Redeveloping Lyon Part-Dieu
Innovative construction sites management in a dense urban area

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Abstract

This study aims at identifying on a concrete example the possible transfer of methods from strategic spatial planning to lower scales of planning like urban programming or operational planning of construction sites. Strategic spatial planning is a participatory and open method establishing the basis for cooperation between public and private stakeholders to achieve what is defined by said stakeholders as the best evolution for the territory it is dealing with, it relies on tools and processes like territorial diagnosis, thematic workshops and roundtables; Objectives are more qualitatively than quantitatively defined to allow flexibility to adapt to internal and external changes. This paper considers the territory of Lyon conurbation, France, as its territory of focus and particularly the redevelopment project of its central business district and multimodal hub, Part-Dieu.

The planning of Lyon conurbation was in the 80s at the vanguard of strategic planning in France. Driven by Lyon urban planning agency and Grand Lyon, the local authority in charge of the area, under the pressure of local economic actors, Lyon conurbation acquired and integrated new tools and methods from strategic spatial planning. The hypothesis of this study is that, from then on, strategic planning methods and processes got transferred from the field of pure strategic spatial planning to the lower notches of the decision-making chain leading to the realization of a project: the stage of the programming of a neighborhood – the Part-Dieu district – and the stage of the operational planning of a construction or redevelopment operation.

This study puts forward the following reasoning to explain this transfer of methods: an acculturation process to the collaborative and qualitative methods of strategic spatial planning took place in the territory of Lyon conurbation. It happened between the corporate cultures of spatial planning and those of urban program design and construction operation management. However, more than a way to really involve all stakeholders in the decision-making process in a bottom-up approach, this study suggests that the use of these methods at the stage of construction/redevelopment operation management is more of a facade to make stakeholders better accept decisions already taken by experts and/or public authorities. One could talk about a top-down approach disguised as a bottom-up approach.
Résumé

Cette étude vise à identifier sur un exemple concret le transfert possible des méthodes de la planification urbaine ou régionale stratégique à des échelles plus restreintes telles que la programmation d’un quartier urbain ou la planification opérationnelle d’un chantier. La planification spatiale stratégique est une méthode participative et ouverte instituant une base pour une coopération entre les acteurs publics et privés afin de parvenir à définir la meilleure évolution possible du territoire concerné selon lesdits acteurs. La planification stratégique repose sur des outils et des processus comme le diagnostic territorial, l’organisation d’ateliers thématiques et de tables rondes. Les objectifs définis à son terme sont plus qualitatifs et flexibles que quantitatifs pour permettre une adaptation aux évolutions internes et externes au territoire. Cette étude concerne le territoire de l’agglomération lyonnaise en France et plus particulièrement le projet de réaménagement et de développement du quartier d’affaire et plateforme multimodale de la Part-Dieu.

La planification territoriale de l’agglomération lyonnaise a été dans les années 80 un précurseur de la planification stratégique en France. Portée par l’agence d’urbanisme et la Communauté Urbaine et sous la pression des acteurs de l’économie locale, elle s’est à l’époque dotée d’outils et de méthodes de planification stratégique spatialisée. L’hypothèse de cette étude est qu’à partir de là, les méthodes de la planification stratégique ont été transférés du domaine de la planification spatiale stratégique pure vers les maillons suivants de la chaîne de décision menant à la réalisation d’un projet : le stade de la programmation d’un quartier – le quartier de la Part-Dieu – et le stade de la planification opérationnelle d’une opération de construction ou de réaménagement.

Cette étude met en avant le raisonnement suivant pour expliquer ce transfert de méthodes : un processus d’acculturation aux méthodes participatives et qualitatives de la planification spatiale stratégique a eu lieu sur le territoire de l’agglomération lyonnaise. Cela s’est produit entre la culture propre au monde de l’aménagement du territoire et les cultures du monde de la conception d’un programme urbain et du monde de la gestion des opérations de construction et de réaménagement. Cependant, plus qu’une manière de vraiment impliquer toutes les parties prenantes au processus de prise de décision dans une approche bottom-up, cette étude laisse penser que l’utilisation de ces méthodes au stade de la gestion des opérations de construction et de réaménagement relève davantage d’une façade permettant de mieux faire accepter des décisions déjà prises par les experts du secteur et/ou les autorités publiques. On pourrait parler de démarche top-down déguisée en démarche bottom-up.
Acknowledgement

I would like to express my profound gratitude to my main supervisor Elisabetta Troglio for all the good advices and support during the timespan of this thesis and to Ingérop and especially Sébastien Rabu for giving me the opportunity to work in a real engineering environment for 6 months.

I also would like to offer special thanks to my colleagues at Ingérop, Hélène and Jeanne in particular: they provided me with a welcoming working environment, great tips and insightful discussions on work and all kind of matters.

Last but absolutely not least, I would like to thank my family and friends who have encouraged me, cheered me up when needed and provided me with great opportunities to forget and think about whatever else during the achievement of this regularly confusing task. Big Up to Bénédicte, Simon, Stéphane and my flatmate Louise for supporting and suffering me.
# Table of Contents

*Abstract* .......................................................................................................................... 1  
*Résumé* ................................................................................................................................. 2  
*Acknowledgement* ................................................................................................................. 3  
*Table of Contents* .................................................................................................................. 4  
*List of Figures* ........................................................................................................................ 6  
*Introduction* ............................................................................................................................ 7  
I.  *Objectives, methodology and references* ............................................................................ 9  
I.1. Problem identification ........................................................................................................ 10  
I.2. Objectives .......................................................................................................................... 11  
I.3. Methodology ....................................................................................................................... 13  
I.4. Theoretical framework ........................................................................................................ 14  
I.4.A. Strategic and collaborative spatial planning ................................................................. 14  
I.1.B. Theory of change in complex organizations .................................................................. 16  
I.1.C. Construction sites management ....................................................................................... 17  
II.  *Birth and sprawl of strategic urban planning in Grand Lyon* ........................................... 19  
II.1. Geographical and historical context .................................................................................. 20  
II.1.A. Geographical context and description of the area ......................................................... 20  
II.1.A.i. Grand Lyon ................................................................................................................ 20  
II.1.A.ii. The Part-Dieu district ............................................................................................... 20  
II.1.B. A History of Part-Dieu ................................................................................................. 22  
II.1.B.i. Birth of the first Part-Dieu project .............................................................................. 22  
II.1.B.ii. The first Part-Dieu project ....................................................................................... 23  
II.2. Evolution of urban planning processes in Lyon ............................................................... 27  
II.2.A. Mutation of Lyon planning agency (1961-2015) .......................................................... 27  
II.2.B. Lyon 2010 and Lyon 2030 ............................................................................................ 28  
II.2.B.i. Strategic planning in practice – Lyon 2010 ............................................................... 28  
II.2.B.ii. Lyon 2030 ............................................................................................................... 31  
II.3. Redeveloping Lyon Part-Dieu .......................................................................................... 32  
II.3.A. How does the current Part-Dieu project fit into “Lyon 2010” and “Lyon 2030” schemes? 32  
II.3.B. Co-construction of the Part-Dieu project ...................................................................... 33  
II.3.C. Constraints associated with the project ....................................................................... 35  
III.  *Innovative construction site management* ......................................................................... 36
III.1. Strategic planning affects the definition of the construction sites management process 37
   III.1.A. Early developments and funding sources for construction sites management processes 37
   III.1.B. Collaborative definition of Part-Dieu-specific construction site management rules... 38
   III.1.C. ... And a few non-collaborative processes 39

III.2. Characteristics of the Part-Dieu construction site management process 41
   III.2.A. Charte Chantiers Part-Dieu and Règlement Inter-cha... 41
   III.2.B. Specific requirements for public domain occupation and construction sites' deliveries in Part-Dieu 43

III.3. Problems with the construction site management process implementation 44
   III.3.A. Corporative inflexibility 44
   III.3.B. Administrative and legal inflexibility 47
   III.3.C. Regulatory implementation/Responsibility issues 49

Conclusions 51

Findings 51

Discussion 53

References 55

Annex 1 – Timeline 58
List of Figures

Figure 1: The Part-Dieu programme by L’AUC, the architecture and urban planning agency defining the overall orientations of the programme – Dark blue buildings are under construction or at the designing stage, light blue buildings are planned or at a really early stage of the design process; public and transport infrastructures operations are not displayed (credit: L’AUC) 10

Figure 2: Figurative scheme of the thesis subject 12

Figure 3: Location of the Part-Dieu district, area of the project (credit: Grand Lyon, communauté urbaine) 20

Figure 4: Direct train lines (pink) or air traffic routes (blue) to European cities (credit: Grand Lyon, communauté urbaine) 21

Figure 5: Part-Dieu military base in the middle of the 20th century (credit: Agence d’Urbanisme de Lyon) 22

Figure 6: Part-Dieu under construction (credit: Agence d’urbanisme de Lyon) 25

Figure 7: Fundamental redevelopment orientations scheme 30

Figure 8: To the left, building construction/renovation operations planned 2014-2021, to the right, public spaces redevelopment operations, planned during the same period 35

Figure 9: Example of a diagnosis of the flows crossing the train station and run by SNCF, French national railway company. 40

Figure 10: Scheme of stages leading to the realization of a construction operation - to the left is displayed the compulsory stages in any construction operation while the box to the right displays the Part-Dieu specific extra stages 43

Figure 11: Delivery truck in front of Incity base-camp (left) and construction workers’ vehicle parked at the entrance of one of the mall’s parkings for maintenance work (right) 48

Figure 12: Docteur Bouchut street hazard sources for pedestrians and bike riders 50

Figure 13: Impact of a delivery truck maneuvering to enter the delivery area of the mall 50

Figure 14: Final figurative scheme of the thesis subject 51
Introduction

The city of Lyon in France is on the verge of a vast renewal of its main business district and transport hub, the central Part-Dieu district. The whole project involves multiple stakeholders – public, semi-public and private – for a first stage of investment up to 3 billion Euros from 2014 on to 2021. Several construction sites will be active at once in the years to come and their cumulating impacts on the regular life of the neighborhood were deemed a potential massive hindrance for the economic viability of the district.

Grand Lyon, the public authority in charge of the global project management commissioned Ingérop, an engineering consulting company, as an expert consultant on coordination to deal with this issue. Hand in hand with Grand Lyon and working alongside private stakeholders, Ingérop’s role is to work on construction sites phasing and process to limit as much as possible the hampering impacts of the multiple construction sites on the natural mobility and activity in the area.

In relation with the work of Grand Lyon and Ingérop on the Part-Dieu project, the main objective of this master-thesis is to present:

- The innovative coordination process and explore the way it was designed;
- The way it was made acceptable to both private and public organizations involved in the Part-Dieu project.

This will be done in the light of strategic and collaborative planning methods which appear in Lyon in the 1980s and spread in Grand Lyon and France in general since then.

The physical evolution of the Part-Dieu district is described and linked to the evolution of urban planning processes in Lyon urban area, with the emergence of strategic and collaborative planning methods in particular. Part-Dieu has been a key-project for urban planners and decision makers to try and change the geographical organization of land and men at the regional level. However, in the 1970s, conflicts of interests between planners, decision makers and economic actors, both local and national, arose and the whole Part-Dieu district was a mixed success, not properly integrated to its surroundings. Later on, in the eighties, a new plan “Lyon 2010” was designed to try and correct previous urban planning mistakes at the scale of Grand Lyon. This leads to the following research question:

*What can be done differently now than what was done in the 1970s, at the level of urban planning and urban programming?*

Civil society and local economic actors’ voices were heard and their interests included in the decision making process in what can be identified as the first French try at strategic spatial planning. The new Part-Dieu project is an heir to this strategic urban planning process, developed to mitigate the shortcomings of the previous one. Public authorities decided to redevelop the neighborhood within a
short timeframe for cost efficiency reasons. At this lower scale of urban redevelopment, this report identifies a transfer of processes from strategic urban planning (Grand Lyon territory scale) to urban programming (Part-Dieu district scale) through the intermediary of Grand Lyon.

In light of the many physical constraints faced by the Part-Dieu project, an innovative construction sites management and coordination is necessary. The whole coordination process definition is aiming at reaching a global consensus by involving all the project stakeholders in the design of this framework enabling the district to be densified and remodeled while maintaining its basic functionalities. This leads to another research question:

*How to insure stakeholders will work together to reduce the hindrance of their different operations?*

Similarities with strategic processes – such as diagnosis of the neighborhood, thematic workshops and roundtables – are identified within the report and the reason for this other transfer of methods presented.

