



**Land Assemblage for  
Urban Infrastructure Development:**



**The case of the Tram line of Tours,  
France**

**Research Master Thesis**

**Research Master Planning and Sustainability:**

**Urban and**

**Regional Planning**



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## ABSTRACT

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Urban physical infrastructure development requires a good system of land assembly. Conversely, land availability and land assembly for urban physical infrastructure has been identified by researchers and other authorities as a major challenge in delivery of urban infrastructures crucial for sustainable cities. In principle, land assembly and urban infrastructure delivery involve multifaceted factors and actors, ranging from environmental, socio-political or economic factors. However, it should be noted that neither the public nor private sectors alone can efficiently deliver the goal without coordination.

This study therefore is an initial attempt to critically analyze and investigate how the coordination and collaboration between urban planners and others stakeholders has led to holistic urban infrastructure projects, and to produce a theoretical and methodological basis for conception and implementation of infrastructure projects.

In the first part, this study takes an analysis of the land assembly, collaborative planning and governance literature in regard to this theme and allied topics such as land assembly methods, communicative and collaborative planning and integrated urban infrastructure development contextualizing urban challenges and the tram line project.

Research methodology adopted is both desk research and case study. The tram line of Tours is evaluated in a relative open investigation to determine collaboration and coordination and the relevant outcomes. Findings indicate a close collaboration and coordination within the public sector and a relative level of public participation. In addition, land assembly is still a comprehensive top-down planning activity. Anyhow, this study reveals positive outcomes of integration in urban infrastructure development.

**KEY WORDS:** Collaboration, Coordination, Communicative, Land Assembly, Governance, Integrated Development, Sustainable Development, Tramline, Urban Physical Infrastructure.

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## ABBREVIATIONS

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UPI:	Urban Physical Infrastructure
IHC:	International Housing Coalition
UNEP:	United Nations Environment Programme
USD:	United States Dollars
UN:	United Nations
FAO:	Food and Agriculture Organization
UNDP:	United Nations Development Programme
INSEE:	National Institute for Statistics and Economic Studies
DOM:	Overseas Departments and Territories ( <i>Departements et Territoires D'outre-Mer</i> )
SCoT:	Schéma de Cohérence Territoriale
ESDP:	European Spatial Development Perspective
NHPAU:	National Housing and Planning Advice Unit
ATU:	Agence d'Urbanisme de l'Agglomération de Tours
PLU:	Plan local d'urbanisme
PADD:	Projet d'aménagement et de développement durables
PDU:	Plan de Déplacements Urbains
POS:	Plans d'Occupation des Sols
SRU:	Solidarity and Urban Renewal law
PLH:	Local Housing plan (Programme Local de l'Habitat)
ECHR:	European Court of Human Rights
SMAT:	Le Syndicat Mixte de l'Agglomération Tourangelle
SITCAT:	Syndicat Intercommunal des Transports en Commun de l'Agglomération Tourangelle

# CHAPTER ONE

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## INTRODUCTION

### 1 Introduction:

Land represents a primary resource for development. Without this resource, infrastructure development and/or expansion is severely constrained, limiting opportunities for investment, economic development, business and employment (Pasadena, 2015).

Cities are facing a serious constraints pertaining to urban infrastructure development due to the limited vacant land suitable for expansion or development. Subsequently, many cities' infrastructure has not been maintained to keep pace with growing demand of the twentieth century. In fact, one of the most persistent and challenging problems facing cities is inadequacy of urban infrastructure and the subsequent deterioration in the urban environment (Vincent, 2011). Pollution, high energy consumption, loss of biodiversity, urban sprawl and unplanned settlements are some of the effects of urban environment deterioration.

Conventionally, Infrastructure means a set of objects or arrangements that together carry out specific functions and provide services. Infrastructure includes physical and institutional components (Bobylev, 2013).

In turn, urban physical infrastructure (UPI) can be defined; as a set of artificial structures, interconnected physically or functionally (Bobylev, 2011). Urban physical infrastructure include but are not limited to; water, sewerage systems, drains, solid waste systems, roads, electricity, and telecommunications are essential to developing and maintaining efficient, healthy, and sustainable cities.

These critical services, plus other physical and social amenities, including housing, schools, and health care, make cities livable and allow their residents to be productive citizens (IHC, 2011). Urban Physical infrastructure is one of the major assets of a city in terms of capital investment, critical services provision, and sustainable and resilient urban development (Nikolai, et al, 2014a).

The United Nations Environment Programme (UNEP, 2013) estimates that the cost of meeting the urban infrastructure requirements of the world's cities between 2000 and 2030 is approximately USD 40 trillion; both through the building of new infrastructure or retrofitting existing facilities in order to achieve sustainable infrastructure that reduces carbon emissions, improves resource productivity, and avoids the resource-intensive urban planning of the past. "Older cities may have to retrofit and replace inefficient infrastructure into which they have been locked for decades to achieve decoupling, but newer and expanding cities have the advantage of flexibility in planning and executing new infrastructure developments (Clos, 2013).

Conversely, cities are centres of economic production and exchange within wider systems of regional, national and international trade. The importance of cities and urban centres cannot be underscored. (Shlomo, 2012) urges we have become a 'planet of cities'. Globally, more people live in urban areas than in rural areas, with 54 per cent of the world's population residing in urban areas in 2014. In 1950, 30 per cent of the world's population was urban, and by 2050, 66 per cent of the world's population is projected to be urban (UN, 2014).

The growing urban population all over the world during the last half of the 20th century has brought with it increasing pressure on environmental resources as well as a large series of associated social and economic impacts, evidencing an acute challenge to cope with during the 21st century (EIB, 2005).

Cities have evolved with the changing globalized world. It is argued; Globalisation, modernity, and urbanisation are three of the most significant processes affecting the contemporary human experience” (Rennie Short, 2012).

Globalisation and urbanisation have created a paradigm of opportunities and challenges for cities. Innovations, wealth and technological advancements have all been witnessed. However, new challenges; unsustainable energy utilization, transport problems, pollution, urban unemployment and poverty are some of the examples.

Natalija Kazlauskienė, 2009, for instance urges that, “Sustainable cities will never appear if the transport system is not sustainable. Increasing energy consumption, extensive travel and poor natural resource management must be redirected. Urban sprawl and the need to commute great distances for work and shopping must be curbed”. This argument is one of the several ongoing discussions in the field of spatial planning aimed towards achieving sustainable cities and points to a need for robust investment in urban infrastructure.

Similarly, Cities in the globalized world are ‘competing’ among themselves to attract the best talents, jobs and capital investment among others. However, after the economic crisis of 2010, many cities and metro poles are experiencing significant reduction in incomes prompting a rethink in development plans.

It has been substantially proven that cities, are striving to present themselves as the “best” places to live through strategic and innovative planning involving provision of sustainable modern public facilities such as transport that reduces pressure on the environment, energy consumption, which also provides for the socially and economically disadvantaged people among others but also reliable “Areas with good access to public transit and well-designed urban spaces that are walkable and bikeable become highly attractive places for people to live, work, learn, play, and interact “ (Hiroaki Suzuki, 2013).

It is on this premise that many cities are investing in modern public infrastructure such as high-capacity transit systems like light railways or tramlines in urban regions. And as a prerequisite for such investments there is a need to access the critical land resource. However, land is one of the single unrenovable natural resource and is related to basic necessity such as food and shelter to living beings (Palmer et al 2009).

Additionally, urban authorities and cities as expected to provide public infrastructure and need to invest in infrastructure for public good. However, it is also true that the development of public facilities has somehow been “reactionary” happening years after cities have been developed more so; with historical or old cities which have a high Floor area ratio (FAR) translating into higher density. It has been suggested that the current land capacity of inner cities may have already reached its full potential and the cost of new open space areas is not economically viable (Searle, 2004).

Conversely, heavy infrastructure developments require large parcels of buildable land, yet in the places where redevelopment is needed most, such as declining neighborhoods in central cities, large parcels of land are often hard to find. So redevelopment pivots on land assembly, but land assembly is not an easy task. The many small parcels of land with different owners create problems of cooperation and coordination (Lynne, 2007).

Firstly, to build any infrastructure, one has to have access to land. Building on virgin land, the builder needs only pay the cost of the land plus the cost of construction. But to build on land containing structures that must be demolished, the builder must also pay the residual value of those structures. If the building yields some stream of income to its owner, he or she will not give up the building without compensation (FSU, 2010).

Furthermore, urban land ownership is highly fragmented. A single block is likely to be owned by many separate individuals or business organizations. For the developer setting up a major project, it may be necessary to deal with several different owners.

Moreover, titles may have legal problems that cannot be resolved without substantial delays (FSU, 2014; Michael A. Heller, 1998). Leasehold, subleases and other legal charges such as mortgages must be settled, these claims involve different parties with separate interests which have to be negotiated and resolved. However, this is time consuming and costly in land assembly.

Large-scale infrastructure developments quite often, require huge land. However, the nature of land required and complexities are likely to differ depending on the type of development. Whereas, its it is true, urban land is scarce and expensive, projects requiring to assemble an area more less a square or triangle; are less likely to affect very many individual land owners. However, with linear projects, the complexities are significantly higher; apart from what is afore-mentioned, linear projects are now faced with a problem dubbed as “anti-commons” (Michael A. Heller, 1998).

Titling is a hallmark of formal property rights. It is generally urged that formal property rights are secure, facilitate transferability and encourage current users to invest in land improvements that would increase future income streams (Feder et al 1991: Goldstein et 2008). In theory, having title over a specific parcel of land lowers the cost of enforcing exclusion rights and hence makes future claims on prior investments more secure (Alston, et al 1996) thus, titled land is the most preferred form of property ownership. However, the creation of many exclusive rights created by subdivisions and titling of land such as the case in urban areas creates the anti-common problem during land assembly (Slade, 1996).

Anti-commons problem refers to the situation that arises when large-scale projects implicate on numerous property owners, each of whom holds an exclusive entitlement and no one has the right to exclude another. The too many owners as the case in urban areas, can veto the project if she or he does not consent thus complicating assemble land (Heller, 1998).

Furthermore, the private property ownership would require separate negotiations with each property owner. The separate protracted and expensive negotiations with the owners might at times necessitate side payments to secure the approval of all concerned. Even, after property transfers have been placed under contract, there is still the strong possibility that lawsuits can be brought to invalidate such transfers leading to high transaction costs for land assemblage and the development project in general (Yoon, 2000).

Similarly, it is observed, the most frequent “anti-commons” scenario in this context concerns establishment of linear infrastructure such as roads, pipelines and other linear developments and utilities. In such cases, the market for the purchase of land, or of a right of way in it, is particularly thin because quite often there may be one feasible route. Even where alternative routes exist, once road or pipeline has begun building, abandoning it for an alternative route might prove very costly. Accordingly, persons owning the designated path are tempted to hold out for a higher price in excess of the land’s opportunity cost (Ammon Lehavi, 2013).

Inversely, authorities and planners have to grapple and work through those challenges in order to meet the needs. Essentially, for authorities, as a way to have access to private property, they have to negotiate through the challenges and secure the land. Development projects go through a number of phases. However, for simplicity and logical analysis the phases have been categorized to include; conceptualization/planning, land acquisition and assemblage and finally implementation or building phase. And as such, land acquisition- assemblage is the link between the planning phase and project implementation.

Land acquisition and assemblage phase is the most challenging and crucial step in the development process since it determines whether the project will be implemented or not. Similarly, it has a profound effect on the time element of the project as well as the process. Significantly, the dynamics and factors that impact a project are not static and

change with time. The changes of the urban environment in which the project is executed such as population, finance, economic development with time can have a disastrous impact to the project (Donald, 2008).

The time lag between conceptualization and implementation brought about by land assemblage if not well managed can create a mismatch in the project with the intended project being unable to meet the needs which were forecasted at the conceptualization phase resulting in high losses for the cities and society (Hiroaki et al, 2013).

The planning community, apart from planning urban infrastructures, acts as a coordination unit between various institutions and actors to ensure smooth implementation. However, it is argued that, quite often the planners and other urban authorities tend to lack systematic coordination in combating urban challenges.

Scholars have for instance noted that, “Transportation department staffs often have little knowledge of urban planning and design, and urban planners have little knowledge of transportation, making seamless integration and implementation of the two difficult.

Transportation department staffs have limited capacity to take proactive measures toward integrating transit and land use and often limited interest as well. Staff members from the two departments work under different management and budgetary constraints, and they have little incentive for uncertain cross-sector coordination” (Hiroaki et al, 2013).

Urban planners have a major role to play, as a way of satisfying future chances to thrive, attain the asserted sustainable development target placing the importance of centrality and the special place of cities, cities are nowadays indisputably requested to operate according to innovative planning approaches integrating long-term precepts into comprehensive strategic planning visions based on strong participatory experiences (Rotmans & Van Asselt 2000). Undoubtedly, attaining the strategic set goals of delivering sustainable cities and urban infrastructure, the planning community has to

work very closely with the different stakeholders as envisaged in a comprehensive planning approach.

Therefore, the success of urban infrastructure development often depends on the ability to assemble land (Donald, 2008). Thus, a sustainable orderly system must be adopted to build urban infrastructure. However, this cannot be achieved without change in the land rights and conditions of the land ownership such as change in geometry, area, land use, and location (Muller, 2004).

This study uses a case study approach. Drawing on the case of the city of Tours which has strategically designed and implemented a 15 kilometre tram line with a proposal to construct a second tramline, the study seeks to examine the complex process of land acquisition – expropriation and appropriation (assemblage) for linear infrastructure which can be a lengthy, costly and a “painful” process for cities and citizens in order to establish the systematic coordination between urban planning department, the various departments and other stakeholders in acquiring land; a critical resource resting on the premise that the chosen route is the best alternative.

The study attempts to understand land assemblage for urban linear infrastructure development exhibiting the relevance and outcomes of key planning principles grounded in a collaborative planning system based on strong communication, dialogue and co-participatory experiences assuming that the projects that have been planned in comprehensive way with real strategic visions rooted in dynamic planning practices would be better realised.

Therefore, by tackling land assembly for urban physical infrastructure, the main aim of the proposed study is to investigate the collaboration between urban planners and other stakeholders in order to synthesize urban infrastructure project planning and their implementation. Accordingly, the study seeks to examine the way authorities assemble urban land for linear developments as the key question while. Thereby the underlying

hypothesis is that collaborative planning leads to expeditious land assemblage, reduces the cost of the project and translates into integrated urban physical infrastructure crucial for sustainable cities.

Resting on the articulated approach, the research seeks to produce a theoretical and methodological basis for land assemblage for the development of urban infrastructure. Undoubtedly, the study seeks to bring the planning community and project implementation into tandem; emphasizing the relevancy of collaborative approaches in land acquisition and assemblage as a determinant to successfully attain sustainable integrated urban infrastructure.

Pursuant to this initial chapter devoted to introduction to the background of the work, the research problems, hypothesis, and objectives. The second chapter of this study is dedicated to discussing fundamental theoretical terminologies and concepts as well as providing a thorough literature review regarding the main outcomes of the previous researches conducted in the field of governance, urban governance, planning approaches and land assemblage for a sustainable integrated urban physical infrastructure development.

The third chapter discusses the methodology chosen to tackle the mission in pursue. First of all, a generalized illustration of the methodological procedure is provided aimed at bringing in context the research questions. In the same lieu, the chapter gives a brief description of the case study area in order to comprehend the justification for the selection of the study area.

The fourth chapter of the work is allotted to display the main findings of the research and the subsequent discussion. It portrays primarily the results from the case study analysis.

The final chapter endeavors to show the principle conclusions of the research, in turn, it will try to measure up to the stated hypothesis as a way of establishing a correlation and definitively rejecting it or not. Furthermore, to the aforementioned, this chapter strives to provide strengths and weakness of the study as well as to point out areas for further research.

## CHAPTER TWO

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### 2.0 LITERATURE REVIEW

#### 2.1 Introduction

The previous chapter highlighted the general introduction, research problem, objective and concept of the research. It also briefly described research methodology adopted to conduct this research. This chapter allows establishing the strong theoretical background helpful to create the research problem and research methodology to conduct the research via finding important governance issues relevant to the theme of this research. This also reviews and discusses the work that have already been done by different scholars in the area of urban physical infrastructure development especially land governance and land assemblage. This chapter is important because it helps in identifying the areas of prior research to prevent the duplication of the effort and point out the way in fulfilling a need for this research. Hence review of literature is a way of getting knowledge based on scientific articles, journals, books, papers and other electronic media to grasp knowledge and apply on the research topic. It justifies the significance of the research area and finds the gap to be fulfilled by this research.

The purpose of this chapter is therefore, to grasp the fundamental knowledge about the concept of planning, governance, urban land governance and land assembly practices at an international arena so that it helps to assess the governance principles in urban land governance moreover, this chapter intends to find the coordination approaches in urban land assemblage and review the collaborative approaches in urban infrastructure development.

To fulfill the aforementioned purpose, review of literature is the initial step to start and developing foundation for the topic to be conceptualised through this research. Hence, this chapter is divided into a total of nine sections.

## 2.2 Governance

Governance is the exercise of economic, political, and administrative authority to manage a country's affairs at all level. Governance comprises the practices and institutions by which authority in a country is exercised for common goods and services (Kaufman et al, 2010). Governance is the capacity of government to formulate and implement the sustainable policies. It also includes the system of the government (Weiss, 2000). UNDP, (2007), has defined that "governance is the system of the institutions, norms customs and policies by which society manages socioeconomic and political relationships through the interaction between state and citizens" (Weiss, 2000).

The European Commission has developed the definition very close to the theme of this study; it refers to governance as; "Governance concerns the ability of state to serve to the citizens. It refers to the rules, processes and arrangements by which the conflicting interests are addressed, resources are managed and power is exercised in society" (FAO, 2007). Governance therefore, is a method to identify the blurring boundaries and responsibilities to deal with the socioeconomic problems through the power sharing among different government actors. However, the government is one of the steering, guiding and leading actor among civil society and private actors involved in the process of decision making, implementing and monitoring (stoke, 1998).

