Complex Partnership for the delivery of Urban Rail Infrastructure Project (URIP): How Culture matters for the treatment of Risk and Uncertainty

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PhD Degree

I, Caroline Julie Cecile Fabianski, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Acknowledgement

The PhD was an adventure, an adventure through the literature and a world of knowledge, an adventure through three different amazing cities, seeking information on metro projects. Though it was long it as always been exciting, intense and rewarding it remains the most challenging and inspiring experience of my life. It was supposed to be a lonely process; instead I have met a lot of inspiring people, academics, practitioners, PhD fellows.

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Abstract

This research proposes an original framework to account for the governance of large scale infrastructure projects. The framework offers a cultural perspective by breaking away from Transaction Cost Economics to put an emphasis on context, culture, action and sensemaking. It considers the current context for large scale infrastructure projects that is the emergence of Public-Private Partnership, market coordination and complex contracts that lead to multi-organizational arrangement with multiple stakeholders. It demonstrates that governance is dynamic due to the diversity of cultures and subcultures. Governance arrangements are changing over the project life cycle to respond to project imperatives. It shows that governance must remain flexible and open to change by telling the story of the first metro line of Istanbul: Taksim 4.Levent, the Jubilee Line Extension (JLE) in London and Meteor in Paris.

The originality of the research relies on the use of the Grid-Group Model introduced by the British anthropologist Mary Douglas (Douglas, 1999). It is the first time that the model is applied in the project management context. Used in combination with Action Net (Czarniawska, 2004; 2008), the Grid-Group model depicts a process, the making of Urban Rail Infrastructure Projects. It gives a perspective on complexity and the treatment of risk and uncertainty. This perspective gives relevance to the early work of Scandinavian scholars on the temporary organization (Lundin and Söderholm, 1995, Packendorff 1995) and literature that tends to see change as the norm rather than the exception (Tsoukas and Chia, 2002).

The most surprising finding of the research is to enable to name the project process in Grid-Group terms, particularly Hierarchies as an ideal structural and cultural form of governance that emerge ex-post through the project process.

Key words: Governance, Culture, Public-Private Partnership, Grid-Group Model, Action Net, Sense-Making, Complexity, Risk, Uncertainty.

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1 Research Introduction

1.1 Introduction

There has been a developing trend to renew and extend urban and city transport networks to provide cities with infrastructure for the growing number of inhabitants and the changing shape of economic activities (Scott, 2011). The range of infrastructure includes rail, road and air travel. Many of the infrastructure projects are so-called megaprojects and some constitute large programmes of work of multiple types of facility. This has been and is occurring in many developed and developing countries from London and Paris, to Toronto and Hong Kong as well as multiple programmes and projects in the BRIC countries – Brazil, Russia, India and China. Urban Rail Infrastructure Projects (URIPs) are part of this picture and provide the focus and unit of analysis for this research. These programmes and projects are being carried out with public and private finance through a variety of market mechanisms and contract forms, Public-Private Partnerships (PPP) and Public Finance Initiatives (PFI) being two commonly used means (Jooste and Scott, 2011). An assortment of problems, especially around accountability issues nearing and upon completion, have raised questions about how such projects are framed in the political domain, their scope and front-end strategies, and forms of governance (e.g. Miller and Lessard, 2000; Flyvberg et al, 2003). The problems implicitly raise challenges as to whether an adequate array of conceptual lens has been applied to secure adequate understanding of the phenomena. Absent from any serious consideration of these issues has been culture and how it fosters collaboration to create capacities for coordination.

In this research, URIPs as a type of PPP project provide the focus. Major projects or megaprojects constitute the level of analysis, which is particularly important to frame URIPs as arenas of collaborative action, as PPPs suggest. The research specifically deals with the governance process of URIPs to explore the relationship between culture, mechanisms of governance and the treatment of risk and uncertainty. In this research, culture, governance and risk and uncertainty are considered as socially constructed phenomena about which practitioners and researchers have tried to make sense. Such standpoint arises from two international experiences on large-scale infrastructure projects. The first relates to the fieldwork undertaken

for my master degree in transportation planning. My aim was to understand how transport projects in Istanbul were treated and managed by the Local Authorities at the policy level. The second involves the UCL OMEGA Centre, dedicated to the study of large-scale infrastructures in the prospect of sustainability. The OMEGA Centre has supported research into mega urban transport projects, investigating the subsequent complexity, risks and uncertainty they imply. Yet, before focusing on an investigation of the governance process of URIPs, which could be viewed as the *making* of such projects, I had to account for the following issues that constitute the common context for project management and the planning of URIPs:

- Climate change challenges and urban sustainability
- A mounting criticism of large scale infrastructure projects related to the risks and uncertainty they imply; systematic cost overrun and delays in particular (Flyvbjerg *et al*, 2003, Flyvbjerg 2011)
- A seemingly global phenomenon: the dissemination of Public-Private Partnership (PPP) – seen as "*contemporary international state-of-the art for planning and delivering transportation-infrastructure Mega-Project"* (Siemiatycki, 2006:138), which suggests potential standard and convergent ways of procuring URIP across the world.

In turn, such contextual issues are integrated into the research design by formulating two assumptions that gave raise to one research proposal:

Assumption 1: Drawing on the distinction between project and processes, URIPs are seen as projects strategically relevant to urban sustainable development as they contribute to tackling growing mobility needs by increasing the modal share of public transport and reducing negative externalities such as noise and pollution. However, their processes are commonly seen as "inefficient" since the way they are delivered could be substantially improved considering the importance of the delays and cost overruns they frequently incur. This preoccupation is all the more important considering the burden they represent on "public purses" and the relative scarcity of public funds.

Assumption 2: Subsequently, PPP would come to constitute a global framework towards the improvement of URIP processes that would allow better planning of the project risks and for facing uncertainties through collaboration between actors with different sectorial and

organizational perspectives. Yet, risks and uncertainty rest on management and governance, therefore there is a need to consider the conditions for collaboration and the context from which URIPs emerge. To this extent, a successful implementation of PPP raises issues far beyond procurement choices.

Proposal: To improve URIP processes and implement PPP types of procurement there is a need to take the URIP organizational context into consideration and to focus on governance. Such a proposition leads to an international comparative case study in order to grasp the actuality of projects (Hodgson and Cicmil, 2006, Cicmil *et al*, 2006) by giving prominence to diverse cultures driving organizational processes. From such perspective, the proposal is to study URIP through processes and actions as the subsequent *events* whereby specific governance conditions emerge. To do so PPP and major projects would be conceived as arena for collaboration that should be put under scrutiny.

1.2 Research Approach

The research consists of an empirical investigation of the governance process of three completed metro lines (URIPs) in different contexts: the Jubilee Line Extension (JLE) in London/UK, Meteor in Paris/France and *Taksim-4 Levent* in Istanbul/Turkey. It explores how actors with divergent interests, organizational perspectives, and ways of doing things coordinate themselves over the different phases of the project, adjust their relationships and create the capabilities that would enable an URIP project to go forward. Also, it equates to studying the (lack of) coordination, the dynamic of conflicts and changes over the delivery of the project. To conduct such an investigation, the originality of the research consists of identifying a theory of collaboration that would explain how organizations interact to solve governance issues. To this regard, the Grid-Group Model (Douglas and Wildavsky, 1983; Thompson *et al*, 1990, Douglas, 1999) provides a conceptual lens of analysis. The Grid-Group Model consists of a framework that arises from anthropology and focuses on the different and divergent perceptions of risk and uncertainty. This is articulated as voices present in organizations that form the *polyphony* (Hazen 1993, Kornberger *et al*, 2006) that underlies, informs and reflects upon the diverse ways of doing things and *organizing acts.* The Grid-Group Model relates the *polyphony*, conflicts and tensions,

to four types of social organization - *Isolated*, *Individualist*, *Egalitarians* and *Hierarchies* - which aim to reflect on the cultural diversities present in the society when it comes to governance and organizing. It argues that any collaborative settings are made of these four organizations that compete for power when it comes to governance; namely what *has to be done* and *how it should be done*. The subsequent actions are sustained by cultures, which together form the *Isolated*, *Individualist*, *Egalitarians* and *Hierarchies*, that is cosmologies, which are systems whereby *organizing* is sustained by underpinning norms and values that are expressed in discursive manner regarding the treatment of risks and uncertainty. Thus, the framework is used as a sensemaking/heuristic device that would permit to categorise/characterise URIPs' processes and to understand the dynamics of collaboration in different PPP context.

At the abstract level the Grid-Group Model helps to unpack the collaborative dynamics and infer tensions in context, here the URIPs cases. Methodologically, to reconstitute the Grid-Group Model at the micro level, Czarniawska's constructivist approach of organizations, Action Net (2004, 2008), permits the conception of projects, giving prominence to organizing processes instead of organizational structures. Such a constructivist approach is useful to understand how *Isolated*, *Individualist*, *Egalitarians* and *Hierarchies* come to life in collaborative settings. The cultures are not given but emerge out of a sensemaking process driven by *events* that constitute opportunity to impose order. Thus, (re)constituting URIPs' Action Net through Narratives reveal URIP processes' cultural context. At the Action Net level, a richer analysis of social construction and collaboration is made possible. The analytical part of the research consists of uncovering and questioning the conditions of URIP delivery, the organizational context and its management through the role/place of cultures and divergent ways of doing things. The research moves away from the dominance of structures and processes of procurement and organization and their limitations, towards a greater emphasis upon process a) on the ground and b) through actor perceptions that inform, articulate, justify, legitimise activities.

Culture is organizational in essence. Culture is the sense making and mindset that form the moral commitment, norms and values that enable different parties to actualise their preferred forms of collaboration (Douglas, 2003). Adopting such standpoint is crucial to the research because it presents an implication, which will drive the research contribution: it implies that culture is

performative; it *gets things done*. By adopting a specific mindset, actors will organize and regiment their relationship in a certain way. The rest of this research will demonstrate how it occurs. This is a contribution of the research. *Isolated*, *Individualist*, *Egalitarians* and *Hierarchies* represent cultures, viewed under the scope of collaboration. In this sense, the research could be considered as a cultural perspective on URIP processes and governance and this has practical implications for the way in which actors as individuals and organizations come to address PPPs. The research might influence change, actor mindsets and thus affect how collaboration and governance processes are conducted in present and future PPP types of projects Accounting for *Isolated*, *Individualist*, *Egalitarians* and *Hierarchies*, which are *diverse ways of organizing* and rationales lead this research to retrofit the complexity of URIP delivery into analysis.

1.3 Aims and Objectives of the Research

The aims of the Research consist of:

1. Shedding an original perspective on the delivery process of URIP and provide an understanding of project governance and context.
2. Providing guidelines to manage URIP processes in the future by focussing on how positive cultural conditions emerge and make a contribution.

These aims and objectives provide a different way of analysing PPP, URIPs and projects. The Grid-Group Model, in the context of major infrastructure projects, collaboration, and PPP explicitly 1) addresses the conditions of collaboration 2) offers a manageable approach to culture, since it implies organizing and structuring 3) fills a theoretical gap: culture and the dynamic processes it involves have never been theorized in such a way.

Regarding the theoretical gap, the work of Karen Smits (2013) deserves a particular attention: using ethnographic research method on the Canal of Panama, she offered a typology of practices and actions, leading to a theory of collaboration, which is inductively generated. Without dismissing the value of her work, it could be argued that theories of collaboration, such as the Grid-Group Model, already exist and have not yet been exploited to uncover, describe, and

explain processes for project management. More deductive approaches – departing from the theory, are necessary because it is more robust to further generate processes in practice.

1.4 Research Questions

The main Research Question is empirical in nature: *how do actors collaborate and coordinate themselves over the different phases of an URIP to allow the project to go forward?* Then, in order to develop the perspective offered by the Grid-Group Model for URIPs, PPP and projects, four Research Questions, more analytical in nature emerged:

1. How do cultures and subsequent forms of organizations shape the project governance through actions?
2. And in relation to the Grid-Group Model is it possible to categorise such culture in *Hierarchy*, *Individualist*, *Egalitarian* or *Isolated* terms?
3. Does a culture of joint action in a context of multiple stakeholders emerge to produce an ideal form of collaboration that would allow the project to go forward? If yes, how?
4. Acknowledging that culture affects the treatment of risk and uncertainty, does the Grid-Group model offer an interpretation for risk and uncertainty issues in the context of infrastructure projects, PPP, and collaboration?

Whilst, cultural and other organizational issues have been raised in theory in the project management literature and urban planning, especially when it comes to the structures for and implementation of PPP, investigation has yet to be systematic and extended to project governance in general, especially for programmes and megaprojects, such as URIPs. Indeed, there is a paradox with the delivery of large-scale infrastructures. On the one hand, it is argued that substantial improvement could be reached regarding their outcome and the treatment of risks and uncertainty only if the interests of a large span of stakeholders are integrated in the governance process. On the other hand, integration increases the complexity of projects; and therefore poses issues in terms of coordination. Anticipating on the literature review, the dysfunctional character of URIPs in terms of risks and uncertainty depends on 1) inappropriate governance settings at the inception of a project (Flyvjberg, 2003), and 2) the inherent ambiguity of the governance process in a setting of multiple stakeholders (Miller and Lessard, 2000,

Morris, 2009). Still, further research on the actuality of large-scale infrastructure projects are needed, hence more research in the project management literature that focuses on what is actually happening in project processes. Culture has emerged as a critical success factor of project processes by contributing to joint action (Van Marrewijk, 2005, Clegg et al, 2002). However, there is no research that explores the link between culture and organizational design to offer a holistic view of governance conditions. The relationship between formal governance and culture is overlooked, and therefore the literature is not explicit on the conditions that trigger the specific and positive culture that would allow the project to end. In this respect, there is an opportunity to shed a novel light on URIP processes. The present research will be all the more robust and enlightening as it draws on the Grid-Group Model; that is a well-established theory of collaboration.

1.5 Research Contributions

Before entering the URIP field, this research hopes to path the way to further academic work and practices that integrate the Grid-Group theoretical and methodological stance into URIPs and PPP's projects. The findings of the empirical investigation and analysis in Grid-Group terms challenges a mechanistic and at worst a determinist approach that considers that project uncertainty is subject to structural and time bound project lifecycle factors alone. It is claimed that projects at their inception phase are characterized by a high level of uncertainty due to a lack of information, while towards the end, uncertainty decreases as the project process has produced the needed information for completion through the involvement of concerned parties and stakeholders (Winch, 2010, 2002). This is only part of the picture and is sometimes distorted by its partiality. The present research shows that by the end of projects, organizational and cultural conditions have also changed as the treatment of information, risk and uncertainty, and the perception of the project. By the end, the boundaries of projects become clearer and this research demonstrates that it is a process, which results from stakeholders' actions and organizing endeavour. Stakeholders are aware of the risks and work cohesively towards their mitigation, adequate governance mechanisms are implemented through a mix of authority and incentives, but also trust, which has emerged through actions as the different partners collaborate. In other words, uncertainty is controlled by a specific organizational context that has developed to foster a *hierarchy* form of culture that sustains the organizational practices leading to the project

completion. Such statements demonstrate that uncertainty is socially constructed by project members and therefore could be mitigated through an appropriate organizational design that would infuse the *hierarchies'* culture at the early stages of the project, which is *coordinating* Indeed, uncertainty and risks perceptions vary in space according to the cases, and their organizational settings. This consists of a lesson for collaboration and would contribute to the implementation of PPP and a better appreciation of risk and uncertainty.

1.6 Structure of the Thesis

The thesis will be structured along traditional lines, comprising a first Introductory/Literature Review chapter, a Conceptual chapter, a Methodological chapter, the three case studies Chapters a Cross Case Chapter, a Conclusion and Discussion Chapter and a Statement of Conclusion. The content and progress of each chapter are detailed below.

***Introductory and Literature review chapter*:** this chapter sets the context of URIP delivery; it introduces the main issues, especially the treatment of risk and uncertainty and helps to focus on governance. To this regard, it adopts an inclusive perspective on PPP forms of procurement by treating them far beyond discrete procurement choices but rather as an emerging institutional context for URIP delivery. This chapter emphasises the insufficient knowledge of project governance and subsequent practices, arguing for an empirical investigation of URIP processes and actions. It gives relevance to the chosen conceptual framework.

Conceptual Chapter: this chapter articulates the traditional way to approach project governance that is through the contracts literature. It then tempers this approach by developing a conceptual framework that gives relevance to organizational cultures and diverse ways of doing things via the Grid-Group model, putting the organizations, their context and the forces that underpin project governance at the front. The framework is complemented with a constructivist perspective that frames URIP in terms of Action Net, a set of actions rather than defined formal organizations.

Methodological Chapter: This chapter expands on the methods used to conduct the empirical investigation; namely case studies and the collection of URIP narratives through interviewing. It complements the conceptual chapter by integrating broad conceptual constructs into a social constructivist approach of governance and projects; it informs the use of the Grid-Group model. It draws on Action Net, as a method to bound the case study and derive a story of URIP that permits understanding of how project governance is constructed through practices in each URIP context.

Case Studies Chapters: These chapters tell the story of 3 URIPs, one in Turkey, one in the UK and one in France, it explains how projects are constructed and their governance negotiated in practices through actions. It demonstrates how the different actors coordinate themselves over the different phases of the projects. It put a specific emphasis on event and diverse rationales for organizing, the *polyphony* of organization. It also shows how different project orders emerge and are categorised according to the Grid-Group model and the developed conceptual framework.

Cross Case/ Analytical chapter: This chapter draws on the three case studies and allows comparing the URIPs in Turkey, France, and the UK at different level of analysis, the project, the project phases and ultimately against complexity, culture and risk and uncertainty

Conclusion and Discussion Chapter: It presents contribution to research and the limitations of the research. It also provides recommendations for practice and further research. In addition it sheds a light on complexity, risk and uncertainty.

2 Literature Review: The Governance of Large Scale Infrastructure Projects: URIP as Collaboration Arena.

The research questions the conditions for collaboration in URIP project. To this extent it raises the issue of governance. This chapter starts with a section that reviews the complexity related to URIP delivery, bringing to the fore the role of culture in coping with such complexity by infusing a climate of partnership. A second section discusses Public-Private Partnership, as it represents a common context for URIP delivery. It exposes how it is conceived in practice – a contractual arrangement that regiments parties' responsibilities and risks, to then introduce a more conceptual literature. As a concept, PPP implies a specific form of organization with a strong collaborative component, and therefore dealing with risks in action. Following up such approach, the third section explicitly addresses governance, pointing out that it also requires collaboration and how it overlaps with PPP. At this point, management becomes relevant, hence a brief overview of the project management literature, which criticises prescriptive models to lean towards practices and embrace change. The fourth section proposes a standpoint to approach PPP and the treatment of risk and uncertainty in the prospect of conducting empirical research. The chapter ends with the definition of the terms of the research and briefly introduces the Grid-Group Model as an appropriate conceptual framework in light of the literature review.

2.1 The complexity of Governing URIP

Managing for urban rail infrastructure projects is complex, uncertain and risky because of market, organizational and contextual factors individually and in combination. One way to outline the complexity of the practices and how the subsequent actions are perceived and interpreted in context is to account for the growing stakes that such projects imply. URIP could be considered as project relevant to sustainable development as they tackle transportation issues by increasing the modal share of public transport, reducing the use of cars and therefore limiting congestion, noise and C02 emissions in cities. Yet, their process, the ways they are delivered encountered several critics due to the important cost overruns and delays they involve and the uncertainty of their outcomes (Flyvbjerg, 2003). Drawing on Sanderson's analysis (2012) of the

literature on the governance of large scale infrastructure projects, it is possible to relate such dysfunctional aspects to three potential causes, presenting three perspectives on the phenomenon of cost overrun and deceived expectations: 1) strategic rent seeking behaviour, 2) misaligned or underdeveloped governance, 3) diverse project cultures and rationalities. These causes are presented below.

2.1.1 Strategic rent seeking behavior

For the proponents of this view, cost overruns and delays are part of rational strategies of actors that have great incentives to have the project launched despite their high costs and relatively low benefits (Flyvbjerg, 2003). Part of this strategy is the use – or misuse of traffic forecasts in the specific case of transport projects (Wachs, 1989). Drawing on a study on rail infrastructure project, Flyvbjerg established the statistical evidence that in most case the benefits of such projects are overestimated. From this perspective, large-scale transport infrastructure projects obey a Machiavellian formula that is used to secure funding (Flyvbjerg, 2012):

cost underestimation + underestimation of environmental impact+ overestimation of revenues and development effect = funding

Subsequently such projects are viewed as plagued with systematic optimism bias regarding the prospective revenues and/or very high political and organizational pressure for strategic misrepresentation. Flyvbjerg considers misrepresentation or outright deception pays off for launching megaprojects. To avoid such situations, Flyvbjerg's proposition relies on decreasing the incentives for such behaviour. Among other corrective solutions, legislative means should be promoted, the introduction of private finance to increase contractor's responsibilities and accountability, but more importantly, encouraging communicative and democratic processes regarding the risks involved; risks being put at the forefront of the decision-making processes. In this respect, media involvement and public scrutiny are also advised; that is fostering an institutional context where power relations are balanced in favour of limiting the rise of overly costly projects, which imply considerable sunk costs and can hardly be abandoned once they are started. Flyvbjerg relates to situations whereby practices tend to focus on the launch of projects, regardless of wider benefits and costs. He proposes to change this situation at the inception of

project to favour circumstances where the prospective rents of the project are yielded towards the materialisation of the benefits. Indirectly, his suggestion is to change the initial setting of project to include a large span of stakeholders that would favour alternative practices. This will contrast with the common decision-making conditions that characterise the emergence of such large-scale infrastructure project today. To this extent, he argues for changing the political conditions in which projects are conceived.

2.1.2 Misaligned or Underdeveloped Governance

URIP delivery is a turbulent process (Miller and Lessard, 2000), subject to change and whose participants have to be flexible. For Miller and Lessard, large-scale projects challenge rational planning and the functionalist approach of project management due to the difficulties to formulate constant project goals over time. To this regard, project sponsors must be prepared to adopt an evolutionary approach to actively shape the project according to changing conditions, and the front end of the project must be used to identify a trajectory of mutual gains for multiple stakeholders (Miller and Hobbs, 2009). In complex project settings there is no single decision-making power and the process is interactively negotiated and therefore indeterminate. In this respect, politics within diverse groups should be taken into considerations in order to align organizational strategies and to reflect on the interrelatedness of project decisions (Williams, 2009). In the same vein, Morris (2009) argues for a realignment of goals and objectives in a "wicked mess", that is, a context where stakeholders hold different assumptions, values, and understanding of problems. In a word, there are divergent ways of apprehending project reality. In such circumstances institutional arrangements – the cognitive structures formed by regulation, laws and agreed practices that anchor projects in their political and economic contexts – contribute to stabilise the project course, enabling actions and infusing governability. Among them, governance frameworks that allow the contractual allocation of risks and uncertainty are possibilities that diverge from the more traditional hierarchical systems that combine detailed specifications with centralised decision-making.

2.1.3 Diverse Project Cultures and Rationalities

This approach puts a specific emphasis on natural organizational dynamics as the cause of project instability and potential dysfunctions, introducing the notion of shared culture as a positive mean to control risks and uncertainty. Van Marrewijk et al (2008) adopts an exploratory perspective on the circumstance of cost overrun to highlight the complex and fragmented organizational subcultures at work in a project and the insufficient recognition of power, ambiguity and decision makers that act under bounded rationality (see March and Simon, 1958). The key message of their research applied to large-scale PPP projects is to analyse the practical rationalities and practices of the practitioners within the project culture. Concurrently, Dehoog (1990) prescribes a collaborative model in situation where risk and uncertainty are high and clear link between inputs and outcomes cannot be directly established. In this respect, Bresnen (2007) reckons for the need for a partnership culture but adopts a critical perspective arguing for the difficulties to adopt prescriptive principles disconnected from organizational practices. Yet, he emphasises a paradox with the implementation of strategic planning as a precondition for partnership, demonstrating that it consists rather of a problem than a solution: how to reconcile a strategy that would align objectives and goals within an organizational context which typically comprises divergent interests and perspectives? How to balance the needs for commitment and control within project based organization? In the same vein, Van Marrewijk (2005) accounted for the problematic character of collaboration and the challenge to develop a positive project culture. From a more optimistic perspective Clegg et al, (2002) proposes to design governance via a strong project culture and performance incentives that would bind project stakeholders together in order to infuse collaborative environment. Later, Pitsis et al (2003) investigated the potential of a “future perfect strategy” which consists in projecting desirable project outcomes and envisioning the means to reach them in order to collectively deal with uncertainty and ambiguity. Culture is crucial in this approach; it could be seen as a form of social capital developed over the project that permits to support collaboration and the common doing of project members. Yet, culture could be viewed as positive and negative. Culture could help to build a team and create cohesion between the different stakeholders or impede coordination, creating tensions. To this extend, there is a need to map and understand the contribution of such capital, recognising the diversity of possibilities.

From a slightly different perspective, but also aiming at understanding and theorising the internal dynamics of projects, Flyvbjerg (1998) narrates the case of a transport project in downtown Aalborg. His story shows how power, in a context of multiple stakeholders, pervades the implementation of the transport plan. In summary, he demonstrates that rationality and knowledge are power dependant and not the other way around, depicting the logic of post-rationalization. This characteristic explains why the project did not reach its primary objectives and became subject to divergent interest groups. Far removed from Flyvbjerg's methodology, but focussing on organization and organizing, Czarniawska (2000a) depicts how different actions are connected to each other among multiple stakeholders to constitute a metro project at the political, organizational and symbolic level. At the core of her analysis lies the process of reframing, defined as the "*the need to change the frame of interpretation as soon as the old one stops providing the picture of the world needed for successful action* (Czarniawska, 2000a: 10). These authors give relevance to mental projections – mindset and culture, especially when they are related to power.

Notwithstanding the contributions of the two first perspectives, the present research further develops the third one by scoping URIP in terms of collective actions and partnerships subject to cultural dynamics and power. The choice of such an approach is supported by the rise of PPP arrangements which could be viewed as 1) changing governance and organizational context for public infrastructure delivery, 2) a way to associate two different cultures in the URIP process, constructed as public and private, and 3) a context with increased complexity due to the introduction of multiple stakeholders. In other words, the research places normative issues concerning who is doing what, how and who should be doing it at the centre of URIP processes. It questions how responsibilities – and risks – are allocated and shared among partners with different rationales and "ways of doing things", and how such organizational consideration underpins implemented governance schemes. The next part introduces Public-Private Partnership and draws on the literature in an attempt to define and characterise the forces that ease and constrain URIP delivery. Such review will bring to the fore the need to reflect on collaboration, how it is governed and managed for URIP delivery.

2.2 Public-Private Partnership

PPP relates to collaborative arrangement between the public and the private sector for the delivery of public infrastructures or services. Often it involves two aspects: the procurement and the macro aspect. The procurement aspect represents PPP as a typical contractual form of procurement. The macro aspect gives prominence to funding and financing issues by relying on private finance to reach macro-economic objectives such as keeping the investments off balance sheet. However, it is possible to adopt a more holistic perspective that would highlight questions related to project governance by arguing that PPP should not be circumscribed to sole procurement issues. PPP could be viewed as the current context for URIP delivery, a joint action between the public and the private sector in a context of scarce resources, and a process, which faces the common difficulties to coordinate actors from different organizations in search of common expectations and complementarities. In other words, PPP represents a nexus of relationships, organizational practices, networks of actors and actions that have to be taken into consideration.

Indeed, this research adopts a different and additional perspective on PPP, arguing that the notion of PPP is neither circumscribed to procurement issues nor choices between different possible routes. Instead, one considers PPP phenomena in light of 1) the reforms of the public administration that constitute a global tendency spreading across national boundaries, 2) the project governance, in order to argue that PPP does not only depend on choices – whether they are explicit or implicit – but rather depends on embedded governance conditions and therefore subject to organizational capacities. Some capacities may be pre-given and allocated by the parent organizations to the Special Purpose Vehicle and project teams of a PPP. Other significant capacities need to be developed in context. There is a need to determinate under which conditions a culture of partnership effectively emerges, how such conditions are created, negotiated over the project. Again, this is an opportunity to investigate the context, how actions are constrained or facilitated at the micro-level of analysis. Organizational capacities are both, given by the specific circumstances under which the project is conceived but also emerging, they are constructed over the URIP processes.

The research will demonstrate that the development and governance of URIP varies from city to city according to:

- The existing organizational capacities.
- The level of experience in URIP delivery.
- The institutional conditions for transport services delivery

Indeed, PPP and project governance relates to each other in the definition of such capacities, as they are likely to be both, inherited from the existing companies and developed within the project teams. The opportunities for creating processes and arrangements are therefore closely associated with organizational and project cultures, organizational and project governance, cultural and locational contexts. There is a need to further understand how specific governance structure, such as PPP, emerges for URIP projects and in context. Whether the core of *ex-ante* decisions relies on the distribution of project risks among the institutional partners, the success of the project itself depends on how these risks are treated in practice, over the whole development of the project. Still, such relationship between *ex-ante* decisions and actual practices *in* context is largely overlooked in the literature and needs to be further investigated**.** The following will expose the elements that will permit to develop such relationship.

2.2.1 PPP procurement: contracting to deal with risks and uncertainty *ex-ante*.

Conceiving URIP in light of PPP acknowledges the complexity of megaprojects, putting the implications in terms of uncertainty and risks at the front. One way to grasp this complexity would be to consider PPP as the typical organizational context where they emerge. In the domain of infrastructure and transport, the term PPP commonly refers to a specific procurement route that emerged in the UK at the end of the 1990s under John Major's Conservative Government before spreading to Australia, Canada but also India and China. Also, PPPs also present themselves as a way to introduce private finance and incentives into public infrastructures (Merna and Njiru, 2002). These schemes materialise in complex long-term contracts between multiple stakeholders, bundling the different phases of a project and operations: from the design to the operation (Grimsey and Lewis, 2007). Design Build Finance Operate (DBFO) or concession type of contracts consists of the most illustrative example, where the private contractor – often a consortium, takes substantial responsibilities in the perspective to generate

revenues from the subsequent services while bearing most of the project's risks. Yet, URIPs become complex due to the number of parties involved (*e.g.* organizations, their different agendas, interests and preoccupations). Indeed, when it comes to URIP, this research views PPP as providing a relevant conceptual framework regarding the problematic construction of "partnership" rather than attempting to circumscribe the respective role of the private and the public sector. The focus is rather on networks and how diverse stakeholders collaborate in various circumstances; the role of the private and public actors is constructed out of actions and processes, according to the different imperatives of the project. Actually, an alternative view from contracts that focuses on the word PPP developed, with a literature (Weihe, 2006) that attempts to reflect on the meaning of the term PPP and expands on the problematic character of PPP implementation. The following paragraphs outline such development and extracts the implications for the governance of URIP in general; arguing that in this context, PPPs should be treated far beyond procurement issues and choices but rather as a policy and institutional context; a framework to approach large-scale infrastructure projects, the way they are conceived and managed. To begin with the procurement and contractual perspective, PPP refers to a myriad of arrangements that differ according to the scope and the length of the contract, the underlying funding mechanisms, the incentives for the private contractors, the conditions for risk allocation and risk sharing, and the respective advantages and weaknesses for the public and the private sector. A list of contractual arrangements is presented in table 1.

Table 1: List of the different PPP contracts (Blassel and Jehanno, 2009)

	Contract for Service	**Management Contract**	**Turnkey or Design Build**	**Build Operate Transfer/BOT**	**DBFO**	**Concession**	**Joint-Venture**
Contract Scope	A specific activity, such as the maintenance, the environmental or technical studies. Most of the responsibilities remain public.	The operation and the maintenance of an infrastructure and provision of the associated service to the users.	The conception and construction of an infrastructure.	The conception, the construction, the operation and the maintenance of an infrastructure.	The conception, contraction, operation and maintenance of an infrastructure with important private finance.	The conception, the construction, the operation and the maintenance of the infrastructure and the extension of the network when relevant.	Depends on the purposes of the joint-venture
Contract Length	Few years, often 5.	Variable from few to many years, the contract can be subject to competitive bidding.	Varies according to the complexity of the project, in general less than 10 years.	Between 20 and 30 years.	Between 20 and 30 years.	Between 25 and 99 years.	The life of a public-private joint venture might vary according to its purposes and the extent of the projects.
Funding Channels	Public as the activity does not necessarily requires capital investment.	The public client is responsible for the investment related to the construction of the infrastructure but during the operation it can ask the private sector to pay a rent for using the infrastructure.	The short term funding of the project is private but the long term is public since the public pays the entire price of the infrastructure when it is delivered.	The funding is public as the public sector pays the infrastructure when the project is completed but the investment related to the operation and maintenance is private.	The funding is a mix between public and private funding.	The funding is private.	The funding is a mix of public and private capital.
Incentives for the Private Sector	The private sector is paid for a service by the public client.	The private sector is paid by the users.	The private sector realises a short term investment and its interest is the same than for any private client.	Like the turnkey, the private sector makes a short term investment, until the delivery of the project, and then a public subsidy can be paid for the operation.	The public sector pays a rent to the private sector for the delivery of public services. This rent might vary according to the level of users.	The private contractor is paid by the users.	Profits are shared according to the invested capital.
Risk Sharing Issues	Most of the risks remain public.	The construction risks remain public but the operation risks are private.	The conception and construction risks are transferred to the private contractor.	The private contractor is responsible for most of the technical risks, conception and	In addition of the technical risks (conception and construction), the private sector is involved in the	Most of the risks are private, only institutional risks such as change in policy and project objectives remain	All risks are shared.

				construction, the ones related to the maintenance and operation tend to be shared.	financing and operational risks.	public.	
Advantages	Limits the work load of the public sector. Permits to access the *know-how* and expertise of the private sector.	Important risks or responsibilities are transferred to the private sector. The public sector can expect a return on investment via the rent. It is a form of privatisation.	Opportunities for economies of scale between the conception and the construction phase. Allow the public sector to transfer the construction risks.	Like a turnkey, opportunities for generating economies of scale between the different phases of the project. Incentive structure for delivering the quality of the infrastructure. Reduce the needed human resources of the public client.	The involvement of the private sector in the funding of the project permits to spread public investment over years. Permit to speed up the development of a project. A lot of responsibilities are transferred to the private sector.	Most of the risks are transferred to the private. No investment for the public sector so no increase in public debt.	The private sector is involved in the investment. Permits to benefit from the *know- how* and expertise of the private sector. The public sector remains involved in the most important decisions.
Weaknesses	Limited room of manoeuvre of the private sector to develop its activity over the contract.	The operation and capacities to improve the service remains dependant on the quality of the infrastructure.	Sometimes difficult to ensure that the project delivered is up to the expectations of the client, it depends on the complexity of the project and the ability to formulate the specifications.	As the turnkey, difficulties for the public client to monitor the specificities of the project. Complexity in negotiating such contract.	Again, difficulties for the public client to control the specifications of the project due to fewer responsibilities in its development.	Difficulties to control the project for the public. Difficulties to find a concessionaire able to undertake the different phases of the project and to assume the different risks.	The negotiations between the Government and the joint venture might lack transparency.

Another way to present the different forms of URIP procurement would be to locate them along a continuum with the contract for services at the first extreme and the joint venture at the next extreme. The contract for services would also refer to a situation of traditional procurement whereby the public client manages all the contracts over the different phases of the project. This mode of procurement would deeply contrast with the joint-venture that merges the responsibilities between the public and the private sector, integrating the different phases of the project for joint management and decision-making, and risk sharing. In between come the arrangements that are commonly referred as PPP contracts, which bundle several phases under a single contractor and tend to place the public client as a consumer of integrated services. Overall, what is likely to change between one option and another is:

- The ways responsibilities are allocated – and possibly shared – among the public authority and the private sector and therefore the distribution of power among parties.
- The level of integration between the public and the private sector.
- The mechanisms of governance.

Still, the success of the project and its governance would depend on how the different risks that characterise the project development are treated. To this regard, Phang (2007) argues that the decision to deliver a project under a PPP should be driven by the uncertainty related to the exchange environment and the degree of contracts incompleteness. From such rationale, a vertical integration under the public sector is advised when the uncertainty is too high and contracts between multiple parties cannot be drawn (see also Bettignies and Ross, 2004). Then, Phang provides a comprehensive typology of the risks implied by the different tasks associated with the project, offering a simplified picture of who is – should be – doing what, according to the possible responsibilities of each parties. However, in practice, the policy and political context are prominent in the procurement decision, PPP and project finance being attractive due to the opportunity to undertake public investment off balance sheet without increasing the public debt. From this perspective the organizational network of URIP is likely to span public and private actors from the conception stage, regardless of the rational criteria in use to prescribe or not these types of collaboration. Again, circumstances and context matter, undermining choices. Indeed, it is not always possible to set clear boundaries between parties' responsibilities. Often they are

negotiated in action among formal organizations and informal network of actors, who in practice create the capacities to allow the project to go forward. Therefore, the approach of Phang is useful to identify the project-related tasks and main actions in principle but offers limited scope to grasp how tasks and subsequent risks are dealt with in practice, over the organizing process. This provides relevance for an ethnographic approach that would focus on practices and the subsequent culture, giving prominence to subjective perceptions. Considering organization processes, Czarniawska, (2009) discerns two types of attitudes to risks, 1) the reactions to concrete *events* that are unexpectedly threatening the development of the project from, 2) the subsequent processes aiming at planning for hypothetical risks. For Czarniawska, the first involves spontaneous organizing, while the second relies on organizational prescriptions and concerns organizations' respective responsibilities and would refer to Phang's analysis of public-private responsibilities (see table 2). Indeed, the governance issues raise delays and cost overruns are likely to concern both processes as they refer to situations where, in Czarniawska's terms,

> *"It is unimportant who is responsible for what or who has the right to do what. The critical issue is what must be done and how. This is the way, […], that a reaction to a concrete threat or catastrophe is most often organized. When it is the case of hypothetical risk, however, the actions unfold according to the bureaucracy/network prescription, with long and convoluted discussions about whose responsibility it is going to be."* (Czarniawska, 2009:4)

Drawing on such distinction, the traditional approach on PPP and risk allocation rather emphasizes the need to plan for risk while the organizational one also accounts for creating the capacities for improvisation in joint action, which is well reflected in partnership. For example in a concession type of contracts, parties would draw responsibilities for output and would be driven to get things done rather than arguing across organizational boundaries for who is responsible under the contracts and whether extra payments are due. Again, here relationships and organizational contexts are important to understand how such joint action emerges because it puts an emphasis on informal processes. These processes emerge from the bottom up to "make things work" rather than predetermined structures and mechanisms that are likely to change.

Overall, PPPs attempt to increase organizational integration over extended project lifecycles, giving rise to increased intensity of perception and interpretation of *events* at any time. This includes post-rationalization and especially where action has not necessarily aligned with organizational, governance and action intent. Culture is both an informer of these processes, and a medium of negotiation and perception formation.

Table 2: Categories of risks for the development of PPP in URIP context: (Phang, 2007:219).

Task related risks	Type of risks	Possibility to be assumed by the private sector.
Risk related to the project environment	Force majeure risks	No
	Macroeconomics risks	Shared
	Legal risks	No
Risks related to the design	Change orders risks	No
	Environment and zoning permits risks	No
	Untested technology risks	Shared
Risks related to finance	Interest rate risks	Yes
	Exchange rate risks	Yes
	Intra consortium counterparty risks	Yes
Risks related to the construction and procurement	Property acquisitions and right of way delays risks	No
	Construction delays not attributable to public sector	Yes
	Intra consortium counterparty risks	Yes
	Health and safety risks	Shared
	Unforeseen construction cost overruns risks (tunnelling and geological)	Shared
Risks related to the operation and maintenance	Free rider project risks	Shared
	Risks of operating and maintenance costs not attributable to the public sector	Yes

Yet, beyond the public-private nature of the arrangement, when it comes to reflect on the concept of PPP, the literature presents PPP as a contemporary institutional context for URIP delivery. On the one hand, the rise of PPP could be seen as the emergence of a meta-form of project governance that implies the use of incentives and "soft" contracts (Koch and Buser, 2006). On the other hand, this is the problematic character of partnerships that is being emphasised. How organizations with divergent rationales and interests, who collaborate to allow the project to go forward, are being addressed through PPPs. Contracts are incomplete and cannot embrace the whole complexity of projects. There is a need to question the context and the relationships, which underpin their development. The informal relationships such as shared cultural norms are also essential to articulate a successful project. Also power relations and politics are prominent in

a way that the project team is constrained by forces that go far beyond the settled boundaries of projects. This argues for the context dependant character of project and their embeddedness in a network of relationships where sense making and non-linearity are essential to understand how projects are constructed. This standpoint is made explicit through a selection of four papers. These papers discuss the actual meaning of PPP, demonstrating that such institutional context for projects develops beyond the common preoccupations associated with the project. In a sense PPP is politically imposed to become the common market context of URIP. Yet, it points that this common market requires collaboration, as a way to organize for risk and uncertainty.

2.2.2 PPP as an institutional context for collaboration

The four articles emphasise the fact that PPP is more than a procurement choice and a contract that regiments parties' responsabilities. To do this, they reflect on the origin of the term PPP and its meaning in practice. Here, are the authors:

- Linder (1999) with his "*grammar of multiple meanings*",
- Wettenhall (2003) who attempts to discern "*the rhetoric and reality of PPP"*,
- Weihe, (2006), who addresses *"a nebulous concept"*
- Hodge and Greve (2008) who propose a "*renewed research agenda"*

These papers and subsequent authors have been selected according to 1) the depth and quality of the analysis, 2) the width of their references, that is their ability to build on each other, but also to contribute with their own repertoire, 3) their critical view and their attempt to conceptualise the term beyond sector and policy discourses, and 4) because, the four of them suffice to draw a broad picture on what PPP means. To this extent, they allow us to deal with the implications of PPP, as a body of knowledge, for the development of URIP. Finally, this literature would constitute a backcloth for apprehending the governance of URIPs in its organizational and institutional context.

2.2.2.1 Linder (1999), coming to terms with the public private partnership: a grammar of multiple meaning.

In this article written in the late 1990's, the author first reflects on the meaning of PPP, arguing for a focus on partnership blurring the public and the private sector before exploring the general

meaning of the term in the policy realm. In this respect, he demonstrates that PPP is bred from voluntarism in the US that presented PPP as an effective means to coordinate federal initiatives for economic and regional development. However, in the 1980, the term became associated with privatisation and broad management reform that aim to foster efficiency and quality within the activities of the public sector. From this perspective the market is seen as disciplinary, through the introduction of competitive pressures for the provision of public services. Yet, Linder goes on, stating that such an approach does not justify the word partnership, which instead of competition relies on cooperation:

> *"Conversely, the hallmark of partnership is cooperation – not competition; the disciplining mechanism is not customer exit or thin profit margins, but a joint venture that spread financial risks between public and private sectors. Joint venture arrangement actually stabilise volatile market and work to mitigate competitive pressures, not to exploit them. Rather than struggling to redefine the boundary between public and private, with the former typically ceding territory to the latter, partnering works to blur them"* (Linder, 1999: 36)

Indirectly, Linder introduces a specific form of context that could be conceptualised as network forms of governance (Sydow and Windeler, 1998) whereby practices and actors are linked in order to perform collective actions, towards common goals. Also, such form of governance might be imposed and maintained by power. Here, the notion of PPP diverges from a rationale that implies a clear boundary between the two sectors, or a possible division of responsibilities between them. Then, in terms of policy, PPP could be interpreted in six manners: 1*) as a management reform*; namely a tool that change the functioning of administrations and governments to rather rely on market discipline; 2*) a reformulation of the problems plaguing public service delivery* by converting what needs to be done such as how the private sector, via the market, could be incentivised. This approach is often coined as "creating opportunities" by international development agencies, and could be seen as commercialising public problems; 3) *as a moral regeneration* by affirming the supremacy of the ordering effect of the market; 4) *as a risk shifting* by asking private sector for co-owning intensive capital infrastructure on the basis of prospective profits; 5) *as a way to restructure public services* by relying on the open labour

market rather than unionised government workers; 6) *as power sharing* between the public and the private sector by introducing horizontal modes of coordination based on trust and cooperation rather than vertical chain of command and control. Culture, as part of the context would contribute to sustain such form of collaboration creating the conditions for joint action and promoting organizational practices and actions that distinguish themselves from adversarial initiatives, setting positive conditions that allow the project to go forward.

2.2.2.2 Wettenhall (2003) the rhetoric and reality of public-private partnerships

Like Linder, for Wettenhall, the term of PPP raises as much interest as privatisation in the 1980's. However, the definition of PPP and the identification of their application are confused by the multiplicity of discourses. Consequently, he proposes a governance approach that accounts for the connections between the State, the market and the community for the provision of services with a public interest. In this respect, he points at the ever-changing boundaries between what would belong to the public and private sphere, arguing they are constantly renegotiated over time. To this regard, he is interested in partnership, preferring "mix" to better consider the problematic character of such public private arrangement, pointing out that they are not new and in practice they have been used for years. What is less certain is their genuine character. These mixes constitute PPP, seen as a third way, distinct from contracting out and privatisation; namely the reforms of the New Public Management that flourished in the 1980's. PPP would foster trust and mutual obligation between the two sectors in order to create something new; that is innovating for the quality of public services. From such perspective, Wettenhall identifies two organizational types of PPP characterized by mixes with horizontal or vertical relationships. In the first one, the relationships between the participating parties are essentially horizontal (non-hierarchical) with consensual decision-making. All parties directly involve in the action, and power is shared in the sense that no single party can invoke closure rules. In the second one, the relationships are vertical (hierarchical) with one party superior to all others, acting by controlling the others rather than participating in a joint action. Yet, for the partnership definition, Wettenhal sympathizes with the first type:

> *" the implication is that the true partnerships will involve horizontal relationships. Following this logic, the mixes which follow outsourcing (contracting out) arrangements*

and involve vertical relationships are unlikely to be true partnerships" (Wettenhall, 2003:90)

Again, partnership suggests a culture that favours specific practices and actions according to different coordination means and governance structure. Here, there is an opportunity to study how such governance is negotiated and implemented in practices; namely how partnership emerges out of a specific institutional context, what the norms and values support such collaborative arrangements.

2.2.2.3 Weihe (2006) Public-Private Partnership: addressing a nebulous concept

Weihe focuses her PPP review on practices in different sectors to argue that there is distinct PPP's traditions that vary in definitions and according to the issues raised – such as economic and spatial development, development in developing country, governance and policy purposes. To this extent, it is impossible to identify what really matters with PPP before locating a research in one – or several, traditions. In search of a common denominator for all of them, she concludes that it might not exist, except from the collaborative character:

" the only trait that seems to be capable of encompassing all the various PPP types presented here is that actors from various institutional settings collaborate in different ways, in different degrees and with different aims" (Weihe, 2006: 22)

Indeed, she draws on Wettenhall (2003) to suggest that perhaps the essence of PPP would rely on the vertical mode of coordination between parties, but still, in practice this condition is not always satisfied and PPP could be reliant on principal-agent relationships. Two approaches she enlisted seem particularly relevant to the context of delivering large-scale infrastructure projects: the infrastructure and the governance approaches. The infrastructure approach emphasises the long-term contracts with a financial component for the delivery of public services. These specific PPPs have been supported politically in order to address underinvestment issues in public facilities and injecting private capital and expertise into projects. Concurrently, the governance approach is more inclusive and focuses on the implementation and the internal dynamics of such arrangement, such as the nature of the relationships and interactions between the partners and the

co-management of projects. This approach places PPP in a context of change, as new ways of governing, which coincides with PFI types of policies. Indeed, it spans different sector and invites researcher to explore the implications of PPP in terms of project governance, the conduct of a joint endeavour. Here, the notion of PPP expands to arrangement, which does not necessarily include a private partner but simply emphasises a context where multiple parties work together. Therefore, the nature of the arrangement could encompass several public partners or a private one with the civil society. Again, PPP, from the governance perspective rather means a context that reflects the complexity of a setting with multiple parties, regardless of the mechanisms that link them to each other. Yet, in such an approach the network of actors under consideration is often viewed as given, already formed, while few studies focus on how such networks emerge, how the shape of a network is negotiated in practice through actions, creating a specific institutional context where a culture of collaboration is fostered. Here the interest is the internal dynamics of partnership.

2.2.2.4 Hodge and Greve (2008) The PPP debate: Taking stock of the issues and renewing the research agenda

The authors acknowledge that PPP forms of collaboration are not new, and consider that the debates often wrongly deal with the benefits of contracting or the respective roles of the public and private sectors while there is years of experience in these domains. Yet, they emphasise three mounting characteristics of a specific type of PPP, the "long term infrastructure contractual type" that deserve attention; namely the use of private finance, the complex character of the arrangement, and the implications in terms of governance and accountability. According to Hodge and Greve, the pressure for introducing private finance and keeping capital intensive public infrastructure "off balance sheet" involve complex arrangements that steer the project away from traditional political and democratic processes. It poses governance and accountability issues, especially when the legitimacy of these arrangements in terms of value for money is questionable. From this perspective, PPP relates to a shift of power that, drawing on Flinders (2005), might involve a Faustian bargain that is short term benefits at the expense of long term costs. In this respect, the way forward in terms of PPP would consist of identifying criteria that include a governance dimension and would permit evaluation of PPP across the world. From this perspective, initiatives implying PPP should move from an "old" tradition concerned with the

allocation of risks between parties that is, attributing them to the best party able to manage them, to a rationale that consists in sharing risks. This means dealing with conflicting interests to ensure transparency and limiting opportunities for corruption and "white elephants". Again, Hodge and Greve argue for alliance type of arrangements where the boundaries between the public and the private sector are blurred. Again, partnership is viewed as an ideal form of collaboration where organizational and institutional boundaries disappear. Yet, the internal dynamics of such arrangements, how they are formed and sustained over the different stage of the project is neglected. Yet, when it comes to risk and responsibility issues, this recent development on PPP suggests a move from risk allocation, in the sense of planning for risks as suggested by Phang (2007), to an organizing rationale as described by Czarniawska (2009). The latter rationale means acting in the face of contingencies. In turn, this would lead to the blurring of organizational boundaries and the emergence of an ideal form of collaboration: a partnership. Therefore there is a need to complement this contribution with research that focuses on practices and actions, their underpinning norms and values to understand the implementation of PPP.

In other words, the literature comprises two strands. The first one is prescriptive in nature and is concerned with the *ex-ante* decision to deliver projects under a specific scheme. Risk allocation is at the core of this rationale, assuming that one party is better able to harness the uncertainty involved in specific task than another one. The second one is evaluative in perspective and attempts to view PPP as common practices and to understand their shortcomings. Referring to specific long-term contractual PPP types, this literature offers a critical analysis of their implementation and what would be necessary to make them successful. This approach concludes on the need to think beyond the *ex-ante* planning rationale that accounts for the public-private character of responsibilities to focus on the partnership component. Instead of viewing PPP as an alternative among others, it is treated as an emergent practice deemed to deliver something that could not have been delivered otherwise – whether it is linked to a lack of public funding or an absence of *know-how* or expertise in-house. Therefore, the success of the project would rely on the ability of potential public and private partners to work together and develop a joint action in a context of uncertainty. Paying attention to practices, there is a need to grasp how such ideal form of PPP is created and constructed through actions, giving rise to a specific project culture that would lead the project governance to positive conditions for collaboration. The issue is to

understand how specific coordination means that favour joint action and trust development are selected and fostered among alternative ones that would favour control, role specifications and delineation of organizational responsibilities. Therefore, there is a need to focus on networks, investigating how actors and their subsequent practices emerge to allow the project to unfold as a partnership.

Overall, the conception of PPPs in research and practice has tried to make sense of them within the traditional frames of reference. There is therefore a need to adopt an additional and broader lens. This lens will be institutionally broader and will embrace culture as a dynamic rather than an assumption or pre-given context. To further expand on such approach the next part will discuss how this context is shaped in practice. It relies on governance, collaboration, and project management and how together they would contribute to the emergence of culture.

2.3 Approaching Governance, Collaboration and PPP for projects

2.3.1 Governance as Collaboration

The notion of Governance is often contrasted with the one of Government to allude to the changing conditions of public action (Rhodes, 1997; Kickert *et al*, 1997; Stoker, 1998). Stoker (1998) refers to regime, defined as *"an informal basis for co-ordination and without an all encompassing structure of command"* (Stoker, 1998:23). Such basis is where collaboration departs from; that is a situation where 1) multiple organizations are dependant on each other, and therefore requires 2) the negotiation of common goals. From this perspective, collective action is a multi-player game, bringing to the fore a specific point: the rules of the game, and then a question, *how are they defined? Are they imposed – by whom, or are they co-constructed – then how?* This is problematic and not well understood. To this regard, the work of Siv Vangen and Chris Huxham is an exception (Huxham and Vangen, 2005). Interested in collaboration in practice, the authors concur with those interested in alliance (Kanter, 1994; Das and Teng, 1997) to consider collaboration as a process, which implies different stages. Smits (2013) depicts the process while studying the Panama Canal Expansion Programme. She outlines a collaboration continuum comprising three categories of practices: adverse practices, building practices, and connecting practices. These categories comprise the practices she observed through ethnographic

method, namely conflicting, submarining, seeking consent, storytelling, crafting reciprocal relations and synergising. This demonstrates that the process is not self-evident and reckons that conflicts are endemic, often leading to collaborative inertia (Huxham and Vangen, 2004, Vengen and Huxham, 2003, Huxham and Vangen, 2005). Still aiming at understanding and guiding implementation, the authors unravelled diverse collaboration themes and sensible actions such as dealing with diverse aims, managing trust, constructing identity, doing leadership and using power (Huxham and Vangen, 2005). From this perspective, one can wonder whether collaboration and its governance could be prescribed. Perhaps it is engineered in practice, over the process. However, drawing on Gray, (1989), Mattesich *et al*, (2001), Sherer (2003), a well performing collaboration is made of an appropriate governance structure and remain subject to political influence and support, trust, open communication and stakeholders inclusion.

