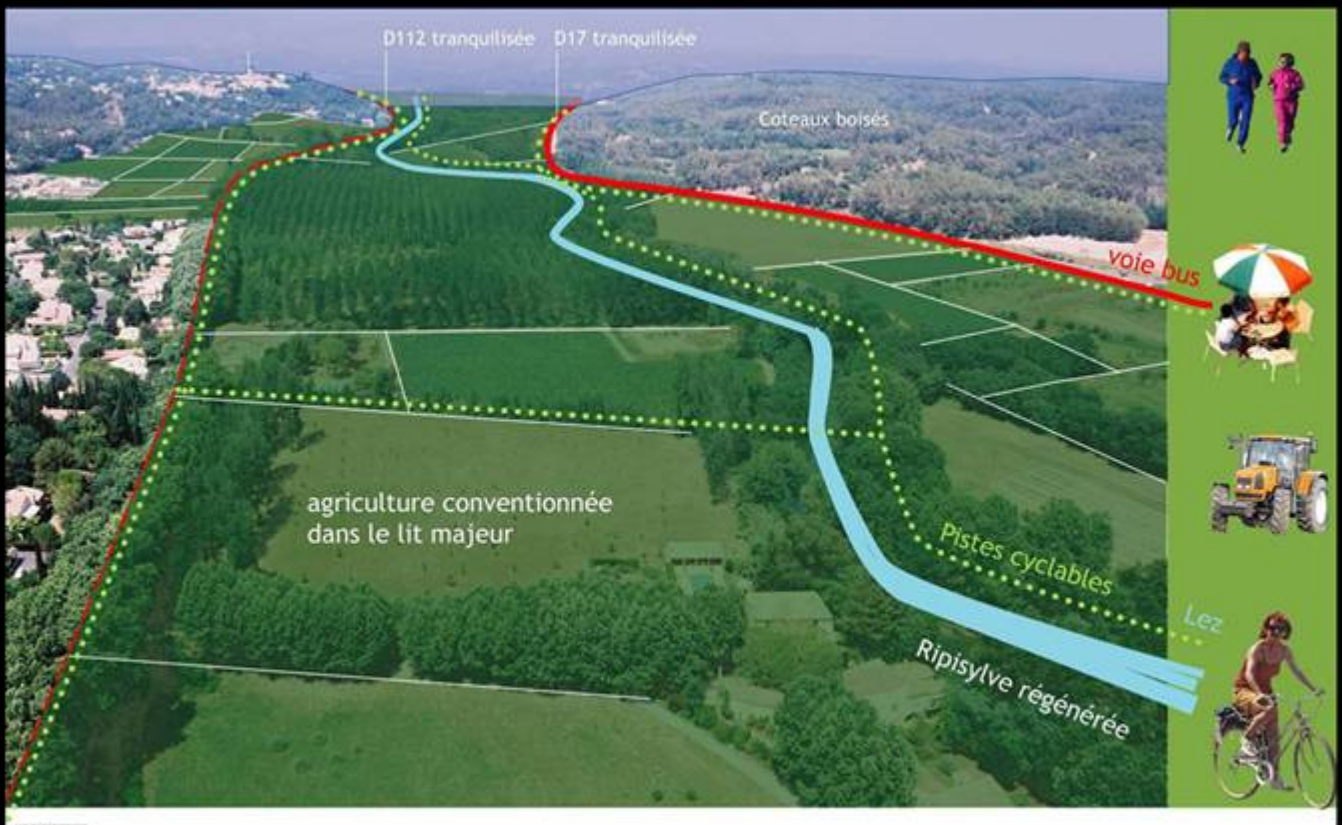
Map of the Lez valley's district



Agri-park proposal in the North Lez



Agri-park proposal in the North Lez



- *Periurban areas*

As it was already said, SCoT deals with peri-urban areas. To give project tools for urban fringe, SCoT proposes some reference maps. These maps are not made to be strictly applied to a given site. They are understanding keys for urban extension.

Two examples are given for peri-urban cases. The first one deals with a village's extension in relation with landscape. The proposal is composed by a diagnostic and orientation map.

- *A village's extension*

Diagnostic determines landscape values and the presence of a landscape limit. Idea is to use this limit to create a real "natural façade". In term of dynamics, it is important to manage to find the right scale for equipments and urban spaces. But the project can't exist without these interventions.

Urban proposal made by the SCoT shows possibilities existing for a similar case. It also doesn't impose anything, notably in terms of typology where SCoT only indicates urban implantations.

(Scheme: Example of a village's extension in relation with landscape)

Project's approach: reference's maps

An urban design's charter

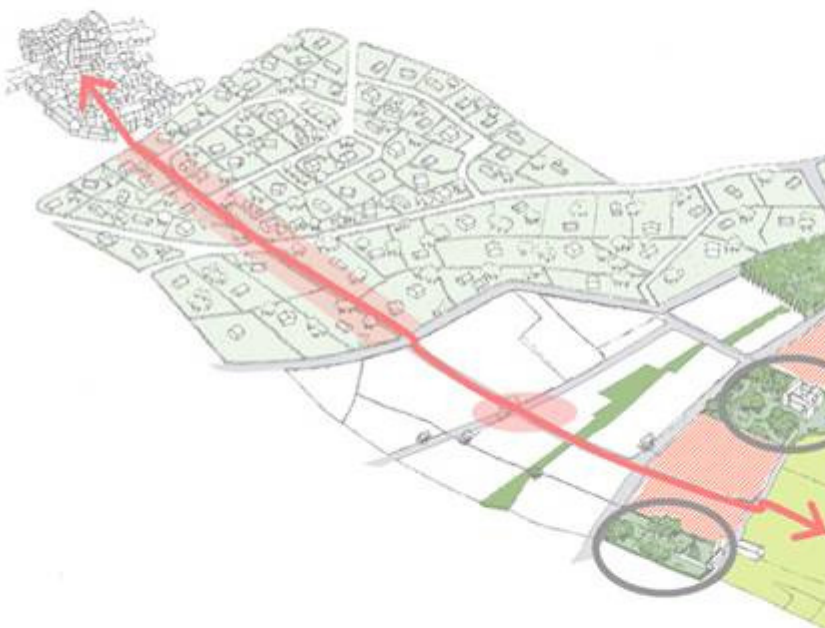
Rappel DOG :

Conditions to open to urbanization:

Reference's maps

- Urban spaces' network
- Organization of the "City of proximities"
- Thrifty and different urban forms
- A special attention to limits
- Housing proposal corresponding to the PLH
- Water collect's proposal as a support of landscape design
- Guidance of urban documents' evolution

Example of a village's extension in relation with the landscape



Urban design's charter

How to manage an urban extension?

Example of a village's extension in relation with the landscape



Urban design's charter

How to manage an urban extension?

Example of a village's extension in relation with the landscape



Urban design's charter

How to manage an urban extension?

Example of a village's extension in relation with the landscape

Urban spaces network

that assure the urban development's coherence, interventions' reversibility and continuities between city and nature

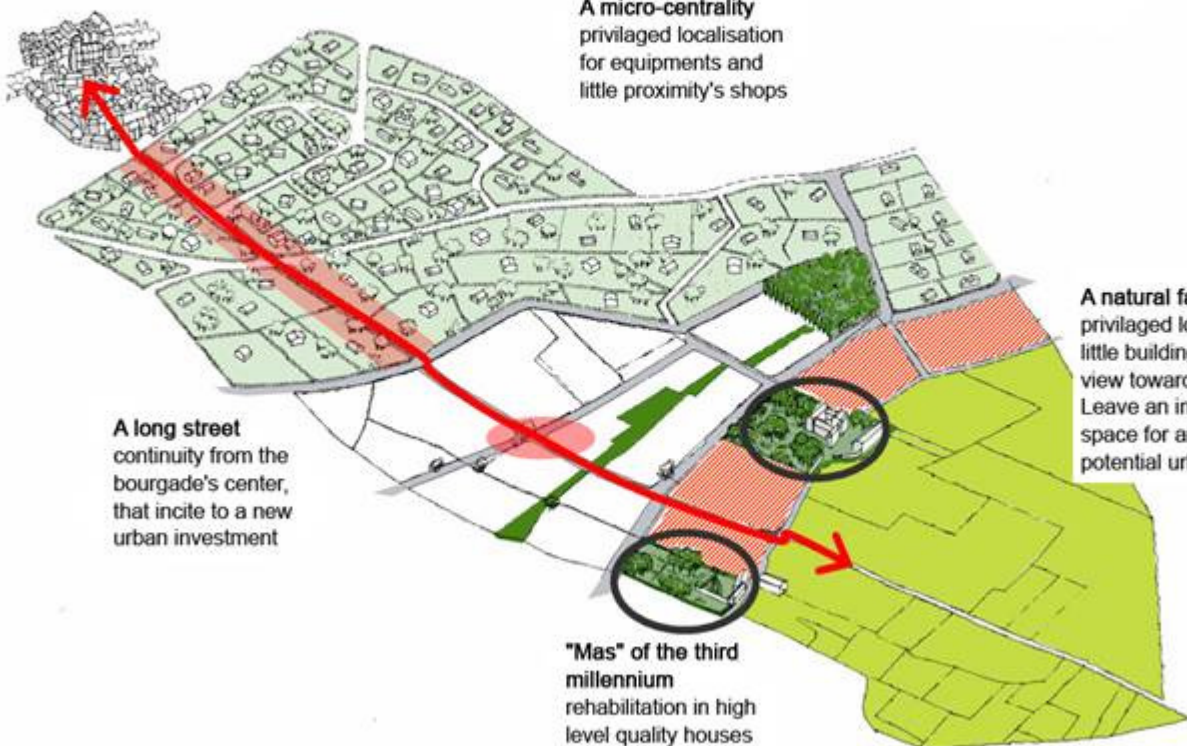


Urban design's charter

How to manage an urban extension?

Example of a village's extension in relation with the landscape

Localisation's values that give orientations to urban design



A micro-centrality privileged localisation for equipments and little proximity's shops

A long street continuity from the bourgade's center, that incite to a new urban investment

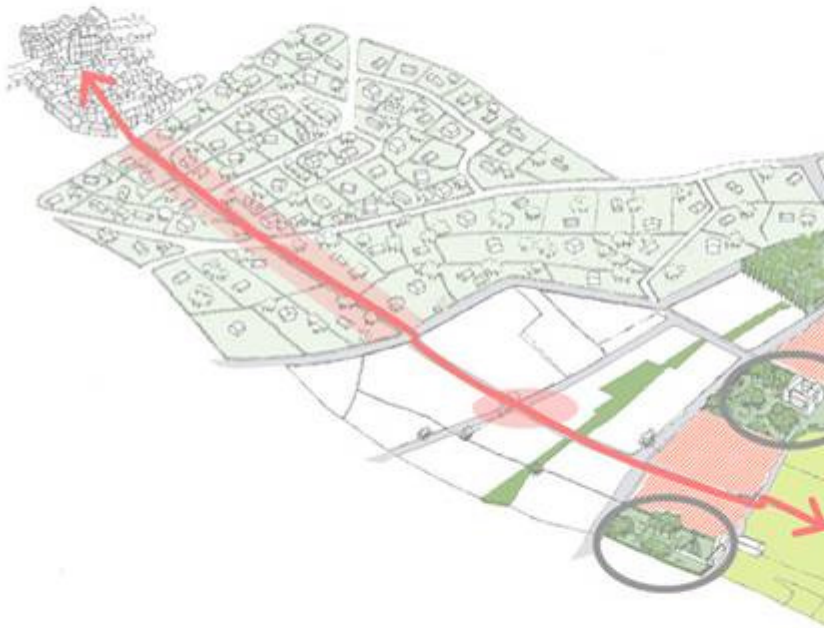
"Mas" of the third millennium rehabilitation in high level quality houses

A natural façade privileged localisation of little buildings to share the view toward the landscape. Leave an important open space for an other potential urbanisation

Project's approach: reference's maps

An urban design's charter

Example of a village's extension in relation with the landscape



Rappel DOG :

Conditions to open to urbanization:

Reference's maps

- Urban spaces' network
- Organization of the "City of proximities"
- Thrifty and different urban forms
- A special attention to limits
- Housing proposal corresponding to the PLH
- Water collect's proposal as a support of landscape design
- Guidance of urban documents' evolution

A LINK BETWEEN CITY AND NATURE THAT IS NOT THE RESULT OF PLOT'S SCALE

Urban design's charter

How to manage an urban extension?

Example of a village's extension in relation with the landscape



Urban design's charter

How to manage an urban extension?

Example of a village's extension in relation with the landscape

Localisation's values that give orientations to urban design



Urban design's charter

How to manage an urban extension?

Example of a village's extension in relation with the landscape

Different typologies to offer a home for everyone



- *Rehabilitation due to public transportation*

This second example of peri-urban case deals with an urban rehabilitation due to public transports' service. It is an other case study of urban fringe that makes part of its diversity.

Main characteristic of this type of site is the disparate result of successive urban additions. Idea is to use public transports' project to rehabilitate urban composition in order to have more coherence. This may be possible with the change of localisation's values that implies a creation of a new polarity. As in the first example, typology are not imposed but suggested with urban intentions.