A coordination framework was developed and defines the necessity to pool the construction sites’ grip and control the flows of materials, tools and staff in the neighborhood. Some administrative procedures were deemed too complicated and simplification proposals were made to improve the overall coordination. The implementation of the framework is now facing challenges that are summarized and explained in this report and leads for improvements are suggested in light of the theoretical background of strategic and collaborative planning.
I. Objectives, methodology and references

To deal with the intensity of construction operations in the year to come in an already densely used district, an innovative management process was designed to reduce the hindrance of construction sites on the regular activities of the neighborhood; this report aims at identifying the parentage between this innovative process and strategic spatial planning. This first part of the report presents the objectives and methods used to do so.
I.1. Problem identification

The Part-Dieu project is one of Grand Lyon key-project for the decade to come and comprises major investments mainly for new transport infrastructures, mall expansion and renovation and office space (See Figure 1). This central hub and business district is already highly constrained by the activities of workers and travelers – pedestrians, cyclists, cars and public transport users. The planned redevelopment has the important goal of releasing part of these constraints to increase the attractiveness of the neighborhood, and the entire metropolitan area with it. Constraints are going to be even tighter on the smooth operation of the densely used neighborhood during the transitional phase of the construction and that is setting high expectations on the construction sites efficiency front. For Part-Dieu to stay attractive and economically viable during the transition, which relies on its multimodal accessibility, the issue of how construction sites will impact flows and activities in the neighborhood needs to be addressed.

Figure 1: The Part-Dieu programme by L’AUC, the architecture and urban planning agency defining the overall orientations of the programme – Dark blue buildings are under construction or at the designing stage, light blue buildings are planned or at a really early stage of the design process; public and transport infrastructures operations are not displayed (credit: L’AUC)

Construction sites’ impacts management usually seems to be too hectic and time-consuming to enable operating the different construction and demolition operations while preserving the regular activities and flows of goods and people of the business district and metropolitan hub. Construction grips would reduce the space available for car and bus traffic; pedestrians and bikes. Furthermore, delivery trucks and vans would increase the stress on traffic which is already often congestioned in and around Part-Dieu.

To deal with this issue, Grand Lyon and Mission Part-Dieu decided to invest human and financial resources to work on construction sites phasing and coordination. But what are the levers Mission
Part-Dieu has on private corporations and public agencies involved in the project? History shows that it was easy for private and public investors to do whatever they wished on their subdivisions without following Charles Delfante’s team’s guidelines (Delfante was in charge of the first Part-Dieu project back in the 1960s-1970s). Nowadays, the same problem arises: Grand Lyon is not the owner of most of the land concerned by the coming operations, the mall, SNCF and other private promoters owning most of it. The only operations completely managed by Grand Lyon are related to public spaces. The traditional battery of administrative procedures is not enough to enforce the views of Mission Part-Dieu on coordination and phasing. What can be done differently than what was done when Part-Dieu was first built around the 1970s? How can Mission Part-Dieu involve all stakeholders and insure they work together to reduce as much as possible the hindrance of their different operations while they meet their deadlines?

This is the aim of this report: presenting the innovative coordination process and the way it was designed and made acceptable to both private and public organizations involved in the Part-Dieu project. This will be done in the light of acculturation to new strategic and collaborative planning methods.

**I.2. Objectives**

The main objective described in the previous part will be achieved through the completion of three partial and interrelated objectives, each of them concerning a different stage of the planning process. Indeed, for the analysis of the decision-making chain leading to the different construction/redevelopment operations to come in Part-Dieu, the whole planning process is divided into:

- The design of an overall plan, setting general strategic orientations for the global territory of *Grand Lyon*;
- The design of a program, setting clearer objectives for an area within the *Grand Lyon* territory, this would happen to be what is called the Part-Dieu project in this report;
- The design of projects implementing different aspects and features of the program.

In this case, the plan would be “SD Lyon 2010” and its successor “SCOT Lyon 2030”, the program would be the “Part-Dieu project” designed by *L’AUC* with the help of Mission Part-Dieu and a few other contractors and projects would be for instance the construction of Incity tower, the redevelopment of Docteur Bouchut Street or the construction of railway platform L in Part-Dieu train station.

The hypothesis of this report’s author is that the two research questions are in fact fully linked: Using strategic and collaborative spatial planning methods is what was done differently than what was done in the 1970s, both at the urban planning and urban programming level, and the pervasion of these same tools to the sphere of operational construction sites management is what insures that stakeholders will work together to reduce the hindrance of their different operations.
The objective of this report can then be reformulated this way: to show how strategic planning processes like roundtables, thematic workshops and public consultation pervaded from the higher sphere of urban and regional planning down to the lower sphere of construction operation management. The central role of Grand Lyon in the matter is highlighted. Critics are however formulated to pinpoint the flaws of this attempted democratization of the planning process.

In the second part of this report, apparition and sprawl of strategic and collaborative urban planning are introduced through a historical summary of the evolution of the Part-Dieu district and urban planning processes in Lyon along with it. The two plans, “SD Lyon 2010” and “SCOT Lyon 2030”, are presented. In the same part, after presenting the overall planning process on Grand Lyon territory in the last 5 decades, some of their implementation are presented: the current Part-Dieu program and its design stages are described and the transfer of typical “strategic and collaborative planning” processes from planning to programming is identified. Finally, the third and last part of the report is dedicated to the presentation of the operational coordination of future projects implementing the program and how this stage of the planning process is using the same set of strategic and collaborative processes. Throughout this report, critics are formulated and the major role of Grand Lyon is pinpointed.

![Figure 2: Figurative scheme of the thesis subject](image-url)
I.3. Methodology

To carry out this case study on Grand Lyon and Part-Dieu, different methods were used to gain knowledge on the different stages of the ongoing planning process. The study is based on literature review, analysis of internal Grand Lyon documents and a six months internship at Ingerop, the consulting company contracted by Grand Lyon to deal with construction sites management. During the internship, information was collected through informal conversations as well as meetings addressing numerous issues related to construction sites coordination and management.

This study is framed within the field of strategic spatial planning. Indeed, features of strategic spatial planning can be identified in Lyon conurbation planning documents and the design process leading to them. But what really picked the interest of the author of this report was that these features and processes – involving territorial diagnosis, thematic workshops, roundtables, definition of qualitative goals – could be found at other scales of planning: urban program design and operational construction sites planning. This lead to the use of the notion of acculturation – the processes of cultural changes resulting from meetings between organizations of different corporate cultures – to describe the way strategic planning methods transferred from one field to another, in particular through the development and reorganization of Grand Lyon.

This study is a qualitative case study. Case studies “can be compared to reach a general set of observation” but can also “be used as illustrative examples highlighting larger abstract principles” (Groat and Wang, 2002). It is the opinion of the author of this report that Part-Dieu is an interesting case – or revelatory case, within the meaning of Yin (2012) – to study since the successive projects, which took place in the district since the middle of the 20th century, are and have been key-projects for the Grand Lyon territory and hence are well-documented and/or advertised as well as context for innovations. This provides material to the study. Its results can then be used to contribute to the field of strategic spatial planning.

To address the stages of urban planning and urban program design, historical perspectives were mainly found through the written testimony of Charles Delfante, the main designer of the first Part-Dieu project back in the 1960s-1980s, in his book Le Succès d’un échec (Delfante, 2009) (literally “The Success of a Failure”). This testimony was enriched and put into perspective by reading scientific papers on Part-Dieu and Lyon by expert urban planners on the subject and reports by Grand Lyon on the “Lyon 2010” planning process (Autran, 2008; Bonneville, 2010; Frébault, 2010; Linossier et al., 2007; Berger, 2010). These experts identify and criticize the emergence of and acculturation to strategic spatial planning methods in Lyon in the late 1970s and 1980s.

As for the more recent development of “SCOT Lyon 2030” and the new Part-Dieu program, information was sought through documents published by Grand Lyon and Mission Part-Dieu. These documents were either communicative documents, not necessarily quantitatively precise but useful to get an overall idea of the intents behind a method or program, or official documents, like “SCOT

Due to the amount of work and responsibilities relying on the employees of Mission Part-Dieu and the retirement of its former director, some planned interviews with major actors of the planning process of both the Part-Dieu project and its operational management could not be carried out. This lead to a lack of inside knowledge on how the definition process of the Part-Dieu project and operational management framework started, hence reducing information sources to hearsay, official reports by the Grand Lyon council and advertising documents published by Mission Part-Dieu.

As for information about the operational planning process for coordination of construction sites, reading deliberations from Grand Lyon counsel was useful to get background information on where funding came from for this innovative process. These official administrative documents give insights on the set objectives which lead to the implementation of an innovative construction sites management framework.

However, information on this matter was mostly gained through numerous discussions and meetings with actors of the design stage of the coordination process and access to reports for past meetings. These aforementioned discussions cannot be referred to as informal interviews for they were not carried out under this report’s author guidance nor were they seen by their participants as being part of a scientific study. They were genuine informal discussions happening during coffee breaks, before or after meetings between fewer participants exchanging views in a more casual manner.

It is interesting to compare the initial objectives set in Grand Lyon délibérations to the actual implementation. Comparing discourses held in official Grand Lyon reports or advertising documents promoting the innovativeness of the process and the reality lived by field actors through meetings and informal discussions was particularly useful to put it into perspective and to identify and criticize flaws of this attempted democratization of the planning process.

I.4. Theoretical framework

I.4.A. Strategic and collaborative spatial planning

According to Fredrikson (2011), strategic spatial planning suggests “a stepwise adjustment to uncertainty and emerging issues, while striving towards more general, broad, and long-term goals (...). This means that a strategic perspective may offer both structure for long-term undertakings, and flexibility to allow adjustment to emergence”. Strategic spatial planning can be defined as a systematic process aiming at properly preparing for change a territory in an uncertain future. Patsy Healey opposes strategic spatial planning, setting qualitative goals (“statements of policy principles and regulatory norms”), to “spatial blueprints” planning, drawing quantitative spatial maps (Healey, 2003). The process takes into account the social, economic and environmental context and its
volatility. It identifies the competitive advantages of the city, identifies and concentrates on critical issues and establishes an integrated strategy on the long run accordingly (Motte, 2007).

Strategic spatial planning processes began to appear at the end of the 20th century. The main motivation behind starting strategic spatial planning processes was the attempt to adequately react to these problematic situations that are economic crisis or standstill (Miguel, 2006) or failures of traditional urban planning processes or institutions to achieve their goals (Pinson & Santangelo, 2006; Linossier, 2007; Sartorio, 2005).

As for collaborative planning, Healey (2003) defines it as a planning process involving stakeholders from circles other than the urban planning scholars circle in “an arena for multi-scalar interactions and struggles”. Successful collaborative planning needs a diversity of stakeholders aware of their interdependence and able to engage in an authentic dialogue, as independently as possible of their asymmetrical powers (Booher & Innes, 2000): “Participants are involved because they have become aware that their interests are dependent in some way on the actions of others and there is a kind of reciprocity among them. (...) They hope to achieve something together that they cannot achieve alone.”

Collaborating planning processes are diverse. Innes & Booher (1999) describes them as “usually ad hoc and self-organizing” while Patsy Healey states that “there are no standard answers to the specification of the systemic institutional design of governance systems for inclusionary participatory democratic practice” (Healey, 1997 cited in Brand & Gaffikin, 2007). However, Brand & Gaffikin (2007) isolate 4 fundamental characteristics of collaborative planning processes. They do not abide by administrative or academic isolated sectoral departments but rather thrive when involving transdisciplinary debates. To grasp this heterogeneity of knowledge sources, “a shift from representational to discursive and participatory forms of governance” is needed to enable inclusive and open dialogue among equal partners. They need “arenas for non-adversarial discourse” where conflicts of interests lead to creativity and innovation rather than strengthened antagonism. Finally they are changing the role of planners: “The collaborative planner is not simply a loyal ally of the voiceless and disenfranchised, but someone who creates the platforms where an interactive and non-hostile discourse among equals can take place (despite) power inequalities.”

The planning processes studied in this report present the features of both collaborative and strategic planning trends and experts 1 on Lyon use “strategic planning” to characterize the combination of the two of them – or criticize the unbalanced or limited combination. As a result, and for brevity’s sake, the choice was made to use “strategic planning” instead of “strategic and collaborative planning” in this report.