2.3.2 Governance in PPP

Interestingly, Governance conditions share PPP characteristics, supporting the idea that the PPP phenomenon would pertain to social change rather than discrete choice. This statement resounds Weihe's standpoint (2006) on PPP as governance, and authors interested in the process. From this perspective, Koppenjan (2005) accounts for nine transport projects in the Netherland and subsequently identified different patterns of partnership formation. He acknowledges that most of the time it does not occur as the logic of division – as opposed to connexion, prevails. Here a parallel with the attitudes towards risks, as explained by Czarniawska (2009), should be drawn: the logic of planning, risk and responsibilities allocation is less problematic than the one of joint action and improvisation that requires going beyond the contract and organizational boundaries. This second logic is also emphasised as missing in Klijn & Teisman (2003). Looking at the institutional barriers for public-private partnership, the authors blamed 1) the difficulties to implement joint-decision making and organization among partners, and 2) the tendency to separate responsibilities. This tendency is referred as the one of traditional form of procurement. Influenced by the urban planning literature, Edelenbos and Teisman (2008) draw on Alexander (2001) and Castells (2000) to define governance as a process of working: "*a dynamic interaction based on interdependence"*(2008:614). For PPP the authors distinguish the concession from the alliance rationale. Going even further they oppose project management to process management. According to them project management is connoted as prescriptive and freezing. The focus is on

substance, designing the solution, communicating plans, and, in a way, neglecting circumstances' change and deploring that results disappoint actors. In contrast, the process management is viewed as proactive and adaptive. Here, the focus is on keeping the most important parties together and satisfied. The matter is the process that leads to solutions. Instead of results, the emphasis is on acceptance, which is created through influence and negotiation but might be time consuming.

2.3.3 Governance in Projects

To a great extend the general literature on governance, as the one on PPP, defines the term governance as a coordination effort in a collaborative setting that would culminate in an *ideal* state of Partnership. Yet, this concern is not foreign to the project management literature. In a recent endeavour, Ahola *et al* (2013) conducted a thorough review of governance and its origins in project management. This review shows that the project governance framework is heavily influenced by Transaction Cost Economics (Williamson 1975), hence a focus on economic transactions. Under such influence, the governance challenge is framed as a situation where: *"complicated organizational arrangements involving several interdependent economic transactions are required to enable the successful delivery of large projects"* (Ahola *et al*, 2013:1). Then, two categories of project governance are delineated. The first views it as external and imposed by the project based firm while the second, internal, reckons the unique character of some project, hence tailored arrangement that would foster shared practices beyond standards. Yet, they reckon that the general literature on governance is overlooked and needed. In light of the discussion above, the general literature would suggest that the complicated character of the arrangement is part of the context and not necessarily created according to the nature of the project and the firm strategy. Here, this is the linear and rational view of project governance that might not be adequate since the general nature of governance is dynamically negotiated. Indeed, such characteristic is indirectly acknowledged through a growing interest for stakeholders' management, how to respond to their demand and communicate with them (see Ruuska *et al*, 2009, Aaltonen, 2010). To sum up, project's context, namely Governance, Collaboration, and Public Private Partnership (PPP) give raise to specific needs related to coordination and how it is implemented in specific context. Still, while reckoning this need, the literature focusing on the management of project fails to account for such context and the literature dealing with it.

At this point, it becomes clear that there is a need to specify the approach that should be adopted when studying URIP. This should be done by keeping in mind that URIPs require collaboration due to the PPP and Governance context. To this regard, the project governance would rely on management and is likely to be constructed over the project process. The next part develops such standpoint.

2.4 Developing a Research Position

The PPP literature comprises prescriptive and the evaluative approaches, it is then possible to view the development of PPP arrangements in two ways. One way is to see them as mounting governance arrangements, a "technology" that would potentially lead to a standardised way to organize for risk and uncertainty. It will equate to an emergent way of organizing for project referring to the "*contemporary international state-of-the art for planning and delivering transportation-infrastructure Mega-Project"* (Siemiatycki, 2006:138). PPP contracts could present themselves as potential international templates for project governance. However, a second view could be introduced. This view would rather consider PPP as specific and context dependant. This would consist in paying attention to the complexity of organization and would emphasise the multiplicity of stakeholders and parties. In PPP context, risk and uncertainty relate to a complex social setting, acknowledging the existence of multiple parties that might have the power to contest and renegotiate the project's purposes through the process (see Atkinson et al, 2006, Winter et al 2006) according to their own priorities and interest. Drawing on Atkinson et al (2006) PPP is a setting where parties might have different perceptions of risks due to different objectives leading to different strategies. Project failure, in terms of uncertainty and risk management could be ascribed to a failure to clarify and meet stakeholder's expectations that is the "6 Ws" according to Chapman and Ward (2003):

- Who the involved parties are;
- What they want to achieve,
- What their interest is;
- What their ways of getting things done is;
- What resources they need;

- When things have to be done.

Subsequently, the success and performance of projects would relate to the capacity of these parties to jointly construct the future, and therefore, a common project culture becomes crucial to favour the resolution of tensions and conflicts. In this respect, standard principle and guidance might become irrelevant, the implementation of the arrangement depending on existing organizations and their context. Here, the focus is not only on governance, as ex-ante condition for joint action but also on the process, how projects are *"continuously constituted and reconstituted through the socially situated activities of all the practitioners involved, however tangentially"*(Sanderson, 2012: 442). From this view, what become relevant are the actual practices and actions, which lead to partnerships. To reflect on such a perspective, analysis does not depart from a predetermined set of actors and organization, with defined boundaries, but rather considers actors and organization as emerging through practices and actions, that is the processes of governing rather than governance.

Emphasising processes assumes the prominence of practices and actions whereby *management* is emphasised, broadly defined as the set of decisions, settings and actions aimed at coordinating the different actors at different phases of the project (Koppenjan *et al*, 2011:741). In other words, projects are conceived as the day-to-day practices of project members. This management approach pays attention to both the micro and the macro level of analysis, focussing on situated doing and organizing – the praxis, and the socially defined practices that the individuals, as project members, are drawing upon in organizing to highlight underpinning values, rules and routines. This also equates to moving from an ontology of being to an ontology of becoming (Linehan and Kavanagh, 2006, Chia, 2010) whereby static representations of group structuring are replaced by a focus on change. Again this emphasises processes and activities, and the constructed aspect of entities and how structures are made relevant in a project context. This leads to research on how governance principles are negotiated and arrangements structured, to see them as the:

> *" …emergent outcome of structuring and sense-making processes"* (Linehan and Kavanagh, 2006:55)

Drawing on this project management literature, the thesis will focus on the governance of project in the broad terms, putting an emphasis on organizing processes to understand how, at the micro-level of analysis, structures emerge. This would allow categorising specific project cultures by highlighting both, the on-going processes that will frame the project from the bottom up and the structure, how divergent governance structures are imposed from the top down perspective. This would imply paying specific attention to project circumstances, the *events* that trigger change and involve governance renegotiation. Acknowledging PPP, as a common institution, the emphasis will be put on multiple stakeholders and joint action to understand how organizations deal with risks and uncertainty at different stages of URIP, bearing in mind the constrains that apply at the inception and then arise from the ambiguity related to practices and processes. Again these are the conditions for governance that are under scrutiny. The following defines the terms of the dissertation, namely Risk and Uncertainty, Complex Partnership, and Culture

2.4.1 Terms of the Thesis

2.4.1.1 Risk and Uncertainty

Risk and uncertainty are often used interchangeably to reflect on the possible threat or opportunities, *events* that would affect URIPs in a negative manner in general, but also positively through the acknowledgment of opportune occasions. More specifically, uncertainty becomes risk when it becomes quantifiable in terms of chance of occurrence and impact (see the seminal work of Knight, 1921, regarding this distinction). Concerning project management and governance practices, uncertainty relates to a lack of information for decision-making or *known unknowns* (Winch, 2002, Galbraith 1977). Yet, it is also possible to see uncertainty in a more radical manner as *unknown unknowns* that raise the issues of what is at stake, the various interests that represent the view of an extended range of projects stakeholders. From such perspectives the source of risks might vary according to the decision-maker. To this extent, there is a need to reckon that risks primarily depend on perceptions.

The implications are that the project process could be seen as a flow of information, which has to be managed through structuring and organizational design in order to infuse governability. One way of proceeding is to encourage project members to collaborate in the management of risk,

and long-term partnerships are such a way. The challenge is to understand how they emerge considering the project process, which implies a need to investigate how the perception of uncertainty and risks shape the governance structure. This research acknowledges, yet moves beyond this approach, to incorporate culture as part of understanding the social construction of risk and uncertainty, and how these are perceived in management decision-making because of the unfolding and prevailing cultures.

2.4.1.2 Complex Partnership

The term *partnership* aims at framing URIP as the result of a collective action between multiple parties and stakeholders, while the adjective *complex* reflects on the context-dependant character of such collective action and principles that govern it. It refers to the issues posed by Governance, PPP and the recent initiatives to better understand practices and change in the project management field. In a way, this approach would cohere with viewing URIP as systems, from the complexity perspective, to acknowledge nonlinearity, and feedback mechanisms - see the work of Klinj (2008) who uses this notion of complexity and subsequent theories to make sense of the move from Government to Governance in the context of public management. The logic is that standardised and replicable processes for the governance of URIP become more problematic, part of the complexity being the context. Inversely, complexity and the "power of context" also give rise for demands in URIP delivery; the need to adapt existing standards becomes even more significant since the perceived need to control the uncertainty and risk that relate to the important financial stakes, environmental and other social issues increase considerably with complexity. Subsequently, the researcher adopts a systemic view, which consists of exploring the circumstances in which decisions occur. It characterises the relationship between URIP, governance arrangement, decision-makers and the context under which they make decisions. These circumstances comprise the social context that is the whole nexus of actors' relationships and the attributed meaning of the subsequent actions. The research therefore considers URIP in light of social and institutional dynamics and the nature of organizational relationships.

However, in the project management literature, governance is often seen through the lens of contracts, which structure the relationships (Müller, 2011) between multiple parties, which

engage in exchange. One way of formalising these contracts is to account for the nature of the transaction in terms of uncertainty, asset specificity and frequency of the exchange. Following Winch's interpretation (2001) of Williamson (1981) and the transaction cost economics framework, the governance of the project will move from market to hierarchical type of governance in order to mitigate pressure for post contracts opportunism. Parties may invest in relationships where this aids the process of uncertainty reduction, and is likely to be higher at the inception of the project and decreases as the project develops. The appropriate governance framework is seen as designed top down to match the different imperatives of the project but neglect the institutional context. This context encompasses the ways power and trust interact to embed the project into an "atmosphere" that mould relationships from the bottom up of the project level. Also, another way to see governance is to move away from the characteristic of the exchange to retrofit the social context. Governance is also negotiated over the project from the bottom up perspective, giving relevance to sense making and the specific *events* that the project encounters. Drawing on Hazen (1993), the project governance could be conceived as discursive social organizations whereby multiple dialogues occur simultaneously and sequentially (Kornberger *et al* 2006), a context where different cultures are enacting the project. This emphasises the multiplicity of ways of doing things and relates to the emergence of governance processes and structures in context. Further and at an overarching level, formal and informal partnerships try to align actors and action in ways that emphasise the similarities rather than differences in cultural terms in order to facilitate managing complexity.

2.4.1.3 Culture

Inspired by the Anthropologist Mary Douglas, the definition of *culture* comprises the form of moral commitment, the norms and values that would enable the different parties involved in URIP to actualise their preferred modes of collaboration (Douglas, 2003) to govern the project. While considering the organizational practices and internal principles which characterise URIP, culture and organizations will mutually sustain each other to form a system; that is "common ways of doing things". Indeed, drawing on the definition rooted in the functionalist argument of Durkheim that argues that any social facts should be explained by other social facts (Durkheim 1894, 1964), culture constitutes a collective good that generates meaning, a socially constructed set of beliefs and values, which apply to individuals in an unconscious and coercive manner.

Indeed, among others, this research on culture raises a crucial issue concerning the choice of the appropriate levels and units of analysis. Determining an appropriate level of analysis relates to the initial title of the research: ***does Culture matter for the treatment of risks and uncertainty in the delivery of URIP?*** Phrased in this way**,** it suggests that a clear definition of what culture is – and what is not – could be established as the result of the research, as if investigating culture depended on dissociating the project and its context(s), which is, to some extent, abstracting complexity by treating projects as coherent and closed systems, instead of a set of embedded practices not necessarily circumscribed to definite boundaries. Though this is trivializing, culture is part of the context that enables and/or constrains the project in different ways. However, culture manifests and is negotiated in action, out of sense-making to align project imperatives. An approach that distinguishes culture from action and processes had the analytical advantage to present cultures as an independent object of research, which could influence the governance of the project; easing or hindering the ways actors coordinate themselves over the different stages of the project. However, culture is interwoven into institutions and practices, and therefore should be studied through them, shedding a cultural perspective on URIPs' processes.

Culture coupled with the dynamic aspect of project put an emphasis on organizing processes. Culture and organizations are deemed to sustain each other. Yet, when the dynamics of project are introduced the focus move from organizations, that alludes to the structures, to organizing, that is how structures are formed. Organizations and stakeholders' networks are not seen as static or predefined. They rather emerge through action and organizing as the project develops and different imperatives have to be taken into consideration to effectively complete the project. The interest is processes; how a project moves from stage A to stage B, until it finishes. This gives prominence to actions, organizing acts rather than predetermined settings and structures. Thus, the overarching maxim of the thesis is:

"Organizations are ephemeral but *organizing* lasts"

Again, this maxim emphasises *organizing* as the main focus of this research, in contrast with organizations, which imply a specific setting with specific boundaries. Whether formal

organizations and predetermined structures might exist at the inception of projects, they are not viewed as static. The nature of project practices might involve a renegotiation of the initial setting to foster the effective governance that allows the project to be achieved. Sensemaking in context becomes crucial to understand how governance unfolds. Governance should be seen as a bottom up process, and as top down mechanisms. Therefore, governance encapsulates the control structure of the project but also the diversity of the processes that emerge in practice. Subsequently, the project, as an organization, could be conceived, as the result of emergent processes whereby different actors coordinate their actions to allow the project to go forward, and therefore has to be explained. Organizations for the delivery of URIP could be seen as outfits which comprise multiple organizing actions whose interplay shape the governance conditions which might materialise in an inter-organizational arrangement or a network. This relates to a reality of projects. Projects are often made of spatially dispersed teams that impose a growing demand for shared leadership among team members whereby communication, mutual support and effort, and cohesion are necessary to balance diverse contributions. This conditions along with vertical management referring to the formal hierarchical leaders, emphasising bottom up as well as top down relationships (Hoegl *et al*, 2011). Subsequently, the approach adopted deals with the conditions of governance and subsequent implications for the treatment of risks and uncertainty. It consists of emphasising how different strategies and solutions are mobilised by actors acting from different institutional contexts, perspective and settings, to promote their preferred ways of doing things – cultures, and impose order on the project. As Cicmil *et al* (2006) argue this comprises a shift from a perspective that views project from instrumental and model-based approaches to focus on the practices and account for the empirical reality of projects – or actuality of projects; how project management is enacted to address multiple perspectives, non-linearity, values and complexity in order to understand how actions and structures unfold from multiple *events*. This focus on practices introduces situations and how actors reflexively make sense of the way power functions in context, retrofitting into analysis context dependant judgements.

2.4.2 A Pertinent Approach: the Grid-Group Model

In light of the developments introduced in the literature, the research will explore: *How the public and the private sector coordinate themselves over the different phases of the project,*

adjust their relationships and create the capabilities that would enable a URIP project, as public infrastructure projects to go forward. Also, it leads to study the lack of coordination, the dynamic of conflicts and changes over the delivery of the project. To do so, the Grid-Group model will be used as a conceptual framework to make sense of the empirical data. To this extent, the aim is not to fill a research gap but rather to carve a space for a perspective that is deemed promising in terms of insights and possible contributions regarding the typical context of URIP and project governance in general. These are the advantages of the Grid-Group model:

1) It is deemed to be a theoretical device that will help making sense of complexity. This complexity is "made simple" through four types of organizations. Both complexity and forms of organizations are important preoccupations regarding the PPP context.
2) It deals with dynamics and change by putting conflicts at the front, which is the essence of collaboration as well.
3) It explains change in cultural terms because it links the mindset of people to the structure of organizations. To this regard, it would become possible to characterise the partnership culture, which is seen as positive in the PPP and Governance literature, by referring to organizations and organizing processes.
4) And finally, the Grid-Group model, with its root in anthropology, is made to account for processes and practices within their context, which is in line with recent developments in project research.

Overall,

This chapter presented the preoccupations related to URIP delivery; namely the treatment of risks and uncertainty. It introduced a specific perspective to deal with the subsequent organizational complexity, that is, how the context interacts with the governance of the project. It gives prominence to PPP as the current institutional framework for URIP delivery, emphasising diverse stakeholders and interests that characterise project settings and the appropriate culture that would enable the project to go forward. Such culture is defined in terms of partnerships, as the practices and subsequent norms and values that permit to sustain joint action and make the different organizational boundaries disappear. Subsequently, the next chapter will forward the Grid-Group Model. It is presented as an original conceptual framework that deals with the

actuality of project governance as a set of structuring practices negotiated in context recognising the role of social organization and culture. It will constitute a methodological Premise for approaching the case studies and the diverse processes that characterise Istanbul, London and Paris. This provides a general Premise on the conditions of governance and a unit of analysis that permits investigation at the micro level, grasping the complexity of practices and organizing processes. In addition, such conceptual framework would offer a standpoint that would define the chosen method for approaching empirical evidence; namely the use of a constructivist approach combined with project member's narratives on case studies.

3 Conceptual Chapter: Accounting for Project Governance through critical cultural evaluation

This chapter deals with the concept of social organization in general and governance in particular for URIPs that involve multiple organizations for delivery and external stakeholders. It aims at developing a conceptual framework that would allow approaching the actuality of project, and conceiving project as collective actions by retrofitting the context into analysis, culture and social organization in particular. It starts with a more conventional approach by presenting the literature on contracts, which is commonly applied to explain how different coordination mechanisms interact when different parties deliver a project. This literature emphasises markets as the common context for project coalitions. Yet, this research argues that such an approach does not appropriately reflect on the diversity of contexts and settings that characterise URIP and collective action in PPP. To this regard, an alternative framework is adopted by anchoring the constructs developed for the contract literature in social organizations in a broader perspective that gives prominence to preferred ways of collaboration and cultures. The principles adopted to identify an appropriate unit of analysis at the micro level in order to conduct the case studies are also introduced.

3.1 Project Governance

Project Governance is the way actors coordinate themselves over the different phases of the project to allow the project to go forward. A traditional way to illustrate it is to conceive the governance of the project in contractual terms by focusing on exchange. This leads to view the project as a set of transactions that occur in a market and must lead to an efficient allocation of resources in economic terms. Such a standpoint offers a framework to practitioners to decide which governance structure is most adequate to project delivery. It has the advantage to present PPP modes of delivery as a “buy” decision in the conceptualisation of “make or buy” that should be driven by efficiency. After briefly reviewing the literature on contracts, the chapter introduces network forms of governance and social organizations as a crucial assumption to explain how specific governance arrangements emerge by extending to the broader conditions of collaboration.

3.1.1 A departure point: Transaction Cost Economics

Drawing on Transaction Cost Economics (TCE), contracts emerge to face the friction of exchange in a market environment (Williamson, 1985). This approach argues for considering transaction costs in addition of the traditional production cost when making decisions. Depending on the attributes of the transaction, that is uncertainty, asset specificity and frequency, the governance of the project will be framed in market or hierarchies terms. In this context hierarchies are seen as largely structural forms within an organization within and through which activities are conducted. Uncertainty refers to bounded rationality (Williamson, 1973) and the incapacity of individuals to process and store all information related to a contract and therefore to predict all contingencies. Frequency refers to the occurrence of the transaction while asset specificity represents an important source of idiosyncrasy in transaction and is highly relevant in a project context. Asset specificities consist of the degree of investment realised in a transaction, which is not marketable (Williamson 1979), for example in the case where there is an important sunk cost element. This involves a risk of substantial cost for one party when vulnerable to hold up problems, when a buyer decides to breach a contract and to turn to another seller or supplier while an agreement had been previously reached. In the project context, Ive and Rintala (2006) presents the PPP case of an infrastructure which comprises sunk costs due to the non salvageable character of the asset, that means that the seller could not reallocate the infrastructure to an alternative use than the one for each it has been initially defined without a loss in rent – a relative decrease in the expected revenue against the costs. Without binding agreement the seller finds itself vulnerable to a hold up demand from the buyer. The market becomes inadequate to regiment such relationships and give relevance to other forms of governance, or contracts. To this regard Market and Hierarchies constitute two forms of governance that could be placed on the two extremes of a continuum that implies different governance mechanisms and form different types of contracts, namely classical, neoclassical and relational contracts. Drawing on the interpretation of Olsen et al (2005) of Williamson work, market contracts, which imply classical and neoclassical contracts, are mainly organized through price incentives, assuming discrete transactions where there is no uncertainty and information is complete. For neoclassical contracts a third party might be introduced to add some flexibility in the arrangement. The TCE framework meets with Coase's theorem (1960) to argue that an appropriate governance structure must be designed for the sake of efficiency, accounting for principal agent relationships, the

bargaining power of the parties, which become relevant in a situation where uncertainty is high and parties are driven by the maximisation of surplus. In contrast, internal contracts rely on a hierarchy and authority to face long-term horizons and related uncertainties. Procedures, norms and direct control could regiment the relationship to the extent to form an organization where power is centralised. Notwithstanding the use of TCE as a heuristic device for decision makers, this approach tends to focus exclusively on exchange and adopt an economic perspective that gives prominence to discrete transactions as the norm while underpinning the broader context where exchange takes place and the web of relationships that embeds transactions. As a remedy, the legal approach of MacNeil (2000, 2000a) could be forwarded to better grasp the actual character of projects relationships. This approach complements Williamson approach with a third form contracts, relational contracts by introducing additional mechanisms of governance that emphasise social attributes based upon trust.

3.1.2 The Lawyers' Perspective: Relational Contracting

From a legal perspective, Macauley (1963), argues that contracts are as good as relationships are. Drawing on such standpoint, MacNeil (2000) characterized the different relationships that could underpin exchange, retrofitting social networks into analysis. In his *essential contract theory*, MacNeil (2000) put forward an approach that gives prominence to the relations in which contracts take place. Such relations are guided by ten contractual norms or behaviour patterns: 1) role integrity, 2) reciprocity, 3) implementation of planning, 4) effectuation of consent, 5) flexibility, 6) contractual solidarity, 7) the restitution, reliance and expectation interests, 8) creation and restraint of power, 9) propriety of means and 10) harmonisation with the social matrix. For MacNeil, understanding a contract requires grasping all elements of the enveloping relations, retrofitting the complexity into analysis. Discrete transactions as conceived in economics are not the norms. Even when transactions are seemingly discrete, short duration with strong presentation, they occur in a broader institutional context, which for example provides the use of the common language necessary to the parties to adjust their exchange. Drawing on Olsen et al (2005) interpretation of relational contracting in project context, important norms are solidarity, reciprocity and flexibility. Solidarity refers to sustained long term cooperative relationships, even when short term benefits could be reaped; reciprocity consists of "give and take" attitudes among parties and fair distribution of rewards; while flexibility refers to the

possibility to change plans when necessary and in the interests of all parties involved. Trust is an important component of relational contracts; trusting and trustworthiness prevent the risk and expectation of having one party behaving opportunistically (Lyons and Mehta, 1997). Trust arises from various sources. Using Lanes' categories of trust (1998), *calculative trust* is based on a rational calculation of expected cost/outcome of the relation and founded on a conscious decision to either trust or not. *Norm- or value-based trust*, based on common values or norms and founded on a moral orientation. Finally trust could be a cognitive process, emphasising *expectation-based trust,* which is based on common cognitions, which take the form of expectations regarding the general social order and specific interactions. In addition, Lyons and Mehta operate a distinction between *self interested trust* (SIT) and *socially oriented trust* (SOT). In SIT, trusting responds to rational behaviour, it occurs in exchange and the decision to trust is intentionally calculated and responds to incentives depending on the presence of behavioural risk, that is the expectation of opportunism. This form of trust is considered as a future orientated function of the potential benefits of the exchange. SOT is rather viewed as an attribute of communities, a social component that binds individuals together and creates expectations and obligations. SOT emerges from social norms: trustworthiness is ingrained in patterns of behaviour and does not depend on rational calculation. Culture becomes important as it fosters and facilitates trustworthiness and trust as shared norms and values. In contrast with SIT, SOT is considered as exterior to exchange and rooted in the past.

Yet, from a contractual approach, there are three mechanisms of governance to implement in order to ensure coordination between the multiple parties that populate the project: price incentives, authority and trust. However, despite the remit of Macneil which is more socially inclusive, the focus on transactions and contracts excludes the context and what Williamson calls "atmosphere" which refers to the preferred mode of collaboration, which is imposed in society and would then impose constraints on governance choices (Winch, 2001). To this regard, when it comes to the conditions of collaboration, alternative conceptual lenses have been developed to explain how arrangements emerge and work in practice, as projects develop. This includes the network perspective, which reckons the different governance mechanisms and forms of governance through horizontal and vertical forms of coordination. Networks focus on actors and

how subsequent arrangements are negotiated and constrained over processes, depending on the circumstance and the web of actors.

3.1.3 Beyond Contracts: the Network Perspective

Interested in the functioning of collaboration, authors such as Sydow (Sydow, 2006, Sydow and Windeler, 1998, Sydow and Windeler, 2003) investigated network forms of governance, how actors rely on the networks of relationship to stabilise their exchange. This approach aims at retrofitting organizational structure into analysis, as well as agency that is the actions of individuals involved in economic exchange. Whether projects could be conceived as network, the question is how project boundaries are produced and reproduced in practice (Sydow, 2006). From this approach governance is not determined *ex-ante*, but constructed collectively through processes. This approach retrofits the web of power into analysis to account for effectiveness as well as efficiency. Reflexivity and sense-making are at the core to understand how collective actions and partnership emerge in a networked context. The network is seen as providing additional capabilities that make managing inter-organizational projects easier. Indeed, such networks are structured through organizing and evaluating, emphasising the social interaction in which project members shape networks intentionally and reflexively in the pursuit of efficiency, but also effectiveness to reach specific outcomes and goals. Sydow and Windeler (1998) acknowledge that such networks might depart from market-relations, but also show how hierarchy and control are infused through activities. Transaction costs are not the sole criteria to be considered over processes, collective endeavour such as inter-organizational learning are also included into analysis to explain how a project unfolds and is implemented collectively according to specific circumstances. Such a conceptual lens and subsequent investigation offer an avenue to grasp relations as a system, how trust emerges and is constructed among actors as the project and the network develop.

Expending on the network approach of organization and governance, this research assumes that the dynamic of the society should be taken into consideration to understand how the subsequent decisions and actions that permits the project to go forward unfold, challenging pre-determined governance arrangements. To this purpose, the Grid-Group Model and subsequent Cultural Theory are proposed to retrofit basic assumptions regarding the forces that underpinned any

collective action into analysis. This consists in paying attention to social organizations and subsequent cultures, how they interact in practices and constrain networks. It represents a step beyond contractual approaches by displacing the unit of analysis from transactions to the broader context in order to provide a detailed analysis of project construction, their subsequent governance structures and their functioning. This is relevant. The following cultural perspective would introduce a dynamic perspective to reflect on processes, the making and construction of URIPs in PPP context, in particular.

3.2 The Grid-Group model: Retrofitting Culture into Project Governance Analysis

3.2.1 Presentation of the Grid-Group model

To introduce such a conceptual framework, Grid-Group is a model that conceptualises the society in terms of diverse forms of social organizations and subsequent governance cultures. Grid-Group Model is a parsimonious model seeking to represent a universal picture of the society, the whole social order, which relies on four different types of social organization and their subsequent cultural rationales (Douglas, 1999) (see figure 1). According to Hood (1998) this model captures satisfactorily the essential components of organizational cultures with two dimensions: Grid and Group. Grid-dimension represents the level of autonomy of individuals (individualization) while Group-dimension represents the level of coercion or a social invitation for compliance that a group exerts on individuals (integration). By crossing both dimensions four types of social organization emerge, strictly distinct from each other, which will respond to different forms of authority. Hence, Douglas (1999) characterizes social organizations as "*Hierarchies"*, *Individualist*", "*Egalitarians*" or "*Isolated*" regarding the structure of individuals' relationships and their expectations between each other (Calvez, 2006).

Later the model was enriched, and became known as Cultural Theory on the basis of three new assumptions:

1) At the family level as at the national level, all social organization is likely to comprise the four cultures;
2) At the cultural level, each of the four cultures are defined relatively to the others and

3) The four cultures will conflict with each other at the society level (Thompson *et al*, 1990). Consequently, while considering the society and the social context, conflicts are endemic (Werveij *et al*, 2006)

This evolution of the Grid-Group Model permits to consider it as a theory. This comprises methodological implications such as 1) an assumption that the patterns it describes and explains will recur over time in different collaborative setting and 2) the issue of generalization regarding the insights it provide.

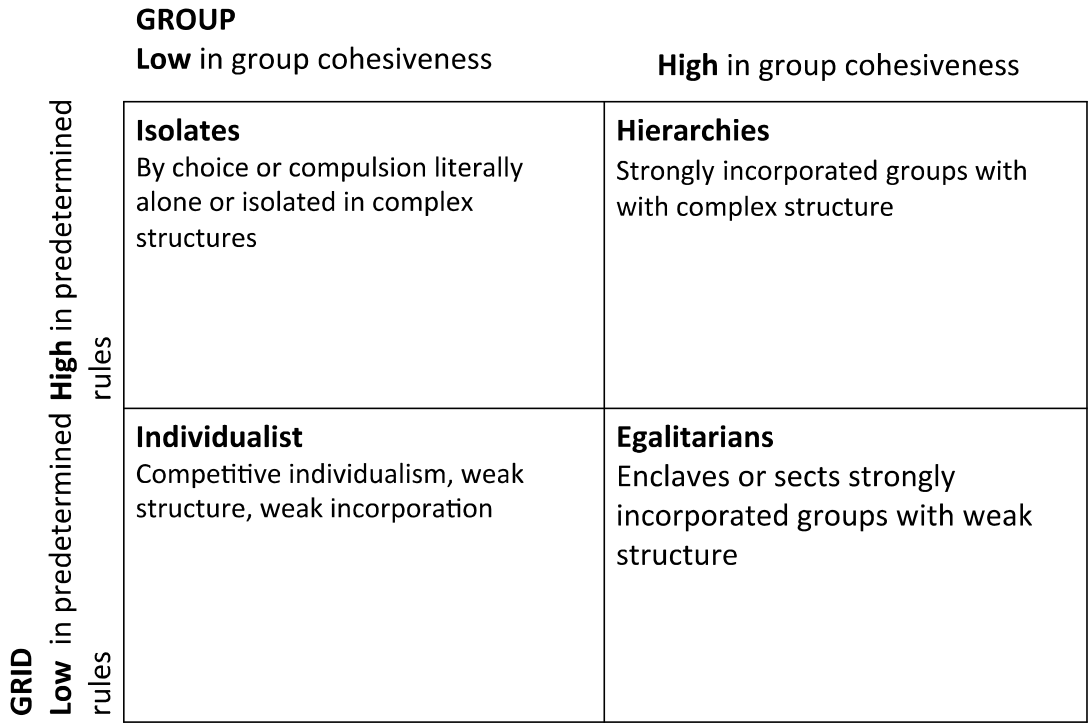

Figure 1: Cultural Map according to Grid-Group (adapted from Douglas, 1999)

However, the rationale of the model remains clear: to retrofit the social context into analysis. While social organizations are put into perspective it becomes possible to distinguish the forms of culture, as distinct cosmologies. As a parsimonious model Grid-Group is rooted in anthropological enquiries, the model has been drawn to answer a problem involved by studying

cultural aspect in communities' practices from different regional contexts: how to explain practices' meaning and compare them without taking into consideration the communities' differences in terms of social organization (Mamadouh, 1999)? To this extent, the development of Grid-Group – as an analytical and methodological tool — constitutes a remedy to this dilemma. The grid-group dimensions aim to encompass different individual responses to authority. Here authority refers to disparities in mode of governance, the conceptions on governing interactions (Kooiman, 2005), but again, the subsequent four by four matrix is a simplified picture. This model does not pretend to encompass all cultural forms nor claim that the society is strictly limited to four universal archetypes of culture; the model argues that the two dimensions are sufficient to distinguish four significant cosmologies – strictly distinct from each other. Indeed, Douglas's aim was not to record the different cultures present in the society; and so, her purpose is to propose a practical analytical tool to take into consideration the social context while conducting research on culture (Douglas, 1999). Thus, the emphasis is upon processes that unfold temporally and in context. This emanates from the anthropological roots, which views social processes unfolding in a social context. It contrasts with the transactional and contractual approach, which emphasises the structuring of governance at one point in the process to guide subsequent activity. Projects are temporal and context specific and are dynamic in terms of economic exchange and management over their lifecycle. Their complexity, especially for PPP-type projects such as URIP, adds to social richness rendering emergent and unfolding social forces more likely from institutional down to individual actor level. This provides a reason to apply the Grid-Group model and places less reliance upon models that are conceptually grounded within the mechanisms they are trying to explain, which not only limits the perspective but also includes elements of tautology. Both approaches are parsimonious, yet the transactional contractual approach relies on applying static conceptual elements to practice, while the Grid-Group Model and its cultural approach focus on dynamics and more closely accords to reality.

3.2.2 Culture at the core of the Grid-Group model's functioning

The functioning of the Grid-Group model as an interpretative framework depends on the underlying definition of culture as a moral commitment, enabling a community to actualise its preferred collaboration's mode (see figure 2). Social organization and culture, as norms and values, are mutually sustained and constitute a system, an institution. Acknowledging

conclusions that argue that Grid-Group is able to map different social patterns in various research contexts, there is a need to expand on the definition of culture underlying the model.

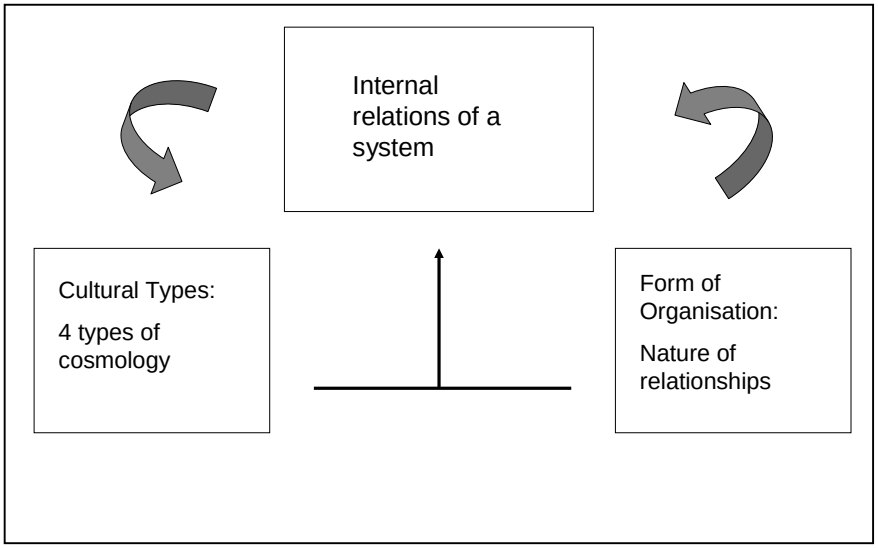

Figure 2: Structure of Social Institutions

In Grid-Group, the notion of culture is rooted in the functionalist argument of Durkheim (1894, 1964) arguing that social facts should also be explained by social facts. Similarly, culture is seen as a collective good, social actions and their subsequent meaning relate to a set of beliefs and values, which are socially constructed and apply unconsciously to individuals in a coercive manner. Culture determines a specific *way of being* which legitimizes social institutions as relationships, conventions between individuals. Hence, institutions are self-defined and self-reinforced. In order to justify institutional *ways of living* individuals would always end up with analogies; this means they would always explain the world they live in, calling for fundamental principles which are as legitimate as they are natural, like right can only be defined in comparison to left and male stands for female (Douglas, 1987). From a Neo-Durkheimian perspective, such a fundamental definition of social institution would constitute an assumption – criticizing functionalist argument and labeling it with a deterministic approach by questioning the origins of collective representations is of very little use: analysis should rather focus on

junctions between ideologies, discourses and practices and social organizations in order to understand how established order and convention make their existence accountable (see Tansey, 2004).

3.2.3 The Grid-Group model and the treatment of Complexity

Many cultural frameworks try to establish from complex situations a model or dimensions that become fixed to a large degree (e.g. Hofstede et al, 2010; Cameron and Quinn, 2006). However, complexity is usually dynamic. Douglas reckons the complexity of the social context and its multiple dimensions and offers a model to handle it. Such an approach is particularly promising in a context of multi actors and multi organizations, which is the common context of URIP. Nonetheless the Grid-Group model would constitute a simplification of this context. One of the reasons for limiting the model to Grid and Group is of methodological nature. More than two dimensions could constitute a handicap for the researcher: even if additional dimensions could accentuate different facets of the society, it would decrease the capacity of the model to adapt to different contexts because social organizations are fundamentally different from each other. Adding dimensions would make comparisons difficult or impossible and constitute a trade-off in flexibility. To this extent, the structure of the Grid-Group model is not only valuable in anthropology it concerns comparative studies. Since Grid-Group is supposed to be valid in every context, it enables the researcher to perform comparative analysis at the societal level. In this case, the simplicity of the model consists in its principal strength: the opportunity to deal with complexity. There is therefore a need to review the foundations of the model.

The validity of the model has been subject to numerous empirical studies; demonstrating a significant correlation between communities, as definite cultural entities, and the nature of individual's relationships. To this regard, one can mention here an early work conducted by Douglas and Gross (1984, 2003), a study on three American communities on food-taking habits. This study was supposed to reveal significant disparities in relationship between communities. Hence, data have been collected on the assumption that *people are what they eat.*[1]Subsequently,

[1]This is a metaphor in order to introduce the hypothesis on food-taking habits: food-taking habits characterize specific relationships between individuals. Later, in the context of the research on PPP a similar

observations have been gathered according to three predicates: the *chronology* – the order to which meals occur in the time; the *participants* –who shares the meals who does not; the *menu*- the meal's ingredients. Then, data have been mathematically formalised and analysis proceeded on the basis of differences taking place with a logical order – regimented by cultural attributes, to be then placed on Grid-Group. Sharing a similar rationale, Caulkins (1999) established statistically the significance of Grid-Group by using factor analysis, mapping variables extracted from official data set to illustrate population's cultural disparities in America in terms of relationships. Later, this finding has been reinforced, considering various rationales against entrepreneurship amongst North American Ethnic Groups (Caulkins and Peters, 2002). At the institutional level, the existence of cultural bias – or cultural rationales, persist through different attitudes

3.2.4 The Grid-Group model and the treatment of Risk and Uncertainty

At the social level, Grid-Group – as four types of social organization, and its subsequent institutional perspective introduce power and legitimacy issues – would imply disagreements on defining what is important*: "different decisions makers worry about different risks – war, pollution, employment, inflation"* (Douglas and Wildavsky, 1983:1) This means practices, actions and decision-making are not only driven against conflicting interests but also against divergent perceptions of interests. This confirms that controversies are intrinsic to social relationships.

In this perspective, risk and uncertainty hold a particular place: risk discourses allow tracking and revealing internal structures and systems. For Douglas (1994) misfortunes and risks are not things but social constructs:

> *"When risk enters as a concept in political debate, it becomes a menacing thing, like a flood, an earthquake, or a thrown brick. But it is not a thing; it is a way of thinking, and a highly artificial contrivance at that"* (Douglas, 1994; 46)

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assumption would be articulated concerning the decision-making process: studying the level of decisions and rationale underneath could significantly inform the nature of relationships between public and private actors during the delivery process.

Douglas' argument does not discuss risks' reality or their potential to harm, it seeks to account for the fact that risks are mobilized within social institutions in the process of holding to account those handling power (Tansey, 2004). Within social institutions, hazards breed political and governmental strategies towards actions' legitimization; referring to potential dangers generates collective sensemaking concerning their treatment, thus it is part of a rhetorical argument, which contributes to legitimize actions' mechanisms. Concurrently, while institutions disagreed with each other, risks turn into a discourse, a persuasive argument against power competition. Here, power could be seen as a synonym of influence, a technological relationship which "*could be readily exercised if its source is recognized as legitimate by those subject to it"* (Johnston 198: 469*)*. Risks do not only point out dangers but also refer to disapproved behaviours (Douglas, 1994); social institutions indicate what is morally unacceptable. While the web of power is taken into consideration, risks become a resource to impose order and authority. Subsequently, cultural institutions capture uncertainty (Douglas, 1987). Ubiquitous uncertainty represents a danger for some but an opportunity for others, the opportunity to challenge established order and power settings. Hence, institutions engage in a *war for legitimacy* (Tansey, 2004). Accounting for the divergent attitudes towards risks it is possible to define the four cultural organizations as follow:

- ***The Isolated:*** fatalist approach to risks. They are unable to organize themselves to prevent or face risks. The *Isolated* are non responsive to risks.
- ***The Individualist:*** the problem of risk is posed as "should we take a risk or not". When question of risks is posed, the *Individualists* calculate and tend to assess the opportunities it represents and therefore their propensity to involve, cooperate or organize, or they consider the risks as potential negative impacts and therefore their propensity for dissent. The *Individualists* are risk takers or risk averse.
- ***The Hierarchies*****:** the risks are perceived as an organizational problem. Risk should be dealt with, which implies appropriate information, resources and coordination means. The *Hierarchies* rationalize the treatment of risks and would plan and act for their prevention. In general *hierarchies* tend to be objective towards risks and to organize to decrease the uncertainty that surround them.

- ***The Egalitarians:*** Risks are the reasons for the existence of *Egalitarians* as a specific group. Risks are seen as external to the Egalitarian group, the threat is such that it legitimizes the *Egalitarians* as a distinct group from the rest of the society. However in contrast with the hierarchies, who internalize the risks to organize for them, *Egalitarians* tend to use risks to sustain their own boundaries.

Such a cultural approach contrasts with the post-modernist argument of the *Risk Society* (Beck, 1992, 1999). Drawing on Giddens, Beck conceptualizes risk and uncertainty as a process, which has reached an unprecedented level of complexity in the "modern world". In this perspective, risk and uncertainty travel from individual to collective spheres, fostering adaptive strategies from institutions. Conversely, acknowledging Douglas's contribution, this rationale would be misleading because it undermines institutions, as collective entities by giving prominence to individuals' initiative, as triggers for structural change. Such evolutionary assumptions deal with social systems as an increasing level of complexity, although the argument does not necessarily contravene the social environment as conceptualized in Grid-Group: on the contrary, institutions persist within complex settings (Ostrander, 2002). However, institutions' resiliency do not suppose a static nature: since they act as a filter for individuals' perceptions, institutions are also sensitive to time and places but they operate a selection of what should be remembered and forgotten - see Douglas's (1987) perspective on history:

> "*When we look closely at the construction of past time, we find the process has very little to do with the past at all and everything to do with the present. Institutions create shadowed places in which nothing can be seen and no questions asked. They make other areas show finely discriminated detail, which is closely scrutinized and ordered. History emerges in an unintended shape as a result of practices directed to immediate, practical ends. To watch these practices establish selective principles that highlight some kinds of events and obscure others is to inspect the social order operating on individual minds"* (Douglas, 1987:69)

From Douglas' perspective, history is a process continuously subject to persistent cultural values. Conversely, it is because the model is dynamic that the distribution of cultural values does not account for past history (Douglas, 2003). When power moves from one institutional order to

another, some *events* are emphasized and others are forgotten, such a change defines time lines and the trajectory of history. Such dynamic on risk and temporality applies to the *events* that characterize URIPs, culture influencing the succession of *events* that matters over a sense-making process. This renders the Grid-Group a highly relevant interpretative framework.

After such conceptual clarifications, one should emphasize an important implication of culture for analysis: Grid-Group and Cultural Theory comprise the recognition of unintended effects as the result of collective actions; social organizations and subsequent cultural cosmologies imply a feedback loop that would offer a theoretical background for apparent illogical/irrational patterns (Tansey, 2004). As individuals are social actors, their perceptions are also biased and context-dependent (Olli, 1999). Such findings enable Grid-Group to be used far beyond its primary goal since it retrofits social organizations into analysis *via* a coherent model, to also provide an interpretative basis for social and organizational change by focusing analysis on tension between the Grid and Group dimensions. However to make the model operational, there is a need to emphasize that Grid-Group is a relativist model: each culture flourishes in contrast with the others (Douglas, 2003) hence the model is technically incapable to distinguish one specific social organization regardless of the others. This is part of the interpretative dynamic of the framework. In other words, where conclusions refer to one cultural rationale they must always been depicted in comparison with the three others. Secondly, the model is drawn to identify social pressures; hence analysis should focus on conditions for change first and then infer conditions for stability. Ultimately, the applicability of the model relies on a fundamental hypothesis: the "world" where analyses apply must be clearly defined and limited in order to be considered as stable; this means it should constitute a terrain where social forms and culture are likely to sustain each other (Douglas, 2005).

Consequently, there is a need to define the nature of URIP arrangements. This leads to formulate an appropriate unit of analysis that would permit tracing the different components and potential boundaries of the "world" of URIP, reflecting on the actors and how their relationships are regimented over the different URIPs phases and *organizing* tasks. To this purpose, the next part will draw on the contract literature as defined previously to offer useful constructs that will permit to characterize the Grid-Group model to reflect on projects as arena of collaboration. This

means that the governance of URIP is defined in terms of collaboration through the lens of culture.

3.3 Adapting the Grid-Group Model to URIPs Context

3.3.1 The Grid-Group model according to different governance mechanisms

One way to proceed would be to acknowledge the contractual character of the "URIP world" and to rely on the subsequent relationships, investigating how they are formed and foster specific arrangement. Drawing on TCE, Grid-Group adds two categories; namely the *Egalitarians and Isolated* to Williamson's traditional, yet opposite governance schemes – *Market* vs. *Hierarchies* (Williamson, 1975,1979). This suffices to consider the diverse forms of individual relationships present in society. To this extent, Grid-Group complies with a contractual approach of governance and organization in structuring activities; the term contract being employed in the broad sense of relationship to encompass all forms of agreed transactions, from the tacit to the most explicit and articulated consent, and power relations and conflicts. Yet, the cultural lens is more about reflecting on an essential element of social life putting a specific emphasis on the relationships and the social matrix underlying any transactions. This extends beyond focusing on the transaction cost that market transactions imply. Macneil's Essential Contract Theory is more closely aligned to this social perspective, particularly around collaboration, yet does not extend to the full cultural remit of social process and change (see the early work of Macauley, 1963 and MacNeil, 2000). Subsequently, building on Zaheer and Vankatramen's interpretation (1995) of the contract literature Grid-Group could be filtered, further interpreted and developed in these terms (see also figure 3).

The Grid dimension is associated with the Governance Structure, which is to what extent the relationships are structured. And it would relate to the degree of vertical vs. horizontal integration of the transactions, in other words, the degree of market and hierarchical structuring of the transactions and subsequent coordination mechanisms in the spirit of Williamson (Haugland and Reve, 1994). Along the Grid continuum, organizations based on a Market form of contracts, *the lower side of the quadrant* can be distinguished from hierarchical ones – *the upper side of the quadrant*. The first includes classical and neoclassical contracts whose relationships

depend primarily on incentives as the main governance mechanisms. The second refers to internal contracts and depends on authority (Olsen et al, 2005). Yet, faithful to Williamson's approach, the factors deemed to justify a move from low to high grid are the level of complexity of the exchange relationship defined as asset specificity and opportunism, uncertainty and information incompleteness. The Grid dimension also includes some hierarchical structuring from informal mechanisms, including social norms and informal routines. This norm and routines emanate from organizational and inter-organizational behaviour on projects that come from the emerging and changing culture and also help form and negotiate the changing culture, which in the context of this research, relates to URIP type of PPP project. The broader structuring context is informed with the Group dimension in particular, which reflects *organizing* depicted through the interpretative framework in the matrix format.

The Group dimension, however**, i**ntroduces the processes underlying the transactions; that is the degree of joint action in relationship. Drawing on McNeil's contribution (2000) the left hand of the quadrant *(low Group)* comprises discrete norms whereby enhancing discreteness and presentation, implementation of planning, and effectuation of consent consist of a primary concern. In contrast, while the project moves towards the right hand (*high group*) the relational norms prevail such as role integrity, contractual solidarity, harmonization with the social matrix, flexibility, and reciprocity. The Group dimension potentially informs to what extent actors have built collective action, particularly collaborative action in the context of this research, constructing a shared understanding of the project that would enable them, as a group, to achieve the ultimate goals of the project. The shared understanding can lead to subsequent structuring of the norms in the hierarchy. This later point introduces the notion of trust, its nature, and how it relates to partnership. Moral commitments such as trust can be systematised to an extent and framed ethically yet are not directly structured and are more readily renegotiated in the social context.

Collaboration can be encouraged and subjected to structuring through hierarchical means and contracts as noted, yet willingness and moral commitment arise from shared values, norms and social action. Partnerships, especially in the PPP literature (see Linder, 1999; Wettenhall, 2003; Weihe, 2005, 2006, Hodge and Greve, 2008), are now commonly defined as collaboration

between two or more parties whose *sine qua non* condition is trust. Trust is an attribute of relationships, which relates to vulnerability**.** When one party trusts another, this party is willing to place itself in an open and vulnerable position. There is an expectation that the parties will abstain from opportunistic behavior, recognize each other's interests, and therefore have positive and stable predictions of each other's motives and intentions. In addition, trust is a pre-condition for risk-taking in a context of uncertainty, especially when the choice of taking a risk, or how to deal with it, is based on mutual trust (Elkjaer, 2009, Smyth and Edkins, 2007). In Grid-Group terms, the Group dimension, that is the level of joint action, would induce the nature of trust, and *vice versa*, although the formation of trust may look rather different in each quadrant as well as for context. Thus, drawing on Lane (1998) the left-hand of the quadrant (low group) will be dominated by calculative trust based on a rational calculation of expected cost/outcome of the relation and founded on a conscious decision to either trust or not (see Axelrod, Coleman and Dasgupta[2] as exponents of calculative trust); while the right-hand of the quadrants will be characterized by norm- or value-based trust, where trust is based on common values or norms and founded on a moral orientation (see Talcott Parsons and Fukuyama[3] as main exponents)**.** Also, along the Group dimension, trust in partnership could be assessed against Sako's typology (1998), the degree to which parties are sure that promises will be kept – contractual trust; the extent to which trust rests on a common understanding of professional behavior and action and with technical and managerial standards–competence trust; the degree of intentions regarding unreserved engagement, commitment and share information – good-will trust.

[2] See Bachmann R, (1998) *Trust: Conceptual Aspects of a Complex Phenomenon* inLane & Bachmann, *Trust Within and Between Organizations; Conceptual Issues and Empirical Applications*, Oxford University Press, New York
[3]Idem

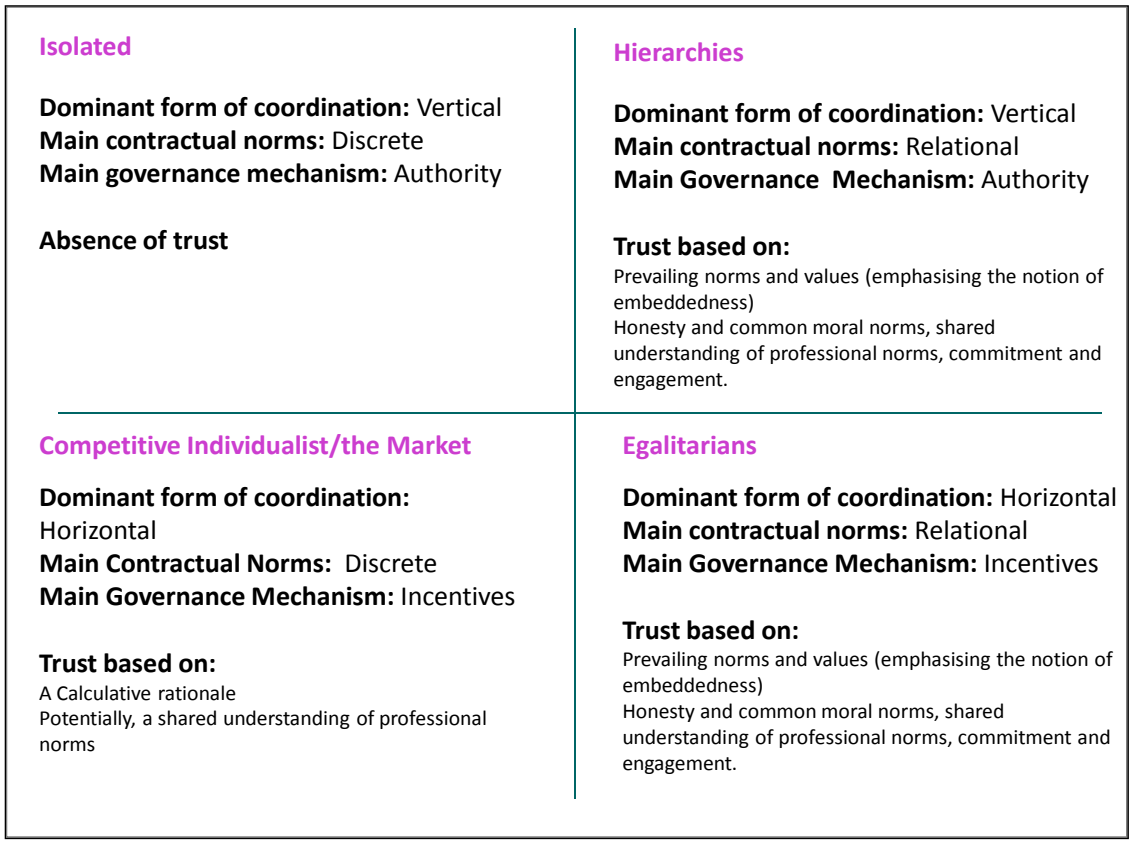


Figure 3*:* The diversity of contractual arrangements from the Grid Group Model perspective

To a great extent, the model visualises partnership,. Partnership is mapped as a specific governance scheme, a process along the Group Dimension, which develops relationships, joint action and a high level of trust. The Group process lands in the realm of *Hierarchies* and *Egalitarians.* Both are similar in terms of Group but keep diverging according to the level of vertical – hierarchical, integration (see also Wettenhall's definition of PPP, 2003). Subsequently, the Grid-Group model is applied to offer a picture of organizational contexts but also constitutes a device for approaching distinctive mindsets and cultural attitudes to risks. In the realm of Low Group, boundaries are loose and actions are primarily defined by networks of relations and therefore respond to constraints or enablers, adopting risk-taking or risk-averse attitudes. Conversely, in a High Group environment, actions are subject to group dynamics and the nature of the constraints is rather moral, implying a high-risk consciousness. High Group refers to the strength of social group and their boundaries (Smith and Riley, 2009) but might also refer to the construction of the project boundaries in organizational terms. It is possible to consider the left

hand of the quadrant as a network of actors, which is flexible and does not lineate the project boundaries, in contrast in the right hand of the quadrant an organization, a project, with a clear set of actors might have emerged for joint action.