(Scheme: Example of an urban rehabilitation due to a public transport's service)

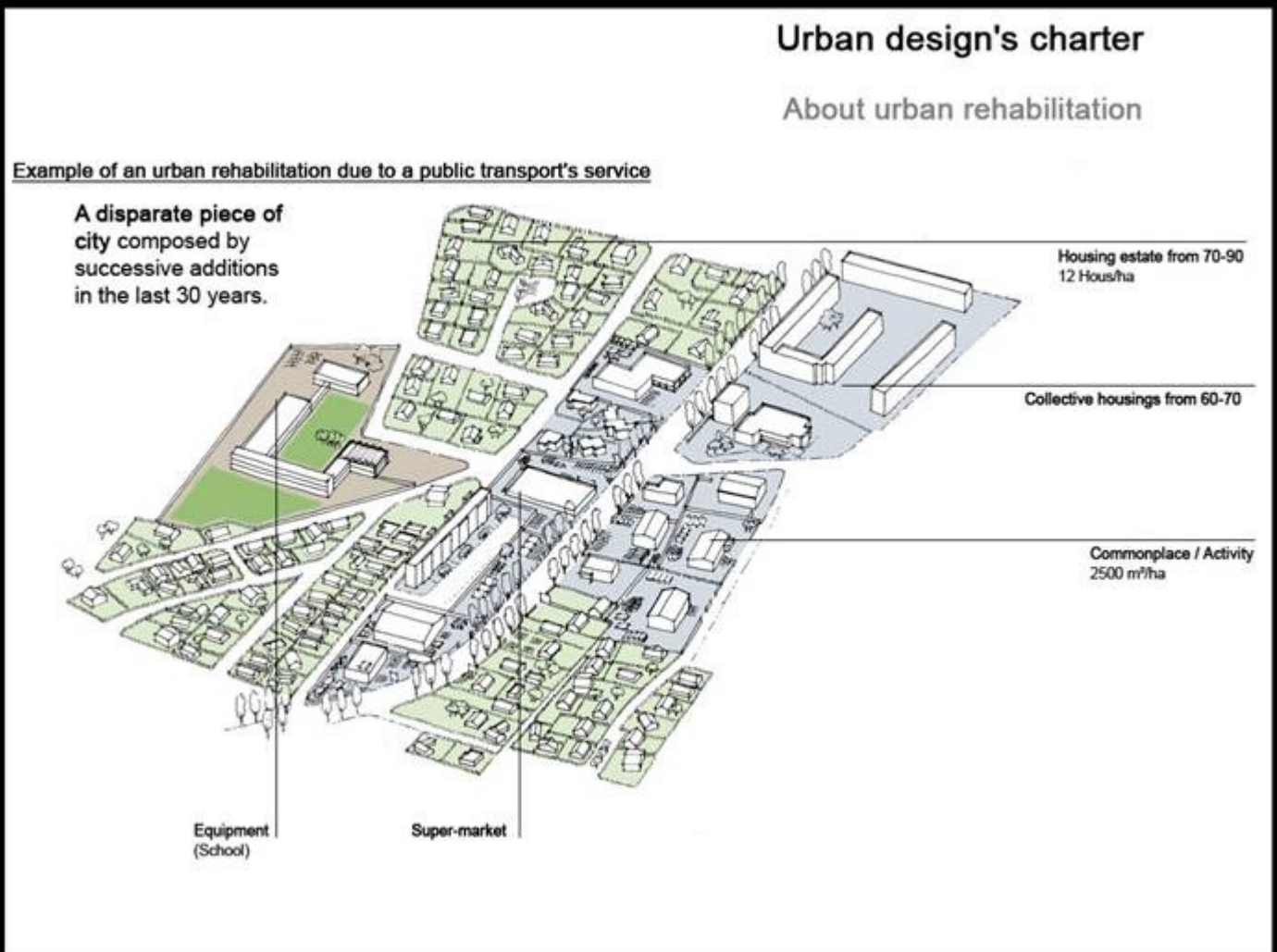
- *Some examples on urban fringes*

After this last example given by SCoT, two reference maps are shown for example. As it was already said, these maps are not made to be strictly applies but resume all territorial intentions for the area. Reference maps lead to different projects.

(Scheme: Examples of reference maps)

To conclude, an application of a reference map is given by a project proposal for the "Sea road", a SCoT key element. This last document shows SCoT implications in a very local scale.

(Scheme: An ambition for sea road)

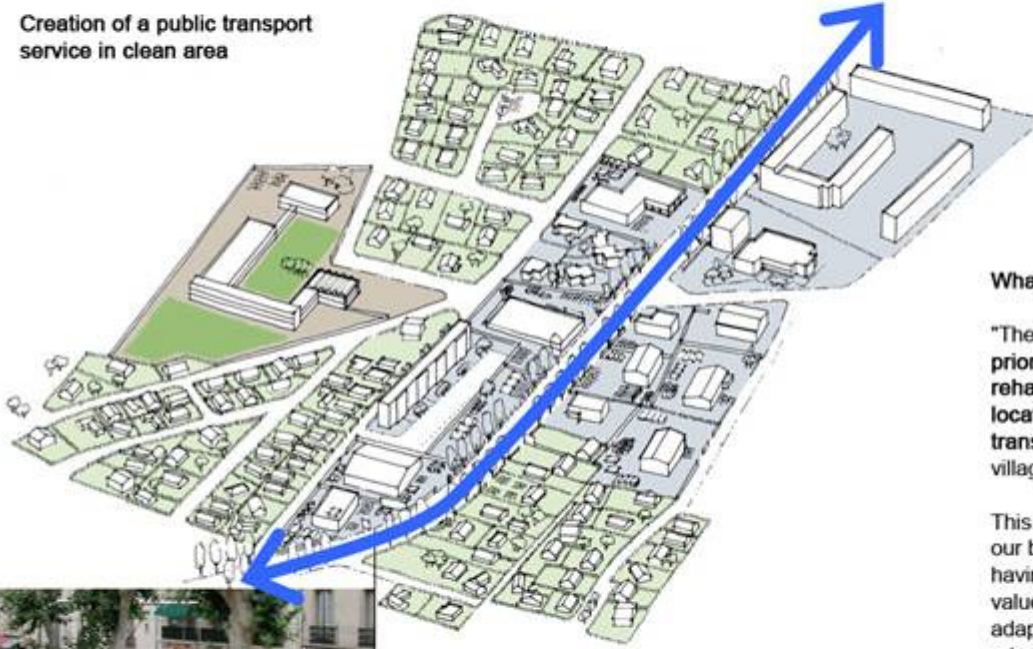


Urban design's charter

About urban rehabilitation

Example of an urban rehabilitation due to a public transport's service

Creation of a public transport service in clean area



Public space's rehabilitation in relation with the TRAM, street shared

What does the PADD say ?

"The SCoT identify some **prioritary urban rehabilitation's spaces located along public transports' lines** (and around village's centers).

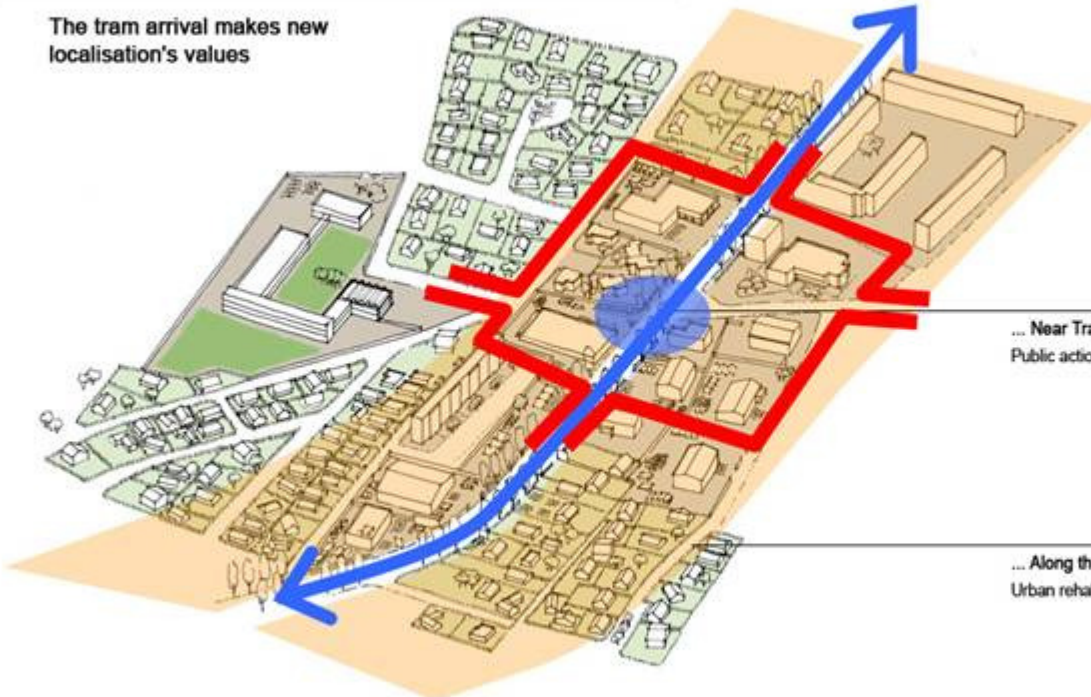
This objective implies to make our best with urban spaces having a localisation's high value, using **urban rules adapted to qualitative rehabilitation of the built setting.**"

Urban design's charter

About urban rehabilitation

Example of an urban rehabilitation due to a public transport's service

The tram arrival makes new localisation's values



... Near Tram stop.
Public action of urban rehabilitation (ZAC)

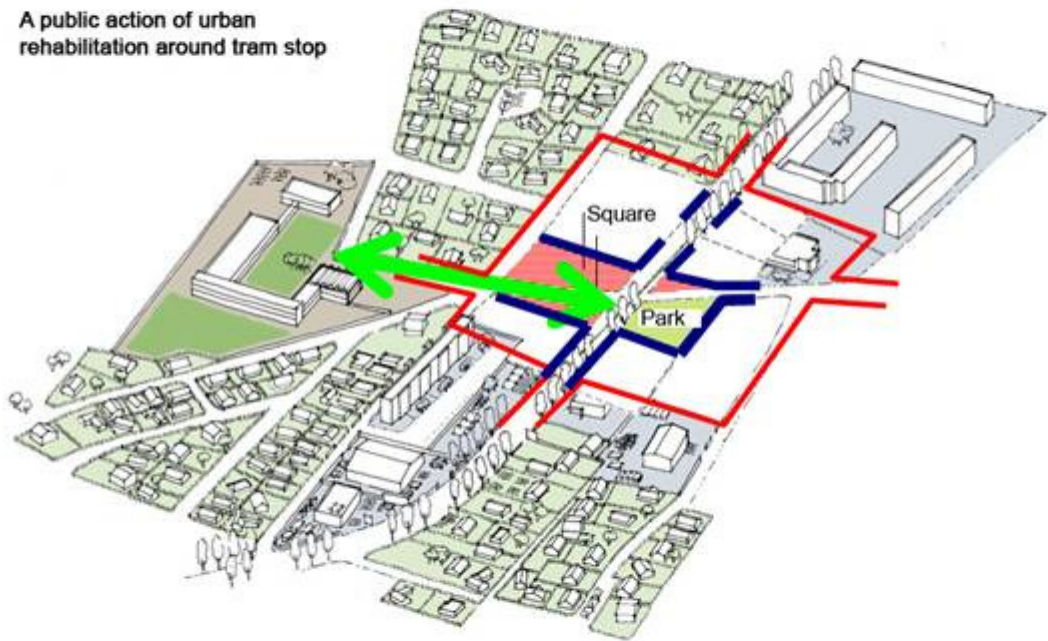
... Along the public transport's corridor.
Urban rehabilitation (PLU)

Urban design's charter

About urban rehabilitation

Example of an urban rehabilitation due to a public transport's service

A public action of urban rehabilitation around tram stop



- 1. A new street to create a direct relation between the school and the square.
- 2. A new framework of shared public spaces...

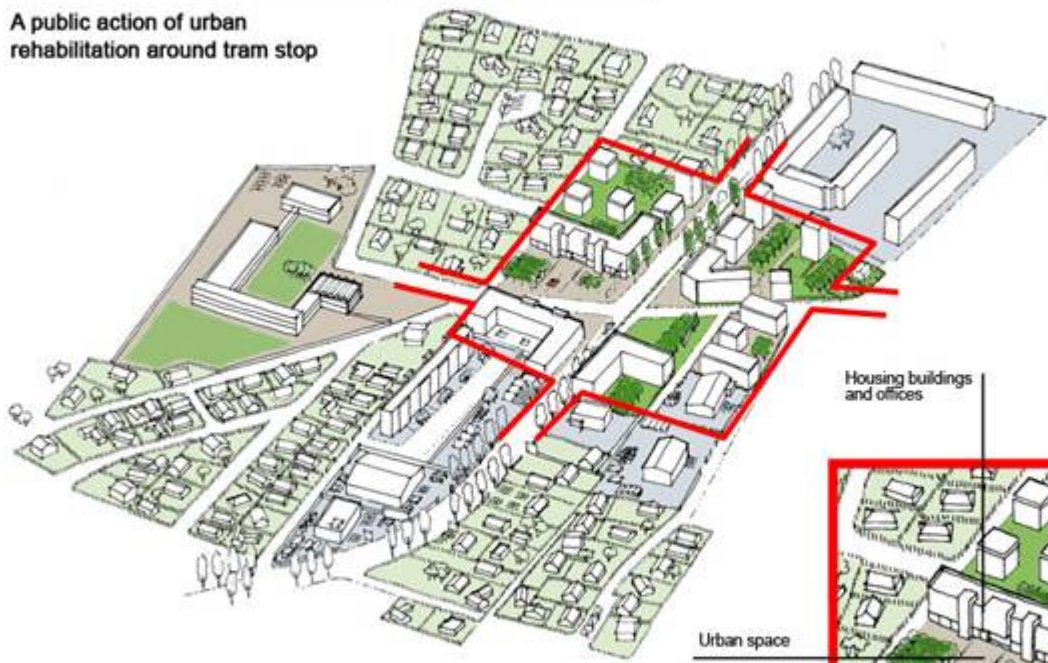
Principles of reference's map

Urban design's charter

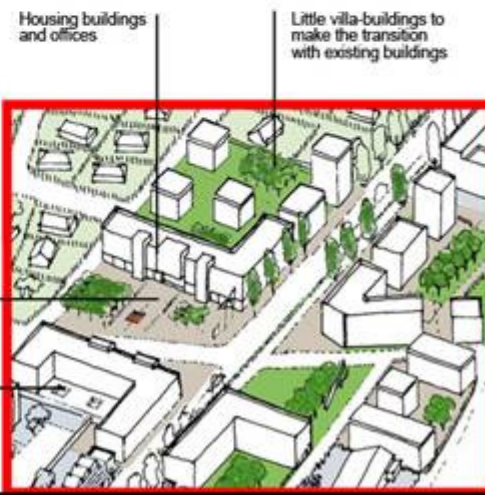
About urban rehabilitation

Example of an urban rehabilitation due to a public transport's service

A public action of urban rehabilitation around tram stop



- 1. A new street to create a direct relation between the school and the square.
- 2. A new framework of shared public spaces...
 - ... Created limits for a built setting structuring
 - ... And making a transition with the existing