In practice, strategic urban planning is carried out under the impulsion of a local authority like a municipality, a group of municipalities or a regional government – defining the area concerned by the planning process is an important part of the procedure in itself (and often the weakest link of all). It

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1 Experts from Lyon urban planning institute (Linossier), Lyon urban planning agency (Frébault, former director
involves scholars and stakeholders from public bodies and agencies, private companies and civil society representatives (Steinberg, 2005). Diagnoses of the state of the territory are carried out (Healey, 2009) and roundtables and workshops, committees and taskforces, organized to address critical issues, set goals and discuss means to achieve them (Brand & Gaffikin, 2007; Innes & Booher, 1999). Objectives are more qualitatively than quantitatively defined to allow flexibility to adapt to internal and external changes. Transparency of the whole process is an important feature of strategic urban planning.

**I.1.B. Theory of change in complex organizations**

To properly deal with the issue of innovation in the field of urban planning and construction sites management, a theoretical framework studying change in a complex organization would be needed to better analyze and contextualize what can be observed in Lyon and Part-Dieu within a bigger and more general sociological or social psychology theory. However, this thesis does not aim at contributing to the fields of sociology or social psychology, neither by developing a new model of innovation in complex organization nor by comparing existing models and applying them to this context.

To address the issue of change in complex organizations, the choice was hence made to simply use two ad hoc tools: the notions of acculturation and corporate cultures. According to Gorman (1989), “culture is the total of the collective or shared learning of the group as it develops its capacity to survive in its external environment and to manage its own internal affairs. It comprises the solutions to external and internal problems that have worked in the past and that are taught to new members as the correct way to perceive, think about and feel in relation to those problems”. Corporate culture relates to the shared values, attitudes, standards, and beliefs that characterize members of an organization and define its nature. It is linked to an organization’s goals, hierarchical structure, strategies, approaches to labor and management. It comes with its own inertia. Acculturation refers to the processes of cultural changes resulting from meetings between organizations of different (corporate) cultures (Sam, 2010); acculturation can result in different ways and lead to assimilation or integration – referred to as positive acculturation in this paper – and separation or marginalization. In this report, the organizations involved in the decision-making process are diverse: Grand Lyon and Mission Part-Dieu, urban planning experts from Lyon urban planning agency, private promoters, engineering consulting companies or even construction companies.

In this paper and under this theoretical framework for change in complex organizations, for Grand Lyon and Mission Part-Dieu to achieve their intent of enforcing their collaborative and strategic-oriented views on the other stakeholders of the Part-Dieu project to prevent massive hindrance, integration or assimilation of said views need to be obtained while separation and marginalization would lead to a business as usual way of managing construction sites.
I.1.C. Construction sites management

A chantier in French refers to a construction or a demolition site, i.e. a place in transition where work is carried out to achieve a physical transformation. In this whole report, both construction and demolition sites will be called construction sites for brevity’s sake since most demolition operations are encompassed into bigger construction operations.

A construction operation can be divided into three stages: the designing stage of the structure itself, the designing/planning stage of the construction of this structure and the construction itself (Forriere et al., 2011). The two first stages are interfacing a lot to optimize economic viability, technical feasibility and workers’ safety of the whole operation. The different stages are carried out by a complex organization comprising architects, commercial and technical experts, jurists, construction workers, etc. working often for different companies intertwined via contracts and legal regulations (Collège international des sciences de la construction, 1985). Through “retroaction loops” throughout the whole operation, the two first stages take into account matters of technical processes, interfaces, human resources, budget, safety, quality, etc. to polish a planning and an organization for the construction stage itself.

Nevertheless these planning and organization are mainly frameworks, ideally flexible enough to adapt to challenges inherent to real life situation (weather delay, unforeseen interfaces or technical difficulties, residents’ complaints, etc.). A construction site is a dynamic system in need of some flexibility to achieve its purposes and some issues are thus dealt with only on a daily basis when the construction is occurring.

According to construction managers and logistics experts\(^2\), impacts of several construction sites on their surroundings and interaction between them is not usually considered except to deal with safety issues since it is legally mandatory (evacuation of the public in case of emergency, accessibility to or through the site for emergency vehicles, etc.).

Cumulative impacts are traditionally dismissed in the planning process in favor of a day-to-day management. These cumulative impacts can easily cause complaints from locals, unforeseen impacts on neighboring activities (pedestrian or car traffic hindrance, deliveries, etc.) and consequently delays in the construction schedule. To forecast and reduce these cumulative impacts is at the core of the innovative construction site management framework driven by Mission Part-Dieu and Ingerop but it stumbles on the traditional way of dealing – or not dealing – with them.

Local authorities are necessarily involved in the process of construction planning to deliver the construction permit for an operation but this involvement is usually reduced to a passive validation

\(^2\) During my internship with Ingerop, I met representatives of construction workers organizations, actual construction sites managers and consultants on security, construction workers health issues or logistics. I am using their testimonies to define a “practice as usual” construction sites management process, without really considering innovative processes outside of Lyon. This choice seems relevant since implementing new management processes stumbles mainly against local inertia (people or organizations).
of the choices made by the operation managers and planners. In accordance with the testimonies of construction managers and logistics experts, day-to-day management of construction sites external problems is a real construction company corporative culture which could prove to be a major source of inertia against any change in construction sites management and coordination processes. In meetings with afore-mentioned experts, expressions like “C’est la France” (This is France), “C’est le monde du BTP” (This is the construction industry) were regularly heard to express their skepticism toward the idea of changing successfully the way of planning and running a construction site.

II. Birth and sprawl of strategic urban planning in *Grand Lyon*

How did urban planning in Lyon conurbation shift from a traditional, “blue-print”, way of planning to a more strategic and qualitative way? What was the timeframe of this shift and what were its motivations? In relation with the current Part-Dieu project, what are the results of this strategic planning approach, both physically – buildings, infrastructures, public spaces – and from the point of view of decision-making processes in the area? Answering these questions is the primary goal of this second part of the report, under the analysis framework of acculturation to a new corporate culture.
II.1. Geographical and historical context

II.1.A. Geographical context and description of the area

II.1.A.i. Grand Lyon
Grand Lyon is one of the largest metropolitan areas in France with a population of 1,310,082 inhabitants in 2011 (statistics from INSEE, National Institute for Statistics and Economic Studies). It is an economic center at the scale of France and Europe, especially in the banking sector as well as the chemical/pharmaceutical industry (Mission Lyon Part-Dieu, 2012c). Its geographical position makes it a crossing point for people whose intent is to go from the North of France to the South and vice versa. It is at the entrance of the river Rhône corridor between the mountains in the Alps to the East and the Massif Central to the West. It is crossed by two rivers meeting there, Rhône and Saône.

II.1.A.ii. The Part-Dieu district
In the midst of Lyon is located the Part-Dieu district (Figure 3), a neighborhood built in the 1970s-1980s on the area formerly occupied by a military base. This district is the economic center of the city, with 1 million square meters of offices and 45,000 job places (Mission Lyon Part-Dieu, 2012a). It is the location for national and international companies’ headquarters or offices (Swiss Life France, LCL, Caisse d’Epargne, EDF, SNCF, E&Y, Société Générale) (Mission Lyon Part-Dieu, 2012c) but the majority of its activity is coming from public administrations offices and regional headquarters (Opale, 2010). Furthermore, Part-Dieu is a district with recreational attractiveness in addition to its business value: it is the location of mall welcoming more than 34 million customers a year and cultural facilities (a library, a concert house, a food market hall).

Figure 3: Location of the Part-Dieu district, area of the project (credit: Grand Lyon, communauté urbaine)
The biggest train station of the city was built next to the mall and its surroundings are used as a large urban multimodal platform. The Part-Dieu station is the most important multimodal hub in France outside Paris (Figure 4): 28 million passengers per year, 125,000 transit in the station per day, up to 125 fast trains and 400 normal trains (Mission Lyon Part-Dieu, 2012b). It is as well the main pedestrian crossing from one side to the other of the railways. The public transport system around the station includes a metro line, 3 urban tramway lines plus a tramway line going to Lyon-Saint Exupéry International Airport and several bus and trolleybus lines. Moreover the district is crossed by major car and taxi roads. Roads in Part-Dieu consequently drain traffic for recreational/commercial purposes, commuting car drivers, delivery trucks and vans and public transport tramways, buses and trolleybuses: there are often traffic jams in and around Part-Dieu, particularly by peak hours (8-9.30 am and 5.30-7 pm), therefore Grand Lyon is taking measures to avoid as much as possible additional stress caused by future construction operations.
II.1.B. A History of Part-Dieu

A timeline summarizing the evolutions in national legislation, local Grand policies and about Part-Dieu can be found in Annex 1.

II.1.B.i. Birth of the first Part-Dieu project

Urban development of the Eastern bank of the river Rhône in Lyon started in the 19\textsuperscript{th} century. This development was promoted at the time by two events. From 1853, Préfet Claude-Marius Vaïsse decided to modernize the central part of the city by opening three major streets through the densely populated \textit{Presqu’île} (Delfante, 2009; Kovatchevitch & Tanhia, 2011). Inhabitants from lower economic classes were expropriated and were in need of new land to move to. In 1856, a massive flooding on the Eastern banks of the Rhône led public authorities to build a proper embankment to protect the land from future such catastrophes. This construction enabled the relocation of part of the population from the saturated \textit{Presqu’île} to the area in shaky, precarious and unhealthy dwellings built rather chaotically. In the meantime, a military base was built on the premises of the current Part-Dieu district (Figure 5). This new military facilities were followed by “shopping” amenities around: cafés, bars, cabarets or bawdy-house. This area remained property of the army for a century and the decision was made to sell it to the municipality in 1958. It was slowly freed from military use plot by plot (Delfante, 2009).

![Figure 5: Part-Dieu military base in the middle of the 20th century (credit: Agence d’Urbanisme de Lyon)](image)

In the meantime, during the post-war economic boom, or so-called “Thirty Glorious Years” following World War II, France faced a massive rural exodus to cities followed by immigration from colonies
and former colonies. This urbanization process was met from a political standpoint by a national policy of rebuilding and adapting France territory: the central government decided to promote several cities outside of Paris to the stature of Métropoles d’équilibre (Balance metropolises), i.e. regional centers able to counteract the attractiveness of Paris at the regional – or even inter-regional – scale. Lyon was chosen to be one of these metropolises and needed to be retrofitted to be up to the task. Several scenarios were developed to adapt the city center to the role of Métropole d’équilibre, covering the two rivers to create more space in the historical city center or tearing down the Presqu’île to build a French Manhattan between the rivers for example (Delfante, 2009).

Since the military base was planned to be dismantled and some plans already made to develop the newly freed land (Grand Ensemble plan, 1958), the solution of enlarging the historical city center to the East on the Part-Dieu area was favored to embody and animate the development of Lyon. Another strong point for this solution was the presence of a freight train station right to the East of the military base: planners from the national ministry of infrastructures and construction and municipal decision-makers were counting on the existing railway infrastructures to create a regional commuter train network whose central station would be located at the center of the new Métropôle d’équilibre. A benchmark of other European cities redevelopment (e.g. Stockholm, Rotterdam, etc.) motivated this decision (ibid.).

II.1.B.ii. The first Part-Dieu project
An analysis of Lyon’s needs to become a Métropole d’équilibre was conducted by the architect and urban planner Charles Delfante – one of the main actors of the first Part-Dieu project – and his team at the ATURVIL, Atelier d’urbanisme de la ville de Lyon. As an extension of the historical city center, the future Part-Dieu district would have to encompass (Delfante, 2009):

- An administrative center, centralizing in one place several agencies and offices of the national government disseminated in the city and offering more space to the developing municipal services.
- Better cultural facilities, Lyon at the time missing the floor area to host exhibitions and shows one could expect in the second biggest city in France.
- Improvement in the quality of the buildings in the whole Eastern side of the Rhône, especially concerning residential buildings.
- Space for modern job places and shops.
- A new central station able to animate a regional or even inter-regional commuter train network.

These needs were supposed to be addressed by recomposing the city of Lyon along two axes. An East-West axe was to be linking the 15th century Vieux Lyon district to the modern Gratte-Ciel district in Villeurbanne, a city neighboring Lyon to the East. A North-South axe was to link the Parc de la Tête d’Or to the Caserne Sergent Blandan along the Garibaldi Street. The intersection of these two axes was Part-Dieu, where all the cultural, administrative buildings and shops and offices were to be built
and linked to the rest of the city by public transport. In order to create a pleasant atmosphere to walk and rest in the area, green spaces and streets were planned between the buildings along the two axes (ibid.).