3.3.2 A Word on Hierarchies

There is a need to discuss the term *Hierarchies*. Hierarchies represent a specific social and organizational form in Douglas sense. It is more than a structural phenomenon. Hence a brief discussion on Hierarchies is necessary in order to help characterising the three other cultures empirically*;* namely the *Isolates, Individualist and Egalitarians*. Again, the Grid-Group model is relativist: if one organization is defined it becomes possible to define the others. In the literature, Hierarchies are commonly associated with bureaucracies and traditional organizational charts that would lead to a sort of spiritless organization linked to the adopted divisions of labour (Morgan, 2006). In the same vein, Cameron and Quinn (2006) view Hierarchies as obsessed by internal maintenance, stability and control. Yet, these authors give too much importance to the cultural aspects of Hierarchies and downplay the structural ones. Indeed, authors interested in structures, cooperation and coordination draw on the TCE to speak about Hierarchies in opposition to the Market and account for what is in between as hybrid. A prominent author like Chandler (1977, 1990) refers to Hierarchies as a firm that emerges from the need to produce more efficiently and reach economies of scale. Sabel (1997) considers they solve problems of coordination that cannot be resolved within the Market. Yet this organization is not well understood in terms of performing complex tasks (Jaques, 1991). Social processes, including informal hierarchical processes help organizing activities. Norms and processes get embedded in addition to the designed structure of coordination. The notion of embeddedness is interesting because it foresees the fact that hierarchies as organizations, in practice, solve complex problem. This occurs in relation to other non-hierarchical influences as well as hierarchy *per se*. Hierarchies therefore combine different modes of coordination to reach goals, even if they operate within Markets or Networks (Baroncelli and Froehlicher, 1997; Assens and Baroncelli, 2004). Organizations are rarely singular cultural entities. Hierarchies are high grid, which means that in collaborative settings they will try to organize the internal relationship. They are also high group, hence a certain amount of group consciousness that would manifest by adhering to a common goal, for instance. Hierarchies love order (Douglas, 2003) yet this would not necessarily

mean control, bureaucracy and deshumanisation. Instead, this love of order manifests in the attitude towards risks, as previously profiled, and perhaps, as suggested by the contract literature through organizing vertically, infusing authority and approaching interaction from a relational approach. Indeed, from the cultural perspective Hierarchies could raise the positive feeling that *everything is at the right place; that is in order*. Such departure point would differ from *Egalitarians*, *Individualist* and *Isolates*.

3.3.3 The Grid-Group model as a Premise for the Dynamics of Governance

Assuming that the world of URIP is a terrain where social forms – organizations and culture sustain each other leads to view URIPs' governance as controlled by contradicting institutions and their subsequent cultures. The previous part provided a static picture, now it is about accounting for what is likely to happen in the project setting, that is change and action. To this regard, there is a need to recall the assumption that transformed the model, Grid-Group into a Theory: conflicts are endemic because in reality, the collaboration comprises the four quadrants. Subsequently, the model permits to introduce a Research Premise, or an assumption on the governance process of URIP, emphasizing the natural unstable character of any arrangement due to conflicts and tensions raised by divergent institutions. This Premise is spelled out as follows:

- While cooperation is elicited it is likely to encounter veto due to diversities of views, practices and preoccupations. Concurrently, such initiatives also offer opportunities for gaining legitimacy and control over the project process. Under such circumstances, mastering conditions for governance might become key to actors' strategy, regardless of specific project outcomes.
- Regarding issues related to the economic and financial interests of the projects, the welfare of the citizens or environmental concerns might be presented as risks, that are potential threats or lucky occasions that will define the scope of the project. Dealing with such risks might require changes that are selecting actors, partnering with some and excluding others. In other words, coordination calls for change and partnership would constitute particular governance schemes.

- Finally, while collaboration is implemented it might require the use of power and therefore remain naturally unstable, and subject to change.

To put it differently, this means that whether collaboration for the development of URIP is desirable, it is not necessarily implementable due to conspicuous and inherent conflicts;

Coupling the Premise and the organizational typologies, the Model consists of an interpretative framework to approach how the project develops. It refers to four cosmologies, or thought worlds, cultures whereby favoured organizing styles are maintained and changed via discursive sensemaking. In this respect, the group dimension offers an avenue to show how partnerships are discursively created through language and discourses. There is opportunity to map the dynamics in the model as most organizations or groups represent arrangements that a) comprise a primary cultural position and, certainly, secondary ones that are in tension and balancing according to the risks and institutional power in play, and b) iteratively renegotiate their primary cultural position through *events* and changes in structure and processes. Douglas clearly stipulates that change is the norm. Thus, while the model is naturally inviting the researcher to adopt an anthropological approach faithful to the structuralist tradition – that is discovering the dimensions that would help define organizational attributes in contrast with each other – considering ever changing practices as a matter of fact does not only lead to account for sustained patterns of interaction but also for clashes and discontinuity. In a sense, this means that the researcher might avoid the tedious task of categorising the four organizations, which requires a lengthy fieldwork and period of immersion (the ethnographic and anthropological traditional methods), to look at how the boundaries between the four cultures emerge as change occurs. This feature leads to the (re)examining of the implications of the model in the light of the inherent conflicts that are likely to characterise any organizational arrangement, regardless of whether the arrangement under scrutiny is a formal organization or the entire society, or the project. Again, this relates to a fundamental principle of the model, which specifies that the four institutions, or cultural organizations, rise in opposition of each other (Douglas, 2003). In other words, organizations and cultures define themselves through interactions and conflicts; *Hierarchies*, for example, can only be conceived in relation to the *Individualists*, *Egalitarians, or Isolated* and so on for each cultural position. In this respect, Douglas is adopting a functionalist perspective (Czarniawska, 1992). The model becomes self-reinforcing. Adopting a broader perspective beyond group

function, institutions adopt different strategies, once the ones they apply traditionally do not serve their goals anymore. Thus, iteratively, institutions are redefining their identity in light of what others are doing. From this perspective, the model can be applied to understand the group dynamics and operations by pointing out the unstable, contentious character at the micro-level, which can build to shift the cultural position within a Grid-Group position or across the matrix 'boundaries'. The micro-focus level for this research is the URIP. In terms of the project, the degree of stability and instability affects project governance and governance also tries to improve stability for projects and in project hierarchies. This is where the model interfaces with Action Net (Czarniawska, 2004, 2008) that would enable tracing these dynamics at the project level, highlighting how governance structure are negotiated within groups to reconstitute social organizations as described by Grid-Group. The next part presents Action Net, its relevance to URIP and introduces a standpoint that will guide the methodology to conduct empirical research.

3.4 Action Net for Micro Processes

3.4.1 Action Net to complement the Grid-Group Model

The application of the Grid-Group model is subject to the definition of an appropriate unit of analysis. The common place to start would be to target the organizational arrangement that delivers URIP in each context; namely Istanbul, Paris and London and to map the internal dynamics of organizations. However, delivering URIP is complex and often relies on temporary project-based organizations, which often depend on a complex organizational and institutional setting (Engwall, 2003) and are subject to transition over the project lifecycle. Subsequently the organizational boundaries are not only illusive but they also need to be explained, how they are constructed over the delivery process as part of the actions and processes that permit to perform collective action and allow the project to unfold. Again,

Organizations are ephemeral but *organizing* lasts

To reflect such standpoint, a network of action that goes far beyond pre-conceived formal organizational boundaries to reflect on the complex setting of URIP delivery is applied. To give an overview, this network could spread over public and private organizations to encompass the

whole project stakeholders, involving politicians, civil servant, and planning authorities as well as the contractors, builders, developers and local resident association. In this respect, a specific methodological tool defined as Action Net (Czarniawska, (2004, 2008) is applied. Drawing on Weick (1969) who, given the changing character of organizations and their environment, views organizations as *"interlocked behaviours that are embedded in conditionally related processes"*(1969:2), Czarniawska introduces the idea of Action Nets to grasp organizations from a constructivist perspective. Action Nets consist of giving prominence to organizing processes rather than organizational structure when accounting for organizations, in this case the project organization or setting. They comprise a set of practices, or collective actions connected to each other, so that institutions could possibly emerge. Therefore, institutions start from actions to constitute repeated patterns that would reflect on the *"taken for granted"* and would elicit normative explanations and vindications on what is right or wrong; appropriate or not (Czarniawska, 2008). Indeed, Czarniawska (2008) operates a subtle distinction between organization, referring to organizing *acts,* which can be a diverse set of practices, and an Organization, which relates to common formal arrangements. To the extent that it brings the socially constructed character of organizational practices to the fore, the Action Net approach meets with Douglas work, the Grid Group model, which acknowledges the plurality of social context to explore seemingly divergent or similar organizational practices. To this regard, there is a need to recall that:

> *"The Grid-Group Model starts with recognising the exigencies of organization not with examining ideologies, world views or moral norms. Problems of coordination call for solidarity and cooperation, which can be secured from members of a community either by coercive force, by individual incentives, or because of the value in the supporting culture […] The level of organization and the emotional and cognitive commitment combine to produce solidarity and cooperation" (Douglas, 2003: 1349, emphasis mine)*

In the prospect to conduct an empirical investigation, reconstituting Actions Nets (see Lindberg and Czarniawska, 2006) permits the discovery of the organizational processes that would reveal the cultural context of actions. Action Net constitutes a method that would enable exploring how organizing acts are connected in order to map where ways of organizing are diverging over the

different phases of projects. While Grid-Group represents an enlightening device on organizational governance, Action Net will help informing it on the basis of what is happening on the *URIP-ground*. Projects as groups/communities (Douglas, 2005) or as coalitions (Winch, 2001) are temporary multi-organizations (Cherns and Bryant, 1984). They are created as institutional actors to undertake the project and together, with the project, are inherently unstable in formation. Indeed, instabilities over projects' lifecycle are evident, and manifest as adversity (e.g. Winch, 2002). Similarly, Action Net as a method for inductive analysis presumes that the project is not yet conceptualised and is not configured on the ground as a stabilised entity, but rather as an on-going construction whose boundaries, procedures and meanings are constantly (re)defined through organizing acts. Also, actors and organizations emerge through this process, with an emphasis on actions that are conventionally tied together (Czarniawska, 2004), although in the project context organizations are 'imposed' through market and associated legal mechanisms as entities for governance. In short, the opportunity to use the Grid-Group and Action Net together is to map the diversity of norms and organizational processes at work in a project context. Yet, in order to explore the strengths of the Grid-Group Model and Action Net, which are mapping change, there is a need to acknowledge what the "making" of an URIP entails. To this regard, a common way to describe the three phases that commonly characterise URIP delivery is to conceive them as successive actions related to planning, implementation and operation. This is described in the next part.

3.4.2 Action Net to Make Sense of URIPs' processes

The actions and organizing processes involved in URIP can be outlined by the following activities and subsequent practices, in seemingly chronological order – see table 3:

Table 3: Actions related to the different phases of the project

Project Stage	Actions
Planning	Entails all activities from conception to commitment; this period is led by "planners" and relates to the feasibility of the project: • Identifying the Project, • Assessing its suitability • Appraising the Business needs

	• Appraising the Option. • Defining the Project • Developing the Project • Selecting the design and the procurement type of the project. • Developing the Project Team.
Implementation	Comprises all activities from commitment to opening and hand-over of assets to the owner, led by engineers and includes the finance and procurement conditions: • Financing • Allocating money • The bidding process: bidders evaluation, bidders selection, negotiation, contract awards • Designing • Construction and building • Initial operating of the system
Operation	Refers to all activities from the first day of operation onwards, led by operators • Operating • Monitoring • Maintaining

Source: Allport (2007); Ricaurte *et al* (2008)

Still, activities in chronological order imply the limitation of listing, which is conceiving the URIP governance as successive and independent phases; that is an inherent shortcoming when it comes to tell the story of how URIPs unfold. There are two main reasons to be critical to chronologies regarding URIP processes:

1) ***The different phases of URIP are interdependent***. They rely on each other to generate specific actions. In practices, Planning, Implementing, and Operating are not only interlocking and overlapping in time but also impacting on each other. For instance, the last step; namely the commissioning and the operation of the project heavily rely on planning and construction issues – such as the rationale underlying the contracting strategy for design. Engineers, Architects and Constructors have to link *what* to construct – concept and detailed design, with *how* to construct it at a later production stage. Reflection upon performance to improve subsequent stages looks back in dependent ways. This is a corporate, project and personal experience. Therefore there is an opportunity to question how the subsequent relationships are governed to give rise to

specific practices, what are the underpinning norms and values that drive the sense-making process that connect an action to another.

2) ***The developing nature of URIP***. The on-going processes implied are challenging the notion of linearity; that is also why the Action Net perspective is promising, because it accounts for processes under construction. This means URIP story does not only depend on a succession of facts and *events* but on a process that requires going back and forward in time to highlight different frame of interpretation, conceptually and in practice. Time lines and chronological orders do not necessarily tell the whole story about Action Net processes. Timelines do not necessarily reflect beliefs, norms, actions that inform chronological chains of *events* and how actors subsequently reflect on such chains and significant *events* to make sense from the different organizational perspectives. Again, reflexivity and sense-making are crucial to understand what underpin practices and how a specific governance scheme emerges over a multiplicity of alternative.

These two points suggest actors might have different views due to divergent interests and preoccupations. Specific *events* could favour the expression of such conflicting rationales, and also because the simple act of organizing requires actors to adopt approaches that may vary from the imperatives of artefact in their organization and therefore leads to governance change. This means that the emphasis is put on actions and what has to be done to allow the project to go forward, leading to organizing. What matters is how the organizational acts presented in table 3 are connected by actors to justify and give relevance to any specific governance arrangement; it goes far beyond the chronological order. To this regard, the Grid-Group model constitutes a sense making device that permits to categorise the emerging organizing acts within Action Net into four cultural organizations, acknowledging the context and conditions under which organizing proceeds. The model represents an opportunity to anchor practices in the wider network of relationships to account for how they concur with common ways of doing things. This happens by linking risks, interests, preoccupations to existing arrangements that permits to perform actions, or clashes, reflecting on the *polyphony* of organization. It introduces the potential change that would effectively allow the project to unfold by accounting for interests and preoccupations that were not included in initial arrangements. Both, Action Net and the

Grid-Group model inform and thus help explaining how the project develops through successive phases. Still, there is a need to recollect conflicting or rival practices; which is the diversity of ways of doing things and organizing for the project.

Both, the interdependencies between the different phases of URIP and its developing, evolving character bring the analysis back to questioning a crucial aspect of Action Net: the connection between the chain of *events*, how they are conventionally tied up over the organizing processes that institutions could possibly emerge. This will be recollected through narratives of project members. Indeed, this is likely to relate to interpretive frames, the ways *people* as groups of individuals make sense of their experience to make their organizational practices sustainable. To this regard there is a need to acknowledge the time bound character of practices; people conduct tasks in linear processes. Yet, what is interesting here is how they make sense of such processes, how they interpret the chronology and succession of action to infer meaning and implications in terms of governance; namely why it has been done in this way, why a specific action rather than another way was required at that particular moment and how it came to be done by a specific set of actors rather than another. Drawing on Ricoeur (1984), Pedersen (2009) argues that time is a concept that requires interpretation; she introduces the notion of time shadows which show the relations between past, present and future *events*, opening an avenue for different possibilities, acknowledging the difference between chronological and narrative times. Again times, chronologies are socially constructed and could be seen as the result of narratives, not a starting point. Therefore the appreciation of time and chronologies might vary from actors to actors. Such statement concurs with Douglas's approach on history, arguing some past *events* are shadowed while institutions highlight others. Following this rationale, the diversity of social organizations, as presented in the Grid-Group model, would also let us imagine a different notion of time and therefore different connections between *events* over time. From the same vein, Vesa and Franck (2013) introduce the notion of temporality; how a person, belonging to a community, experiences the past and the future in the present. It contrasts with the notion of time, which is linear and refers to the physical world measured through clocks. This approach permits to study the engagement of people in micro-processes.

What is solicited is the reflective attitude of interviewed project members through narration that permits informing how actions connect and are tied up together in a meaningful way. It is from such testimony that lessons are drawn and knowledge on the governance process emerges. The Grid-Group model and Cultural Theory thus act as a frame for analysing such testimonies, emphasising the resilience of institutions and common, tacit ways of doing things, which form distinct cultures in a collaborative setting. Such acknowledgement of diverse rationales enables retrofitting the *reality* of organization and the ambiguity and complexity that collaboration involves and subsequent challenges faced in governance.

This is where the notion of *polyphony* comes into play. It comes into play when the voices of project members, their interpretation of what happened over the URIP process are to be taken into consideration. *Polyphony* refers to the many voices that are the variety of discourses and narratives comprised in organizations (Kornberger *et al*, 2006 drawing on Hazen 1993). *Polyphony* is an acknowledgement of the different perspectives that characterise any organizing process. Coupled with Lyotard's concept of the *different*, *polyphony* encompasses the divergent rationalities enacted through discourses, the subsequent irreconcilable interests and practices (Arnaboldi and Lapsey, 2010:397) allowing for discrepancies in organizational narratives. To this extent, the idea of *polyphony* accounts for different interpretations whereby some *events* are shadowed while others are highlighted, but still retaining coherence in discourses (Weick, 1995). It feeds into sense-making. This brings to the fore the conditions for translation and communications between seemingly antagonistic representations in the prospect of achieving, seemingly, common goal. To this regard, Kornberger *et al*, (2006) borrowed from Kafka the illuminating metaphor of the Babel Tower construction. In their endeavour and despite common initial plans, the protagonists never managed to get the Tower built as their experiences developed, they adopted reflexive attitudes that led them to reconsider what they were doing, their practices, in divergent ways without allowing them to find common grounds with each other again. The construction of the Babel Tower continued in this social way, under a seemingly disorganized order, endlessly reconstructing itself. Here, there is a parallel to be drawn with Douglas cultural approach and the Grid-Group model. The foundations of the model argue for the *polyphony* of the *society* due to the coexistence of different forms of organizations and their respective cultural standpoints. Yet, when the cultures have to collaborate, engage into collective

actions and joint endeavour, tensions are likely to emerge between their ways of doing things and to manifest discursively by alluding to risks; that could be viewed as the different imperatives of the project. To this regard, the challenge is to structure an URIP story that would make explicit such *polyphony* in Grid-Group terms.

3.5 Narratives as Organizing Processes

Discourses, narratives and stories could be seen as *" constituting, mapping, encouraging, managing, upsetting, preventing or inviting change, they are an ever present feature of patterns of becoming, always evocative of actual futures and possible worlds"* (Brown *et al*, 2009: 325) And as *"vital element of culture, creating and supporting virtually any kind of reality that social actors embrace"* (Gabriel, 2009: 329) As depicted in figure 4 narratives are at the core of the sense-making process which permits 1) to emphasise the *polyphony*, 2) to trace organizational change and, 3) to identify the formation of the four cultural entities: *Hierarchies, Individualist, Egalitarians and Isolated*. The Action Net approach, by giving prominence to meaningful turning points regarding governance, also offers an avenue for reconstituting the *ideal* state of institutional stability pictured in Grid-Group. This by taking into account the crucial *events* that would permit tracing concurrent organizing patterns for URIP delivery. Yet, this would have been made possible by enlightening the *polyphony* of organization first. To this extent, the use of this combination – Grid-Group Model, Action Net, Polyphony – coincides with an analysis that pays attention to discourses, narratives and stories, in order to explore potential leverage for change, or how change is *enacted* (Weick, 1979, 1995)

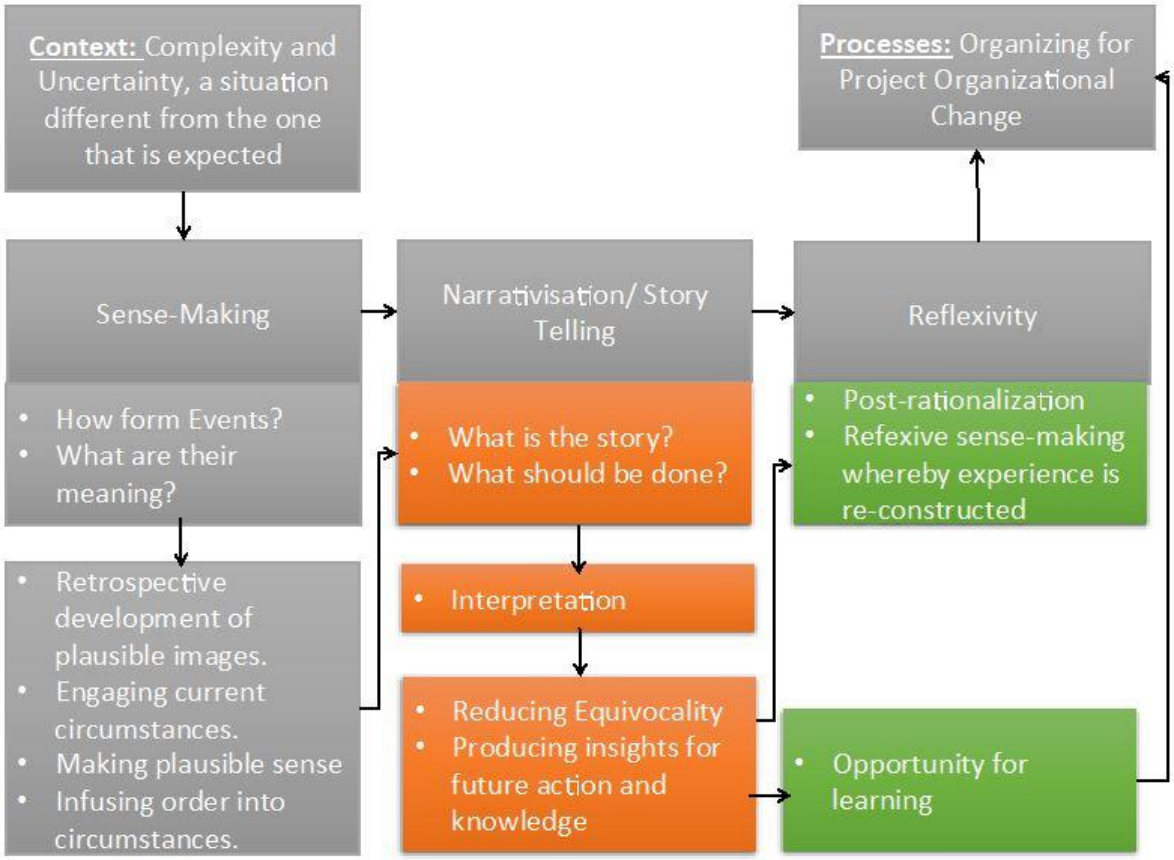


Figure 4: Interpretative framework underpinning project processes

Departing from narratives and concurrent stories that let us foresee change and interpret change that has occurred, the four cultural identities of the Grid-Group model should emerge and should become identifiable. However, this is only the cultural part of the model, which is dealt with; the model also accounts for the organizational aspect of social organizations. Theoretically, this means that when the narratives and discourses meet with power it should involve organization and organizing, the idea being to stabilise the project. To conceive the Grid-Group model, as an ideal state of stability, the previous work on contracts offers constructs to identify the *different* governing practices that pervade URIPs and thus a broader understanding of *governance*. Consequently, there is a possibility to approach the governance of URIP by accounting for a diverse combination of governance mechanisms (see figure 3). These forms of organization will

be sustained by specific standpoints regarding risks, and narratives of *what has to be done*, forming the four cultural cosmologies of the Grid-Group model.

3.6 The Conceptual Framework Contribution regarding Change and Power

The present conceptual framework links together different conceptual tools: the literature on contracts and governance, the Grid-Group Model and Action Net. The literature on contracts, by drawing on TCE, offers a partial picture of governance. It accounts only for Transaction Cost minimization for the sake of efficiency. Yet, it is insufficient to explain coordination and collaboration, the research foresees that transaction cost minimisation is one reason among others to model the emergence of different forms of governance, which heavily relies on the context or the "atmosphere". To this regard, the remit of Macauley and Macneil is more promising: it argues for the need to take into consideration the whole nexus of relationships. However, both theories are ill-equipped to reflect on something crucial when studying projects: change and power. Douglas model, the Grid-Group, permits, 1) to deal with relationships, and 2) to show that different relationships will be prominent according to power considerations over the different phases of the project. It is expected to show the emergence of different cultural and social orders over the project process and until its end. Still, the Grid-Group model is a macro-picture of the social reality; it is the end not the starting point. To make it operational, Action Net becomes very useful because at the micro level it allows the researcher to trace, through narratives and interpretation, the different actions performed over the project that would give the impetus for change and making sense of the emergence of different orders.

This also has implication from the theoretical perspective. Both the theories on contracts and the Grid-Group Model are often viewed as static, unable to account for change. Even more, the Grid-Group model is commonly and incorrectly criticized as offering a deterministic model of society where social institutions determine social actions. The model is applied in general to map controversies surrounding governance issues, tracing them to the four cultural orders. But, it has not yet been applied in a context of constant change, while the model itself is deemed to explain it. Thus, combining it with Action Net sheds an original light on the Grid-Group Model. Action Net puts action and organizing at the core of the research process, here the aim is not to

determine how social institutions frame actions, actions are the starting point. However used together, Action Net and the Grid Group model retrofit the existence of social organizations into analysis and demonstrate how they are constructed, in action, rather than given. Going further, Action Net, to a great extent draws on Latour's standpoint and his Actor Network Theory (ANT). As ANT, Action Net is interested in assemblage, associations and all form of translation in a context of *polyphony*, showing how power emerges and is moulded through multiple hands, actors who, through actions make things happen and would allow a project to come to an end (Latour, 1986). While Latour approach, to some extent, denies the existence of "the social" and social orders (Latour, 2005) this research proves that still such social orders, as depicted by Douglas, are useful to make sense of change and power, acknowledging their *ex-post* character, that is a consequence rather than a cause of action. In this sense, the combination between contractual governance, the Grid-Group model, and Action Net entails a powerful explanatory and exploratory potential to make sense of projects, a setting where change is the norm rather than the exception, where coordination is an objective and should be explained.

In summary,

this chapter introduced the conceptual framework that would help conducting the empirical investigation on project governance; namely how actors coordinate themselves at different stage of the project to allow the project to go forward. It retrofits the context and complexity into analysis by relying on social organizations and cultures. It introduces a specific focus on action and practices, via Action Net, to highlight such social organizations and how they influence project governance. In addition, drawing on the contract theory this chapter provide operational construct to approach a specific governance form; namely partnership. The following chapter will deal with the methods used to inform such constructs with empirical evidence. It will discuss the boundaries of the case studies and the use of narratives to reconstitute projects' Action Net, assuming that narratives represent a reflection of organizational practices. It will also explain how the case can be mapped in the Grid-Group model to reflect the conditions of governance that characterise URIP in different contexts.

4 Research Methodology

This chapter explains the process that links the conceptual framework – the Grid-Group model and Action Net – to the empirical data in order to pursue the aims and objectives of the research: 1) shedding an original perspective on the delivery process of URIP and provide an understanding of project governance and context; 2) provide a sound empirical basis to make-sense of and manage URIP processes in the future by focussing on how cultural conditions emerge and make a contribution. A constructivist paradigm is applied as a way to reflect on the epistemological and ontological issues of this research. It then addresses the research methods; namely multiple case studies, Action Net and Narratives. This chapter explains how the research was designed and is structured in three parts: first a discussion on constructivism, second the research design, third a part on the treatment of the data and a personal reflection on the whole research process, including a note on ethics. Placing this research in the interpretive/constructivist paradigm, the use of "I" is allowed throughout this chapter.

4.1 Towards a Constructivist Paradigm

Integrating the Grid-Group model and Action Net within a Constructivist Paradigm allows making-sense of interviews and narratives. This section reflects on this research choice and its implications in epistemological and ontological terms. Briefly, epistemology concerns the nature of the knowledge that researchers produce, and ontology refers to the conceptualization of the phenomenon under study. The research moved towards a constructivist approach over the research period, drawing on those who adopt Bergman and Luckmann's approach (1966) to put into perspective the Research knowledge with the researcher (*I)* and the project-members. Knowledge rests on an understanding of reality that *falls somewhere in the middle between that of the man in the street and that of the philosophe* (Berger and Luckmann, 1966:14). This is an approach that reckons that the research (and the knowledge it provides) could be considered as socially constructed in practice and through research analysis, hence a need to question the status of the subsequent statement and claims. This is a double layer of interpretation, which is integrated through the researcher – (*my*) sense-making process. The next sections explain how the Grid-Group model and Action Net lend themselves to a Constructivist paradigm for URIP

and PPP research. It draws extensively on a discussion introduced by Westwood and Clegg (2003) on the use of theories within a constructivist paradigm.

4.1.1 The Grid-Group Model from a Constructivist Tradition

The functionalist aspect of the Grid-Group model is accounted by referring to Durkheim's work (1938) and his positivist way to approach social phenomena. Yet, the ethnographic Grid-Group model 1) departs from the point that people's mindset – culture, is shaped by the structure of the organizations where they operate and 2) demonstrates how culture is negotiated to embed the emergent changes of social construction. Put this way, there is a causality relationship at work: a certain order, as a distinct form of organization is legitimated (and to some degree *caused*) by a certain mindset. This mindset put to the front some risks and disregards others. Such ordering is latent and intuitively developed, yet it distributes power among project members. This explains well resiliencies and emphasizes path dependencies because it provides an explanation on the way culture maintains organization and *vice versa*. From this perspective the Grid-Group model could be considered as a theory, but there is a need to precise how this theory relates to the URIP field in this present research. For this research the relationship between Theory and the field could be described as follow:

> *"Theories are useful fictions that allow patterns to be discerned in data and provide explanation and prediction without having to presume that the theoretically postulated entities really exist. Theories are socially constructed conjectures which theorists attempt to validate through empirical research. Progress in science is said to occur through building theories and then systematically seeking to refute them by empirically invalidating them and replacing them with theories that seem to fit the empirical observations better."* (Westwood and Clegg, 2003:115)

In this specific research on the governance process of URIP, this quote suggests that validating the Grid-Group model could consist of an end in itself because it contributes to characterizing collaboration and shedding an original perspective on URIP processes. However, the Grid-Group model, as traditionally represented is a static snapshot of collaboration and does not fully offer an understanding of change, which remains a crucial part of URIP and Projects' processes. Yet, the

Grid Group model, as it transformed into Cultural Theory, emphasizes the tensions likely to arise from the Grid and Group dimensions. These tensions manifest in conflicts and generate dynamics; namely change. To highlight change Action-Net and Narratives are introduced and treated as both, part of the theory (see the Conceptual Chapter) and part of the method that comply with the constructivist tradition. In other words, researching change argues for a constructivist/interpretive approach and therefore raises (Donaldson, 2003) issue: *is it possible to generalize the research findings or should they remain an understanding of URIP processes?* To rely to this question the following clarifies the use of the Grid-Group model in this research – *what it is good at when it is applied to the governance process of URIP*. This requires 1) reflecting on the nature of the practical recommendations of the research. 2) Discussing the nature of the knowledge it produces through a discussion on generalization and 3) bringing to the fore a discussion on rigor and objectivity within the Constructivist/Interpretive tradition.

4.1.2 Constructivist Research: Does Interpretation lead to Recommendations?

Constructivism accounts for both structures and agency and how they are mutually constituted to research both continuity and change (Klotz and Lynch, 2007). The Grid-Group Model presents different facets. The ethnological one focuses on the context of action to derive meaning (Douglas, 2003). To account for such a context, the Grid-Group model represents structures as *Hierarchies, Individualist, Egalitarian and Isolated.* In this sense, it can be viewed – as a Grand Theory by Harper (2011) to organize complex elements and as a sense-making device to guide research but also management or organizing. Again, the anthropological root of the model argues for processes and emphasizes dynamics and tensions. Going even further, Action Net, by emphasizing action deals explicitly with agency. From this point, it could be possible to adopt Donaldson standpoint (2003) that views constructivism as a mean to articulate organizational change through micro-processes but affirms that the overall theoretical framework for organizational study should remain positivist in nature. This would mean that the process categorized via the Grid-Group model should aim at generalizing and uncovering the hidden orders of collaboration while Action Net would provide descriptions. Such an approach is perfectly viable for the present research, yet it misses the opportunities constructivism offers which is examining how structures emerge in URIPs as *Hierarchies, Egalitarians, Individualist*

or *Isolated* through different actions. Still, The Grid-Group categories offer the potential to generalize to then enable an intuitive use among practitioners, yet Czarniawska (2003) guards against such practical use:

> *"The ghost of the dichotomy of voluntarism – determinism is never put to rest, although the volume of studies on organization change should by now convincingly demonstrate the intentional action never leads to the intended results simply because there is always a lot of intentional action directed at different aims in each time and place. Institutionalization, like power, is a post factum description of the resultant of all those effort combined with the random events that accompanied them."* (Czarniawska, 2003:134 emphasis mine)

This standpoint concurs with Hacking (1999) who questions classifications to claim that constructivism departs from a critical approach, which means that the four cultural organizations should not be considered as pre-given and could be (re)-constructed differently. This put an emphasis on the kind of interactions that lead to (conceptual) constructs. From such standpoint, *Hierarchies, Individualist, Egalitarians and Isolated* could only be seen as a convenient way to see the world of collaboration for URIP without assuming that this was an overt determining of the underlying order of things. Beyond the fit with the research question, *how do cultures and subsequent forms of organizations shape the project governance through actions*? The constructivist approach impacts the nature of the recommendations that the research offers. Grid-Group links mindsets, risks and uncertainty, to structures and organizations. From this perspective, the relevance of the model is established through the empirical data, potentially leading to propositions and recommendations such as, for instance: *designing organizations in a certain way changes the approach to risk and uncertainty*. This contains a recommendation. Yet, this research also emphasizes the *polyphony* of URIPs and collaboration and to this extent change is acknowledged as expressing the difficulties in designing an organization as a stable entity. In this sense, the constructivist approach recognizes diversity while it can also help manage and lead change processes. Cultures are neither fixed nor observable variables, which goes beyond the strict functionalist and positivist perspectives. This introduces considerations on the possibility to generalize and draw recommendations for practices. This leads to question the middle ground between deduction and induction in research.

4.1.2.1 Generalizing

This section deals with the middle ground between theoretical deduction – induced by the Grid-Group Model, and induction from the field – Action Net, which introduces sense making and reflexivity. As Hawkesworth (2006) frames it, theoretical deduction concerns whether the present research could highlight causal relationships and generate facts, hypothesis, laws and theories, theories point out the "factors" or variables that are interesting (Adcock, 2006). In this research the variables are rather patterns of conditions that enmesh the different governance mechanisms; namely the constructs of trust, authority and incentives developed in the contractual literature. To this extent, and to this extent only, the reality of collaboration is carved into conceptual variables in order to construct knowledge. Yet, discussions are needed, discussions regarding whether such conceptualization leads to propositions in terms of causal relationships between those variables, the constructs of trust, authority and incentives. The propositions would lead to generalization if researchers can observe and establish that the relationships recur over time and space. In contrast, the constructivist tradition, which draws on interpretation, is naturally skeptical regarding "factors" and does not rely on propositions in terms of causal relationships to generate knowledge. Constructivism gives relevance to induction as it is about grasping meaning and action together, as a complex whole, towards understanding actor perspectives but also making clear how these are constructed through the research process. To sum up, The Grid-Group model offers a theory, an elegant construct applied to governance while informed by the contractual literature. Yet it is also able to account for conflicts and change through culture, organization and risks. Combined with the Action Net perspective, the Grid-Group Model allows the researcher to make sense of the context where URIPs take place by relying on actors' inter-subjectivity. Then, the question is to appreciate whether this can lead to general recommendations and to negotiate a contribution to the positivist quest without denying the interpretive elements of the research.

This question on generalization and prescription is posed because the research relies on three URIP processes that are systematically mapped on the Grid-Group model. While the primary aim of this research is to offer a perspective of understanding, it leads to ask whether the findings can

generate general propositions for further research and recommendations for practices. This is relevant as the Grid-Group model has already been applied as a predicate of conflicts and clashes in practice according to the attributes of social organizations, (see Rayner and Gross, 1985 and Kahan, & Braman, 2003). However, this is slightly beyond the immediate scope of this research, which relates to making sense of the complexity of URIP and whether the discerned patterns replicate. The contribution of combining the Grid-Group Model and Action Net lies in showing that the sense made by practitioners can be read through the Grid-Group Model, making the implicit explicit. This might not lead to prescriptions and positivist knowledge *per se* but it permits to raise awareness on culture and the subsequent dynamics at work in URIPs and projects to guide recommendations for practice – the identification of some general trends that are subject to other forces rather than immutable laws. Adopting such a position moves towards constructivism that implies both acknowledgement of the particular and some generalizations based on sense making on the ground and in the research. This requires introducing a discussion on rigor and objectivity in research; this discussion is particularly relevant in light of narratives.

4.1.2.2 Rigor and Objectivity

The notion of rigor and objectivity in research is to be considered in light of the debate on what constitutes science and the process that leads to scientific facts and modes of knowing as discussed above. Constructivist/Interpretative research implies a specific position on these topics. When it comes to rigor Yanow (2006) emphasizes the difficulties of applying rigid research protocol when studying organizations because they require the pre-definition of "factors", which is not always possible in a complex world. The Grid-Group model helps to make sense of the complex multi-organizational governance processes of URIPs. The Grid-Group model acts as a guide to analyse organizational structuring and processes once Action Net dealt with the ambiguity of the fieldwork by drilling down to a finer grain of analysis. This research did not rely on the identification of variables or "factors" but on the inductive and iterative identification of key actors to interview within the three selected URIPs. Actors norms and perceptions are part of the object of research and thus subjective elements are recognized as influential and sometimes decisive in sense making to inform future actions at each stage of the project lifecycles. The actions taken represent outcomes at any stage, which build into narratives or

stories in the iterative sense making of the actors. Then, the way to appreciate the quality of this research in terms of rigor is moving from the process to the outcome of the research: an argument, the stories, which are so well grounded, relevant, and convincing that it appeals to the power of intellect and cognitive reasoning (Yanow, 2006). As a consequence, constructivism, due to its interpretive nature, put reflexivity at the front, that is recognizing deduction and induction working together in a two-way causality, and the subjective character of the research. Though Grid-Group is coined as the theory with deductive elements, the research outcome remains a story co-constructed by actors and research interpretation that is enhanced through induction using Action Net.

The common issues related to Constructivist/Interpretive researches have been discussed; namely generalization and rigor and objectivity. To conclude, integrating the Grid-Group Model and other concepts developed in the Conceptual Chapter would enable *me* to derive three stories that would support both, future research and practical recommendations. The next part presents the methods of the research, how the URIP field is approached, which data are collected, and how they are analyzed.

4.2 Research Methods

The previous part integrates the conceptual aspect of this research into a constructivist paradigm. Part of it consists in discussing potential for generalization as the overarching research method consists of three cases of URIP in London, Paris and Istanbul, which have been interpreted in the same manner, the theory guided the interpretative process. To this regard, Action Net and Narratives are part of the theory, as introduced in the conceptual chapter. The following deals on the way they are implemented to make sense of the data, as research methods. In a word, interviews are considered as narratives; Action Net helps making sense of the narratives in order to provide the plot or structure of the story. Using the plot, it become possible to map actors and relationships on the Grid-Group Model. Table 4 outlines the Research Method and the following parts detail the conditions for using these Methods

Table 3: Research Methods'Outline

Research Methods	Case studies
Interviews	11 Interviews for Taksim 4.Levent 11 Interviews for the JLE, 8 Interviews for Meteor.
Methods	Narratives/Stories Action Net Grid-Group Model
Analysis	Interpretation of the data considered as narratives in order to reconstruct three stories of URIPs

4.2.1 Multiple Case studies

The aim of the research on organizing and governing URIP delivery is to produce three stories out of case studies that account for the complexity of real life and present themselves as "*the most fundamental form of making sense of experience*" (Flyvbjerg, 2006: 240). Case studies are vehicles for human learning as they provide context-dependent knowledge and experience (Flyvbjerg, 2006). Drawing on Yin (2009), conducting case study "*arises out of the desire to understand complex social phenomena"* (Yin, 2009:4) As Yin (2009) notices, case studies are particularly appropriate when it is difficult to disentangle the phenomenon under study from the broader context. This is the case in this research, which gives prominence to the diversity of organizations and their rationale to shape an URIP. Drawing on Frenz *et al* (2009), the result of the case studies must be related to the theory to move from the general to the specific: from the theory to URIP. The theory refers to the Grid-Group Model's Premise regarding the character of collaboration, which is:

Whether collaboration for the development of URIP is desirable, it is not necessarily implementable due to conspicuous and inherent conflicts;

- While cooperation is elicited it is likely to encounter veto due to diversities of views, practices and preoccupations. Concurrently, such initiatives also offer opportunities for gaining legitimacy and control over the project process. Under such circumstances,

mastering conditions for governance might become key to actor strategies, regardless of specific project outcomes.

- Regarding issues related to the economic and financial interests of the projects, the welfare of the citizens or environmental concerns might be presented as risks, that are potential threats or opportunities that will define the scope of the project. Dealing with such risks might require changes that are selecting actors, partnering with some and excluding others. In other words, coordination calls for change and partnership would constitute particular governance schemes.
- Finally, while collaboration is implemented it might require the use of power and therefore remain naturally unstable, and subject to change

This constitutes a theoretical lens that needs to be developed in the specific context of projects and URIP. The Unit of Analysis is URIPs as collective actions and the subsequent network of actors they involve. Three case studies have been selected for the purpose of analytical generalization (Yin, 2009), which means generalizing towards replication. This means that the researcher aims at uncovering a significant finding from a case and look whether it replicates in others, taking specific conditions into consideration. This approach coheres with the aim of this research and its constructivist nature: providing a research with a sound empirical basis to further conducting academic research and managing URIP process. The approach adopted for multiple case studies is summarized in Table 5, which presents the cases according to their formal organization in order to research them against the Grid-Group Model and its Premise.

Table 5: Case Studies' Approach

Assumption concerning Internal Dynamics of URIPs	**URIPs**	**URIPs Organizational Structure**
The Grid-Group Model and its Premise	Meteor	Corporate project (a State Organization)

	Taksim 4.Levent	Turnkey Contract (a form of PPP)
	The Jubilee Line Extension	Conventional form of procurement (an organization manages different contractors at different stage of the project
Multiple Case Studies: Analytical Generalization		

The decision to limit the research to three case studies, Taksim 4.Levent, Meteor, the JLE and to conduct them in Istanbul, Paris and London in particular rather relates to the constraints and opportunities of the researcher. There are three reasons.

1) The idea was to explore culture and different ways of doing things. An initial assumption for this research was that it would be possible to associate each city and governance scheme with one of the Grid-Group model's quadrant; an approach which tends to view culture as given or imposed onto governance from the national or societal level. These assumptions were misleading over the course of the research. The empirical investigation proved that there was not a single way to be associated with a specific place. Instead organizations were endlessly reconstructing themselves to allow the project to unfold and culture was negotiated and renegotiated through the organizing process. To this regard the research investigated a process: *how* culture matters for the treatment of uncertainty and risks by being intertwined in ever changing governance practices.
2) In order to gain a fair understanding of URIP processes, there was a need to look at more than a single case. Yet, finding three contemporary projects of this scale in the same city was impossible. URIPs tend to emerge periodically over a decade therefore it was necessary to look at different cities and countries to secure three cases, enriching the comparative potential.
3) The last reason is pragmatic, I am fluent in the three languages, French, Turkish and English and this eased the collection of data and allowed empirical investigation.

The case study design is supplemented by Action Net, which is used as an analytical device or method to approach each URIP as the unit of analysis, namely the collective actions that give rise to a specific network of actors. Accounting for the constructivist and interpretive strand of this research, Action Net is associated with narrative analysis to reflect on actions and outcomes. Subsequently the next two parts develop Action Net and Narrative Analysis.

4.2.2 Action Net

Action Net offers some methodological guidance on the way to analyze organizing processes. Expanding on Czarniawska (2004, 2008), the Action Net Perspective consists of a critical examination of four common focuses in "organization studies" or potential units of analysis for, in this case, URIPs governance processes; namely:

- ***Places***; the Action Net approach focuses on *ways of doing* rather than places, objects or formal organizations which are undermining the process-character of organizing. This makes the macro and micro divide irrelevant, acknowledging that organizing processes move quickly from one place to another. Actually, modern organizing occurs in "*a net of fragmented multiple contexts through kaleidoscopic movement"* (Czarniawska, 2004:786) where organizers move around, and physical presence does not constitute a condition for interactions. This is where project boundaries are challenged, questioning how projects as organizations emerge from loose Action Nets.

- ***People***; individuals and groups are appropriate to reflect on interactions, nature of relationships and subsequent patterns that might be a crucial component of organizing practices. However, this is what does and does not constitute relevant organizing practices that need to be defined while focusing the analysis on some types of people, here key decision-makers. For this reason, the Action Net perspective distinguishes itself from Network or Actor-Network Theories (ANT) (see Latour, 2005); networks emerge from actions and Actors acquire their *actor* status from acting and organizing, not the other way around (Lindberg and Czarniawska, 2006:294). The key personalities of a project organization and subsequent actor network would be one of the possible end-

results of an Action Net; a stabilized entity towards project delivery.

- ***Issues*** refer to who defines what is at stake and at what time (Czarniawska, 2004). Considering the divergent forces underlying issues' definition there is a need for the researcher to account for multiple acts of translation, because over the organizing process issues are transformed. The Action Net approach encourages researchers to pay attention to the different perspectives that characterize the project and whether or not they converge over the project development.

- ***Events*** constitute a more promising standpoint, especially for task-driven project. Events or more specifically "*chains of events* "offer the opportunity to study organizing practices by investigating how actors are connecting series of *events*. This is where observers are likely to notice possible divergent stories, and substance for different sense-making and meaning, demonstrating where institutions are– tying up actions together in a conventional manner, or where they are disturbed, raising conflicts and suggesting change. Therefore, so-called "projects' critical *events*" must have the greatest impact on project governance and where governance can have the greatest effect upon the critical *events* from a cultural perspective. Critical *events* are viewed by practitioners as the conditions for change and opportunities to (re)negotiate the culture.

Subsequently, the Action Net perspective represents an original conception of the unit of analysis, which again, puts organizing at the forefront in so far as the URIP analysis should be conducted under the banner:

Organizations are ephemeral but *Organizing* lasts.

To this regard, the following quote from Czarniawska (2004) about her research in cities management is particularly relevant to the present URIP research; it resumes what studying *organizing for URIP* implies:

> *Particular people might retire or be replaced as a result of the next political coup, but the actions that constitute management will remain; on the other hand, the actions' form and content might change drastically even if the same people remain, as a result of, a*

> *new information technology or a new fashion in big city management. There is no essence that I might reveal in time (Czarniawska, 2004:786)*

People, organizations and forms of actions are changing in time; Action Nets are endlessly (re)-constructing themselves. There is therefore a distinction between studying URIP governance, as *URIP organization processes* that change or persist over time, from a snapshot of an URIP case where it is assumes that the way people think and act accords with the linear chronology of a project. Not only is a particular project defined in time; it is defined in scope. Each is different according to the context. The way URIP is managed is defined by action guided by a scope but draws upon (cultural) influences and experiences that are fed back from other times within and outside the project timeframe and in sequences ordered by the influences rather than the project schedule.

First, focusing on organization processes goes beyond formal organizational boundaries and common places. The *parent organizations* of metros might represent relevant common places *in time* to begin with when conducting research on URIP, since they are the place where an URIP emerges as technical objects and where implementation decisions tend to revolve around. However, the Action Net of delivering URIP extends to actions, which are beyond the boundary of the parent organization but might ease or obstruct the URIP process, involving actors that do not belong exclusively to the URIP organizational field. For example, a metro project implies acquiring lands for the stations or the warehouse, or managing resident relationships over the construction phase. Also, combining the Action Net perspective with the Grid-Group model allows conceiving the governance of URIP as cooperation between different parts of formal organization, with the purpose of performing a joint action "*with parts ranging from the political to the productive and everything in between"* (Czarniawska, 2010: 146). Envisioning the diverse mechanisms – the logic of the market, the contract and relationships as means of cooperation – through which it could be enforced is where the opportunity lies to examine decisions and actions that are tied up to one another and where they clash in order to meet with the project imperatives.

Second, faithful to the spirit of the Douglas model, paying specific attention to *Events* within Action Nets – significant decisions, interventions or turning points in the course of URIPs

processes allows the researcher to question where conflicts of interests, need for actions, and potential for governance change and partnering without the prior task of categorizing ever changing organizing practices prior to their identification. Such a standpoint relates to the specific characteristic of the Grid-Group model, which to a great extent, aims to retrofit change into analysis through the idea of cultural conflicts, clashes between divergent ways of doing things, which are likely to be the common process through which sense is given and order is constructed. The conditions for governance are unstable, they should be linked to risks, what is at stake at the different stages of the project but also the implementation of power to explain how a specific Action Net, that is an arrangement emerges, which comprises actions and ways of doing things and give rise to a specific network of actors.

In other words, such a standpoint assumes that *events* could lead to the emergence of competitive narratives, the *polyphony* that underpin the plurality of governance rationales and practices as depicted by the Grid-Group model. Action Net constitutes a type of sense making. The nature of the account is interpretative (Welch *et al*, 2011, Stake, 1995) in the sense that it provides an understanding of the Action Net of the project through project members' experience of it. Yet, the next step of the investigation was to find a way to trigger such narratives by interviewing.

4.2.3 Interviewing for narratives

Interviews have been selected as the primary modes of data collection because they are a common way to understand people and the world where they live (Kvale, 2007). Interviews are the best way to prompt a narrative: they are "a micro site for the production of narratives" (Czarniawska, 2000). This is the reason why interviewing has been selected as a suitable method for this research project. More specifically, interviews have been conducted because they are means to generate narratives: that is "*legitimate means of analyzing and representing human relations* (Rhodes & Brown; 2005:168) as they constitute the "*means of interpreting and infusing events with meaning*" (Gabriel, 2000 in Rhodes and Brown; 2005:170). Narratives therefore enable interpreting the organizing processes of URIP and uncovering conflicting rationales within the Grid-Group model. When it comes to interviewing for narratives, Czarniawska (2000), argues that it is an appropriate way to reflect on the governance of URIP and subsequent practices for eight reasons:

1) Narratives are the vehicle of knowledge in our society
2) Narratives are pervasive; they can be found everywhere in our society.
3) Narratives are modes of communication
4) Life is enacted through narratives
5) Narratives situates human intentions in time and space
6) Narratives are part of the effort of organizing
7) Narrating is organizing
8) And managers tell narratives to interviewers.

In addition, narratives are the vehicles through which *polyphony* manifests: how divergent ways of doing things, governing the project would emerge as project members are *organizing* to progress the project. Vaara (2002) contends that narratives allow multiple interpretations of change that are revealed beyond the institutionalized version of truth. Drawing on Greimas (1991) Vaara acknowledges that narratives reflect on the emergence of new orders. Through narratives the Grid-Group model could be reconstituted by emphasizing the divergent risks, interests and preoccupations that characterize projects and the subsequent governance means that permit to serve divergent aims and priorities. Here, governance arrangements are seen as endlessly renegotiable by project members to respond to different project imperatives. To this purpose the first step is to solicit the *story* from project members, a personal account on what happened during the URIP process reflecting on actual practices and rationales that support them. Stories represent an image of project member's cosmologies: the organizations and cultures that underpin actions. One way to collect narratives from interviewees is to refer to their personal experience; how they personally experienced delivering an URIP. To this purpose, each interviewee had been briefed before the interview; specifying the main interest of the research, the focus on the governance of the project and the need to relate governance to their own experience. This provided a personal account as to how project members felt about the conduct of the URIP they participated in. The idea was to obtain a the plot of the storyline from interviews: a coherent chain of *events*, which featured *characters*, main actors, actions and implications. Such chain of *events* offers a post rationalized perspective on projects and is very acceptable as it depicts the way projects are made sense of as they unfolded, and in retrospect.

As explained by Czarniawska (1999) the role of interviewing is to link the field of practices and the field of research. This implies provoking story-telling to then interpret them, which might involve unmaking the story, deconstructing it to put together the researcher's story of what happened: how the URIP were conducted and how the divergent social organizations manifest over the process to associate meaning to the whole picture.

4.2.4 Reflection on the Interviewees' Selection Process

The first question that occurs in approaching the fieldwork for each case study was the issue of place: where was I likely to find project members as potential interviewees that could be able to reflect on the governance process of the URIPs. The governance structure was different for each project, which involved several organizations. The data collection process was led by the aim of uncovering how cultural conflicts and subsequent changes manifested in each context. What is relevant for one case does not necessarily apply in another case, nor can governance be standardized. The reality is complex, and context dependent. In retrospect this reality can be seen as iteratively emergent and evolving, confirming the method framing of being open-ended and not time bound in the ways of mechanistic governance categorization and chronologies demand. Issues and power are specific to the cases according to each setting and context. URIP development process and the subsequent actions are taking into consideration: what emerges from actors with different power relationships, and therefore conflicts that occur at different scales of analysis from one project to another. As the position of project members in a web of relationships varies from one case to another, cultural and governance conflict focuses upon a range of different as well as overlapping issues. Later this approach to the fieldwork allowed Action Net to emerge as the theatre for the manifestation of cultural dynamics, which is constituted around each context.

To start the fieldwork, I identified organizations, which had the power to take decisions and contacted project members who would be able to testify on what happened. To this regard, it was helpful to conceive the Decision-Making Unit (DMU) within a project that is the key decision-makers in the Special Purpose Vehicle (SPV) and on the client side (administrative and political). The DMU membership can change over project lifecycle. Such an image is used before starting the fieldwork to frame projects in different contexts because of project boundaries

(even if these are fictive). In other words the SPV and the DMU provide a starting point to focus on where the decisions are taken and where insightful stories and narratives could be generated. Therefore the SPV represents the virtual organization, which notionally delivers the project and comprises organizational actors bound through a concession or DBFO contract with different rationales: financers, contractors, operators (and their network of suppliers and supporting agents) who are accountable to their sponsors and governments. Despite their various international origins and the cultural process/change that the project might involve (establishment of new procedures, practices, mechanisms of governance, norms), actors might still be driven by existing social norms, for example of conventional procurement practices around design and build. The SPV effectively manages delivery of the project and comprises actors with different interests, skill sets and preoccupations: inter-organizational team interest, organizational and personal self-interest and experiences, SPV interests expressed through the contract, and interests of accountability to the sponsor, client, customer (end-users) and broader public (including taxpayer and electoral) interests. The range of interests is both contributor to the respective organizational forms and informed by them creating the diversity of behaviors and negotiations expected in the Grid-Group Model. Within the SPV, the DMU (see figure 5) permits to envision where the power resides, and where change is likely to rise, reflecting the organizational setting of the three cases, which varied from each other and on their own terms did not strictly accord with the formal representation of organizational decision making unit (DMU).