Governance is a qualitative and unbiased term that varies between the limits from weak to good governance in terms of implementation and evaluation of governance principles to articulate the aggregate voice of citizens. "It includes the formal institutions of the government and informal arrangements from the private sector, civil society groups, citizens and media" (FAO, 2007). Thus, the governance is conceptually broader than the government (Palmer et al, 2009). Moreover, governance highlights principles of; "participation, accountability, transparency, consensus, sustainability, the rule of law, and the inclusion of the poorest and most vulnerable people in making decisions about allocating development resources" (UNDP, 2008).

According to Kofi Annan, former Secretary General of the United Nations “Good governance is perhaps the single most important factor promoting programs and in eradicating poverty” (Birner, 2008).

### **2.3 Land Governance**

“Land governance is defined in terms of sound rules, processes, structures and institutions through which decisions are made about access to land and its use, the manner in which the decisions are implemented and enforced, the way that competing interests in land are managed.” (Palmer et al, 2009). Land governance is not only used to control land use and land development rather than this land governance is the general term used to evaluate the economic and social outcomes used for the sustainable livelihood. Land governance is basically about formulating and executing the sound policy to establish the strong relationship between land and people (Enmark et, al, 2010; Hong et al 2007).

Land governance can be taken as an instrument to measure the degree of satisfaction perceived by the citizens for equitable access to land, tenure security, land use and land development (Augustinus, 2009; FAO, 2012). Land governance is therefore, more or less about the exercise of power through the legal body of the government for equitable utilization, management and justified distribution of land and natural resources (Palmer et al, 2009). Consequently, land governance is applicable in every step of the land development process such as urban physical infrastructure development. The methods and mechanism of accessing the land resource for instance land assembly is to increase efficiency and sustainability in terms of achieving the optimum, timely and adequate availability of land to public authorities ( Jignesh et al, 2014).

## 2.4 Urban Governance

According to UN-HABITAT, urban governance is “the *exercise of political, economical, social and administrative authority in the management of an urban entity*” (Auclair et al, 2009). It includes the process, institutions, actors and mechanism for reduction of urban poverty, maintain urban standards and promote social inclusion. Thus, urban governance supports the inclusion from perspective of government actors or stakeholders (Mathieu, 2011). It is an integrated form of the governance actors through cooperation, responsibility and accountability for urban management. Urban governance is exercised by the government because it needs the legal authority to manage, use and control over land, property and natural resources. It includes the following principles:

- i. *“Security of land tenure*
- ii. *Equitable access to land for shelter*
- iii. *Participation*
- iv. *Efficiency and Effectiveness*
- v. *Sustainability*
- vi. *Transparency and*
- vii. *Accountability and subsidiarity.*

*These principles are found to be interdependent and the application of each principle requires the adoption of the other principle” ( Auclair et al, 2009; FAO, 2007).*

Therefore, urban activities including but not limited to infrastructure development, land accessibility are important for sustainable urban development. Sustainable urban development requires the land policy, planning, land development methods and participation of different land related stakeholders in terms of governance network (Augustinus, 2009; Sorensen, 2005).

## 2.5 Planning Theories

Prior to having a discussion on land assemblage preceding urban physical infrastructure development as a function of land governance, it is prudent to provide a brief debate about the current dominant planning theories in order to highlight the conceptual foundation underpinning the ideas and theoretical roots of the proposed research.

In this regard, it could be stated that the modern planning theories started with the “*New Deal Era*” (Bruce, 2000). The New Deal Era championed planning as a so called “Fourth Power” of the Government. The theory relied in collection and examination of data, evaluation of alternative courses of action and creation of systems form implementation. The main contribution of New Deal in the planning profession was the introduction of the social scientific model at urban level (Bruce, 2000).

However, the New Deal Era theory faced criticisms particularly from sociologist (Mannheim, 1940). Mannheim believed that planning was inevitable due to technology and population growth. The only relevant question was "who would plan?" Would it be fascist forces of dictatorship or democratic participatory institutions?. Accordingly, Mannheim was cautious about planners’ over-reliance on functional rationality, or mere attention to means and demanded that attention be given to substantial rationality the definition of correct end states or goals (Frederick, 1944).

Although, Manheim raised concerns regarding what he felt were excessive powers to the government, his attempts drew more discussions among professionals, scholars and politicians in what became as a “Great Debate” (Wooten, 1945). Consequently, a new planning theory emerged.

The rational planning model, became a guide in the planning profession and beyond as an approach to problem solving in the public sphere. It embedded the enforcement of a deeply structured and professionalized conception based on to comparing alternative rules for aggregating individual preferences, examination of the implications of risk and

uncertainty, and consideration of the impact of new and faster computers on our abilities to ascertain public preferences and completion of the necessary calculations (Sager, 1997; Fischhoff, 1996; Klosterman, 1994). The main criticism advanced towards the theory, was it was unachievable and out of step with the political realities since it required to make goals in advance which is contrary with political leaders who prefer to choose policies and goals at the same time (Hoch, 1994).

In fact, rational planning model witnessed extensions into incrementalism planning (Bryson et al 1988; Kaufman et al 1987) but also into strategic planning movement which heavily, arguing for a focus on organizational survival rather than societal benefit, short- rather than long-range time horizons, and the use of impression in the absence of hard data (Kaufman et al 1987).

The discussions into planning theories have been progressive resulting into more planning theories the communicative planning theory has communicative which asserted that through communicative strategies complementing their technical work, planners can alert citizens to the issues of the day, arm them with technical and political information, and otherwise encourage community-based planning actions (Hemmens et al, 1980; Sager 1994). However, the communicative planning theory also met a strong opposition, not only from rational theorists but mainly from critical and neo-Marxist practitioners (Innes, 2013) who argue an excess of vagueness and a lack of practical effectiveness on the real scale against the communicative planning vision (Fainstein 2000, Hillier 2003), which is in addition accused of a lack of critical approach (Tewdwr-Jones & Allmendinger 1998).

Nevertheless, (Castells, 2009) painstakingly argues in behalf of communication as an indispensable entrance for nowadays' planning practice, due to the fact that power is no longer located in particular spheres but stemming from the social actors' constructive readiness, being communication the way to propel social changes, including the power relations (Habermas, 1996). Additionally, postmodern theorists

contend the importance of counter-hegemonic movements to produce changes as concerns the city power balance, leading to more democratic frameworks (Purcell, 2009).

Much recent activity in planning theory has surrounded identifying better ways for planners to present arguments so that they will be persuasive in political and multicultural environments (Bruce, 2000).

Accordingly, it is priceless to point out that professionalism, community participation and communication are fundamental principles, which guide a robust community laboring to ensure the notion of serving the public interest and a real spring board to tackling contemporary urban planning challenges.

## **2.6 Land Assembly**

The precise scope of land assembly differs between countries and disciplines. In literature land assembly is hardly conceptualised. Therefore, “land assembly is a broader term without clear definition” (Louw, 2008). In urban economics, for example, land assembly is seen as a sequence of transactions of buy land on an imperfect market. In planning however, land assembly is seen as intervention by the state in the land market in this case using statutory measure such as expropriation (or compulsory purchase), pre-emption rights or land pooling.

According to Golland (2003), there is a consensus that land assembly forms part of the development process as a whole, but there is likely to be no consensus as to its precise scope. If land assembly is defined broadly it is a key stage in the development process involving (Golland, 2003);

- Land acquisition from landowners
- Land preparation
- Planning of streets, open spaces and main services
- Planning the built form

- Division of land into building plots
- Delivery of planned form.

In a rather narrow perspective, we could separate land acquisition from development. The key feature of land assembly is that *“it involves change in land ownership through acquisition of the necessary parcels of land to make property development and infrastructure provisions possible”* (Louw, 2008). Therefore land assembly is considered as a specific stage in the property development process. During this process, specific agents either acquire land temporarily, because of legal obligation to provide infrastructure, they acquire land for the purpose of turning a profit as land is passed through the developmental pipeline.

Land assemblage as at times is referred to as land pooling; a process which helps in coordinating a large-scale development on contiguous land parcels that were initially fragmented by ownership, use, and size into a single parcel of land or continuous strip on which a development project can be implemented. Pooling helps in carving out space (land) for common public facilities such as roads and lots to accommodate public amenities while planning for a coherent larger-scale future development without worrying about the individual landowners (Mittal, 2013).

As a function and process of urban land management and planning, land assembly usually serve three main objectives. First, in the case of a desired development, land must be made available for development. Often this requires a form of land assembly, since the required subdivision for the new development for example a new residential or mixed use development does not match up with the existing ownership structure or in the case of an urban transformation project, an obsolete industrial area (Louw, 2008)

A second main objective is to make sure that the costs of the public works that are necessary for the intended development can be recovered, either completely or at least in part. The primary condition for this is a positive balance between the increment value

of the land based on the new development and the costs to develop the location (Van der Krabben et al, 2012).

The third main objective however, much less 'accepted' and in many countries subject of political debate (Alterman, 2009) "is to capture part of the unearned increment in the land value that occurs as a result of the change of the land use in the area to be developed, thus allowing higher valued uses or higher building densities". In this way, authorities can charge a supplement increment in value brought about by the deliberate planning actions.

### **2.6.1 Land Assembly Approaches:**

The development models determine the strategy in relation to planning, and the land assembly strategy (Van der Krabben et al, 2012). This section attempts to distinguish between the different land assembly models. Land assembly can both be done by public authorities and by private developers (and also in public private partnerships). Golland, 2003; cited in Louw, 2008, p. 73) states that public authorities employ two different ways to assemble land; comprehensive top-down models and planning led quasi market models.

#### ***a) Comprehensive top down models***

The comprehensive top down models concern a proactive plan led citywide approach and involve the public purchase and development of all (future) building land within a city, to guarantee building developments according to public policies, to realize full cost recovery of all public works via the sale of building plots and to capture at least part of the surplus value of the land (after a change in use), to use that for public use.

Negotiated purchases are the first step in assembling land under the top down model; the land assembler makes a purchase offer and the landowner sells the property rights at a negotiated arm's-length transaction. However, if landowners are unwilling to sell or

move, the drawbacks of the mechanism are visible. Land holdouts that delay the redevelopment projects are created when multiple landowners are involved.

Many mechanisms are used in negotiated purchases, such as shielded identity of the land assembler, to avoid speculative landholding. However, those landowners who are aware of the assemblage and want to maximize self-interest after realizing that their bargaining power increases if they refuse to sell, the result will be a holdout, delaying the entire project. It is in situations like this when eminent domain is employed.

Eminent domain, also known as compulsory acquisition, expropriation, takings, and compulsory purchase, is a process where private property may be taken for public purpose without the willing consent of its owner or occupant (Keith, 2008). Eminent domain effectively reassigns property rights from the original owner to a new owner, often from the older low-proactive use to a newer, but higher, productive use.

Most urban physical infrastructure projects and other road right-of-ways (ROW) are acquired using this approach (Munch, 1976). Being a top-down government driven process, sellers in eminent domain are deprived of their right to refuse, or even to sell, and often feel constrained in their right to bargain over price. The future benefit of the new developments also does not pass to the original landowner, because of the change in ownership (Lindsay, 2012).

It is a top-down approach and is government driven, requiring a judicial-administrative process in taking the property. Eminent domain is cash based, where property owners are paid-out based on their current fair market value, which is the present value of the property and does not reflect future assembly value. Because of this, landowners have little or no incentive to cooperate in land assembly this way (Van der Krabben et al, 2012; Lindsay, 2012).

### ***b) Planning led quasi market models***

In contrast, planning led quasi market models operate a proactive plan led area approach, involving the public purchase of land (and vacant properties) in a specific area and afterwards sale of that land to the private sector, in order to enable a (re)development program for that specific area. Often, semi-public development companies are established that are allowed to operate outside the normal local planning rules.

Planning led quasi market models, as we see them, aim to acquire land in a certain area to guarantee the (future) redevelopment of that area. Cost recovery of public works investments is usually arranged in a later stage of the development, when building permits are issued, via some kind of developer contribution. Value capturing is usually not a goal.

Independently *Private market models* relate to a much more passive planning approach in which zoning is the usual tool to prohibit certain development forms taking place. It involves the private purchase of land (and vacant properties) in a specific area, in order to enable a (re)development program for that specific area.

Conventionally, urban land readjustment models are also employed. *Urban land readjustment models* (also referred to as 'land pooling' and 'urban partnership zones'; (Adams et al., 2001). Can be described as 'land readjustment gives all affected property owners in a redevelopment district the power, by majority vote, to approve or disapprove the transfer of land rights to a self-governing body for redevelopment. Instead of buying out all existing property owners or using eminent domain, the agency invites property owners to become stakeholders and to contribute their real assets to the project as investment capital (equity). After all properties in the districts are assembled, the combined land sites are re-subdivided (Hong et al, 2007). This

development model is widely applied in countries like France, Germany, Israel, Japan, South Korea and Taiwan (Doebele, 1982, 2002).

It is imperative to note, whatever the development approach, planning is at the centre of the process either through a comprehensive top down model or a quasi-market led approach. In this regard, if land assembly is to effectively be done and the ultimate goal of infrastructure delivery is to be achieved, collaborative and coordinated approaches from the planning field need to be envisaged.

## **2.7 Comprehensive Collaborative Urban Infrastructure Development**

Contemporary land use planning which put great emphasis of urban governance structures to rather traditional land roles of local governments in managing basic land use, infrastructure and services are no longer sufficient to meet the local community needs (Au-Yeung et al, 2010). Accordingly, the conventional urban planning approaches based on trends and strategic assumption and inflexible constraints boosted by the concept of master planning has been found to be inefficient in tackling emerging urban growth and management issues (Agirre, 2014). It has been suggested that there is a “mismatch between what is a planner’s view of a desirable spatial outcome and the realities of the evolving urban structure” (Au-Yeung et al, 2010). Thus, the new complex urban realities demand integrated strategic planning approaches to comprehensively find solutions ranging from urban renewal to strategic distribution of public transport routes and infrastructure.

In order to understand the concept of urban infrastructure development, in relation to land assembly, it is important to understand the typical responsibilities of urban authorities. It is suggested that urban authorities assume these core responsibilities because they provide services and usually have authority to levy charges for what they can provide (Worthington, 2007). The provision of infrastructure, service and their maintenance are, therefore, perceived as rights that the community expects.

In fact, urban authorities are ultimately linked to communities because they can address local economic, social and environmental issues which the market cannot address through regulatory regimes (Zifcak, 2001).

The current planning approaches and urban governance require urban authorities to work in a collaborative cohesion among different professions of various disciplines and different stakeholders to combat urban issues and increasing pressures and to meet local communities demands and achieve sustainable cities (Au-Yeung et al, 2010). In this regard, the top-bottom planning approaches have been deemed to ineffective to achieve the aspirations of the urban dwellers and the community led planning approaches are too slow to keep pace with the demands and thus falling short in achieving sustainable urban development (Nelson *et al.*, 2004).

Accordingly, Achieving sustainable urban development is among the key goals of most urban authorities and global cities (K'Akumu, 2007). In fact, it is suggested that the current resource consumption patterns and living habits of both developed and developing countries is resulting in problems such as global warming, inter-generational inequity, and rapid destruction of eco-systems. This has consequently made national and local governments revise their strategic directions and planning approaches of their cities and urban areas (Tregoning *et al.*, 2002; Nijkamp *et al.*, 2007).

The concept of sustainable development, described as “development that meets the needs of the present, without compromising the ability of future generations to meet their own needs” (WCED, 1987), emerges nowadays as an essential element of the development plans of the cities which aim to thrive in the globalization era (Alpopi et al. 2011). In addition, the concept of sustainable urban development is generally implemented through the conventional planning approach which utilises macro level information to support local government policy setting for local areas (Meadowcroft, 1997).

## **1.8 Integrated Urban Physical Infrastructure Planning and Development**

Nowadays, the Current best practices in search of attaining integrated urban infrastructure development predominantly focus on the development of robust and integrated planning support systems to inform and enable greater public and private sector engagement in the decision making process (Au-Yeung et al, 2010). Many cities and urban areas are increasingly incorporating strategies; through the use of robust land use and planning mechanisms to inform urban planners and decision makers on the effectiveness of existing land use policies (Boyle & Mohamed, 2007; Hiroaki et al, 2013).

Consequently, decision makers are able to evaluate their urban policies, particularly in relation to efficiency of urban public infrastructure development and management in order to meet the demands of the urban dwellers. However, it is stated that “current research on integrated infrastructure management to date has not fully explored the potential of a robust planning support system that can be further developed and integrated into local government authorities to facilitate sustainable urban growth and infrastructure management outcomes” (Au-Yeung et al, 2010; Hiroaki et al, 2013).

An integrated urban physical infrastructure development approach needs to envisage long-term futures, crafting visions that are eventually articulated into spatial plans and specific land-use initiatives as a way to guide an integrated urban infrastructure development. Au-Yeung et al, 2010 contends that “an integrated urban management system would have the potential to provide outcomes to evaluate land use policies, but also could be integrated into local government systems to inform corporate decisions making regarding estimates and benchmarks, to plan for future cost recovery of infrastructure charges, and to determine the human resources needed”.

The recent emphasis among planning community is re-shaping the planning and development of urban physical infrastructure (Worthington, 2007). Various planning documents nowadays, spell out planning priorities based on integrated infrastructure development such as Transport Oriented Development (TODs); such planning priorities are aimed at ensuring that land use planning, local economic development and urban infrastructure provisions are delivered and meets the needs and demands of the anticipated economic and population growth.

Planning and development of physical urban infrastructure requires consideration of the complex interactions among economic, environmental and social factors (Hiroaki et al, 2013). Conversely, a wide range of innovative sustainability initiatives adopted ensure that each step of the urban development process contributes to a reduction of the ecological footprint and to an improvement in the quality of life (Stimson, 2002; Jones, 2005).