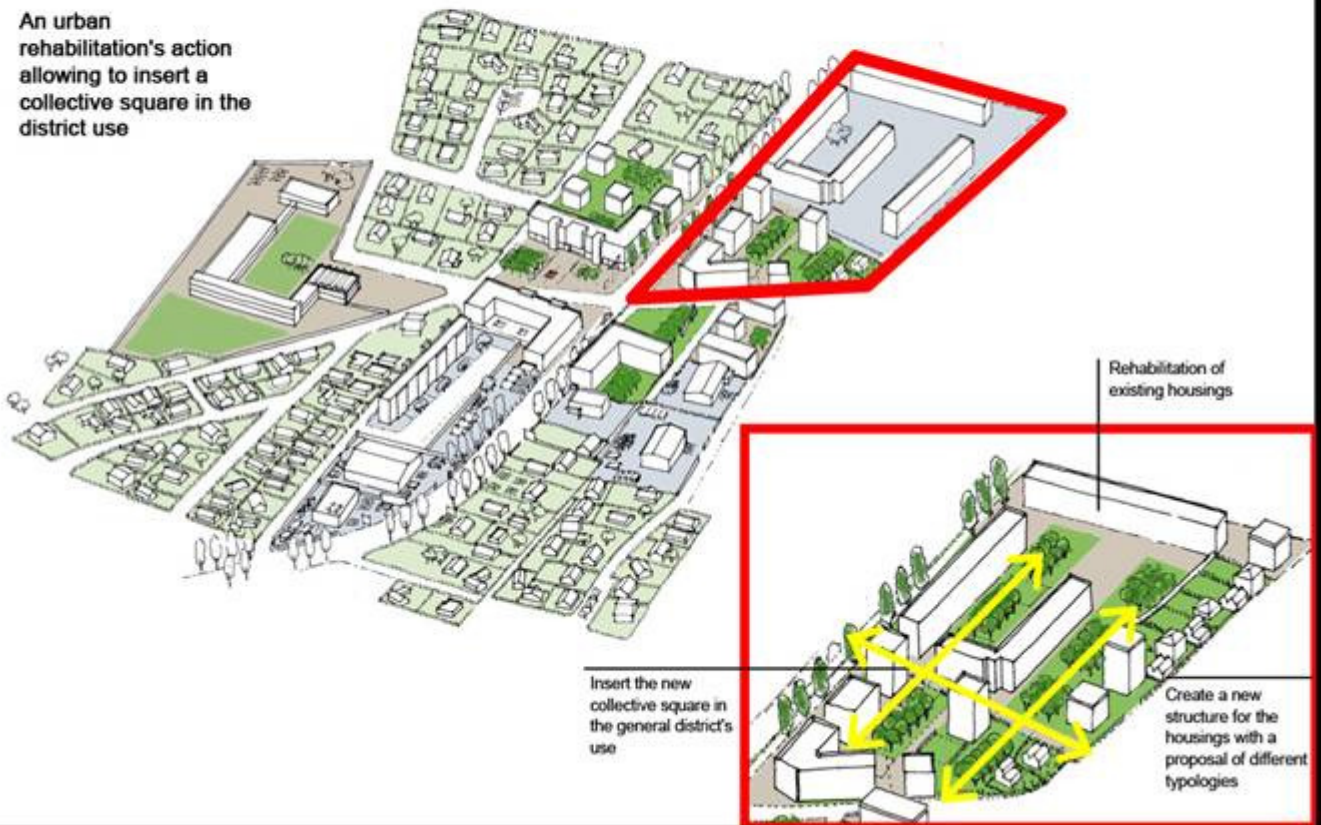


Urban design's charter

About urban rehabilitation

Example of an urban rehabilitation due to a public transport's service

An urban rehabilitation's action allowing to insert a collective square in the district use



Urban design's charter

About urban rehabilitation

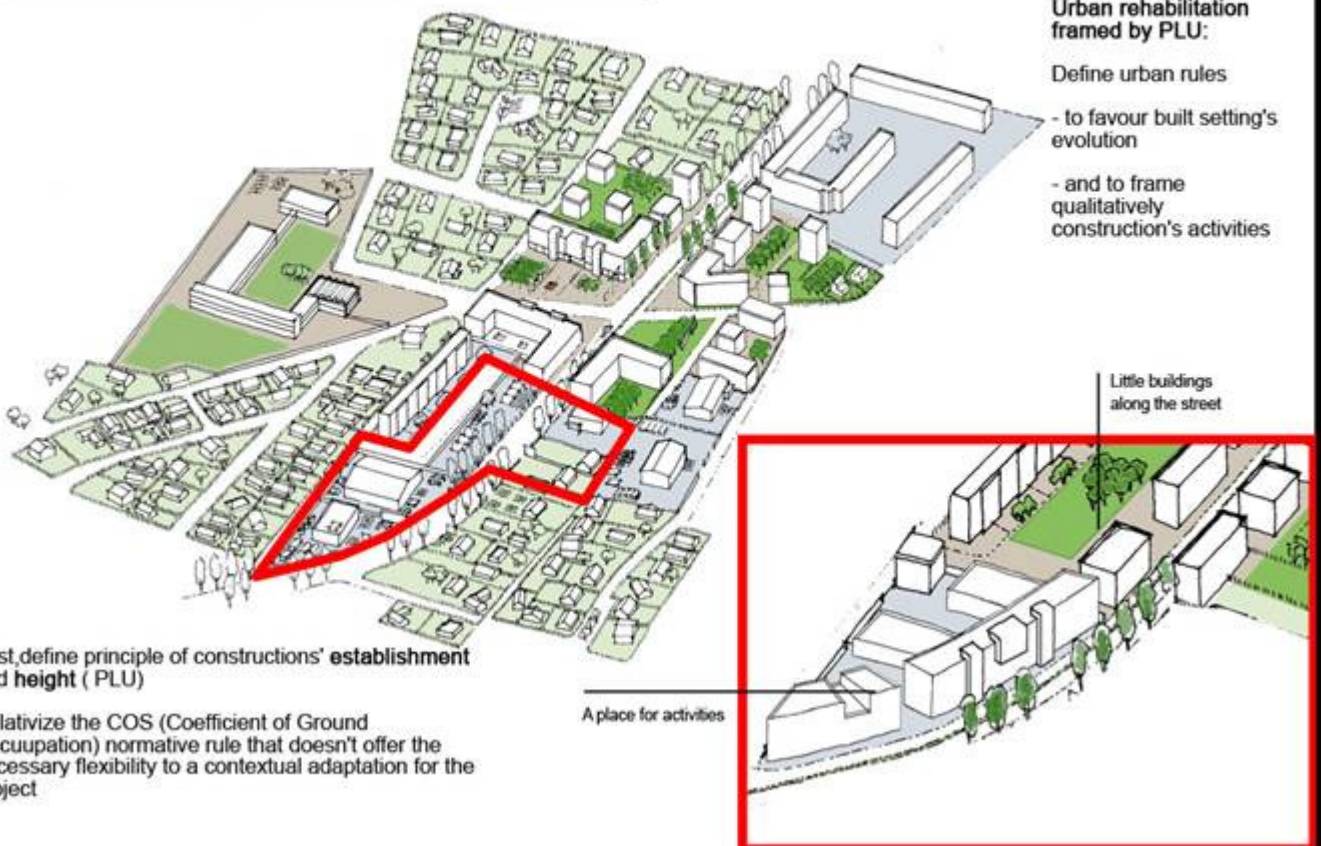
Example of an urban rehabilitation due to a public transport's service

Urban rehabilitation framed by PLU:

Define urban rules

- to favour built setting's evolution

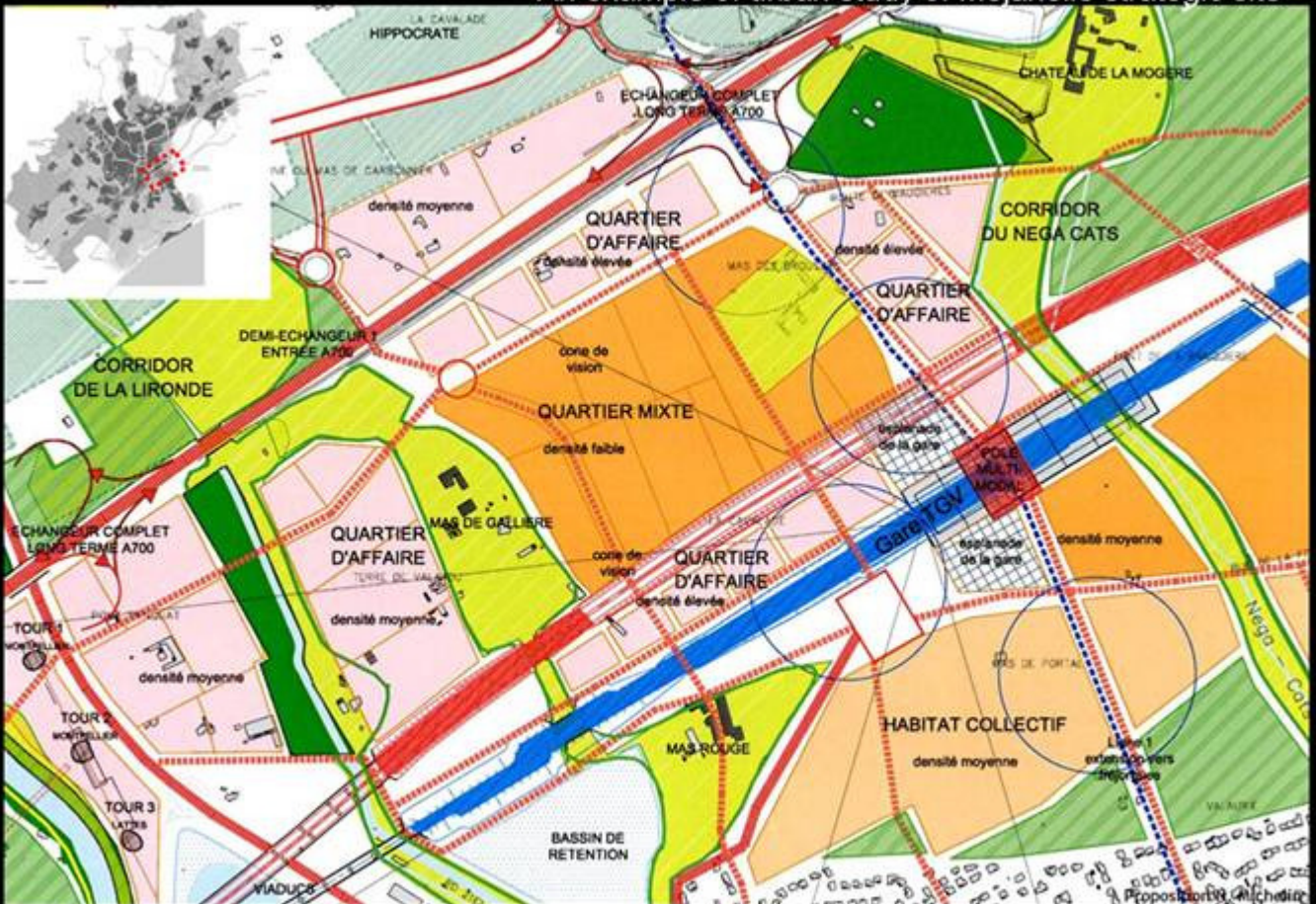
- and to frame qualitatively construction's activities




Urban planning charter
 An example of "reference's map" of South Castelnau urban study



Urban planning charter
 An example of urban study of Méjanelle strategic site





A project defines by SCoT objectives: an ambition for "sea road"

AN AMBITION FOR "SEA ROAD"

COMMUNAUTE D'AGGLOMERATION DE MONTPELLIER

REICHEN ET ROBERT & ASSOCIES ALFRED PETER



RD21 AT AGGLOMERATION SCALE

Link between city and sea, it is a true structuring avenue at agglomeration scale.