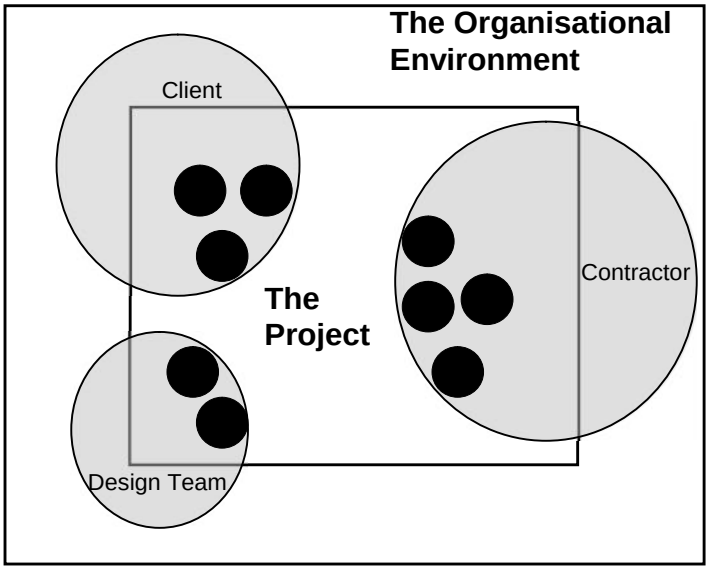


Figure 5: The project DMU or team (Pryke and Smyth, 2006: 8)

Now, the following describes how I accessed the fieldwork to arrange interviews with project members. The strategy varies according to local conditions and the opportunity I had in each city to connect with project members.

4.2.4.1 Istanbul:

Taksim 4.Levent was the most challenging case to approach due to the lack of information in the public domain. Before the fieldwork only the Municipality of Istanbul (IBB) was identified as an actor. Still, the project being completed in 2000, I had no guarantee to find ex-project members working at IBB. To overcome this problem I had to draw on prior experience of the transport sector of Istanbul. Coincidently, few months before starting the fieldwork I was shortlisted as an expert to conduct a consultancy assignment on the funding of Istanbul transport system. To conduct this assignment I had to contact IBB and the diverse organizations in charge of the operation of Istanbul Transport System, namely the bus company (IETT), and the rail operator (Ulaşim AŞ). I was able to approach these organizations as an expert; a professional collecting information on behalf of the AFD, the French Development Agency, which was allocating loans

to local government in Istanbul to further fund their infrastructure. To this extent, I had the legitimacy to contact local representatives. Approaching IBB for the work was challenging, I was unable to approach persons that had enough power and knowledge of the institutions to reply to my demand for the consultancy work, and thus for the PhD. A Turkish colleague at the Bartlett School of Planning, who had contacts in the Transport Department of IBB, helped me. The contact was willing to spare some time to hear about the research, subsequently acting as an authoritative referrer to the most relevant person. Therefore I spent a week in Istanbul in his office contacting people involved in the Transport policy. Even at this stage, working on Taksim 4.Levent was challenging as the project had been completed in 2000. Whilst collecting data for the consultancy work, the actors started to ask questions – I found myself answering questions rather than posing them – in order to establish credibility by gauging how much I knew about Istanbul and if I was aware of the "making" of transport. Having lived in Istanbul for one and half year for the purpose of my master thesis in Transport Economics, I was informed and had an opinion on what was going wrong and what could be done to improve the situation. After twenty minutes of questions and answers, my interviewees were willing to talk freely and they supported this research. At this point, the frictions and frustrations that characterize IBB's organizations such as Ulaşim AŞ and IETT began to become evident. This experience established the foundation for the fieldwork, which was conducted two months later – a series of 10 interviews with key decision-makers. Applying a snowball technique I managed to reach my data collection goal.

Semi-structured interviews permit a degree of open-endedness, for example when project members mentioned differences of views held within organization, it was possible to follow up on tensions and conflicts in the interview and/or seek introductions to those holding different views. This aided reflective interpretation of the interview data and provided means to reconstitute the SPV and DMUs. The Taksim 4.Levent case focused on a specific part of the project, the delivery of the Electrical and Mechanical system (E&M). Taksim 4.Levent lasted almost 10 years and interviews were primarily concentrated on the implementation/execution stage. One interviewee working for IBB helped framing the planning and engineering infrastructure construction project phases. The E&M governance perspective of Taksim 4.Levent was very interesting as it was delivered through a specific type of Public-Private Partnership

involving a turnkey approach conducted by an international contractor. The list of interviews is presented in table 6.

Table 6: List of Interviews for Taksim 4.Levent

Project Members	Public vs. Private.	Position	Period for Event Recollection
1 (interviewed two times)	Private	Architect 1997 to 2001	Under the supervision of the Local Partner of the main contractorin charge of the architectural works related to the stations
2	Public	Engineer/ Supervisor 1994-2004	Worked for Ulaşim AŞ, the public company established in the prospect to operate the future rail system.
3	Public	Engineer/ Sd Project Director/ Under the supervision of Interviewee 9 1997-2000	Works for IBB
4	Private	Engineer/ Supervisor 1996-	Works for the private contractor in charge of the construction for the South Extension of Taksim 4.Levent, that comprises the 3 station: Şişhane/Yenikapı/Topkapı
5	Public	Engineer/ Under the supervision of Interviewee 2 1997-	Work for Ulaşim AŞ
6	Private	Engineer/Responsible for the operation and execution during the electromechanical phase 1997-2000	Works for the main private contractor responsible for managing the electromechanical and architectural work and the rolling stock supply
7	Private	Project Director 1997-2000	Works for the main private contractor responsible for managing the electromechanical and architectural work and the rolling stock supply
8	Public	Engineer/Deputy Project Manager for the Client 1997-2000	Works for IBB
9	Public	Engineer/ Project Director. 1995-2000	Works for IBB
10	Public	Engineer/ in Charge of the Control of the Project and Coordination during the Civil Works (before	Works for IBB.

		the electromechanical phases) 1992-	
11	Public	Architect Responsible for the control of the architectural work occurring during the electromechanical phase	Works for IBB

4.2.4.2 Paris:

In a similar manner, professional contacts and the opportunity to work for the French team of the Omega Centre in the Bartlett School of Planning provided introduction to the RATP, the organization that planned and delivered Meteor in Paris. Meteor was one of the case studies of the Omega Centre, the research Centre that funded this research. This provided valuable background material before starting the fieldwork. The work of the Omega Centre established legitimacy for access, yet the timing raised suspicion due to the recent decision to open the operation of the Paris underground system to competition. There was a climate of distrust and defensiveness. The professional network gave additional credibility, and, the consultancy work in Istanbul had been backed up by an association of urban transport professionals, of which RATP was a member, providing an additional source of reassurance. I first obtained an appointment with the project manager of Meteor, who had a position with substantial responsibilities within the organization. Interview work was also being conducted as a contracted member of the French research team at the school of *Ponts et Chaussees*, investigating the Viaduct of Millau.

The same protocols developed for the Istanbul case were applied in Paris. Sufficient access was negotiated to reconstitute a network of actors, and interviewees that provided exhaustive information on the Action Net of Meteor, recollecting the story of the project and what happened from the governance perspective. The list of interviews is presented in table 7.

Table 7*:* list of Interviews for Météor

Project Member	Actors	Organizing Endeavour	Period for Event Recollection
1	**RATP, department for new projects**	Conceived Meteor Convinced the internal and external stakeholders to undertake Meteor	Involved in the late 1980s and proposed the different route for Meteor
2	**RATP, project structure, attached to the *maitrise d'ouvrage***	Undertook the communication and public relationship related to the project	Involved in the different phase of the project from construction to delivery
3	**RATP engineers department the technical studies of new project**	Developed the detailed studies for Meteor	Involved in the initial stage, planning and conception
4	**RATP** **Project structure, *Maitrise d'ouvrage*, project manager for the phase 1 of Meteor.**	Played the role of client Coordinated the different disciplines and phases of the project	Involved in 1991 at the end of the studies for the construction phase
5	**RATP, Project structure, *maitrise d'œuvre***	Played a role of project manager for the construction phase and during the system delivery	Involved in different implementation/execution phase of the project
6	**RATP Project structure, *Maitrise d'oeuvre***	Played a role of project manager for the civil engineering work.	Involved in the execution phase of Meteor
7	**RATP, Project Manager for the phase 3 of Meteor, *Maitrise d'oeuvre***	Delivered the station Olympiade.Managed issues related to the collapse of the school courtyard	Involved in the third phase of Meteor
8	**RATP engineer technical studies department**	Undertook detailed studies for the insertion of Meteor in the urban environment	Involved in the conception and early construction stage.

4.2.4.3 London:

The research on the JLE encountered some challenges. The Omega Centre was studying the JLE too. Initially this was an advantage for gaining access and background information. I was counting on the transcripts of the Omega Centre interviews as secondary and primary sources of data. This did not materialize in practice, issues of confidentiality unexpectedly emerged. Access was independently negotiated with Transport for London (TfL) and London Underground (LU), interviews were a starting point, and they provided context and background information to supplement other published materials in the public domain. Some detail on the way TfL involved

a project team from Hong Kong and then a management consultancy and contractor Bechtel helped scoping tensions and cultural discrepancies among the project organizations. A book published on the JLE (Mitchel, 2003) mentioned many key decision makers. In addition, I attended a conference on Sustainable Urban Transport in Sweden, which allowed me to get introduced to a key member of the Mayor Office in London, providing the opportunity to find key JLE decision-makers. The initial JLE project team came from Hong-Kong, due to their expertise gained in MTR, the transport company of Hong-Kong. Most of the project managers went back to Hong-Kong when the JLE was completed. However, through project members' narratives, a reconstitution of how the SVP evolved emerged; who had power in the DMU, and what was the rationale that underpinned the governing of the JLE. The list of interviews is presented in table 8.

Table 8: List of Interviews for the JLE

Project Member	**Actors**	**Organizing Endeavour**	**Period for Event Recollection**
1	**London Underground (LU), the Client Team**	Authorized the variations of the JLE specifications	Involved in 1993, during the financial moratorium that preceded the implementation phase.
2	**LU, The Client Team**	Managed the E&M Contracts	Same
3	**LU Interface Client/ Project Team**	Liaised with the Client while working in the project team that conceived and plan the project Eased the governance change and introduce Bechtel	Involved during the earlier days of the project conception. Involved toward the end of the project for the commissioning of the line
4	**LU, the client team**	Involved in the general development of the project Worked more intensively at the operation stage to support the opening of the line	Involved during the whole process.
5	**LU, project directorate Client**	Commercial director Managed the development of the project from the client side.	Oversaw the conception and implementation of the project
6	**LU Project Management**	Managed the different phases of the project.	Involve from 1993 for the design of the station and the track until the line

	Office		opening and the operation of the existing line
7	**Project Management Office**	Managed issues related to the Governance changes such as the decision to abandon the Moving Block System	1996 towards the delivery of the signaling System and the opening of the line
8	**LU Operator**	Operate the existing JLE	1996 to ensure the opening of the extension, Retired from the organization in 2000
9	**LU Project Manager at the interface JL and British Rail**	Oversaw of the maintenance agreement with Network Rail	Limited involvement regarding the broad scope of the project.
10	**Project Team**	Oversaw the construction work	1994 for the construction work and left 1996 before the commissioning
11	**Project Team and Operator Public Relation**	Dealt with the public relationship related to the parliamentary process and the opening of the line	In 1989 to 1991 at the planning stage, pre-project stage and from 1997 during the commissioning.

4.3 Being a reflective researcher

4.3.1 On the process of generating and making sense of the data

Drawing on Kvale (2007), the interview quality and the data collected are considered as insightful because the narratives of interviewees were spontaneous, rich and relevant to the question of URIP governance. It offers insights on the ways actors collaborate and coordinate their action over the project process. As an interviewer, my interventions were often limited to clarifying and following up the meaning of interviewee's reply, in this sense the interviews were self-reported and stand for themselves without additional explanations. Also, I interpreted the narratives of the project members in the course of the interview, looking for divergent rationalities as introduced by the notion of *polyphony* and the Grid-Group model and in the light of the emergent picture as a whole. In addition, my knowledge on URIP processes and the making of transport projects allowed me to have an informed conversation about the topic with the project members. I was knowledgeable about their type of work including PPP and transport issues. Project members could sense this credibility and therefore they were more willing to share their personal experience. While conducted in French and English I transcribed the interviews. In Turkish, I took notes. Immediately after each interview I relied on my notes and

impressions to write what happened during the interview. This was the first attempt to step back from the data and link the information they presented to the research aims and questions. This included evaluation of the identity of each project member in relation to others and the environment described: *what was his role, in which condition did he work, and ultimately what is he telling me on the governance of the project*? This was also a way to go beyond the words, which were expressed in different languages.

The interpretative process posed problems in light of the research aim of using the Grid-Group model to give an original perspective on the project process. The interviews provided enough material to be able to map them on the model, yet the challenge was the deduction or reduction of project processes to fit a model. Project members worked together yet in their own context of power, role, timeframes, place and issues of which some are shared and some are specific. Instead, the project could be seen as series of concurrent and sequential scenes in a play. Meeting the challenge required identification of an interim step to inform the constructs and mechanisms of governance in order to evaluate and interpret the findings in a reflective way.

At this point I had to adopt a critical perspective for the research design, thus fully mobilizing Action Net enabling the potential to uncover an order that is not immediately obvious to the eyes (Kuhn, 1970). A more inductive element was introduced, asking *what in the findings could be interesting in Grid-Group terms?* The combination of Grid-Group with Action Net led to a more critical and reflective research approach. The findings were rich, providing ample scope for the analysis of the narratives. An important feature of the project members was they did not speak about individuals' actions alone, instead they describe, judge, feel and criticize their working environment, explaining and arguing for their conditions. Facts are mentioned to express what they perceive and feel contributive or disruptive to the project; sometimes they expressed that they were suffering or scared about certain issues. Following Douglas, governance has the potential to raise conflicts. Concurrently, project members use a lot of metaphors to depict the types of goals and risk, power and governance issues. For example the contracting organization was seen as a 'mafia' in the JLE, the project members as a 'football team' in Météor and the

performance goals equivalent to ‘going to the moon’ in Taksim 4.Levent. This talks about the organization relationships among people, and therefore depicts governance orders and the way power is distributed. This gave confidence in the model, yet the practical and methodological problem of the mapping remained as the project was changing.

The following quote sums up the breakthrough regarding mapping:

> *We become researchers through the accumulation of experienced moments. Many of these moments are marked by hardship and standstill. Researchers may feel lost in data, isolated and experience self-doubt. Our research findings are often hard-wrung, emergent and fraught with interpretive anxiety. Then there are those moments of deep inspiration, connectedness, burst of insight and expansion of thought, moments when researchers feel alive in their research – moments that are generative.* (Carlsen and Dutton, 2011: 13)

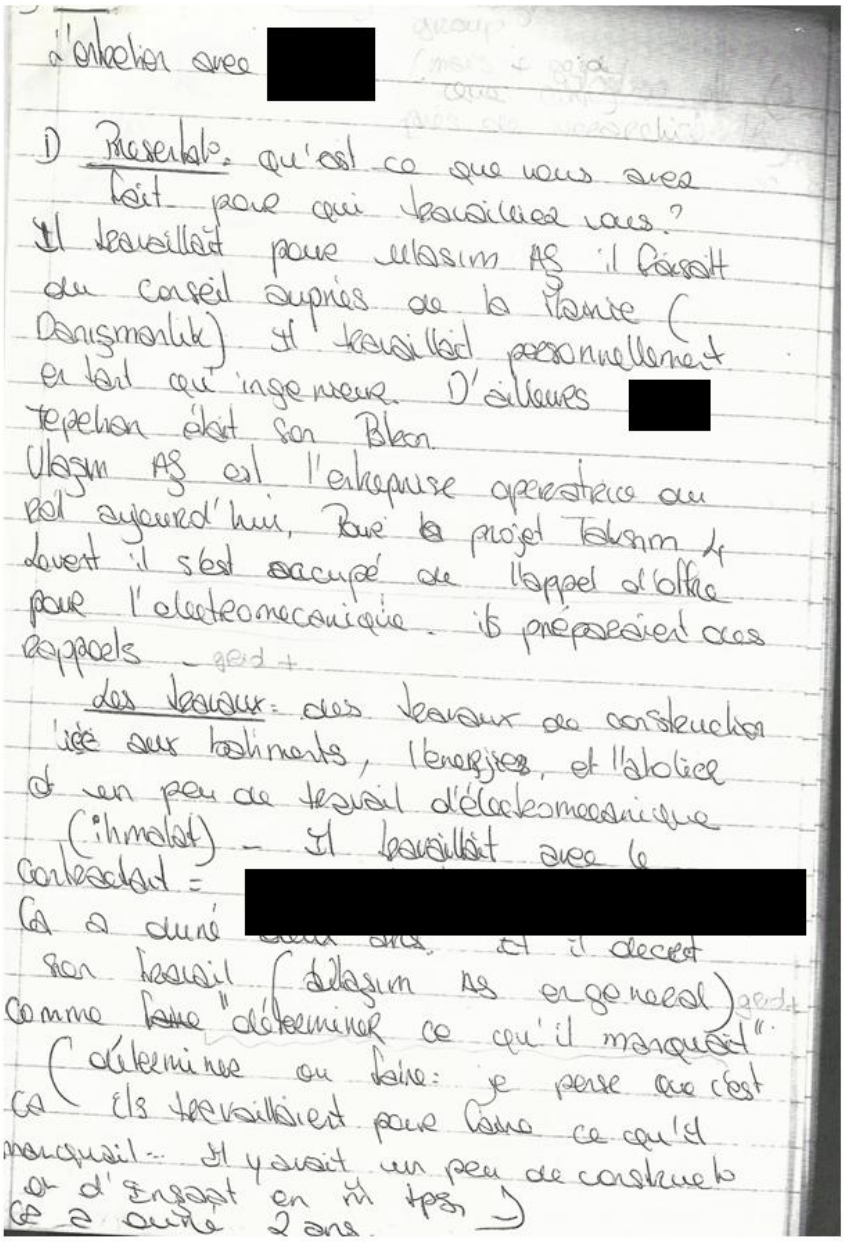
The generative moment occurred as it became clear that Czarniawska’s work on Action Net (2004, 2008) added a new dimension to my work, not only enriching the conceptual framework but also reframing the research question that reflects the nature of projects. Yet, conceptualizing projects and specifically URIPs in terms of Action Net deserves a reflection on the ethics of research and the use of protocols used to construct knowledge. This is discussed in the next section.

4.3.2 A word on Ethics in Research Design

Ethics is about what stands for good research and being a committed and responsible researcher (Mauthner et al, 2002). Yet, it concerns the whole research process from the choice of research questions, the underlying epistemology and ontology regarding the data, their analysis, and treating the subsequent conclusions and findings. The positivist approach is concerned with truth and objectivity in the context of deductively and to some extent reductively identifying scientific knowledge. This process is outlined through five steps: 1) identifying research problem and stating hypothesis, 2) preparing research design, 3) collecting data, observation and measurement 4) analyzing the data and 5) drawing conclusion. Rigor emphasizes procedures and ethics pertains to following the procedure. However, the interpretive approach acknowledges that the

research process is contingent and often unpredictable; protocols cannot be controlled so rigidly. Interpretive research conceives it as co-constructed by researchers and their *researchees*, giving relevance to multiple views. The notion of objectivity is tempered by the questioning of relationships, including those that occur during the research process. According to Lincoln and Guba (1985) the ethical dilemma in the interpretative realm raises from face-to-face contact, anonymity, confidentiality and privacy, trust and negotiation, and more importantly, the idea of misrepresentation or in the extreme deception. Using the interpretive/constructivist approach assumes that multiple realities exist and remains respectful and accommodating of different views. For this research in particular, ethic consists in considering interviews as narratives and the outcome of the analysis as *my* story of URIPs. To further illustrate this point, the following is a sample of my notes from an interview with Taksim 4.Levent's member. The notes are in French, my mother tongue. They are the result of a first layer of interpretation that is after the interview in Turkish. The interview was not recorded; recorders are distracting for both, the interviewee and the researcher. They would imply a level of formality that is unnecessary, making the aim of my work suspicious, and recording would, to some extent, prevent me to listen and clarify. The notes were then annotated, (see notes in the margin). Also, the names of the persons that are still involved in the delivery of metro projects in Istanbul are hidden.

Interview with Ulasim AŞ: This interview mentions political pressures, which pervade the discussion with the name of the Mayor, the actual Prime Minister. The interviewee participated in the tendering of the E&M system for IBB. Then he worked with the private contractor during the implementation phase



Interviewee Introduction and Presentation of his Organizational Perspective

Works/task undertaken for the project: small construction work related to the E&M system.

2) le contrôle - l'autorité.

Il y avait des reunions de coordination = IBB. le maire (Tayyip Erdoğan. Ulaşım AŞ. [redacted] Müşaviri)

Ces reunions c'était du controle, Il dit qu'ils suivaient les tx il faut aller plus vite ou pas — on retard ou pas / mais il y en a eu plus des reunions (j'ai demandé ça et ensuite comment ça se passait.)

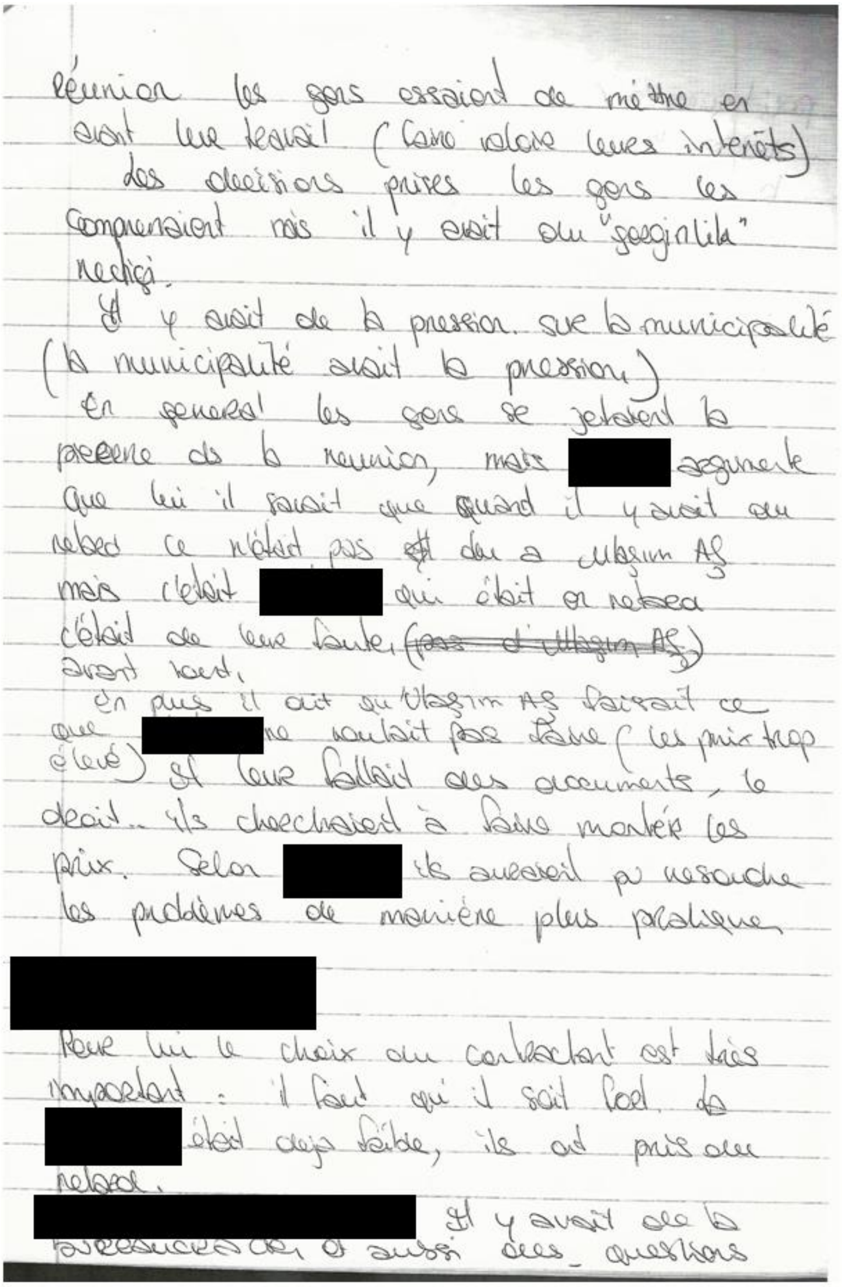
En fait là il m'explique, Qu'Ulaşım faisait ce qu'il manquait à [redacted] pour qu'ils puissent faire ce qui était marqué ds l'appel d'offre, C'est l'IBB qui disait ça (ce n'était pas [redacted] qui ~~parlait~~ déterminait décidait) ou disait directement à Ulaşım AŞ.

En general Ulaşım AŞ faisait ce qui n'était pas ds l'appel d'offre: comme par exemple l'atelier de maintenance → si c'était [redacted] qui l'avait fait ça aurait été bien plus cher → importance des prix.

Concernant leur (son?) sentiment après les reunions: il dit "je ne veux pas être asiri, c'est normal dans ce type de

Theme: Authority and Control

Here, Ulasim AS is discribed as doing all the work that was not tendered, enabling the private contractor to work on the E&M system without substancial cost increase for IBB



réunion les gens essaient de mettre en avant leur travail (faire valoir leurs intérêts)
des décisions prises les gens les comprenaient mais il y avait du "geeginlik" négligé.
Il y avait de la pression sur la municipalité (la municipalité avait la pression.)
En général les gens se jetaient la pierre dans la réunion, mais [redacted] argumente que lui il savait que quand il y avait du retard ce n'était pas ~~dû~~ dû à Ulaşım AŞ mais c'était [redacted] qui était en retard c'était de leur faute, ~~(pas d'Ulaşım AŞ)~~ avant tout,
En plus il dit qu'Ulaşım AŞ faisait ce que [redacted] ne voulait pas faire (les prix trop élevé) si leur fallait des documents, le droit. Ils cherchaient à faire monter les prix. Selon [redacted] ils auraient pu résoudre les problèmes de manière plus pratique.

[redacted]

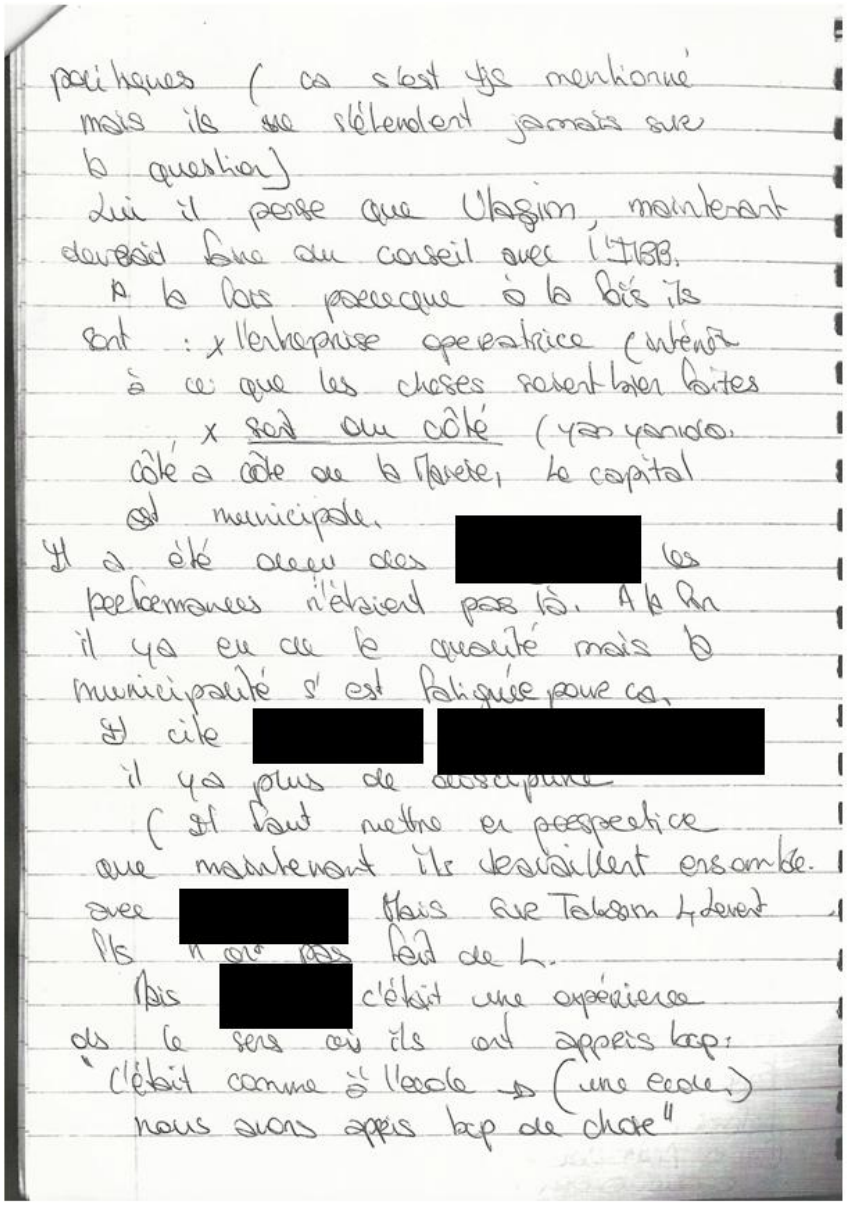
Pour lui le choix du contractant est très important : il faut qu'il soit fort. La [redacted] était déjà faible, ils ont pris du retard.
[redacted] Il y avait de la présence et aussi des questions

Meetings described as a place where organizations were defending their interests

Expression of ressentment

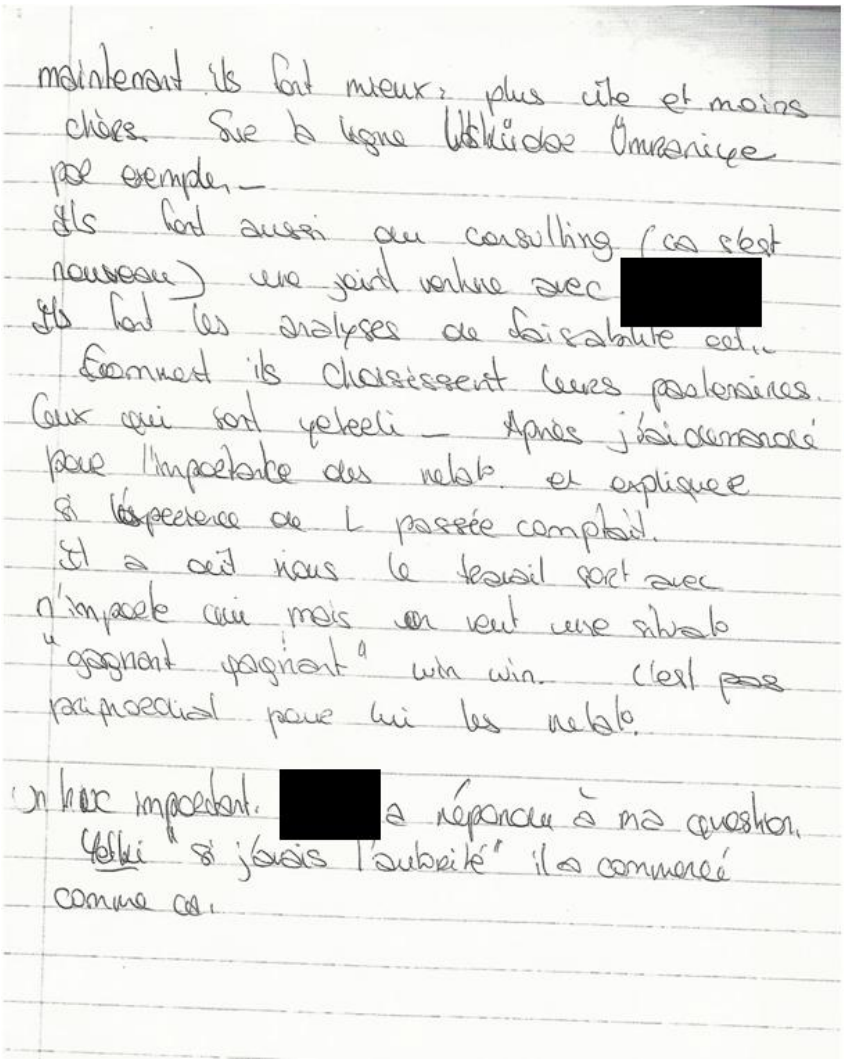
Meetings described as fighting over who is responsible for the delays, especially the private contractor.

Personal advice for the future: the choice of the private contractor should be driven by competencies



personal reflexion on the relationship of Ulasim AS and IBB, putting an emphasis on Ulasim as the operator and therefore a close relationship with IBB

Comparison with the delivery of a contemporary project: there is more discipline from the private contractor part (which is different from the one for Taksim 4.Levent) Taksim 4. Levent was a learning experience.


maintenant ils font mieux : plus vite et moins chère. Sur la ligne [redacted] Ombrière par exemple —
ils font aussi du consulting (ça c'est nouveau) une joint venture avec [redacted]
ils font les analyses de faisabilité et...
Comment ils choisissent leurs partenaires.
Ceux qui sont réactifs — Après j'ai demandé pour l'importance des métros et expliquer si l'expérience de L passée comptait.
Il a dit nous le travail part avec n'importe qui mais on veut une situation "gagnant gagnant" win win. C'est pas rédhibitoire pour lui les métros.

Un truc important. [redacted] a répondu à ma question. Genre "si j'avais l'autorité" il a commencé comme ça.

Still talking about contemporary metro lines:

Ulasim AS is described as able to partner with any organization which is competent enough.

A crucial aspect of this interview is the start of some sentences: "if I had authority..."

4.3.3 Interpretation of the narratives: towards three URIP stories.

Faithful to Action Net, there was a need to recollect and define meaningful *Events* in terms of governance. To this regard, the interpretation depends on identifying processes that would raise controversies and would generate alternative ways of doing things. To this regard, there is a need to distinguish between *decisions* from *events*.

- *Decisions* are presented in the first part of the story and mainly rely on facts mentioned by project members. To some extent, they inform the chronology of the project.
- *Events,* in contrast, imply interpretation. Events relate to a set of actions that define a specific governance order. They are generated after stepping back from the data and wondering: *which actions in this project would set a particular governance arrangement*? *What are the rationales that underpinned such governance action? Do they involve tension and conflicts, as the manifestation of alternative ways of governing the project? What are their implications in terms of power? Which actors gain power?* To this extent, *events* were re-constructed to form the plot/structure of the story.

Once *events* had been identified, concurrent voices on governance were presented through the form of quotations, providing evidence of the *polyphony* of organization. Then, it became possible to interpret the context, as orders whereby the project develops, in Grid-Group terms. This includes mapping the actors and subsequent organization in the Grid-Group Model, representing a stabilized form of the project organization. In other words, the natural *polyphony* of the project was then categorized, ordered to offer a picture of the project state. Again, here, there is a need to distinguish such orders from chronology, which would refer to what happened in terms of hours, days or years in the case of URIP, from the notion of time. Time here refers to the time of the stories, where interpretative research analysis take account of how sense making, including post rationalizations of the actors do not necessarily follow chronology in the construction of their changing perceptions of for example risk, governance, power and project processes.

From the practical aspect of the interpretation process, I used both the notes that I took during and after the interview and the transcripts. The notes were more appropriate to reveal the *events*

and the distinct voices and perspectives among project members. The transcripts were useful to add an additional level of detail, recollecting descriptions of facts and processes. The *events* emerged through reading until saturation, while keeping in mind the questions regarding governance. Then, it was possible to bracket part of the interviews that would illustrate the *polyphony*, specific divergent standpoint among parties, and subsequent practices. Regarding the structure of the story, the reading of project narratives provides, the *chronicle* of the projects and the *mimesis*, Czarniawska, (2000).

- The *chronicle* explains what happened in order to set the scene for the *mimesis.*
- The *mimesis* relates to the different dimensions and rationales arising from governance *events*, allowing the construction of a virtual picture of 1) power configuration, and 2) the associated risks, stakes that the project involved. It pictures how the governance of the projects changed over the process.

Again the phases, here orders, are structured around the main *events*, structuring the storyline. In this sense, the Grid-Group model provides an interpretation of the projects, phases and development; that is the original perspective, which constitutes the aim of this research. The structure of the story and how it is constructed is summarized in table 9.

Table 9: Construction and Structure of URIPs' Stories

Chronicle	
Factual reading of the narratives, triangulation with available secondary data	• Decision
Mimesis	
Analysis of the Narratives from the Action Net perspective	• Events • Quotes that highlight the polyphonic nature of URIP organization process
Analysis of the Narratives from the Grid-Group perspective	• Storyline • Orders

Finally, figure 6 offers an overview of the interpretation process to inform the research questions and research aims, and to find out recurring patterns among the cases towards analytical generalization. This attempt to generalize out of interpretation is made pertinent because the

same approach for the three cases is adopted in analyzing and interpreting the narratives. Such protocol relies extensively on the theory developed in the conceptual framework as a lens that helps constructing the perspective that would offer an original and insightful understanding of URIPs processes.

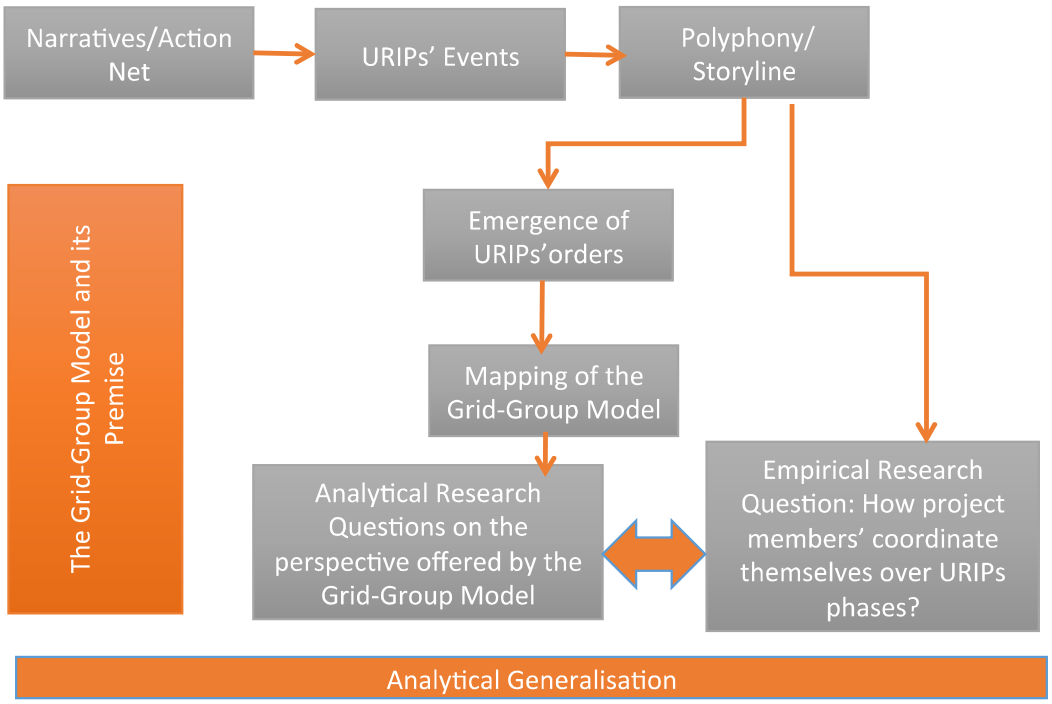


Figure 6: Interpretation Process

To conclude,

This chapter places the research in an interpretive/constructivist approach. While case studies remain the core method for this research, it demonstrates the difficulties to approach three different URIP sites, defining a common unit of analysis in particular. Action Net is used to overcome the complexity of defining the unit of analysis as a singular entity from which linear deductions can be made. It recognizes each context; namely France, Turkey and the UK for the cases and their particular organizational settings. Then, It depicts the process undertaken to

identify the project members to be interviewed and the attitude adopted during the interview process. It presents narratives as the nature of the collected data, which are the divergent interpretations that project members have developed over the delivery process of their URIP. It exposes how stories of URIP have been structured through interpretation of project members' narratives before ending with a self-evaluation of the whole research process. Subsequently, the next chapters consist of three stories: The JLE in London, Taksim 4.Levent in Istanbul and Météor in Paris.

5 Case study 1: The JLE

5.1 The Chronicle: The JLE's Decisions

To briefly introduce the case, the Jubilee Line Extension (JLE) consists of extending the existing underground line by 16 Kilometers from Westminster to Stratford in London with the construction of 6 new stations. The project was introduced in the late 80's under the impetus of the private developer Olympia & York (O&Y), which intended to provide the facilities at Canary Wharf that would turn London into the European capital of finance. In a way, the demand for the JLE was fueled by the deregulation of the financing market in the UK that took place in 1986 and indeed Canary Wharf has become a global financial centre, which the JLE helped enable. O&Y agreed to contribute towards the funding of the JLE. However, from the procurement perspective, the JLE could be considered as conventional whereby the public organization, LU, managed the contracts at the different stages of the project. This choice raised issues in terms of coordination over the execution phase. Indeed, The line was expected to open in 1997 but was delayed until December 1999, the ultimate deadline that allowed the infrastructure to serve the Millennium Dome for the New Year' Celebration. Thus, the JLE is known in terms of risks for being 24 months late and 42% over budget (6.83 billion 2010 USD). In addition, over the process, the project underwent several governance and management changes and implied the de-scoping of the system compared to the initial plan.

5.1.1 1988- 1993: Project Planning and Conception

The London Underground, LU, conceived the original JLE in-house. At that time, LU was a subsidiary of the London Regional Transport Agency. Yet, its commitment to start the JLE project depended on specific circumstances. The JLE was contemporary to other large-scale infrastructure projects, such as the conception of Cross Rail, another large rail project, which at that time, was deemed to have superior benefits according to traditional appraisal criteria; namely Cost Benefit Analysis (CBA) based on passenger flows and traffic forecast. Yet, the perspective of the Canary Wharf Development by O&Y put the JLE project on the top of the public agenda. This because the Canadian developer, O&Y, was developing a concurrent project on its own; that is with very limited LU involvement. This corporate/private project was about to

pass through Parliamentary Bill. Though, it was rejected and did not materialize, it generated a number a technical feasibility studies, commissioned from a large range of planning and transport consultancies and created great excitement from different stakeholders. LU acknowledged the potential for development, the wider range of economic benefits and the sympathy these benefits raised from the Government and politicians before pushing the JLE forward. In this respect, a joint structure between the London Transport Agency, LU and O&Y was set up in order to define the project route and specification, which aimed to optimize land development potentials for government in order to generate economic activity, and consequently rental and investment values for private sector developers. Indeed, beside O&Y, British Gas, which owned lands on the Peninsula obtained the alignment of the route and funded the North Greenwich Station in favor of property development.

The JLE was passed through two Parliamentary bills in 1989, whereby it was agreed that Olympia and York would provide a financial contribution of $400 million based on the capacity of the line. The Royal Assent, which represents the ultimate legal power to go ahead with the project, was obtained in 1992. To this extent, the JLE consisted of an original way to involve the private sector. Indeed, the developers represent an important stakeholder, which has been very influential in the earliest days of the JLE but gradually withdrew as the project was moving forward under the authority of LU. This situation is a bit paradoxical, as their interests did not vanish but were enhanced through the process.

In 1990, toward the implementation/execution of the project, there was a need to form the multi-organizational team that would deliver. To this regard, an original choice has been made: calling on international expertise concerning the civil engineering work. This decision was based on 1) the lack of knowledge and expertise within LU – the last project of this scale was the Victoria Line delivered in the late 60s; 2) the strategic concern of the Chairman of the London Regional Transport in LU capacities to deliver this project; 3) the personal connections with the organization in charge of the Hong Kong's Mass Transit System (MTR), which had and was delivering serial extensions to its system. Subsequently, the project welcomed a team of 700 consultants, among them, the first project director Russel Black and the architect Roland Paoletti who were in charge of developing the project through the planning process, and placing the

contracts. Once the project received the green light, in 1992 Russel Black resigned, giving way to Hugh Doherty, the Project Manager who was then promoted as Project Director. However the project encountered an unexpected moratorium as O&Y, who agreed to partially fund the project, went into bankruptcy. While it injected some uncertainties; whether or not the project will proceed, it could be argued that it was not a fundamental risk as most of the contracts had already been tendered, and it was politically difficult for the Government to retreat. Yet, an alternative financing scheme had to be fund, introducing new stakeholders. This materialized in a loan from the EIB (European Investment Bank) and later, through the rebirth of O&Y which had been rescued by a consortia of bankers.

***Decision 1*: Procuring the project "in-house" but relying on an external Project Team to conduct the Project:** The project was procured according to what is commonly coined as "conventional type of procurement" or procured "in-house"; meaning that LU was responsible for designing and tendering contracts. This aspect is all the more important considering the decision to import/hire the project team from Hong Kong, on the basis that the last time that a project of this scale was delivered in London was in the 1960s. Subsequently, the population of the project team relied on consultants**.**

To this extent, naming the procurement of the JLE as a *conventional type of procurement* does not tell anything about the subsequent internal dynamics and *how it has been done*, that is the organizing process. Such choices were deemed to pose governance and control issues due to 1) the fact that this team was not fully integrated into LU in order to develop appropriate governance separate from LU's traditional rules and bureaucracies; and 2) an imbalance in size between such a large foreign Project Team and the Client team. As a result, responsibilities between the Client and the Project Team needed to be scoped and determined, but in practice remained unclear. The Client was supposed to establish/validate the project specifications; in practice, these specifications were deemed difficult to define by the Client. Concurrently, the Project Team was in charge of supervising the contracting process. Concretely, the procurement was split into the civil work and the E&M. To this regard, one of the main characteristics of the project is that contract packages were conceived and sized according to overseas *ways of doing*

thing and best practices. Bundling work into packages to be let as contracts is a socially constructed activity that accords with management criteria configured around procurement and contract norms. Such norms do not always accord with the way the work is conducted on site. This can apply in any context, but in this case some of the norms were imported and were different. Later, this replication of Hong Kong practices generated important coordination problems, especially for the E&M works. The contracts were divided in three packages with little attention to the interfaces between each other and the civil engineering work. At the decision stage, the project team assumed that the contractors would take care of the contract interfaces, as it was the case in Hong Kong. The psychological contract of social obligations is a strong norm in Hong Kong, yet it is weak in UK transactions. Indeed, acknowledging the risks implied by the technology, such an assumption on contractual norms was 'lethal' to the project and could be linked to the de-scoping of during the execution phase.

Decision 2: Phasing and Scheduling the Project according to Hong-Kong: According to Hong-Kong's practices, the design period was expected to last 16 months and the construction 53 months with interfaces coordinated at the tactical level through social obligations.

When O&Y went Bankrupt in 1992, the financial moratorium delayed the project, postponing opening of the line to 1997. While most of the civil engineering work had already been tendered the uncertainty that the hiatus meant for the project continuation lowered the morale of the project members insofar as they did not further develop the designs. On the one hand, this is all the more important that project success often relies on the collaboration – the quality of the exchange, between the designers that conceive the project at the conceptual level and the ones who effectively deliver them, often the contractors. On the other hand, this is particularly unfortunate regarding the delivery of the E&M design and the Signaling System that was defined and procured internally by consultants working within the Project Office and managed by LU staffs. Anticipating on the latter phases of the project and the difficulties to deliver the System, perhaps an 18 months delay could have been beneficial to the project

5.1.2 1993-1999: Implementation

1993 is the beginning of the construction works, still under the leadership of the Project team from Hong-Kong, Yet, the project director changed. Beside the treatment of contracts interfaces, the construction phase was considered to be a success; that is executed competently in respect to the built environment and safety issues. This success manifested in the absence of serious occupational injuries and the proactive approach of the team when the Heathrow Tunnel collapsed. This accident occurred in another construction site but led to put into scrutiny NATM, the tunnelling method that was also applied for the JLE. In response, the project team suspended the works on a preventive basis and then cooperated with the authority to demonstrate that the method was applied correctly for the JLE. Despite 6 months delay, the work could start again without reconsidering the method. However, costs escalated as a result of the tendering process that occurred in the planning phase, the incompleteness of the design in particular. Indeed, the budget allocated for the go-ahead of the project comprised only the construction works and excluded the expense incurred by the commissioning of the line, leading to cost overrun and an optimistic budget. The additional costs had therefore to rest on LU, as a corporate effort. Also, this raised tensions and negative feelings within the LU organization because the other projects found themselves competing with the JLE for funding. Nonetheless, it enhanced the power and control capacity of LU as the client over the project team. Concurrently, little attention had been paid to the commissioning phase during the planning of the project. This led to considerably overlooking the technological risk and the time needed to develop what is called the moving block system but also making it operational, that is, testing it and training staff. This made the opening date of the line very uncertain to the point that the Government and LU executives decided 1) the de-scoping of the project to a traditional fixed block system; and, 2) a management and leadership change, calling for an international project consultancy, Bechtel, to meet milestones and find solutions related to governance and assumptions about norms.

Decision 3: Involving Bechtel to deliver the project: the involvement of Bechtel was very critical regarding the opening date of the JLE. Bechtel reviewed the initial plan of the prior to taking control of the project. The initial plan was deemed too optimistic. In addition, the review emphasized issues related to the contracting strategy, for the E&M system in particular. Subsequently, Bechtel advised opening the line in several steps rather than at once. When

Bechtel became formally involved in delivering the project, an incentive scheme was introduced, based on bonuses according to performance and milestone on the top of cost reimbursement.

Concurrently, the project team had to manage the contracts interfaces. The assumptions about norms and consequential implementation of the governance proved inappropriate. Confusion and frustrations led to an adversarial environment and pressure for price increases when changes had to be made. In response, LU had to allocate additional capacity through the establishment of a "Coordination Centre" that centralized the designs, reissuing drawing and comparing prices. Indeed, the coordination between the different contracts' packages (about 56) was subject to the same pressures. It was expected that the contractors would take care of the numerous interfaces, but this finally rested on LU. In particular, signaling interfaces were highly complex for the development and implementation of the moving block system, which led to the definition of a backup solution.

Decision 4: abandoning the Moving Block System: Due to the high uncertainty related to the development of the moving block system, the backup solution to equip the JLE with a traditional fixed block system was adopted. Also, this decision could be put into perspective with the procurement conditions and subsequent coordination issues. They added complexity to the process due to the interface management. The system delivery was split over three contract packages: the signaling system, the signaling control and communication. The first two could have been grouped into a single package but instead they were allocated to two contractors that were competitors and would reluctantly share commercially sensitive information for the benefit of coordination.

Bechtel, as a North American contractor with considerable worldwide experience of such projects introduced a different set of norms. It has a reputation for political astuteness and highly transactional tactics using authority, coupled with its expertise, to drive through change to meet objectives. Both the involvement of Bechtel and the decision to install a fixed block system marked the conditions for the commissioning of the line. It marked a new governance approach, which in terms of transaction cost analysis shifted from trust to authority to govern time and cost.

5.1.3 1998 Onward: Towards the Operation of the project.

Bechtel's review that introduced the phasing of the line opening as a recommendation to ensure the opening of the line for December 1999 comprised three stages: 1) Stratford to North Greenwich for late spring 1999, 2) North Greenwich-Waterloo in late summer 1999, 3) Waterloo and Green Park in autumn 1999. Concurrently such endeavor faced the imperative to comply with a new legislative framework for safety and railway operation which had been introduced in 1994 after the fire in King's Cross in 1987. As the JLE was the first project of this scale to be undertaken under this framework, there was uncertainty on what was required to get through the approval process. Indeed, it did not only concern the commissioning. It referred to the construction phase as well, the conditions for operation depending upon the infrastructure.

This commissioning phase is associated with the governance of Bechtel, which was in charge of daily control of the project and increased cooperation with LU in its role as the operator of the line. Once again, the team had to be reorganized but it consists of a success in the sense that the line opened for the New Year's Eve celebration. Still, an abnormal amount of incomplete work had to be undertaken after 2000 under engineering hours; that is 3 hours per night when the network is closed to the public.

Finally, this account of the JLE's organization developed from Project Members' narratives allowed mapping of the main actors who populated the JLE Action Net (see table 10).

Table 10: The JLE's Actors

Project phase	Actors	Action
Planning	The Government	• Championing and Backing up the project • Funding the project through LU • Evaluating the Project via its agent Ove Arup • Intervening to fix the ultimate opening deadline.
	The Department for Transport	• Overseeing the JLE process.
	The local authorities, as	• Easing or impeding the launch of the project during the planning process and

	project stakeholders	enquiry
	LU	• Governing the development and delivery of the JLE
	O&Y	• Lobbying in favour of a transport link • Participating in the definition of the project and its specification • Participating in the funding of the JLE project
	The planning consultant	• Assisting in the lobbying process related to the project, bringing evidence and building the case for the JLE
	The Banks	• Financing the project after the bankrupt of O&Y
Implementation and Execution	LU, the Client	• Controlling the project team and ensuring that the project was delivered according to certain specification.
	The Hong-Kong Team	• Defining the contracting strategy • Conducting the civil engineer work
Operation	The System contractor	• Developing and delivering the brand new moving block system
	LU, the Operator	• Commissioning and operating the line
	Bechtel	• Managing the commissioning phase of the project

Now that a brief history of the JLE has been presented, displaying its main attributes – places and time, actors, issues and event, this part will bring the analysis one step forward: (re)constructing the main governance formation and change; presenting the key *events* that marked the JLE processes and casts the *polyphony* of the JLE.

5.2 The mimesis 1: The JLE's Events and Evidence of Polyphony

This consists of an additional analytical prism that would account for the plurality of organizing processes and voices over the governance of the JLE. From this perspective the divide between the project and its environment becomes irrelevant. Considering organizations as temporary structures, what matters is the construction of the project, through organizational practices and discourses. The Action Net perspective helps to uncover the planning and implementation of the

JLE. Through narrative analysis and discourses it permits the identification of organizational discrepancies, providing evidence of rival discourses and practices over the governing process of the JLE. To this purpose, the subsequent procurement practices revolve around a chain of three *events* whose implications had to be interpreted on the basis of project members' account: 1) The Canary Wharf Development and subsequent rail proposal, 2) The importation of the Project Team from Hong-Kong, 3) The involvement of the American Project Management Company, Bechtel**.** These *events* are significant in terms of governance change as they involve a process of actor selection and exclusion. Indeed, they enlighten tensions and clashes among different rationales and perspectives, that will enable the Grid-Group Model to infer orders as area of stability and continuity in the project process.