Therefore, the urban planning community needs to fully embrace a rational comprehensive approach in planning and development of urban infrastructure (Gleenson et al, 2000). A holistic understanding of sustainable urban development in line with complex relations between urban land governance; particularly land assembly is a catalyst to comprehensive integrated infrastructure planning and development.

## **1.9 Summary**

In this chapter, we have presented different theoretical foundations related to the objective of this study to be achieved. Governance, urban land governance and land assembly are reviewed essentially to grasp the knowledge on these terminologies, their applicable field and importance. The research is more intended to assess land assembly for urban physical infrastructure in the case area with respect to planning approaches. Therefore, land assembly relates to land governance, urban governance as well as planning. On the other hand, integrated urban infrastructure planning and development

is intended to validate comprehensive collaborative planning approaches in terms of sustainable urban development. The basic foundations from the review of literature are summarized in this chapter so that the assessment of land assembly for urban infrastructure can provide insight to find out how planning incorporate land assembly issues as a catalyst to a sustainable integrated infrastructure provision and urban development.

## CHAPTER THREE

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### 3.0 RESEARCH METHODOLOGY

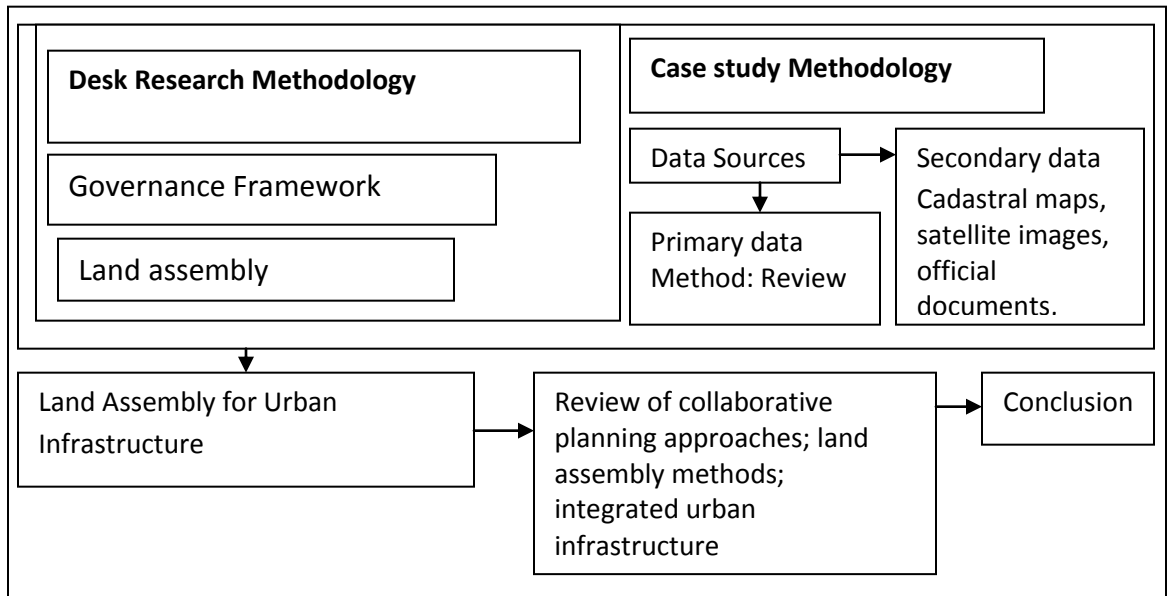
#### 3.1 Introduction

Research methodology is defined as the strategy that guides the set of procedures for research practice and it suggests conducting the research for achieving answer of the research questions. “it is a technique used to acquire and analyse data to create knowledge and to make conclusion with the help of questionnaires, interviews, focus group discussions, survey measurements” (Pretty et al, 2012). As already mentioned, the main target of this research is to provide a methodological and theoretical framework proposal grounded on a thorough theoretical review comprising the fundamental aspects defining a collaborative planning approach between the planning community and other stakeholders in relation to land assembly fostering an integrated infrastructure development.

Thereby, the proposal itself pursues to become a methodological framework entailing a holistic collaborative planning approach linking urban planning in tandem with other departments in the planning and development of integrated urban infrastructure projects.

The proposed research methodology for this research is described in figure (3-1). To meet the objective of the research, single research method may not be able to provide enough information for the requirement of the research (Yin, 2003). Therefore, desk research methodology and case study methodology are chosen for this research.

**Figure 3-1: Research Methodology**



**Source:** Made by the author

Accordingly, a study of this nature hinges on descriptive and analytical approaches rallying on both quantitative and qualitative data.

Drawing on the articulated research methodology as illustrated in figure 3:1 above, the study's assessment stems from the assumption urban land is a pragmatic challenge, it necessitates authorities to assemble land for its development projects in this case urban physical infrastructure: that the contemporary planning approaches must be embedded as a catalyst to overcoming more complex, contradictory issues ranging from social, political, economic and environmental challenges. This position is supported by the preceding literature review which reveals that land governance issues, land assembly challenges, urban challenges and context and the constant evolution of urban and cities.

In addition, if we, are to tackle the contemporary challenges cities face, with virtually no developments possible without some sort of access to the land resource, we need to look at planning to provide creative and collaborative approaches that enable authorities assemble land smoothly and in a timely manner but also to ensure that the scarce land resource is effectively utilised in manner that fully benefits a wider society.

An integrated infrastructure development would be and should be the goal of a collaborative planning approach. However, this can only be achieved if planning and other stakeholders are working together in real collaboration and cohesion.

Starting from this point the study aims to investigate the way authorities assemble land. Furthermore, how collaborative planning has been adopted in urban infrastructure development and if the specific practices are transforming and developing a more integrated urban infrastructure and secondly, has the specific practices reflected in smooth land assembly.

In this methodology, an assessment criterion is employed. The criteria developed intends to measure both qualitative and quantitative. For this last purpose, the study applies a modified version of the methodology used by Hutchinson (2014). It entails four hierarchies namely; why, who, what and how.

Putting in perspective the “why” criteria, it intends to measure response emanating from criteria “what”. Such as what issues, problems and challenges that the collaborative planning responds to and what could be the cause of those problems. These can be seen as the compound events that resulted to change the planning approach. This is the motivation to change. It pivots to the fact that recognizes there is a problem while acknowledging the existing approaches are incapable of addressing the problem.

“How” refers to the process of implementation under collaborative planning approaches. It tries to depict “how it essentially happens”. In this regards, where the actions take place, practices, policies as well as institutional arrangements.

By “Who” we refer to the actors or stakeholders involved. These include formal government establishments, informal organizations, and pressure groups, citizen coalitions that participate in collaborative planning. Crucially, the issue of decision making that is who makes the decision is very evident in this criteria.

“What” criterion depicts the outcomes for instance, an integrated infrastructure project? – (The Product), a change in organizational or interdisciplinary relations and approaches or a change in chain of value to the society. It also, equates the impact of the project to the urban scale in terms of energy consumption, pollution, incomes among others.

The subsequent criteria thus involve and relate to a collaborative planning approach in urban infrastructure development deployed under the methodology are;

1. What was the motivation for collaborative planning; what situation or challenge is it in response to?
2. How was change initiated? By who?
3. Who is (or was) involved; were new actors involved? Interdisciplinary or trans-disciplinary collaboration, changes in departmental structure and looking beyond the department. In what way were they involved? Including who makes the final decision(s) and who played a leading role?
4. Including participation beyond government, involvement of the public, professionals and involvement of academics or researchers?
5. How is the value of a project measured?
6. Have existing values, norms, mindsets and governance discourse been challenged? Including a focus on cohesive planning, long term strategies, changing scale or time frame, and a broader comprehension of an urban area in terms of economic-social-political dimensions.
7. What is the benefit or value to the community?

The seven criteria listed are independent. However, they are generally interconnected, related and complementary. They are part of a collaborative planning approach. These criteria are a ‘tool’ of analysis of the case study to determine the existent of collaborative practices. Thus, the selected case study enables this research to test the criteria listed to explore the topic and implement the framework.

The case study, Tours city is chosen as a case study through which to use this framework and assess land assembly for urban infrastructure for several reasons. In particular the city has implemented a 15 kilometer tramway line with a proposal to construct a second line. This being an old city with a strong private property ownership, land assembly was unavoidable. This would have necessitated the working together of various stakeholders and thus coordination in the pursuit to achieve the project. This reveals preliminary evidence of a collaborative planning approach. In addition to the collaborative approach, there is some evidence of an integrated urban infrastructure development leading to a subsequent transformation of the urban space while responding to global issues in relation to economic, social dynamism, environment concerns and sustainability.

Furthermore, Tours city is a strategically in the centre of France in the department of Indre-et-Loire in the Loire Valley. Because of its centrality, it has the ability to influence and to be influenced in all aspects of development particularly infrastructure development. In this way, the case study exhibits coordination at all levels both a macro and micro levels.

In a parallel way, this paragraph has to highlight the perceived limitation of the proposed research. Before elaborating further the aspects referred to the data it seems thorough to foresee some of the presumable difficulties related to the completion of the research as perceived. In this regard, the excessive ambitiousness of the study emerges as one of the outstanding difficulties, taking into account the considerable reduced time to fully investigate and elaborate the whole project. In fact, this stems from the cloudiness of land governance, project planning and financing as well as other factors ranging from engineering which are interrelated and intertwined.

Secondly, the proposed study risks from conceptual ground gap based on lack of previous works directly dealing with the subject. Undoubtedly, prior research has generally highlighted the lack of integration among government policies but there is

scanty information on the use of collaborative approaches in land assembly and urban infrastructure development.

Also, part of the problem here revolves around the use of language. It is envisaged to be one of the pitfalls of research undertaken. The risk of misinterpretation associated with translation is presumably real. In the process of trying to standardize and achieve common meanings there is likelihood that ostensibly direct translations may carry quite different overlays of meaning. Or again, vocabulary employed which denotes concepts that are not even present in the place being researched. However, this matter could be overcome by using words or phrases best situated to explain the context and in rare cases where translation could not be achieved without compromising the original meaning, the exact words is employed.

Lastly, the possible reluctance of the targeted group to fill questionnaires and the subjective biasness displayed by the responsible authorities could be some of the other issues to cope with. For this reason, to have a representative sample, a wide group is target with a hope to receive as many responses as possible.

## CHAPTER FOUR

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### 4.0 CASE STUDY ANALYSIS, FINDINGS AND DISCUSSION

#### 4.1 Introduction

Tours is the capita of the Indre-et-Loire department in the centre of France. It stands, on the lower reaches of the river Loire, the longest river in France between Orléans and the Atlantic coast. It is located approximately 200 km southwest of Paris. Tours is the biggest city in the centre of France and is referred to as "Le Jardin de la France" (The garden of France). Although, Tours city is the largest in the central region – the Loire Valley, it is not the capital of the region, which is the region's second-largest city, Orléans. In addition, being is the core city in the Loire Valley, Tours commune is part of the cooperation Pole Tourangelle which work to cooperate on areas of housing, economic development, innovation, research, transport, environment but also culture and tourism. Today, Tours city is among the top 20 most populated cities in France

#### **Facts & Figures - Commune: Tours**

France Population: 65.8 million (Approximately 2013)

Region: Centre-Val-de Loire (1 842 communes) - 2 563 586 inhab. (2012, From INSEE)

Department: Indre-et-Loire (277 communes) 596 937 inhab. (Approximately, 2012, From INSEE)

Area: 6 127 km<sup>2</sup>

Density: 97 km<sup>2</sup>

Tours city: 134 978 (Approximately, 2012 INSEE)

Tours agglomeration: 23 municipalities

Total population: 320,000

Area: 390.41 km<sup>2</sup>

Density approximately 757/ km<sup>2</sup>

Larger Metropolitan area / urban area 80 communes (aire urbaine) 500,000 (2011)

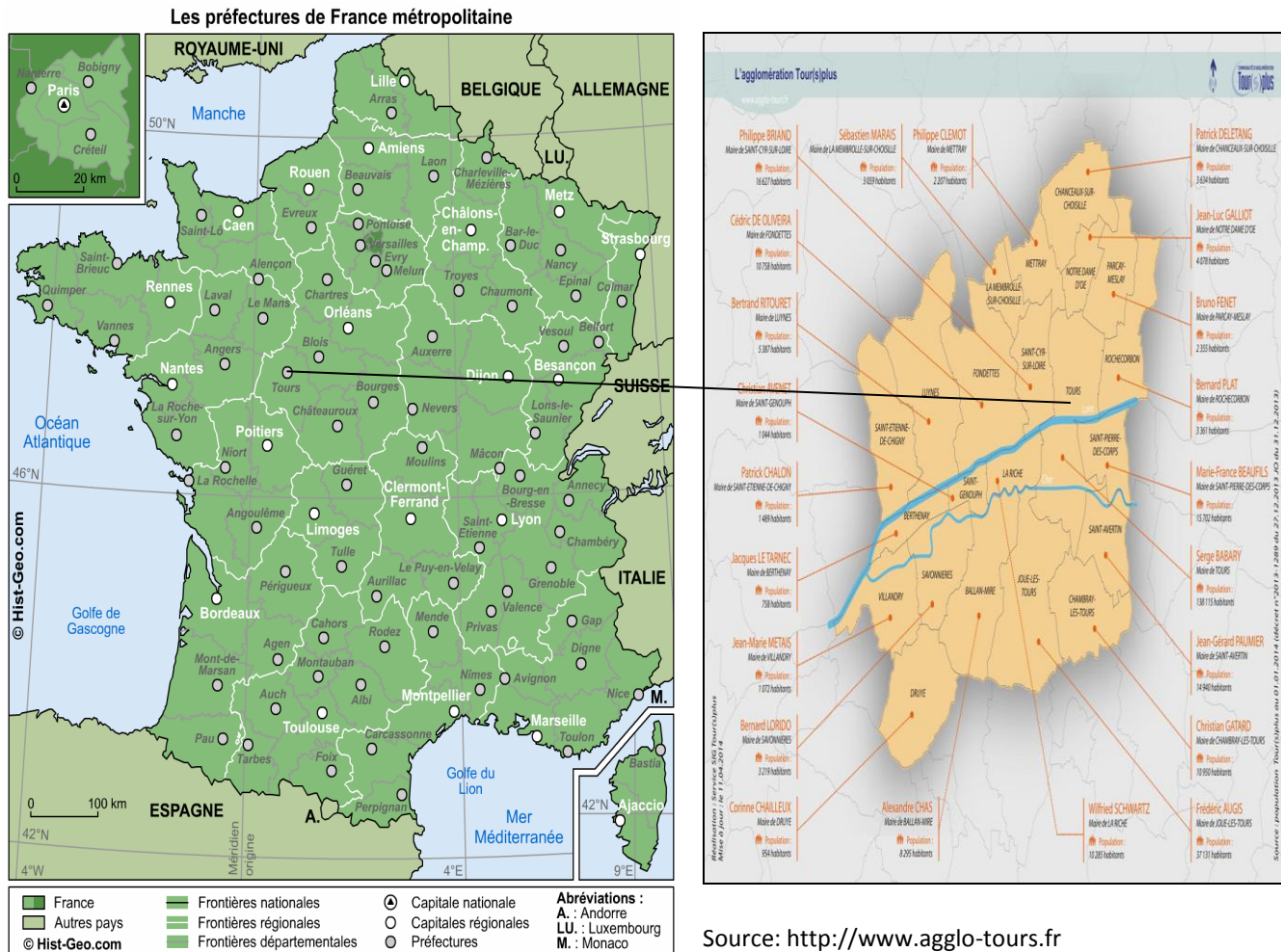
Area: 242.64km<sup>2</sup> (24, 264 hectares)

Density 380/km<sup>2</sup> approximately

L'Espac Urbain de Tours 212 Communes including Vendom and Blois: 575, 000 (2011)

Area: 1 660 km<sup>2</sup>

Figure 4-1: Location of Case Study Area



Source: [www.hist-geo.com](http://www.hist-geo.com)

#### 4.1.1 History and Development

Tours is a city with a long history dating back to Gallic tribes. In Gallic times the city was important as a crossing point of the Loire becoming part of the Roman Empire during the 1st century AD, the city was named "Caesarodunum" ("hill of Caesar"). The name evolved in the 4th century when the original Gallic name, Turones, became first "Civitas Turonum" then "Tours". Tours became the metropolis of the Roman province of Lugdunum towards 380–388, dominating the Loire Valley, Maine and Brittany.

After the retreats of the Middle Ages, Tours put the economic revival to good use, as well as sailing the Loire river and the difficulties in Paris, becoming an important time in the Kingdom of France, which was fighting for its own currency and working with silk: then Tours benefited from the King's and the Court's favor for Loire valley, also known as the "France's garden". However, because of the city's location "outer Crown" of Paris, too close to the Paris metropolis to be autonomous yet close to be weakened by the capital, it entered into relative anonymity.

In the 19<sup>th</sup> century, the city's revival started with the arrival of the railway making Tours city an important nodal point with the creation of Tours-Saint-Pierre-des-Corps station. This period witnessed the expansion of the city in the southern direction towards the new district of Prébendes. Tours' central location made the city as a centre of communications. The progression continued in the 20<sup>th</sup> century with Tours becoming a dynamic conurbation, economically oriented towards the service sector.

It is written that the city was greatly affected by the First World War and suffered massive destruction during the Second World War and the years of occupation. During 1940 the city suffered a major fire due to German's incendiary bombs which destroyed part of the city centre. Following the end of the Second World War, Tours embarked reconstruction of the city; a plan drawn by a local architect had been adopted before the end of the war. The plan was to construct twenty small quadrangular blocks arranged around the Rue Nationale, the principal road which had been widened.