The plan was welcomed with great enthusiasm from the Ministry of Reconstruction and Equipment but involved several other ministries and agencies as well as private promoters with different agendas or tight budget plans. Numerous problems arose when the time to implement this plan came (Delfante, 2009; Linossier et al., 2007). The planning process had been too quantitative and the plan was too normative. It was the result of studies from urban planning experts, with no insight from social and economic stakeholders in the project. It didn’t carry the approval of all future stakeholders and wasn’t implemented (Linossier et al., 2007).

For example, the Ministry of Education agreed on paying for the new Municipal Library in its 1966 budget but the land it was planned to be built on was property of the Ministry of Veterans Affairs, quite powerful at the time, which wasn’t planning on leaving before 1969. In order to get the money from the Ministry of Education, the Municipal Library was built on another piece of land. All in all, the whole cultural center project wasn’t built as planned. The national agency for television and radio broadcasts, ORTF, monopolized in 1959 one of the first freed part of the military base to build new facilities and an open-air parking lot for its employees. This building wasn’t planned to be built there, it is cutting part of the South of the area from the rest of it. The Municipal Library is built next to it, leaving no space to build the big Maison de la Culture previously planned. The concert house (Auditorium) was relocated far from ORTF’s building, making it impossible to link the two buildings to broadcast concerts. The Ministry of Interior Affairs built its new Cité administrative d’Etat on the proper plot but the architect refused to comply with the plan: the central courtyard of the former military base, planned to stay mainly free of buildings to enable the creation of public green spaces, was almost entirely used. But the worst conflict with public agencies agenda came from the national railway company, SNCF: in 1965, it refused to build the new central station in the Part-Dieu area, arguing it was unnecessary, consequently depriving of one of the main driving forces to attract investments in the area (Delfante, 2009).
Problems came from parcels sold to private promoters as well (1967-1975): in order to increase profit, they didn’t comply with the density requirements and didn’t let room for public spaces on their subdivisions. Indeed, the requirements of the plan were not compulsory but mere guidelines and some private promoters did not follow these guidelines. The planned mall gained a lot of economic power and political support as a result, in particular from Louis Pradel, mayor of Lyon and driving force of the Part-Dieu project, and this power enabled it to completely bypass the original plan despite its central position in the neighborhood. The society chosen to build and manage it gained more liberty vis-à-vis the original plan (first attempt at changing the orientation for the mall in 1969 and inauguration of the mall six years later in 1975). In the original master-plan, the mall was supposed to be an urban mall, on an East-West axe linking West and East of Lyon and Villeurbanne. Instead, it developed along a North-South axe, preventing the realization of the planned *Vieux Lyon-Villeurbanne* axe and thus the integration of Part-Dieu with the old city center. It grew past the forecast from a number of shops and visitors perspectives and enforced the development of a car-only urbanism instead of the planned public-transport-oriented urbanism. Moreover, to adapt to cars, lots of parking lots and tunnels were built, in part on the Garibaldi Street (decision taken in 1967), preventing the realization of the North-South axe.

The final major change in the area happened with a change of policy from the SNCF (1972): one decade after its primary refusal, the company decided to build a new central railway station in Lyon.
to be able to cope with the new national high speed train (HST) development plan. The other train stations in the city being too small to accommodate the HST, a new station had to be built and the area of the freight train station of Part-Dieu was chosen. The land was used to build the station but also hostels, accommodations and offices. Unlike for the rest of the Part-Dieu project, the land stayed property of the public authorities and this helpful to coordinate the whole design and construction of the station area. The Eastern vicinity of the train station enjoyed the attractiveness of the HST and was developed with office buildings, shops, hostels and accommodations (Ibid.).

By the end of the 80s, Part-Dieu indeed became an economic center for Lyon, the biggest business district outside of Paris in spite of it not following the original master-plan designed by Charles Delfante and his team. Nevertheless it was disconnected from the historic city center, a modern and unpleasant enclave in the middle of the city. With no green spaces and lots of car traffic, the neighborhood was not a place where one would come except to work, travel by train or seek commercial services at the mall.

A majority of the Part-Dieu area was not built as planned by Charles Delfante’s team due to a “return on investment”-driven subdivision logic leaving too much liberty to public and private stakeholders uninvolved in the planning process. This is similar to what happened in Italy in the 1980s when the availability of big industrial wastelands and the apparition of a globalized European market lead to big projects being implemented outside of the guidelines of urban planning documents for financial reasons (Pinson & Santangelo, 2006).

The new administrative center for local and national administration was lacking architectural grandeur and is wasting some space which could have been used for public spaces. As for the cultural facilities, they are spread, with no possible direct links between them and a reduced capacity (Delfante, 2009; Mission Lyon Part-Dieu, 2011). Space was – and still is – lost by open-air parking lots. Few dwellings were built but the overall Eastern bank of the Rhône River benefited from the project. The mall was a big success from an economic perspective. It was and is the biggest mall outside of Île-de-France.

After a chaotic start, the HST train station development was a success – as shown by the number of passengers, 125 000 passengers per day nowadays while the station was first designed for 35 000 – which benefited the rest of the area. But the adjunction of an office building in the middle of the Western entrance square cut the perspective on and from the station (Mission Lyon Part-Dieu, 2011). Moreover, the mall and library were built back toward the station, Boulevard Vivier-Merle, the avenue between them was a major urban highway and the metro station was built for the mall and far from the train station. Finally, the train station was not designed to adapt to the paradigm-changing HST trains: planned for 35 000 passengers per day, it soon became saturated.

Later on, when the current Part-Dieu project was designed, a diagnosis of the neighborhood was carried out by Mission Part-Dieu and L’AUC, the team of architects and experts in charge of the project, and all of these flaws made the case for a redevelopment of the neighborhood, partially
integrating of the objectives of the original Delfante plan (less cars, better integration of the train station, East-West axis for pedestrians for example).

II.2. Evolution of urban planning processes in Lyon

The first Part-Dieu project was an urban planning laboratory in the middle of the second half of the twentieth century: through its successes and failures, it catalyzed a shift from a centralized scholarly urban planning to a local concerted one involving stakeholders from the economic and social worlds.

II.2.A. Mutation of Lyon planning agency (1961-2015)

*Atelier d’urbanisme de la ville de Lyon* (ATURVIL, Lyon urban planning workshop) was created in 1961 in order to comply with the *Métropoles d’équilibre* plan dictated by the central government. Its director was Charles Delfante, appointed there by the national Ministry for Reconstruction (Delfante, 2009; Linossier *et al.*, 2007). ATURVIL and the municipality of Louis Pradel – mayor of Lyon – maintained a working and trustful relationship and worked on the definition of the objectives of the first Part-Dieu project, still in compliance with the central government requirements (ibid.).

Back then, methods used to define the documents framing the overall urban planning of Lyon region (*Schéma Directeur d’Aménagement et d’Urbanisme*, SDAU and *Plan d’Occupation des Sols*, POS) were relying on long-run hypothesis of economic growth (30-40 years), rationalist models of urbanization using zonal division of the area and strict traffic modelling (Bonneville, 2010).

In 1969, following the enactment of the 1966 law creating four urban communities outside of the Paris region, *Communauté urbaine de Lyon* (COURLY, Urban community of Lyon) was created to encompass Lyon and several of its neighboring municipalities. In the meantime, ATURVIL shifted to ATURCO (Lyon urban community planning workshop) and gained urban planning competences over all COURLY members. State control over ATURCO strengthened due to the arrival of several Parisian experts within its ranks (Linossier *et al.*, 2007).

However, facing protests from local economic stakeholders after the limited success of the first stage of Part-Dieu redevelopment (the first Part-Dieu project without the train station operation) and a change of municipality followed by in a context of decentralization of powers, ATURCO became AGURCO in 1978 (Lyon urban community planning agency) (Linossier *et al.*, 2007). ATURCO’s staff was transferred to the new structure but its director changed. The new one, Jean Frébault, with an engineering background, hired more diverse experts (among which were economists, sociologists or ecologists). Urban planning became more flexible and qualitative (unlike the normative and quantitative work of Charles Delfante’s team) as well as more sensitive toward local economic interests (Lyon Chamber of Commerce and Industry, the Agency for the Development of the Region of Lyon, etc.). While ATURVIL and ATURCO were pure “blue-print” urban planning agencies, AGURCO acquired a transdisciplinary expertise and a strategic approach; furthermore, local political actors got more involved with this new agency (Frébault, 2008).
The so-called “Thirty Glorious Years” were over and with them the economic boom. The economic market became more competitive hence a need for more attractiveness at the local scale. To adapt to this tougher environment, Jean Frébault developed a strategic and market-oriented way of thinking urban planning, with a positive acculturation to private company management processes. Complete and systematic diagnosis was run on the COURLY area from different perspectives (social, economic, legal). This new approach combined with the traditional urban planning inherited from ATURCO and other State agencies and formed an innovative planning process in France (Linossier et al., 2007).

The main task of AGURCO was to redefine Grand Lyon planning documents to adapt to the changing conjuncture. It was done with “Lyon 2010” planning document (cf. next paragraph).

Most of AGURCO planning authority and staff was later (1998) transferred to Grand Lyon and the newly created UrbaLyon kept mainly a role of observation and urban study workforce. Grand Lyon gained from this incorporation the project-oriented organizational framework used in AGURCO (Linossier et al., 2007; Frébault et al., 2008): transdisciplinary and temporary structures, or task forces, are created to animate and manage the work over one strategic area or project; their staffs come partially from multiple Grand Lyon services but can also be hired for the occasion when skills or knowledge necessary for the task cannot be found within the staff of Grand Lyon. Mission Part-Dieu is one of these task-forces, its staff comes mainly from different Grand Lyon services and senior management but some came from the private sector and keep strong ties with it, which proved useful to facilitate the involvement of private stakeholders in the design of the Part-Dieu project and the definition of the innovative construction site management process. This organization has the advantage of flexibility.

In sum, due to a changing economic environment, a positive acculturation occurred between the spheres of traditional urban planning and strategic private company management within the urban planning agency lead by Jean Frébault. The resulting strategic planning processes were then transferred to Grand Lyon as it reorganized to incorporate part of AGURCO’s staff and powers.

II.2.B. Lyon 2010 and Lyon 2030

II.2.B.i. Strategic planning in practice – Lyon 2010

The first SDAU and POS of Lyon region were written in 4 years (1968-1972) by ATURVIL/ATURCO (Autran, 2008). These documents were designed in a really centralized and technocratic context but were subject to validation by the local authority in charge, Grand Lyon. Due to contradicting interests between national and local governments, these documents didn’t achieve political acceptance at the local level. It took 6 more years of modifying the plans to achieve a minimum consensus but it was soon acknowledged that the documents were already obsolete at the time (Autran, 2008; SEPAL, 1988). Between 1968 and 1978, economic growth had slowed down after the first oil shock, globalization was more significant than ever and decentralization was being carried out. Most features of this first SDAU were not implemented and it soon became obvious that new planning
documents were necessary since the methods and conclusion of the documents were too rigid to be adapted to the changing economic and social context.

In this context and under the impulse of Jean Frébault, the director of the newly created AGURCO, planning processes were revitalized and drastically modified then (see part II.2.A.). In 1984, the agency organized the symposium “Demain l’agglomération lyonnaise” (Tomorrow Lyon conurbation) and the symposium welcomed an unexpected attendance 400 participants from all kinds of fields relevant to urban planning (Sozzi, 2010). This symposium aimed at prospecting future scenarios of development for Lyon in the decades to come while taking into account the fast changing context.

Syndicat mixte d’études et de programmation de l’agglomération lyonnaise (SEPAL, grouping 71 municipalities) was created in 1985 to animate the following long and participatory planning procedure involving stakeholders from the local economy, higher education, real estate, culture, public services, urban planners, architects and association leaders. These stakeholders were organized in around 20 task forces to work on the preparatory questions the project would need to address. Benchmarking on French and International examples was carried out and experts interviewed in 13 workshops dealing with the following subjects: habitat and lifestyle; mobility and transports; the place of Lyon in France and at the international scale; technological prospective; economy; demographic prospective and lifestyle; urban planning; industrial risks, HST networks and airports; landscape; culture; link between Rhône and Rhin (Autran, 2008).