5.2.1 Event 1: The Canary Wharf Development and subsequent Rail Proposal:

The emergence of the JLE depended on the imperatives of a third project; namely the development of the Docks and Canary Wharf. This means that the JLE processes go far beyond the realm of transportation consideration – to this regard several project members have contrasted the LU rationale as a narrow "transport planner" perspective that would account for the flows over London and relieving congestion from existing line with the one that include broader political concerns, such as O&Y lobbying the Government for the development of Canary Wharf and the associated private financial contribution. Yet, this early stage of the JLE development could also be seen as:

- **An opportunity for collaboration between the public and the private sector**,
- **An additional funding mechanism for public transport infrastructure** based on land value increase and development.
- **The moment** where the itinerary and the timescale of the whole project were defined**.**

The JLE and its subsequent Action Net started from the impetus of the private sector, the Canadian developer O&Y, which aimed at building Canary Wharf. Taking advantage of the financial deregulation that took place in the UK in 1986, they had in mind providing the city with the facilities, working and office spaces, which would reinforce London as the European finance capital. Yet, their project needed a transport link with substantial capacity. To this purpose, O&Y

engaged in lobbying and stakeholders' engagement activities from the late 80's, raising government's awareness on the potential of the JLE for the city, as well as affirming their commitment to make the project happen. The first public consultation for the JLE was organized by O&Y in 1989, representatives of LU were present but the process seemed, quite surprisingly governed by the developers.

However, before the JLE had emerged as the most likely project to be delivered in London, O&Y attempted to put forward an infrastructure that would specifically suit their needs. Whereas transport was not the main focus, still it was a crucial element of the Canary Wharf development project and O&Y was keen to ensure that the Government will undertake a transport project that will fit its needs, and those of their future tenants. Therefore, O&Y came up with a rail project proposal that would connect Canary Wharf and Heathrow airport through Waterloo, and could be procured through a Design Build Finance scheme, a PPP contract where the private developer was making itself responsible for the project. This involved the first tension between the Government and the public administration; such an initiative was seen as disrupting the ways metros and rail infrastructures were conceived and produced in London, competing with the London Underground's area of competencies. Thus, disagreements crystallized into divergent views on the type of investment needed for London.

> *Olympia and York actually designed their own railway project: the Waterloo and Greenwich railway. They were prepared to go to Parliament and deposit a private bill to get all legal powers to build this railway. From near Waterloo Station to North Greenwich they made a model of train, a tube, This was upsetting a lot of people, and I always thought, that it kind of embarrassed the government, that is why the Government ensured that London Underground very quickly picked up the project…and you know there is a long history of extending the railway East, The Jubilee Line had been the Fleet Line before…* (interview 11**,** Operator's public relation manager**)**

Project members reported such tension on many occasions as a clash between a traditional Transport Planning perspective which consists in improving the performance of the whole

transport network and the need to match the demand of the wider environment, which at that time, consisted in considering the Canary Wharf developers as transport project's stakeholders.

The interviewee is talking extensively here:

> *Transport planning, you are just looking at the number of people flowing around London and where the best path for the line is...And there was a number of things going on at the same time, there was Crossrail but the JL, which was second Crossrail, actually got pushed ahead because of the development of Canary Wharf and the relatively small amount of money that the Canary Wharf Development put in into the proposal. …That enabled the JLE to lead for Crossrail.... the external money, private sector money, 400 million pushed the Jubilee to the top of the pile and then the JL moved forward while Crossrail actually did not evolve until much more recently*

He went on to make the following series of comments:

> *Canary Wharf has been built late 1980, 90s and they initially wanted to submit ... all they would do was the little railway into Waterloo, the Olympia and York just wanted a train into Waterloo, so there was quite a lot of engineering and transport planning to come. It would not have been any wider benefits, if it was going to Canary Wharf only... so the JLE was really pushed forward as an obvious option and Canary Wharf persuaded to contribute to that.* **(**interview 4, Member of LU's client team**)**

To a great extent, the decision to deliver the JLE in its actual form could be seen as a compromise which serves the rationale to provide transport facilities according to the wide benefits they imply for the city by complementing the existing network, and which favored the demand of private stakeholders through the financial contribution from the developers. Also, the JLE could be seen as an opportunity to regenerate the most deprived area of the city and therefore constitutes a project with a large development scope, which implies an additional funding channel: the financial contribution of O&Y to the project.

> *What I think the purpose was, there is two facets really. The first was to relieve congestion through London, the second was to provide a cross south London line where there was not at that time [sic]. Third, which was both political and financial was the*

> *Canary Wharf developer [sic]. And this was probably the main driver. London Underground wanted to build Cross Rail, but it was turned down by the Government, I worked 3 years on Crossrail before I came to the JLE.* (interview 10, Project team member, construction work)

> *The Jubilee Line Extension which of course was from Green Park all the way through to Stratford was not only the Canary Wharf Development kicking off, but generate regeneration, the economic recovery and the last but not the least the fact that the Developer of Canary Wharf was prepared to pay some money towards that [sic]… So there was this Private Finance Contribution.* (interview 2, LU's client team member)

Consequently, an original organizational arrangement between the two organizations, LU and O&Y, unfolded, a structure that would enable both stakeholders to develop the project jointly. This earlier initiative makes sense since both organizations had resources at stake into the project. However cooperation did not develop and quickly, the governance of the project moved into the public realm of the London Transport Agency and LU, or more specifically the project team that had been formed on the basis of their experience of large scale infrastructure project and was deemed the most able to deliver the project on time. To be more precise, the situation could be outlined as follow, the Government, the London Transport Agency and O&Y represented the main stakeholders, who had the legitimacy to make strategic decisions regarding the project, while LU was supposed to be the organization that would actually implement them at a more operational level. In this regard, O&Y involvement put pressure on the project due to the opening of the Canary Wharf; this did not only defined the route but also set the project deadline; a decision, which for some, was arbitrary and taken regardless of any project considerations:

> *Whilst the project said it would have finished on the 28th of March nothing was done in 1998. They just invented the time scale. It might have been linked to the Canary Wharf development because they would put some funding and they said we could develop Canary Wharf and encourage businesses, employees going to Canary Wharf on the Jubilee Line, so there was a stakeholder imperative,* (interview 5 LU's member of the project directorate)

Concurrently, the London Transport Agency seemed to have integrated the imperatives of Canary Wharf, and the associated political pressure, but neither to the point to devolve to the developers the strategic conduct of the JLE nor to entrust LU for the delivery of the project. As a result, the direct participation of O&Y decreased and a new actor emerged: the project team coming from Hong-Kong and its emblematic Project Director Russel Black.

The interviewee is talking extensively here

> *Olympia and York provided the offices, the address, they included members from the London Underground for a symbolic purpose so we went into their office and had a business card who said London Underground not Olympia and York. We made a particular point, we said: "good afternoon we are London Underground". Now Olympia and York is still involved in all of that but about October, possibly December, we moved out from their office and went to an office that London Underground had, met Russel Black from New Zealand, and then the world moved away from Olympia and York,*

He went on to make the following series of comments:

> *They were very sorry about it. After they still employed a lot of PR and lobbyist to look after their interests, and we still found they were following us around East London, checking up what we were doing, but bit by bit it became less obvious because they could see that we got the project together and more people involved, [sic]... but ...the influence was total to start off with and then it dropped in steps.*(Interview 11, Operator's public relation manager)

There is evidence of concurrent organizational possibilities for developing the project, each giving prominence to specific motives and preoccupations over others. Here, it seems that the rationale to keep the governance of the project within the public realm was preferred over a public-private collaboration Again, this reveals that at least two distinct organizing rationales developed concerning the JLE and coexisted until the project moved forward. Also it shows the importance of power, how the London Transport Agency's intervention was determinant to define the governance of the project. Notwithstanding that constituting a project team moved the JLE project forward; it does not mean that the project had moved into a conflict free organizational setting. On the opposite, the very unstable nature of organization (as nexus of

processes) manifested at a different level, in the relationship between LU and the project team. This encounter raised the issues of the adequacy of common practices – *to what extent they are fit for purpose?* – which are referred to pejoratively as *the local bureaucracy* of LU. In turn, it introduces the legitimacy of relying on *different ways of doing things*, which in this case, was formulated as creating the conditions for bypassing traditional LU's procedures and organizational norms in order to allow engineers from abroad to effectively deliver the project on time:

> *We could not let the normal LU bureaucracy get in the way of building this project because commitment had been made to the Government and to Olympia and York. According to the funding agreement the line had to be built and opened before Canary Wharf development was up and running … It was a very difficult thing to manage, trying to balance out the need to work with people from the underground but at the same time not being set back by the local bureaucracy or process. And it was almost an impossible thing to do because you cannot please everyone at a time… can we?* (interview 3, LU's project member at the interface between the Client and the project team)

5.2.2 Event 2: The importation/recruitment of the Project Team from Hong-Kong:

The recruitment of the Project Team from the Far East, Hong-Kong and Singapore, demonstrates that the planning of URIP and subsequent organization exists independently of the JLE, and subsequent organizations in London. Still, the adequacy of such choice to the London's institutional condition is a matter of discussion among project members. The Hong-Kong practices manifested in two main decisions:

- **The definition of the different contracts' package** and the decision to make the contractors responsible for the interface management
- **The timeframe of the project** that matched Hong Kong's time allocation. The construction phase was planned in 56 months the design in 16 months.

Again, the contractual arrangement between the London Transport Agency, LU and the Project Team proves that the JLE's Action Net spans over the resources available in London and the LU's organization; a situation fostered by the Directors' experiences prior to their positions in

London, and their personal *connections* within a network of international professionals. The organizing process of the JLE extended to Hong-Kong and the ways of doing things there. This decision was rationalized by putting to the fore the construction risks; Hong Kong's engineers having the experience and reputation to complete projects on time and within budget.

> *So, actually Denis Tennicliffe was present for the whole process… He was management director for the underground, so he was the top man. Brian Mellit was the Engineer Director. Brian had a lot of experience working on metro in the Far East: Hong Kong, and Singapore. Both Denis and Brian realized they needed to get some of the experience built up in the Far East System to look after the Jubilee Line Extension, so they recruited Russel Black, who worked in Hong Kong and Singapore as a project director. And then Russel, very quickly brought in some of the other senior managers, people he worked with previously, and then… [sic] they became known as the Hong Kong mafia by the people of the underground.* **(**interview 3**,** LU's project member at the interface between the Client and the Project Team**)**

> *We were called the Hong Kong mafia (laugh) so it was kind of backbone experience which is good [sic]. So we had a team who was quite experienced delivering multi contract mass transit projects...we know about that from Hong Kong [sic]. It worked quite well. Russel Black and Hugh Doherty were ex-Hong Kong as well. There were at least a dozen of persons from Hong Kong, they were fairly senior in the management structure. .. And this arrangement worked very well for the client, I believe, despite the press coverage* **(**interview 10, member of the Project Team**)**

The decision to rely on external human resources was justified by the need to complete the project on time and within budget, an important preoccupation due to the Canary Wharf Development. On the one hand, the engineers from Hong Kong were introduced as the most able to deliver the project up to such expectations because of their experience; on the other hand it seems clear that the key decision-makers had adopted the view that the *traditional ways of doing things* in London (i.e: local bureaucracies, LU standards) would prevent the team from

performing effectively. Hence the decision was to set them apart from the LU's normal rules. To this regard the governance of the JLE was designed in opposition to traditional ways of doing things, favoring certain practices over others and entrusting the Hong Kong team was the main governance mechanism. Still, within the organization, the intention was to promote the idea that LU was actually governing the project in order to preserve LU's reputation and image for building metros:

> *I suppose the best way to summarize Denis' concern was how the London Underground brand would be undermined by the arrangement. In other words he wanted that the end product would be very much a part of the underground network. You know we have a very strong corporate identity, which is why you see the underground round everywhere, people are really proud of that … [sic] so LU did not want to see the JLE to look like a kind of different part from the rest of the underground, it needed to be consistent and of course Denis was worried about the customers; the passenger experience when the railway would open rather than how it was going to get built* **(**interview 3, LU member at the interface between the Client and the Project Team**)**

Nonetheless, the absence of integration of the managing board of the Project Team spoke for itself through the use of the nickname "*Hong Kong's Mafia*" within the project organization (SPV), offering evidence of the distinctive character of their *ways of doing things*, and the critics they might have raised at that time within the LU organization. The Action Net perspective demonstrates that rival ways of organizing emerged, the traditional practices of LU vs. the imported practices and norms from Hong Kong. The choice was value based, practices from Hong Kong being seen as more effective and efficient for the delivery of the JLE. Yet, it raised some organizational discrepancies, which were manifested in discourse of critics of the Hong-Kong contracting strategy:

> *So the original concept set up by the chairman was to keep the Hong Kong mafia or project team away from the normal rules and control of LU, and the reason was that they delivered on time in Hong Kong and he wanted to do the same in London* **(**interview 2, LU member of the Client Team)

> *They looked for the best experts in the world. And Hong Kong was perceived, because they had just done it in Hong Kong. Probably there was a cultural chock because, certainly in Hong Kong, the relationship with the contractors is totally different. I think the culture in Hong Kong is [sic] ... I have never been there... but the culture in contracting lines is a totally different animal than here. But they looked at Hong Kong because it is where they spent all their working life so... Russel Black came first and he brought in his team which was set up to avoid the perceived bureaucracy of London Underground and London Regional Transport. So for instance things like standards – a lot of things that London underground does is set down in standards to get consistencies, to get value for money – A lot of standards were rewritten just for the Jubilee Line extension; in fact [sic]... it became the new standards of London Underground.* **(**interview 1, LU member of the Client Team)

Obviously, promoting the Hong Kong practices led the JLE to an awkward arrangement from the social perspective, "*a cultural shock*" between the London and Hong –Kong's locational context. In Hong Kong, the common ways of doing things relied on having the contractors taking responsibilities for the coordination of the different contracts. This did not happen in London. In Grid-Group terms this could be seen as an *Egalitarian* way of doing thing where contractors are sensitive to project risks and governed by trust vs. the Market/Individualist context of London where projects are seen as a set of distinct transactions that are primarily governed by prices. The Action Net perspective permits to identify discrepancies in practices by emphasizing the conflict between two different rationales for organizing the project. This conflict became obvious in discourse when it came to rationalize what was happening during the JLE. Such practices in Hong-Kong and common ways of doing things there influenced the project governance and the organization of the project, which in turn, raised resistance and cultural issues, hence the difficulties to convey the ideal values of team work, inter-department and functional collaboration and cooperation. Indeed, it seems there was a will from the top management to maintain such cultural distance for the benefit of the project:

> *To be fair, at the start Russel did quite a lot of effort to talk to people in the Underground, particularly [sic], the people who were involved into the project because you had a kind of sponsor or a client, you had transport planning, you had finance, you*

> *had legal, you know [sic].. all the usual functions and … I suppose they put a lot of effort into building relationship and I suppose I did help quite a bit as well [sic]… but it was also very clear from the top… from Denis and Brian Mellit that we could not let the normal LU bureaucracy get in the way of building this project*. **(**interview 3, LU member at the interface between the Client and the Project Team)

Interestingly, the JLE partially induced organizational change within the LU**:** "*in fact ... it became the new standards of London Underground*". While the project team had been set up as a separate entity to move the JLE away from LU's traditional ways of doing things, still there is a process of cultural change at work; namely an opportunity for LU to learn from the JLE project and the subsequent practices, offering an opportunity for building capacities for project delivery and governance. Nonetheless, this process does not constitute the main discourse among the SPV. Instead the JLE, the project team in particular, was viewed as an independent unit with the minimum of interaction with the rest of the LU's organization. This accentuates the fact that practices might change but this does not mean that the culture of the project aligns or coalesces with its organizational context, nor tensions related to organizational distance would fade:

> *The Hong Kong Mafia, they had their organization, they were not really mixing with the others… people describe them as the people who doesn't have to deal with the bureaucracy…(*interview 3, LU member at the interface between the client and the Project Team)

To this extent, the coexistence between the ways of doing things from Hong Kong and the norms of LU represents a good example of the "cultural war" that characterizes collective action. By favoring an arrangement that was driven by trust instead of the common process of control in place in LU, the JLE was particularly vulnerable to cultural tensions. The singularity of the project team culture also transpires from the client voice, at the interface between the LU organizational context and the project. The following exposes the attributes of protracted distance between the client and the project team such as power asymmetry and structural divergences – imbalance in size and status. Indeed, this was sustained by additional organizational features: for example, the staff that populates the client and the project team

operates under different conditions from each other, though they were supposed to be part of the same organization as the project was procured "in-house". This annihilated any prospect for long-term relationship.

> *I think perhaps we should go back; look at the way the project was set up within London Underground [sic]. It was probably unique in the sense that the Chairman of London Transport took the view that London Underground record for delivering major project was not particularly good. Project used to be late and over budget. The Chairman himself had previously been working on the Hong Kong Mass Transit Railway System which had a lot of extensions, so he knew there was a team of people in Hong Kong who could deliver things and they had a reputation of delivering things on time and cost [sic]. I think the London Transport then decided that they will set up a totally separate project team from the normal day to day running of the underground and that team will be dedicated to delivering the Jubilee Line extension project only.* **(**interview 8, LU Operator)

As a result, the Client commercial director reported significant control issues as well as coordination ones due to an imbalance in size and a different population between the client and the project team. The staff status varies, LU's permanent employee for the client team, people mostly recruited on a contractual, temporary basis for the project team. While the JLE is commonly considered as a public procurement – or "in-house" project, still it greatly depended on the international market, which supplied engineers from Hong Kong in the top management, and the state of the local industry for the various skills and competencies required by the project. The LU structure amounted to a small department with a client team of about 10 (interview 1) in a larger project team of about 200 (interview 4). They were:

> *Mainly external people, mainly they are tunnel engineers, architects and they might well come from other projects [sic], I remember a lot of people came from Hong Kong actually. And a lot of consultancies employed too. Actually, the client team was often populated by LU staff, that is why I was there. But the project team is generally populated with external contractors, on contract, because of this kind of temporary, transitive nature [sic].* **(**interview 4, LU member of the Client Team)

This interviewee went on to report that the client team changes as high level design is completed and the project managers take over unless difficult issues require client team inputs. Indeed, the structure of the funding arrangement was sustaining the independence of the project team, and its relative power; as the project team had the whole initial JLE budget at its disposal.

The interviewee is talking here:

> *In effect the project organization for the Jubilee Line extension was set up as an autonomous unit and they already had been given the whole pot of money, so when we, as the client team, tried to influence what was happening we did not receive any interest and it took a lot of effort in order to get the thing that the client wanted. In the later stages of the project, they run out of money and the whole relationship then had to turn around because in order to get money to get the project they had to work with the client team in order to procure additional funds and the project went from 1.9 billion, to 3.5 billion [sic].*

He went on to make the following series of comments:

> *Basically they had to involve the client team, a lot more in the second stage. So you had the first stage, which was pretty much governed by the project team, they did what they liked and we tried to influence it from the outside. And that is how the chairman wanted it. But then subsequently, they had to work more collaboratively; they had to work with London Underground and the Client team in order to get additional money to continue with the project.* **(**interview 2, LU member of the Client Team)

As a result, when the initial budget allocated to the project dried up, the authority and influence of the client was restored as the project became increasingly dependent on LU's resources. At this point, for some, the JLE is seen as moving towards a collaborative endeavor, while for others, it is considered as the beginning of a corporate effort; a project that would weight unduly on the organization resources. Again, this event was interpreted differently among the organization. The position of the client is quite unusual, because during the inception and construction phase it has no power, and to a great extent the JLE could be seen as a separate

entity from LU organization, outside of its control. When the funding was lacking and the client could use his authority, part of the organization was reluctant to integrate the project and to spend resources to govern it.

> *So to a certain extent I was not involved in the project. It had its own project budget, its 2 billion pounds This clearly had big implications for the London Underground because when the costs started to rise, and when it overrun by 100 million pounds the government said to London Underground: we give you all of your project money and you have to decide your priorities [sic]. And when the project needed these 100 million pounds, I had to decide whether I would give them 100 million pounds or not. So there was a conflict there [sic].* **(**Interview 5, LU member of the Project Directorate)

> *The other thing I would say is that it was a kind of corporate effort to get the JLE built operational. In many ways it compromised what else was going on the network. So the money flowed into the JLE, … the JLE would always have priority for operational staff, so it led to a shortage elsewhere in the underground… , so the business had to support and provides resources and expertise to make the Jubilee Line....You know it took 10 years for things to normalize again [sic].* (interview 4, LU member of the Client Team)

While entrusting a foreign team to govern the project independently from the rest of the organization emphasized cultural differences within the underground, "imposing" collaboration and pooling of resources raised tensions and conflicts among the LU. Clearly, the project was viewed as draining the capacities of the organization, delaying other projects. Whether the JLE had to be completed in due course, this was not the prime interest of the LU, whose scope was broader: the Underground Network. Here there is a different perception of what was at stake, the risks, and the governance change is clearly viewed as a way to favor the JLE imperatives over the ones of the broader network.

> *The managing director of the underground struggled to improve the quality of the underground. He suddenly found that there was this huge project just one railway which*

> *had all the money. Later on in the 1990s this made the rest of the underground management very bitter, they had no money, all the money had been pulled into the railway from Green Park to Stratford, you know the JLE, there was a lot of bitterness, a lot of problems. I was trying to do things for the extension, for example, I went to the marketing department who did not have enough money for the rest of the railway, and they were very unwilling to help in anyway,* (interview 11, Operator's public relation manager)

To sum up, relying on an external project team to deliver the JLE raised three points:

1) The issue of culture discrepancies and goal alignment with the rest of the organization. The project has been pulled into an Egalitarian form of organization that emphasizes distinct project boundaries from the rest of LU organization, which in first instance, led to an arrangement where LU had no power and no engagement in the project, representing an Isolated culture. In second instance, when the projects run out of money, attempts to realign the culture through the authority of the client emerged, but faced resistance.

2) Controversies in terms of legitimacy – involving a team from outside was perceived as casting doubt on LU's organizational abilities to effectively deliver the project, whereas applying *"best practices"* developed in Hong Kong raised concerns regarding their appropriateness to the London context. Hong Kong's contracting practices could not be applied readily to the London context, the market being different. This also constitutes pressure for cultural realignment with the most common practices of LU.

3) Power issues; namely the conditions that allow imposing and maintaining an arrangement over another. This last point alludes to the fact that the project team was powerful in terms of size, money and support from the top management of London Transport. Also, it brings the *dynamic* – the unstable, nature of collaboration to the front, as the battle between the multiple institutions that the project comprises. This refers to patterns of practices embedded in common ways of doing things and stand for themselves when it comes to justify if they are right or wrong, and therefore generate conflicts while interacting with others. At this Project stage, such tensions manifested through 1) clashes with the traditional procurement practices of LU, 2) the

contracting practices, and, 3) the relationships within the SPV. The Project Team challenged the procurement of URIP in London, which are LU's authority and its capacity to define the project order. Indeed a specific project culture has been fostered by design, the LU's top management using power to impose an Egalitarian culture to the JLE. To this regard the project had clearly defined boundaries, was very sensitive to construction risks and remained governed by trust until the money run out. Then, the culture, and the subsequent power setting, had to be renegotiated from the "bottom up" to reflect on the changing funding conditions. When the LU was made responsible for the continuing funding of the project, the client authority had to be reintroduced as its capacity to evaluate the progress of the project and its specification to prioritize it over the rest of the network. Over the JLE process, the actual governance conditions *how* and *by whom* they should be mastered were challenged and the object of discussion. This is well reflected in the following client's testimony:

> *I was responsible for the procurement of everything in London Underground and I met with the procurement people of the JLE and I spent a couple of hours with them, telling them, this is how we do things here, this is how I expect you to do, and if you think it is going to be different, you have to come and explain to me why. And I was told when I left the room: who that guy thinks he is, we are all from Hong Kong. They did not like the message very well… (*interview 5, LU member of the Project Directorate)

To a great extent, a Project Team distant from the Client characterized the relationships within the SPV. In first instance, the distance was due to a deliberate decision to set up the project as a separate, and powerful, unit. But, in a second instance, when LU had to involve and contribute to the JLE delivery, the distance rather relied on divergent interests: whether completing the JLE was an ultimate priority for the Government, LU accepted this idea reluctantly, at the expense of other projects.

> *Russel Black was a very powerful character ... He had very firm views on how he wanted us to do our work [sic]. And I refer to this stage where the project was very small, with the client team, and then developed in sort of very powerful project team that was actually difficult to control [sic]. And there was a sort of tension because it had no real*

connection with the rest of the organization (interview 4, LU member of the Client Team)

And I think because the project team was seen to be able to operate outside many of the normal controls a lot of people of the rest of the organization could barely understand why that was: why are they allowed to?[sic] And what made it worse is that after the project had the go ahead and was underway, there was a funding shortfall; basically the money ran out again and because the JLE could not be allowed to be delayed, some of the funding that was in march for other projects on the underground got changed to the JLE instead [sic]. Which did not help because people did not have their project to do anymore and they said you know, the JLE has taken our money, which made it even more difficult [sic], so I think is it is very true that for the most of its life the JLE was seen as sort of separate. (interview 3, LU's project member at the interface between the Client and the Project Team)

Finally, the contracting practices applied by the Hong Kong team posed several issues to LU. This is about the organization and the structuring of the project supply chain and the relationship with the contractors, and how the coordination between the different phases of the projects was conceived at the outset. It this case, there is lack of attention paid to the interfaces between different contracts packages, in a last resort the responsibility of the coordination was left to LU:

The procurement strategy wasn't thought through… I mean the way to integrate the designs, to make the contract, to package the work, how we thought about the specific signaling control system. They were silly things to do. You know [sic]. That is all about the procurement strategy. Second thing is that you have to manage the interface. I remember when I came there I used to say: who is managing the contractors? The people in LU used to say: it is not our jobs. We are called observers. They were going to the meetings with 3 contractors there and they wouldn't say what to do because the view was that the contractors would manage the interfaces. (interview 7, Member of the Project Management Office)

Again, the inappropriateness of the contracting practices might be due to differences between the ways things were happening in Hong Kong where trust governs the project relationships and the norms in London, which requires the use of the client authority. But more importantly, the arrangement did not engage the operator – the project members in charge of the future operation of the line:

> *There was the view at that time that London Underground's engineering standards were too rigid and were costing a lot of money. Indeed for the Jubilee Line there was no London Underground Standards so the Jubilee Line Project team had to devise the project standards [sic]. This implies the initial stages, the building of the line but also the internal operation which is when I was involved: They did bring on that team, a small number of people with London Underground operational background, to help them but they won't be the persons who are going to run the line [sic]. And I think if you talk to them they would say that they could say what they wanted to say [sic] but they won't be listened so often especially if what they said was going to make life difficult for the project. So the project was very much led by engineers*.(interview 8, LU Operator)

At a later stage of the project implementation, while operational imperatives became the essential conditions of the line opening, such contracting conditions and the narrow scope adopted by the project team were deemed as project setbacks; there was too much emphasis on the construction that awarded the leadership of the project to civil engineers, at the expense of the operation. Thus, towards the end of the construction, when the government fixed the ultimate deadline for the line opening on the 31 December 1999, the need to make the line operational led to another governance change, placing the project organization under the authority of a reputable project management consultancy: Bechtel.

5.2.3 Event 3: The involvement of the American Project Management Company Bechtel for the opening of the line:

In 1997, the delivery of the JLE included to Bechtel, an international project management consultancy whose reputation was to complete projects on time. To this regard, Bechtel involvement was seen as the mean whereby the Government and the Administration took back

the control of the project; a way to ensure it will open on the 31 December 1999 by completing the construction work to install the systems. Thus, it introduced a new order on the project based on:

- The introduction of management skills and authority within the delivery process.
- An incentive scheme depending upon achieved milestone.
- A collaborative relationship with the operator.

The last point represents a change from the setting that dominates during the involvement of the Hong-Kong team. Bechtel are renowned for being very hierarchical, transaction and claim orientated. The appointment of such consultancy could be seen as a way to formalise the involvement of the client in the governance of the project that occurred at the later stage when the project run out of money.

The Action Net of the JLE extends to international actors, introducing a new organization rationale. As for the decision to involve a team from Hong-Kong, involving Bechtel demonstrates a will to break away from what was happening on the ground, to introduce a new governance scheme: hierarchical relationship with the authority that would support the client, less trust and strong cost drivers. Beside the tensions described above, the project was encountering severe delays and was already over budget, the innovative moving block system was not developed and the decision to rely on a backup solution had already been made. Still, there was a great uncertainty concerning the opening of the line, as well as a lack of confidence in the ability of the current management to complete the project. Bechtel participation breeds from critics against the current management and represents a way, again, to move away from the current path of execution:

The interviewee is talking here

> *What led to this change was the fact that a numbers of things seem to go wrong. There was a big problem with the signaling system because originally it implies this moving*

block signaling, produced by Westinghouse and which never worked out despite a lot of promises. Another reason is that the completion date kept slipping, and … the way the slippage was communicated and managed was not seen as very good. That caused embarrassment among people like Denis Tunnicliffe and London transport…

He went on the make the following series of comments

so to cut the long story short … [sic] they decided that a management change was needed and Bechtel was seen as the only people that could actually deliver this thing in time but … and bear in mind that by then [sic], the overriding requirement was to get the railway open for the millennium, there was huge political pressure to develop that … Bechtel was seen as the only people that could do it, and I supposed the actual project manager had lost a bit of credibility[…] They were trying to improve the interface with the core business[the operation]*, communication and other thing like that. And then within 3 months Bechtel had come in,* (interview 3, LU member at the interface between the Client and the Project Team)

Bechtel's intervention represents an ultimate change of governance, which implies the consideration of imperatives that had been overlooked before: the development of the system and the commissioning of the line to the operator. In addition, it brought competencies in terms of project management and assertiveness, creating the confidence that the line could open before New Year's Eve. Also, Bechtel's practices, as a management philosophy, are reckoned as not very widespread at that time and deeply contrasting with the ways the project had been conducted over the construction phase. In other words, Bechtel's involvement equates to the introduction of a new profession, discipline and mindset to the JLE:

We have also to remember that the project management, as a philosophy did not exist until the early 80's. And it took 10 years for people to understand what project management is about, you know when I first started in London underground, and construction project; it was run by the architects. You have no Project Management. As a profession it did not exist and then it took a long time I think for [sic] … for UK

> *organizations to understand the importance of project management and program management and when this railway was initially designed, and it was in 1989, it was the early days of project management and of course what happened was that we stood still for six years or five years... or so …and designing things which were 5 years old so even the technologies had moved on since the original conception [sic]. So some of the things we were getting was almost halfway through the obsolescence before we started using them***. (**interview 6, LU member of the Project Management Office)

Another interviewee is talking here

> *It was a catalyst for change anyway, because it was very symbolic. In other words, it was LU, Denis Tunnicliffe saying: I am not going to continue carrying on how we were before. He had this new management team and they know what they had to do. We are giving them a free hand and they would get on with it [sic]. So the kind of management impetus came from the top. They had a strong management team and they had full support. And I think also the people that Cliff Mumm brought in from Bechtel provided a much stronger management focus and it was more about: you guys, you know what you have to do, this is your objectives if you have any problems tell us now, we are going to sort it out otherwise we expect you to deliver [sic].*

And he went on to make the following series of comments:

> *And to be fair I think most people responded to that and they were rumours at that time about the people who had been in the project team being sacked but none of that happened; [sic], most of the people remained there but working for a new management. ... So to this extent, I suppose it is a kind of different management philosophy and it was almost the fear of what the Bechtel people might do if they did not perform… But it is very much a symbolic action, a catalyst for change.* (interview3, LU's project member at the interface between the Client and the Project Team)

Bechtel's leadership brought new governance mechanisms to the project: the introduction of a contractual relationship regimented by an incentive scheme monitored by the client with remuneration based on achieved milestone:

[...] They had reward on the top of that [on the top of reimbursement of the cost]. *They failed by two weeks to hit the first milestone; everybody said I should pay it anyway but I would not pay, the first milestone, it was not the money, but the principle.[sic] It was reputation damage for the Bechtel organization, after that we got a lot of attention, the pressure on the project team was enormous and when they achieve the second milestone a week early I decided their entitlement of million pounds.[sic]And because we were bringing in a new project leadership, the existing project director had to go because you could not have two leaders and you could not expect him to be subservient, so my boss and I fired the project director. That does not happened often in London. And that wasn't a reflection on his civil engineering capabilities ... but he was not a project manager, you know...[sic] Again this is the world we live in our time that had a big impact on the team, but Bechtel's job was to put the rail together.[sic] So it was the kind of lesson, thinking capability and the time of delivering something. It was with Bechtel. Life was tough but it was much more focused, and we delivered. [sic] (*interview 5, LU member of the Project Directorate)

While the contribution of Bechtel is presented as an object of discussions among LU; that is whether or not the project could have been completed without their intervention, it seems that, ultimately, Bechtel changed the scope of the organization process – determining *how, what conditions are necessary* for the project to be delivered. To this regard, it was much more about delivering, with fewer manoeuvres for planning and adjustments in time: at this project stage, the goals were clear, opening the line according to the deadline. The project was driven by this objective.

Bechtel had this attitude for being … though, you know ... I am sure that is a lot of truth but I get on with them very well. And I think if they had not come in when they had come in, the project would not have been completed by the end of 1999. While other people in the London Underground would say, no… there is no need for Bechtel coming in we could just have carried on. (interview 3, LU member at the interface between the Client and the Project Team)

But I think most of the cost overrun had either happened before Bechtel got involved and Bechtel's involvement was just necessary to meet the new deadline [...] But most of the direction had very much been set by that time so it was a kind of rescue job, from our point of view [sic]. But I remember coming in, and I remember them being very project focused for the couple of month and very directive and clear like we are doing this and this [sic.] It has to be delivered [sic]. But they were very much into the millennium's deadlines, the time of making decisions about where you are going to go was really past and it was about delivering. (interview 4, LU member of the Client Team)

Thus, beside the change in the management team and practices, Bechtel's intervention was synonymous of different preoccupations than before: the commissioning of the line and the technological risks related to the system; whether the moving block system could not be delivered on time, what alternatives could be implemented and how they fit with the works that had been undertaken before. This was a crucial underpinning of Bechtel management, which led to the decision of opening the line in three phases.

[Question about the decision to change the technology] *I had this piece of process called the client change control, so we looked at the moving block technology and we looked at conventional signaling and so we questioned what the time and performance implications were [sic]. And the performance implication was the signaling as opposed to the risk, and then there were clearly time implications and then there were costs because the system could not be delivered in this amount of time with certainty, you know where the cost has to be the cost, you understand that so we were forced into that decision making process [sic]* **(**interview 5, LU member of the Project Directorate**)**

Another interviewee is talking here:

When it was finally accepted that they could not upgrade the existing line, they said we would do the extension first and we will come back and upgrade the existing line, after we open. So we said ok that is fine. Within 3 or 4 months they had realized that the design will never achieve the safety level requirement [sic]. It wouldn't be approved by our own

signaling engineers, and later on the Majesty's Railway Inspectors [sic]. So that is the time when David and other people came in, to say how can we get the Jubilee Line extension open: we had no new signaling systems, so we then had to think about [sic]…as an operator, we were putting an airlines' signaling system, and now we are building traditional signaling system into our already constructed tunnels and tracks.

And he went on to make the following series of comments:

And the big problem for us as an operator, we designed the track layers with automatic trains and reversible facilities things [sic], considering that we didn't need that much capacity or place where trains could turn back because we had this new signaling system. Now, in fact I had a constructed railway, which I could not change and a traditional system where the capacity for recovering was greatly reduced [sic]. So 36 trains an hour, which we were promised, it was going to be 20 [sic]. (interview 8, LU Operator)

Considering the operational risks, the governance of the project contrasts with the power imbalance and the mindset prone to conflict that characterized the Client and Project team relationship before, Bechtel fostered trust and respect enabling the projects members to work together towards the opening of the line. Concurrently, this preoccupation unfolded a commitment to build closer working relationships with the operator towards and integrated team:

I think they brought in [sic]... Again I was not too close of them at that time, but I think they brought in a new sort of governance arrangement for the control, the contract and the change management. They were much clearer in change management, and they were much more on top of individual contract and as I said they worked much more closely with John Self [the head of the operation team] (interview 4, LU member of the Client Team)

Bechtel, Cliff Mumm and John Self were working together. Cliff Mumm, he was the Bechtel project manager; I met him one Friday morning. Hugh Doherty, the Scottish project director was out, Bechtel arrived, we thought: what hell does that mean, do they

> *sack everybody? [sic] Did John tell you all this? They came in with about 20-30 people and they thought they had a pact with John [sic]. They said: what do you actually need to open the railway? – as opposed to what do you think you will be getting [sic] – What do you actually need to open this railway by the end of 1999? And John produced the specifications, I need this, I need this, I don't need that, I don't need that...[sic] and then they had a pact, which was what they delivered for John to open the Railway*. (interview 11, Operator's Public Relation Manager)

This connection between the operator and the project team materialised in space; up to that time the operator was working in a different office and then moved into the same place. This demonstrates cooperative working conditions between the disciplines, underpinned by a rationale that favoured the project as a system that had to connect to the rest of the network rather than circumscribing it to the construction works and the civil engineering functions.

> *To get more alongside the project there was a sort of main office at the time which was in Central London, the project team was based in Canary Wharf and they had spare space in a building in Canary Wharf so actually what we decided to do is to move our headquarters team down Canary Wharf to the same building so we were physically close to the project team [sic], then each of senior staff was given to somebody in the project team to work closely with…[sic] so we started to build up a personal relationship with the project team.* (interview 8, LU Operator)

> *Toward the end we had an integrated team with operators and maintainers and it was never any concepts of we will deliver something that the operators don't want [sic]***.** (interview 7, Member of the Project Management Office)

Subsequently, this is the period where it was decided to open the line in three stages in order to cope with the opening deadline and the operational requirements in terms of safety. Also, in this prospect, more human resources were allocated to operational concerns. To sum up, Bechtel's intervention represents the conditions for opening of the line; the effective delivery of the JLE project. It brought an additional voice to the organization of the project, the voice of the operator

that had been downplayed over the construction process. Yet, as the JLE project was going forward different priorities had to be tackled, which is also the way *polyphony* manifests in practice: an initial governance arrangement was driven by the development of Canary Wharf, then it was the construction risks and the need to complete the project on time and within budget that brought in the Hong-Kong team and finally this operational concerns that allowed Bechtel's intervention. Also, in Grid-Group terms this means that the project ends up in the realm of Hierarchies, relationships have been reorganized in a way that everybody has found its place to allow the delivery of the project. Organization, governance and risks cohere to create distinct cosmologies, rationales and practices to allow the project to proceed. Table 11 provides a picture of the different cultures that characterized the development of the JLE.

Table 11: The cultures of the JLE over the project life cycle

Individualist	**1- Inception and planning phase:** During these phase, LU and O&Y compete for the governance of the project. LU and London Transport (LT) want to follow a planning rationale that would deliver benefits for the transport network and the city in general while O&Y wants the development of Canary Wharf. The JLE emerged as a compromise between these two visions. This is a Low Group and Low Grid environment: few elements are constraining the actions of O&Y and LU. The situation slightly moves when O&Y did not get the Royal Assent and LU gets power to actually deliver the project. O&Y moved in the realm of Isolated while LU tends to move in the realm of Hierarchies.		

Isolated		**2-Implementation and construction phase:** At this stage, LU as a client is in the Isolated realm in the sense they have no power to influence the project. The whole money has already been given to the project and LU has difficulties to make its voice heard.	
Egalitarians		**3- Implementation and construction phase:** The Hong Kong team was hired to deliver a project that will bypass the bureaucracies of London Underground. To this extent the project emerged as a separate unit that was governed by trust. The arrangement is focused on a single risk: the construction.	

Hierarchies			**4- Commissioning and delivery phase:** This phase is marked by the arrival of Bechtel who reorganized the relationship to allow more collaboration with LU, as a client, and the operational department. This consists of the consideration of an additional preoccupation, the commissioning of the line, which was overlooked before, the operation of the line has to be taken into consideration.
	Project Life Cycle		

5.3 Mimesis 2: The JLE in Grid-Group Terms

The Grid-Group model as a sense-making device permits to formulate hypothesis on the nature of governance processes, especially through the Group dimension which permits to reflect on group dynamics; namely joint action and partnership. Putting the Grid dimension into perspective, that is the extent to which relations are organized into hierarchies, four archetypes of order emerge. These archetypes also associate culture, "thought world" whereby preferred modes of collaboration are promoted. Thus the delivery process of the JLE displays three situations relying on distinctive organizing forces. The Project moved from the left hand to the right hand of the Grid-Group model; from the realm of the *Market*, a network type of relations, to the realm of *Egalitarians* and *Hierarchies*, towards collaboration and partnership. Indeed, Project Members' accounts not only describe distinct situations over the project life cycle, but rather different relational/transactional contexts, which diverge in terms of the nature of trust they rely on:

1. The relationship between LU and O&Y in the early development of the project.
2. The relationship between the Hong-Kong team and the rest of the LU organization.
3. The relationship between Bechtel and LU as a client.

In the first instance, the relations between LU and O&Y could be characterized as calculative trust: parties cooperate to the extent that they can foresee that it is in the others' party interest to do so, otherwise they compete with each other to gain influence. In the second instance, the context of the JLE developed into relations based on norms/value and trust: the involvement of the Hong Kong team breeds from personal connections and the belief that the engineers from there were more experienced and competent to deliver the project, which illustrates a relation competency trust and goodwill trust. While for Bechtel there is a very clear contractual component: Bechtel was hired on the basis of their reputation; they will deliver no matter what, keeping their promises. The Action Net analysis allowed characterizing these relationships, acknowledging the diverse changes and turning points in terms of *ways of doing things,* and thus categorizing organization according to the Grid-Group dimensions.

Subsequently, the following offers an interpretation of the project lifecycle, depicting the successive situations and orders that characterized the JLE through the lens of the Grid-Group model (see figure 7, 8, 9)

5.3.1 Order 1: The relations between LU, LT and O&Y during the planning phase

In its inception and early planning phase the JLE finds itself in the domain of the Market/Individualist – a Low Group and Low Grid environment There is a competition between the two organizations, O&Y and LU, regarding which project should be executed first in light of the opportunities and stakes that it represents for each actors. Then, The project starts to move along Group when cooperation between LU and O&Y was initiated with the aim to work together. While this situation did not last long, still the project had become an object of relational agreement between both parties via the contract that made O&Y's funding subject to a certain level of train frequency. While there is an effort to organize for launching the project, risk considerations are turned towards the respective external boundaries of each organization, a characteristic of a relative low hierarchical structure – Low Grid: there is no clear definition of the role of each protagonist.

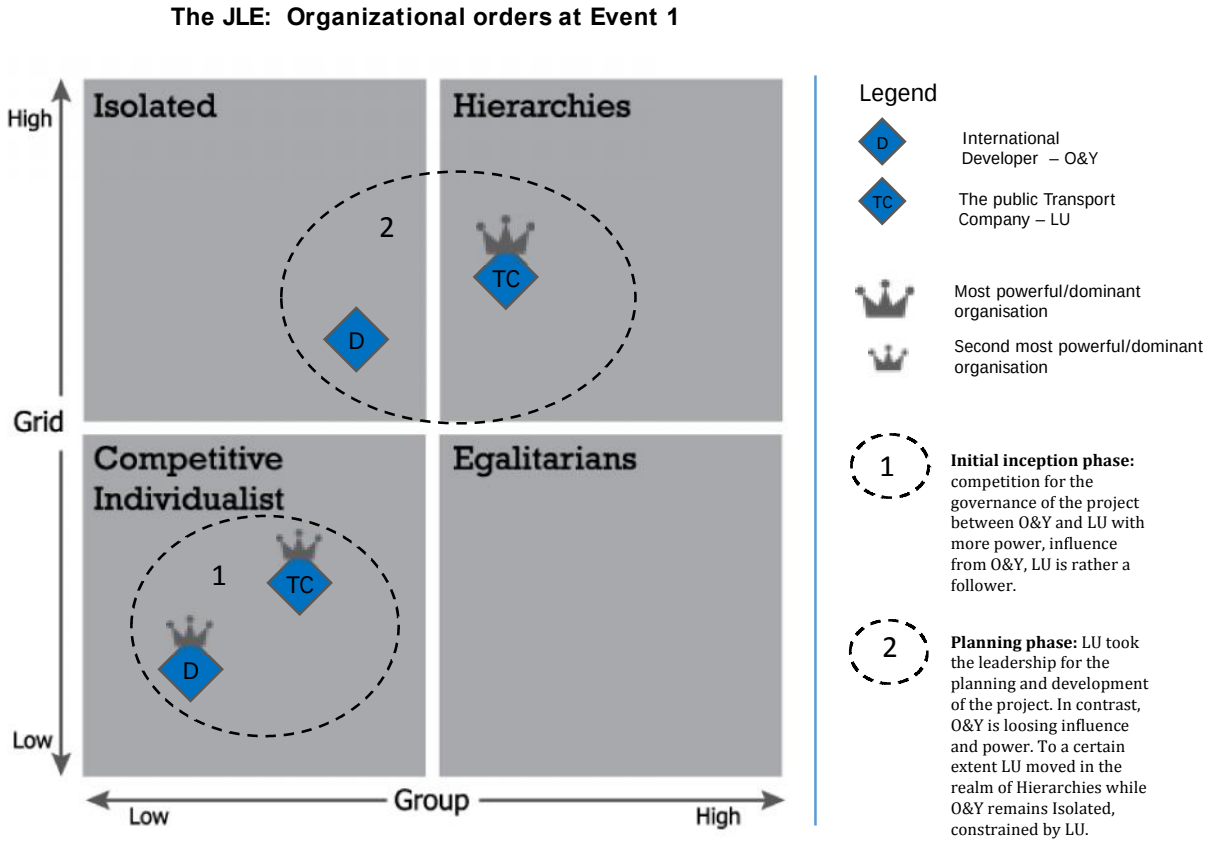


Figure 7: The JLE's inception phase

5.3.2 Order 2: The relations between LU and the project team during the execution

At this point the JLE project would locate itself in the central part of the Grid Group quadrant. From there, two possibilities: on the one hand the project team from Hong Kong and the client team could have developed a relationship on the scale of the project life time and even further (the project team could have been then fully integrated to LU organization). This would have steered the project towards higher Group but also offered the possibility to impose the authority of the organization, higher Grid, meaning a well-defined chain of command, policies, processes and procedures with enhanced conditions for coordination. However, on the other hand the relation of the project team with the rest of LU organization, and the client was different and rather responded to a second possibility, to keep the Project Team as a separate entity that would behave with a great autonomy, but still reporting to the top management of the organization: Low Grid. Therefore The construction risks contribute to maintain conditions of high group and low grid. There is a need to acknowledge the internal strength and power of the project team. But considering its reluctance to mix with the rest of the organization, to comply with its rules and to integrate wider concerns, such as the latent technological risk, the project was moving along Group but remained in the Egalitarian realm

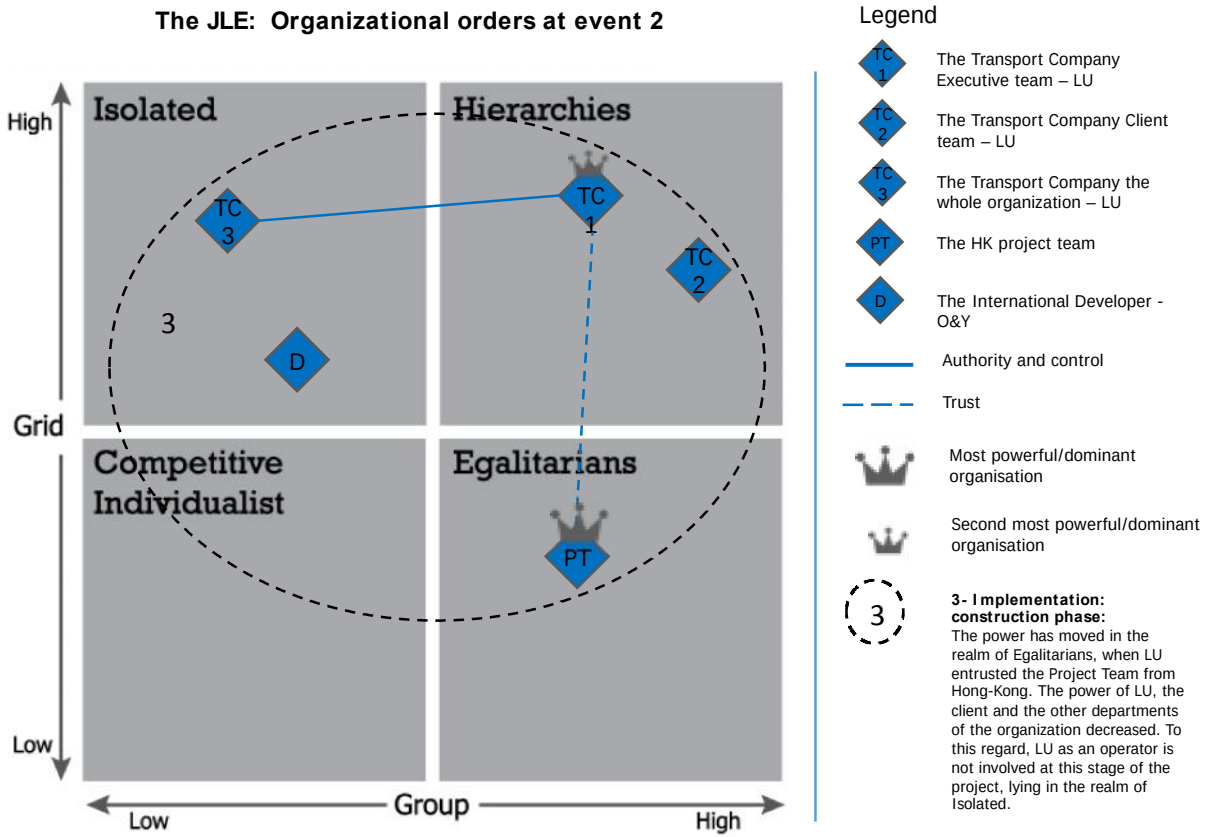


Figure 8: the JLE's construction phase

5.3.3 Order 3: The relations between Bechtel and LU Operator during the commissioning phase

The move along the Group Dimension pursued with the involvement of Bechtel and the imperative to open the line. This is marked by a change in context in the sense that Bechtel brought authority and cohesion to the project. They had not only strong support from the top management but had the obligation to ensure the cooperation of each party, giving a voice to the operator which was silenced up to this point. The project starts moving along Grid. The project became more ordered and coordinated effort via the use of management, and the need to plan for the system failure. The governance of the JLE project had changed to the realm of Hierarchies in order to ensure the commissioning of an operational line, integrating the ultimate purpose of the project: carrying passengers.

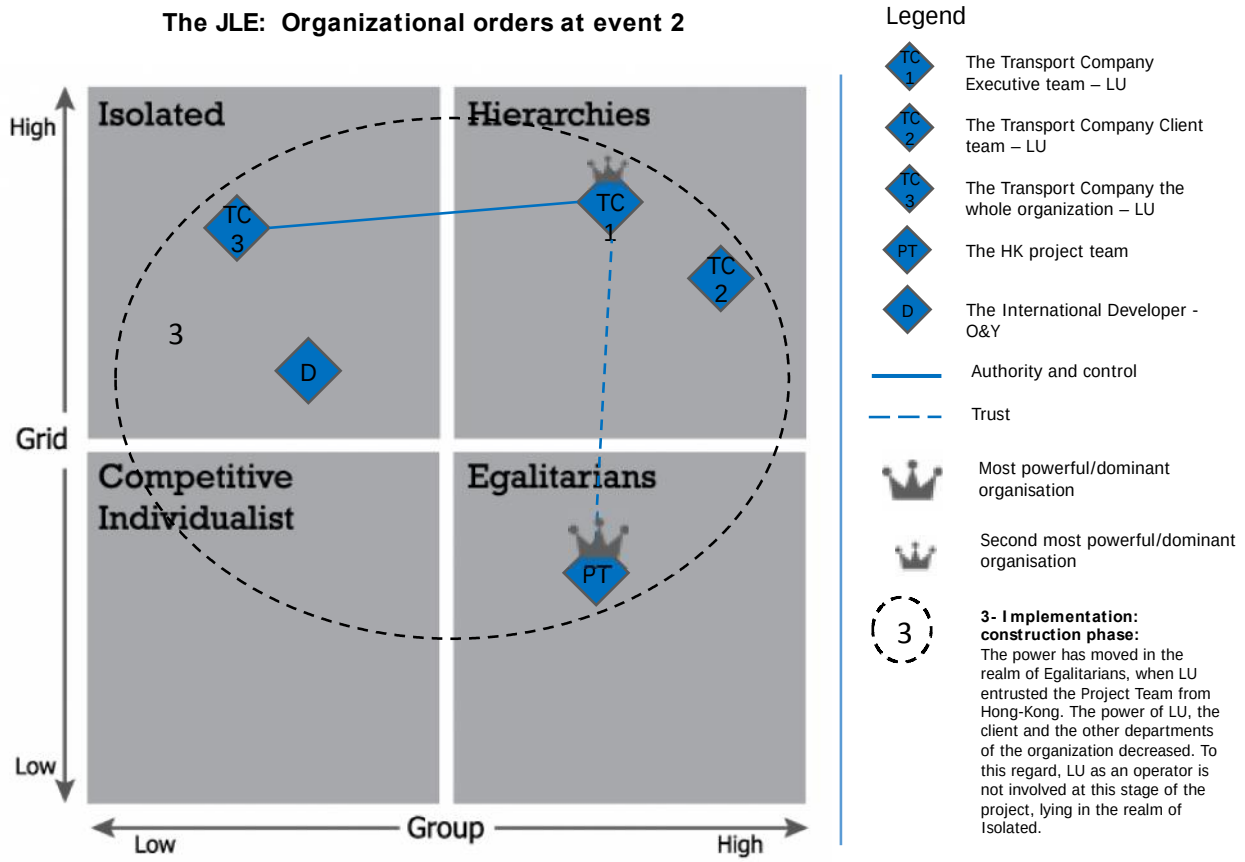


Figure 9: the JLE's commissioning phase

6 Case Study 2: Taksim 4.Levent

6.1 4.1 The Chronicle: Taksim 4.Levent's Decisions

Taksim 4.Levent, as a project, should be considered in light of the institutional change that occurred in Turkey in the 80s, especially the establishment of the Great Municipality of Istanbul (IBB) for the governance of the metropolitan area in 1983. IBB, as a new authority, was meant to reduce the inconsistencies of having power spread over different levels of governance such as the State, the Municipalities, and other various National Agencies.