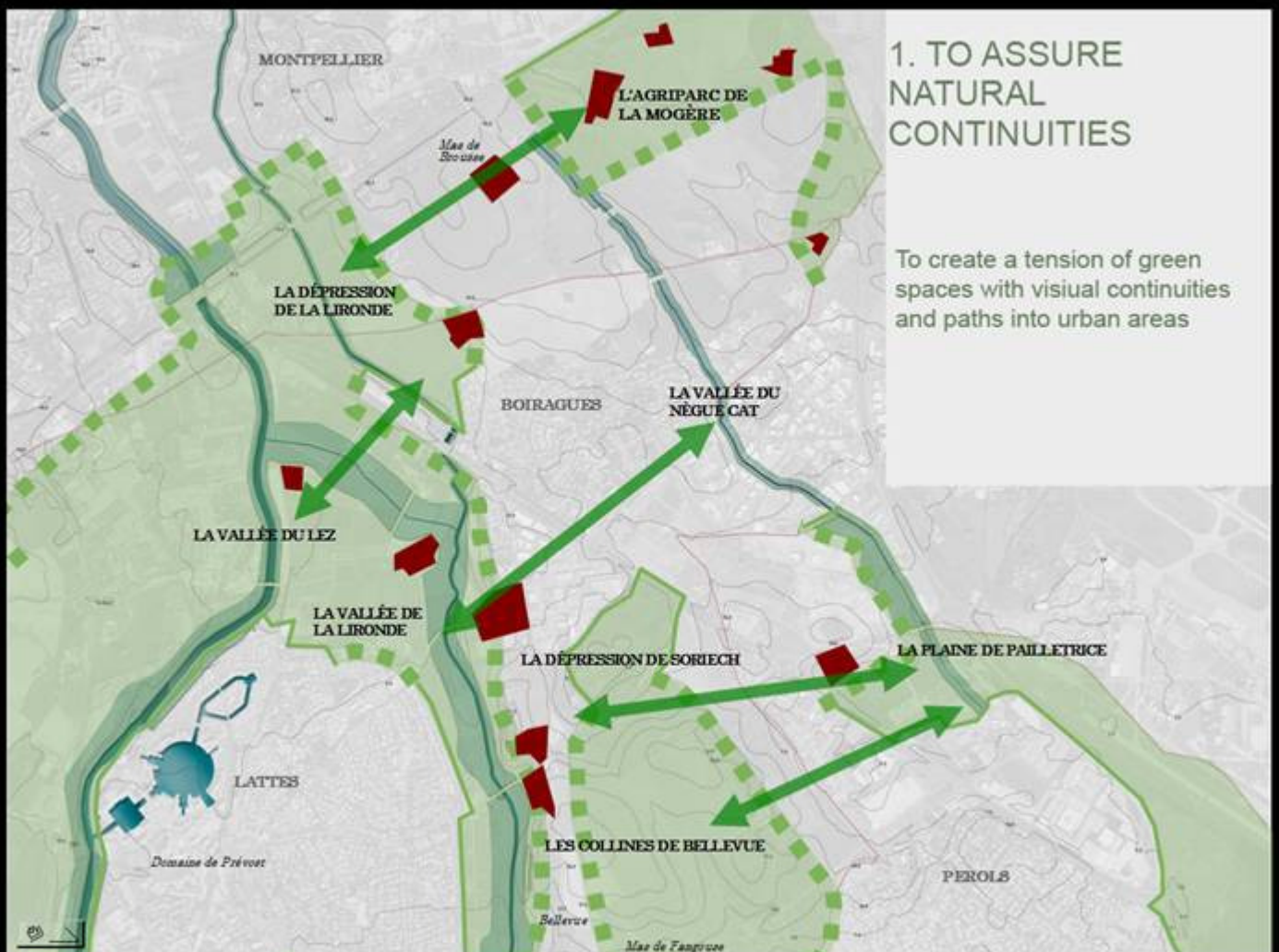
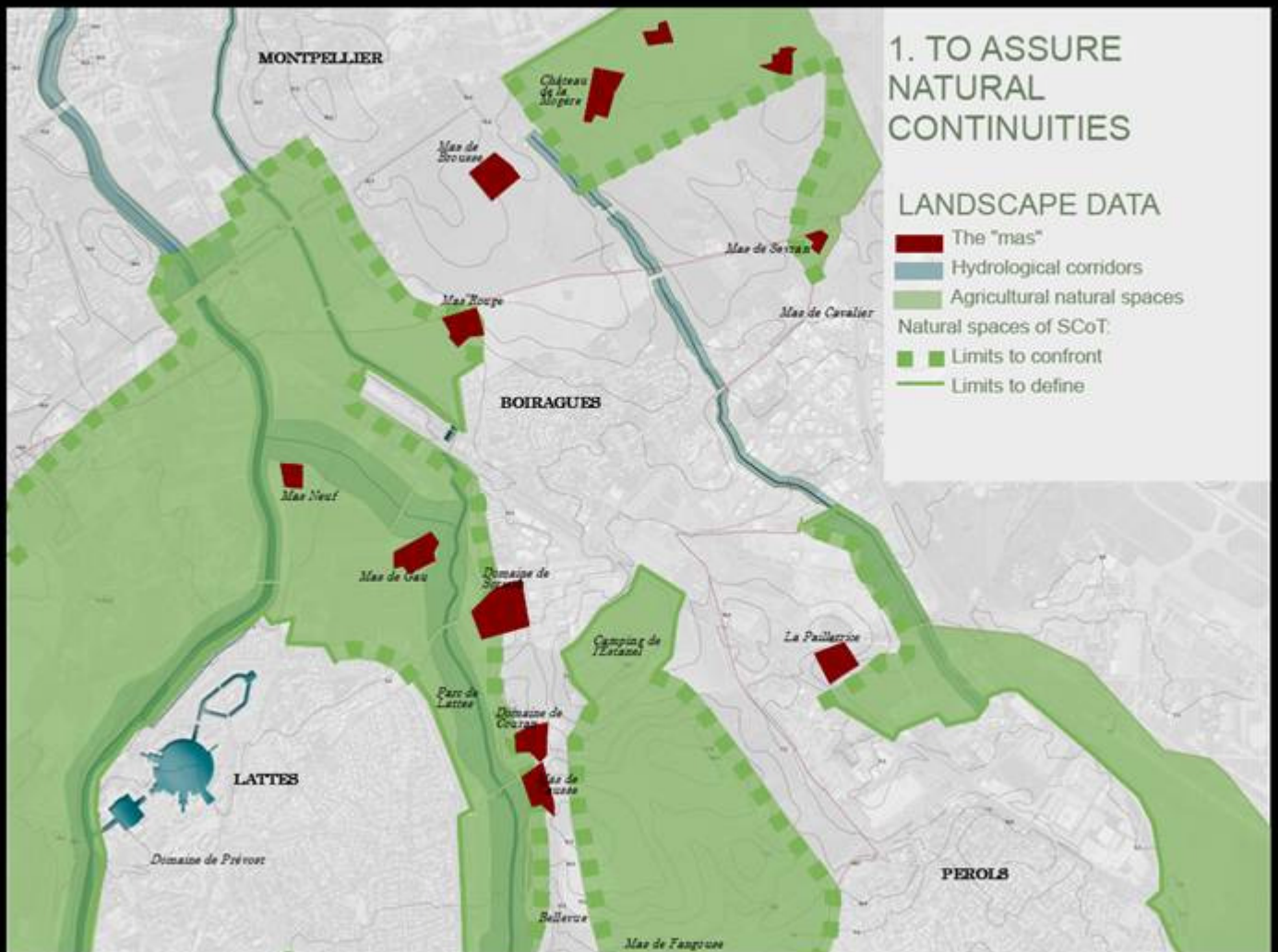
An ambition: the future agglomeration first image created by the stage of natural and new urban contemporary values