An analysis of the failures of the previous SDAU was carried out by academic scholars to help prevent such event again (SEPAL, 1988). It was diagnosed that the hypothesis supporting the SDAU for economic and demographic growths were too high. The SDAU was supposed to canalize high economic and demographic growths, preventing uncontrolled periurbanization. Without these growths, the strict land-use map of the SDAU was inefficient and too restrictive too enable the implementation of policies to improve the attractiveness of Lyon city region. Instead of considering growth as a hypothesis, the new urban planning document would need to enable growth.

In 1988, the draft “Lyon 2010, un projet d’agglomération pour une métropole européenne” (Lyon 2010, a conurbation project for a European metropolis) was validated and made public to organize debates. They were however more designed to get feedbacks from local politicians and experts than from the population. It was still a big improvement from the previously closed technocratic procedure of the urban planning in the 60-70s. After this consultation stage (1992), the plan was translated into legally binding documents abiding by the French Code de l’Urbanisme. This was not an easy task since the requirements of the Code were still the same then as during the design of the previous SDAU, easily too rigid to adapt to changes. The Lyon 2010 plan was strategic and flexible and these features were to be transferred to the legal documents for the whole process to be meaningful. An innovative territorial scheme was produced to transcribe the “fundamental redevelopment orientations” and a map of “general purpose of land” (Sozzi, 2010; Bonneville, 2010). The results of Lyon 2010 process was a scheme structured around two axes (the axe of the rivers and the East-West axe) and several technopôles, locations for high quality manufacturing and information
services and high-tech business development. International attractiveness for tourists and business was defined as a goal as well as redeveloping the city for it to be more pleasant to live in. A few European cities were highlighted as examples Lyon should try to compete with (Düsseldorf, Milano, Barcelona, Geneva and Frankfurt for example). Lyon 2010 was a first try at strategic planning in France and got rewarded in 1994 by the European Commission and the European Council of Town Planners (European Urban and Regional Planning Awards – Joint winner for the Regional category) (Autran, 2008).
But more than a legally binding document, Brégnac & Berger (2010) identify Lyon 2010 scheme as a pioneer text and its definition process as an innovative method, opening the door to a new urban planning culture, modifying the orientation of Lyon urban planning agency studies and even reorganizing Grand Lyon. Through this process, political representatives from the entire political arena became interested in urban planning, an interest which was not so present previously, under ATURVIL and ATURCO regimen. This new political support gave legitimacy to the whole process across the entire political spectrum (Bonneville, 2010). It favored the creation of services and Missions dedicated to development of theoretical concepts or operational and strategic projects (like Mission Lyon Part-Dieu or Mission Lyon Confluence). The seeds sown by the “Lyon 2010” process sprouted throughout its implementation and naturally influenced further development processes in Grand Lyon territory (Berger, 2010; Frébault, 2010).

From the research presented in this section, it can be concluded that the long and collaborative process of strategic planning carried out to design SDAU Lyon 2010 was helpful in consolidating its legitimacy. Furthermore, by creating a new context for urban planning involving transdisciplinary experts as well as numerous political actors from the whole political arena in thematic workshops, this process made possible the positive acculturation of local stakeholders to the methods of strategic planning developed by Lyon urban planning agency.

II.2.B.ii. Lyon 2030

In 2000, through the vote and promulgation of Loi SRU (Law for Solidarity and Urban Renewal), strategic planning becomes compulsory for municipalities or group of municipalities. Previous master-plans (SDAU and SD) were replaced by Schémas de Cohérence Territoriale (SCOT, Territorial coherence scheme) and the requirements for this new document leans more toward strategic planning than before: it is not based on a mere functional and precise division of the territory but rather aims at designing a global development strategy, intertwining questions of transport, habitat, environment or commercial activities, hence the word cohérence (coherence, consistency). While SDAUs and SDs were composed of a report and of numerous graphic documents (maps), a SCOT is comprised of (Code de l’urbanisme, Livre I, Titre II, Chapitre II):

- a Rapport de présentation, presenting the diagnosis of the territory as well as the hypothesis of evolution of this territory in the timeframe covered by the SCOT and the articulation of the scheme with other relevant documents;
- a Projet d’aménagement et de développement durable (PADD), presenting the goals for the development of the territory;
- a Document d’orientation et d’objectifs, giving leads to implement the PADD.

Graphic documents are no longer essential but rather illustrative within each three textual documents.

The design process of SCOT Lyon 2030 started in 2005 to replace the ending Lyon 2010 scheme (SEPAL, 2015). Like for its predecessor, it was carried out by SEPAL. SEPAL had been modified in 2002
to encompass the new SCOT territory, bigger than the territory of the previous SDAU (74 municipalities).

The same strategic planning process was implemented as before, with thematic workshops and commissions involving business representatives, civil society members, urban planning experts and elected officials from different national to local authorities (SEPAL, 2015). Strategic planning processes were by then way more usual and were not novelty as in the eighties. An evaluation of the previous document was carried out and proposals for mitigation measures done: the means dedicated to fight gentrification and urban-sprawl were deemed insufficient, as was the protection of the environment aspect of SDAU Lyon 2010; the management of interfaces with neighboring territories was not enough as well and this issue was addressed through the creation of an inter-SCOT with two other SCOT territories around Lyon (SEPAL & UrbaLyon, 2010a).

The design process resulted in a plan setting strategic goals (SEPAL & UrbaLyon, 2010a; SEPAL & UrbaLyon, 2010b):

- High economic attractiveness (businesses and tourism);
- Social balance within the SCOT territory through the reduction of gentrification and urban-sprawl and the development of a multipolar territorial organization;
- High ecological standards, especially around three “networks”:
  - A “green network” of natural and agricultural landscapes;
  - A “blue network” for the rivers to protect and valorize (mainly Rhône and Saône);
  - A better public transport network through the adaptation and improvement of the current railway network to achieve a commuter train network similar to the one in Paris.

II.3. Redeveloping Lyon Part-Dieu
Now that strategically-planned goals in Lyon were introduced, the implementation of said goals is presented through the current Part-Dieu project. Its objectives and constraints are listed to contextualize innovation within the field of construction site management.

II.3.A. How does the current Part-Dieu project fit into “Lyon 2010” and “Lyon 2030” schemes?
Part-Dieu’s redevelopment contributes to the achievement of two of the main goals stated in SCOT Lyon 2030 (SEPAL & UrbaLyon, 2010a, 2010b):

Reaching the level of economic attractiveness of European cities like Milano, Barcelona, Frankfurt or Geneva first of all necessitates developing a “diverse and hierarchized office real estate offer” for new businesses to settle in Lyon and an architecturally and functionally representative gate to the city. Part-Dieu being connected to the HST network via its train station – a developing HST network with plans for new lines to Strasbourg and Torino – and to the international airport Lyon Saint-
Exupéry through Rhône Express, it is the natural entry door to the conurbation. Furthermore, it is already France’s 2nd business district in term of job places. Along with other locations on the SCOT territory, it will increase its number of job places to build a more diverse and hierarchized real estate offer.

Secondly, Grand Lyon intends on bringing back the 1960s “balance metropolis” policy which was back then supported at the national level to create regional centers able to counteract the attractiveness of Paris at the regional or inter-regional scale (Mission Lyon Part-Dieu, 2011). In keeping with this policy, Lyon is aiming at reinforcing its position as inter-regional center capable of counteracting Paris attractiveness: by planning on developing an express commuter train networks, it is strengthening the SCOT territory and its centering toward Lyon. Two stations are central to this project: Perrache and Part-Dieu. Part-Dieu being already saturated and new HST railways planned anyway (SEPAL & UrbaLyon, 2010a), a major redevelopment of the train station is necessary.

This shows that the goals defined in SCOT Lyon 2030 by strategic urban planning methods are being implemented partially through the Part-Dieu project. Part-Dieu is a result of strategic planning; the next part now shows how it itself uses methods similar to those of strategic planning like thematic workshops or territorial diagnosis.

II.3.B. Co-construction of the Part-Dieu project

During the first Part-Dieu project implementation, Part-Dieu was subdivided and plots were sold to private companies or to public bodies. Therefore, nowadays, Grand Lyon does not own most of the land in the area – mostly the public spaces and its headquarters – and cannot afford to buy and develop it on its own to reach the goals inscribed in SCOT Lyon 2030. A collaborative public-private partnership is consequently needed to avoid the profit-driven subdivision logic which hampered the first Part-Dieu project (Mission Lyon Part-Dieu, 2012a).

Nathalie Berthollier, director of Lyon Part-Dieu urban project, explains in an interview (Mission Lyon Part-Dieu, 2011) that her intention when she took over the responsibilities of the project was to make a difference in the planning process of the project: before any operational design, a strategy had to be defined. A task-force, Mission Part-Dieu, was created to deal with the project and staffed with personnel from different Grand Lyon services and appointed contractors. Mission Part-Dieu organized workshops as soon as December 2009 to design this strategy. Attendees were middle and senior managers from Grand Lyon and Lyon municipality, sociologists, philosophers, university professors, writers, consultants and urban planning experts. It can be pinpointed at this point that no representatives of inhabitants or users of the neighborhood were invited to the workshops. 3 workshops were answering different questions (ibid.):

- Which strategy for Part-Dieu? Which uses and atmospheres?
- Which sustainable urban and sustainable project for Part-Dieu?
- What should be the role of transport and flows in a central metropolitan district? Of trade and commercial exchanges?
To these workshops were added one-on-one discussions between Mission Part-Dieu and major stakeholders of the district (owners of some of the subdivisions or the company managing the mall for example). After these first exchanges, a first guideline was written and released by L’AUC (the team of architects and experts in charge of the design of the project) in June 2010 (ibid.).

This was the basis for an iterative co-construction process with public and private promoters. This iterative and collaborative process – relying on a diagnosis of the neighborhood, on thematic workshops and presentation/feedback roundtables – is identified by this report’s author as being close to strategic planning methods. It had the advantage of creating an environment for decision-making and negotiation within Mission Part-Dieu. It created what could be called a Part-Dieu culture of collaboration and strategic-thinking.

Three more guidelines were produced with the inputs of this iterative negotiation process and the input of two public consultations launched in September 2012 about the whole project and followed in June 2013 by a public consultation about the multimodal hub redevelopment (Mission Lyon Part-Dieu, 2015).

During the first consultation were organized thematic debates-conferences on the following themes (Mission Lyon Part-Dieu, 2015; Longuevalle, 2014):

- Mobility and transport in Part-Dieu, 125 attendees from local civil society and mere inhabitants or users;
- How to transform Part-Dieu into an active neighborhood 24/7?, 97 attendees;
- Which public spaces for Part-Dieu?, 151 attendees.

Conclusions of these debates were used to upgrade the guidelines but it is regrettable that it happens so late in the definition process of the objectives of the project. Today, groups of inhabitants still complain about the lack of transparency and participatory initiatives in the decision-making process.
II.3.C. Constraints associated with the project

Figure 8: To the left, building construction/renovation operations planned 2014-2021, to the right, public spaces redevelopment operations, planned during the same period (credit: Mission Lyon Part-Dieu)

Figure 8 shows the locations of all operations in the Part-Dieu area between the end of 2014 and 2021. Most of these operations are temporally and often spatially overlapping and cumulative unmitigated impacts of all these operations were deemed a massive hindrance for the economic viability and social integration of the neighborhood. Furthermore, to these basic construction grips should be added the massive flows of delivery trucks and construction workers in and around an already saturated Part-Dieu road network.

These operations costing approximately 3 billion € represent 30 hectares of redeveloped public spaces, 2000 more bicycle parking spots, 2000 more dwellings (currently 3500), 650 000 m² of additional office space to the existing 1 000 000 m², which represent 35 000 job places. All these new activities adding to external changes should besides add an estimated 100 000 daily trips to the existing 500 000 today (according to Mission Lyon Part-Dieu internal documents).
III. Innovative construction site management

In the previous part of this report, acculturation within Grand Lyon and Mission Part-Dieu to strategic planning processes like workshops or public consultation was highlighted; in this part, the way the same methods were used to define a construction sites management framework is presented. What were the funding sources and decision-making process which lead to the identification of innovative construction site management as a strategic goal to achieve? Why did the design of this solution rely on the same strategic planning tools and methods? What were – and are – the challenges to implement it?
III.1. Strategic planning affects the definition of the construction sites management process

III.1.A. Early developments and funding sources for construction sites management processes

In 2000, through the vote and promulgation of Loi SRU (Law for Urban Solidarity and Renewal), strategic planning becomes compulsory for municipalities or group of municipalities. This law endorses strategic planning in France as opposed to traditional “blue print” planning. The main planning document related to this new planning methodology is the SCOT (Scheme of territorial coherence). At the time, sustainable issues covered by the SCOT are mainly reduced to a goal of preventing urban sprawl. But through the years 2000s, sustainable development became a trend topic in French political arena and in 2010, Loi Grenelle II, enforces environmental goals to be included within SCOTs and related urban planning documents.