The reconstruction plan though simplified was quite ambitious since it would require the destruction of the southern parts of the Rue Nationale to accommodate the proposed developments. However, the city authority saved the would be demolished area by creating a Conservation Area. In the 1970's the city would grow and extend in the south across River Cher. An ambitious project was taken to canalize and divert the course of River Cher to create new districts; the districts of Rives du Cher and des Fontaines.

Tours city having “modelled” its self on service industry and due to the nature of the local economy particularly agriculture with limited industrialization save from the Mame printer-editor which was linked to the church, did not suffer from industrial decline like many other European and French cities. Today, the city has concentrated on a policy aimed at improving the quality of life, as evidenced by urban restoration, sustainable environment conservation, cultural activities and the development of public transport with the construction of a tramway being the symbolic landmark. These policies have also had significant effects on the direction and form of urban planning and the transformation of the city’s physical form and character.

#### **4.2 Governance and Institutional Framework**

The Government of the French Republic “*Gouvernement de la République française*” is a unitary semi-presidential system. The government is established by the French Constitution of the Fifth Republic of 1958 as amended from time to time. There are three different branches that make up the French government: the presidential branch, legislative branch, and judicial branch.

The powers of the presidential branch are split between the president and a prime minister appointed by the president. The legislative branch is broken up into a National Assembly, voted in by the populace, and a Senate, appointed by an electoral college. The judicial branch is quite complex and extensive, with a Court of Cassation serving as the court of last resort and a Council of State to provide judicial review and interpret laws.

Whereas, it is not the core value to discuss the French system of governance in detail, it is relevant to understand the institutional framework for the Tours area and France in general due to the fact that the system is a multi-level governance structure comprised of; the State, Regions, Departments and Communes. Such a system of governance is not common in other countries. That said, close to the subject of the study, the structure of governance has a direct coloration and effects planning and policy control since roles

are articulated at various levels of governance. It is worth noting, since the French Revolution 1789, the French system of Government has been strongly centralized. However, since the 1980's as a result of Constitutional amendments, the system is becoming more decentralized with authorities and responsibilities shared at lower levels; regions, departments and communes.

#### **4.3 Overview of French Administrative Structure: facts and figures**

Administratively, France is divided into 26 Regions; 22 regions are located in mainland France and 4 are overseas departments and territories (*départements et territoires d'outre-mer* (DOM)). The regions are further divided into 100 Departments of which 96 are found in mainland France and four being overseas departments and territories (DOM). Furthermore there is a lower local level comprising of approximately 3,600 Communes. In addition to mainland France the four overseas departments and territories (DOM) are Guadeloupe, Martinique, Réunion and the French Guyana. There are also 5 overseas territories; French Polynesia, Mayotte, Saint-Pierre and Miquelon and Wallis and Futuna and one territory with special status; New Caledonia.

The commune is the level at which the local Mayor is appointed. It is also of note that another level of administration has been developed, which is an intercommunal structure "management cooperation" or "intercommunalite". This is seen as the result of the vast number of communes that exist in France whereby several communes join together to form large inter communal to perform some functions jointly. Legislative changes at the state level notably; the Act of 12 July 1999 on enhancing and simplifying intercommunal affairs and the more recent Act of 13 August 2004 on local rights and responsibilities have simplified the legal framework for cooperation between Communes to foster more harmonious development of such cooperation.

These developments have encouraged the process of smaller communes merging to form urban communities (communautés urbaines - CU) or group together in associations of several communes (syndicats intercommunaux). There are three types of these organisations: the community of municipalities, adapted to the rural world, the conurbation community, from 50,000 inhabitants upward and the urban community from 500,000 inhabitants upwards. These intercommunal structures perform joint projects related to such functions as economic development and urban planning, housing, road maintenance and cultural facilities, such as libraries and museums.

#### **4.4 Overview of the French Planning System**

France is a unitary state; this is reflected in the multi-level system. There are several administrative bodies with authority at both state and lower, more local levels. The planning system in France gives various levels of power and authority to the various levels of government. This distribution is understood more as coordination between government levels rather than joint actions and objectives. Table 4:1 below, summaries the functions of each level of governance, the type of plan used in relation to planning.

**Table 4-1: Government Tier and Planning Function**

<b>Government Tier</b>		<b>France</b>
<b>Central Government</b>	Plan	Sets national codes, which provides the basis for local regulation.
	Function	Sets policies that are to be implemented by lower tiers of government. Coordination between national and regional planning.
<b>Region</b>	Plan	The SCOT
	Function	Covers several communes and ties together low-cost housing, infrastructure and environmental protections policies.
<b>Local</b>	Size – average population	1,550
	Plan	The PLU, PDU, PLH
	Function	Decisive legal document which provides the Development plan for the local authority or groups of authorities.  Establishes planning zones.

**Source:** Adopted and modified by the researcher basing on the National Housing and Planning Advice Unit (NHPAU), 2009.

The French planning system can be understood to have emerged in the 1960's, in a period where the political structure was strongly linked to the concept of "nation-state" and therefore, reflects the principles of the French Revolution which are embedded in the overall administration structure of the state. However, over the recent years considerable efforts have been made to devolve competences and functions to lower levels through decentralization. This is reflected in the planning structure devolving competences from state, regional and local government administration. This can be traced back in the 1980's when the government introduced decentralization policies through the Act of 2 March 1982 which among others conferred freedoms to Commune and Departments.

The Act 2 march 1982 also coined the term region and officially the regions were created resulting in the current 26 regions. According to Geppert, 2013; the legislation created an environment where the government would “*bear a leading role in regional planning, in particular in matters of transportation and economical investments*”. In 2004, further decentralization process was concretized with the Amendments to the Constitution of the French Republic by enshrining decentralization provisions. The Amendment conferred functions and responsibilities from the state to lower government levels namely regions, departments and communes. Consequently, due to decentralization process the role of the state in planning system is more supervisory and policy making with the decentralized lower government levels responsible for spatial planning competences.

Another impetus for the change from the earlier state controlled planning system independent of the legislative changes was the economic crisis of the 1970's. The crisis generated a great criticism towards planning. As the forecasted developments could not be realised, planners were criticized as technocrats unable to foresee the future and unable to produce realistic plans. The top-down state dominated planning system was also criticized as being disconnected from the local realities. Because of the criticisms advanced, there were calls to tailor a planning system that could devolve competencies to local authorities but also serves the interests of the state. In 1981, the devolution was a step to address the criticisms.

Similarly, the need to redress the regional imbalances and inequalities between the capital Paris and other territorial regions necessitated a change in the French spatial planning. Paris had dominated the national space a claim expressed by Jean- François Gravier in his famous essay, “Paris and the French desert” (Gravier, *Paris et le desert français*, 1947). The state envisaged a need to assist in creation of new clusters that encourage re-distribution of economic activities throughout the country.

The section below gives a summarized list of laws, institutional structures and highlights national policies and changes that influence local administrative structures related or impacting spatial planning. The roles of various administrative structures are listed from regions, departs to communes including Tours. I will not attempt to discuss in full details the laws and changes, however, I wish to give a summarized overview and the list is not exhaustive.

- The law “relative à l'administration territoriale de la République” 1992 (territorial administration of the Republic) was also an important step towards the reinforcement of inter-municipal cooperation in a country where communes are very numerous.

- The law on “l'Aménagement et le Développement du Territoire” (LOADT) 1995 (Law on spatial planning and territorial development), commonly referred to as the Pasqua Act. One of the objectives of the act was to ensure balanced regional development across the country and reduce regional inequalities. The law also creates the Regional Spatial Planning and Development Scheme (Schémas régionaux d'aménagement et de développement du territoire - STRADT). The Law is subsequently replaced in 1999 by the LOADDT.

- Law “relative au renforcement et à la simplification de la coopération intercommunale (relative to reinforcement and simplification of the cooperation intercommunal), 1999, commonly referred to as Chevenement law, which encourages inter communal cooperation and defined three new types of intercommunal cooperation: “communautés urbaines” (> 500,000 inhabitants), “communautés d'agglomération” (> 50,000 inhabitants) and “communautés de communes”.

Furthermore, there have been subsequent reforms to with acts passed in 2004 and 2010 aiming to simplify and improve the functioning of these intercommunal structures.

- Law “d'Orientation pour l'Aménagement et le Développement Durable du Territoire (LOADDT), 1999 (Spatial Planning and Sustainable Development Act), commonly referred to as Voynet act which outlines a new framework for spatial planning and elaborates the sectoral schemes (schémas de services collectives – SSC.). The law is an extension of the previous LOADT. The law also creates development councils and establishes Regional Spatial Planning and sustainable Development Scheme (STRADDT) (Regional Spatial Planning and Development Durable du Territoire (Schémas régionaux d'aménagement et de développement du territoire - STRADT).

Amongst other changes, this law establishes new objectives for sustainable development, including the fact that it introduced principles aimed at encouraging cities to develop projects in a manner which referred to the requirements of chapter 28 of Agenda 21 (Sustainability commitments established in Rio in 1992). Article 1 of the act outlines its purpose as being *“balanced development of the entire national territory combining social progress, economic efficiency and protection environment.”*

- the Law “ Solidarité et renouvellement Urbain”(SRU), 2000, (Urban solidarity and Renewal Act) completed by the Loi Urbanisme et Habitata (2003); which amongst the various changes to the spatial planning framework introduced by this law was replacing previous planning documents; the SD (Schemas directeurs) with the SCOT (Territorial Coherence Schemes) and the POS (Plans d’occupation des sols) with the PLU (Plans locaux d’urbanisme). Other changes included an increased orientation toward environmental sustainability and reducing emissions and a requirement for 20% social housing provision (in communes with more than 3,500 inhabitants) It also introduced an obligation for dialogue with citizens.

- Grenelle 1 & 2, 2010 which obligated the incorporation of aspect of sustainable environment in the planning documents i.e. SCOT PLU, PHU and PDU (This law gave strong arguments for the choice of the tram line of Tours as a mobility model).

Some of these will be referred to later in the paper and others may also be introduced.

Source: <http://www.legifrance.gouv.fr/>

#### **4.4.1 Planning System at Local Level**

The reforms initiated by the state in the 1999 and 2000 brought the French planning system in a contemporary shape. The planning system generally, bears the hallmarks of the previous system although coordination is strengthened, in particular through the central role of the Schéma de Cohérence Territoriale (SCoT) that has replaced the Schemas directeurs (SD). Therefore, the regulatory planning system appears more coherent.

Before explaining the local planning systems, it is worth noting at state level; the state’s main overarching impact on planning, including at the local level, for example in Tours, is that it determines the direction of the national planning policy. The State promote its vision for development, this is largely through the work of DATAR. DATAR emerges as a

tool aimed at achieving three basic objectives; “to promote the dynamism of the territories, to protect and optimize the functioning of public services, and to integrate sustainable development requirements. In the field of culture, the scheme proposed a shift towards “new spaces, new practices and new territories,” establishing a framework of general objectives, and made the regional governments responsible for the realization of their plans (DATAR 2001, Booth et al 2007).

In 2006, the DATAR was renamed to DIACT (Délégation à l'Aménagement et à la Compétitivité des Territoires) to enlarge its focus to include economic functions and merge with the Agence Française pour les Investissements Internationaux (AFII) which was responsible for the promotion of France to foreign investors. Geppert writes that “concepts such as territorial capital are now emphasized” Although the name reverted back to DATAR this economic function remains.

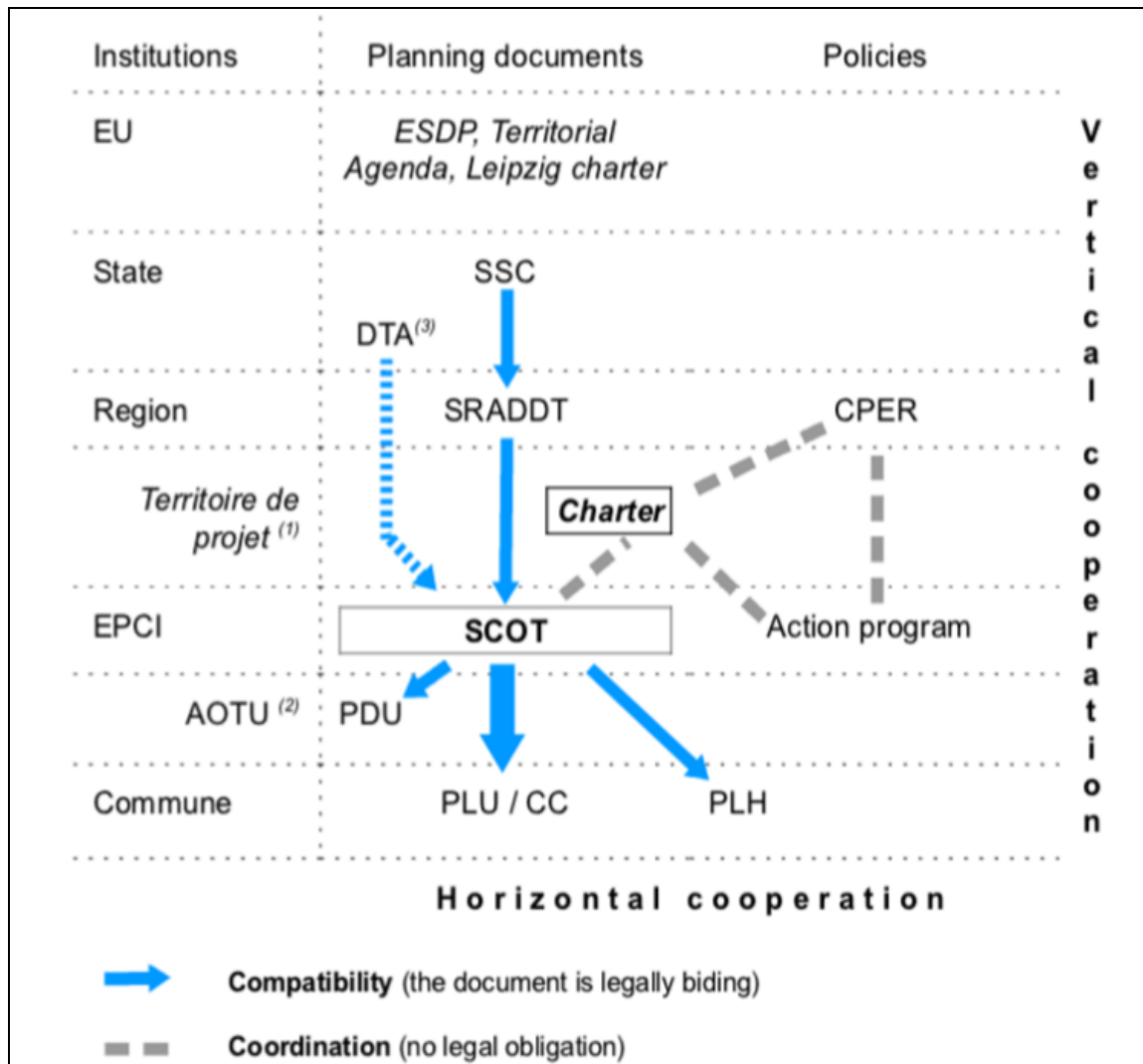
The role of the state can also be seen through the incentives advanced to regional and local governments. For instance, the state government develops national-level sector plans and Public Service Plans (Schéma de services collectif - SSC) which provide national perspective and governments priority actions over the long term development plans (mainly 20 - 25 years). This includes policies on higher education and research, culture, health, information and communication, energy, conservation of natural and rural areas, and sports.

At regional level, the regions create Spatial Planning and Sustainable Development Schemes (SRADDT - Schéma régional d'aménagement et développement durable du territoire) which establish the orientation and principles for regional development through medium-term plans (generally 10 - 20 year perspective). These address domains such as climate, biodiversity, mobility, economic development. It also outlines the medium term vision and fundamental aspects of the territories development and planning. They are formulated and approved by the conseil régional (regional council) and are the result of a consultative procedure which brings together all the local public

agencies as well as the Social and economic council for the region (conseil économique et social de la région). The regions (through the regional councils) can also formulate regional economic development schemes (Schéma régional de développement économique - SRDE). Urban planning documents are produced at level of commune or agglomeration (inter-communality). The SCoT: Territorial Cohesion Scheme (Schémas de cohérence territoriale) and the PLU - Local Urban Plan (Plans locaux d'urbanisme) are main documents.

The SCoT and PLU are discussed in details in the proceeding sections (Section 4.5). However, it is important to note that the SCoT is the core document, coordinating plans and policies. Essentially, the SCoT should be compatible with the local development plan (PLU) and sectoral plans such as the *Plan de Déplacements Urbains* (PDU), intended to reduce car traffic and promote low-carbon mobility. Undoubtedly, the *Programme Local de l'Habitat* (PLH), a document sketching the municipal strategy for housing, and in particular support to public housing and the PDU -Transport and Mobility plans (Plan de Déplacements Urbain), among others must be in tandem with the SCoT and vice versa.

**Figure 4-2: Coordination in the French Spatial planning System**



Source: Geppert. A, 2011

Figure 4:2 above, shows the collaboration between various government levels mapping the institutions, planning documents and policies respectively. It shows both vertical and horizontal cooperation's i.e. legally binding and non-binding arrangements.

For the administrative functioning, there are various bodies or entities at the different levels of government with interests in planning. At the state level one of the main organisations relevant to planning is DATAR "Délégation Interministérielle à l'Aménagement du Territoire et à l'Attractivité Régionale" which is a service of the Prime

Minister and part of the Prime minister's office. DATAR is headed by a delegate who represents the Prime minister. DATAR was originally created in 1963 as a "think tank" to give birth to spatial policies. Whilst the name has evolved and changed several times and there has been some changes in scope since its formation, the role played is predominantly the same with a major shift in spatial planning to include overseeing the facilitation of economic change. The agency's role is to prepare, promote and coordinate planning policy undertaken by the state and to prepare and implement guidelines codes for the national spatial planning policy and coordination of the programmes various government departments.