6.1.1 1956-1992: Planning and Conception

Subsequently, IBB became competent for transport infrastructures and services, the development of a mass transit system in particular. Taksim 4.Levent represents the first stage of this endeavor and was planned in its actual form in 1987. Yet, the project had already been conceived before by the State in collaboration with private consultancies as part of a larger project, which comprised a metro link between Taksim square and Levent area.

Decision 1: Delivering Taksim 4Levent: IBB made the decision to begin the provision of the metro system with Taksim 4.Levent due to the perceived low implementation risks. This given 1) the level of experience and competencies available at that time, and 2) the likelihood to have the civil engineering works delayed due to archeology and heritage conservation issues. Taksim 4.Levent was perceived as the easiest part of the project.

6.1.2 1992: Implementation

The procurement arrangement was designed for a 16 km metro link serving 13 stations and comprised 7 contracts: 5 for the construction works, 1 for the installation of the E&M system and 1 for the rolling stock. Splitting the system delivery from the construction work was a choice made on the recommendation of external advisors. Later, this choice was deemed to be the source of coordination problems.

Decision 2: Delivering Taksim 4.Levent with distinct packages for the construction works and the E&M system. IBB, as the client, was in charge of coordinating the different contractors and the different development phase of the project

The initial timeline allowed six years for the whole project, with only three years for the 8 km of Taksim 4.Levent. In reality, Taksim 4.Levent was greatly delayed: the construction works lasted five years, from 1992 to 1997, and the delivery of the E&M system required three additional years until the opening of the line in 2000, that is a total of eight years. Also the project encountered significant changes, among them, several tenders' cancellation for the E&M system. Istanbul public bus company (IETT) organized the first tender in 1993, while IBB was under the administration of the *Cumuriyet Halk Partisi* (CHP). Yet, when the mayorship changed with the election of 1994, the outcome of the first tender was cancelled for unclear reasons. Another tender was reorganized in 1996 by the actual Turkish Prime Minister, Recep Tayip Erdoğan. He was at that time the mayor of Istanbul under the *Refah Partisi*, (RP). This second tender was structured around five distinct lots: 1) power supply, 2) signalling and telecommunications, 3) equipment and workshop, 4) secondary civil work and 5) rolling stock. Two foreign companies were selected: the first won the four first bids for the E&M engineering, the second became in charge of supplying the rolling stock. However, regarding the E&M system delivery, the negotiations with the first contractor failed after a 10 months period of discussion. Problems included, among others, the civil engineering works and the subsequent state of the tunnels. Such technical issues led to hesitation and disagreement concerning the respective responsibilities of the client and the contractors. As a result, Recep Tayip Erdoğan, cancelled the tender and decided to organized a third one for the E&M system. As part of broader market strategies, the final winner of the third tender was taken over by the contractor in charge of the rolling stock. This is how Taksim 4.Levent became one of the first international turnkey contracts for URIP delivery, a form of PPP.

Decision 3: Procuring the E&M system under a turnkey contract. This decision results from manufacturers strategies and the international market. The arrangement also comprises the financing with a loan to IBB. This was in line with the current policies for exportation promotion in the contractor's country.

As part of the PPP arrangement, the contractor had to provide training to the future operator, Ulaşim AŞ. To this extent, the collaboration was multi-organizational and is outlined as follows:

1) The public parties: mainly IBB and its companies. However, in 1993, the tenders were prepared by IETT, the public bus operator, which also involves in the development of rail infrastructures. IETT is now under the authority of IBB but its existence is anterior to the establishment of IBB. Another important municipal organization is Ulaşim AŞ, founded in 1989 to operate the rail system. During the supply of the E&M system, Ulaşım AŞ's staff worked closely with the main contractor to learn the system. Finally, a last actor was an external advisor, a Turkish subsidiary of an international engineering consultancy, which had been hired by IETT to help IBB in the preparation of tenders and contracts.

2) The private parties: Mainly a global railway manufacturer as the contractor. However, as part of IBB's requirements, this global player had to partner with a local company, this in order to also develop capabilities in the local market. Subsequently, two Turkish companies were in charge of the civil work finishing.

In addition, it is important to emphasize the political character of the project, which manifests in the personal involvement of the successive Mayors. The following table gives an overview of the project Action Net (see table 12). This part set the scene of Taksim 4.Levent. The next one involves an additional level of interpretation to inform *events* that uncover the polyphonic context of the project.

Table 12: Taksim 4.Levent's Actors

Project phase	**Actors**	**Action**
Planning	The State	• Planning the project and delivering the initial feasibility studies
	Planning Consultancy	• Supporting the State in planning the project and undertaking the feasibility study
Implementation	The great Municipality of	• Organizing and administrating the procurement of Taksim 4.Levent.

and Execution	Istanbul IBB	• Funding the construction phase with the Municipal budget. • Becoming the client during the E&M delivery and controlling the work of the private contractor against the initial specification.
	The Mayors	• Making the decision to deliver the project. • Fixing the priorities of IBB • Deciding of the suitability of the different bid and project specification.
	Engineering Consultancy	• Supporting and advising IBB for the procurement of Taksim 4.Levent
	IETT	• Preparing the first tender for the E&M delivery
	Ulaşim AŞ	• Complementing the work of the contractor • Supporting IBB's specifications • Learning in order to ensure the future operation of the system
	The International Contractor	• Bidding for the rolling stock delivery • Merging with the winner of the E&M bid to form a turnkey contract • Delivering the E&M system • Training the future operator
	The Turkish partner of the International Contractor	• Undertaking the architectural and civil engineering work related to the E&M works

6.2 The mimesis 1: The Taksim 4. Levent Events and evidence of polyphony

Taksim 4.Levent is the first metro project to be undertaken by IBB. Yet, starting by this section of the line was not the only possibility and calls at different stakeholders' position.

First the choice to start with the section between *Taksim* and *Levent* (instead of the Southern section between *Yenikapi* and *Taksim)* concerns the management of the interests and priorities, which interface with the project. Heritage protection and URIP delivery compete with each other, both depending on different authorities: a governmental agency for the archaeology and IBB. There is no coordination between both organizations and the imperatives of metro projects are disconnected from the archaeology, which still has the power to stop the work. Anticipating on this issue, IBB made the choice to start with the stations outside the historical peninsula. In other word, Taksim 4.Levent, as a first project, is already a way to deal with divergent preoccupations and avoid a heavy bureaucratic process. Then, the decision to deliver the first metro to this central part of the city raised controversies. Community representatives, among them academics from a well-respected public university, considered that the project should start by serving the district of *Başakşehir*. Acknowledging that IBB owned lands in this part of the city, this alternative project was seen as a way to address development and housing needs by adopting an integrated approach to transport. While such divergences could be seen as anecdotal, they raise animosity when later, for the construction of the maintenance workshop of Taksim 4.Levent, IBB had to negotiate with the university to acquire some of its lands. This further delayed the project. Also, politics is an important aspect of the project, and through Taksim 4.Levent, IBB's legitimacy is challenged. IBB is particularly vulnerable to political parties' battles for power. Programs and initiatives are soured with controversies and conflicting values. This politicization of project paradoxically has the effect of a lack of information, limiting the studies and data that would provide evidence of potential benefits and enhance the public acceptability of infrastructure projects. In this context, the first governance *Event* is spelled as follow:

6.2.1 Event1: IBB's decision to deliver Taksim 4.Levent on his own.

For long time**,** the lack of funding and political commitment impeded the delivery of rail infrastructure in Istanbul. Still, due to bad transport conditions, rail infrastructures are associated with important benefits. To this extent, delivering such projects represents great political opportunities for local governments and representatives; hence IBB's initiative. Yet, IBB's authority and *ways of doing things* set the scene for contestation in many respects among stakeholders.

Another Taksim 4.Levent singularity is the financial difficulties it encounters. Again, this feature relates to IBB's capacities and functioning. The financing was identified as the reason for delaying the project, this due to the limited resources of IBB compared to the burden that represents such infrastructures:

> *"When there is no money available, IBB uses its own resources and the work is slower. For example, there is a reduction of capacities, the number of staff in particular. IBB says … this year I can give this amount, and then the companies adapt their capacities accordingly. We work this way."* (Engineer deputy project manager for the client IBB)

Again, this points at governance. On many occasions, project members resented having IBB funding alone such infrastructures, without Government's subsidies. This was also seen as giving too much power and room of manoeuvre to IBB at the expense of the project. IBB's priorities are subject to politics. To illustrate this idea after the 1994 elections, the administration of Recep Tayip Erdoğan's administration was accused of giving priorities to the construction of mosque instead of Taksim 4.Levent, a project initiated by the previous administration. Similarly the reasons for the cancellation of the first tender are still unclear, but relied on the discretionary power of IBB's mayor. Another element of distrust in IBB integrity is the choice of the Turkish partner in the turnkey contract. Once again, the outcome of the second tender was cancelled on IBB's decision. When the last one went forward, the arrangement included a close acquaintance of the Mayor, casting doubts on the fairness of the selection criteria. Similarly rumors circulated regarding the recruitment of Ulaşim AŞ staff, which was known as giving importance to religious belief and morality, which is banned in Turkey. This remains suppositions without evidence. Still, they constitute multiple attacks against the current conditions of governance and reflect on the atmosphere of the project, namely the pervasive struggle for power. At the micro-level, this context feeds project members' sense making:

> *"we are often in a situation where disputes crystallising around authority are common; the organizations do not want to drop their competencies or to transfer them to another."* (Engineer Supervisor, Ulaşim AŞ)

Looking further into the conditions of delivery of the E&M system, the organizing processes that led to the PPP collaboration are structured around 1) the cancellation of the second bid and 2) the contractors' merger. The PPP was constructed hierarchically through these facts.

The second bid is described as a negotiation failure between IBB and the successful bidders. Yet, the tendering process put an emphasis on price and left the specific issues related to the project open to discussion. The pre-selected candidates were put in a situation of competition. For each package, IBB had the power to negotiate the lowest prices. According to this criterion a consortia was chosen. Still, the respective responsibilities between client and contractor had to be negotiated before the signature of the contract. This was critical as there was water leaking in the tunnels as a defect of the civil engineering work. The discussion lasted over 10 months and raised a great deal of frustration from the client side:

> *"They were trying to extract concessions from the specification before the signature of the contract. It lasted 10 months, with meetings every day. There was a technical proposition with a technology, which was a little innovative… But the technical specifications of the contract were not the core of the problem… Indeed we found an agreement on these issues. The demand of the contractor rather concerned administrative specification… if something goes wrong how we will arbitrate over the problem? [...]One day, they managed to agree and the day after it started again, it was an endless process* (Engineer supervisor Ulaşim AŞ)

This second bid is interesting regarding the way of approaching risks. On the one hand, the strategy of the contractor consists of spreading risk, eventually at its advantage, before committing to the project. On the other hand, IBB representatives expect the signature of the contract first and do not understand the need to argue across organizational boundaries as to who is responsible for what. This is a good illustration of the two divergent attitudes to risk as described by Czarniawska (2009): planning *vs* action. From the contractual perspective, the contractor responds to IBB's price incentives, and perhaps, has an interest in entering the Turkish market. In contrast, IBB represents the authority and expects a certain behavior from the contractor, especially to take responsibility for the project and act in its best interest. The bases for trust are also likely to be of different nature: calculative for the contractor as it negotiates the contractual conditions; norm and value based for IBB as it expects a certain behavior from the contractor. In light of Action Net, the second bid could be seen as a case of

actions that *did not tie together*, and did not lead to the emergence of an arrangement. The arrangement will emerge as the result of the third tender and the merger of the winners. The change it involves in terms of governance constitutes a second *event* and could be outlined as follow:

6.2.2 Event 2: The bundling of the E&M system under a single private contractor:

Taksim 4.Levent governance changed, from a conventional type of procurement whereby the public authority managed and coordinated the contractors for the construction phase, it became a PPP, which gives substantial responsibilities to a French contractor operating at the global level.

The merger led to the emergence of a powerful single contractor. Yet, it implies an inter-organizational arrangement allowing a public-private relationship to emerge for the effective commissioning of the system. The next section describes this process by putting tensions and power discrepancies at the front.

The beginning of the work is characterized by a climate of reserve and suspicion from the different parties. The contractor reported important technical issues, such as 1) the total absence of communication with the contractors that delivered the civil engineering work, 2) the lack of reliable drawings, 3) the mismatch between the needed equipment and those required by the contract, and 4) the insufficient space available in the tunnel and the station to effectively accommodate them. However, when it came to work together for the first design and procurement phase; namely installing power supply, auxiliaries and escalators, the problems arising were rather described as cultural than technical. In addition, the contractor criticized the attitude of the public parties, complaining about a lack of confidence in Western engineering, the use of excessive political pressure and immaturity in making decisions:

> *"The Mayor… Erdoğan… oh yes, he was present… look he is here… [showing a picture of the project team].There was a lot of political interests[...].They should trust more Western engineering, be more reasonable in their expectations and objectives. They have a lot of difficulties to delegate but it is due to the structure of the decision*

making process. They are collegial in the way they make decisions. (Project director, main contractor)

Interestingly, the same climate of distrust characterized the relationships between the main contractor and its Turkish partner. The Turkish partner felt as being viewed as 1) "a spy" of the mayor due to a personal acquaintance, 2) a threat to the profit margin by securing the easiest part of the work. Conversely, public parties, IBB and Ulaşim AŞ staff suspected the contractor of acting opportunistically by minimizing their responsibilities for the delays to formulate undue claims.

"...they had problems with their supply chain but they would not reckon they could not deliver... And after they were saying that it was IBB's fault."(Engineer deputy project manager for the client IBB)

Yet, both parties viewed trust as a critical factor for the progress and the completion of the project. However, trust was lacking in this initial phase of the project and the organizations were concentrating on their respective areas of responsibilities. The private contractor is perceived as drawing boundaries and lacking honesty regarding their capacities to deliver up to expectation, calling at IBB's vigilance. Also, the future operator, Ulaşim AŞ assisting IBB defined its task as doing what the contractor did not want to do for a reasonable price. This feeds resentment, which led Ulaşim AŞ to challenge systematically the views of the contractor. Such context was viewed as detrimental to the progress of the project impeding coordination. This was an outcome of the political drivers that did not necessarily align with the operational needs of the project, sowing a lack of confidence and mistrust, which cascaded down the hierarchy to the micro-level. At all levels the absence of trust was the product of actors' sense-making around the tasks and their governance. The Action Net perspective permits to trace such dynamics in detail, showing how the conditions for collective action struggle to emerge and stabilize. The situation moved forward at the initiative of IBB with a change in governance that could be outlined as the following third *event*

6.2.3 Event 3: Change within the client team:

When Recep Tayip Erdogan resigned from his position for political reasons external to the project, his aide replaced him. This new figure introduced the use of authority through regular meetings to monitor progress, speed up the process and solve potential dispute on a daily basis.

> *At the end of the project, the management team of IBB changed. There was a woman; she was the advisor of the boss. Both of them were very strict, they were almost insulting for the Consortium, after each meeting we were all depressed but they [the main contractor] speed up the process to not have to hear from them. So [the main contractor] organized more technical meetings with the local partner. Before it was every weekend, then it was every day at 7:30 in the morning. It was the moment where [the main contractor] demonstrated some effort to get along with the Turks. This attitude was essential because coordination was needed to make progress.* (Architect for the local partner of the main contractor)

Concurrently, this later stage of the project is associated with the emergence of competence and goodwill trust. Parties were seen as obliged to work together to complete the project This means avoiding 1) apportioning blame, 2) arguing about who is doing what, and finally 3) putting aside organizational conflicts. IBB, as the client, made sense of the previous situation by trying to use authority and power from a more technical viewpoint to drive the project forward. However, this seems to be a shift in governance that instilled confidence, focus on the tasks to be performed and interestingly, allowed trust to emerge. Taksim4.Levent opened to the public in September 2000. Despite the delays the project is unanimously considered as a success. The foreign contractor is proud of having delivered a metro to the city of Istanbul without major claim. And for the Turkish parties it is a great achievement and a learning opportunity:

> *"At that time, for us it was like going to the moon"*(Architect for the local partner of the main contractor)

> *"It was a positive experience: for us it was like a school, we learned a lot of things. Now we are doing the work faster and cheaper"* (Engineer Ulaşim AŞ)

To conclude this first part of the Mimesis, table 13 summarizes the project life cycle in Grid-Group terms. It is possible to show how the four cultures manifest; namely *Hierarchies*, *Individualist*, *Egalitarian* and *Fatalist* according to 1) the relationship attributes that emerged over the different project *events*, 2) the attitude towards risk. This approach will be further developed in the second part of the Mimesis, offering graphical representations.

Table 13: The cultures of Taksim 4.Levent over the project life cycle

Hierarchie		**4- Delivery of the E&M System :** IBB represents the Client. It has a strong incentive to take into consideration the whole Risk of the project and to ensure there is an internal organization within the SVP to allow the project to go forward.	**5- Delivery of the E&M System and commissioning:** To foster collaboration and allow the project to go forward IBB is obliged to infuse a Hierarchical order within the SPV that delivers the E&M system of the project. By introducing authority, IBB helped the development of trust among project members, reducing uncertainty and ensuring that everybody works toward the completion of the project
Egalitarian	**2- Front end of the project, Planning and Construction phase:** The municipality of Istanbul (IBB) understood the political benefits associated with the delivery of a mass transit system in Istanbul and became committed to the project. Taksim 4Levent moves in a High Group Environment. However, IBB is a political organization whose main preoccupation is to remain in power and vulnerable to competitive ideas, rationales and preoccupation. IBB did not reorganize itself in order to create the capacities and condition for Taksim 4Levent , therefore the project moved in a Low Grid environment.	**4- Delivery of the E&M System:** Here, Ulaşim AŞ, the future operator is in an *Egalitarian* position due to its lack of power within the SPV and its incapacity to influence the organization of the work. However, as IBB they have at heart the long term benefits of the project and are concerned by the project' risk.	

Individualist	**3- Planning of the E&M System:** To some extent, the project moves in a Low Grid and Low Group environment due to the arrival of the private contractor. This means that incentives related to prices and profit margin became a prominent consideration for the continuity of the project.	**4- Delivery of the E&M System:** The Private contractor is still in power with its preoccupation for the prices and his profit margin.	
Isolated	**1- Front end of the project:** The feasibility studies of Taksim 4 Levent were undertaken by the State. An environment where the project was in competition with diverse governmental organizations, which tend to promote road infrastructures, relatively cheaper and easier to make in the Turkish context. Taksim 4.Levent emerge in a High Grid environment (subject to multiple organizations' decisions) and Low Group (low commitment to the project)	**4- Delivery of the E&M System** Here, the Turkish partner is Isolated. As the main contractor he is incentivised by its profit margin but his influence is limited due to its lack of power compared to the private contractor who doesn't want to involve him due to the fear to have its profit margin reduced.	
Project Lifecycle			

6.3 The Mimesis 2: Taksim 4.Levent in Grid-Group terms.

Three sets of relationships emerged over the development of Taksim 4.Levent:

1) The relationships between the different State Agencies
2) IBB relationships:
    - With other public agencies that have the power to impede the progress of the project.
    - With the public (comprising competing political parties and interest groups)
3) The relationships the turnkey arrangement, that is the contract between IBB, as a client, and the private contractor.

These relationships can be mapped on the Grid-Group Model, picturing Taksim 4.Levent trajectory along the Grid and Group dimensions (see figures 10, 11, 12)

6.3.1 Order 1: The relations between IBB, the State Planning Agency and various State Agencies

Taksim 4.Levent breeds from an *Isolated* context, Grid is high due to the competing State agencies that promote road investment or refuse to allocate fund to rail infrastructures. Group is low due to a general lack of commitment but also capacities to allow the project to progress beyond the feasibility studies. Then, Taksim 4.Levent moves along Group to reflect the establishment of IBB and its commitment to deliver rail infrastructure to the city. This move is also emphasized in the decision to avoid a situation where other agencies such as the archaeology could block the project. The choice to start with Taksim 4.Levent represents a move in Low Grid. Taksim 4.Levent enters the realm of *Egalitarians*. At this point there was two possibilities. IBB could have reinforced its internal structure around the project, such as crafting mechanisms towards the effective implementation of the project. This would have led the project in the realm of *Hierarchies* (High Grid and High Group). Yet, on the contrary, IBB endeavor seems unstable and vulnerable: first, alternative ideas concerning the project developed among the public, weakening the relevance of Taksim 4.Levent; second, while there is a commitment from IBB to deliver a rail system to the city, the initiative remains subject to political games, leading to ad-hoc decisions, absence of transparency and poor legitimacy. Taksim 4.Levent's organization is weakly structured and the project risks –

financial and technical– are instruments to justify decisions and changes within IBB. Taksim 4.Levent's construction phase and the front end of the E&M system delivery concentrate around the Mayor and its network. This is the maintenance of IBB's organization and power, which drives the project and alternative approaches are seen as threats/risks for the organization. This is typical of *Egalitarian* culture.

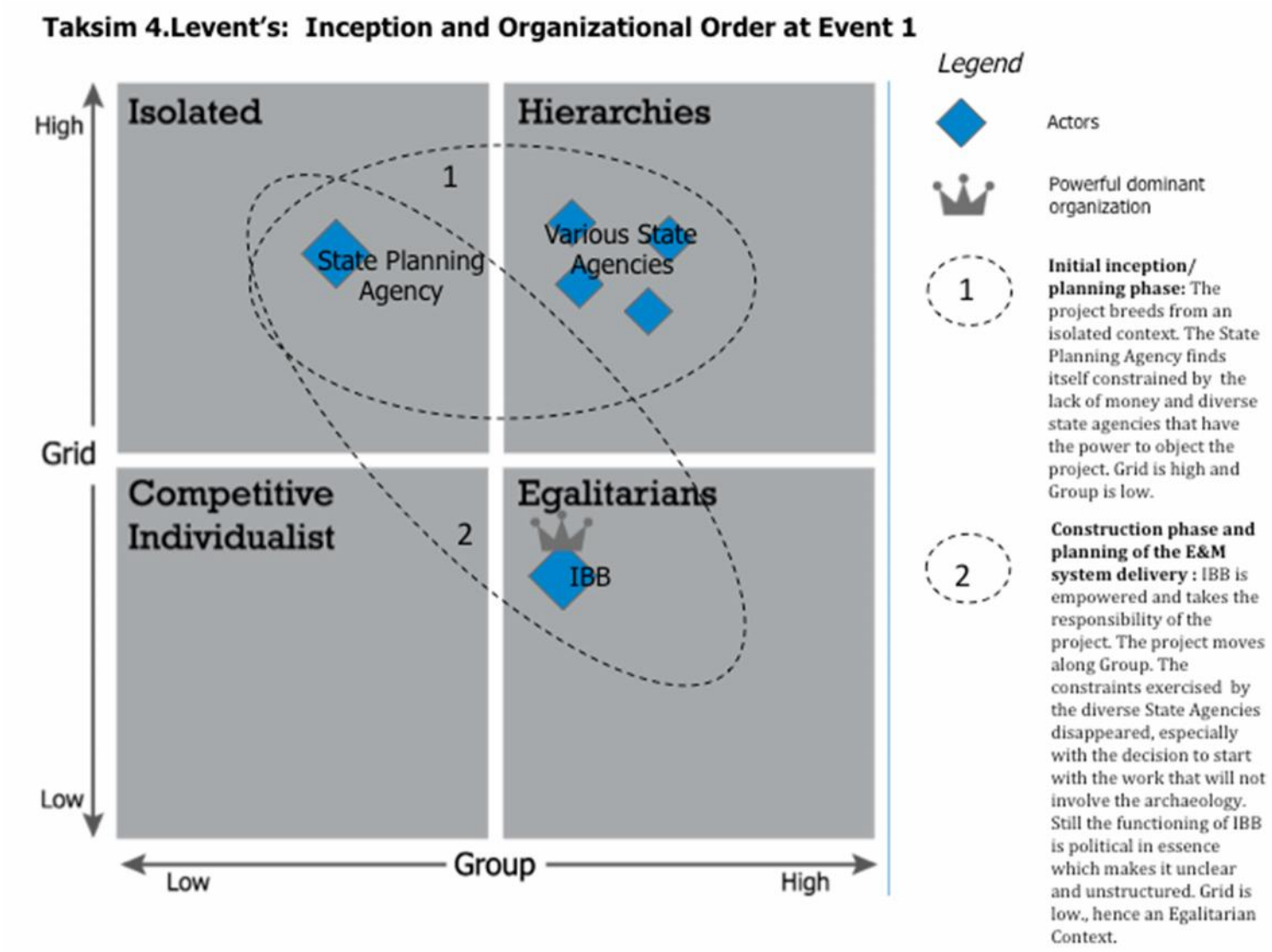


Figure 10: Taksim 4.Levent's front end, Phase 1 and 2

6.3.2 Order 2: IBB relations within the Turnkey arrangement

Regarding the second tender for the E&M system, the arrangement does not emerge due to the difficulties to create the conditions for cohesion between the contractors and IBB. Again, this is a problem of Low Group, possibly with Low Grid. The problem might come from the fact that IBB tries to bring the contractor in an *Egalitarian* context, which emphasizes group but doesn't rely on specific internal mechanisms that would allow building the relationships that would protect the profit margin of the contractor. Then, the signature of the contract with the French contractor brings the project into a new order. The project that mainly depended on IBB, now relies on a more complex structure: a PPP where the private contractor has substantial power. This introduces a relationship based on market mechanisms as IBB privileged prices in the tender. However, the relationships with other organizations are less regimented leading to concurrent actors with less power. Ulaşim AŞ has a formal link with IBB but has no power over the contractor, and quickly competitive rationales developed between both organizations; the future operator having at heart the learning experience and the interests of IBB, while the contractor was worrying about its profit margin. For the Turkish partner, the situation is less evident. This actor was supposed to work next to the contractor, in the spirit of trust and collaboration. However, due to the close relationship with the mayor, the contractor does not engage his partner and tries to limit its room for action, again in an attempt to preserve its own opportunities for profit. To this extend, the E&M system delivery starts in a setting that comprises the four cultures: the *Competitive Individualist* for the private contractor, the *Hierarchies* for IBB, the *Isolated* for the Turkish Partner and the *Egalitarian* for Ulaşim AŞ. These cultures posed issues such as the lack of project progress, vested interests and difficulties to impose authority and coordinate the process.

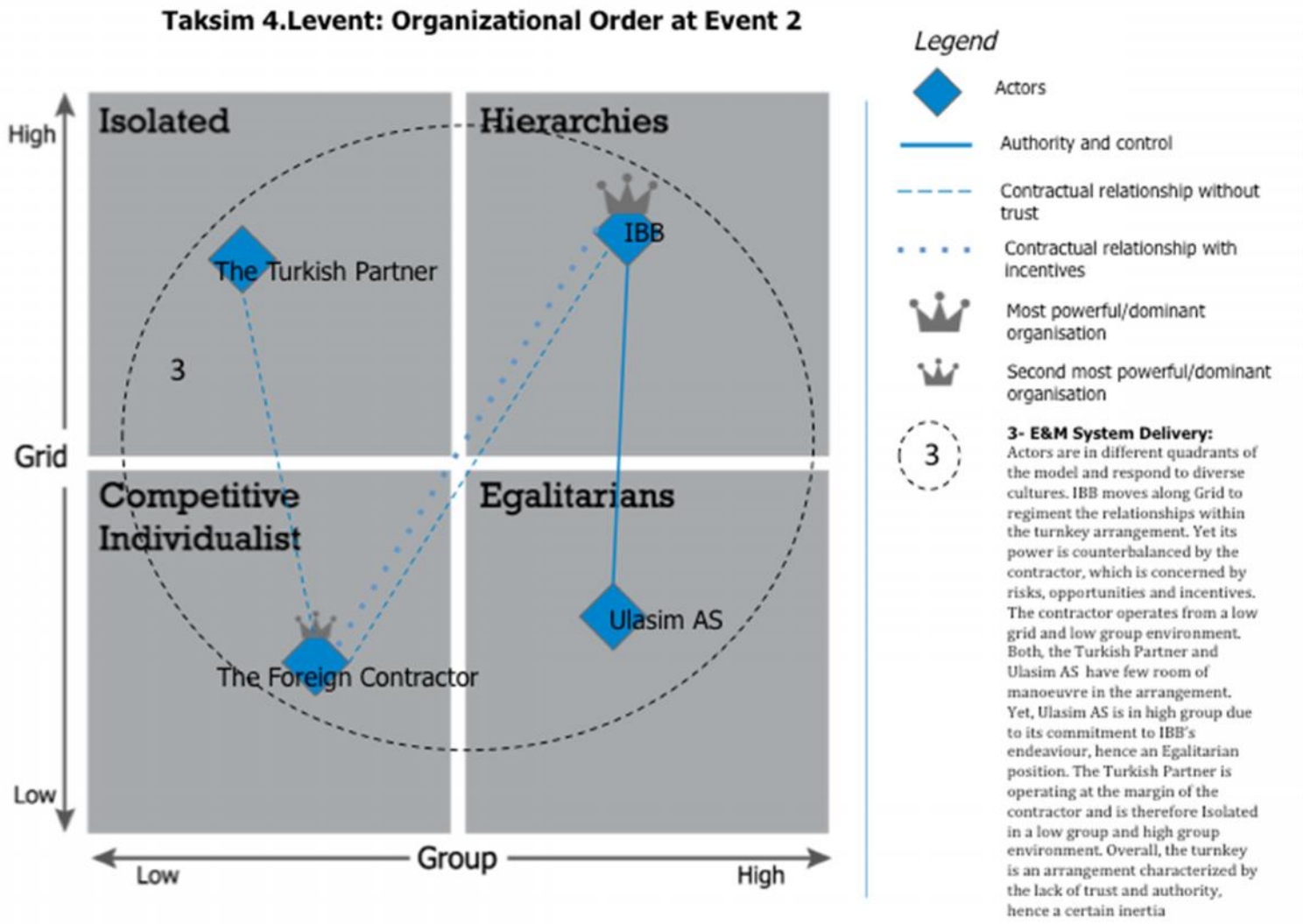


Figure 11: the Delivery of the E&M System: Phase 3

6.3.3 Order 3: IBB and contractors' relations for the delivery of the project

The situation changed again when the client team changed, implying a closer monitoring of the project progress. Through the use of authority the different parties found themselves obliged to coordinate their efforts in order to work together towards the completion of the project. This phase is also associated with the development of value-based trust as the Turks and the French were "becoming friends". The actors of the turnkey move along the Group dimension, their relationships seem more structured, "everyone seems to have found its place". The project ends up in the realm of the *Hierarchy*.

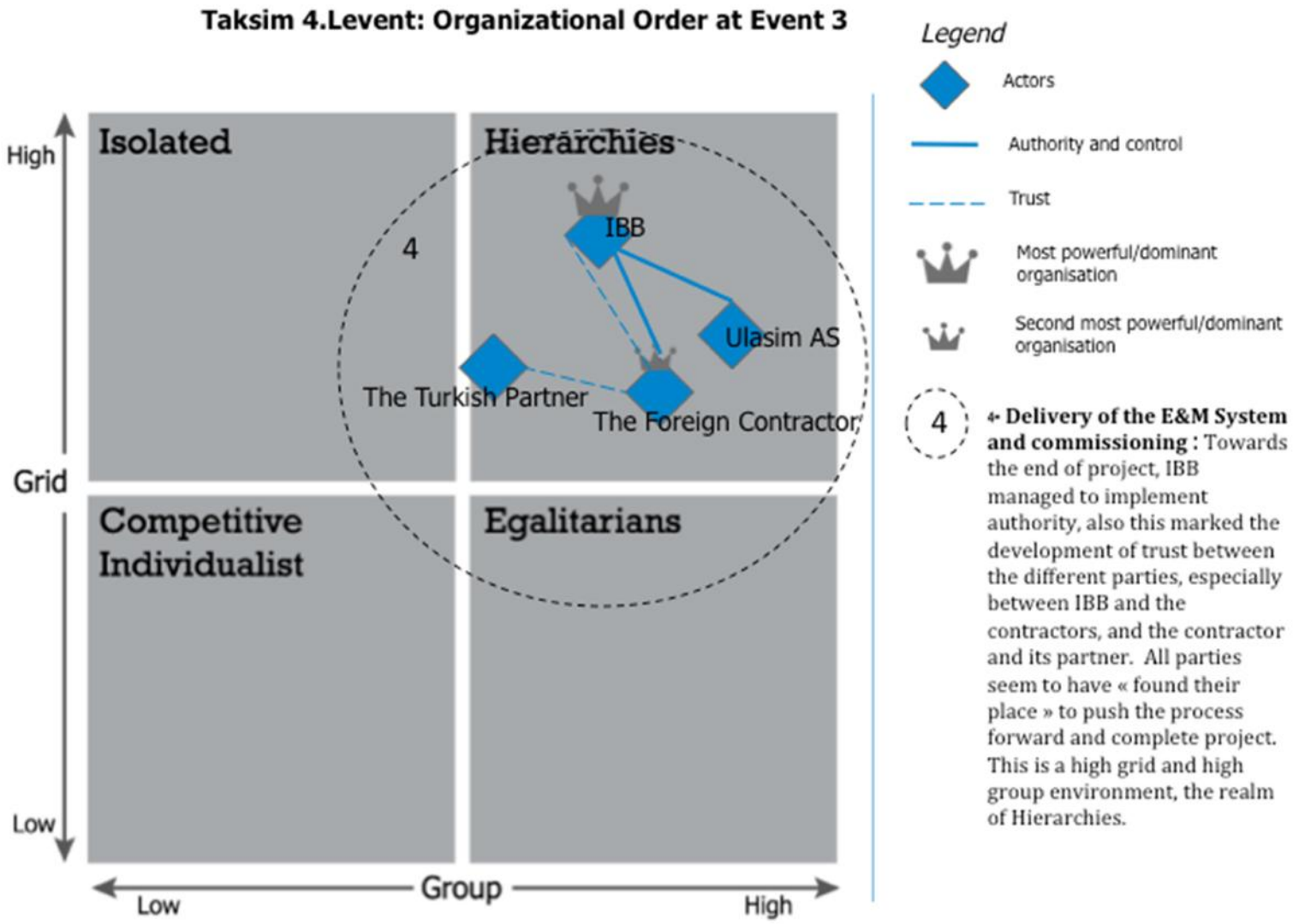


Figure 12: the Delivery of the E&M System: Phase 4

7 Case Study 3: Météor

7.1 The Chronicle: Météor's Decision

Meteor is specific because its Action Net concentrates on single and powerful organization, RATP. To this extent, there is an opportunity to uncover the organization's internal processes that allowed Meteor to go forward. To this regard, the main attribute of RATP is to construct itself as a coordinating entity via a specific project structure to organize the different phases of the project – from planning, construction and operation – and the different imperatives and interests at stake. This is all the more interesting that it differs from the context of the two other case studies whereby such coordinating entity tends to emerge towards the end of the project when the client manages to exercise authority. To put it differently, the stories of the JLE and Taksim 4.Levent depict two cases where organizational conflicts and tensions are reported as hindering the progress of the project. Conversely, Meteor is a case where the organization provides a place for intense interactions between different organizational rationales and functions, and such a setting is considered as positive and beneficial to the project. In this respect, Meteor governance triggers the following questions: *does the organization constitute the governance conditions to effectively manage cultural dynamics? Going further, what were the limits of such management, and how do polyphony and change manifest?*

7.1.1 1987-1993: Planning and conception

Météor or the line 14 of the Parisian Underground Network is an automatic metro line that comprises 9 stations from St Lazarre to Olympiade in the South. It has been conceived, proposed, built and operated by RATP, the public company in charge of Paris metro system. The project offers wide connections with the rest of the network. However, three main route proposals were offered for Météor. The selected one was defined concurrent to another large scale project, Eole from the competing public company SNCF, and to complement Eole, rather than compete with it in order to improve the chances of approval. As the main objective of these new infrastructures at that time was to tackle the congestion of the RER A, the regional line A,

Eole would connect Gare du Nord and Gare de l'Est areas while Météor would concentrate on the 13thborough of Paris and the South East of the river.

However, the green light for Météor delivery depended on specific conditions. First Météor was a project developed internally by a small team of people within the development department of RATP. Its realisation became a possibility when the new CEO, Christian Blanc, joined the RATP. In fact, he saw in Météor the opportunity to modernise and federate the whole company. In addition, he had some personal relationships with the Prime Minister, Michel Rocard, due to previous experiences, steering the decision-making process in his favour. This character is seen as key for convincing Météor's external stakeholders. As a result, in 1989 Michel Rocard approved Météor. Secondly, Eole was approved as well and even though both projects were not competing in terms of route, they were depending on the same funds. To this regard, there was a great incentive to present Météor as a minimalist project, undermining the cost in order to engage the different stakeholders that would finance the project. Indeed, the project benefitted from additional funding from the City of Paris for its contribution to the development/regeneration project, Paris Rive Gauche next to Bercy district.

Decision 1: Building Meteor and Eole at the same time As the result of the respective lobbying activities of the two public companies, RATP and SNCF, two large scale projects were approved at the same time Meteor and Eole. Yet this specific context favoured undermining costs in order to get them approved.

The project implied four objectives: 1) relieving the congestion of the RER A, 2) Modernising RATP, 3) developing Paris Rive Gauche and 4) the making of an industrial showcase with the automatic system. Once the Ministry agreed to deliver the project, RATP had to convince other stakeholders, the STP in particular. The STP is the *Syndicat des Transport Parisien* which represented the State at that time and gave a legal support to the project. From the process perspective, the approval is made of two steps: the *Schema de Principe,* which explained the principles of the project and its main funding mechanisms; and then the *Declaration d'Utilite Publique* (DUP*),* which entails the impact studies and defines the utility of the project.

Concurrently, for funding reasons it was decided to implement the project in 3 phases: 1) Madeleine- Bibliotheque 2) St Lazarre Station and 3) Olympiade. The planning process of the first phase is described below.

At that time the approval process for Meteor comprised the following phases:

- In 1987 proposition of different project routes.
- 1988 the RATP chooses to submit a project route that does not compete with Eole.
- 1989 the Prime Minister, Michel Rocard decides to build both projects, Meteor and Eole.
- October 1990, first public enquiry (DUP) for the stations St Lazarre to Bibliotheque.
- May 1991, the State approves the project but the route of the project change in the south of Paris.
- October 1991: the RATP and the STP approve the pre-project for the phase 1, Madeleine-Bibliotheque.
- 1993 starts of the work for the 1st phase

7.1.2 1993- 2007: Implementation

In Paris, Public Transport Companies in charge of operating the transport network, such as RATP and SNCF, are prominent actors. In the case of Météor, RATP was responsible not only for the conception but also for the proposal, which traditionally emerged from the State Department, and then for the construction and operation. The company capitalises on its experience and cultivates the knowledge and competencies necessary for the realisation of large scale infrastructure projects. Part of its strategy is to create and rely on two subsidies that are involved in building a metro far from the Paris region, which is both national and international. These subsidies have a private status and work for diverse clients, not only the RATP but clients all over the country and the world. However, for the RATP such arrangements are a way to streamline human resources, keeping a high level of expertise and knowledge within its organizational network. Indeed, the scope of the RATP is broader than Meteor; it deals with the whole transport network and whether or not new Greenfield projects are rare due to funding issues, extending existing metro lines is part of an on-going process. Indeed, Meteor was

conceived in light of future extensions. In other words, RATP is a large integrated company, which concentrates all the functions related to transport services and infrastructure.

The DUP for St Lazarre and Olympiade stations was obtained in 1993 and 1998 respectively. In terms of funding the first phase relied on State subsidies (33%), the region (41%) loans (18%) and exceptionally on the city of Paris (8%) due to the regeneration project. The St Lazarre extension comprises of participation from the State (19%) and the region (61%), the rest being loans (20%). In this respect, Meteor could be considered a public project in the sense that it is entirely funded by the public sector.

Also RATP comprises both, the client and the project team, which refer to the French terms *Maitrise d'Oeuvre* and *Maitrise d'Ouvrage.* Meteor is therefore a corporate project. Subsequently, organizing the delivery of the project in 3phases is the result of a corporate choice to diverge from the project that was presented to get the Prime Minister's approval. The initial project was minimalist It was proposed by taking into account that Eole would be approved as well and would also have to be financed. But once the project was accepted, the project attributes change to turn Meteor into a cutting edge project with the inclusion of an architectural programme for luxurious stations, large platforms, a high level of mechanisation and systematic accessibility for people with limited mobility. As a result, the costs had increased by 68% in 1991 and, in order to secure the funding from the public sponsors, the project had to be divided into sections, spreading the opening of the stations across a timeframe. Whether or not such approach allowed Meteor to be realised in the end, it is still deemed costly because it involves additional costs such as the construction of a temporary workshop that had to be destroyed and rebuilt in the latter project phases. The subsequent sections opened in 1998 for the stations Madeleine-*Bibliotheque*, in 2003 for St Lazarre, and in 2007 for Olympiade station.

Decision 2: realising the project in 3phases. The decision to undertake Météor in three phases could be seen as a trade-off in order to accommodate 1) ambitions and standards superior to the original plan 2) the public stakeholders' ability to fund the project, mainly the region and the state.

Concurrently, within the RATP, Météor represents an opportunity to federate the organization, to modernise it, introducing change via a collective endeavour. Subsequently, original organizational measures have been applied. First, it introduces a project structure that spans the different functional department of the organizations in order to make sure that Météor is treated as a priority and benefits from the necessary resources. Expertise had been taken out from specific departments and allocated to the project. Second, for the first time, it distinguished two entities: the *Maitrise d'Ouvrage* from the *Maitrise d'Oeuvre*; a distinction that permits the introduction of a double control, similar to the creative tensions that characterise the relationship between the client and the project team. Whether such role distinction was new, introducing a *Maitrise d'Ouvrage* as a sort of client with a function of a project management office, most of the staffs worked together for long time under different norms, so in practice the full separation of role was difficult to apply. More importantly, such project structure was deemed very positive for coordination purposes as it provided a place for intense interactions between the different internal actors/project stakeholders but also dealt with the external interfaces of the project such as local representatives and residents associations.

Decision 3: Establishing a project structure: Within the RATP, a project structure was implemented in order to provide the whole resources needed for the project and ensure the coordination with the entire internal and external stakeholders. In addition, it implies an organizational innovation by distinguishing internally the *Maitrised'Ouvrage* from the *Maitrise d'Oeuvre*.

Meteor was implemented by dedicating a team to the project. Specialists from the whole RATP organization had been gathered into a project structure to allow for the different imperatives of Meteor delivery: from the system delivery and the automatism, to the relationship with external stakeholders. Most decisions were taken within this team, and cohesion was triggered to allow the team members to share common goals and responsibilities to allow the project to go forward. From a governance perspective, there were no major problems during the implementation of Meteor but challenges did exist such as 1) communication with the residents and external stakeholders, 2) the relationship between the contractor in charge of developing the automatism, and 3) the collapse of a school courtyard during the third phase. First, the residents and shops of

the first borough of Paris, near Chatelet Station, were ill-informed concerning the time length and disturbance related to the civil engineering work. Indeed, they were difficult to engage as they anticipated little benefit in the new metro due to the good level of service they already had in central Paris. As a result, they managed to question the DUP and obtained a modification of the initial route. This is deemed to have increased the prices of Meteor and contributed to the decision to divide the line into sections, phases that would fit the available budget. Second, the relationship with the contractor that developed the automatism is recollected as challenging by the client/*Maitrise d'Ouvrage*, due to difficulties to get the specifications formulated in the contract. Finally, an accident occurred during the delivery of Olympiade station, involving the collapse of a school courtyard but without any deaths or injuries. Responsibilities were shared between RATP and the enterprise in charge of building the tunnels. The RATP and the City of Paris dealt with the implications of the accident by relocating pupils to new schools with transport services. Discussion regarding the respective responsibilities of the organizations occurred in the second instance and did not impact on the urgency initiatives.

7.1.3 1998- Onward: Operation

RATP operates Météor, thanks to the automatic system, with a line considered to be quicker and higher quality of service in the network. Interestingly, the line did not meet its initial goal, namely relieving the RER A, which is still congested.

In terms of actors, RATP is at the core of Meteor's Action Net (see table 14). However as it involves new processes, new units of governance emerged such as the project structure. Externally, competitors and stakeholders who funded and approved the project played a role in the construction of the project, as the resident association that had the power to delay and modify the project.

Table 14: Météor's Actors

Project phase	Actors	Action
Planning	RATP	• Proposing and Conceiving the project
	SNCF	• Competing with RATP and Meteor to have an alternative project built.
	The State/Prime Minister	• Approving Meteor.
Implementation and Execution	The Region	• Funding Météor
	The STP –State	• Funding Météor
	The City of Paris	• Funding Météor in order to foster the development of Paris Rive Gauche.
	RATP	• Executing and operating the project
	The RATP internal project structure.	• Coordinating internal and internal actors related to the project
	Residents Associations and local representatives	• Easing or hindering the project progress according to their interests.

7.2 The Mimesis 1: Météor's *Events* and Evidence of Polyphony

This part consists of analyzing one specific event that defines the ways of doing things associated with Meteor and to highlight how competing rationales were formed out of the subsequent organizing processes. This event relates to the choice of to rely almost exclusively on RATP to govern the project, from its earliest conception to its delivery and operation. While this suggests an emphasis on RATP as a specific organizational system, the following remains faithful to the prominence of organizational process over organizational forms and it uncovers the divergent organizing forces raised by Meteor.

7.2.1 Event 1: RATP as a single organization for Météor:

Météor was fully initiated, developed and delivered within a single organization. This raised issues regarding 1) the fact that Météor represents a corporate project that benefited RATP

organization 2) the power of transport companies in the decision-making process 3) the relationships with external stakeholders, especially local representatives and residents associations and 4) the internal processes and structures that governed the project.

Météor arose from RATP's development department and relied on a small team that took the initiative to investigate the possibilities for a new metro line that would relieve the congested RER A. The idea was developed through an informal network of staff members working within the RATP to gauge the feasibility and the potentials of the project. The atmosphere is described by one of Meteor's developers as secret so as not to generate opposition; the first challenge being to promote the project within RATP and then to external stakeholders. Indeed at the beginning, Meteor raised resistance within the organization, its emergence coheres with the arrival of a new CEO, and therefore a change in power that brought the project on the top of the agenda.

> *I developed the project by relying on a small team of 10 persons, at the beginning it was not very well perceived within the company and we did this by working in secret, without the permission of the head of the department. Then, Christian Blanc [the CEO of RATP] arrived and supported the project. It accelerated the process as he was listened politically; it helped to convinced ministers and other external stakeholders.* (interview 1, head of the development section of RATP)

Also Météor and the subsequent decision-making process cannot be separated from the general climate for Mega Projects that characterized Paris at that time, especially the initiatives of a competing transport organization, SNCF and its plans for a competing or a complementary project, Eole. The actual route of Meteor emerged from the interactions between RATP and SNCF. Three alternative routes had been proposed; while the third one was deemed the most appropriate, the need to complement rather than compete with Eole resulted in the first alternative being put forward. The process is reported as an acknowledgement of the aggressive lobbying activities of the SNCF. As Eole, SNCF's project, was likely to be launched, the strategy consisted of avoiding arbitration between the two projects, Eole and Météor. The idea was to present both projects as useful, unique and complementary for the territory. The incentive to have the project launched and accepted by the State was very high partly because the project had become of strategic importance for the RATP. The main motivation for Météor was internal to

RATP; for the new CEO, Christian Blanc, such a large scale project was seen as an opportunity to federate and modernise the company which was then considered too hierarchical and in decline:

> *It was a way to give a fresh start to the company, because at that time it was like a very old lady… for example, let's refer to the secretaries' testimony: they were not using computer, they were all in a big room with someone, as a teacher, regimenting their work by clapping their hands. It was a very dusty and bureaucratic company. To get an authorisation, you needed at least 4 different stamps*. (interview 2, responsible for the project's public relationships)

> *During the 80s the conditions were particularly difficult, we had a small investment budget, a few terrorist attacks and strikes on the network…the company was in very bad condition actually so Meteor was like a new hope; it was a big thing not the project of a small team but a corporate project.*(interview 4, project manager, *Maitrise d'Ouvrage*)

Subsequently, Météor was a way to mobilise the corporate resources and expertise. Indeed, the project benefitted from previous experiences in metro projects due to the construction of the RER lines; members of staff that had contributed to them were still present in the company for Meteor. To support the project, a specific project structure was established, equating to a new organization for RATP. RATP was an organization heavily structured into hierarchy, divided into functional departments and regimented by bureaucratic processes. The idea was to use Météor to limit departmental and professional boundaries and overcome the existing hierarchies by favouring a project approach where resources and expertise present in each department were pooled within the project structure. Yet, the success of Météor was associated with breaking away from such organization and traditional ways of doing things.

7.2.2 Event 2: The implementation of a project structure:

This consist in implementing a *Maitrise d'Ouvrage* and a *Maitrise d'Oeuvre*. The *Maitrise d'Ouvrage* would act as an internal client while the *Maîtrise d'Oeuvre* is responsible for the implementation and deals with the issues at the operational level.

> *We managed to gather all the resources on the same platform, it was necessary to manage the different interfaces: architects, civil engineers, systems…Before everybody was working independently and suddenly they were all in the same place. We managed to get rid of the department organization and professions' boundaries to make sure that all the different disciplines were working together. It was not easy we had to argue with the heads of the different departments who wanted to keep their resources.* (interview 4, project manager, *Maitrise d'Ouvrage*)

> *For me the success of a project begins with that; the constitution of a dedicated project team. There is a need to create a team spirit with internal and external exchange. People came from everywhere, from all the departments of the RATP. There was an entire building for the Meteor team. And there was a boss, a project manager, who was deciding. This was the real strength of Meteor.* (interview 5, engineer working at different phase of the project, *Maitrise d'Oeuvre*)

Collaboration was infused at a very early stage of the project. Such collaboration relied on design, the design of the project governance as a new organization for the company but also on the existing strengths of the company, its expertise, and control: there was a clearly identified "boss", project manager that had the power to make decisions. It was the first time that a distinction between *Maitrise d'Ouvrage* and *Maitrise d'Oeuvre* was made, which alludes to a project manager that was coordinating the different *Maitrise d'Oeuvre* for each project function such as civil engineering, automatisms and systems delivery, and operation. Such organization is collaborative in essence as it allows a voice to each project function and discipline, however it generates creative tensions between the *Maitrise d'Ouvrage* and *Maitrise d'Oeuvre* to monitor and control the costs:

> *There is a need for a clear distinction between the* Maitrise d'Ouvrage *and* Maitrise d'Oeuvre*, in this way you have a double control. Before the* Maitrise d'Oeuvre *was judge and jury, which is not a good solution for mastering the risks. At the beginning the* Maitrise d'Oeuvre *was a bit reluctant because it was limiting its room of manoeuvre and autonomy but at posteriori we saw that such mechanism prevented costs' overrun.* (interview 4, project manager, *Maitrise d'Ouvrage*)

> *Each party has to play its role fully, the information has to flow between the* Maitrise d'Ouvrage *and* Maitrise d'Oeuvre *and each party must be able to defend its interests because each party knows something that the other doesn't. In general people were very surprised in the meeting to see that any man from my team could raise its hand and say that he disagreed. It doesn't prevent arbitration, at the end everything is a compromise but everyone must be able to express his view. With Meteor it worked very well.* (interview 6, engineer, *Maitrise d'Oeuvre*)

Météor started in a context where professional trust, based on norms and value is present as well as authority and incentives regarding the costs. The project organization is new but draws on people that used to work together and know the imperatives of metro projects. In this sense even if the relationship between the *Maitrise d'Ouvrage* and *Maitrise d'Oeuvre* implies tension, the implementation of authority and incentives structure were eased by these trust conditions. Then, Météor is a modernisation endeavour for the RATP and comprises of the acquisition of new expertise, competencies, and equipment, the ones necessary to face the innovative and risky character of the automatic system but also the ones needed to face the complexity of the construction; that is the delivery of a very deep project that had to pass under the existing networks of a dense urban area.

> *Yes, Météor was a form of modernisation, we bought a brand new computer from IBM that allowed displaying the data in 3D, and we could see underground and surface obstacles, because it was very complicated to pass underneath...* (interview 3, working in the department for the technical studies of the new projects of RATP)

> *For the automatism we hired a team of experts in order to discuss with the contractor, and then we made a contract that protected us against the risk. For example, we paid only when the detailed conception was approved to make sure that the system was conform to our expectations. There was a situation of crisis where we had difficulties to get the specifications but thanks to this contractual arrangement we managed to get what we wanted.* (interview 4, project manager, Maitrise d'Oeuvre)

Again the new organization implies the implementation of an incentive structure from the *Maitrise d'Ouvrage* that ensures that the project is delivered up to expectations in terms of

specifications and costs. In addition, this new organization for Météor implied a reconsideration of the professions within the RATP organization, especially regarding the operation in order to reflect on the impact of the automatism.