Meanwhile, in 2008, the European commission voted the 3x20 goal setting objectives for 2020 to mitigate climate change by reducing by 20% GES emissions compared to 1990 levels, increasing to 20% of energy consumption the share of renewable energies and saving 20% more energy. In this context, overstepping the stage of national initiatives, Grand Lyon itself and several other European local authorities signed with DGTREN (Directorate-General for Transport and Energy of the European Commission) the “Covenant of Mayors” to indicate their commitment to sustainable policies. Grand Lyon was also one of the signatories of the “declaration of ecocity mayors”, in 2008 as well (Ferraro, 2012).

In this context of European, national and inter-cities commitments against GES emission and climate change, Grand Lyon designed its Plan Energie-Climat (Energy-Climate scheme, part of the SCOT process) to set goals toward sustainability. Amongst these goals, urban logistics and in particular construction site logistics was one of the points to tackle. This commitment was voted through Délibération du Conseil de Communauté n°2012-2754 on the 13th February 2012, after 3 years of collaborative and strategic planning involving stakeholders from civil society, private companies, and universities and animated by Grand Lyon as the local authority in charge of the plan (Ferraro, 2012).

In practice, a first feasibility study was launched through Délibération n°2012-3035 (25th June 2012) enacting a partnership between Grand Lyon, Lyon’s Chamber for Industry and Trade (CCI) and CNR (National Rhône Company, exploiting the river Rhône). This study deals with urban logistics in general, with one of its section dealing particularly with the notion of construction site consolidation center. Délibération n°2012-3253 (8th October 2012) confirmed this commitment and added to it Grand Lyon’s candidacy to get funding from the Ecocité program launched by the Ministry for Sustainable Development. The first reference to urban logistics optimization in the context of Part-Dieu appeared in Délibération n°2013-3488 (18th February 2013). This deliberation reiterated the commitment to GES emission reduction through urban logistics optimization in particular thanks to the idea of a construction site consolidation center. Part-Dieu was then chosen as a “model” for
delivery management processes and the previously launched feasibility study was partially dedicated to optimize current and future delivery flows in the neighborhood.

According to Sebastien Rabu, the man in charge of the Ingerop’s service with Grand Lyon on the matter, the issue of deliveries in Part-Dieu area and the issue of coordination of different construction sites in the area were by then uncorrelated: Mission Part-Dieu was in charge of construction sites coordination through a dedicated staff member and its contract with Ingerop while delivery issues were dealt with by the Mobility service of Grand Lyon and its private contractor Interface Transport. This information is confirmed by the mission statement in Ingerop’s contract with Mission Part-Dieu: the only reference to a construction site consolidation center or even merely to delivery is made to say that Ingerop might need to work on a proposal for a location for a CCC and would need to monitor deliveries to extrapolate quantities for future and denser construction operations in Part-Dieu. However, the feasibility study lead by Grand Lyon’s Mobility service on Part-Dieu between fall 2012 and fall 2013 was unsuccessful: promoters and construction companies were putting some pressure for the abandonment of a CCC since they deemed it a too costly facility; Bernard Badon, Mission Part-Dieu’s director at the time, took their opinion into account and started a collaborative definition process. All matters of future innovative construction sites logistics were from then on dealt with by Mission Part-Dieu. Driven by Bernard Badon, it involved a collaborative and iterative process to define common and complementary goals for construction sites coordination and logistics, not unlike the processes used to define the goals of the Part-Dieu project. Both aspects are now encompassed into the broader term of construction sites management. With his decision, Bernard Badon helped transfer the culture of strategic planning to operational planning of construction sites. Details of the process are presented in the next part (III.1.B).

III.1.B. Collaborative definition of Part-Dieu-specific construction site management rules...

By the time the strategic definition process was launched (fall 2013) the Part-Dieu project had already started with two operations: to the North-West of the area, demolition of a tower followed by the construction of a new one at the same place in parallel with the redevelopment of Garibaldi Street, right at the foot of the tower; to the South-East of the area, construction of two buildings (a private office building and a public archives building), rerouting of a tramway line and redevelopment of public spaces around it. These two operations enabled first contacts to be made between major private actors in the local construction arena, local public authority representatives and Mission Part-Dieu’s staff and private contractors. With these already involved stakeholders and the network of Bernard Badon within the construction sector, thematic collaborative workshops were organized to address construction sites management issues. The process was as followed:
A plenary meeting – gathering stakeholders from the political arena, promoters and actors of the construction industry – was organized in Fall 2013 to present the overall Part-Dieu project and the issues that would be addressed in the workshops to come;

The first round of workshops was organized in January-February 2014;

A second round of workshops was again organized in May-June 2014;

Plenary meetings were organized in July and December 2014 to present the goals defined during the workshops and the results of non-collaborative processes carried out simultaneously.

In the meantime, informal negotiation/lobbying was carried out one on one between Mission Part-Dieu and private stakeholders from Bernard Badon’s network, ready to offer their expertise to increase their market share (see part III.3.A). This whole collaborative process took a long time and was not completely finished one year and a half after its start. Its results are presented in part III.2.

III.1.C. ... And a few non-collaborative processes

The whole definition process for construction sites management was not done through collaborative processes. Experts were involved to design mitigation measures to construction sites hindrances and to plan the different operations.

The neighborhood public spaces were analyzed to draw up an inventory of functionalities. This can be related to the diagnosis stage of strategic planning. These functionalities were defined as follow by Mission Part-Dieu and its expert consultants (Ingerop and Egis):

- Pedestrian ways;
- Cycling lanes and bicycle parking lots;
- Car traffic;
- Deliveries and parking;
- Taxis;
- Public transportation;
- Accessibility to private and public buildings;
- Accessibility of emergency services for safety reasons.

Each functionality was quantified as best as possible through quantitative studies and qualitative surveys carried out by different organizations (train station, mall, urban planning agency, etc.) and centralized by Mission Part-Dieu (see Figure 9 for an example of such a study result).
The choice was made to maintain, suppress, reduce, relocate or increase all these functionalities in relation with the estimated future use of public spaces by construction sites. For example, *Mission Part-Dieu* commissioned a study to determine back-up routes and even proposals for temporary mitigation road and pedestrian way reorganization. Thanks to all this information, a construction grip guideline was produced to safeguard as best as possible the interest of all functionalities during construction.

Simultaneously, *Mission Part-Dieu*’s staff member dedicated to construction sites management and Ingerop consultant on the matter were present during phasing meetings for the train station redevelopment in order to lead the debate but also to support the interest of all inhabitants and users of Part-Dieu district, through the protection of the aforementioned functionalities. For instance, during a phasing meeting with RFF, the company responsible for the construction of the new train platform and railway line, an important opposition arose between what was best to reduce the hindrance on car traffic in Lyon and what was deemed best to reduce the impact of construction work on neighboring railways and thus the national railway networks through ripple effect: RFF wanted to work simultaneously on 5 bridges enabling trains to cross 5 East-West roads; the phasing they proposed involved a total lock-down of these 5 roads for several months, a choice which would have congested beyond mitigation the whole Rhône left bank. However, the afore-mentioned
diagnosis of the pre-existing flows in the neighborhood run by Mission Part-Dieu had highlighted the importance of these 5 roads for local traffic and this knowledge enabled Mission Part-Dieu to try and push for another scenario in accordance with RFF.

This part highlights the fact that strategic planning processes rippled down to operational planning. Optimizing construction sites delivery and coordination was a “strategically planned” goal written into the Energy-Climate Scheme of Grand Lyon (and hence taken into account in “SCOT Lyon 2030”), it sets higher goals for the Part-Dieu program’s operations and the detailed operational goals for this higher goals implementation were defined by processes similar to strategic planning processes: use of experts insights, workshops involving many stakeholders with different interests, debates, definition of qualitative rather than quantitative goals. Acculturation occurred between the arena of Grand Lyon and Mission Part-Dieu and the arena of promoters and construction companies. These qualitative goals are presented in the next part of this report.

III.2. Characteristics of the Part-Dieu construction site management process

This part aims at presenting the goals of construction sites management in Part-Dieu for the construction operations to come. It does so by introducing tools designed by Ingerop and Mission Lyon Part-Dieu thanks to the above mentioned workshops and experts’ works.

III.2.A. Charte Chantiers Part-Dieu and Règlement Inter-chantiers

One of the main challenges in implementing new processes in a complex organization like the one surrounding a construction operation comes from the many stakeholders involved in the whole process, at different stages of progression toward the final result. To successfully reach all stages of the process, new methods need to be agreed upon early on in the project planning. To do so, Mission Part-Dieu wrote a Part-Dieu construction sites charter summarizing the commitment of all major stakeholders (i.e. private and public promoters) toward reducing the impacts of future operations on the regular activities of the district. This charter is due to be signed in the few months to come (Spring 2015) between Grand Lyon, Mission Part-Dieu and other promoters of private and public operations in the area. It highlights several “principles” which should be taken into account while planning an operation:

- Optimization of construction grips and deliveries in order to guarantee a viable cohabitation of construction sites and Part-Dieu regular activities;
- Necessity of preserving the actual functionalities of Part-Dieu’s public spaces;
- Anticipated construction logistics;
- Common rules;
- Crisis adaptability;
- Sustainability.
Another major document written by Mission Part-Dieu is the Part-Dieu specific inter-construction sites regulation (RIC). It is a set of rules defined at the end of all the workshops and expertise studies. This set of rules has to be integrated by promoters in their contracting process, both for operation managers, construction companies and other subcontractors like logisticians, etc. It does not replace existing administrative regulations but it details some Part-Dieu specific way of doing things. However, these two documents are more guidelines, goals to achieve than detailed practical and operational tools to reduce construction sites hindrance. Most concrete measures are at the discretion of each promoters and their team who consequently need to be forewarned as early as contracting of these specific and innovative requirements.

Concretely, the RIC requires of promoters to produce extra documents than what is usually required in the planning process of an operation (see Figure 10). It enforces the organization of regular meetings at the scale of an operation, the scale of several operations within a sub-area of Part-Dieu to deal with interfaces or at the scale of the whole Part-Dieu district. Other meetings dealing with specific themes (safety, logistics, etc.) are as well enforced (Table 1). A list of empowered interlocutors within the operation organization has to be handed over to Mission Part-Dieu about specific matters so that in case of problems, the issue might be addressed as fast as possible. It is in the RIC that the rule enforcing the respect of above mentioned construction grip guidelines is stated. The RIC also enforces the communication charter designed by Mission Part-Dieu.

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>General coordination meeting</td>
<td>Every 6 months</td>
</tr>
<tr>
<td>Sub-area coordination meeting</td>
<td>Every 2 months</td>
</tr>
<tr>
<td>Operation coordination meeting</td>
<td>To be defined</td>
</tr>
<tr>
<td>Security related meeting</td>
<td>Every 2 months</td>
</tr>
<tr>
<td>Logistics</td>
<td>Permanently in contact</td>
</tr>
<tr>
<td>Security and workers health consultants</td>
<td>Permanently in contact</td>
</tr>
</tbody>
</table>
This set of rules is to favor collaborative design at the scale of Part-Dieu by creating an environment where stakeholders of different operations can meet and exchange together and with public authority agents involved in the administrative validation process. It aims at facilitating future collaborations during the construction stage which may become necessary to deal with unexpected issues. Critics about the possible shortcomings of these requirements are formulated in part III.3.A.