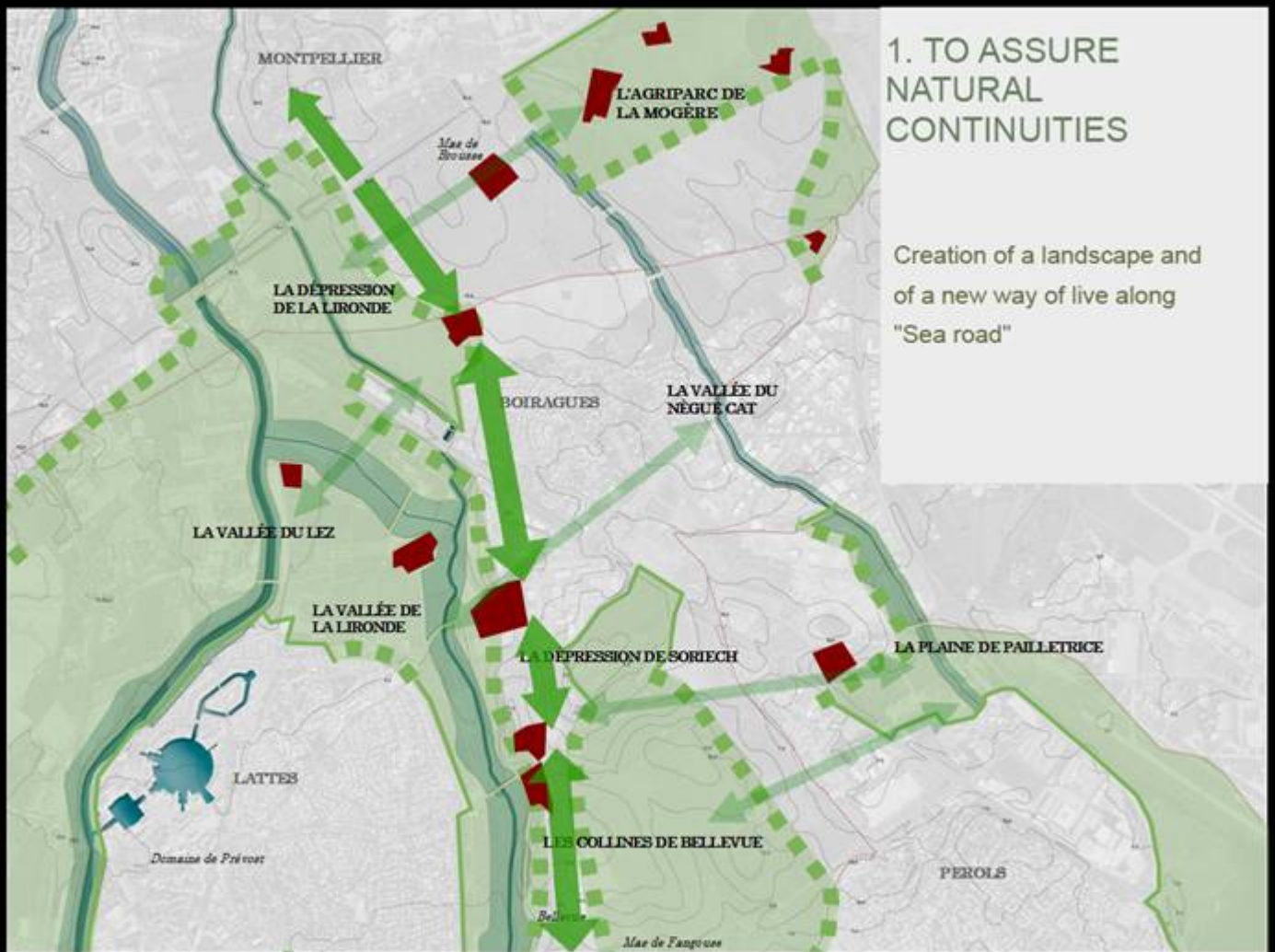


1 Les valeurs naturelles

Natural values





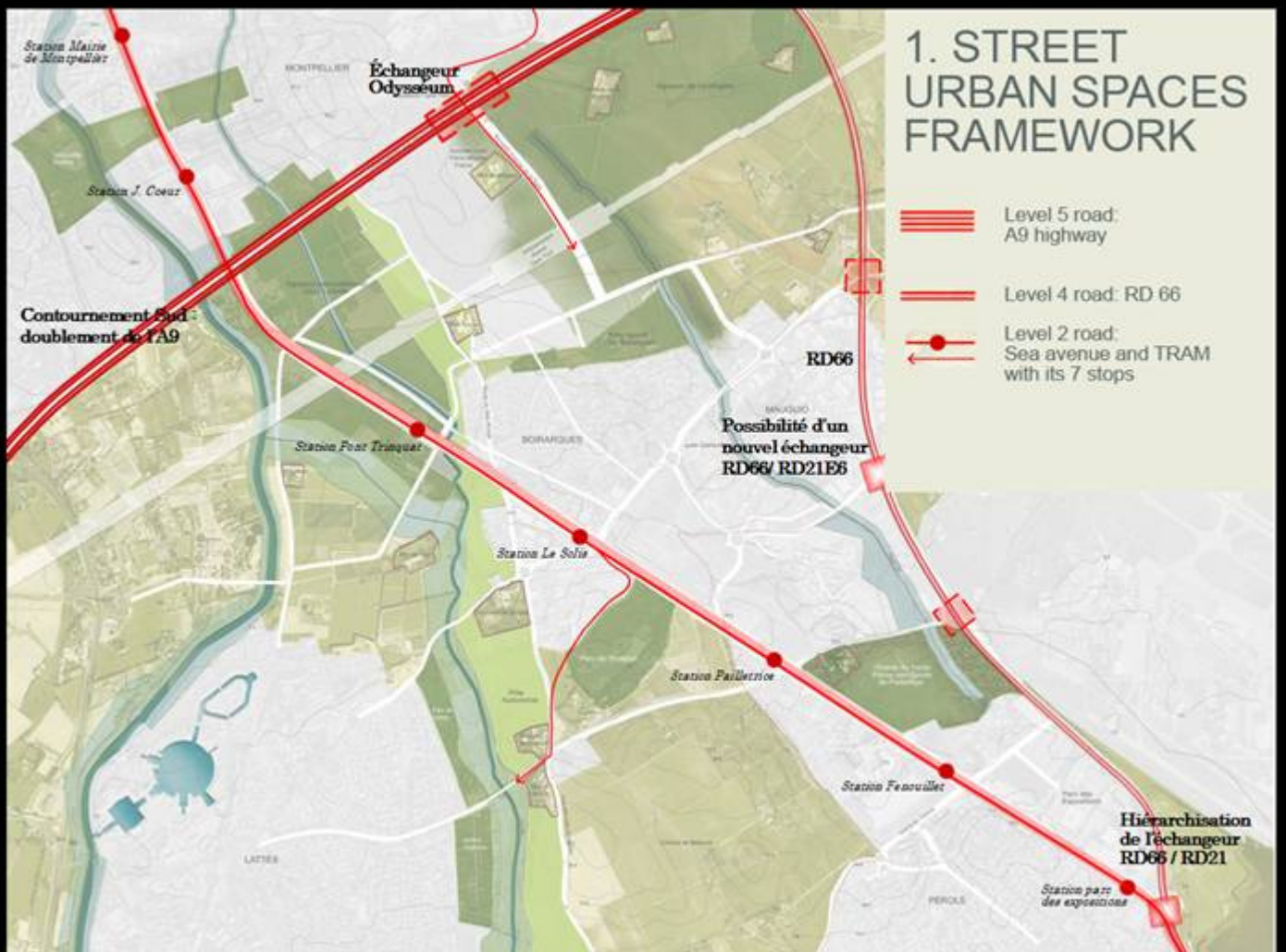
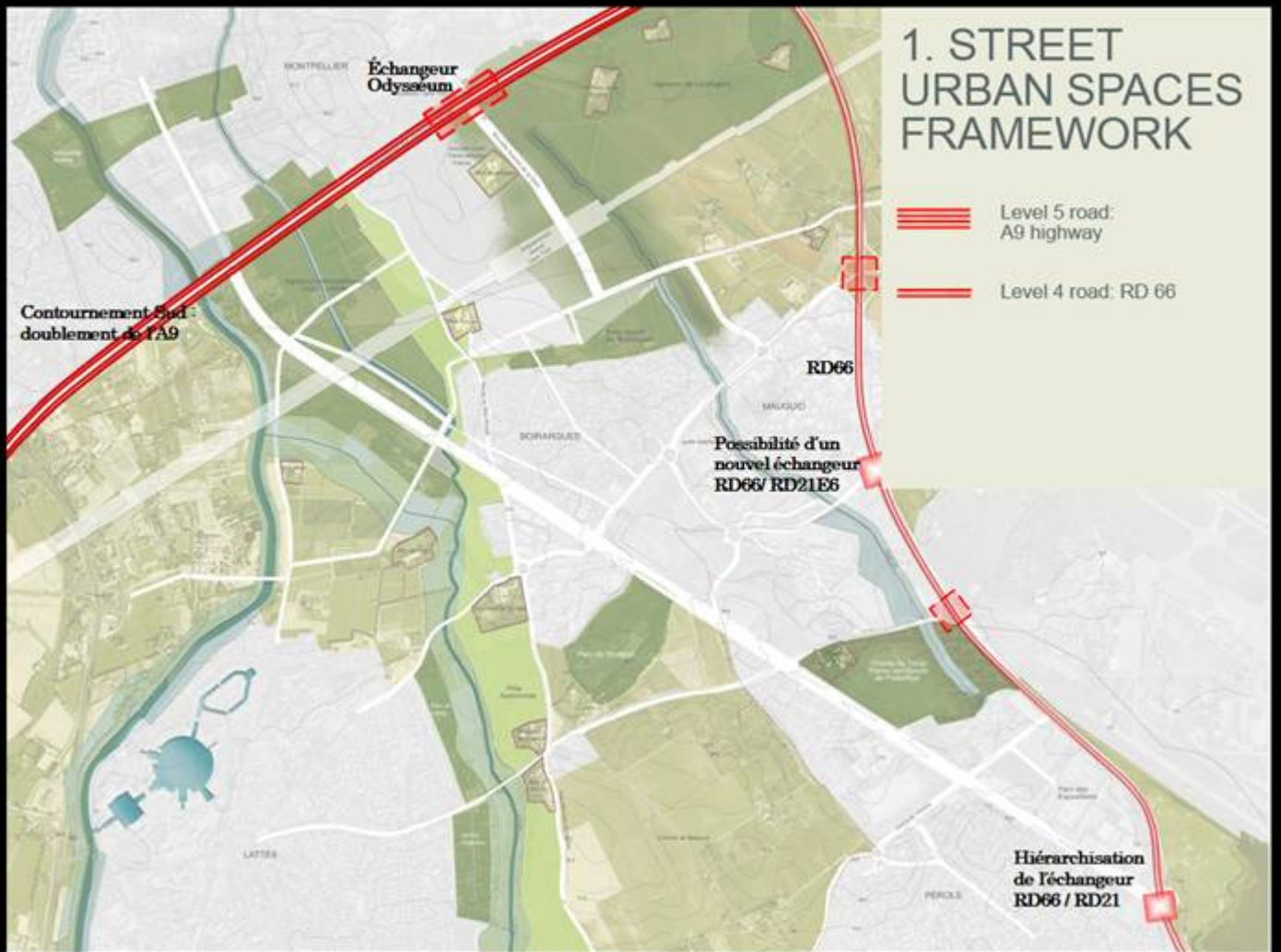


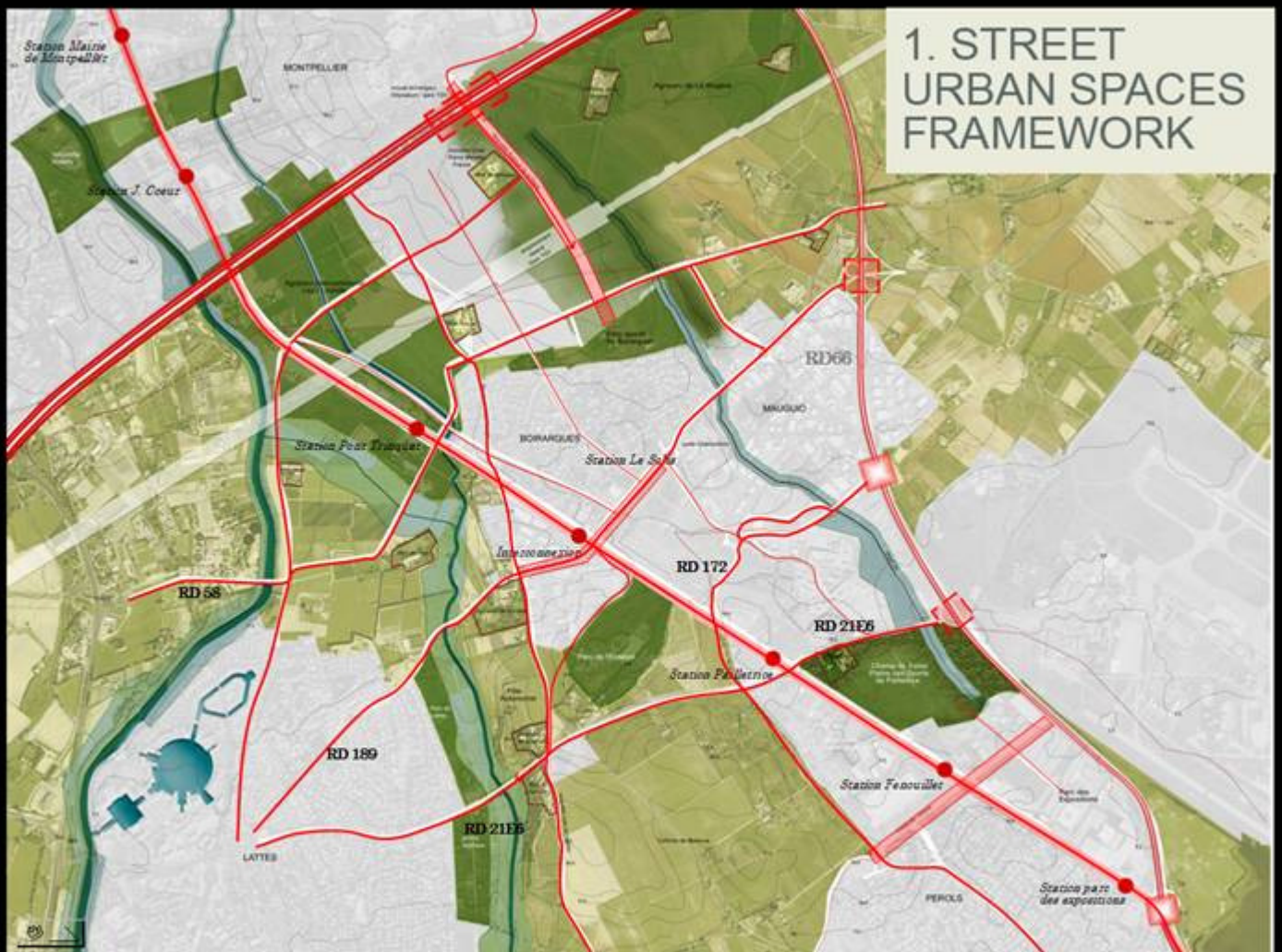
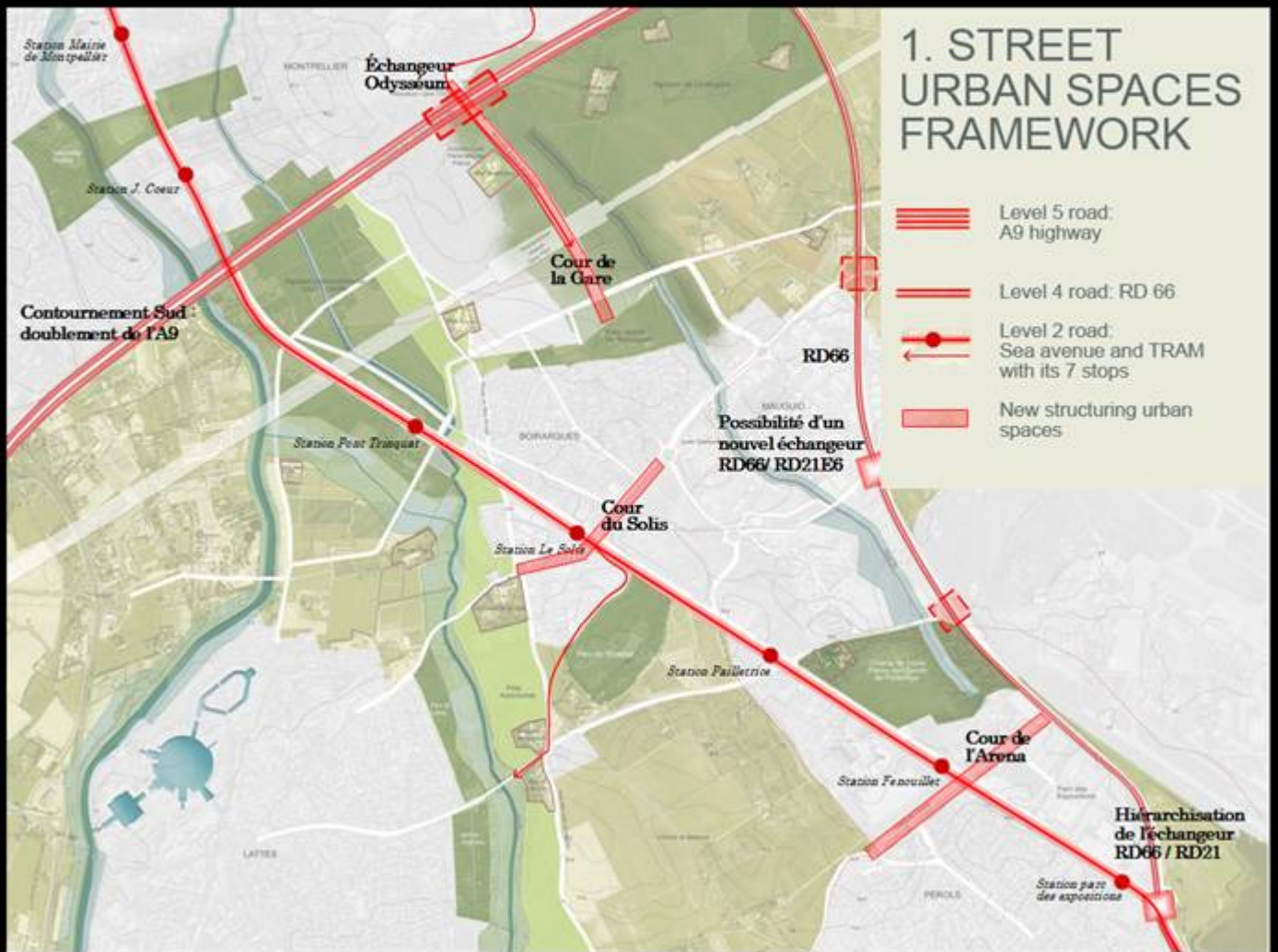