In addition, the role of DATAR includes increasing attractiveness of territories, balanced development of rural and urban areas by development of competitive clusters, to ensure cohesion and balance of French territories in Europe and negotiating with European commission for structural fund and provide forecasts for the evolution of cities and regions in France. Integral to this role is to align the state planning laws and policies coherent with European Spatial Development Perspective (ESDP)

Another significant body at the state level, which is related to this agency, is CIADT (Interministerial Committee on Spatial Planning and Development/ interministerielle d'aménagement et de développement des territoires) which is a decision making body chaired by the prime minister and makes major decisions relating to spatial planning DATAR provides the secretariat to the CIADT, which is the decision making body on spatial planning and competitiveness between regions. This body (CIADT) decides the overall orientation of national planning policy.

Furthermore, apart from the conventional committees and agencies mentioned above, other state level organisations, consultative bodies and ministries impact on the direction of spatial planning. For instance, ministries which is responsible for the overall direction of policy which impact on local levels for such as; the Conseil national de l'aménagement du territoire (CNAT)(National Planning Council), Comité interministériel

des villes et du développement social urbain (CIV) (Inter-ministerial Committee of Cities and Urban Social Development), (Ministry of Infrastructure, Housing and Transport). The Ministry of Ecology, Sustainable Development and Energy (French: Ministère de l'Écologie, du Développement durable et de l'Énergie) among other directly or indirectly impact spatial planning at different scale requiring coordination for cohesion with the overall planning policy.

As a result of decentralization process at regional level various departments and committees play an important role in spatial planning these include the regional development companies (SAR - Sociétés d'aménagement regional) which is in charge of spatial planning of rural areas and issues such as water management for the respective region. Another body at the regional level dealing with spatial planning is the regional council which produces the regional spatial policy. There are also authorities with responsibility in regard to sector issues with an impact on planning. Also, the regional prefect is the State's delegate and representative of each ministry at the regional level. Under this authority they are responsible for implementation of planning policy and is the regional partner of DATAR, as well as being the responsible representative for other portfolios with an impact on planning such as transportation and environment. Similarly, at the Departmental level, the prefect of the department is the state's delegate for the ministries.

Another role of the departmental prefect is to inform local authorities of projects of "general interest" which are to be taken into account in the local urban planning documents and also in preparing various sectoral planning documents.

Furthermore to the prefects who represent the state at the regional and departmental level there are also separate regional and departmental authorities with an interest in urban planning and economic development of their territory For example, at the Regional Level the regional council is assisted by a "conseil économique et social régional consultatif (regional social and economic advisory council) which represents

various economic sectors and social activities and is involved in the formulation of planning documents (SCOT and PLU). And, finally, at the level of the commune (and inter-communality) which is responsible for the land use planning policy for the local area of jurisdiction there is the local Urban Planning Agencies (Agences d'urbanisme).

Whilst spatial planning documents and visions are produced at all levels, urban planning is a municipal authority dealt with at the commune level. However, today many documents have an intercommunal character and are produced at the larger inter-communal scale (intercommunality). This is the case in Tours where the creation of urban planning documents, as well as the overarching perspective on planning and development, is considered at the larger urban area scale, predominantly of Tour(s)Plus area.

Urban Planning Agencies (Agences d'urbanisme) are French urban planning agencies which exist at local level. The agence d'urbanisme(s) was originally created (on a voluntary basis) under the Land Use Planning Act (1967). Today most large urban areas in France have such an agency with approximately 50 agencies having been established to date. Whilst the original purpose of the agencies was to produce planning studies and urban planning documents this scope has been extended and today includes spatial planning, economic development, transportation, environment and urban policies. Their role can be summarised as providing local governments with "technical support for planning and carrying out their urban projects" (The French Government Ministère des Affaires étrangères, 2006) allowing local authorities to develop urban planning policies and plans for their area. The agencies bring together various communes in one planning agency and the State is represented by the relevant prefect for the area. The agency is funded both by the State and local authorities as non-profit agencies. Various other departments and organisations may also be represented such as the region, department, chambers and public bodies such as a port authority.

The urban planning agencies work to produce the planning documents of the area including the local SCOT, PLU, PHL and PDU plans. The detailed roles of the local planning agency will be discussed in the proceeding sections in relation to policy formulation and implementation.

In a nutshell, the different institutions at the different tiers of government play different roles. This complex relations within the French planning system as evidenced in both vertical and horizontal interactions including binding and non-binding cooperation's requires co-ordination for cohesion. While, in the foregoing discussions I have not discussed thoroughly the different institutions or organisations in the planning arena, I have provided an in-depth overview to demonstrate the context in which planning occurs in general. But most primarily to illustrate contextual framework of planning in Tours highlighting the fact that planning does not occur in isolation but rather a system involving different players from the state, regional, departments and local levels and involves many agencies which directly or indirectly impact planning.

#### **4.5 Tours: Description of Urban Planning Agency and Main Planning Documents**

In Tours the relevant Planning agency is The Agence d'Urbanisme de l'Agglomération de Tours (ATU). The town planning agency for the city of Tours (ATU) is a non-profit association founded in 1967. Funded by the government, local and regional authorities, with Tours District Council playing a major role, its purpose is to assist its partners in their territorial development strategies and provide a joint view of such developments. Today the Agency operates on different scales: the urban area of Tours, the SCOT of Tours, Tour (s) plus the communities of communes, towns and neighborhoods. The territory covered by the ATU includes, two communities, 29 municipalities and approximately 360,000 inhabitants.

The Urban Planning Agency Tours agglomeration is managed by a general assembly and a Board of Directors. It consists representatives namely; The Prefect of Indre et Loire, or his representative, the Regional Director of Environment, Planning and Housing, or his representative, members representing Tour (s) plus, members representing the Communities and the Communes, members representing the State, members representing the SMAT (mixed union SCOT) and associate members representing the chambers, professional development among others.

The agency is a multi-disciplinary team relying on competences of different professionals such as planners, engineers, economist, geographers and sociologists amongst others. The agency works in a coordinated manner at various scales to produce documents and undertake studies aimed at generating knowledge to guide the direction of the planning. The agency outlines three broad missions broken into subtasks as follows (Refer to atu website <http://www.atu37.org> )

#### **Support Territories in their actions**

- Emergency and project support
- Assistance in the conduct of public policies

#### **Contribute to emergence a common vision of the Territory**

- Function of monitoring and forecasting
- Observation - Knowledge of the territory
- Coordinate the network of actors

#### **Participating in the definition of Territory Projects**

- Assemble skills on issues in sectors
- Formalise territories' projects

As a core role of the agency, it undertakes urban studies and observatories, studies prerequisites and accompanying various development operations such as land use and urban planning, employment, education, housing, transport plan, public space planning, protection and enhancement of the natural and built heritage.

The Agence d'Urbanisme de l'Agglomération de Tours (ATU), furthermore, offers technical support to the elected officials for formulation of policies and decision making regarding future development plans of the territory. This is done through production of periodical publications in terms of annual activity report as well as outlook report for the following year (Programme Partenarial de travail). The agency also evaluates the SCoT de l'Agglomération Tourangelle 2030 as a way of understanding its implementation, limitations and the overall impact on the ground.

The ATU also works with the communities and inter-communities to develop strategic planning documents and urban projects. For instance, it assists the community in implementing and adhering to new policies. This includes the development of the SCoT for the area. The agency also works with citizens and civil society organisations academics and socio-economic actors which it is explained it sees as a source of knowledge (“A tool of governance and territorial cohesion”). This collaboration is also explained as a way to ensure the dissemination of information and knowledge at its disposal and to contribute to dialogue and local debate.

It is of note that the ATU emphasizes its role in regard to undertaking various studies as being to investigate and predict future changes (“A place of foresight and innovation”), for example, economic and social changes, which will affect the life of the local community. This includes changes within the territory and also beyond (nationally and internationally) such as aging, changes in lifestyle, alternative energy supplies, new communication and information technology etc.

The ATU elucidates that it must detect background movement; regional, national and internally which could have an impact on the development and life of its inhabitants over the coming years. It includes studies and surveys on trends both local and beyond in areas such as energy, climate change and engaging in international discussion in an increasing globalized environment. The ATU further engages in training and education through partnerships with education and training institutions working in the field of

planning, urbanism and engineering with mostly students from various higher institutions in Tours such as Polytech Tours - Université François-Rabelais via collaborations and engagements such as workshops, conferences and lesson with professional from the agency. That aside, the tangible outputs of the planning agency are seen in the planning documents. The various scales of plans are illustratively discussed in the next section.

In the case of Tours an array of different plans are used. These plans are discussed in detail in this section. The plans produced have been used in final assessment regarding the main features and remarkable hints in relation to different aspects of planning such as housing, employment and mobility amongst others core to this study these documents are embedded with collaborative aspects needed for coherence in implementing different projects such as infrastructure development like the Tramway. The various plans in use are discussed below:

### **SCoT**

The Schéma de cohérence territoriale; SCoT is a local area plan which was established by the SRU law in 2000 – the Urban Solidarity and Renewal Act of 13 December 2000 (as amended by the Urban Planning and Housing Act of 2 July 2003). It is a strategic planning tool across several municipalities or groups of municipalities.

The SCoT defines medium to long term major development objectives and priorities for a territory and once approved is valid for a 10 year period. For example the SCoT de l'Agglomération Tourangelle it is valid upto year 2030. The SCoT is one of the most important urban planning documents for the development of an urban area and is created at the scale of several communes or groups of communes (Inter-community).

The SCOT can be described as the “spatial expression of the “project d’agglomération”. It is a master plan or strategic plan (structural plan) for the area and includes several projects to be undertaken in the future and aims to shape the overall planning direction

for the respective area of jurisdiction; urban and surrounding areas into the future. It spells out the types of projects to be undertaken, where they should be located and how they will be done however it does not provide high level detail and implementation information but rather gives a strategic framework to be followed. It is also a strategic document which aims to bring together various sectors in one document including town planning, housing and environment, mobility and economy.

It can be stated that the SCoT is used at the level of the agglomeration to align sectoral policies relating to urban planning, housing, transportation and commercial facilities and set out the general guidelines for spatial planning, and, more specifically, for maintaining a balance between areas to be built up and natural, farming or forested areas. It strives to achieve a balanced housing, the social mix, public transport, as well as commercial and business facilities. It may be more specific on certain topics, for example, defining major projects (by-pass roads, sewage treatment plants, etc.) and services. As Such it identifies areas for development, for example residential, commercial or tourist development areas, as well as conservation and recreation areas. It is from this that more detailed local development plans are created. In addition, the SCoT must be compatible with the regional plan.

The French legislations require all urban areas, towns and villages to participate in some form of participation – ScoT. According to the Government of the Republic of France, Ministry of Housing ,Equality territories and Rural Policy “Ministère du Logement, de l’Égalité des territoires et de la Ruralité” The SCoT contains three main documents.

The SCoT contains 3 documents	Le SCoT contient 3 documents
A presentation report , which contains such a diagnosis and an environmental assessment	<b>un rapport de présentation</b> , qui contient notamment un diagnostic et une évaluation environnementale
The development project of sustainable development and ( PADD )	<b>le projet d’aménagement et de développement durables (PADD)</b>

<p>The guidance document and goals ( DOO ), which is effective against PLU and PLH , PDU and local maps, as well as major development operations (ZAD , ZAC , lots of over 5000 m2, land reserves of more than 5ha ... )</p>	<p><b>le document d'orientation et d'objectifs (DOO)</b>, qui est opposable aux PLUi et PLU, PLH, PDU et cartes communales, ainsi qu'aux principales opérations d'aménagement (ZAD, ZAC, lotissements de plus de 5000 m2, réserves foncières de plus de 5ha...)</p>
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Source: <http://www.territoires.gouv.fr/schema-de-coherence-territoriale-scot>

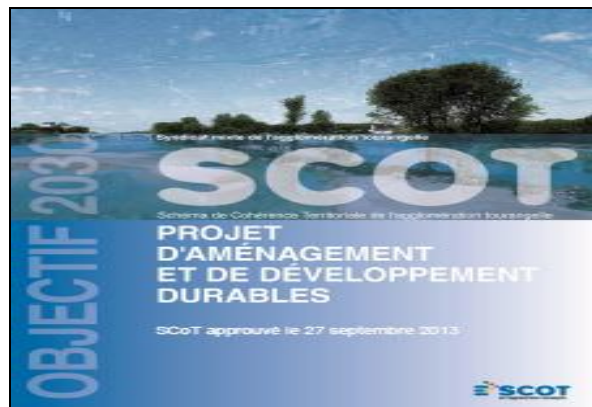
The area of interest for the SCoT can be summarized as:-

- Private and Social Housing
- Transport, mobility and public works
- Commercial establishments and employment
- Travel
- Environment

### **The Schéma de cohérence territoriale “the SCoT de l'Agglomération Tourangelle”**

SCoT Agglomération Tourangelle was approved on 27 September 2013 and was enforceable as of 7 December. It covers land area 830 km<sup>2</sup> with approximately 200 square miles of urbanized area and a total population of the territory 363,000 inhabitants (INSEE 2010 census). It includes 40 municipalities grouped into 4 Public Institutions of Intermunicipal Cooperation.

**Figure 4-3: Cover Page of the SCoT de l'Agglomération Tourangelle**



Source: <http://www.scot-agglotours.fr/>

The SCoT looks at two dimensions ; the urban centralities which focuses mainly on six criteria viz;- housing, equipments, public space, urban forms, patrimonial identities, transport hubs, Trade and productivity activities, employees and housing. On a wider territorial scale, It sets five major objectives these include :-

- i) To protect land scapes, green and blue Framework and agricultural activities.
- ii) To attenuate territory's vulnerability, manage water supply needs, decrease Greenhouse Gas Concentration (GHC) - (Climate)
- iii) To change mobility practices for sustainable trips
- iv) To rebuild and develop centralities considering environmental qualities
- v) To preserve variety of activities & trade including sustainable development's strengths – (economy)

The elements or objectives of the SCoT sets a strategic vision of the territory to be implemented in the future. In particular, it aims at respecting the environmental surrounding, build more condensed, combination between urban development and public transports. The outlined objectives will be examined and discussed further in the proceeding sections discussing the tramway development.

### **PLU (Plan local d'urbanisme)**

The second important document to briefly mention is the PLU: Plan local d'urbanisme. This must be coordinated and compatible with the SCoT and provides more detailed local development information. The PLU replaced zoning maps in 2000 and are described as being more comprehensive than the previous maps. The local authority is responsible for the production of the PLU; however, as per the SCoT they are in fact often produced by the agence d'urbanisme. The PLU can be summarised as being the development plan for the local area (commune or group of communes) and establishes the planning zones for the area, including future development areas, agriculture areas and protected areas where development cannot take place.

The PLU is a planning document that manages land use and defines the overall development of the municipality and defining building rights for each parcel of land. It is further explained that the orientation of this development is toward “sustainable development.” The document takes into account areas of planning, housing, transportation, economic activities, public facilities, landscape and heritage.

An important change to the development of the PLU, originally conceived of as a more local level plan than the SCoT is that as a result of the laws Grenelle 2, a single PLU for the entire Tours area of the agglomeration must now be produced. As a result the PLU for Tours which had been approved in 2011 has been revised resulting into an amended Plan Local D’urbanisme de Tours Modification N°2 approved and adopted in 2013.

The PADD document (Projet d’aménagement et de développement durables) expresses the urban project. It defines a global policy and state development projects. This document is part of the Local Development Plan (PLU) which replaces the land use plan (POS). This document stipulates a purely regulatory vision for the development of common imposing building rules. PADD reflects the issues and projects. The objectives of the PADD broadly includes various elements such as the balance between urban renewal and new urbanization, protection of natural and agricultural areas,, diversity of urban functions, social diversity and organization of mobility.

### **The PLU Tours**

As mentioned, the previous PLU for Tours which had been approved in 2011 has been modified resulting into Plan Local D’urbanisme de Tours Modification N°2. This document outlines the development of the agglomeration (housing, travel, environment and economic development objectives) until 2030. In reviewing the previous PADD and PLU of 2011 to update it to correspond with the SCoT, it was stated that the objective was to make the city’s mobilities sustainable. This implies organizing urban development consistency with collective transport supply “promote intermodality,

which involves strengthening or creating places concentration of several developments along mobility routes” (transport integrated developments).

It is paramount to point out; the PLU and SCoT of Tours area were formulated with a vision relating to maximizing and taking advantage of Tours centrality and with regard to being a transport hub. This unique feature formed a broadened future development view concentrating on the transport supply routes. This heightened point formulated gave a special emphasis to development of sustainable collective transport infrastructure as evidenced by the tramway line in Tours.

### **PDU (Plan de Déplacements Urbains)**

This is yet another important planning document. ***The Urban Mobility Plan (PDU) defines the principles of organization of transport of passengers and goods, traffic and parking, across the perimeter of urban transport.*** This must be coordinated and compatible with the SCoT and provides more detailed local development information.

The PDU replaced the Land use plan (Plans d'Occupation des Sols (POS) as per Solidarity and Urban Renewal law (SRU 2000).The local authority is responsible for the production of the PDU, however, as per the SCoT they are in fact often produced by the agence d'urbanisme. The PDU is more comprehensive aimed at reducing car traffic; develop public transport, soft modes such as biking, pedestrian. It also aims at promotion of less polluting modes of transport hence reducing pollution of the environment in turn; it aims at promoting health and safety as well as strengthening social and urban cohesion.

## **The PDU Tours**

The PDU of Tours was approved in 2013 (Plan de déplacements urbains 2012/2030). The PDU sets a policy for public transport aimed at developing and implementing the urban mobility plan as well as to coordinating, operating and development of public transport in the territory.