III.2.B. Specific requirements for public domain occupation and construction sites’ deliveries in Part-Dieu

Concerning management of public spaces, it is dealt with by two services from the municipality of Lyon (SUA and OTEP) and a service from Grand Lyon (Subdivision Voirie). The last one deals with the use of public roads, for example for maintenance purposes or work on underground networks like clean water and sewage pipes or electrical wires. SUA (standing for Service d’Urbanisme appliqué) works on delivering construction permits and authorization to use public roads and pedestrian ways for construction purposes. OTEP (Occupation Temporaire de l’Espace Public) has the responsibility to manage temporary occupations of public domain for example in case of a person, family or even company moving out of a building or in case of public events on the public domain. The issue on the Part-Dieu project is the high spatial concentration of operations, both for buildings demolition and construction and public spaces redevelopment.
Coordination between these three services was identified as an issue preventing the smooth management of construction sites by stakeholders involved in the definition workshops (group B report of the 2nd round of workshops states so). The first idea to overcome this was to delegate SUA’s, OTEP’s and Voirie’s authority to Mission Part-Dieu within the Part-Dieu area but it was soon dismissed because of the impossibility to delegate “police power” and the three services unwillingness to give up their prerogatives. Instead, it was decided to create a better interface between SUA, OTEP and Voirie within Mission Part-Dieu to facilitate information exchange by organizing frequent meetings to deal with public domain occupation in Part-Dieu. As for the interface with promoters, Mission Part-Dieu should act as a buffer to centralize and dispatch information and demands for public domain occupation. The details for this innovative interface are not yet finalized.

III.3. Problems with the construction site management process implementation

A taxonomy of the problems faced by Mission Part-Dieu and Ingerop was carried out by this report’s author and resulted in the following categories: financing issues, corporative inflexibility, involvement of construction workers and delivery men, administrative inflexibility, regulatory implementation/responsibility issues, technical/physical implementation and marketing/communication issues. Here are presented the problems related to corporate inflexibility, administrative inflexibility and unresolved responsibility issues.

III.3.A. Corporative inflexibility

The process developed to manage the numerous construction sites on the Part-Dieu area on the coming years is innovative and goes against “traditional” construction site management methods. These methods rely mainly on mitigation without any attempt at forecasting and preventing negative impacts (see part I.1.C). Coordinating different construction sites under the leaderships of different private companies or public authorities beforehand is not a common way of doing things in the construction industry.

Promoters, general contractors or construction companies might be reluctant to fully commit to a new management process since these processes differ from the processes encompassed in their corporate culture: “past solutions and methods may be inappropriate to the new problems” but “beliefs (encompassed in a corporate culture) can produce a strategic myopia leading them to see events with tunnel vision, and this leads them (engineers, managers) to overlook the significance of changing external conditions” (Gorman, 1989). The requirements of the Règlement Inter-Chantiers might indeed involve changes in the internal management in the company (relating to shift start and consequently wages for instance) and more interfacing with simultaneous construction operations thus increasing the complexity of the design stage of the project. There is a cultural inertia to cope with.
Corporative inflexibility is due to the strength of individual habits combining to form a corporative culture (Gorman, 1989). Positive acculturation to new processes takes time and efforts to convince in depth about the merits of changing behaviors, especially when the benefits of change are long-term while the behavior to modify has to be modified short-term. Furthermore, even the benefits of changing processes are not necessarily acknowledged by all stakeholders: engineers and managers from private companies are still in a profit-oriented corporate culture where they do not see the benefit of working alongside potential competitors and the public authority to develop an innovative framework to construction site management. High interdependence between stakeholders in the Part-Dieu context could be overlooked by some stakeholders who consequently would not feel the need to collaborate to achieve goals they believe are manageable on their own (Ansell & Gash, 2007). Both Ansell & Gash (public administration theory) and Gorman (management decision) agree that a mutual understanding – or even trust – needs to be achieved to build consensus (Ansell & Gash) or in other words, to change a corporate culture (Gorman).

To solve this problem of acculturation, the Mission Lyon Part-Dieu of Grand Lyon and Ingerop decided to invite engineers and managers from different companies (promoters, logisticians, construction and demolition waste handlers, material suppliers, construction engineers, etc.) to get insights, create an arena for mutual understanding and open dialogue and start the process of positive acculturation amongst them (see part III.1.B). Nonetheless, it was a hardship to get a real and genuine involvement of these stakeholders in the first stages of the process.

Table 2: Number of attendees, excused and absentees at the 6 meetings organized to give the opportunity to all stakeholders to give their opinions and ideas during the definition stage of the coordination process – representatives from Mission Part-Dieu or Ingerop are not taken into account

<table>
<thead>
<tr>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme: Construction sites charter and regulations</strong></td>
<td><strong>Public domain use and construction site regulations</strong></td>
</tr>
<tr>
<td>Attendees</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>27%</td>
</tr>
<tr>
<td>Excused</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>24%</td>
</tr>
<tr>
<td>Absentees</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>49%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group C</th>
<th>Group D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Logistics and central control station</strong></td>
<td><strong>Central control station and governance</strong></td>
</tr>
<tr>
<td>Attendees</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>Excused</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>36%</td>
</tr>
<tr>
<td>Absentees</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>42%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>83</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second group C meeting</th>
<th>Second group D meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendees</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>Excused</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>Absentees</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>47%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>76</td>
</tr>
</tbody>
</table>
Despite Mission Part-Dieu’s demands, neither feedback on the different workshops organized nor on the early draft of the coordination framework (Charte, Règlement) came from the participants to the coordination process definition stage. Operation managers consider coordination is more the concern of construction companies and general contractors than theirs – even though there are responsible for the specifications within the general contractor contract – and prone to pass the buck to a lower node of the implementation of an operation, consequently overlooking the aforementioned interdependence at stake with as complex an issue as construction sites coordination.

Some of the invited persons didn’t even come to the workshops to express their opinion or vision on the matter (See Table 22). The reason of these absences, at least for some of them⁴, is probably their presence to other meetings organized by Mission Part-Dieu on other subjects. It would have been a good idea to raise the question then. Too many meetings can indeed erode one’s will to participate, especially if the goals of a meeting are not clearly stated or shared by the invited stakeholders.

Some other absences can be explained by the mere amount of people invited to the meetings: for some of them, several people from the same company or public agency were invited but only a few representatives came. It is especially true for people from Grand Lyon and Ville de Lyon in Group B.

Another problem encountered during the meeting came from experts like logisticians, safety managers or construction waste handlers. They were invited to give insights on previous coordination process they might have developed or witnessed elsewhere but they mostly tried to sell their expertise to Mission Part-Dieu and operation managers. Logisticians especially pushed the debate toward the definition of requirements for which they could provide turn-key solutions. During Group A meeting for instance, where the definition of Part-Dieu construction sites coordination charter and regulations was discussed, none of the major operations managers was present but 5 material providers and 2 construction services providers were there.

Another example of implementation related to corporate inflexibility can be identified through a critical point of the design of a construction operation that is managing all the underground networks crossing the land where the construction will be carried out (water, sewage, electricity, gas, internet and telephone, etc.). Connections have to be created to supply the new infrastructures of course but mere rerouting of networks for safety or technical reasons are often necessary as well. All networks are managed by different concessionaire companies and these companies have to be involved in the design and phasing stage of any operation, at least to be certain there is no network to reroute on the construction grip. This issue is utterly complex. Information on networks crossing a piece of land is sometimes not completely exhaustive. Anyway, rerouting networks might need a lot of coordination and interfacing (cascading rerouting, etc.) since some networks cross or are on top of each other. For each concessionaire work, administrative procedures have to be carried out, new protection fences usually have to be installed, etc. It is really time-consuming, a significant cause of delay and hindrance for the regular activity of the vicinity of an operation and the operation itself.

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⁴ According to my supervisor at Ingerop, in charge of the project.
But the construction industry takes this fact as a _fait accompli_ and lays the blame on network concessionaires without usually taking actions to solve the problem. Network concessionaires were not invited to the workshops organized by Mission Part-Dieu even though they would have had useful insights for better “multi-scalar interactions”. The collaborative process developed by Mission Part-Dieu was therefore not completely inclusive and open. Network concessionaires absence enabled them to become a convenient scapegoat and prevented usefully addressing the issue of underground network management.

### III.3.B. Administrative and legal inflexibility

Two administrative functions are mainly at stake with the innovative coordination process developed by Mission Part-Dieu: monitoring of working conditions and management of public spaces use. The problem with these two functions comes from the complex structure of their management.

Three different, and not necessarily collaborative, agencies deal with working conditions in the construction industry: _Inspection du Travail_, _CARSAT_ and _OPPBTP_. Both have their prerogatives but some borders are blurry. Bringing innovation in their vicinity might reveal a challenge.

Along with these general constraints are peculiar ones in the train station: It is classified as an _ERP_ (_Etablissement recevant du public_, Facility open to the public) and special safety rules apply to it, especially regarding fire hazard prevention, evacuation and accessibility for fire-brigades or ambulances. Monitoring of accessibility and evacuation is quite strict during construction stage and this increases constraints on construction grip optimization and construction site management.

Consequently, many constraints from different agencies are cumulating: on the train station operation for example, _CARSAT_ requires toilets for construction workers at 150 m from their post at most, _Inspection du travail_ would prefer the construction site having a dining hall on its premises and _ERP_ (Facility open to the public) rules would involve no crossing of the train station main evacuation routes by construction activities.

However, despite the possible massive hindrance of conflicting demands from these three agencies, Mission Part-Dieu did not organize workshops to bring together these different stakeholders and try and work out a coherent set of requirements. Instead, dealing with this issue was postponed to the beginning of each operation and its responsibility given to operation managers and their security consultants, as it is done usually.

As for the management of public spaces, it is dealt with by three different services, two services from Lyon municipality (_SUA_ and _OTEP_) and a service from _Grand Lyon_ (_Subdivision Voirie_). In this context, a more systematic cooperation is needed between these three agencies and _Mission Part-Dieu_ in order to enable construction and redevelopment operations to get along with each other and to cohabit with the regular activities of the district. The primary idea of Mission Part-Dieu was to create a unique counter dealing with the issue in Part-Dieu, in order to simplify coordination between management of Part-Dieu project related construction operations and management of regular...
activities in the neighborhood in need of public domain land. Indeed, sharing information is not systematic between SUA, OTEP and Voirie and, as even agents from those three agencies admitted, a case could happen where an OTEP-authorized moving-out truck could park for several hours next to scaffoldings installed on the side walk for a renovation operation with a permit from SUA while Voirie agents would be working on road maintenance in the same street. This is an extreme scenario but it illustrates the potential problems caused by a lack of communication. Creating a unique counter would have enabled sharing information in advance and thus a better coordination between day to day activities and construction-related activities. However, police power is not delegable in the current state of the law and to this issue can be added the fact that local officials do not want to give up their prerogatives. As of now, meetings to define Part-Dieu’s public domain management process were quite ineffective and time-consuming since officials were not properly involved in the work. Frequency of meetings, involved staff and interfacing with private operations are yet to be defined.

Besides these problems with the complex bureaucracy surrounding the construction industry regarding public domain occupation, the Part-Dieu project will have to cope with the day to day infringements to the rules in place (see examples in Figure 11). Indeed, these infringements might not currently threaten the global dynamics of the district but when the core of the project will be on, the constraints will be higher and any misconduct might more easily cause traffic jam or inaccessibility issues. To enforce these rules, municipal policemen and/or sworn agents might be needed, which might be hard to get. The lack of staff in the municipal police can lead to neglect patrolling in considered non-sensitive neighborhood such as Part-Dieu. As a consequence, unauthorized parking for deliveries is common and could present real hindrance for the use of the district in the construction stage.

Figure 11: Delivery truck in front of Incity base-camp (left) and construction workers’ vehicle parked at the entrance of one of the mall’s parkings for maintenance work (right)
III.3.C. Regulatory implementation/Responsibility issues

Two documents were designed and written in order to state Mission Part-Dieu’s requirements regarding coordination in the Part-Dieu district: Chartes Chantiers Part-Dieu (Part-Dieu construction sites charter) and Règlement Inter-Chantiers (Inter-construction sites rules of procedure). How binding these documents are and the way their signatories are planning on carrying on the documents’ requirements to their building contractors is worth considering.

A key point of the coordination process developed by Mission Part-Dieu and Ingerop is pooling and sharing means and resources when possible. For example, it might encompass shared base camp for construction workers and managers from different operations and shared construction grips when two construction sites are spatially close, in compliance with Mission Part-Dieu’s construction grip guideline included in the Règlement Inter-Chantiers. In these conditions, an issue to be dealt with is the notion of responsibility in case of accidents or deteriorations of construction grip fences or public facilities within the grip. It needs to be addressed first from a concrete and practical standpoint and then translated into a legally binding framework. Another concern is the way the payment of public domain occupation taxes might be distributed among sharing stakeholders.