> *It was the opportunity to create something completely new in terms of work organization, to change, to do what we always dreamed but couldn't do before* (interview 4, project manager, Maitrise d'Oeuvre)

However this re-organization of RATP around Météor generated tension within RATP, emphasising the multiple cultures that populate the organization. At that time the idea to deliver driverless metro lines to the city raised controversies and opposition within the organization where employment and strikes were a recurrent issue. Largely, it shows the different cultures within the organization, the RATP comprising of 45,000 employees of whom 25,000 are drivers,

> *They are the bulk share of the staff but they constitute a completely different world than from the one of the engineering* (Interview 7 Engineer project manager, phase 3)

And to some extent, this environment was reducing the acceptability of the changes involved by Météor:

> *We were already considering transforming the existing lines into automatic systems, it was under such scope that Meteor was conceived, although it was not possible to determine when the decision could be applicable given the context of the 90s; namely unemployment and the social issues it involved* (interview 4, project manager, Maitrise d'Ouvrage)

Météor involved stakeholder management, as the management of those that could not see any benefits but would be affected by the project. Météor was driven by a very hierarchical culture, in the sense that the organization really invested in making Météor a corporate project. Nonetheless, it faced many Egalitarian torganizations that do not have any direct benefits in the project but would act to preserve their own conditions as it is the case for the bulk of the organization. For example, drivers would not have benefits in seeing the organization modernising toward driverless infrastructures and therefore would oppose against Météor, which could be seen as the first step of such endeavour. Such Egalitarian cultures focus on specific

risks associated with the project and developed a view alternative to the Hierarchist one; the project is not seen through its overall benefits and costs but as a threat for the current organization and *ways to deal* with transport in Paris. Overall, Météor objectives were aligned with the development of RATP insofar as these internal stakeholders were relatively well managed. However, the project involved interactions with external stakeholders as well local representatives in particular. Some were not sufficiently engaged in the process and opposed to the continuation of the project during the construction phase, slowing down its progress. At the core of the interaction lay the relatively few benefits that the project represented for the central district of Paris, due to the already good level of public transport services. Yet, opposition did not manifest during the planning phase but when the interaction for execution became imminent. This relates to the absence of a proper mechanism that would have allowed discussions, conflicts and tensions to emerge before the beginning of the construction. Anecdotally, the DUP, namely the document that had demonstrated the utility of the project and gave power to the RATP for implementing the project, was reconsidered on the demand of an association of local residents. Delays became associated with (1) a lack of proactivity from the RATP but also (2) the complexity of the governance of Paris.

> *In terms of communication, RATP was not accountable to anybody, neither the State nor the Region. It was marvellous we could do whatever we wanted. However, when the works started and there was a need to install the equipments and the materials, the residents raised their hands telling that perhaps the Mayor knows about the works but them, but they were not informed and they didn't care about our brand new metro – as there was already a lot of metro lines in the first district – It was very difficult they attacked the DUP because of the lack of information and they won.*(interview 2, responsible for the project's public relationship)

> *In Paris it is very complicated to create a consensus. There is the Mayor of the districts and the Mayor of Paris, who is not elected but is supposed to lead the process for such project. The City of Paris finances through the region. So when they are not from the same political party it is complicated. And the RATP is in the middle of these relationships… When I work in Lilles it is different because there is an Urban Community*

> *that gathers everybody, so the debates can be intense but then a decision is taken.*(Interview 8, engineer responsible for the technical studies)

Concurrently, Météor offers lessons regarding joint actions in the face of risks and uncertainty. Again, this relates to the power of RATP and how it organizes for the project. During the second phase of the project, the construction works led to the collapse of a school courtyard. Responsibility had to be defined between RATP, the *Maitrise d'Ouvrage,* and the contractor, a large multinational company for public work. Recalling Czarniawska (2009) two attitudes were possible. The first would have consisted in arguing over who was responsible for what, while the second would have been to act regardless of organizational boundaries and do what had to be done. This is the second strategy that has been adopted by RATP. While the accident involved all Météor stakeholders, RATP but also the city of Paris, the region and the contractors, RATP took the leadership in face of the risk, preserving its image and reputation.

> *This accident involved the image and reputation of the company, so there was a political aspect. There was not many possibilities, RATP had to be the leader so we organized: it was the holidays so we had to ensure that appropriate bus services could allocate the children to another school when the classes started again. The city of Paris and [the contractor] took part in it but RATP was the leader. Then we had to stabilise the place to ensure the works could start again. We had to find quick solutions first. After it involved a lot of discussions between the different stakeholders, we had to explain to the City of Paris and the region. We went to the court with the contractor and had to decide who was responsible for what. But all this things occurred after.* (interview 5, engineer working at different phase of the project, *Maitrise d'Oeuvre*)

This anecdote displays the power of RATP and its capacity to settle a hierarchical culture among different project stakeholders. Coordination and joint action are key, it ensures that every actor collaborates and plays a definite role, while as an organization; RATP is the leader, the one that took decisions and initiatives. A partnership culture was achieved for Météor. However, such power generated controversies and critical voices. It pertains to the position of RATP within a network of external stakeholders and its power as a fully integrated company for metro and transport services delivery. When the decision to deliver Météor was taken, alternative visions for the city had developed through the delivery of tramways, which were deemed to be less

costly. Indeed, today the situation has changed and the relationships between RATP and infrastructures' stakeholders are regimented differently, contrasting with Météor's time. In this respect, RATP had a prominent role in the delivery of transport services and the decision to undertake Météor. At that time, RATP was a

force of proposition and was conceiving, promoting and executing projects in an integrated manner. It had a great power over other stakeholders; a situation which was specific to Météor and heavily criticized from a democratic perspective.

> *This is not normal that this is the transportation companies that decide whether or not such large scale project had to be delivered* (interview 1, head of the development section of RATP)

> *The RATP and the SNCF, they were a little bit like... I am not sure how to express it, they were the ones proposing, studying, executing and operating the project, it was a little bit like the State in the State. And the STP was never brave enough to arbitrate.*…(interview 2, responsible for the project's public relationship)

This autonomy left to the companies explained why the Météor project became the project in its actual form. The initial project was minimalist; a low cost project presented to get the Prime Minister's agreement. Then RATP had a large room of manoeuvre to transform the project into an expensive showcase.

> *We exposed our case to Christian Blanc, who said ok but in these conditions let's do something good, let's do a showcase, a technological showcase. From this perspective, an automatic metro was very suitable.* (interview 3, working in the department for the technical studies of the new projects of RATP)

Conversely, such initiative was allowed by the relative lack of power of the funding bodies. Today, in line with the decentralisation process, the situation has changed to limit the autonomy of RATP and give more decision power to local representatives. To this regard the STP became the STIF and is now directed by representatives of the region which have authority over the RATP, meaning that it takes decisions and the RATP is seen as a technical advisor.

Now the STIF is an instrument of the territory, which means that regional representatives are much more engaged and interested in the development of public transports….Now there is an exchange with RATP, they rely on its technical expertise but then they decide. Also at the moment there is the establishment of the Grand Paris, the State is going to engage as well, we need to see how it is going to be organized.…(interview 2, responsible for the project's public relationships)

7.2.3 Event 3: The establishment of the Grand-Paris to federate Transport Projects at the Territorial Scale:

While for Météor, RATP was both the *Maitrise d'Ouvrage* and *Maitrise d'Oeuvre*, for future infrastructure, the Grand Paris will assume the role of *Maitrise d'Ouvrage* for a large territory, undertaking the planning. The Grand Paris represents a new governance scheme at the scale of the territory for transport delivery.

The establishment of the Grand Paris is changing the relationship between the transport companies and the State. In the future, RATP should be confined to a role of *Maitrise d'oeuvre* and be in competition with other engineering companies that would have the capabilities to undertake such large-scale infrastructure projects. This is the place of RATP within a network of actors which is changing; a process influenced by pressures for more public participation and economic efficiency at the expense of transport companies' supremacy. This change would transform the current context for metro delivery that could be seen as an Individualist/Market culture: transport companies are main actors of a network and compete for influence and power. In contrast, other actors of the territory have limited decision power. With the Grand Paris, these actors would gain power and implement authority to regiment the role and influence of RATP and SNCF. This would imply the implementation of incentive schemes to prevent cost overrun and foster economic efficient choices. In a sense it represents the emergence of hierarchical governance at the scale of the territory.

Beyond the formal boundaries of RATP organization, the Action Net perspective permits

1) reconstructing how a hierarchical culture emerges for Météor within RATP. It demonstrates how top down organizational design – the implementation of a project structure was complemented by the existing resources of the organization, the necessary expertise and trust which had been built within the organization and contributed positively to the conduct of the project, from the bottom up perspective.

2) identifying the point of tensions and pressure for change. Within the RATP organization, *organizing* for Météor raised controversies and resistance, though these oppositions have been contained and managed to allow the project to go forward. Indeed, Action Net tells a lot about the relationship between RATP and other project stakeholders. On the one hand, it proves that the divergent interests related to Météor were not readily managed; hence the opposition of local residents who change the DUP and obtained adaptation in Météor route and conduct. On the other hand, it shows that beyond Météor, as a project, *organizing* for Météor raised controversies regarding the ways transport infrastructures are provided in Paris, Météor experience was the occasion to infuse change in the governance framework.

Table 15 provides a picture of the different cultural orders of Meteor over the project life cycle.

Table 15: Météor's Cultures over the project life cycle

Individualist	**1-Inception and planning of the project:** the project breeds in the Individualist realm. Meteor is sponsored by RATP which wants to use it to develop itself. Also it is in competition with another project from SNCF, Eole. Both companies are competing for influence, lobbying for funding from the State. The route of Meteor is the result of such competition as it is aimed to complement Eole to make sure that both projects would have the green light. This is a low grid and low group environment as there is a large room of manoeuvre left to the company and still no commitment made to the project.		**5-Post project phase**, the future of Metro project in Paris: RATP could move in an Individualist position regarding the delivery of infrastructure. For the moment RATP has the power to decide but with the foundation of the Grand Paris, the definition of projects, strategies and policies would change. RATP will be obliged to bid for specific projects with other companies that would have the capacity to deliver projects. This is the area of competencies and responsibilities that might be redefined in the future: the ways projects are undertaken would change.

Isolated	**2- Inception and planning of the project:** In the process alternative voices that would promote alternative solutions to the large scale projects of RATP and SNCF have been silenced. For example, some urban planners were promoting tramways rather than metro projects but such projects were not considered seriously.		

Egalitarians		**3- Implementation and delivery phase:** the initiatives and authority of RATP are challenged by different Egalitarians rationales. Egalitarian rationale refers to organizations that have an interest in the project and the power to constrain it development. It relates to the resident associations that challenged the DUP and the Union that do not want driverless metro. These organizations are characterized by High Group in the sense that they are very committed to their interests and use their actions to maintain their boundaries. Yet, they are low grid because they are internally weakly organized, their purpose being to undertake specific actions and to ensure that the voices of their members have been heard.	

Hierarchies		**3-Implementation and delivery phase:** quickly the project moves in the realm of Hierarchies with RATP organizing for the project. To do so, RATP relies on its internal expertise and the trust developed between the different project members. Also it implemented an innovative project structure aiming at regimenting its relationship internally. RATP has a lot of power and authority to organize for the project, hence a high group environment. This is also a high grid environment as RATP regiments relationship by defining roles such as *Maitrise d'Ouvrage* and *Maitrise d'Oeuvre*.	**4-Post project phase, the future of Metro project in Paris.** The foundation of the Grand Paris would change the dominant position of RATP in the definition of transport policies and strategy. The idea of the Grand Paris is to define the transport strategy to be adopted at the territory scale and to undermine the interests of the transport organization. This would equate to a great governance change.
Project life cycle			

7.3 The Mimesis 2: Météor in Grid-Group Terms

Météor starts from the world of the organization. It is a corporate project. It breeds from a small team that works to gain influence and support within the organization first and then, outside the organization. At that point the group dimension is weak but will build up gradually as the project gains support. Despite the corporate character of the project, as Taksim 4.Levent and the JLE the political dimension is very important, especially at the inception of the project to provide certain legitimacy. To this extent the project passed from an Individualist order – gaining influence and power, to a Hierarchical one where roles are regimented for the delivery of the project. Acknowledging the central position of the RATP in the development process of Meteor, it is possible to define two sets of relationships which constitute the project's orders; namely the situations that underpin decision-making and organizing acts.

1) The relationships with external stakeholders, funding bodies in particular
2) The internal relationships within RATP.
3) The relationship between RATP and the Grand-Paris

7.3.1 Order 1: The relations between RATP and the State.

The relations reflect the position of the project within a network of relationship and the quest for building partnerships to gather sufficient power to effectively launch the project. This is well illustrated by the attitude of RATP's CEO who draws on informal political relationship to obtain the acceptance of the project at the State level. Also, the need to avoid the competition with SNCF and the Eole project shows well this course for legitimacy. Conversely, other stakeholders are reduced to the state of followers, funding the project according to RATP specifications and ideas. According to the Grid dimension, this is a low Grid environment for RATP, which manifests in a large room of manoeuvre and autonomy, which also means a higher position for other stakeholders. For Group, this is a relatively low Group environment that express that the necessary commitment from all parties has not been achieved yet but is still under construction**.** Still, the project moved on after the DUP and a certain consensus regarding the utility of the

project had been reached, marking a move along the Group dimension. This order is graphically presented in figure 13.

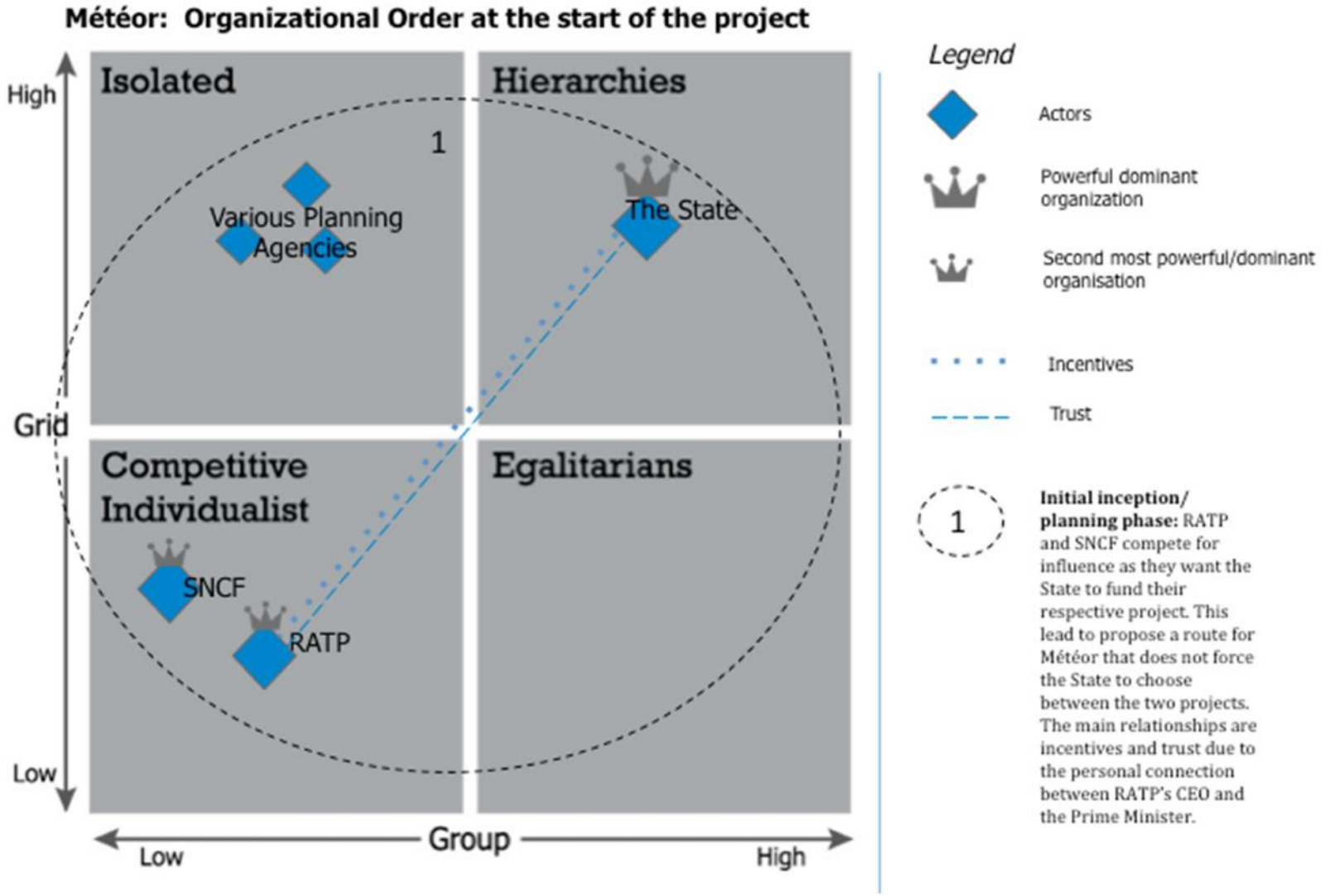


Figure 13: Météor's Planning and Implementation

7.3.2 Order 2: RATP's Internal and External Relations

Figure 14 represents an order that reflects on the strength of the internal relationships within RATP, but also the boundaries of the company. Meteor relied on the whole resources of RATP, including expertise and social capital. Whether a new project structure was implemented, this organization was supported by the existing relationships that existed within the company. Meteor is a federative project, a collective action heavily embedded in a heavily hierarchical organization. The *Maitrise d'Ouvrage* represents power and authority, while there is sufficient trust within the organization to allow cooperation between the different professions and disciplines, fostering a smooth governance process. Group is high and Grid as well due to 1) an important commitment to the project and 2) the processes that regiment the relationships within the organization. There are few conflicts, apart from the creative tension between the *Maitrise d'Ouvrage* and *Maitrise d'Oeuvre*, which are deemed essential and beneficial to the project. Project members are aware of their responsibilities and respective roles, which are regimented by the organization. Concurrently, there is real project culture, organizing for Meteor was a mean to infuse a hierarchical culture within RATP, which considers the whole risk of the project along its lifecycle, from planning to operation. Meteor was a mean to foster *new ways of organizing* within RATP, which favour project organization rather than functional organization. In a word, RATP provides a setting where the coordination for the project is a priority. However, threats to the such organization comes from outside, beyond the formal boundaries of RATP to take into consideration the different professions that characterise the supply of public transport services within RATP but also the different organization that have a stake in Meteor; namely the various local groups that defend their own interest and were very sensitive to the disturbance caused by the project. The power of RATP, as a Hierarchy is challenged by external organization which responds to Egalitarian rationale, very sensitive to the risks involved by the project and willing to avoid them.

7.3.3 Order 3: RATP's future relations

Whether, figure 13 depicts well the birth of Météor, this is likely to be different for further rail infrastructure projects. Today, there is a will at the urban scale to organize differently the relationships between the stakeholders and the transport companies. Project's stakeholders would

rather have authority and incentive power over RATP, with the legitimacy to decide whether a project is really needed, moving them in the realm of hierarchies rather than the relative isolated position they had for Meteor. RATP would play a role of technical support only, or be subject to a wider competition with other engineering company able to provide similar services. Recollecting the cost increase related to Meteor, such context change relates to the will to institutionalise the processes whereby URIPs emerge according to the current imperatives such as the need for more public participation and legitimacy that would allow rationalising the public funding. Again, the cost overruns were depicted as a part of the company strategy acting in an individualist context in order to get its Météor approved.

Orders depicted by figure 14 and figure 15 show respectively the internal relationships of the project at its operational stage and the forthcoming relationships that should governed the planning and inception of further metro project in Paris.

Figure 14: Meteor's Implementation and Delivery Phase

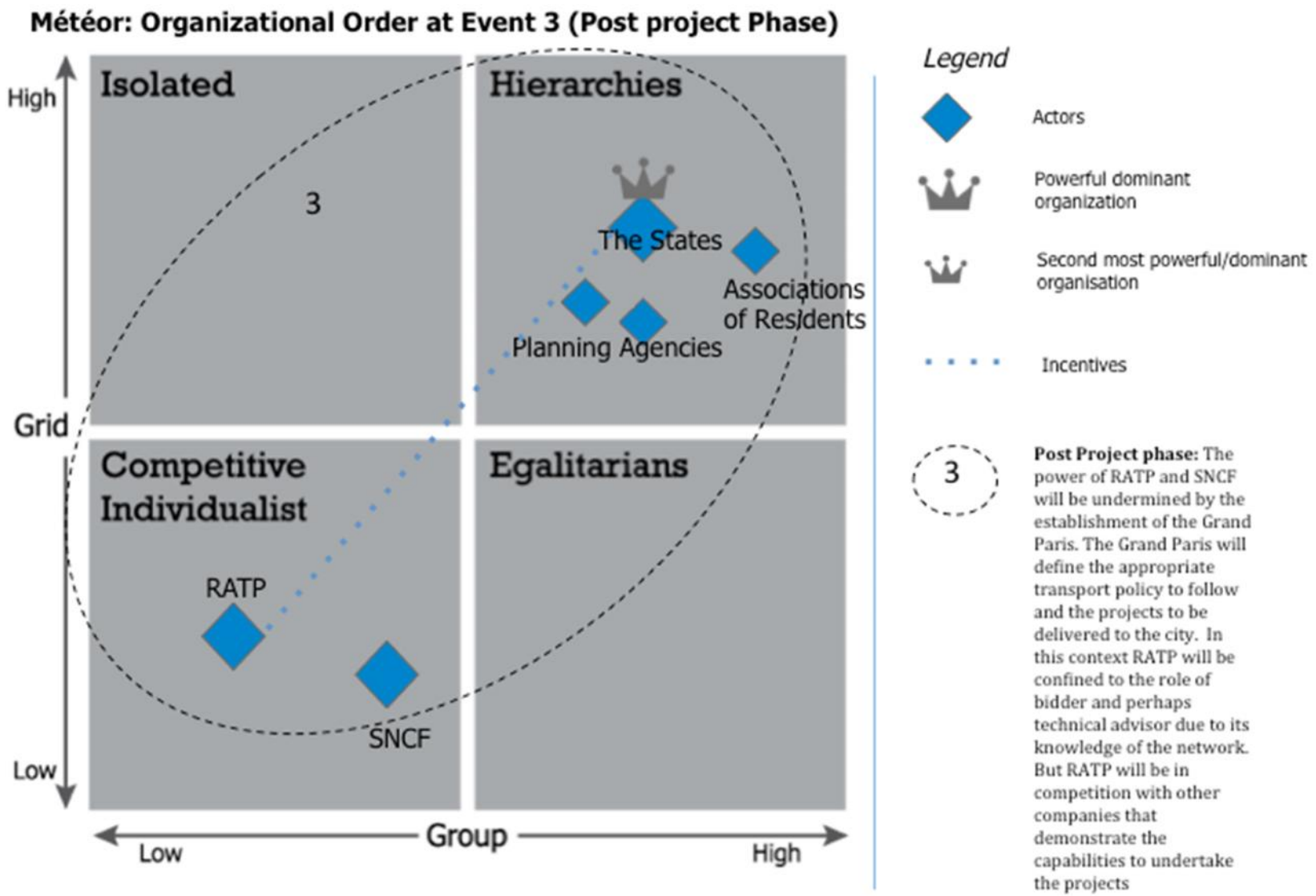


Figure 15: Météor's Post Project Phase

To conclude, Meteor presents a lesson in terms of governance. The project has been undertaken in a partnership spirit, with a mix of different governance mechanisms: the professional and goodwill trust embedded in RATP organization, authority and power through the implementation of the *Maitrise d'Ouvrage* and *Maitrise d'Oeuvre* relationship and price. Also, Meteor benefitted from the creation of a project culture. Yet, drawing on the s of the Grid-Group model and the endemic character of cultural conflicts due to the number of actors, professions and disciplines with different priorities, preoccupation and organizing rationales, the conditions of Meteor governance seems relatively conflict free. It seems that the different stakes related to the project have been well managed; the RATP organization introduces itself as a setting that permits to account for the different project risks and control uncertainty. From the narrative of the different project members transpires confidence in implemented processes and each other's roles. On many occasion project members mentioned they worked together in the same direction. This was not the case for the E&M delivery of Taksim 4Levent, where the partnership component of the PPP took time to emerge. In a similar manner, the different imperatives of the JLE were not equally integrated into the management of the JLE, giving rise to an intense polyphonic organization and cultural discrepancies. Again, there is a need to question the conditions that favoured such a smooth process, anticipating on the next chapter, where one could argue that there is a cultural explanation for such differences, the capacity to align the different cultures that underpin collective action for URIP delivery.

8 Cross Chapters Analysis: A Synthesis of three URIPs from the Grid-Group Model and Action Net Perspective

The aim and objective of this research was to offer an original perspective on the governance process of three URIP in different countries. The previous empirical chapters presented the three case studies one by one. Now, the purpose of this chapter is to synthesise what has been learned, putting the three cases into perspective towards a comparative approach. This is done according to the developed conceptual framework, namely, the Grid-Group model and the underlying Theory/Research Premise it comprises. The Grid-Group Model offers a view on collaboration and collective action that puts to the forefront organizational dynamics. It emphasizes the role of power, risk and the unstable character of governance arrangements, which is subject to the *polyphony* of organizational voices and therefore vulnerable to a range of action informed by interpretation from optimism bias to subversion. The opportunity is to reflect on how the Action Net perspective helps addressing *polyphony* as manifested in order to highlight the organizing forces that underpin the *project making* process that is collaboration. It demonstrates that such a dynamic is neither rational nor linear, but rather constituted by sense-making, *events* that involve continuous pressures for change and renegotiation of the project governance.

The following summarizes how the dynamic of collaboration manifests for the JLE, Taksim 4.Levent and Meteor, putting into perspective the validity of the Grid-Group Premise concerning the extent to which collaboration for the development of URIP is desirable, although not necessarily implementable due to conspicuous and inherent conflicts:

- While cooperation is elicited it is likely to encounter veto due to diversities of views, practices and preoccupations. Concurrently, such initiatives also offer opportunities for gaining legitimacy and control over the project process. Under such circumstances, mastering conditions for governance might become key to actors' strategy, regardless of specific project outcomes.
- In the prospect of coordination, issues related to the economic and financial interests of the projects, the welfare of the citizens or environmental concerns might be presented as risks, that are potential threats or lucky occasion that will define the scope of the project. Dealing with such risks might require changes that are selecting

actors, partnering with some and excluding others. In other words, coordination calls for change and partnership would constitute particular governance schemes.

- Finally, while collaboration is implemented it might require the use of power and therefore remain naturally unstable, and subject to change

This chapter illustrates and validates such a Premise in the typical context of URIP by 1) looking at URIPs one by one, 2) adopting a transverse view on URIPs processes according to their common phases 3) reflecting on the treatment of risk and uncertainty and 4) offering a view on complexity for URIPs processes.

8.1 On the Internal Organizational Dynamics of URIP Collaboration

This part deals with the three projects in turn to demonstrate that they follow similar internal dynamics against the Grid-Group Premise. These are the dynamic of collaboration, which is characterized by power, change of order and actors constellation at different stages of its development. Noting that the three cases follow comparable processes over time is the first step of the comparative analysis. It shows that the internal dynamics of projects comply with the internal process of the Grid-Group Model. This Premise points out the internal relation(s) of the URIPs systems that construct diverse types of organization and cultures. Again, the present research argues that this relation(s) is neither stable nor static in a project context because even in project, power pervades.

8.1.1 The Jubilee Line Extension

Applying the Grid-Group Model, the analysis of the JLE processes from the Action Net perspective demonstrates the rise of divergent voices, displaying *polyphony*: 1) the tensions between organizations, divergent organizational rationales, and 2) the organizational discourses that become louder over the different project phases, reflecting on a sequence of distinct dominant order. This means that different voices have the power to impose order on the project, yet this is not definitive and continuously subject to negotiation as the project develops. Thus, organizational narratives depict how actions unfold from diverse thought world or cosmologies, systems of governance, which imply organizational mechanisms and their meaning that permits to perform actions. Yet the *polyphony* articulated different concerns, interests and preoccupations leading to misalignment in objectives and goals. It also shows different project temporality as explained by Vesa and Franck (2013), challenging

chronological time as the main representation of *events* to propose a more interpretative approach to view the different phases of the project. For the JLE, contradictions in goals and objectives occurred at the beginning, when the rationale of the private developers clashed with the transport planning rationale of LU. The interests of the developers coupled with the preoccupations of LU led to a joint venture between both organizations, an arrangement specific to the JLE. Later, the imperative to complete the construction works on time and within budget, incited the external recruitment of the project team, promoting practices in opposition with the LU's *traditional ways of doing things.* Such risks led to the involvement of the Hong-Kong team, extending the Action Net of the project to foreign practices. Finally, when the line had to open and more consideration for the systems and the operational aspect of the project were required, the decision to rely on a project management consultancy was made. Again, this is the reason that brought Bechtel in, another actor (re)defining the project Action Net. *Every time the end justifies the means, which leads to the subsequent change of storyline: ordering and prioritization of the means by the new actor are the subsequent change of order*. Causes are therefore revisited and reversed in time, part of a negotiation process to shape the future, reshaping current action and sense making. Faithful to such functionalist view, risks, as the definition of what is at stake, define the scope of actions, which might require (re)adjustments that are selecting actors (or teams within organizations) and redefining inter-organizational relationships (i.e. the development of working relationships with LU as the operator towards the end of the project). The JLE extension case study presented how different cultures are manifested over the delivery process from planning and implementation to pre-operational stages, challenging the governance structures and eliciting change in order to allow the project to move forward. First, each arrangement was imposed through power, a top down organizational design that came from 1) the top management but as the project develops needs for adjustment emerged, and from 2) the bottom up, the power was renegotiated, shifting the culture from *Individualism* – when LU and O&Y were competing with each other, to *Egalitarians* – when the project team from Hong-Kong was settled, to *Hierarchist* – through the involvement of Bechtel. Thus changes that redefine processes induce structuring (cf. Giddens, 1984). This proves the unstable nature of any predefined organizational arrangements, which, as suggested by the theory, are vulnerable to a "cultural war for legitimacy". This war manifests in discussions regarding what has to be done. This is an issue of governance, which shows that the governance has to be changed as the project develops and the need to deal with different risks arise. The Action Net perspective helps to pin down the subsequent tensions, especially as causal sequence in

time has been disrupted, as illustrated by how the JLE moved from one cultural order to another, showing how actions were aligned to the different imperatives of the project as it develops.

8.1.2 Taksim 4.Levent

In contrast, Taksim 4.Levent represents a case where power is predominant in the inception of the project, the Municipality of Istanbul being the organization which funded the project and decided it would go ahead. Still this power is discussed at the territory scale when the different stakes are considered. Different stakeholders developed different conceptions of the project, Taksim 4.Levent was not a single possibility as there was pressure to develop the first metro line at a different place in the city, relating it to different preoccupations and different risks. To this regard, IBB organized the project from an *Egalitarian* perspective, favoring one type of preoccupation – serving the central districts of Istanbul, over others such as the development of housing opportunities. IBB could have adopted a *Hierarchies* attitude if it attempted to deal with the multiplicity of risks associated with the project but instead it focused on carrying on with its own project and silencing the competing voices. Even if it did not lead to hierarchical arrangement, more inclusive attempts of subversion were present as described through the competing voices of academics and the local press. Power was predominant in the planning phase and sustained the programme of IBB. However in the later phases of the project, for the delivery of the E&M system, IBB, in first instance, had difficulties to impose its power and authority as the client. Instead power moved in the realm of the Market, through the involvement of the international contractor. The arrangement was a catalyst for *polyphony*, the expression of different cultural voices; organizations were defining themselves in opposition with each other, arguing over their respective boundaries. Consequently, the delivery of the E&M comprises of an unstable arrangement were all cultures are represented. The private contractor has an *Individualist*/Market culture as it tries to seize opportunities for profit out of the project, its partner; the Turkish contractor is forced to stay at the periphery of the arrangement, not being left much room for initiative by the private contractor who saw it as a threat for its profit. Ulaşim AŞ and the Municipality of Istanbul are acting as *Egalitarians*, driven by perceived imperatives of the project, the need to finish on time with certain specifications but it fails to organize the relationships within the arrangement insofar as every participants would work towards its goal. The atmosphere, from the client perspective, is recalled as clannish, with one political leader, the Mayor, trying to

impose his views and expecting others to follow. The situation changed when IBB moved in the realm of *Hierarchist* by imposing its control and authority over the project team. To this extent, the delivery of Taksim 4.Levent's E&M systems was polyphonic until power was re-established by IBB. This final move provided stability, which led to the completion of the project.

8.1.3 Météor

Similarly Meteor represents a case where power is predominant, it manifests in the RATP organization. RATP is the main actor of the transport policy in Paris, it has the power to propose and deliver URIP. The power of other stakeholders of projects is undermined in comparison to RATP. Such a dominant position constitutes the main critic of Météor. Météor, as delivering a major metro infrastructure, constituted a specific way to answer the mobility issue of Paris. This decision raised controversies afterwards, once Météor was delivered, regarding the management of the territory needs. The experience of Météor called for a new governance of Paris where RATP power is undermined and local representatives are empowered. The establishment of the Grand Paris represents a planning effort from the State to rationalize the needs of the capital from a long-term perspective, and the resources that should be allocated. To this regard, the planning responsibilities are transferred from RATP to an upper level of coordination. This also reflects on an effort to impose a hierarchical culture at the territory level, relegating the role of RATP to advising whether the policy implemented is feasible rather than letting it decide for its own benefits whether a project is needed. At the time of Météor, the organization of the supply of transport infrastructures was left to the company, hence when we take into consideration the relationship between the State, RATP and SNCF, the competing transport company which also had the power to propose projects, URIP emerged from the *Individualist* realm. The actors that propose projects are looking for opportunities to have their projects going ahead, though they are not the ones who fund them. To this regard, projects are the object of a battle for influence and power between the companies in charge of delivering transport. In this context, incentives for strategic misrepresentation of the costs are very high, and it was the case for Météor. Yet, this context is not uncommon for URIP, the Jubilee Line raised from a similar environment where the developers and London Underground team's interest was to have the project accepted and funded by the Government and therefore had incentives to propose an optimistic budget and time line. For example, in Taksim 4.Levent, the narratives of actors show that cost overrun

was not an issue. This could be pertained to the fact that the IBB organization, Istanbul Municipality, was both the supporter and the funding body of the projects; therefore the responsibility for the long-term delivery of Taksim 4.Levent was not an object of discussion. Also, the execution of the project in the latter phases of Météor is interesting from the Action Net perspective because Météor seems to have been conducted with minimum conflict in comparison with the two other projects – the voice of RATP dominates. The model has been very effective in mapping divergent ways of doing things, and organizational practices and standpoint, for Taksim 4.Levent and the JLE. In contrast, it demonstrated a limited capacity in the case of Météor. There are two possible implications. The first would be to question the validity of what forms the main assumption of this research, that is the natural characteristic of society by assuming the diversity of organizations underlying collective action and considers cultural and organizational dynamics as endemic. In this case, it would be relevant to consider Météor as a critical case study (see Flyvbjerg, 2006) and to question whether Météor is a reflection of what could be considered as a megaproject, accounting for the contemporary transformations that drive the delivery of large scale infrastructure projects – large amount of stakeholders, PPP types of procurement, global character of the participants and therefore multiple cultures with which to deal. On the other hand, there is a possible governance implication referring to the role of the organization in dealing with potential divergent cultural dynamics. Here, Action Net would have been less effective because the combination of the three governance mechanisms, authority, incentive and trust within the organization gave rise to the project culture that permits the project to go forward by juggling and managing the diversity of professional practices and the diverse requirements of the project. From this view, it is still possible to consider that partnership is not without conflict or a frictionless setting; on the contrary, it is a setting that accommodates them, leaving a room for management. To this regard, Météor has implications in Project Management terms. Actually, the Action Net perspective demonstrates that to some extent, organizing for Météor raised resistances within the organization with 1) the separation of the functions of *Maitrise d'Oeuvre* and *Maitrise d'Ouvrage* which obliged the traditional *Maitrise d'Oeuvre* to transfer its authority to the new function of *Maitrise d'Ouvrage*, which acted as a client; 2) the resistances within the RATP organization regarding the legitimacy to deliver a driverless system; and 3) the resistance related to local groups that were disturbed by the delivery of Météor in Central Paris. To this extent, there is some *polyphony* at work in the execution of Meteor as well, but while for the JLE and Taksim 4.Levent, the projects proceeded after a governance change, for Météor it seems that the project management structure in place

succeeded to handle such contradicting voices. According to project members' narratives, the needs and the rationales of the competing social organization were effectively translated by the project structure to allow it to go forwards without radical change in organization.

8.2 On Processes and Phases: A Comparative Approach

8.2.1 The three URIP processes

Figures 16, 17, 18 picture the internal processes and dynamics that characterize the three projects, enabling a transverse view. Each event adds a layer to map cultural change, showing how power moves over the project to influence the governing rationale. In other words, the three diagrams summarize the story of the three URIPs and therefore present what makes them distinct from each other. The following is a succinct expression of both similarities and differences.

Projects breed from different context, cultural orders. Taksim 4.Levent commences in *Egalitarian* order, while the JLE and Meteor emerge from *Competitive Individualist*. Taksim 4.Levent represents a way to gain political power for the Municipality of Istanbul, while the JLE and Météor are framed as opportunities for different organizations that compete to take part in the realization of the projects. Actors are different in nature. In Istanbul, at that time, organizations able to produce and deliver URIP did not exist. This context is very different from Paris and London, where at least two organizations had the capacities to undertake the projects. The preoccupations and risks are also different. Taksim 4.Levent involves a risk of a political nature. In contrast, Météor and the JLE are driven by the need to show that the project as a delivery channel and its configuration are the best option. It is about creating opportunities presenting the strengths of the projects in their best light.

The context then changes through *events*. For Taksim 4.Levent, it is the need to rely on an international contractor for the delivery of the E&M system under a turnkey contract. For the JLE, it is the choice to appoint a team from Hong-Kong for the construction works and for Météor it is RATP who gained enough power to lead the whole stage of the project. From these *events* emerged, again, three different cultural orders. Taksim 4.Levent lands in a competitive *Individualist* order or cultural position, where the different actors, Ulaşim AŞ,

IBB, and the international contractors are fighting over the value and profit related to the E&M delivery. In contrast, the JLE is in the *Egalitarian* realm where a boundary between the Hong-Kong team and the rest of LU is drawn in order to undertake the construction phase effectively. Finally, for Météor, the focus is organizing and coordinating for the whole project, an endeavor aligned to *Hierarchies*. Again, the preoccupations and risks that matter could be formulated very differently from one project to another. For Taksim 4.Levent the risk revolves around value appropriation. For the JLE it is the construction risk that legitimates the boundary between the Hong-Kong team and LU. And for Meteor, it is an internal risk of coordination.

Towards the end, the opening of the metro lines brings a last event to the fore for two projects, the JLE and Taksim 4. Levent. For the JLE, it consists of the involvement of the American Project Consultancy, Bechtel, to lead the process and deal with the operational requirement of the line. For Taksim 4.Levent, it is a change within the client team of IBB. Both consist in taking the project in the *Hierarchies*' realm, a similar cultural order. Indeed, the risks are the same: coordinating for the imminent opening of the line. To this regard, Météor is different. Météor already landed in the *Hierarchies* realm at the earliest stage of the project implementation. The opening of the line was recollected – through project members' narratives, as a smoother process, at least in comparison with the JLE and Taksim 4.Levent. However, beyond the end of Météor as a project, the process raised issues regarding the overall governance context for transport infrastructure delivery in Paris. The critic concerns the power of RATP and a wish from the State to further involve and drive the process via the establishment of the Grand-Paris organization. The question is therefore whether the Grand Paris will manage to gain enough power to foster an Hierarchical order or whether the planning and delivery of URIP will move in the *Competitive Individualist* realm as the different companies and consultancy will bid to work on the future projects. This would be an interesting question to examine in the future.

To bring the analysis further, there is a need to reflect on the cultural orders that comprise the Planning, Implementation and Operation phases of URIP. This consists of picturing how these phases are enacted as a process.

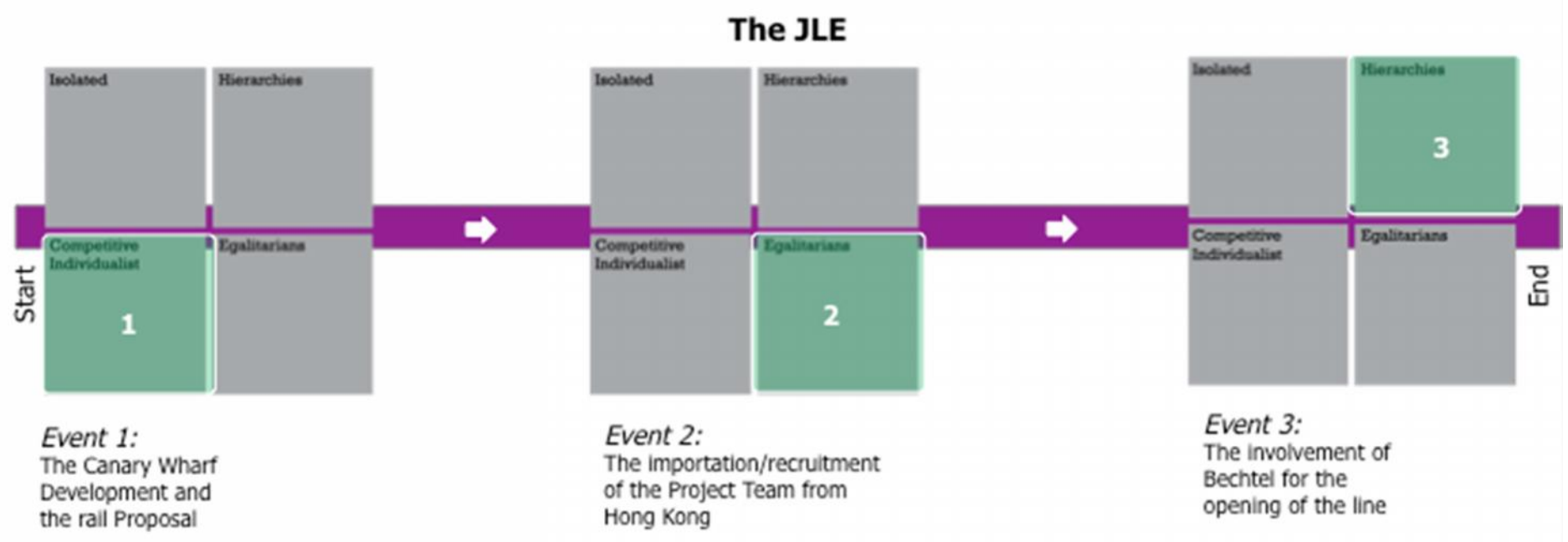


Figure 16: The JLE Process

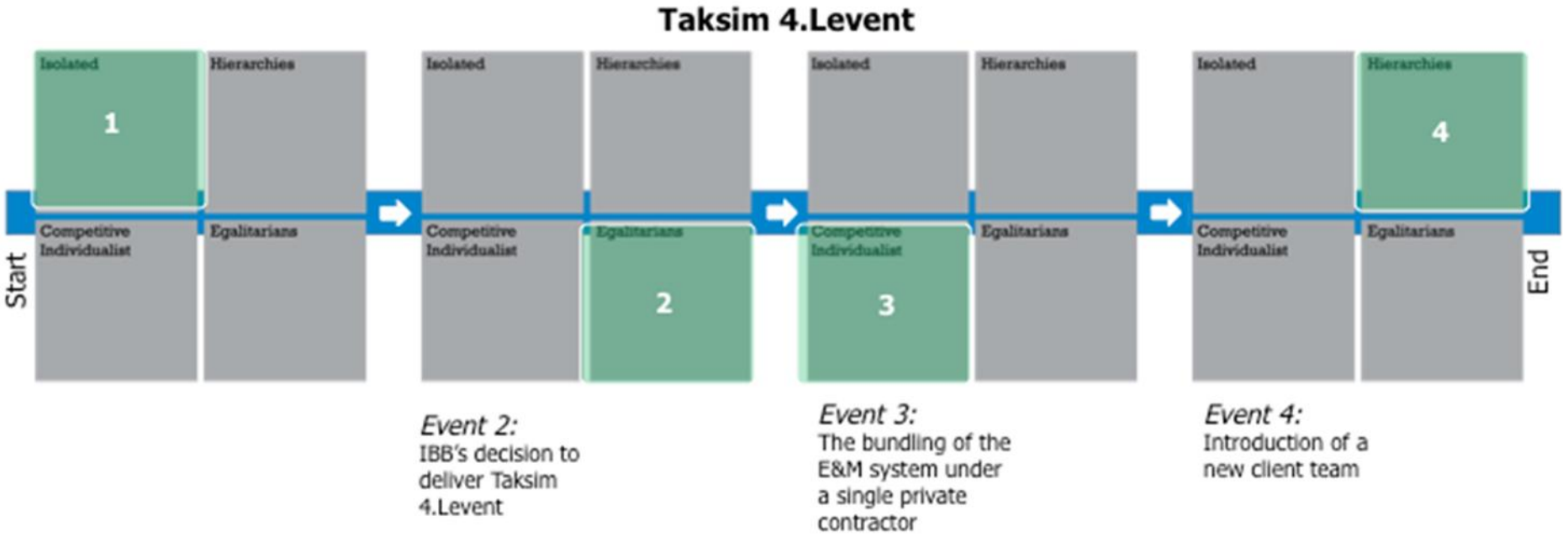


Figure 17: Taksim 4.Levent Process

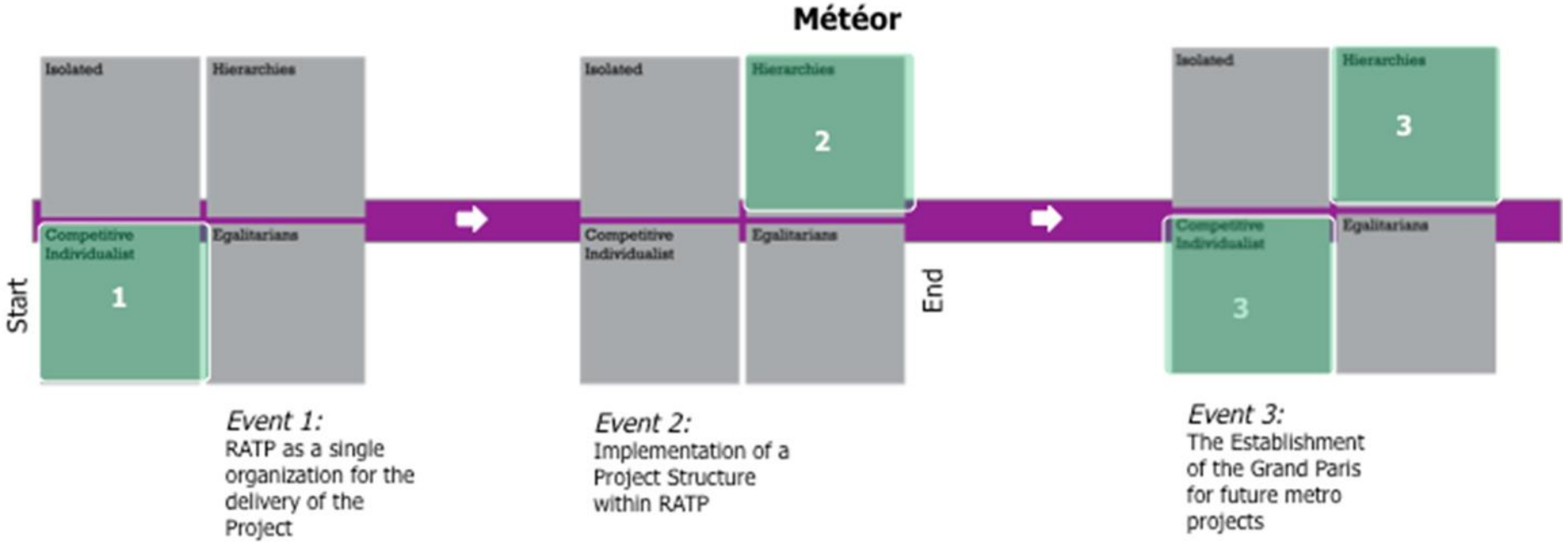


Figure 18: Météor Process

8.2.2 The different phases of URIPs

Figure 19 envisions how the different phases of the projects; namely Planning, Implementation and Delivery as pre-operational Phase are enacted within the different cultural orders or positions, showing how the different phases pass from one order to another. The following describes and reflects on this by explaining what happened for each project, retrofitting the context into analysis.

Planning: Both, the JLE and Météor were planned in the *Competitive Individualist* order. Political goals to initiate and undertake the projects provide the background. These can be established competitively in the political arena, which then informs the project in order to justify the decisions, helping to induce a competititve approach at the project level in the initial stages. This order therefore favors risk or opportunity taking rationale. All the activities and actions at this stage, such as identifying the project, assessing its suitability and developing the project were subject to a rationale that aims to promote one project and its intrinsic characteristics over another. The traditional risks such as the design and financial risk are also considered under this logic. Whether the projects raise criticism in these terms, the context is not structured in a way that incentivizes actors to produce a realistic picture of the project, for example optimism bias and cost overrun relative to the cost-benefit analysis (Flyvbjerg, 2003, 2012). The situation is different for Taksim 4. Levent, where planning initially is located in the *Isolated* realm, then moves to the *Egalitarian* one where the rationale is to impose one particular project to satisfy the political goals. The aim of IBB in the *Egalitarian* order is to secure enough funding to start the project and secure power over it. Again planning preoccupations differ according to the projects.

Implementation: During this phase the three projects encountered different situations. For the JLE this phase occurs in the *Egalitarian* order as the Hong-Kong team, which had developed and employed collaborative practices, is entrusted for the construction work. Yet this phase is conducted under the assumption that involving the rest of LU could be detrimental to the project, creating boundaries between LU and the Hong-Kong team. All the risks that did not directly concern the construction of the project were pushed to the boundary of the organization; namely disregarded or not treated as a priority. In contrast, Taksim 4.Levent moved in the *Competitive Individualist* order for the implementation of the E&M system. The

implementation is therefore driven by a rationale that consists at preserving the profit margin, for the international contractor, while other organizations, Ulaşim AŞ and IBB, act to keep it low not to be perceived as giving undue profit to the contractor. Finally, Météor's implementation phase is conducted in a *Hierarchies* order. Here, the accent is put on coordination to run this phase smoothly. The RATP responsibilities are defined internally and authority is used to maintain such order. Again, the critics raised through this phase could be considered in light of these cultural contexts, which are quite different from each project and triggers reflection on the type of organization and subsequent coordination that would enable an effective treatment of risks.

Operation and the last stage of project delivery: This phase is interesting as the three projects end as *Hierarchies*. In contrast with the previous phases, which present diverse situations, the stage that precedes the operation of the line are similar for the JLE, Taksim 4.Levent and Météor. The culture of *Hierarchies* implies a mindset of coordination to respond to project completion and the imminent opening of the line. For the JLE, such a condition is created through the involvement of Bechtel, moving the project out of an *Egalitarian* culture. For Taksim 4. Levent, this is a change in the client team of IBB which moves the project out of a competitive *Individualist* culture. Météor is slightly different. The *Hierarchies* culture predominates from the implementation phase; the delivery of the project seems to occur as the normal development of the project without involving a cultural change to deal with the opening of the line and subsequent operational concerns. In this last phase, for the three URIPs, the three mechanisms of governance are implemented; namely authority, incentives and trust, to form an organizational context where actors relationships are regimented towards the achievement of a single and precise goal, opening the line.

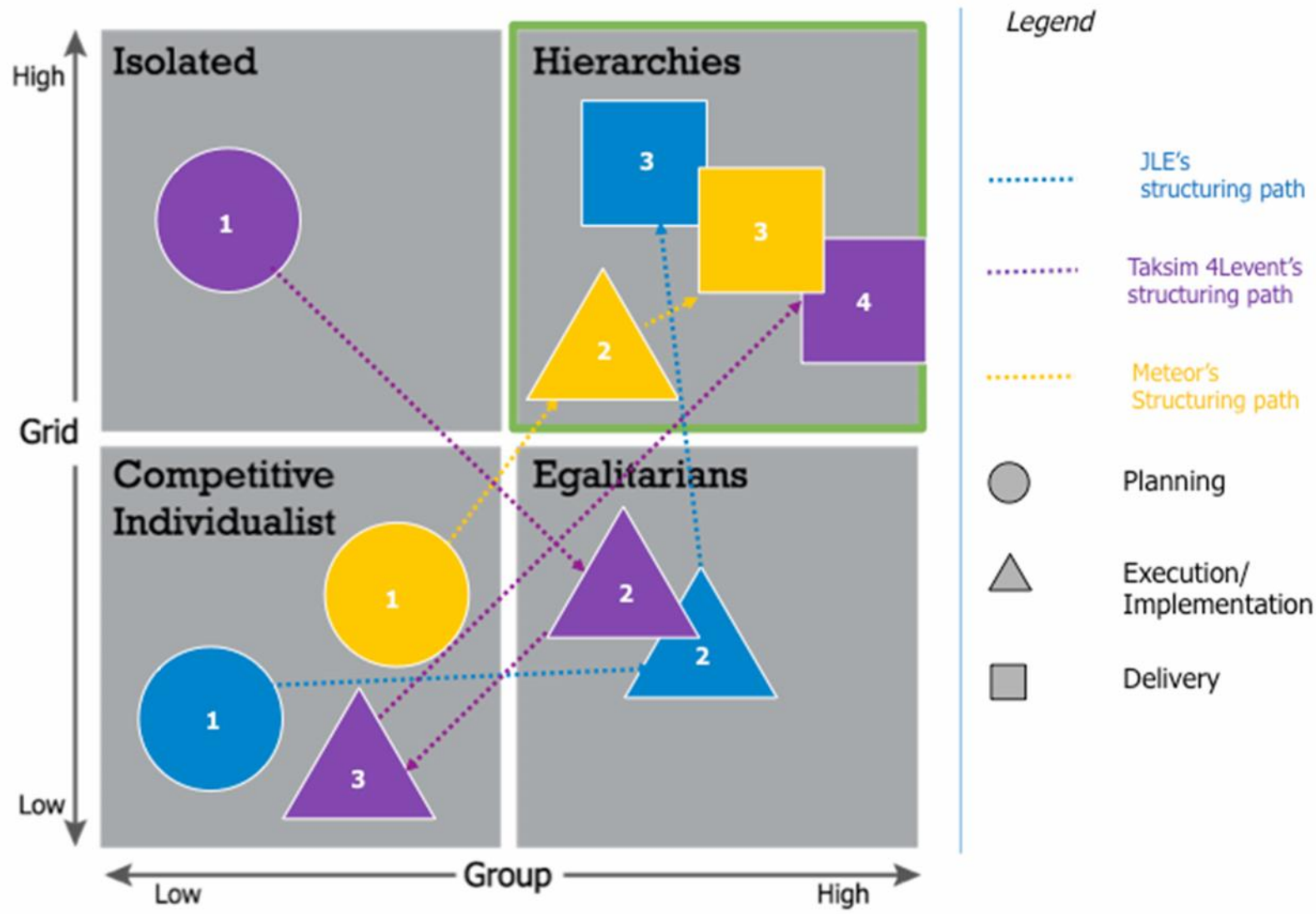


Figure 19: URIPs Development Phases

To sum up, this comparative approach uncovers discrepancies and regularities among URIPs. At this point, the chapter will propose a thematic approach on Risk, Uncertainty and Complexity, which are the terms of the dissertation. Ultimately, this will allow the research to reflect on *Hierarchies* as a potential *ideal* form of collaboration for URIP.