The PDU must be coherent with the SCoT as well as the PLU. As with the PLU, it is a local document prepared at local levels for the case of Tours, the mobility plan sets five major objectives for the local agenda viz;-

- i) Prioritise alternatives to individual motorized mobility
- ii) Ensuring mobility for all
- iii) Building the city of short distances
- iv) Better organize motorized mobility
- v) Share a mobility culture

Central to the PDU plan of Tours is the promotion of sustainable non-motorised environmentally friendly system integral to achieving the SCoT 2030 vision –i.e. promote intermodality. The PDU prioritises public transportation and fighting urban sprawl and “advocated a link between urbanization and public transport.” In particular the integration of the PDU (Mobility plan) and PLH (housing plan) is discussed as a feature of the approach of Tours.

It is explained that the PDU is based on a principle of coherence between planning and travel. And the PLH integrates accessibility criteria into the housing plan, for example prioritising construction within easy reach of transportation. The combined aim of these integrated and coordinated documents is to provide a framework for urbanisation along transportation corridors and thus reduce emissions.

In order to achieve an integrated approach, the Urban Transport Department with a wider mandate was created in 2013 replacing Syndicat Intercommunal des Transports en Commun de l'Agglomération Tourangelle (SITCAT), the sole body responsible for all mobility matters within Tour agglomeration. The various departments previously responsible for the implementation strategy, policy development and operational management were merged, with a new department created. The overarching objective of the new department is to ensure sustainable mobility rather than “transport”. This new department is responsible for strategy as well as operational managements of sustainable aspects of transportation; the role includes roads and highway planning as well as cycling policies and other sustainable mobility services such as carpooling and car sharing. .

The PDU 2013/2023 sets long term strategic objectives to be implemented. It highlights that the document must be related to the overall planning of the city, reflecting and coordinating with the spatial planning and urban form of the agglomeration. It is explained that it must relate to the development of friendly neighborhoods, public space etc. and furthermore it must be compatible with other planning documents such as the Regional Scheme of Ecological Coherence (Le Schéma Régional de Cohérence Écologique - SRCE) and the specific targets set within this and the PLH (Local housing plan) and its objectives regarding combatting urban sprawl.

Additional planning documents described above, there are a number of planning documents relating to specific sectors or fields. I will not go into great detail. However, these documents directly or indirectly influence planning at various scales. Some of the documents will be referred to in the proceeding discussions. These planning documents include but not limited to;-

**The Unesco Loire Valley management plan/** Le plan de gestion du Val de Loire Unesco 2000, the **PLH:** Local Housing plan (Programme Local de l’Habitat) (2011 – 2016), **Territorial Climate Plan /** Plan Climat Énergie Territorial (PCET) 2011>2014 of Tour(s) Plus.

Importantly, these planning documents must be coherence with the SCoT.

In a concluding remark on the planning legislations, institutions and documents, the scientific and technical literature coincides to show the emphasis put on urban transport and mobility with promotion of sustainable public urban transport a major hallmark. It is not surprising; the city of Tours chose and implemented a tram line project in the light of this rationale.

#### **4.6 Land Assembly Process in France**

The development of any urban infrastructure projects cannot be implemented without access to land. Where there is no vacant land, some sort of land assembly must precede any project implementation. This must be done in accordance to a legalized system that should guide any land assemblies. In the following section, this study elucidates to land assembly process in France.

According to the French Laws private property right, whatever the philosophical or political basis, is now recognized by both democratic states and by the international legal order as a fundamental human rights. It was reaffirmed in particular by the preamble to the constitution of the Fifth Republic and the decisions of the Constitutional Council and by Article 1 of the First Protocol to the European Convention on human rights and fundamental freedoms as a set implemented by the European Court of Human Rights (ECHR) and the Court of Justice of the European Communities.

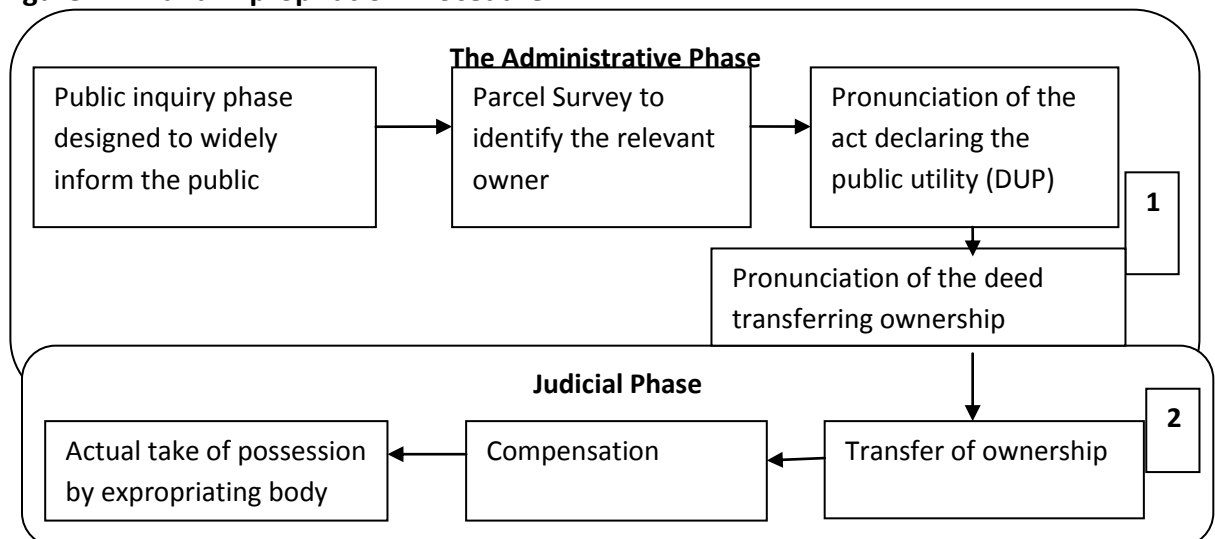
The French law of expropriation is a direct consequence of the Declaration of Human Rights and the Citizen of 1789 , Article 17 states *"The property is an inviolable and sacred right, no one can be deprived if this is when the public necessity, legally ascertained, obviously requires it, and the condition of a just and prior compensation "* this position was further pronounced by the right of expropriation as framed by the European Convention on Human Rights, Article of the 1st Additional Protocol states that *"any individual or corporation has the right to respect for his property. No one shall be*

*deprived of his possessions except in the public interest and subject to the conditions provided by law and the general principles of international law.*

This right, however, must adapt to the needs of land use policies and planning dictated by the evolution of society. and as such, the State, local authorities, land public institutions and public planning, the semi-public development companies, the rural settlement and land development companies (SAFER), housing agencies amongst others can expropriate private property for different development project deemed to have public interests such as urban regeneration schemes, the construction of transport infrastructure such as tram or subway for example as was the case with the first tram line of Tours.

The procedures of land expropriation and assemblage in France are broadly categorised into two phases: the administrative phase in which the planned project is declared as a public utility operation and permits to expropriate property and copyright holders to compensation payable by the expropriating party, then a judicial phase which itself comprises two parts: the transfer of property and the fixing of compensation for expropriation. These are briefly summarized in the proceeding sections.

**Figure 4-4: Land Expropriation Procedure:**



**Source:** Made by the author

The first phase, the administrative phase takes place in 2 phases: a public inquiry phase (enquête publique) designed to widely inform the public and a phase of piecemeal investigation to identify the relevant owner and let him know exactly how his property will be affected by the expropriation. These investigations take at least 15 days each. The public inquiry is based on a dossier submitted by the public person to the prefect. This file includes information that can inform the public which include; a leaflet of the project, the site plan delimiting the perimeter buildings to be expropriated and the summary estimate of acquisitions to achieve.

After the transmission of this file, the prefect issues an order by which it opened the public inquiry. The survey is conducted by an investigation commissioner appointed by the president of the tribunal. Given the results of the investigation of the investigation commissioner, if the public interest of the project is said, the Prefect may impose public utility taking a declaratory act of public utility (DUP) - Pronunciation of the act declaring the public utility (DUP).

On the other hand opening the parcel inquiry phase is also conducted as part of the administrative phase. The plot survey is based on a dossier submitted by the public person to the prefect. This record includes a specific plan of the parcels to be expropriated. After the transmission of this file, the prefect issues an order by which he opened the parcel survey. The survey is conducted by an investigation commissioner appointed by the prefect. The public body must personally inform the owner of the opening of the investigation by letter with acknowledgment of receipt.

Upon the completion of the investigation of the investigation commissioner, the Prefect may impose the transfer of ownership by taking an act of transferability "*Pronunciation of the deed transferring ownership*" this act means that the property can be transferred to the expropriating public person. This phase concludes the administrative phase and initiates the judicial phase.

The Judicial phase broadly involves the transfer of ownership of the property and procedure of compensation to the owner. Transfer of ownership. Once the proposed expropriation was declared of public utility and the order of transferability was notified to the owner of the property to be expropriated, the transfer of ownership can take place this can either be by mutual agreement between the public body and the expropriated person, or by referral to the prefect of the expropriations judge of high court (TGI). Under the French Law, the process ends, with payment of compensation to the affected person. The payment of the compensation automatically gives the public entity one month after payment to take full possession of the property.

#### **4.7 Collaborative Land Assembly**

##### **Case study: The first Tram line of Tours**

*“A new landscape for the 21st century: The 4th landscape – the tramway line of the Tours agglomeration” (Tram de Tours resolutement different; Booklet – summary (p.7)*

A tramway is first of all a means of transport. But at the same time it is able to reflect the soul of the city: culture, history and ambitions. This is the idea behind the tramway of Tours. It had been envisaged by the local authority that the tram line had to become the 4th landscape of the town. The other landscape being the center, the river Loire and the city gardens.

*“I would like this tramway system to be the expression of a connection as well as being ground-breaking... that this tramway and its surroundings should be guild like in the way they are organised, providing a solution that is both complete and original and provides enjoyment, food for thought and the incites people to make return visits. Jean Germain, Senator Mayor of Tours, 1995-2014”*

Apart from being an ambitious transport project in the Indre-et-Loire department, the Tram line project is of interest to further discuss for many other reasons as well. Through the particular case of the tram, many of the overall values and approaches of

the city can be seen manifesting within the project, sustainability, environment, social cohesion, urban transport, economy, art and culture, innovation.....In addition several aspects of planning approaches are of note, as examples of a comprehensive collaborative and participation planning approach producing an integrated urban infrastructure and transforming the urban fabric. These aspects are going to be discussed with vivid examples in the proceeding examples as evidenced in the case study – Tram line of Tours.

The development of the Tram line of Tours has been described in terms of town planning as “..... the project an overall coherence coupled with a contemporary and innovative style. This experience has given the Tours agglomeration a new dimension that is an urban composition, a mode of transport, a new component of the urban landscape and a force for unity for the population, all at the same time. The strength of the tramway system of Tours is the way it invites the user to undertake a multi-faceted journey: practical, technological, artistic, cultural, hand-crafted, literary, musical, sensory.... Travelling by tram in Tours is an unusual journey that is surprising and never boring” (*Tram de Tours resolutement different; Booklet – summary (p.21)*)

As with many ambitious urban development projects, there actual realisation quite often hinges on the available of land or the city’s ability to assemble land. The Tram line of Tour presents a unique chance to explore land assembly achieved through collaborative planning involved many stakeholders such as private landowners, business community, citizens, and state-owned companies like SNCF.....

### **Facts and Figures of the Tram line of Tours**

1 main structural North South line that is 15 km long and can be covered in 45 min

- 21 carriages that are 43.7 m long
- 29 stations
- 54,900 passengers expected per day
- 1 tram every 6 min at peak times, running from 5am to 1am, 7 days a week
- 300 passengers per tramway carriage
- 19.5 km/h average speed
- 1.8 km of APS (Ground-level Power Supply) between the place Choiseul and Tours station
- 19.3 km of additional cycle paths
- 100 acres of public spaces treated
- 10 redesigned areas, 2013 trees planted, 7 stations with trees, 60 % of the route embellished with planted platforms, creation of garden spaces...
- 1 urban composition that is 15 km long
- 21 buds
- 130 literary extracts
- Overall cost of the project: 402 M Euros ex. VAT

**Source:** [www. Myfrenchtram.com](http://www.Myfrenchtram.com)

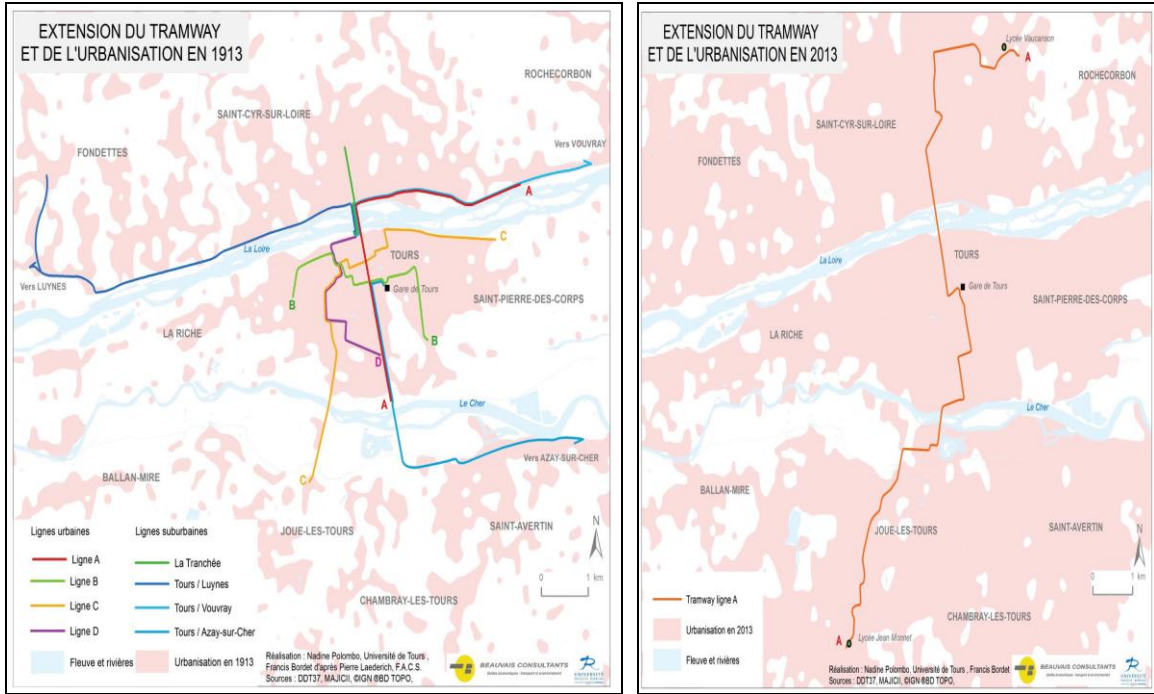
### **Project Background**

Tram line of Tours (Le Tram de Tours) is modern tram network linking Vaucanson in the northeast with Lycée Jean Monnet in the southwestern suburb of Joué-lès-Tours, the 15 km north-south light rail Line A starts from a major park-and-ride interchange at Vaucanson in the northeast of the city, close to the main motorway bypass, the line loops through the northern suburbs to the 'Europe' district at Beffroi, before joining the former Paris -- Bordeaux route nationale 10, which it follows through the city centre.

What is important to note that in 1877, Tours was the fifth largest city in France to commission a tram network after Paris , Lille , Le Havre, Marseille and Orléans and in 1913, the old tram network had reached its peak with eight number electrified tramlines i.e. four urban and four interurban serving the Tourangelle area. However, world wars I and II had a devastating effect on the tram network in Tours such as of lack

of fuel, it also slowed the expansion and the aging equipment was not replaced. The tram network disappeared in 1949.

**Figure 4-5: Tram lines in 1913 and 2013**



**Source:** Nadine P et al, 2014

Figure 4-3 above, shows the evolution of the tram network; to the left is the old network which comprised eight lines at its peak in 1913 and to the right, the new tram line – the 15 km north-south light rail Line A inaugurated in 2013.