2 Les logiques de déplacement

Moving logics





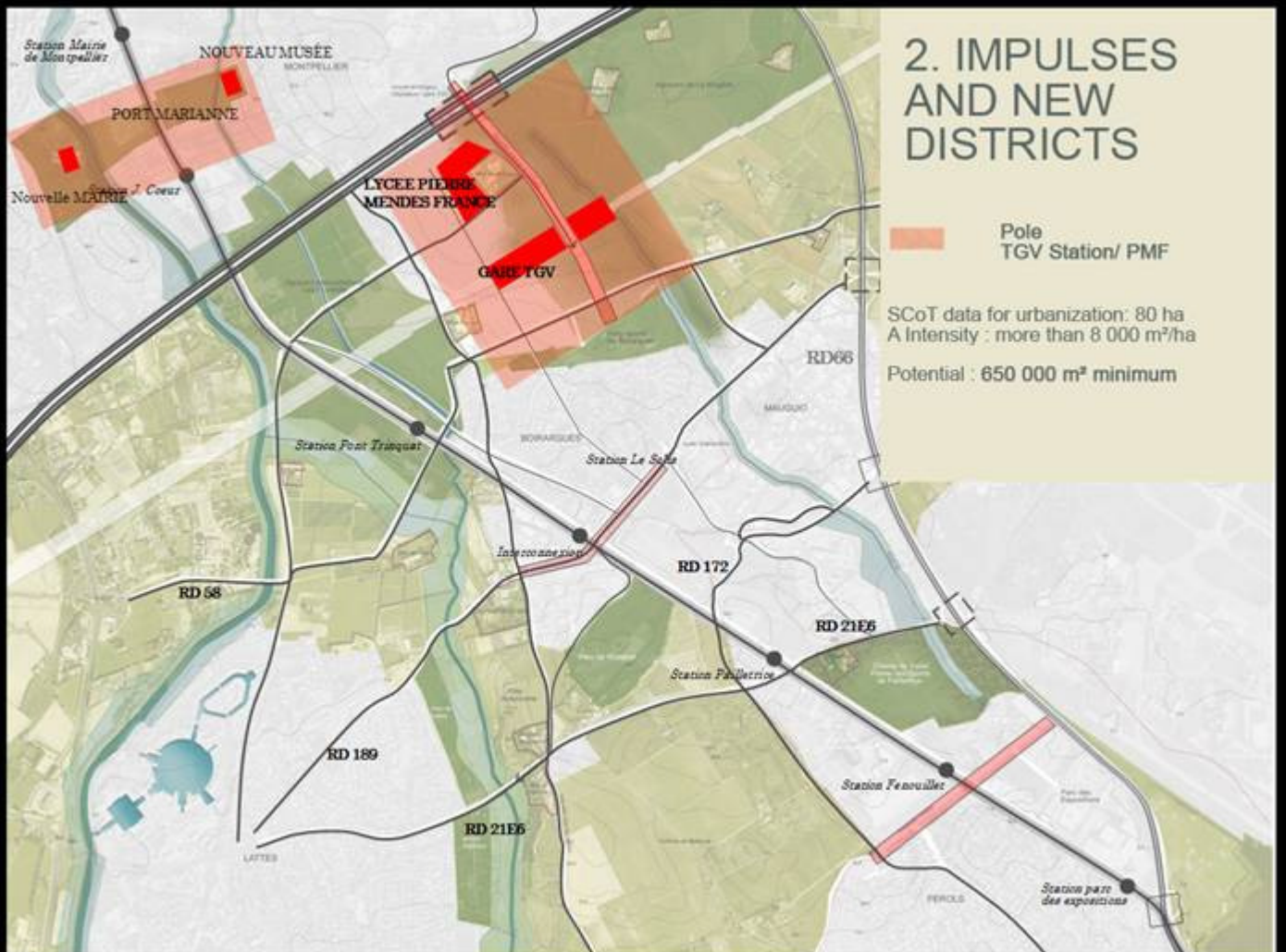
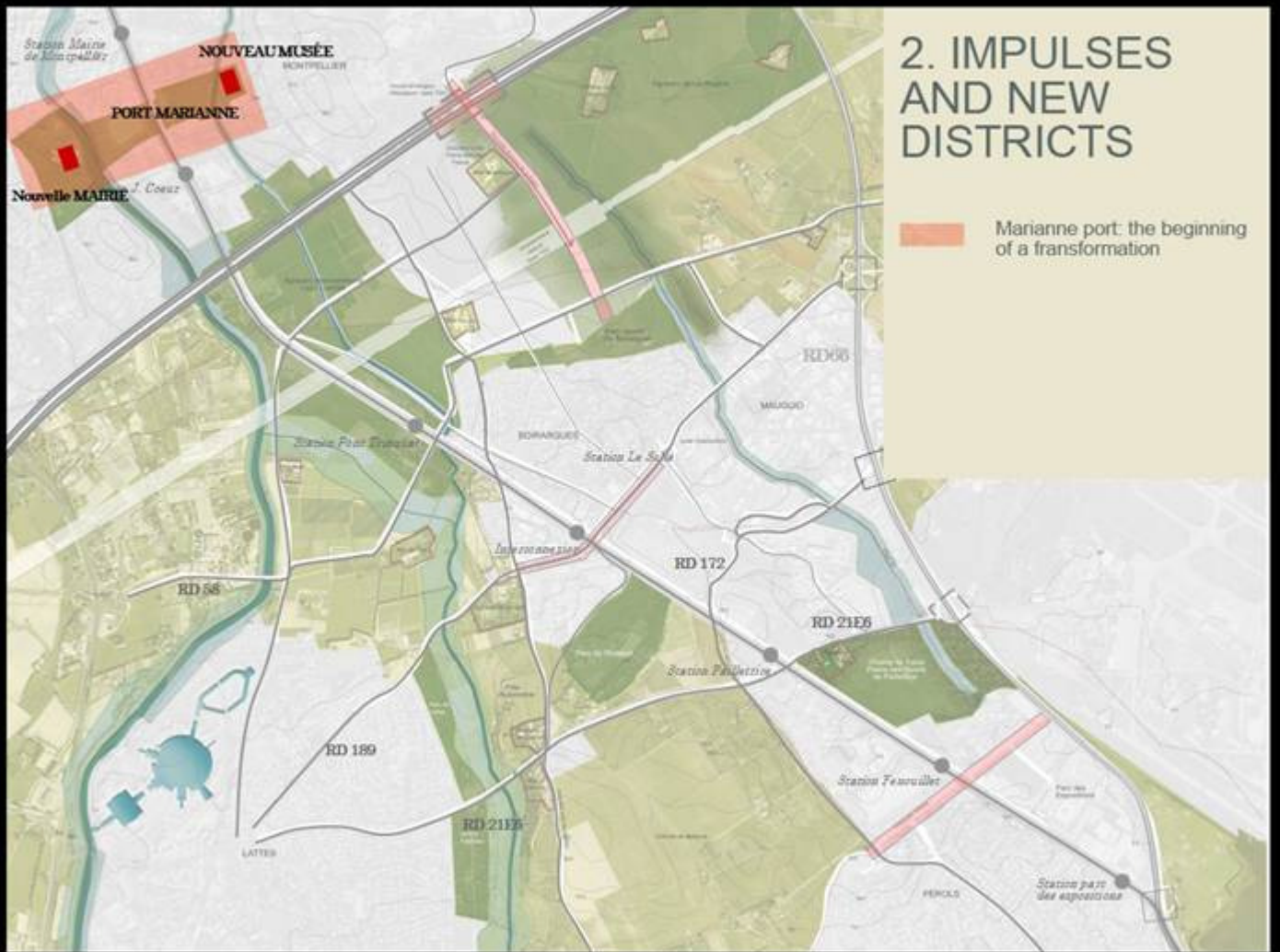


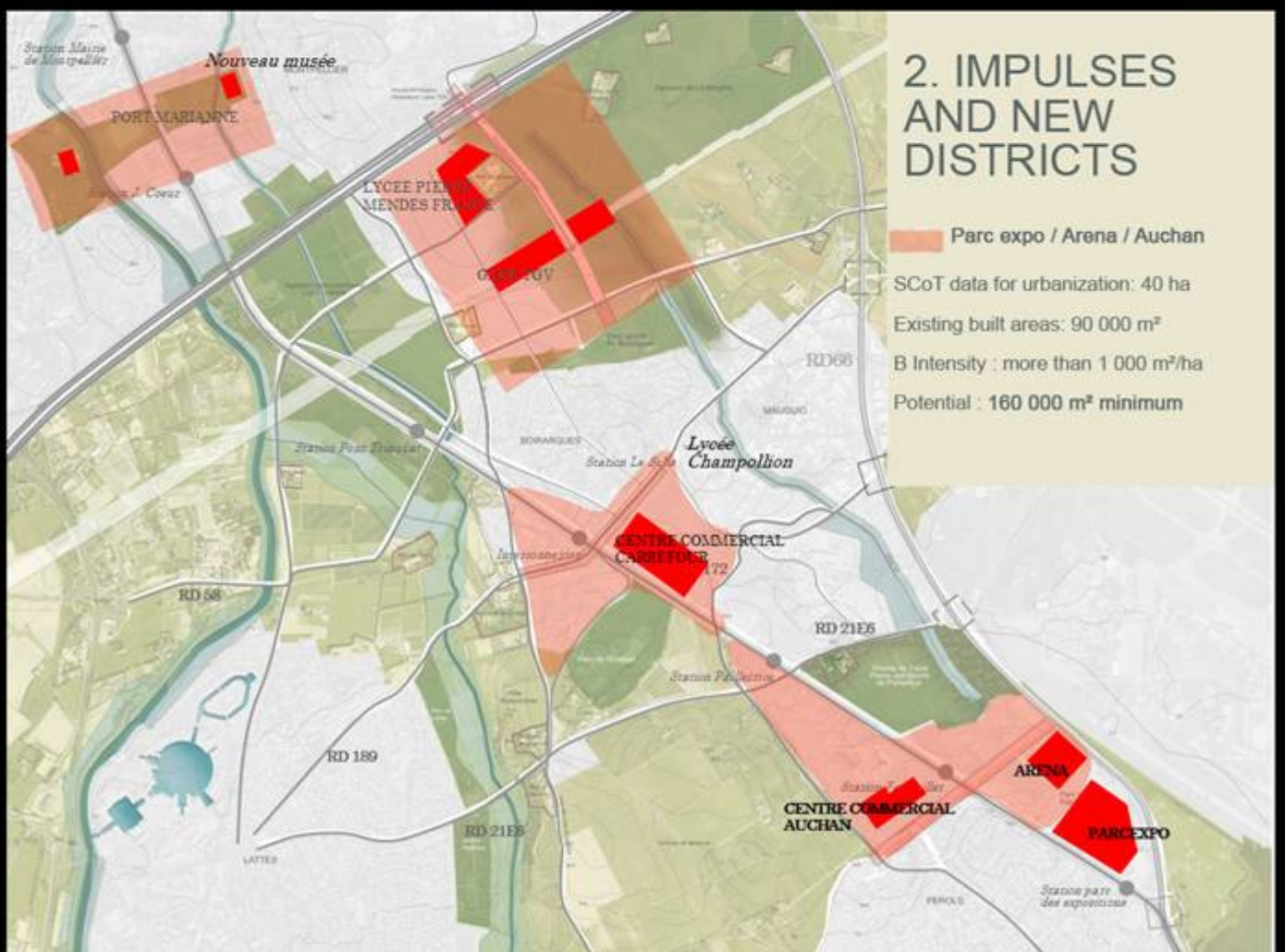
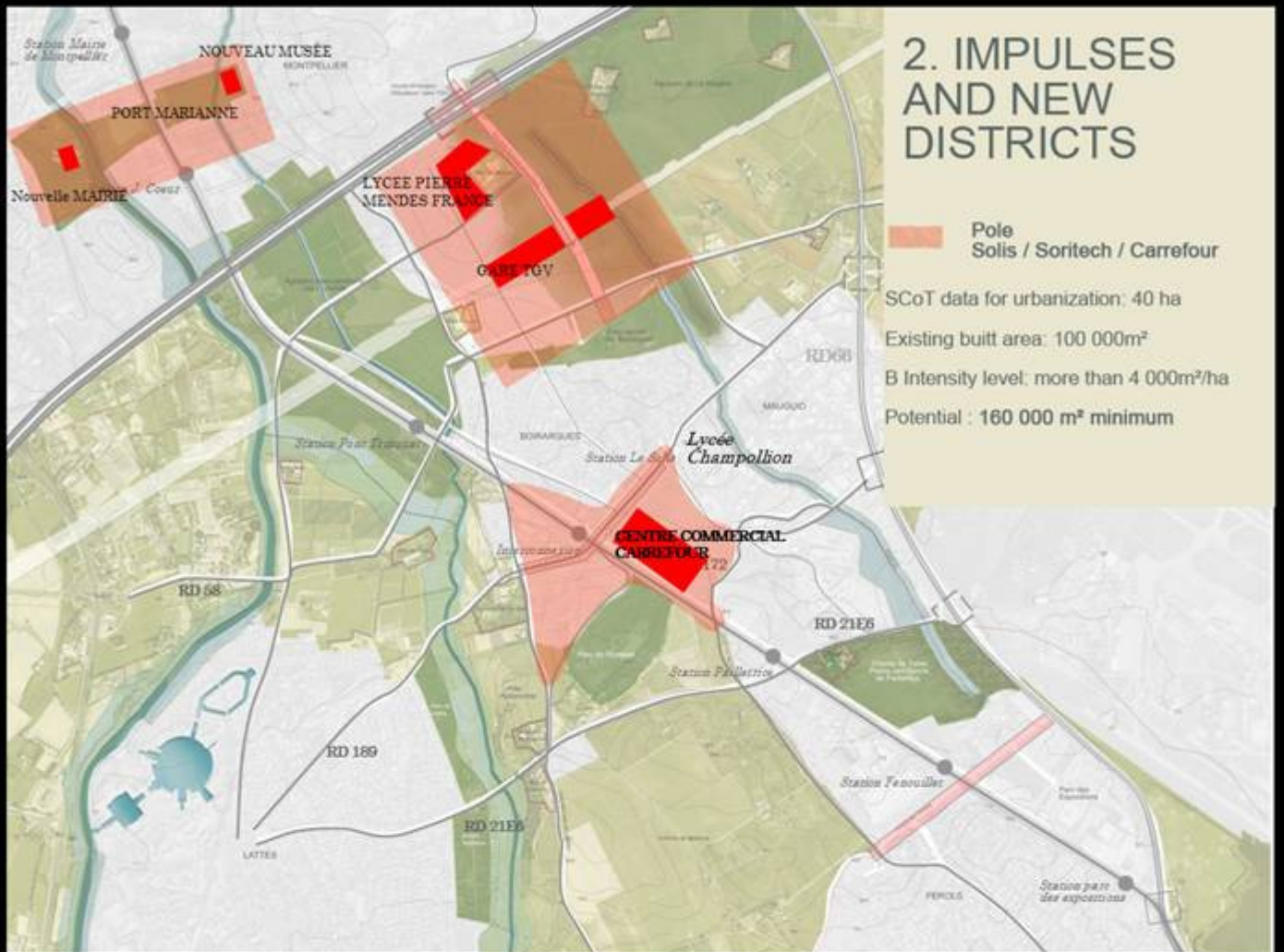