Here are presented a few concrete examples:

- One of the main undefined issues of the coordination framework designed by Mission Part-Dieu comes from the way shared spaces and camp-bases will be organized when necessary. The contracting is not yet defined and with it the legal and financial responsibilities over the shared spaces and facilities. Who is legally responsible in case of an accident? In case of a public space degradation? Or in case of a deterioration from a third party (graffiti on fences for instance)? Outside arbitration might be necessary but, if so, it should be as neutral as possible. It could be public or a private certifying organism. If it is public, in which governmental body should this person or group be recruited? If a new job has to be created, administrative rigidity is to be considered.

- Similarly, questions about the local public domain occupation tax are relevant. This tax is paid by promoters using public domain for private construction purposes. It does not concern Grand Lyon or Lyon city operations. Tax amount depends on the surface of the occupied area but to a certain extent: it has a maximum. Optimizing the threshold might promote more construction grip sharing. But some operations involve Grand Lyon as operation manager, what to do then of the private operation managers around possibly sharing construction grip or base-camp with Grand Lyon? They could be exonerated in exchange for more cooperation implementing the coordination process. All these solutions need a proper contracting, both between private companies and between private companies and public authorities.

- The issue of legal responsibility in case of accident outside of a construction grip is particularly sensitive around the mall. On Docteur Bouchut Street (see Figures 12 & 13), next to one of the mall’s delivery and parking entrances is a demolition/construction site as well
as the new parking area for regional buses (Figure 126). This area, already crossed by pedestrians and bikers, will become more constrained with more construction sites around, especially if the mall decides to demolish one of its parking (as planned) at the same time, forcing part of car users to park in Docteur Bouchut Street underground parking. This area might present high risks of accident involving pedestrians, bikers, car users or truck drivers.

Figure 12: Docteur Bouchut street hazard sources for pedestrians and bike riders

Figure 13: Impact of a delivery truck maneuvering to enter the delivery area of the mall
Conclusions

Findings
Similarities were identified in the design process of this innovative coordination framework with processes used at “higher” scales of planning: at the regional planning level with SD Lyon 2010 and SCOT Lyon 2030 and at the district programming level with the Part-Dieu program. All these stages use the same tools and methods identified as related to strategic spatial planning on Grand Lyon territory – diagnosis of the territory, thematic workshops, roundtables, public consultation – to design qualitative and flexible (rather than quantitative and rigid) schemes addressing the issues of their respective scales.

Rather than a simultaneous development of these methods, a transfer of this strategic planning process from the higher planning scale (urban and regional planning) down to operational planning of construction operations is identified. This transfer was achieved through the gradual sprawl of these methods within the organization of Grand Lyon, the public authority in charge of Lyon conurbation.

Strategic planning first appeared in Lyon in the 1980s to cope with the degrading economic conjuncture urging for more flexible methods taking more into account the actors of the local economy rather than just the order of the centralized government. It appeared thanks to the efforts of Lyon urban planning agency. It was then at the vanguard of strategic planning in France. As a
result of this first try at strategic planning, a first flexible and qualitative urban scheme, SD Lyon 2010, was designed and Grand Lyon evolved to integrate strategic planning methods within its own organization.

From then on, strategic planning methods rippled down to the Part-Dieu district planning/programming through the vector of Mission Part-Dieu, Grand Lyon taskforce in charge of the Part-Dieu project. The framework for the redevelopment of Part-Dieu was designed through the same process as SD Lyon 2010 and its successor SCOT Lyon 2030, using diagnosis, roundtables and thematic workshops followed by public consultations in an iterative process.

Rippling down again to operational planning through Mission Part-Dieu management, strategic planning methods helped define an innovative coordination framework for the future construction operations which would help preventing any critical hindrance on the regular activities of a densely used neighborhood.

Even though this definition process of qualitative objectives borrowed methods and tools from strategic planning like workshops and roundtables, mimicking a bottom-up approach to operational planning, informal discussions with actors of the process revealed that this approach was more of a façade than a real commitment to collaborative planning. Most of the objectives set by the Charte and Règlement were there from the beginning of the process (fall 2013). Since then, most of the negotiating was done to positively acculturate stakeholders to these goals and give the impression that it was still up for discussion. Furthermore, like at the other two levels of planning, public consultation was carried out after the definition of the objectives and used mainly as a validating event, an occasion for Grand Lyon and Mission Lyon Part-Dieu to advertise the project and its openness.

However, even though the definition process was not as bottom-up and transdisciplinary as it is advertised in some communicative documents from Grand Lyon, not as strategic and collaborative as the phrasing in these documents might suggest, it still has major positive impacts. First of all, it created a real dynamic negotiation environment, an arena for innovation within Part-Dieu under the influence of Mission Lyon Part-Dieu, like Lyon 2010 symposium organized in the 1980s did for urban planning with political representatives, urban planners and experts. Later on, this arena – and its associated network of stakeholders – might prove a real accelerator for concrete innovations driven by each operation to achieve the goals set by the innovative construction sites management process. People and organizations already know each other and this should prove really useful later. Besides, protection of the regular functionalities of the neighborhood have been brought to the attention of all promoters earlier than usual in the planning and phasing process and enabled early adaptations.

More than the result of this design process, it is therefore the process itself which was the most important: by creating a working and collaborative environment led by Mission Part-Dieu between Part-Dieu project stakeholders, positive acculturation to strategic planning methods in Part-Dieu
enables faster and better construction operations taking into account the harsh constraints of a neighborhood where France’s biggest business district and train station outside of Paris are located.

Notwithstanding, criticism about this process comes from it not being as open as it is trying to appear: most of the goals were set beforehand and the public is consulted for validation rather than providing real inputs for the decision-making process. The methods of strategic and collaborative planning help making innovation acceptable but it would probably be even more effective if it involved more open processes.

Ultimately, this attempt at using strategic and collaborative planning tools at the operational level was a first on the Grand Lyon area. It did create an arena for collaboration between stakeholders which were not used to it. This arena is not a perfect one: stakeholders are not all yet convinced of their interdependence; it does not encompass the whole diversity of the Part-Dieu project stakeholders (network concessionaires and Inspection du travail&co); it lacks insights from locals, both employees and inhabitants. Even though, it might become the seed for a new culture of strategic collaboration between local authorities and private construction industry stakeholders for other projects in the area, even more so as the Part-Dieu project is a key project for the decade to come on the Grand Lyon agenda, a “strategic project” within the meaning of Albrechts (2004). Proposal for organizational changes in administrative and corporate procedures should be made later on, after the completion of the Part-Dieu project, to help making this strategic collaboration process easier on other projects.

Discussion

The aim of this report was to present the innovative coordination process and explore the way it was designed and made acceptable to both private and public organizations involved in the Part-Dieu project.

The first research question – What can be done differently now than what was done in the 1970s, at the level of urban planning and urban programming? – is answered by presenting in an historical perspective the emergence of and positive acculturation to the culture of strategic spatial planning in Grand Lyon, first at the scale of urban planning with the design process of SD Lyon 2010 and SCOT 2030 and then at scale of urban district programming with the new Part-Dieu project.

What is unfortunately missing is first-hand knowledge on these processes: No interviews of stakeholders from both planning arena could be carried out. Such interviews would have provided better knowledge of the dynamics of said processes and would have enabled a better analysis of their advantages and shortcomings, which could have then be compared to the advantages and shortcomings of the process implemented at the operational level, presumably bringing insights on what could be improved at this level. This lack of inside knowledge is especially inconvenient regarding the scale of the new Part-Dieu project: while the first Part-Dieu project and the two urban planning documents (SD and SCOT) are well documented, the current Part-Dieu project is still being
carried out and no academic work could be found to compensate this lack of interviews. Promotional documents and official Grand Lyon délibérations were consequently used as a mean to get insights on the discourse and the goals associated with the project and its design process. The lack of neutrality and objectivity of these documents is of course problematic but they provide at least a good idea of the corporate culture Grand Lyon and Mission Lyon Part-Dieu are trying to promote – involving the semantic field of collaboration (co-production, thematic workshops, public consultation, etc.).

The second research question – How to insure stakeholders will work together to reduce the hindrance of their different operations? – is answered by identifying a transfer of the aforementioned strategic spatial planning methods from the field of urban planning and programming (down) to the field of operational construction sites management.

Here again, interviews of several participants to the design stage of the coordination framework would have helped providing insightful information on the way different kind of stakeholders (public/private, construction companies/promoters, etc.) adapted to and accepted – or not – this innovative coordination and collaboration arena.

Another limitation of this study comes from the fact most of the Part-Dieu project operations are yet to be implemented. An innovative framework for coordination might have been designed and an arena for collaboration created, but the successful implementation of the goals set by the coordination framework and the effective collaboration between stakeholders during construction could not be assessed. A new study conducted after the completion of the Part-Dieu project would be interesting to assess the actual efficiency of the innovative process this report is dealing with.

Going even further in the analysis of the results of the Part-Dieu project, it would be interesting to illustrate the idea of Sartorio (2005) of 3 different creative potential of strategic spatial planning: “the first creative dimension of strategic planning is that it creates new territories”, “the second creative dimension relies on the creation of new continuities between market forces and the State” and “another step that has to be developed in order to release a third creative potential for strategic planning relates to the definition of new rules for local governance”. The first point can already be illustrated by the innovative construction sites management framework resulting from strategic planning processes. Seeds for the second point are present in the arena for collaboration which the definition process of this framework helped creating but it is now too early to judge its efficiency and its maintenance on the long-run and outside of Part-Dieu. Finally, the third point concerning local governance is not yet considered in this report but could be of interest for future studies.
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Annex 1 – Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1958</td>
<td>Ministry of Construction creates Grand Ensemble plan</td>
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<td>1961</td>
<td>ATURVIL studies Lyon city center reorganization</td>
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<tr>
<td>1962</td>
<td>Draft for the first Part-Dieu project; Proposal for the main train station in Part-Dieu</td>
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<tr>
<td>1963</td>
<td>SNCF refuses to transfer Lyon main train station in Part-Dieu</td>
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<tr>
<td>1964</td>
<td>Study by ATURVIL for the first Part-Dieu project</td>
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<tr>
<td>1965</td>
<td>Presentation and validation of the Part-Dieu project</td>
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<tr>
<td>1966</td>
<td>Creation of COURLY; ATURVIL becomes ATURCO (more State control)</td>
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<td>1967</td>
<td>SDAU of Lyon conurbation</td>
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<tr>
<td>1968</td>
<td>End of the study for the first SDAU of Lyon conurbation train station in Part-Dieu to adapt to the HST</td>
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<td>1969</td>
<td>Inauguration of the mail</td>
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<tr>
<td>1971</td>
<td>Launching of the HST program</td>
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<tr>
<td>1972</td>
<td>Inauguration of the Part-Dieu tower</td>
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<tr>
<td>1975</td>
<td>SDAU achieved but deemed obsolete; ATURCO becomes AGURCO (transdisciplinary and strategic approach)</td>
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<td>1977</td>
<td>“Déménagement” symposium</td>
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<td>1978</td>
<td>Creation of SEPAL to manage the Lyon 2010 process</td>
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<tr>
<td>1983</td>
<td>Draft for SD Lyon 2010, organization of debates</td>
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<tr>
<td>1984</td>
<td>Enactment of SD Lyon 2010 by Grand Lyon</td>
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<tr>
<td>1985</td>
<td>AGURCO’s authority and staff transferred to Grand Lyon; Urbaslyon retains an observation and urban study workforce role</td>
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<tr>
<td>1988</td>
<td>Start of the design process for SCOT Lyon 2030 by SEPAL</td>
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<td>1990</td>
<td>Signatures of the “Declaration of Eccentric Mayors” and the “Covenant of Mayors”</td>
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<tr>
<td>2000</td>
<td>SCOT Lyon 2030 by SEPAL project design process</td>
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<tr>
<td>2005</td>
<td>First guideline for the Part-Dieu project</td>
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<td>2008</td>
<td>First public consultation</td>
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<tr>
<td>2009</td>
<td>Part-Dieu is chosen to become a model for urban logistics</td>
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<tr>
<td>2010</td>
<td>“3x20 Goals” of the European Commission</td>
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<tr>
<td>2012</td>
<td>Enactment of Loi Grenelle II, enforcing the inclusion of environmental goals to SCOTs</td>
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<tr>
<td>2013</td>
<td>Publication of SCOT Lyon 2030</td>
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</tbody>
</table>

Figure 15: Timeline of the major events concerning the Part-Dieu project – on the left are presented events of national scale, in the middle are presented events concerning Grand Lyon and on the right are displayed events directly related to the Part-Dieu district.