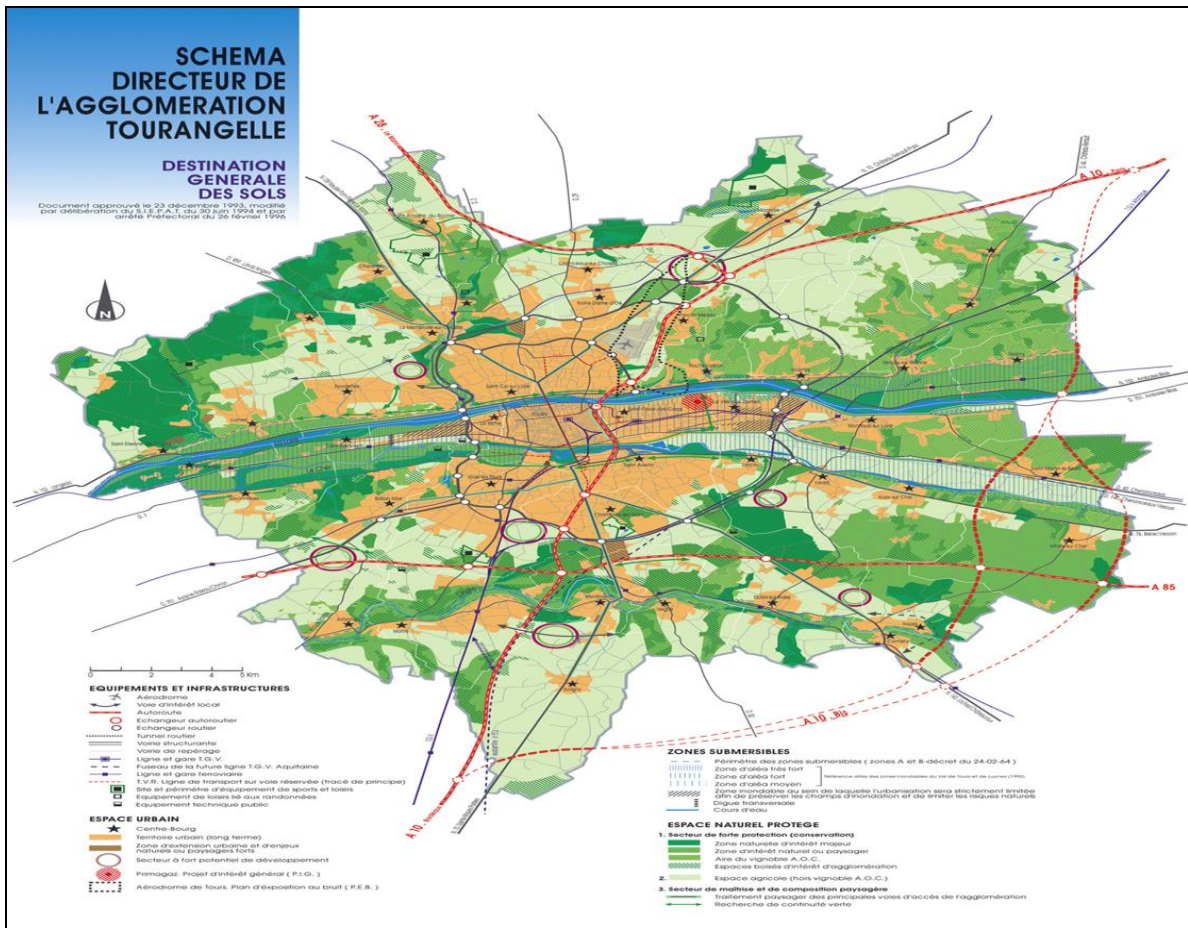
**Transformation: the historical context**

After the disappearing of the tram network in 1949, the period that followed witnessed growth of car ownership throughout the 1960’s to 1980’s and this trend has continued. For example according to the household travel survey conducted in 2008 by SMAT-SITCAT regarding the car use revealed that the inhabitants of SCoT perform approximately 1,250,000 trips each day, on average, 3.59 daily trips per person. 59% (more than 730,000) of these trips are made by car, making it the most used mode.

In the 1990's the Tours agglomeration, through the transport union (Syndicat Intercommunal des Transports en Commun de l'Agglomération Tourangelle (SITCAT) based on the requirements set out in the Land Use Plan (Plan d'occupation des sols (POS) of the urban planning agency, which had stipulated "***ensure a sustainable balance between the requirements in terms of mobility and facility for access, on the one hand, and the protection of the environment and public health, on the other***"..... required the city to define "the principles for organizing the transport of persons and goods, traffic and parking within the perimeter of urban transport" and must comply with six legal requirements: "reducing automobile traffic; developing the cheapest and cleanest methods of public transport and means of travel, in particular the use of bicycles and walking; planning and operating the principal road network of the urban agglomeration in order to promote greater efficiency in its use, in particular by sharing access between different methods of transport and by favouring the implementation of information initiatives relating to traffic; the organization of parking [...]; transporting and delivering goods in such a way as to reduce the impact of said activity on traffic and the environment; and encouraging enterprises and public authorities to organize transport for their personnel, in particular via public transport and carpooling".

In 1994 evaluation of possible alternative transport models was conducted considering the above objectives. Consequently, several alternatives were proposed by the city. However, a tram project was favored and it was proposed to include two lines that intersect in the center of Tours i.e. a line connecting Vaucanson high school in the north of Tours, Joue-les-Tours and Grandmont Park to the south (in the form of "Y"), the other, a cross east - west, connecting Saint-Pierre-des-Corps and La Riche area.

Figure 4-6: Land Use Plan (POS) of Agglomeration Tourangelle in 1993



Source: Town Planning Agency (atu)

Figure 4-4 above shows Land Use Plan of Tourangelle in 1993, in this map different land use is mapped but most importantly, the transport or mobility routes are indicated. Although the POS identified the routes, the choice of the principle mode for mobility within the perimeters of the urban areas was not stated. This “open” choice would form the basis for selection of the Tram line of Tours.

### Development and Adaption of the Tram Project

On the earlier proposal of the POS, in 2003 the Tours agglomeration adopted an urban transport plan (PDU) which adopted almost all the previous proposals set out in the Plan Des Sols of the 1990's. The adoption of this plan laid the ground work for the Tram line

of Tours. The initial proposal was to introduce a high-level bus service (BRT) whose influence will be used by the A line of the tramway. Although it is worthy pointing out, at this stage of introducing a modern line of buses, the discussions on the principle mode of transport had not yet settled since the earlier POS did not specify the principle form of transport mode. Furthermore, the development of the Tram of Tours is highly influenced by Jean Germain who served as a mayor of Tours from 1995 to 2014. His re-election in 2001 provided a stable political atmosphere and continuity of the transport policy and direction.

The development of the Tram line would generate discussions in all spheres of Tours and beyond. In 2005 further studies and discussions are held and a decision based on a 'classic streetcar mode' was taken in 2007 by the municipal association of public transport of Tours (SITCAT); the organizing authority for urban transport in the 19 municipalities of the Community of agglomeration of Tours and 6 others. Initial studies led to the appointment of consultants in 2008 to prepare detailed designs.

It is also during this time that the authorities through the planning department and the municipal association of public transport of Tours (SITCAT) made concrete steps as required by the French law of expropriation. Basing on the information and earlier studies, the city council approved the draft proposal of the Tram line of Tours in 2010. A public inquiry (enquête publique) was conducted between 15<sup>th</sup> to 30<sup>th</sup> June, 2010 and upon the successful closure of the inquiry the project was declared a public utility (DUP) by decree dated 21 December, 2010.

During this time, the project came into close re-examination by the citizens and various actors. This re-examination from an urban planning perspective gave rise to controversies and public debates for instance, the association of environmentalists raised concerns regarding the risk of flooding to the bridge over the Cher River and the degradation of the tree heritage. Furthermore, the association of cyclist also registered their warning particularly regarding the safety of cyclist around the Tram. As a result,

the administration was open-minded especially in the design and implementation stage to address the concerns that had been raised.

What is essence to note, rather than this debate surrounding the Tram project being regarded as an obstacle to development, it is argued that these “controversies and debates were and are part of the project process” that help in generating alternatives. It is a healthy environment in which collaborative planning thrives involving citizens, groups and communities in the planning of their urban area and generate new ways of thinking and doing planning. In this way, it is an avenue to advance “real” collaboration where the public is not just advised on what is already decided but as a way of involving them in the planning process and being listened to and trusted.

### **Land Assemblage for the Tram Project**

Although much of the Tram line of Tours runs along the previous lines (Tram network of 1913-1949); and the already existing roads, the Tram line was expanded in the north and southern direction. Furthermore, the new design necessitated to align the development in the context of the city which had witnessed significant changes since the reconstruction efforts after the world wars. Thus, following the declaration of the project a public utility (DUP) in 2010, the authorities embarked on assembling land for the development of the project.

As discussed in preceding chapter, the literature in land assembly and the theoretical framework highlighted; *“land assembly forms part of the development process as a whole,..... a key stage in the development process involving (Golland, 2003); Land acquisition from landowners, Land preparation, Planning of streets, open spaces and main services, Planning the built form, Division of land into building plots and Delivery of planned form”*.

The Tours agglomeration authorities – the planning department in collaboration with the transport union (SITCAT) acquired land either temporary or on a permanent basis

for the project through performance of urban governance which involves the exercise of political, social, economic and administrative authority in management of an urban entity.

Also, worthy to note is that while at the planning phase, some aspects of the project were not foreseen “unforeseen factors” and these could not be accommodated at the design phase. However, at the implementation stage, the project to remain feasible and relevant to achieve the city’s objectives and the expectations of the public, certain measures had to take change notably in the land assembly in a bid to overcome the challenges. These cases will be explored further in the section below and will give an illustration of the actors and their role in relation to the planners and the project.

For the development of the tram line project, land governance was recognized as a process that is influenced by many formal and informal actors, interest groups or stakeholders, this involvement of a society in shaping land use, especially human settlements, businesses and investments required the collaboration and participation of a wide number of players. According to the figures released by the transport’s service of Tour(s)plus, a total of 68 private land owners were affected by the tram line project broken down as follows:-

- i) 18 Public owners, such as Ville de Tours, Joué les Tours, SITCAT, region Centre, Conseil Généram, SNCF amongst others.
- ii) 14 Housing societies (which manage housing flats) such as Société Civile Immobilière (SCI)
- iii) 6 Companies owners, such as Mac Donald’s, Total or CGR...
- iv) 30 Private landowners (people or groups of people)

In order to realize, the tram project a total of 163 hectares (approximately 402.77 acres) of land was acquired. However, this does not include land takes or assembled from public domain such as roads or streets. The involvement of a sizeable number of land

owners is at times a challenge in several projects and could possibly have derailed the project but due to close engagement or participation and collaboration of the various players without necessitating long court of expropriation powers.

Although the law of expropriation can be used to acquire land for development projects, the case of the tram line of Tours indicates a communicative collaborative approach in such a way many private land owners entered into negotiations similar to “willing buy willing seller” this approach shortened the land assembly process. For example in order to realize the tram line connecting the train station (Gare de Tours) from Jean Jaures, the transport department (SITCAT) and the planning department had to get acquire land in the stretch of approximately 300 metres affecting or impacting several landowners. These landowners participated and the length of time or delays that could have affected the project realization were eliminated or reduced tremendously.

Another notable case worthy mentioning is the land owned by the French state-owned railways company SNCF. The Tours transport department, urban planners and politicians worked together in a collaborative manner to acquire the land. This development came about as the planners realized a need to connect to the railway station which initially had not been designed to go close to the railway station. This “accidental change” yet very important in the development of an integrated and connected transport system produced a communicative collaboration between different bodies as noted in the words of the Guillaume Pepy, CEO SNCF, 2013) *“there are cases in France where the tram avoids the station. Here, we have created an alternative to all-car in good consultation with elected representatives”*. In a bid to acquire part of the land owned by SNCF; the Tours plus agglomeration paid 10 million Euros for the renovation of the canopy and works inside the station while in return SNCF ceded land to allow for smooth construction of the tram line.

Perhaps as a consequence of the foregoing discussion, connecting or linking the tram line and communicative collaborative planning approach is the remarkable speedy land

assembly process allowing the tram line to be implemented. Accordingly, the collaboration has been embedded in the French planning system at various scales and planning documents highlighted by discussions and negotiations. This engagement culture among the people and various stakeholders plays a crucial role in most of the development projects. Therefore, the tram line enjoyed a wide public support which in turn was an opportunity for collective action and thus a short realisation.

Although the foregoing discussion highlights a smooth land assembly process and collaboration spearheaded by the planners, there are cases of expropriation involving landowners who in spite of the engagement of the planning authorities did not heed to the process and pursued courts of law to defend their interest. These parcels of land although developed have not transferred into the names of the acquiring authorities. These are a few cases, however I believe, they should be pointed out to illustrate how difficult land assembly could be. For example the land assembly for the tram line was initiated way in 2010 and the tram line was launched in 2013. The unsettled cases have not been concluded in 2015 several years after the completion of the project.

**Collaboration:**

Also critical is a robust institutional framework and regulatory and planning tools that facilitate collaboration and cross-sector cooperation. An inclusive planning framework is important to give voice to all segments of society, especially disadvantaged and marginalized populations. A significant aspect of the Tram line of Tours project is evidenced in the planning strategy that involves a large amount of stakeholder in the local planning arena. Thus, the analysed plans and information are characterised by counting with the participation of a wide range of stakeholders of very diverse nature.

Besides, the quantity of stakeholders taking part of the city's planning tissue has constantly incremented with the passing of the time. Accordingly, nowadays there is a larger representativeness of interested players incorporated to the plans, providing a

more depictive illustration of the city's needs and demands. Conversely, the huge bulk of stakeholders could also drive to the appearance of additional inconveniences such as the emergence of disconformities and even confrontations to define the strategies. Even though this is a natural effect which in any case could be solved by negotiation and the settlement of a shared common vision, it can also result on the overlapping of functions and responsibilities to be operated by each actor. Besides, taking into consideration the prior mentioned large multi-scalar reality, an overlapping between plans conceived for different scales by different institutions and stakeholders could be equally generated, hindering the correct development of the plans and threatening their chances of success. To this effect, the role of planning to navigate and bridge the gaps and interests of the various stakeholders is of paramount importance.

In the case of the tram line project, it required a consideration of complex interactions among economic, environmental and social factors for a holistic approach. Consequently, a number of stakeholders were involved. I will discuss the stakeholders, interactions and their interests or contribution towards the project in the following sections.

### **The town planning agency (Agence d'Urbanisme de l'A gglomération atu)**

The town planning agency for the city of Tours (Agence d'Urbanisme de l'A gglomération de Tours (ATU)), is a non-profit association founded in 1967. Being the principal planning agency for the Tours agglomeration, its roles have evolved with time from carrying out urban studies and research in the field of urban spatial planning to include other aspects particularly the economy of the territory. The town planning agency for the city of Tours played a crucial role in the development of the tram project of Tours in various ways.

Firstly, as the principal planning agency, it carried out studies in land use which formed the land use plan which later transformed into the local development plan and mobility plan. For example, the studies of atu revealed a high use of cars during the 1980's and pointed to a need to reverse this trend. This study laid a solid foundation for evaluation

of mobility needs recognizing the need to encourage coherence between transport and land use planning. Conversely, this coincided with the introduction of the Solidarity and Urban Renewal Law (2000) which offered planning tools in order to reach a coherence between transport and urban planning (SCOT, PLU, PDU) strengthening the role of mobility plans as well as integration of land use planning Tours agglomeration.

Furthermore, the atu was at the forefront of implementing the sectoral policies which had been outlined “Generelle de L’environnement” which legitimately invites itself within the discussions of energy, employment, health, and climate change and building. Thus, bring to the forefront the issue of a mobility policy for sustainable development i.e. environmental/economic/social sustainability. Thus, it can be summarized, that the atu’s role towards the tram way project of Tours was conducting studies which guided the development of the tram as a mode of mobility.

Another contribution of the atu in the development of the tram line could be seen in coordination of transport systems, urban development and other stakeholders. Perhaps this is the greatest contribution of atu. Its role being the focal-point bringing into play all other stake holders is highly remarkable. The atu, offered the competences that’s to say; planning tools in order to reach a coherence between transport and urban planning (SCoT, PLU and PDU) this created a harmonious environment for the tram development. For instance, since competences are shared with different institutions and players such as the SITCAT to which I will explain later, an axis model of close cooperation between transport actors and urban development actors was initiated where urban planning and transport structures was brought into partnership in order to coordinate the tram project effectively.

Such a partnership served two points firstly in a process of studies and governance. It opened up the phase of transport system conception led by the transport authority (SITCAT) which included the design of the transport project – the tram line and the services that will be available to the users. Therefore, the atu’s role to manage and co-

define or co-adapt the transport system route and the potentialities of urban change especially around the tram line and the nearby areas around the corridor cannot be underestimated. Also, beyond the urban studies process, the partnership had a decision making scope which included the registration of feedback or comments from the public, institutions and other stakeholders.

## **SITCAT**

The transport union (Syndicat Intercommunal des Transports en Commune de l'Agglomération Tourangelle (SITCAT) which was replaced by Tour(s) plus in 2013 is the local authority with competences in urban transport and planning. The transport union is yet another stakeholder in the development of the tram line project. Its contribution can be seen ranging from pooling financial resources, designing of the infrastructure, land assembly amongst others. As a core function of the transport union, it was involved in transport supply and the implementation of the infrastructure and the schedule or the financing of the operation.

Through the partnerships and collaborations, it played an instrumental role in developing transport modes basing on the studies and technical competences of the atu. The transport union devolved the tram project implementation competences. Indeed it can be asserted that it is the “implementing authority” i.e. it runs the hands-on policy aimed at ensuring the stipulated policies in the SCoT, PDU, and PLU plans are realized.

Conventionally, the SITCAT pursued the preliminary recommendations of the atu and initiated the tram project. Being the implementation arm of the municipality, it collaborated and coordinated urban planning and transport policies. It initiated the process of the tram line project of Tours which associated elected officials in charge of urban planning to vote on the project and give it a political mandate in 2010. Also, the SITCAT was involved in the review of the mobility plan 2010 and the SCoT which gave

coherence and linked the plans respectively and was instrumental in ensuring conformity of the project with the laws.

In addition, the SITCAT conducted more detailed studies (parcel survey) necessary for upstream consultations. These studies related to the tram line included; the layout design of the project, expected land acquisitions, project cost and time lines amongst other aspects of the study. The results of this preliminary study resulted in the public inquiry which was held in 2010 and the subsequent declaration of the public utility project in the same year.

### **Political Leaders**

Going beyond the institutional context which I have already mentioned, the elected officials play a crucial role in the tram project. The elected representatives' role in the choice of a transportation mode and in the implementation of the project lies heavily in their docket. It can be urged that the "tram line is primarily a political vision, the result of a double choice by elected officials" and hence the political leaders seem to wield a lot of power regarding the tram project. For example, the elected representatives of the Tours agglomeration gave a high visibility to promote the tram project. For instance, the mayor of Tours city of the urban area Mr. Jean Germain is credited with the tram project. It has been stated that after, its completion, the tram is generally in the first lines of the political assessment. Indeed elected leaders use the tram to rifle through celebrations during which the political support is systematically reaffirmed and the tram "becomes" an effective "propaganda" tool to showcase urban planning policies and is an opportunity to create political consensus.

Whereas, the tram project could be used as a political "capital" the elected officials were required by The French legislation to ensure the principle of public participation for all infrastructures projects. Indeed, the Tours municipal authority subjected the tram projects are subjected to several times of participatory consultation during the

project's life the aim was to collect the observations raised on the project and to take them into account in its conception.