3 les projets « déclencheurs » et les nouveaux quartiers

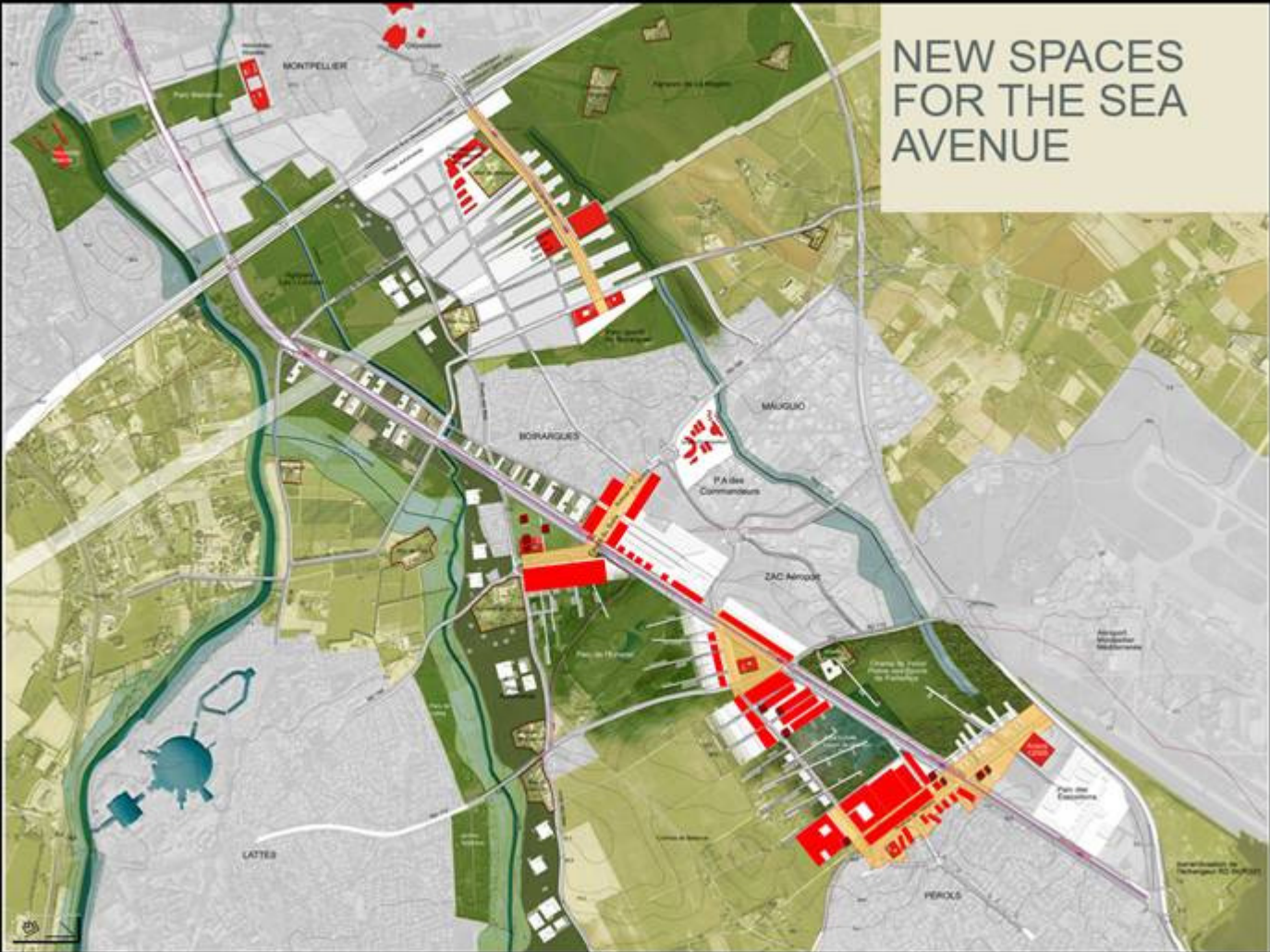
Projects' impulse and new districts







NEW SPACES FOR THE SEA AVENUE

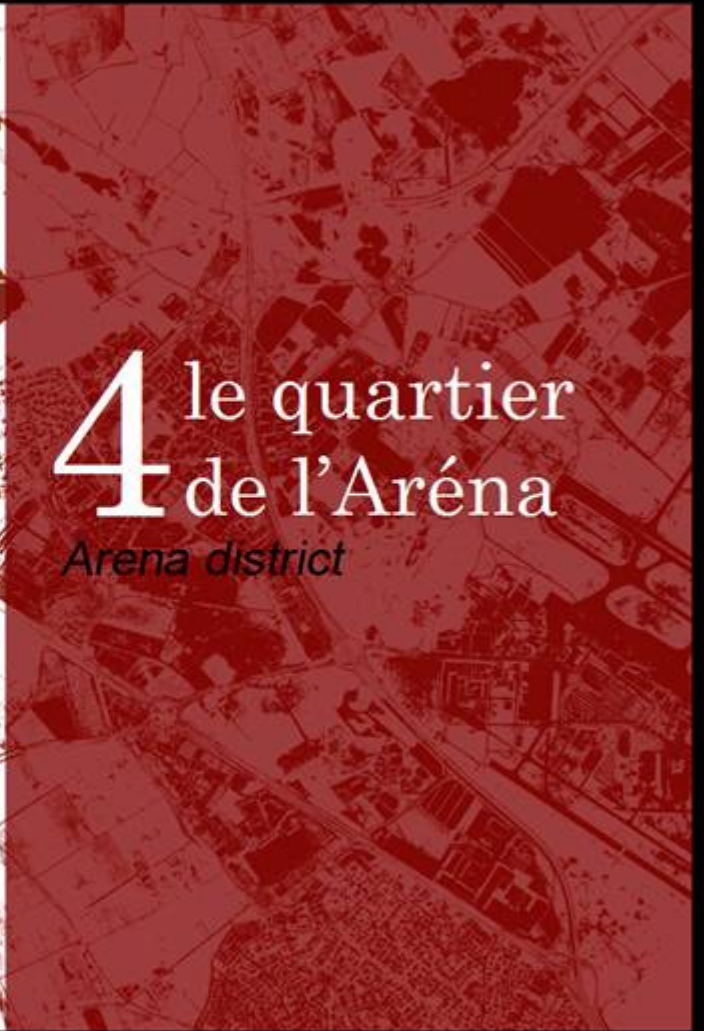






4 le quartier de l'Aréna

Arena district



1. DIALOGUE WITH NATURE

Built typology of Bellevue hills, integrated in existing plot with a small density, assures landscape's continuities.

The ZA of Fenouillet located in a dangerous area (high flood risks) is replaced by an humid area and a thunderstorm, around the old Fenouillet river.

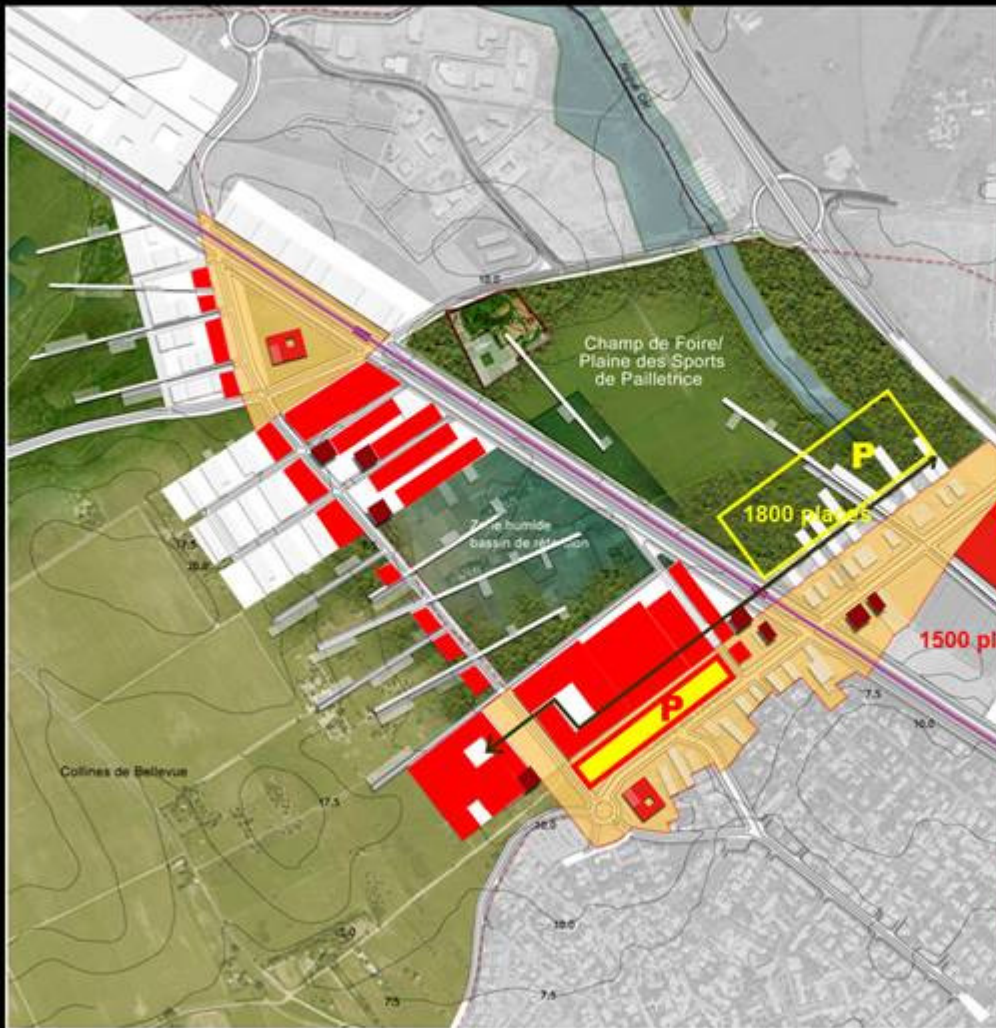
The "Parc Expo" façade on Pailletrice plain is occupied by hostels and tertiary building on piles



3. DIALOGUE WITH THE ROAD

The AUCHAN commercial centre's development replies on the new TRAM accessibility along commercial dynamic

The RD 216 becomes a "longue street" around which commercial activities and housing facilities are proposed.



Parking offer to access commercial activities and tertiary buildings

3. DIALOGUE BETWEEN FUNCTIONS





In our case study, two main issues are important in terms of sustainable development in urban fringes: “land pressure due to housing” and “agricultural land under pressure”.

In order to struggle against these issues, the main strategy of the Montpellier agglomeration is the SCoT. This document defines a group of common objectives in order to create the coherence between all the tools used in the area.

For Montpellier agglomeration the concept of the “sight inversion” is developed. He regards green spaces as the new challenge on the area. This chapter shows in different land scale what the urban results of this position are.

Ch. 4 Conclusions

Important territorial changes, in terms of population and land use indicating changes in the roles of some economic sectors since several decades, affect the rural-urban area of Montpellier. The extent of these changes affects a fairly large functional space, which can be identified with the urban area defined by INSEE, with a compact shape of 50 km in diameter, more than 1,500 square km which now contains over 500,000 inhabitants in the 1st decade of the 21st century.

Regardless of this very dynamic functional context, the system of local governance has changed since the decentralization laws of the early 1980s: since the early 2000s, the law gives patterns of local cooperation and intervention the old model of centralized Napoleonic state completely fell. Municipalities can be organized in public establishments, according to the opportunities and local political choices. The agglomeration of Montpellier, who had already established cooperation of the most urbanized communes since the 1960s, was able to organize a Communauté d'Agglomération, intermediate level between the Communauté de Communes, found in many rural areas and Communautés urbaines, yet rare, hosting more than 500,000 inhabitants and are equipped with very important budgetary and legislative measures. In this last level, the state offices or other communities such as Départements, delegate some powers, especially in the field of land planning and social intervention.

While the urban functional area of Montpellier is large, and its corresponding population now exceeds the "structural" threshold for a Communauté urbaine, local governance is an agglomeration of 31 communes, which doesn't corresponds fully to the most urbanized of functional urban area. The withdrawal of several municipalities of the Communauté d'Agglomération before his official birth in 2006 indicates fears stemming from strong communal identity in France. These fears reflect a classic game of players face the advantages and disadvantages of sharing costs and resources. The small communes are afraid of having to pay costs for equipment and services whose dimensions or areas do not correspond to their social or economic image. The risk to "perdre son âme" (loss the soul) is steadily advanced.

In the urban functional area of Montpellier, changes in land, marked by a strong urban sprawl and important changes in agricultural activities in view of these land challenges go with high population growth. The peri-urban area has thus increased and many villages around Montpellier are now consisting of major housing estates which indicate the inescapable presence of developers. The local public governance meets then the individual logics and private economic strategies related to the structure of land ownership. The regional agricultural economic context, marked by vineyards whose development is partly held by the European agricultural policy, makes a cycle of changes in land use of the urban periphery. These changes can identify a number of actors whose strategies and positions create a complex system that makes a difficult apprehension of future changes. Apart from farmers, developers and municipalities or the Communauté d'Agglomération de Montpellier, social groups are involved: environmental associations sensitive to changing landscape, environmental quality and choice of heavy urban equipments, Horse keepers increasingly, who are in an domain of leisure in strong growth, and more generally tourism stakeholders and local groups of inhabitants who "defend" sometimes their backyard...

Faced with these various issues, the Communauté d'Agglomération de Montpellier has an important tool for planning and governance space: the Schéma de Coherence Territoriale (SCOT), which allows defining the land use for the next 15 years. It may be noted that this SCOT, initially designed for a larger perimeter adapted to all the communes originally planned to be part of the Communauté d'Agglomération, has adapted to the final size of it and becomes one of smaller French SCOT. This feature appears as an advantage for the executive local governance as the planning tools correspond exactly to the concerned territorial entity.