8.3 On Risk and Uncertainty, and Culture

8.3.1 Risks are organizational priorities

Reading the story of the JLE, Taksim 4.Levent and Météor through the lens of the Grid-Group model implies that conflicts are inherent and endemic to organization. They are part of the process whereby priorities emerge, defining what counts, and what is at stake in the project. The issue is of a normative nature, being whether such process could involve desirable outcomes and for whom. It suggests that managers should be able to think backwards in order to steer the process in one direction or another. But this is where uncertainty and reflexivity come into to play, hence the attractive idea of a governance framework. Action and organizing processes imply uncertainty until they are implemented. And when they are they are likely to raise critical voices, bringing emerging stakes to the fore and leading managers towards a reflexive path. From this perspective, governance is more than control; it is about creating the conditions for organizing under divergent forces, for back casting from a 'future perfect' to the present. Also as the projects develop the institutional context of project change, leading to different cultural atmospheres that give prominence to certain risks over others as tasks are performed. The culture helps to enforce the treatment of certain risks at different periods of time, forming a specific cosmology for actions. Time is important here as the different risks are treated sequentially as the projects proceed and not necessarily at the planning stage of the projects. As the JLE developed different priorities emerged, first it was delivering a project up to the expectation of the Canary Wharf developers, then the construction and finally the commissioning of the line. Each of these project phases implied a reassessment of the governance structure with a change in priority, as the result of the organizing process of the previous phase, which was deemed inadequate in light of the emerging imperatives of the project. Also, in Taksim 4.Levent as different partners had to collaborate divergent preoccupations emerged, which involved uncertainty regarding the development of the project. In Météor, the execution of the project was not

characterized by change, uncertainty seems to have been dealt with by the project structure that considered and managed different project risks.

8.3.2 Uncertainty is controlled by organizations

Uncertainty is pervasive in the JLE and Taksim 4.Levent. Uncertainty decreased over the project lifecycle, particularly when Bechtel became involved in the JLE and when IBB started to monitor more closely the project team – a point made from and information processing perspective by Winch (2002). In Paris, Météor has been used as an opportunity to promote change within the RATP, while in London delivering the JLE under a contractual mode of governance was identified as a more efficient solution than solely relying on the internal resources of London Underground. The JLE governance structure consisted of bringing a large project team from Hong Kong into the project. Although the underlying mechanisms of coordination are not self-evident: the extent to which the involvement of the Hong Kong team was driven by the market and subsequent prices is not clear; it seems that the criteria for contracting was the reputation of the candidates, as the team was perceived as successful engineers. Also relying on such an external team is viewed as a way to break away from LU organization and is linked to its internal inefficiencies and the need to circumvent bureaucracy. In contrast, Météor was delivered under a typical hierarchical type of governance; the RATP was responsible for all the stages of the project. But more importantly, Météor's organizational structure is regarded as a big contributing factor to the project and in turn the project is seen as federal for RATP. The account of Météor does not disentangle the performative character of the governance structure from the success of the project. However, the case of Météor shows confidence from the earliest stage of the project execution, suggesting that the governance of the project controlled uncertainty. Actually, Météor execution lies in the *hierarchies* realm, governance is made of trust – the project members are used to work together within the organization, they trust their professional capacities and their willingness to do what has to be done for the project. Yet, the project management also infuses control, authority and incentives to complement trust. These mechanisms were absent in the earliest stage of the JLE, which relied mainly on trust while Taksim 4.Levent seems characterized by the absence of trust and control at the inception of the PPP, leading to confusion among the project members. The implication is that the risk and uncertainty of projects could be dealt with at earliest stage of project through organizational design by infusing the appropriate governance order. Uncertainty and risk does not depend solely on the

project process and a lack of information but rather on management, the ability of the governance structure to account for the different imperatives of the project, what is at stake, proactively and organizing accordingly. In turn, the project process, as an endeavor to reduce risk and uncertainty, is coupled with an organizational process that aims to renegotiate the governance structure, from the bottom up, as the different priorities of the project emerge and become imminent for the project to unfold until completion.

In terms of governance, there is an implication for the treatment of uncertainty. According to Winch's approach, uncertainty decreases over the project as a clearer link between projects outcomes and action can be established. This is interesting because the case studies demonstrate that this uncertainty reduction process is also associated with the emergence of the hierarchical order (with a mix of incentive, authority and trust). This is a significant outcome. In Météor it occurs at the earliest stage of the project. Then the question becomes: to what extent it would be possible to generalize the findings to derive an analysis that would assert that uncertainty is a construction that tends to dissipate in a particular setting– *hierarchical order*? For Winch, this is due to the natural dynamics of the project – less information at the beginning, more at the end so a clear link between action and outcome. But this present research would argue that it is the other way around, that actors, through organizing, create the conditions for certainty and uncertainty and ease information flow.

8.3.3 Culture is enmeshed in URIP Processes

Culture(s), as the current organizational contexts from which the project occurs, changes as the project develops and is renegotiated through the different phases. At the inception and planning phase of the project, the boundaries of the project organization, the Action Net of the project are very loose. Organizations and actors act as opportunity takers and makers; they use their respective power to allow the project to emerge. The interests and risks that drive the projects are defined by the priority of the organizations; there is neither a holistic nor long-term view for the conduct of the project, which is formed and increasingly frozen during the execution phase. The main perceived risk is cancelling the project; hence a tendency to underestimate costs and overstate benefits. To this regard, projects culturally tend to be located across the market/*Individualist* Grid-Group positions during nascent stages. Then, once projects obtain the go ahead the organization in charge tends to define the project boundaries, moving towards *Egalitarians* (see the JLE), or *Hierarchies* (see Météor), or a

competitive *Individualist* culture (see Taksim 4.Levent). The precise arrangements are often created to take into account specific risks such as the construction for the JLE. In this case, such focus prevented the consideration for other imperatives of the project such as the development of the system in the JLE. This interest, represented by the LU operator, was left outside, at the external boundary of the project team. This culture is very different from the context that characterized Météor, which implied an integrated team that could consider all the imperatives of the project, from the construction, the delivery of the system and also the relationship with external stakeholders. The whole competences and skills necessary to face the different risks of the project were regimented, organized within a single entity that was known as the project. In Taksim 4.Levent, coordination and collaboration took time to emerge as the culture was giving prominence to diverse organizational interests. The delivery of Taksim 4.Levent, the E&M system was split between several public organizations, the operator and IBB, and the private contractor and its partner. At the beginning the project was led by profit considerations from the private contractor, leading to a climate of mistrust and confusion within the project organization. It was only later that IBB, as the client, reorganized the relationship to allow the commissioning of the system, moving the culture of the project in the realm of *Hierarchies*. Similar tendency occurred for the JLE when Bechtel created a project culture that included the operator and the necessity to develop a fully operational system. The three projects ended up in the realm of *Hierarchies* but for the JLE and Taksim 4.Levent, such form of organization was not designed ex-ante but renegotiated over the process to allow the completion of the project. To this extent, partnerships culture emerges towards the completion of the project and tends to concur with *Hierarchies*' order, in Grid-Group terms. Therefore the question relates to the conditions that would favor the infusion of such order at the earliest stage of projects, mitigating uncertainty and creating the capacity to deal with the different risks, and stakes of the project. Table 16 pictures the treatment of risk and uncertainty over the different phases of the project, accounting for cultures. This differs from the approach presented in the literature review, which assumes that risks and subsequent tasks can be allocated ex-ante. In contrast, the present approach shows how risk attitudes emerge within cultures and how organizations capture uncertainty in different ways. This shades a specific light on project processes, questioning the context and underpinning conditions of the subsequent tasks.

Table 16 Projects' Risk and Uncertainty from the Cultural Perspective

	The JLE	**Taksim 4.Levent**	**Météor**
Planning	***Dominant Culture:*** Competitive Individualist ***Underpinning Rationale for Action:*** Creating Opportunities for having the project going ahead. ***Risk:*** Opportunity Takers ***Uncertainty:*** High. The boundaries of the Project are loose.	***Dominant Culture:*** Isolated and then Egalitarians ***Underpinning Rationale for Action:*** The Project is subject to the decisions of different State Agencies. Then IBB used the Project for guarding its political interest ***Risk:*** Fatalist attitude and then related to narrow political interests. ***Uncertainty:*** Used by IBB to support its own organizational boundaries.	***Dominant Culture:*** Competitive Individualist ***Underpinning Rationale for Action:*** Creating Opportunities for having the project going ahead. ***Risk:*** Opportunity Takers ***Uncertainty:*** High. The boundaries of the Project are loose.
Implementation	***Dominant Culture:*** Egalitarians ***Underpinning Rationale for Action:*** Guarding to draw organizational boundaries to manage the risks related to the	***Dominant Culture:*** Individualist and Hierarchies ***Underpinning Rationale for Action:*** Creating opportunities for profit and Coordinating	***Dominant Culture:*** Hierarchies ***Underpinning Rationale for Action:*** Coordinating ***Risk:*** Integrated

	construction ***Risk:*** Construction ***Uncertainty:*** Harnessed via a Project Organization that focuses on the Construction Process	***Risk:*** Opportunity Takers and Integration through contractual relationships within a PPP ***Uncertainty:*** High due to organizational inertia	***Uncertainty:*** Low. The Project Organization has settled the boundaries of the Project by Implementing Authority, Trust and Incentives to regiment the Project Relationships. This manifests in the emerging roles within RATP: *Maitrise d'Ouvrage* and *Maitrise d'Oeuvre*
Project Delivery/Commissioning	***Dominant Culture:*** Hierarchies ***Underpinning Rationale for Action:*** Coordinating ***Risk:*** Integrated ***Uncertainty:*** Low. The Project Organization has settled the boundaries of the Project by Implementing Authority, Trust and Incentives to regiment the Project Relationship.	***Dominant Culture:*** Hierarchies ***Underpinning Rationale for Action:*** Coordinating ***Risk:*** Integrated ***Uncertainty:*** Low. The Project Organization has settled the boundaries of the Project by Implementing Authority, Trust and Incentives to regiment the Project Relationship.	***Dominant Culture:*** Hierarchies ***Underpinning Rationale for Action:*** Coordinating ***Risk:*** Integrated ***Uncertainty:*** Low. The Project Organization has settled the boundaries of the Project by Implementing Authority, Trust and Incentives to regiment the Project Relationships. Yet, for Météor, the Project Organization is led by the Public Transport Company, in the future the State will lead the process

			from Planning to Delivery.

8.4 On the complexity of URIP

8.4.1 URIPs are not linear

The URIP process is not linear and is subject to conflicting rationales competing for imposing a specific order on the project. The governance of URIP is likely to be renegotiated over the process according to risk discourses anchored in the different imperatives of the project. In this context, change is the norm rather than the exception; a statement which resonates with Tsoukas and Chia's argument (2002) on the changing nature of organization, stable state are nothing less than a frame of mind and does not reflect the nature of organization, which is dynamic and unstable. The Action Net perspective permits grasping such a characteristic and shows that, in this way, management is a sense making process that allows dealing with change in practice. Subsequently, governance and management could be seen as the implementation of interpretive frames that allow specific ways of acting. Yet, such frames are continuously challenged by the diversity of context whereby the project develops and the subsequent cultures at work during the project lifecycle. As a result, ambiguity is inherent and establishing clear causal link between chains of *events* might be impossible, trajectory of actions are multiple and involve feedback loops that increase unpredictability of outcomes in a context of multiple interests and agenda, as organizational ways of doing things.

Recalling Kronenberger *et al*'s metaphor of the Babel Tower, the experience of collective narratives suggests that a high level of indeterminacy between the governance practice and their outcomes; that is no direct causal link nor definitively stated vision regarding *what should have been done to improve the JLE governance process*. Instead, there are views and organizational perspectives depending on project members' experience. Yet a sense of inadequacy – as, perhaps, a lack of governance, transpires from their voices. For some, the client in particular, the delays and cost overrun relate to an optimism bias, unrealistic deadline and underestimation of the cost at the early stage of the project. First, there is a need to recollect that the design that enabled the bidding for the construction works, which were tendered on an incomplete basis and led to a 70% increase in cost. Second, the arbitrary character of the initial deadline should be acknowledged; it complied with the need of Canary Wharf development but contrasts with the warnings made by concurrent voices; namely the Government's agent who implemented their own risk assessment concerning the potential delays. For the ones involved in the commissioning, it is the lack of planning and holistic view of the project, deemed too confined to the construction, or simply serving a political

agenda that the project must go ahead and at "an acceptable cost". Also, there was a lack of appropriate coordination and communication over the different stages of the project, which posed issues at the latter stages when the traditional fixed block system had to be adapted to an infrastructure conceived for the moving block system.

Both the Action Net and the Grid-Group Model helped making sense of such complexity. The Action Net allows for the tracing of the various actions at the micro level of analysis, emphasizing how power is spread over different stakeholders that become the actors and reciprocally how governance is constructed in action. Overall, Action Net shows how organization structures emerge and are endlessly renegotiated over organizing processes; hence the JLE moved from an *Egalitarians* type of organization to a *Hierarchies'* one. To this regard, the Grid-Group model helps make sense of the different rationales and motives that interact over the project making process; and categorize the emergent organizations. It models the different transitional stages between one cultural realm to another. Also, the stories of the three projects suggest the way complexity is managed consists of reconstructing a hierarchical cosmology. This finding goes further than Williamson's approach of hierarchies to retrofit the cultural component of collaboration. To allow the completion of the project actors strive to create a cosmology that defines project boundaries and implement the three governance mechanisms, namely trust, authority and incentives. The constitution of such governance structure is elicited by competitive risk considerations. Again, the Grid-Group model is a device that fully integrates change into analysis by arguing that it is the norm rather than the exception. Coupled with the Action Net perspective it shows that such change is enacted as the result of the sense-making process that underpin decisions and actions. Yet, Hierarchy and its meaning in the URIP context deserves a specific attention.

8.4.2 Hierarchies: an ideal form of collaboration for URIP?

In light of the above development, *Hierarchies* typically manifest themselves at the latest stages of projects, towards the opening of the line. They are the result of the project process, depicted through Action Net. In the Conceptual Chapter, *Hierarchies* are profiled as an organizational context that fosters coordination in order to solve complex issues and perform complex task. They tend to use contracts that infuse the three mechanisms of governance: authority, incentives and trust. They organize vertically but also embed norms and processes that create a cultural order where "*everything seems in the right place*". The three projects, the

JLE, Taksim 4. Levent and Météor, introduce a discussion regarding the capability to perform the complex task of delivering an URIP. The Action Net and the resulting network of actors vary over the URIPs process. Towards the end, the emergence of *Hierarchies* could be interpreted as the need to coordinate for the imminent risk related to the opening of the line. From this point it is possible to view the emergence of *Hierarchies* in two ways. First, they would emerge naturally as the complexity of projects is reduced at their latest stage: only one thing remains to be done, opening the line. This characteristic of URIP at this stage is conductive of a clear direction for collective action. However, the case of Météor brings a second and alternative view on this matter. *Hierarchies* appear at an earlier stage in comparison with the JLE and Taksim 4.Levent. This tempers the determinist argument on reduced project complexity to argue that *Hierarchies* contribute to sense making and organizing for complexity. This is an important point of normative argument, that is, *Hierarchies* could be the appropriate organizational and cultural context for URIP delivery, hence an *ideal* form of collaboration. In fact, *Hierarchies* form an order, a realm or cosmology where risks are perceived as organizational problems and should be dealt with appropriate information, resources and coordination. The *Hierarchies* rationalize uncertainty; they adopt an objective approach on risks and act to decrease the uncertainty that surrounds them. This approach is very different from *Egalitarians*, *Competitive Individualist* and *Isolated* cultural orders. Risks are perceived as the reason for the existence of *Egalitarian* order; they are conceived as threats that legitimize a distinct group. This is the order that drives IBB for Taksim 4.Levent at the planning stage, and the Hong-Kong team at the implementation stage of the JLE. In *Competitive Individualism* the risk problem is posed as "should we take a risk or not?" to face this problem the *Individualist* calculate to assess the subsequent opportunities of risk. They adopt an attitude, a mindset of being risk averse and adjust their action and decisions accordingly. Finally, the *Isolated* realm adopts a fatalist approach to risk and does not vigorously engage in the management process. They do not perceive that they have the power to decide and act, and therefore, adopt a passive attitude as others impose conditions. These considerations on the different approach of risks lead to questioning the labels of the Grid-Group model in light of the project context: risk and action. To this regard, the four organizations could be renamed with active verbs; the following is a proposition, pictured in figure 20.

- *Hierarchies* are coordinating for URIP risks
- *Egalitarians* are guarding themselves against specific URIP risks

- *Competitive Individualists* are creating opportunities out of URIP risks
- *Isolated* are subjected to URIP risks

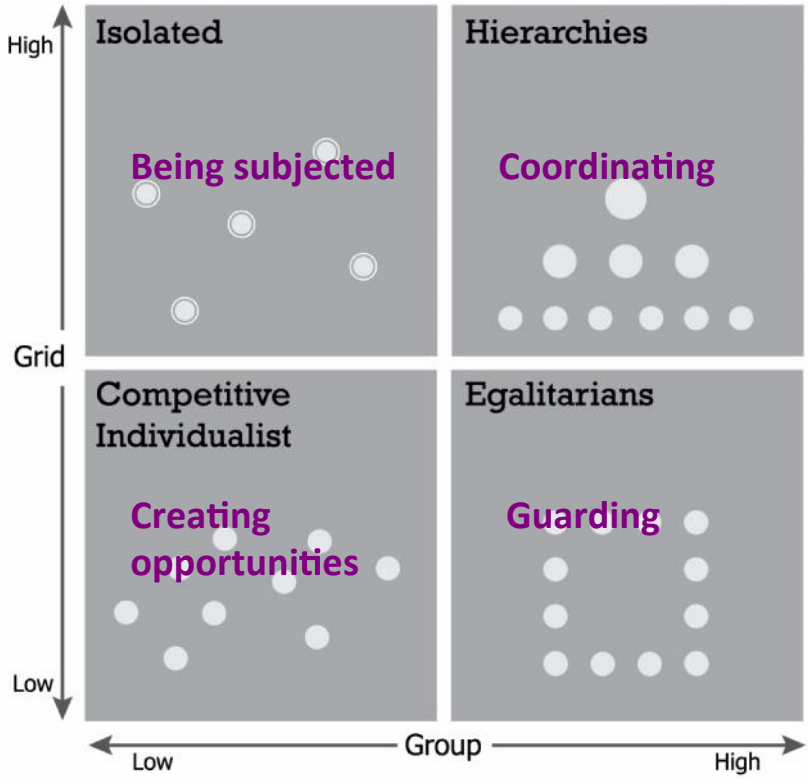


Figure 20: The Grid-Group Model from an Organizing Perspective

The rich empirical contents of the three case studies permit to make sense of collaboration in Grip-Group terms. This means that change is the norm and stability the exception. This statement should be considered in light of the constructivist/interpretive nature of the research: the researcher has defined the area of change and stability out of an ambiguous set of data that reflect on the polyphonic character of collaboration and URIPs processes. The empirical account permits to state that projects are inherently polyphonic due to multiple cultures, which make URIPs dynamic collaboration that is, in constant state of change. Yet, the conceptual framework, that uses Grid-Group definition of culture as the enactment of collaboration, has been effective in delineating the different cultures and organizations that make the process dynamic. There is no such thing as a single project organization. The project processes are negotiated by plural organizations that capture uncertainty and continuously

negotiate the imperatives, and priorities of the project. The conceptual framework provides a robust way to organize the researcher and r*esearchee 's* interpretation of URIPs process to flag artificial states of stabilities. Exempt from such artificial state of stability are *Hierarchies. Hierarchies* could be seen as *ideal* form of collaboration in project setting for three reasons/

- *Most appropriate form of collaboration for URIP:* referring to URIPs as material artifact, *Hierarchies* would be considered as ideal because they permit, through authority, to coordinate for the asset specificity that investments in URIPs represent, the low frequency of exchanges they encompass and the uncertainty that pervades their processes due to a turbulent governance process. This is in line with TCE and assumes that *Hierarchies* could be the result of clear-cut decisions or governance choices. Yet, the present research has proved that such conditions do not occur in practices. *Hierarchies* are the result of the project process. A process that is driven by cultures and organizations that collaborate in tension; authority, incentives and trust emerge over this process when it becomes necessary to draw on the resources that will enable the opening of the line and the project to end. This objective is overlooked in previous phases where organizations "argue" over different projects' priorities and imperatives. This makes *Hierarchies*:
- *Ideal as a state which is not readily implementable*. Conditions for URIPs are often inherited from the institutional context where they emerge, which rarely conforms to hierarchical culture. Yet, a context that allows *Hierarchies* to emerge at the earliest stage of URIPs operational processes, such as Météor, proved to be contributive because they focus on coordination. Taking into consideration the fact that URIP are *co-constructed* over their processes by organizations, *Hierarchies* should be considered as the most:
- *Mature, achieved state of collaboration for URIP*. The case studies demonstrated that organizations are constructing URIPs, as artifact, by defining the risks, that is the different imperatives and priorities of projects. In this sense projects are constructed. Yet, this research also demonstrates that the URIP process and the ultimate objective of "opening the line" lead organizations to coordinate as *Hierarchies*. Opening the line is a tangible action but it also *becomes* tangible over the URIP process as it allows *Hierarchies* to emerge. Here, the interesting aspect is *how* the project as a tangible artifact is constructed by organizations and over the URIP.

To conclude,

This chapter provides an analysis of the three projects in light of the conceptual lens of the Grid-Group Model and Action Net. It depicts URIPs' processes and reflects on cross-cutting themes: Risk and Uncertainty, Complexity and Culture. To a great extent it validates and informs the Premise of the Grid-Group model. URIPs are arenas of collaboration, which are subject to change. Actor networks are constituted and (re)-constituted through actions; it is a dynamic process. Risks are part of organizational priorities and part of a specific governance order, with its cultural and organizational component. Such orders control uncertainty. *Hierarchies* appear as an *ideal* form of collaboration, reflecting on the partnership culture referred in the literature. Yet, as the process is dynamic and subject to power, the complexity lies in picturing and understanding of how culture enmeshed itself with organizing processes to create specific attitudes towards risks and uncertainty. To a certain extent, through the cases, this chapter established a relationship between those elements. The next step of the analysis will be to surmise on the nature of this relationship to derive recommendations for practice and further research.

9 Conclusion and Discussion

This chapter provides the research conclusion by drawing on the previous chapters and offers a clear answer to the research questions. It discusses the empirical findings in light of 1) the Governance of PPP and URIPs introduced in Chapter 2 and 2) the Theories, the conceptual framework and methods developed in Chapter 3 and Chapter 4. This is presented as contributions and recommendations for further research and practices. It also discusses the limitation of the research. The answer to the main research question, empirical in nature, *how do actors collaborate and coordinate themselves over the different phases of an URIP to allow the project to go forward?* is provided by the three case studies; namely three stories of URIPS, Taksim 4.Levent, the JLE and Météor. (see chapter 5, 6, and 7). Below is the answer to the analytical questions.

9.1 Answering the Research Questions

9.1.1 How do cultures and subsequent forms of organizations shape the project governance through actions?

Cultural diversity, as described by the Grid-Group Model, is source of dynamic. It generates conflicts and tensions that trigger change. From this perspective the project governance is a process. This process is made of different orders, putting a specific emphasis on transitions. More specifically cultures enact (Weick, 1979, 1995) the structures that are necessary to move the project towards its completion by actualizing different forms of collaboration (Douglas, 2003). Culture allows the emergence of specific contexts, or spaces for action and interaction (see also Hernes, 2004) that enmesh the relationships and mechanisms of coordination necessary to complete the project. Taking culture into consideration consists of viewing the project from a dynamic perspective and considering change as the norm. Also researching culture by combining the Grid-Group Model with Action Net enhances the understanding of organization for projects and therefore governance by picturing states of stability. These states of stability are ephemeral still they are source of continuity.

9.1.2 And in relation to the Grid-Group Model is it possible to categorise such cultures in Hierarchy, Individualist, Egalitarian or Isolated terms?

It was found possible to categorise cultures in a dynamic way. The case studies highlight different relationships over the project timeline. These relationships are informed via the

Grid-Group Model to uncover the different coordination mechanisms that make the *Individualist*, *Egalitarian*, *Isolated* and *Hierarchies* into ways of organizing. Action Net first provides a means for making this possible. This is achieved by considering narratives as part of the organizing effort. Actors implicitly undertake this in practice. Analytically, narrative analysis and interpretation generate *events*, which equate to identifying the set of actions that form a particular governance arrangement and the rationale that underpin it. Then actors and their subsequent relationships are mapped in the Grid-Group model to give rise to *Individualists*, *Egalitarians*, *Isolated* and *Hierarchies* as stabilised form of organization within project. This involves sense making from the actors but also the researcher to construct the story that reflects upon the project process.

9.1.3 Does a culture of joint action in a context of multiple stakeholders emerge to produce an ideal form of collaboration that would allow the project to go forward?

It does emerge yet is subject to change. Again, the case studies demonstrate that within multiple stakeholders and inter organizational arrangements, the relationships, and the subsequent map of power, are not static. It depends greatly on inherited conditions such as Istanbul institutional and political context but tend towards a state of formalized duties and roles related to an "*intention to bind people and activities together in a more predictable and stable form"* (Hernes 2004:89 on Durkheim, 1997[1893]). This state could be categorised as *Hierarchies* as it involves the rationale for *coordinating* towards the completion of the project. This means they have the capacities to draws on the wide range of resources that have been created over the project process and ultimately they are able to organize for the risks they have identified and internalized. This phenomenon recurs over the three case studies to place *Hierarchies* as an ideal, or achieved form of governance in a project context. They comprise the mechanisms or structures, as the mindset – the culture that forms a cosmology where risks are perceived as organizational problems and should be dealt with appropriate information, resources and coordination means. The *Hierarchies* develop by rationalizing uncertainty; they adopt an objective approach on risks and act to decrease the uncertainty that surrounds them. This seems to correspond to the conditions that allow the completion of URIPs. Still, this claim has to be tempered in light of the interpretive/constructivist nature of this research.

9.1.4 Acknowledging that culture affects the treatment of risk and uncertainty, does the Grid-Group model offer an interpretation for risk and uncertainty issues in the context of infrastructure projects, PPP, and collaboration?

Grid-Group offers an interpretation of risk and issues of uncertainty. The case study shows how different forms of relationships, the structures, are associated with different perceptions of uncertainty and risk, which are part of the agency – actors' room of manoeuvre, and underpinning action. This complements Winch's (2001) analysis of project uncertainty and risk: the project is seen, as a material artifact whose uncertainty decreases as it progresses and the information is made available. In contrast, this research retrofits the organizational context into analysis to also show how the organizations, or more specifically organizing contributes in decreasing (or enhancing) a climate of uncertainty and influence the ways project risks and different imperatives are framed by constructing culture**.** This is particularly relevant in a multi-organizational setting such as PPP. Again, the primary aim of this research was not to single out structures as "factors" of risks and uncertainty, but to find a way to approach meaning and action together as a complex whole, and understand how it relates to risk and uncertainty. This was achieved.

To sum up, answering the research questions contributes to and provides 1) an understanding of culture, according to the Grid-Group Model and Action Net, for project governance, 2) a picture of different governance orders as constructed state of stability, and 3) reflecting on one in particular, Hierarchies as the form of collaboration that enables the completion of the project; finally 4) it allows approaching risk and uncertainty in a project context, achieved by drawing on a broad space of theories and concepts: first Cultural Theory – the Grid-Group Model, Action Net, second TCE and Sense-Making. These theories and their concepts/constructs have been integrated within a constructivist paradigm to constitute an analytical framework that is fruitful to generate insights on the governance of URIPs and projects in general.

9.2 Contributing to Project

9.2.1 Main Contribution

The main research contribution is theoretical in nature as it consists of:

- Extending the Action Net literature in the project realm.

- Extending the application of Cultural Theory and Douglas' Grid-Group Model in projects.
- Linking Action Net and the Grid-Group Model to offer an analytical framework in order to understand project processes.

The following paragraph outlines and discusses this theoretical contribution; namely what could be learned from the integration of theories regarding the governance of project.

This research applies The Grid-Group Model and informs it by using the constructs commonly used in the contract literature, which is used to describe and make sense of URIPs and projects. Subsequently it permits description and depiction of four organizations: the Isolated, Individualist, Hierarchies and Egalitarians. It represents relationships, as different forms of organizations that could be found in a project setting. However, researching culture questions how these different organizations are actualized – to recollect Douglas's definition (2003). This approach closely refers to what Weick (1979, 1995) calls *enactment,* that is the process whereby structures and *events* come to reality through actions and sensemaking in context and whereby actors achieve coordination. Culture constitutes a source of dynamic and change embedded in organizing processes. It helps specific contexts, or spaces for action and interaction to emerge (Hernes, 2004). In this sense, culture and organization mutually constitute each other. Yet, the Grid and Group axes of the Grid-Group Model put an emphasis on boundaries, picturing different spaces or cosmologies, that is divergent ways doing things and approaching risks that coexist in tension. Consequently, conflicts are endemic and any arrangement implies power and is therefore subject to change. From this perspective, PPPs and projects are inherently polyphonic. At the operational level the model predicts that the different cultures will manifest themselves in discursive manner in an attempt to maintain their boundaries and impose order. Here, risk and uncertainty hold a particular place: risk discourses allow tracking and revealing internal structures of systems. Applying such insights to the project setting, risks become part of the culture, which is the enactment process that permits maintenance of specific relationships within the project or actualize them towards the preferred form of collaboration.

To this extent, the research offers a perspective that accounts for URIP and project governance in an original manner. It differs from traditional contractual approaches by emphasizing cultural boundaries as source of dynamic. TCE represents organizations as sites of orders and stability (Marshall, 2003), *i.e.*: Market *vs* Hierarchy. The boundaries between

these different organizations are seen as containment, as the result of rational choices regarding the minimization of transaction costs; namely “make or buy” decisions. In contrast, the conceptual lens developed in this research focuses on area of tensions and transitions to understand how organizational and cultural boundaries are constructed and reconstructed through project actions. Consequently, governance should be seen in action terms.

This contribution leads to further thematic contributions, which consist in further discussing the project literature that deals with management.

9.2.2 Other Thematic Contributions

9.2.2.1 On Temporary Organizations

The findings regarding the emergence of projects as *Isolated*, *Egalitarians*, *Individualist* and *Hierarchies* could be put into perspective with the work of Lundin and Söderholm (1995) and Packendorff (1995) on temporary organization. Temporary organization is a perspective that concentrates on actions and the internal processes of projects with a specific emphasis on time, task, team and transition (Lundin and Söderholm, 1995), putting organized action rather than structures at the front. As argued by Packendorff (1995), projects have their inner logic, which could be seen as the result of a sense-making process, the enactment of subjective and inter-subjective realities within groups. From such a perspective, projects are neither instruments nor rationally designed tools or channels for goal achievement with the maximum efficiency; they imply renegotiation, different activities and priorities according to different stakeholders. Considering the findings through the Grid-Group and Action Net lens puts an emphasis on transitions: the changes in tasks and actions that reflect on goals reexamination, and the perceptions of causal relationships about how to reach the conclusion of the project. It invokes the different ways of running projects; that is culture and the different ways of doing things, giving prominence to conflicting views. Such transitions manifest with the change of order depicted in the graphical representations of the URIPs, through the different quadrants of the Grid-Group model from *Individualist* or *Isolated* to *Egalitarians* or *Hierarchies*. This is not only changing behaviors on the ground through new organizational arrangements and institutions but it is also a symbolic reconfiguration, a change in culture and ideology, marking distinct cosmology, context for actions and management. This is a change in social context, which manifests through transitions, hence the emergence of different governance principles and mechanisms, illustrating the emergence of a “complex partnership” when the

project comes to an end, through social and institutional dynamics. Hierarchies, as a faithful picture of what partnership is in the context of project, arise through enactment and a sense-making process. This process is driven by the context and therefore depends on the specific circumstances of each project; hence the relevance for a systemic, holistic approach of projects and their context. This shows how social orders are formed and renegotiated as the project unfold.

9.2.2.2 On Culture

First, culture has not been considered in the context of Large Scale Infrastructure Project before, at least not as a theoretical lens with a holistic framework such as in the present research. Again, this research presents a cultural perspective on three URIPs. It gives prominence to social organizations and how the subsequent cultures drive the delivery of the project. It shows how organizations and project teams are constituted over the project, which is a process, how they are integrated and emerge over a set of actions underpinned by divergent tasks and goals. It enables the consideration of multiple arrangements and the emergence of governance. This challenges the traditional organizational perspective that considers that project organizations are implemented *ex-ante* through rationale planning. On the contrary, this research shows that an organic process that allows different cultures to express themselves, arguing for distinct project orders, drives project organizations. Yet, culture is reckoned as an essential element of collaboration and project governance (Van Marrewijk, 2005, Clegg et al, 2002, Pitsis et al, 2003). To be considered as positive, culture should foster a strategy that takes into consideration the long-term performance of the project, the diversity of risks and desirable project outcomes. Still, this research demonstrates that the project emerge in cultures that are not necessarily promoting such values, especially at the organizational and institutional levels. Indeed, the positive culture is engineered through the project process, as it developed, through the tasks and the actions necessary to reach project goals and deal with specific risks. Culture tends to arise *ex-post* when the project is about to end and a *performative* project organization has been implemented. Understanding culture requires a dynamic approach and an understanding of change, reckoning that it is renegotiated and enacted over the project process to deal with the emergent imperatives of the project. As project governance is a turbulent process (Morris, 2009), culture is not stable but subject to social and organizational forces that challenges the rational planning of projects and their management. Yet, culture is constructed through organizing and becomes positive as the goals

become clearer, the project team is integrated, and the uncertainty controlled by the project organization. Culture is therefore dependent on organizations and should not be treated as an independent variable; culture is interwoven into institutions, actions and practices.

9.2.2.3 On the Front End of Projects

This research offers some reflection on a heated topic in the management of projects: the front-end and its role in managing the complexity of projects. The front-end is traditionally conceived as a rational plan/process, but this research found that the context drives the sense-making of how the front-end emerges, evolves, which is far from a functional, planned view. Projects should be acknowledged from the temporary organization perspective where the project organization emerges rather than being seen as "*rationally designed tools for achieving a predefined goal with maximum efficiency*" Løwendahl (1995: 361). Yet, the case studies show that the front-end which, in a way, should help to conceive the project that we want (Williams and Samset, 2010) is driven by either an *Individualist* or *Isolated* context where organizations are opportunity takers, or risk adverse, and strive for influence in order to get the project financed. In this phase the project might align with the strategy of some organizations but not necessarily with the strategy that would be in the best interest of the public (see Flyvbjerg, 2003, 2012). Groups and political coalitions are predominant at this stage; the front-end is often conducted through power and influence rather than through a rationale process that would allow a long-term perspective and the planning for turbulence as advised by Morris (2009). The front-end is a context of ambiguity where no clear goals can be promoted as guidelines; this is a context of competing ideas on how to run the projects, "*a culture where fundamentals requirements regarding reliability and validity of information are neglected"* (Williams and Samset, 2010:43). Such a perspective collides with the idea that projects develop in a "drifting environment" (Kreiner, 1995) where goals, interests and risks are likely to change and where they evolve over the process dictated by contextual and social forces. This gives relevance to an approach that would deal with the institutional level of projects, which is about developing a context for projects that would enable them to succeed in a way that will enhance the value they create for the whole society (Morris and Geraldi, 2011). The long-term performances of projects depend on institutions and culture that take place outside the management of projects but within the wider organizational environment where the project is located.

9.2.2.4 On Governance

Governance in terms of theory, and perceived as designed, is a post-rationalization in reality. Governance evolves, changes and is culturally constructed in ways that traditional management views (and project management views) are unable to adequately encapsulate. Organizations, especially project organizations, are emergent according to Action Net application. Consequently, the project organization as conceived in the traditional management literature emerges over the project lifecycle. The project could be assimilated to a plural form (Bradach and Eccles, 1989), which juxtaposes the three governance mechanisms: authority, incentives and trust. Actors over the project process are constructing a project organization that allows the implementation of these three governance mechanisms to bring their collective action in the realm of *Hierarchies* in Grid-Group terms. In the three case studies, trust is embedded within the social structure of the arrangement and further develops over the project process. Also authority is not implemented from the beginning of the project but is also the result of the project process, as actors need to coordinate themselves to ensure that the project will be completed. Yet, such governance structure is temporary and vanishes with project delivery. Again, the pertinent point is that the project's plural form, as an efficient coordination means, is not designed ex-ante but rather emerges ex-post as the result of different governing initiatives. This is not the result of rational planning. There is no omniscient project manager who at the front end of the project plans and designs the governance of the project organization as it is when the project terminates, such governance develops over the process.

9.2.2.5 On Project Management

From a cultural perspective, especially when using the Action Net lens, the management concept and their theories are applied not in a rational and planned way, but instead are the subject of politics, power and other social forces that are in constant conflict and tension. The case studies proved that there is a battle of theories, rationales and actions in practice, which are defined in opposition to each other as the project develops. It forms the basis for constant renegotiation in order to implement a specific order and to achieve particular outcomes (at different levels of operation). To this regard, project actions arise sequentially from the realm of *Isolated, Individualism, Egalitarians* and *Hierarchies,* as in the four quadrants of the Grid-Group model and driven by specific project risks and goals. Management changes and change evolve as the project goes through these different social and governance orders. The goals and

risks are emergent. Subsequently, some risks are put at the front in some phases of the project whilst overlooked in others. Yet, an omniscient project manager should be able to define in the front end what project is wanted and its value to be able to deal with the emergent cultures and dynamics. These dynamics would characterize the project as it develops and integrate such value into action and organizing processes. Again, this endeavor is impeded by uncertainty and complexity, which is the emergent character of goals and sub-goals that lead to change in practices, management and orders. To some extent, management should be seen as a practice, or set of actions that aim at effectively juggling with emergent and changing characters in order to prepare transition from one order to another.

To sum up these five contributions challenge the rational and cognitive approach of planning in management and in management for projects. The challenge could be seen as a critique of the dominant management theories and practices. It could also be seen as a challenge to the whole construct of management, the one that relies on a pre-given organized form of organization. It therefore adds to critical theory of project management as introduced by Cicmil *et al* (2006).

9.3 Recommendation and discussion

9.3.1 For PPP Implementation

9.3.1.1 Discussion

In terms of practices, PPP, as the current governance framework for large scale infrastructure delivery, and large projects and programs should be able to integrate the cultural dynamics that characterize projects as collective actions in order to engage with risks and contextual forces or tactics at the operational level. Drawing on Müller (2011), governance could be viewed in two ways. In the first way, governance refers to an arrangement that ensures that tensions are limited insofar as they do not hinder the project: its objectives, goals and processes. In the second way, which rather relies on Stoker (1998:155), the notion of governance deals broadly with the conditions for collective actions and "the conduct of conduct" shaped by self-regulating relationships among the diverse forces present in society. This leads to the development of laws and contextual frameworks, which shape but do not necessarily, determine every action of project members (see Clegg, 1994 and Clegg *et al* 2002). Considering the insight of the case studies, lessons from the JLE could be extracted

regarding both views: the first would address the philosophy of management that underpins PPP while the second would criticize governance frameworks, in general, and therefore question whether PPPs could be *ex-ante,* designed arrangements. PPP for the delivery of large-scale infrastructure is often defined as a procurement option that permits the bundling of different phases and subsequent tasks of a project under a single authority, a private contractor, and its ability to deal with projects uncertainties. For example, in the JLE case it would have meant that the coordination between the contracts would have been placed under a single contractor, but the dilemma remains entire: ***would this contractor have been more capable than LU and the project team to coordinate the contracts and appreciate what mattered for the project?*** The answer calls for the ability of managers to engage in an ongoing process of *reflexive risk planning*. PPP, as a governance framework, should conceive a front-end that would be able to address the dynamics of the project governance. In some way, it should imply to move away from the Individualist or Isolated culture, which often characterize the earliest stage of projects. Putting the example of Météor into perspective, PPP could be seen as the implementation of a Hierarchy culture from the inception of the project. This could argue for the design of a project organization that comprises the consideration of the long-term benefits of the project, the diversity of risks likely to emerge over the process, and finally ease the implementation of incentives and authority. This would form a partnership rationale that would also foster trust from the beginning. The broad scope of projects would then be integrated into strategy at their earliest stage. To this regard, the JLE was supposed to accommodate multiple goals in time; from tackling traffic flows and enhancing the transport system capacities in order to foster the development of the London Docklands and later, serving the Millennium Dome for the New Year's Celebration. In this sense, the JLE could be seen as a project whose scope has been deeply influenced by diverse opportunities. ***Such opportunities (shouldn't have?) shaped the conditions and requirements for collective actions from the beginning?*** Traditional project governance overlooks the multiplicity of dimensions; PPP arrangements should be vehicles that permit ***proactive decisions.***

9.3.1.2 Recommendation

The problematic aspect of PPP arrangement remains the need to plan for risk in order to allocate responsibilities that is which organization/actor is doing what and what should be done. Still, when considering the polyphonic character of URIPs, how to come to terms with

the contentious nature of what should be done. In a way, PPP represents some development in terms of governance because it puts risks at the front, PPP participants are advised to engage in a sense-making process at the inception of each arrangement to determine *ex-ante* who is going to be responsible for what, which is taking into consideration a multiplicity of risks and interests, in other words, the imperatives that characterize large-scale infrastructure projects. However, besides planning, the issue lies in the management of the process. URIP projects are uncertain in essence. To a great extent, participants must be able to improvise and work together when unexpected *events* take place. This refers to the partnership component of the PPP term, which means joint action and a positive culture. Yet, the research demonstrated that governance is made of different phases and rationales, emphasizing different cultures, subcultures and voices. This implies that the management of PPP and URIP should be able to deal with such divergent forces, managing for transitions and change of governance order. In this sense PPP does not only mean planning but also managing the dynamics of joint action and governance as a turbulent process. This leads to consider stakeholder management for URIPs and projects.

9.3.2 For Stakeholder Management

Managing projects consist of managing stakeholders. Project management is "*the process of adapting the specifications, plans and approaches to the different concerns and expectations of the various stakeholders"* (PMI, 2008). There is neither a project *per se* nor an omniscient project manager. While researchers are able to adopt the perspective of the project, as a focal point, in practice this is not possible, therefore there is a need to adopt the perspective of a variety of stakeholders to derive recommendations that would enable them to enact the project. Drawing on the empirical case studies, this research on URIP addresses the needs of Governments, Governmental Agencies, Local Governments and Public Transport Companies as various Lobbies and Citizen Representatives concerned by the delivery of URIPs. Here are addressed those of Local Governments and Public Transport Companies because the case studies have shown they are the actors that are likely to be present from the inception to the completion of the project. Again, this recalls the Premise of this research that argues that the web of power and stakeholders' constellation is in a constant state of reconstruction. Nevertheless, in the case of URIP, two stakeholders deserve some attention; namely Local Governments and Public Transport Companies.

9.3.2.1 Local Governments:

Local governments should engage at the earliest stage of URIPs because they are likely to become prominent actors even if their role differs at each stage of the process. In Grid-Group terms, this means that their actions should not remain in the *Isolated* realm which is *being subjected* by the action of other organizations, stakeholders, and agencies. If they place themselves in the *Individualist* realm, capacities for seizing opportunities for the citizens will be increased. Yet, if they remain in the *Egalitarian* realm, their actions are likely to serve narrow political interests and lobbies. *Hierarchies* would be an ideal position as it consists of the organization that is the best able to manage complex relationships due to an ability to implement the three governance mechanisms; namely incentives, trust and authority in particular.

9.3.2.2 Public Transport Companies:

Public Transport Companies are the organizations which are likely to best steer the project process as they are involved in the whole process, especially at the operational level. Still, they are often nebulous organizations (seethe JLE). In a context of PPP relationships, they should always place themselves as *Hierarchies* in order to be able to coordinate the actions of the different actors of the PPP and URIPs to ensure the delivery of the project. This means to be able to **infuse** authority. This could be explained by the fact they have an interest in operating the URIP. Yet, if they are in the realm of *Egalitarians* they are likely to focus on operational concerns only and overlook broader considerations dictated by the political and institutional context of URIPs. To put it differently, they might not be in a position to use authority to implement the incentives and ultimately rely on trust. Also, the realm of *Individualist* and *Isolated* is not recommendable as it would generate risk averse or risk taker attitudes or prevent actions in favor of the project delivery.

9.3.3 For future Academic Research: Adopting Research Methods that engage with the field

Overall this research provided a window into the complexity of collaboration in the context of URIP delivery, modeled through the Grid-Group model and the Action Net. It shows that projects are a plural and dynamic form of temporary organization, which implies tensions between different possible orders. However, it help with the identification of one of these

orders: the *Hierarchy* in Grid-Group term, as a potential ideal form of governance to emerge in execution because it comprises the governance and coordination mechanisms that infuse a positive culture. Then, the question is whether PPPs, considering that they consist of improved governance structure and processes, would represent an integrative framework that equates to *Hierarchy*. Again further investigations are needed to answer this question.

From a research perspective, additional empirical investigations are needed across projects and across different types of organization. The method adopted reflected upon practices but there is a need to better understand how the Isolated, Individualist, Egalitarians and Hierarchies manifest and emerge in project and organizational context at a more detailed level. The suggested way forward would be to conduct more embedded research such as Action Research that would consist of using the analytical framework developed in the present research to infuse elements of the Hierarchical culture at the inception of projects. This would consist in paying a specific attention to risks and uncertainty, and creating an institutional context that allows the emergence and transition of culture at the front-end. Also, this would imply a greater emphasis for research upon the significance of *events* rather than sequence, including applying Action Net more widely to focus on tension points and potential conflicts between divergent cultures. This would allow for the management of transitions over the project process. This leads to acknowledging the limitations of the research.

9.4 Research Limitations

First, this research applies Douglas definition of culture to projects to the extent allowed by the adopted methods, Action Net and Narratives in particular. To make this definition fully operational there is a need to further engage with complexity on the ground. Retrospectively only interview snapshots were captured, albeit ones that were rich enough to capture some widely held assumptions about project management and project lifecycles through capturing views in the spirit of the reflective practitioner.

Second, the model, namely the framework combining Action Net and Grid-Group is established as relevant for explaining the different phases and sequences of order that projects are undertaking. Yet, there is a need to better illustrate how the different cultures emerge and manifest themselves in context. This effort should be pursued in further empirical research

through observations, narrative interviews or action research. Whilst the research started with the view that chronology was important, the significance of *events* as an ordering method using Action Net was subsequently introduced, which helped overcome the problem of the project being considered purely in terms of extended timeframes. Ideally, Action Net should have been used from the outset to flag more explicitly the *events* that were predominant for interviewees/project members, and how different sense-making emerged from them.

Third, this research draws on multiple theories: Cultural Theories via the Grid-Group Model, Action Net and Narratives but also the constructs of the Contract literature such as TCE and Sense-Making approaches. The subsequent constructs breed from diverse paradigms. This consists in both the weakness and the strength of the research as the research methods raise the issue of generalization and whether the offered insights would replicate in different research context and practices. In line with interpretative and constructivist principles that integrate these theories, the findings should be used to provide understanding, since the theories are used as a lens to filter empirical data – not generate stable and regular predictions per se. Again, this research is against this type of determinism although some regular patterns and 'ideal' orders and mechanisms have been identified. The research departs from a definition of culture that systematically links the organizations, as structures to actions. The strength is therefore to open an avenue for further research to discuss whether causal relationships and general principles could be established in URIPs and Project Research.

This chapter summarizes the findings of the research on URIP delivery, the treatment of risks and uncertainty and the complex character of URIP governance. To do so, it relies on examples derived from the empirical analysis of Taksim 4.Levent in Istanbul, Meteor in Paris and the Jubilee Line Extension in London. To this extent it establishes the validity of the chosen conceptual framework, namely the combination between Action Net and the Grid-Group model to make sense of collaboration for large scale infrastructure project delivery. These contributions consist of a critique of traditional paradigms in project management and argue for developing a critical perspective. Drawing on such perspective, the research presents an original perspective on Public-Private Partnership (PPP) type of governance. Indeed, while the literature has struggled to define the term, the research puts the name of Hierarchy, *coordinating*, from Grid-Group in the frame of PPP arrangements.

10 Conclusion

URIPs are complex. They involve multiple stakeholders from different institutional perspective: State agencies, local government, associations of residents, political parties and private contractors. PPP partnerships form of procurement and governance add a layer of complexity, as a convergent way of doing things across the world. Another layer of complexity would emerge from the increasing global character of projects. As noticed by Orr *et al* (2011) project initiatives tend to involve participants from different region of the world – this phenomenon was also present in the JLE and Taksim 4.Levent. The problematic remains the same: divergent objectives, divergent interest and divergent ways of doing things. However the additional layer of complexity would rise from perceptions and the common syndromes of misunderstanding or perceived distances. Examples of such phenomena are depicted in Ruuska (2009) and investigated by researchers such as Hofstede *et al* (2010) and d'Iribarne (2009) in France. Different expressions of values might lead to clashes and conflicts that might pose coordination problems. This dimension was not dealt with in the present research but would deserve some attention later as it would contribute to the problematic of collaboration. In this present research, the developed perspective on culture and its implication shed light on this complexity, showing the dynamic character of collaboration, how actors adjust their strategies and the governance of the project to reach their objectives and allow the project to go forward. The cultural perspective demonstrates that the process is not linear; the Grid-Group model, supported by the Action Net perspective highlighted different project orders that identify where the power moves over the project process. Coupled with the problematic of risks, what is at stake with the project and what should be done to deal with them, the research gives relevance to Czarniawska's concept of reframing, the need to change interpretative frames when they don't allow performance of successful actions anymore. The different project orders as depicted by the Grid-Group model appropriately illustrate this idea. To recollect the research questions:

1. How do cultures and subsequent forms of organizations shape the project governance through actions?
2. And faithful to the Grid-Group Model is it possible to categorise such culture in Hierarchy, Individualist, Egalitarian or Isolated terms?

3. Does a culture of joint action in a context of multiple stakeholders emerge to produce an ideal form of collaboration that would allow the project to go forward? If yes, how?
4. Acknowledging that culture affects the treatment of risk and uncertainty, does the Grid-Group model offer an interpretation for risk and uncertainty issues in the context of infrastructure projects, PPP, and collaboration?

The main finding articulates Hierarchies as the culture towards projects tend to converge. This is also important with regard to what we mean by projects. Projects are often seen as temporary and implemented to accomplish a defined mission. What this research shows is that it is more ambiguous than that: the objective of a project tends to change over the process or at least be adjusted. Indeed projects represent an effort of coordination and governance reflects this effort. Projects are an ongoing pursuit of coordination and collaboration; this culminates towards the end of project when hierarchical orders are implemented. This means that all over the process, actors try to define their roles and place in the collective action, to create a culture that legitimises such roles and social organization. Boundaries of the project are also defined over the process to allow the project to go forward.

Finally to conclude this research, the next part will outline briefly the different contributions of each chapter:

- **Chapter 1** is the introduction, it introduces the context of the research, the aim and objectives and the research question
- **Chapter 2** is the literature review, it presents the context, URIP as arenas of collaboration, and explains that researches on what is actually happening are needed – the “actuality” of project and introduces the research standpoint, that is culture.
- **Chapter 3** is the core of the research; it presents the Grid-Group model, the theories of contracts and Action Net as a coherent conceptual framework.
- **Chapter 4** is the methodology; it places the research in a Constructivist Tradition and discusses issues of generalization and ethic. It presents case studies and narratives as the main source of data.
- **Chapter 5, 6, 7** offers the story of Taksim 4.Levent, the JLE, and Meteor, presenting these projects under the Grid-Group lens
- **Chapter 8** is a cross analysis of the individual case studies. It presents three level of abstraction, first each project process across Grid-Group Premise, then a comparison

of the phases of the project to finish with an analysis regarding complexity, culture and uncertainty

- **Chapter 9** is a conclusion; it derives contribution and recommendations for both, research and practices. It discusses the literature on project and states the limitation of the research.

As a conclusion, this research advises consideration of knowingly embracing and managing change as the norm rather than treating change as the exception to be managed. For practice it recommends keeping governance arrangements flexible and focus on the actions that had to be performed and then adapt the governance of the project paying a specific attention to coordination means. This would ease the implementation of a positive culture. The cultural perspective proposed by the Grid-Group model and Action Net permits to temper the traditional way to conceive governance and to reconcile them with an organizational approach that better accounts for change. The contractual approach based TCE is too deterministic to account for what is happening in practice. It is too partial as it focuses on ex-ante form of governance. The one, which rises from a logic of transaction cost minimization according to predefined criteria regarding asset specificity. But this relates to one project imperatives among others. The governance of project is moulded by the context and divergent organizational rationales whose preoccupations are diverse. To some extent, the cultural perspective developed here better accounts for MacNeil's contribution (2000) who argues that the broader context should be taken into consideration to understand governance, especially the network of relationships that underpin the choices. Indeed, the analysis shows that such relationships are not predefined but emergent throughout a project.

Now, to return to the current context of URIP delivery and what is required in terms of governance. A positive institutional framework for the front-end (Morris and Geraldi, 2011) the goal alignment between a multiplicity of stakeholders, planning and acting for a diversity of risks and preoccupations, building a culture that would support collaboration, the Grid-Group model is enlightening. To a great extent, it proves that such collaboration is not readily implementable due to forces associated with the multiplicity of social organizations and cultures at work. The dominant culture of subsequent organization is subject to change and renegotiation as the project develops. Yet, in Taksim 4.Levent where the contractual relationship is coined as a PPP – Turnkey, a collaborative culture associated with Hierarchies,

in Grid-Group terms, emerge towards the end of the project but it did not happen ex-ante, it was constructed over a dynamic process of actors' selection and exclusion, emphasising some preoccupation over another. To this extent, positive governance for such large scale infrastructure should not be viewed as creating the conditions for a homogeneous culture and organizing at the outset but rather as an attitude that consists in dealing with conflicting rationales and change while putting the project on a trajectory that would meet the widest range of interests. The fact that the project ends up in the realm of hierarchy does not contravene the TCE argument. However, it proves that it could be for another reason rather than the sake of efficiency: the sake of governance itself, namely the implementation of adequate coordination mechanisms. This suggests that projects are implemented for this reason, permitting collaboration as depicted by the trajectory of project along the group and grid dimension. In this sense the cultural perspective is original and further research would involve more empirical studies on the governance process of URIP to understand how the different cultures manifest in practice and are effectively dealt with.

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