As required by the Town Planning Code for any development project, which “by its importance or its nature, may substantially change quality of life or economic activity of the city” (L300-2 Article), the contracting authority is required to carry out a public consultation. On the studies of the SITCAT, the elected representatives – mayor, initiated the administrative procedure that allowed a first phase of meeting between the elected officials carrying the project, actors and citizens of the towns concerned. The outcomes or comments of the public were taken into account as a basis to reflect the population expectations while respecting the general interest. Moreover, a public inquiry (enquête publique) on the tram line of Tours was conducted on the dates 15<sup>th</sup> - 30<sup>th</sup> June, 2010.

Perhaps it could be stated that the consultation procedures appear to be key moments in the maturation of the tram project. It represented an opportunity for the authority to bring out the fact that the project is well legitimate. But above all, it offered the possibility of negotiation, not for the whole project, but specific changes in the program for example, the provision of bike parking facilities and inclusion of separate cyclist lanes stemmed from such negotiations another illustrative example was the redesigning of the rue nationale to include the underground power supply system so avoid construction of overhead power supply which would have affected the existing buildings.

Thus, the spirit of public consultation and participation validates an open minded planning system which includes constructive participation and collaboration. Moreover, such engagements empower and give a chance for citizen to own the project citizen.

Also, central to this is the role of the elected leaders to gather support from the various players such as the central government, regional and local authorities, public and other stakeholders. Mobilization of financial support for the implementation of the tram project the elected leaders of Tours city negotiated with development partners to raise funding for the project for example, the European Investment Bank (EIB) provided a long term loan for the tram line to Metropolitan Community of Tours (Communauté d'Agglomération de Tours) for the construction of the first tramway line in the Tours conurbation and also other financial sources were brought on board by the elected officials to enable the implementation of the tram project for instance, through the conception of the project, there was a great need to secure all available central government and regional grants for example under the Generale. Thus, the authorities endeavored to present a project which met the requirement for such a grant.

#### **Non-institutionalized stakeholders**

Beyond the formal bodies/actors discussed above, the tram line project of Tours also had many other participants. These stakeholders role particularly was evident during the public inquiry or other platforms through which they advanced their interests. Their contribution gave the project an integrated approach due to the diversity of ideas put forward. For example, the cyclist association presented strong views which were incorporated in the design of the tram corridor. The associations argue to have a cyclist lane demarcated, safety of the cyclist and consequently these were catered for by development of 19.3 km of additional cycle paths.

Also, professional associations composed of urban planners, geographers among other contributed variable comments especially during the public inquiry especially in the aspects of maintaining the heritage of the built up environment for example, they advocated to have rue national commercial area preserved by avoiding the erection of overhead power supply lines which resulted into the fitting the rue national with underground power supply system.

Another contribution came from the SNCF; the state owned Railway Company made concessions to allow the tram line come closer to the train station in the Tours. Being an autonomous entity, many times planners avoid taking the line next or near the SNCF property because of the likelihood of failing to secure land for the tram line. However, in the case of Tours, the SNCF ceded land for the construction of the tram line.

In a diagnostic way, the foregoing discussion highlights important lessons notably; the legislative arrangements as discussed in earlier chapters offer a planning tool in order to reach coherence between transport and urban planning (SCOT, PLU, PDU). The splitting of institutions results into division of competences amongst the actors discussed above indicates existence of association of partners who complement each other and as such, the associated arrangements facilitate coordination and collaboration of actors.

#### **4.7.1 Integrated Urban Infrastructure**

Another significant and frequent discussed element of the Tram line of Tours relate to attaining a predominately robust integrated urban infrastructure that achieves the objectives of urban planning as coherent with the SCoT, PLU and PDU of the Tours agglomeration, an outcome of greater public and private sector engagement in the decision making process but most importantly that places great emphasis on sustainable mobility within the urban area. Therefore, it is perceived that the tram line has a profound impact regarding a notation of integrated infrastructure development thus it is an opportunity to evaluate the outcomes of a collaborative and participatory planning approaches, but at the same time it opens an avenue to examine cases or evidence of integration if any.

Furthermore, the various planning documents of Tours agglomeration set out planning priorities for Tours including urban renewal, housing plans along transport oriented development, .....all these plans are closely related and illustrate the importance of an integrated urban infrastructure development in this case, the tram line and as such land use planning, local economic development, social cohesion needs, environment aspects

must be used as indicators of integration. *“The 4th landscape”*,– the tram line of Tours as indeed is held in such a high regard, needs to answer to the urban challenges such as a reduction of the ecological footprint and to an improvement in the quality of life, I shall elaborate the different aspects educing evidences of integration.

### **Environmental sustainability**

A significant element of the tram line of Tours’ project at conception stage was to contribute to sustainability and fighting climate change. This principle underlies the decision to introduce the tram line. This element is considered among the very prime reason for the choice of the tram. For example, since the objectives of the Land Use Plans (POS) now the Local Urbanism Plan (PLU) and the Grenelle 2010 legal requirements; for sustainable mobility which is mindful of the environment and health of the public, the Tours authorities chose the tram as a mode of mobility that achieves the aspirations for sustainability. The tram is a coherent holistic approach which provides a number of approaches in reducing car dependency. The evidence shows that with in the Tours agglomeration, car dependency was high and this contributed to high energy consumption, green grass emission among others. The introduction of the tram provides a viable reliable alternative that is environmentally friendly and sustainable. For example, the tram discourages the use of car within the urban centres for instance through the provisions of park and ride such as a major park-and-ride interchange at Vaucanson in the northeast of the city, another park-and-ride stop at L'Heure Tranquille and at the Lycée Jean Monnet which serves as the further park-and-ride facility in the south of the city. This allows motorist from neighboring areas to drive their cars, park and take a ride to areas around the city served by the tram in the 15 kilometres service line.

Also, the tram project enabled the city to provide 19.3 km of additional cycle paths. This is further evidence of integration. This holistic integration with cycling increases accessibility within the city on non-motorised transport. The combined efforts work in a complementary way towards sustainability. The collaboration between the urban

planners, the cyclist association and the transport union (SITCAT) was very instrumental during planning and implementation of the tram line.

Although it is justified to say the tram line is still a new project whose impact towards reducing car dependency at the moment cannot conclusively be deduced since it requires long term studies to evaluate the performance. Nonetheless, the current observed trend is encouraging for example it is reported there were 55,000 passengers per day in 2014 in an agglomeration of approximately 350,000 inhabitants.

### **Integrated urban mobility**

Another aspect of the tram line project lies in the integration of urban mobility this in itself is an independent objective by the urban planning authority of Tours agglomeration but also a consequence of the tram project. The fact that Tours agglomeration considers urban mobility the “central integral” factor for the current and future urban development, various planning documents of the agglomeration SCoT, PLU, PDU and PLH, all emphasize the concept of sustainable integrated mobility. The tram line in its design integrated with the city buses and offers connections at different interchanges in this way collective public transport is greatly enhanced. For instance the tram line is accessible to the train station of Tours. The train station in the city of Tours is used by approximately 40,000 passengers daily as in the words of the Guillaum Pepy, CEO SNCF, 2013)

*“there are cases in France where the tram avoids the station. Here, we have created an alternative to all-car in good consultation with elected representatives”*

This integrated approach with the various stakeholders was a product of the new collaborative approach and the tram line provided the impetus for such close cooperation.

Promotion of high densities has been attributed to the tram line as a strategic growth management plan aimed at tackling urban sprawl. The local Agenda 21 which promoted the idea of compact cities was integrated into the design by the urban planners. According to the evidence since the launching of the tram line, the areas around the

tram line are getting densified with people moving in residential areas close by the tram line this points to integrated land use for instance there is a visible increase in construction activities in the Two Lion neighborhood (Quartier 2 Lion) which itself is served by the tram.

### **Pedestrian-friendly design**

The tramway line of the Tours agglomeration encompasses a pedestrian-friendly design through “enhancing the pedestrian experience”, typically through improved amenities for example, attractive landscaping, lighting, and seating areas and by improving the efficiency of walking. Among the features of the tram line of Tours is its consciousness towards a pedestrian friendly city; this is in consonant with the PLU as well as the SCoT. For example, the project incorporated 100 acres of public spaces treated and 60 % of the route embellished with planted platforms, creation of garden spaces. All these facilities encourage the public walk to the tram stations. Furthermore, the design of the Tram is close enough to “attractive spots” for the public for instance, around the commercial areas like the case of Rue Nationale and L'heure Tranquille the tram line and stations situate almost 100 metres apart, are strategically located to enable the public easily access the facilities and services such as shopping since the distances are shorted as a result, it increases on the efficiency of walking but at the same time eliminate the temptation of using a car. Also, in the residential areas such as Sanitas, L'europa and Joue-les-Tours, the stations are close enough to the residential blocks this way, the inhabitants of the residences, can easily walk “in” and “out” to the tram without inconveniences.

It is explained in the Planning documents of the Tours, Scot and PLU and also the PLH that notation of “sustainable mobility” should integrate and harness various alternatives and harmonise the various plans related to housing, energy among others in a common strategy in a bid to achieve sustainable cities. The development of the tram line in such a way that enhances pedestrian activities should be looked at as a credit in the urban

planning sphere in its attempt to address modern urban challenges such as pollution and green gas emissions by improving on walking.

### **Social inclusion and cohesion**

Another aspect of the tram line that should be examined concerns the promotion of social inclusion and cohesion. The study explored this important dimension whether the development of the tram line and the corresponding urban development impacts improved access and living conditions for the underprivileged. Only if disadvantaged and marginalized populations are better off as a result of the tram line development can such intervention be considered successful contributors to development. Examination of integration indicates that planning for the tram line regarded a transport mode that served all public of different income levels and social status. For example, the tram line serves the social housing areas of Sanitas and L'Europe. These areas have a high number of people accommodated in social housing. Also, the line serves student population in the polytech area approximately 6000 students study from the two lion neighborhood.

Closely, related to this aspect is integrated management for instance, the development of the tram line included, automated ticket vending machines, faire pricing models which are all favorable for all social groups. Urban planning strives to serve all people of the community and due to collaboration between various stakeholders; the development of tramline was an inclusive process and included view from several stakeholders and thus an integrated infrastructure.

### **Economy**

Another barometer of the tram line of Tours agglomeration benefits is the community's relatively healthy local economy. The support towards local sustainable economy is seen in the area of provisions of mobility for the shoppers to commercial centres. For example the tram line since its opening has boosted the numbers of shoppers to L'heure Tranquille commercial centre in the Two Lions neighborhood with over 50 businesses

providing 2000 jobs and over 40,000 M<sup>2</sup> of office space. The attractiveness of the tram line is strongly correlated to the planning ideal of boosting local business economy through provision of an accessible environmentally friendly infrastructures, culture, urban facilities and amenities. As such, the importance of the role played by a modern transport mode – the tram line is a determinant factor in the positioning of the local economy within national and international arena. In this regard, sustainable modern transport modes act as a catalyst for the city to usually meet common features such as, high tourism attendance, business capacity, employment rates and investment.

### **Urban renewal**

As a rolling objective of the tram project, to contribute to the urban regeneration; the creation of high landscape qualities contribute to the complete urban renewal of the streets crossed between the built-up facades, including the burying and works on underground networks and even above ground various furniture, plantation, lighting...the implementation of the tram line, goes hand in hand with the restructuring of the surrounding public spaces and led to creation of an identity for the city. The tram line of Tours created a 4<sup>th</sup> landscape for the city. The appointment of a renowned landscaper - Daniel Buren, ultimately, appears with a particularly marked image, as a symbolic, physical and instrumental point of view.

### **4.8 Summary:**

This chapter explored and examined the tram line of Tours especially land assembly as an avenue to investigate collaborative planning moreso; coordination between various stakeholders in urban infrastructure projects. It is clear that the legislative arrangements give a planning tool for coordination and collaboration regarding cohesion of the urban development plans namely; the SCoT, PLU and PDU with the key objective being integration of mobility, housing, economy and environment for a sustainable urban development. Actually, planning for the tram line and other urban projects is still a top-down approach although it involves participation of the public and a wider society

through public consultations. In addition, competences are shared among formal institutions with the urban planning agency playing a crucial role in shaping the direction of planning policies through studies and the transport union implementing the project. Anyway, it is observed that the tram line is a political project heavily embedded in land use planning its choice is a more or less political validated through socio-economic factors and technical arguments.

Considering the place of the tram in the urban space, it has had impacts and influences on the socio-economic and political aspects, it is evident that the tram project interfaces between transport and urban planning; Moreover, the tram is more than just a simple means of transport, the tram is often the heart of a wider process of urban transformation (Laisney, 2006). In this regard, urban transformation is in motion and the city should explore the great potentialities of the tram.

Finally, land assembly for the tram project does not stand out to be an uphill task due to the fact that the tram project represents general interests and benefits everyone, the social highlighting of the project and its legitimacy (Hamman, Blanc, 2011), minimizes opposition which could have compromised the project.

## CHAPTER FIVE

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### 5.0 CONCLUSION

Stemming from adoption of a case study motivated to provide a sustainable integrated urban mobility mode; this study assesses land assembly for urban physical infrastructure – linear infrastructure with emphasis on communicative collaborative planning as a model approach that unifies planning and implementation of urban projects. The investigations shows there is a strong argument for a strong participatory and collaborative approach to coordinate the various stakeholders to plan, assemble land and develop urban infrastructure projects that are needed to respond to the current urban context and create sustainable cities.

Some of the main literature review discusses a contemporary context in which significantly formal and informal institutions and actors formulate complementary relations in the urban environment. These relations produce inherent changes, contradictions, complexities and challenges including new forms of governance, growing awareness of a need for environmental sustainability, new technologies, new networks or webs of relations that cross an urban region and a changing scale, or growing regional focus of cities and their governance. Particular new challenges include environmental challenges, increased inequalities and social exclusions and competitiveness between cities (and regions) calls for coordinates efforts to address the challenges.

In addition the literature argues that planning today is, or needs to be, an activity and philosophy which strives to bring urban actors in tandem in order to produce sustainable cities that address the various dimensions of urban life; socio-economic-political- historical-environmental dimensions of the city and urban life as well. Moreover, it is demonstrated that the capability to implement strategic comprehensive infrastructure projects quite often rests on collaboration and coordination including ensuring the availability of land or the ability to assemble land.

Therefore, as assumed by the author within the introductory part of the report, the research has succeeded on linking coordination by the urban planners as reciprocal aspect of a collaborative planning approach for land assembly and the eventual realization of the tram line of Tours. In particular, it has been proved the relevant role played by the urban planning authority of Tours in coordinating and sharing competences in the development process of the project. The study reveals that land assembly follows a comprehensive top down planning approach where landowners negotiate at arm's length and where the negotiations fail to reach a conclusion expropriation powers are used. The land assembly process itself falls into two phases; administrative and judicial phases.

Anyway, the analysis also illustrate that the tram line of Tours is an urban planning function its trajectory to implementation devolves on a "political project" which uses the tram line as a tool to advance identity of the city, modernity and transformation of the urban fabric as well as the image of the city. Thus, the technical arguments and social-economical validations are often in the background or even appear as accessories with the political decision. Hereby, the investigation underlines relative levels of public participation. Generally participation is a process to legitimize the political choice. The consultation does not lead to a complete reconsideration of the project though some aspects of the project are reconsidered.

In the second order of significance, the research has been valuable to elaborate meticulous successful outcomes of a collaborative planning approach involving interrelationships. In spite of the little public participation mostly through the public inquiry, the potential of planners to negotiate social conflicts and competing interests amongst the stakeholders contributed to accomplishing an integrated urban mobility project successfully embracing social, economical, political and environmental aspects. It is also important to highlight the fact the tram line project incorporated and strong catalyst to link the various urban plans; SCoT, PLU and PDU.

The research has attained one of its initial objectives regarding the elaboration of a clear theoretical and methodological framework to facilitate land assembly. Particularly, the study highlights potential interrelationships and actors each of whom need to be considered to avoid effects of isolated sectors; economy, environment and political-socio dimensions. Therefore, the study has driven to the emergency of a workable approach that synthesizes planning and implementation of holistic urban infrastructure projects promoting a shared vision of sustainable cities.

Examining the potential shortcomings, this study refers to a generalized life span of an infrastructure project from conception to implementation and possibly post implementation. There is a possible distortion of the reality because of simplifying the complex interrelations, actors and processes including the legislation contradictions and urban dynamics. Accordingly, the analysis is simply illustrative and does not give an in-depth account and elaboration of the relations, partnerships, actors and dynamics. Therefore, an in-depth phase by phase analysis of the tram project could perhaps give a holistic picture at each respective development phase. Furthermore, certain relations and collaborations cannot simply be explained because such relations are quite often natural social interactions that are beyond interpretations.

Apart from the explained complex relations drawbacks, the study also presents some questionable deficiencies as regards the reliability of the outcomes of collaboration and coordination as well as land assemblage. The first possible shortfall stems from the small size of the sample population. The limited number of questionnaires and interviews used to evaluate a complex relations could be interpreted as inexplicit, the fact that the results obtained in this research correspond with the average answers collected from the interviews and questionnaires, warrants the credibility of the study. Another drawback stems from the lack of representativeness of this could potentially led to a biased assessment. The questionnaires and interviews with the urban planning as well as the transport departments cannot be considered inclusive enough. Nevertheless, the because of their professionalism the integrity of the research is

secured. Anyway, further improvements should try to enhance the sample size and the a wider representativeness by incorporating other stakeholders including other departments, private planning agencies, real estate professionals, civil/opinion organizations, economic stakeholders and the citizens which could provide a very comprehensive overview.

In conclusion, I thus, re-literate that the research has highlighted the importance of collaboration and coordination in urban infrastructure projects linking land assembly and the smooth realization of the project accordingly, although, the tram remains a 'political project' the social-economic and technical arguments advanced its validation. Integrated mobility linking housing, economy and environment is a visible outcome.

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