According to the local actors, SCOT (and the below PLUs, local urban plans) appear as an essential tool. As a prospective tool, it obliges these actors to define their strategies for the local urban projects. The SCOT set in 2006 has identified issues involving choice of strong management, which can be summarized in better control of urban sprawl (with a certain density), better preservation of landscape qualities in this area to ensure an identity and to valorise heritage, and important choices in terms of equipment related to environment (water, waste, flood management) and transport (tramway, roads).

The major issues are revealed in this game of actors. In this territorial context, three expressions seem to be important:

- One is on modalities of realization of choices included in the SCOT in the preparation of PLUs. These rules emphasize a variety of executions by the municipalities, if they choose to let the Communauté d'Agglomération on their behalf or not. It is therefore an issue related to a set of actors who are of different levels. The choices in terms of housing or transportation are strong in this game.
- Another set of public actors is identifiable between the Communauté d'Agglomération and higher territorial levels, as Department (Département de l'Hérault in this case). It is a strong involvement of these two structures in landownership's intervention with farmers and landowners of urban margins. Various economic logics (productive economy or ground rent) weigh on these issues and very diverse temporalities intersect, between farmers life cycles over the long term and developers interventions on the short term or public actors who try to insert their own strategy for the medium and long term.
- public and private actors differently are positionned face to environmental issues such as flood risk. Legislative and spatial planning tools often appear limited in these relationships actor and often limit innovation.

These few general questions are thoroughly investigated and criteria and analysis results are the subject of the next evaluation report on these strategies.

Under PLUREL project, these strategies at the local level need to explore scenarios that can return some modalities through different tools. The other modules of the project should improve the analysis: with module 2, constraints affecting the Montpellier area may be clarified and released; with module 4, especially with the MOLAND model, scenarios of evolution or change can be tested. This simulation tool appears to be rich for knowledge in the context of Montpellier: borders of local governance, which define the scope of choices of the SCOT, can't allow easily considering spatial relationships with municipalities in the rest of the functional urban area. These communes set typically in some Communautés de communes make currently their own SCOTs. It should be noted that the first version of the diagnostic report of the SCOT of Pic Saint Loup (communes close north of the Agglomération de Montpellier), established in November 2008, almost does not refer to relations with this Communauté d'Agglomération, then that these one, first functional, weigh heavily on this part of the urban area. The Moland model will allow and will address these aspects outside institutional boundaries. " In addition, data for this model are for the whole of the urban area of Montpellier but also areas that belong to Communautés de communes or Communautés d'agglomération which, since 2008, are sought to unite with that of Montpellier, for achieve the critical weight of 500,000 inhabitants and thus enable the transition to an urban community in its complete right. The case study of Montpellier is marked by strong regulation issues between functional space and governance territories, where the peri-urban dynamics implement strategies for public and private actors.

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Appendix

APPENDIX A:

SELECTED NOTES ON CURRENT PLANNING LEGAL CODE

(from **Sandwick, 2007**)

Code de l'Urbanisme

Chapter I: General Measures concerning SCOT, PLU, and Charters

- The purpose is to ensure 1.) balance between growth and preservation with respect to sustainable development goals 2.) a healthy mix of activities, facilities, and infrastructure, and 3.) a live-able landscape across the urban-rural continuum. Goals 1 and 3 answer to the “*directives territoriales d'aménagement*” (DTA), (Art. L121-1).
- Establishes that communes, public establishments of inter-communal cooperation, and territorial collectives are responsible for local planning, and that they can create other organizations, “*agences d'urbanisme*”, to help monitor, research, and even administrate various planning, regional cooperation, and revision processes, (Art. L121-3).
- Indicates which related organizations and agencies should be involved locally in planning, such as parks, the department of transportation, workforce development, etc...(Art. L121-4).
- Registered local users, and certain registered associations must be consulted in drafting SCOTs and PLUs (Art. L121-5).
- SCOTs, schemas de secteur, PLUs, and local mapping is carried by a “*commission de conciliation*” composed of both elected officials from the commune (who are then appointed by the mayor), planning professionals, and qualified persons designated by the *Préfet*, (Art. L121-6).
- Communes pay the planning expenses - no charge for the state's role in the process. Communes can also recruit consultants as necessary (Art. L121-7).

Chapter II: Schémas de cohérence territoriale (inter-communal scale)

- The SCOT lays out economic development, land use planning, environment, social balance, transportation, and infrastructure, introducing the goals of PADD to the process. It can dictate compact development around existing urban and transportation infrastructure before allowing new development in open spaces. The SCOT must be compatible with the charters of any regional parks, and other local planning efforts (local housing, urban restructuring, economic development, PLU, protection and development, local mapping, land and state planning operations) must be compatible with the SCOT, (Art. L122-1).
- Communes within 15 km of seashore or an agglomeration with a population of more than 15,000 people require a SCOT to allow new development of open spaces - outside of special approval by the *Préfet* following input from the *Département* and the *Chambre d'Agriculture*, (Art. L122-2).
- SCOTs are drafted through local initiative, with perimeter of inclusion in the plan a matter of inter-communal agreement, taking into account natural features, protected areas, and spatial relationships between housing, employment, and amenities; Some statistical requirements must be met, (L122-3).
- Public deliberation is required two months before the final plan is submitted to the *Préfet*, (L122-11). If the SCOT is not renewed ten years after being adopted, it becomes void.

Plan Local d'Urbanisme (PLU) (The local plan, at the commune level.)

- The PLU consists of a report, a sustainable development plan, and zoning. The report includes demographic and economic forecasts, a statement of the community's needs, an initial description of the present state of the environment and the plan's impact on it, and it should explain the purpose, reasoning, and justification for decisions, (L123-3).
- The sustainable development first describes the chosen approach to achieving a sustainable balance between growth and preservation. Localities are free to identify their own approaches toward achieving compact development and renewal, non-motorized and public transport, mixed use development, welcoming newcomers, and preserving landscape and the environment. The general approach to zoning is familiar, combining zoning maps with a written document which describes how each type of zone is regulated. Zones are generally classified as urban (U), soon-to-be-urban (AU), agricultural (A), and forest or natural areas (N). Normally, zones A and N shouldn't be urbanized, or only under strictly controlled conditions.
- The PLU is elaborated and prepared by the commune. They pay the costs of planning while the State performs its administrative duties at no charge. Private consulting services can also be hired. Requirements of proper public notice of local planning activities are provided in article L300-2. A list of agencies is necessarily included in the local planning process. Economic studies are required for the preparation of the economic development plan. The municipal council must discuss the general directions of the plan, and with the mayor, must also welcome direct input from the public and related agencies such as the Department of Agriculture. Approval of the final draft must be determined by the municipal council over the course of public notice and a month's time. The *Préfet* ensures that the plan is sufficiently compatible and legal, responding within a month about any necessary revisions. Where applicable, the PLU must be compatible with SCOT, sectoral plan, maritime development plan, regional natural park charters, urban displacement plans, and local habitat programs. If a public utility observes an inconsistency, it must be resolved through public input, discussion, and intervention by the State.

Controlling Density

- Coefficient of soil occupation specifies the allowable ratio of constructed floor space (or volume) to ground surface. Different zones can specify a particular coefficient for houses, hotels, offices, commercial, craft industries, industry as a whole, warehouses, and farms/forests.
- Montpellier's SCOT is pretty special in that it sets a minimum density. It does this using three different levels of intensity: "A" (at least 50 homes per hectare), "B" (at least 30 homes per hectare), or "C" (at least 20 homes per hectare). It defines and prescribes which areas can be urbanized, and specifies the level of intensity for each of them.

Loi d'Orientation Agricole

Changes in 1999 and 2000 have substantially facilitated agricultural interests by firmly establishing a powerful role of the *Chambre d'Agriculture* throughout the planning process and creating new planning instruments to protect farmland.

"*Zone Agricole Protégée*" (ZAP - 1999) is an agricultural zone protected for the purpose of its quality production or unique geographic orientation. ZAPs must be proposed to the *Préfet* by the commune - once created they have special status as a service of public utility. In a ZAP, the *Chambre d'Agriculture* and the CDOA can respond to building permit applications following a specified standard, but only the *Préfet* has discretionary authority over such building permits.

Directive territoriale d'aménagement (DTA)

DTA is a very special planning tool. It is only implemented by the national state when local authorities are considered as ineffective at dealing with local stakes, as far as urban sprawl is concerned for example. DTA's are expected to include an evaluation that:

- lists environmental objectives;
- analyses the initial state of the environment;
- analyses anticipated effects of the management plan;
- identifies the reasons for adopting the management approach, noting its objectives;
- suggests how adverse environmental impacts from the DTA can be minimized, and is summarized for public.

APPENDIX B:

Montpellier in the Urban Audit 2004 (extract, pp 214-215)

Montpellier

The city of Montpellier (Montpellier Agglomération) is located in the département of the Hérault, part of the Languedoc Roussillon region. The city has a population of 412,891.

Tourism, hotels and the catering industry accounts for much of the city's growth. However, the service sector also plays an important role in the economy of the city. Montpellier is a major R&D centre for biomedical, life sciences and pharmaceutical industries. The three main biomedical research areas in Montpellier are AIDS, cancer and diabetes. ICT and agronomy are the other two important drivers of the city's growth.

The Communauté d'Agglomération called 'Montpellier Agglomération' is composed of 38 municipalities that take joint decisions on issues of urban management such as public transport and other sustainable development initiatives. The mayors of the communes elect a President who heads the public organisation.

Montpellier is part of a larger urban zone (LUZ) of 459,916 inhabitants that covers an area of 1522 km², and is based on the French concept of 'aire urbaine'.

INDICATORS	CITY		QUINTILES: Comparison with UA cities					LUZ		Ratio City-LUZ
	YEAR	SCORE	Low		High		CASES	YEAR	SCORE	
			5TH	4TH	3RD	2ND				
DEMOGRAPHY										
Total resident population	2001	412891				*	191	2001	459916	1:1.11
Total annual population change over 5 yrs.										
EU nationals as a percentage of total population	2001	2%				*	166	2001	2%	1:1.02
Non-EU nationals as a percentage of total population	2001	5%				*	166	2001	5%	1:0.92
Average size of households	2001	2.26			*		161	2001	2.32	1:1.02
Percentage of households that are 1-person households	2001	39%			*		160	2001	37%	1:0.95
Percentage of households that are lone-parent households	2001	6%			*		138	2001	6%	1:0.98
SOCIAL ASPECTS										
Average price per m ² for an apartment										
Average price per m ² for a house										
Percentage of households living in owned dwellings	2001	45%			*		152	2001	48%	1:1.05
Percentage of households living in social housing	2001	11%		*			122	2001	10%	1:0.94
Average living area in m ² per person	2001	37			*		109			
Life expectancy at birth for males and females										
Number of recorded crimes per 1,000 population	2001	125.43			*		154			
ECONOMIC ASPECTS										
Unemployment rate	2001	18%				*	160	2001	17%	1:0.96
Unemployment rate - female	2001	18%				*	160	2001	18%	1:0.97
Employment rate	2001	51%	*				144			
Activity rate	2001	63%	*				160	2001	63%	1:1.01
GDP per head (€)										
Median disposable annual household income(€)										
Percentage of households receiving less than half of the national average household income	2001	17%			*		62	2001	17%	1:0.96
CIVIC INVOLVEMENT										
Percentage of registered electorate voting in city elections	2001	62%			*		167			
TRAINING AND EDUCATION										
No. of children aged 0-4 in day care per 1,000 children 0-4										
% of resident population with secondary education	2001	13%	*				138	2001	13%	1:1

INDICATORS	CITY		QUINTILES: Comparison with UA cities						LUZ		Ratio City:LUZ
	YEAR	SCORE	Low			High			YEAR	SCORE	
			5 TH	4 TH	3 RD	2 ND	1 ST	CASES			
% of resident population with tertiary education	2001	23%					*	138	2001	22%	1.098
ENVIRONMENT											
Summer Smog: No. of days ozone (O3) exceeds 120µgm3	2001	7					*	122			
Number of days PM10 concentrations exceed 50 µgm3	2001	1	*					100			
Amount of solid waste collected (domestic and commercial) - tonnes per capita per annum											
Percentage of solid waste processed by landfill	1996	93%					*	29			
Green space to which the public has access (m2 per capita)											
Population density (residents per km2)	2001	699	*					183			
TRANSPORT AND TRAVEL											
Percentage of journeys to work by car											
Average time of journey to work (mins.)											

23 SUB-CITY DISTRICTS

Average Population: 17951.78

Comparison of Sub-City Districts

INDICATORS	YEAR	LOWEST	CITY SCORE	HIGHEST	Ratio
					Lowest: Highest
DEMOGRAPHY					
Percentage of total population aged 0-4	2001	2%	5%	7%	1.3.2
Average size of households	2001	1.67	2.26	2.91	1.1.75
Percentage of households that are 1-person households	2001	17%	39%	68%	1.4.12
Percentage of households that are lone-parent households	2001	3%	6%	13%	1.4.6
Percentage of households that are lone-pensioner households	2001	4%	9%	15%	1.3.3
SOCIAL ASPECTS					
Proportion of dwellings lacking basic amenities	2001	1%	3%	6%	1.9.2
ECONOMIC ASPECTS					
Unemployment rate	2001	10%	18%	38%	1.3.78
Percentage of unemployed who are under age 25	2001	10%	16%	18%	1.1.86
TRAINING AND EDUCATION					
% of resident population with only primary education	2001	4%	11%	19%	1.4.35
% of resident population with secondary education	2001	7%	13%	18%	1.2.78
% of resident population with tertiary education	2001	8%	23%	33%	1.4.16
ENVIRONMENT					
Population density (residents per km2)	2001	172	699	12393	1:72.14